



AGENDA

**COMMISSION MEETING OF THE
CHINO BASIN REGIONAL FINANCING AUTHORITY
AND
MEETING OF THE
INLAND EMPIRE UTILITIES AGENCY
BOARD OF DIRECTORS**

**WEDNESDAY, SEPTEMBER 21, 2016
10:00 A.M.**

**INLAND EMPIRE UTILITIES AGENCY*
AGENCY HEADQUARTERS
6075 KIMBALL AVENUE, BUILDING A
CHINO, CALIFORNIA 91708**

**CALL TO ORDER
OF THE CHINO BASIN REGIONAL FINANCING AUTHORITY MEETING**

FLAG SALUTE

PUBLIC COMMENT

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to complete and submit to the Board Secretary a "Request to Speak" form which are available on the table in the Board Room. Comments will be limited to five minutes per speaker. Thank you.

ADDITIONS TO THE AGENDA

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

1. ACTION ITEMS

A. MINUTES

It is recommended that the Board approve the minutes from May 18, 2016 and July 20, 2016, Chino Basin Regional Financing Authority meeting.

B. ADOPTION OF RESOLUTION NO. 2016-7, APPROVING AND ADOPTING THE IEUA-POMONA-MVWD RW INTERTIE PROJECT CEQA AS CEQA-RESPONSIBLE AGENCY

It is recommended that the Board of Commissioners:

1. Adopt Resolution No. 2016-7, approving and adopting the Initial Study, Mitigated Negative Declaration (MND) and the Mitigation Monitoring and Reporting Program (MMRP) of the IEUA-Pomona-MVWD Intertie Project as a CEQA-Responsible Agency; and
2. Authorize IEUA's General Manager, or his designee, to file the Notice of Determination (NOD) with the San Bernardino County Clerk of the Board and Los Angeles County Clerk.

2. ADJOURN

*A Municipal Water District

CALL TO ORDER OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS MEETING

FLAG SALUTE

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1. CONSENT ITEMS

NOTICE: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by the Board by one motion in the form listed below. There will be no separate discussion on these items prior to the time the Board votes unless any Board members, staff or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

A. MINUTES

The Board will be asked to approve the minutes from the August 3, Board meeting, August 17, Board meeting, and September 7, Board meeting.

B. REPORT ON GENERAL DISBURSEMENTS

It is recommended that the Board approve the total disbursements for the month of July 2016, in the amount of \$16,671,215.80.

C. BUDGET AMENDMENT FOR FY 2015/16 CARRY FORWARD OF OPEN ENCUMBRANCES AND NON-ENCUMBERED COMMITMENT RELATED BUDGET

It is recommended that the Board approve the carry forward of open encumbrances and non-encumbered commitments related budget in the amount of \$12,511,488 from FY 2015/16 to FY 2016/17.

D. SAP SOFTWARE MAINTENANCE CONTRACT RENEWAL

It is recommended that the Board approve a 4-year software maintenance contract renewal for mySAP Business Suite, U.S. Payroll Tax Processing (TaxFactory) and SAP BusinessObjects products for a not-to-exceed amount of \$179,019 annually, excluding applicable taxes.

E. MASTER SERVICE CONTRACT AWARD FOR OXYGEN TRANSFER EFFICIENCY MEASUREMENT SERVICES

It is recommended that the Board:

1. Approve Master Service Contract No. 4600002193 to DRH2O LLC of Irvine, California for a five-year contract (two year firm-fixed price with three, one-year options to extend) to provide Oxygen Transfer Efficiency Measurement Services for a not-to-exceed amount of \$250,000; and
2. Authorize the General Manager to execute the contract.

F. ADOPTION OF A RESOLUTION ADOPTING THE CITY OF ONTARIO'S RECYCLED WATER DISTRIBUTION SYSTEM PROJECT CEQA DOCUMENTATION

It is recommended that the Board:

1. Adopt Resolution No. 2016-9-2, approving and adopting the Initial Study/Mitigated Negative Declaration, and the Mitigation Monitoring and Reporting Program as a CEQA-Responsible Agency; and
2. Authorize IEUA's General Manager to file the Notice of Determination (NOD) with the San Bernardino County Clerk of the Board.

G. AUTHORIZING AGENCY MEMBERSHIP IN THE COALITION FOR ENVIRONMENTAL PROTECTION, RESTORATION AND DEVELOPMENT

It is recommended that the Board:

1. Approve membership in the Coalition for Environmental Protection, Restoration and Development for FY 2016/17, in the amount of \$25,000; and
2. Authorize the General Manager to pay the annual dues.

H. ADOPTION OF RESOLUTION NO. 2016-9-3, AMENDING THE SALARY SCHEDULE/MATRIX FOR ALL UNITS EXCEPT SUPERVISORS' UNIT, AND RESOLUTION NOS. 2016-9-4 AND 2016-9-5, AMENDING THE SALARY SCHEDULE/MATRIX AND THE MEMORANDUM OF UNDERSTANDING FOR THE SUPERVISORS' UNIT

It is recommended that the Board:

1. Adopt Resolutions No. 2016-9-3, amending the salary schedule/matrix for the Unrepresented, Executive Management, Laboratory Unit, Operators' Association, Professional Unit and General Unit; and
2. Adopt Resolution No. 2016-9-4, amending the salary schedule/matrix for the Supervisors' Unit; and
3. Adopt Resolution No. 2016-9-5, amending the Memorandum of Understanding (MOU) for the Supervisors' Unit, by adopting a Side Letter of Agreement.

I. RESOLUTION NO. 2016-9-6, APPROVING AN AMENDMENT TO THE 2013-2018 MEMORANDUM OF UNDERSTANDING (MOU) FOR THE GENERAL UNIT EMPLOYEES, BY ADOPTING A SIDE LETTER OF AGREEMENT

It is recommended that the Board adopt Resolution No. 2016-9-6, approving an amendment to the 2013–2018 Memorandum of Understanding (MOU) for the General Unit Employees.

J. APPOINTMENT OF IEUA ALTERNATE TO PA 23 COMMITTEE

It is recommended that the Board approve the appointment of IEUA's Santa Ana Watershed Project Authority (SAWPA) Commissioner to serve as the alternate committee member to the PA 23 Committee.

K. IMPORTED WATER SERVICES CONNECTION SHARED USE AGREEMENT

It is recommended that the Board:

1. Approve the Imported Water Service Connection Shared Use Agreement with Western Municipal Water District; and
2. Authorize the General Manager to execute the agreement.

L. ADOPTION OF RESOLUTION FOR TIER 1 ALLOCATIONS FOR PURCHASE OF IMPORTED WATER

It is recommended that the Board approve Resolution No. 2016-9-1, establishing allocations for the purchase of imported water within the IEUA service area.

M. CEQA ADOPTION – FONTANA WATER COMPANY RECYCLED WATER IMPROVEMENT PROJECT

It is recommended that the Board:

1. Adopt the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration for the Fontana Water Company Recycled Water Improvement Project; and
2. Authorize the General Manager to file the Notice of Determination (NOD) with the San Bernardino County Clerk of the Board.

N. WATER QUALITY LABORATORY SOLAR SYSTEM CONSTRUCTION CONTRACT AWARD

It is recommended that the Board:

1. Award the construction contract for the Water Quality Laboratory Solar System Project No. EN15008, to Electric Service and Supply Co. in the amount of \$259,300; and
2. Authorize the General Manager to execute the construction contract.

O. RP-5 RECYCLED WATER PIPELINE BOTTLENECK CONSULTING ENGINEERING SERVICES CONTRACT AWARD

It is recommended that the Board:

1. Award the consulting engineering services contract for the RP-5 Recycled Water Pipeline Bottleneck Project No. EN14043, to Stantec Consulting Services, Inc., for the not-to-exceed amount of \$201,987; and
2. Authorize the General Manager to execute the consulting engineering services contract.

P. RECYCLED WATER HYDRAULIC MODELING CONSULTANT CONTRACT AWARD

It is recommended that the Board:

1. Approve the consulting engineering services contract award for the Recycled Water Hydraulic Modeling, Project Nos. EN17011/EN18011/EN19011, to Carollo Engineers, Inc. for a not-to-exceed amount of \$300,000; and
2. Authorize the General Manager to execute the contract.

2. ACTION ITEMS

A. SAN BERNARDINO AVENUE GRAVITY SEWER CONSTRUCTION CONTRACT AWARD AND AGREEMENT AMENDMENTS

It is recommended that the Board:

1. Approve the construction contract award for the San Bernardino Avenue Gravity Sewer, Project No. EN16071, to Ferreira Construction Company for \$992,240; and
2. Authorize the General Manager to execute the construction contract and to amend the Agreements.

B. RP-1 MIXED LIQUOR PUMPS AND AERATION BASIN PANEL REPAIRS CONSTRUCTION AWARDS

It is recommended that the Board:

1. Award a construction contract for the RP-1 Mixed Liquor Return Pumps, Project No. EN16024 and RP-1 Aeration Basin Panel Repairs, Project No. EN17040, to J.F. Shea Construction, Inc., in the amount of \$6,633,000;
2. Approve a contract amendment to RMC Water and Environment for engineering services during construction for the not-to-exceed amount of \$203,000;
3. Approve total project budget amendment for RP-1 Mixed Liquor Return Pumps, Project No. EN16024 in amount of \$371,000; and
4. Authorize the General Manager to execute the construction contract, contract amendment, and budget amendment.

C. 2016 PRADO BASIN ADAPTIVE MANAGEMENT PLAN

It is recommended that the Board approve the proposed cost share for the ongoing O&M of the Prado Adaptive Management Plan.

3. INFORMATION ITEMS

A. ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECT UPDATES (POWERPOINT)

B. WATER SOFTENER REBATE PROGRAM STATUS REPORT (WRITTEN)

RECEIVE AND FILE INFORMATION ITEMS

C. RECYCLED WATER SEMI-ANNUAL UPDATE FY 2015/16 AND THE ANNUAL RECYCLED WATER REPORT FOR FY 2015/16 (POWERPOINT)

D. TREASURER'S REPORT OF FINANCIAL AFFAIRS (WRITTEN/ POWERPOINT)

- E. FY 2015/16 FOURTH QUARTER BUDGET VARIANCE, PERFORMANCE GOALS UPDATES, AND BUDGET TRANSFERS (WRITTEN/POWERPOINT)
- F. MASTER TRADE CONTRACTS AUDIT & RESPONSE (WRITTEN)
- G. INTERNAL AUDIT DEPARTMENT STATUS REPORT FOR SEPTEMBER 2016 (WRITTEN)
- H. PUBLIC OUTREACH AND COMMUNICATION (WRITTEN)
- I. LEGISLATIVE REPORT FROM INNOVATIVE FEDERAL STRATEGIES (WRITTEN)
- J. LEGISLATIVE REPORT FROM WEST COAST ADVISORS (WRITTEN)
- K. LEGISLATIVE REPORT FROM AGRICULTURAL RESOURCES (WRITTEN)
- L. CALIFORNIA STRATEGIES, LLC MONTHLY ACTIVITY REPORT (WRITTEN)
- M. STATE LEGISLATIVE TRACKING MATRIX (WRITTEN)

Materials related to an item on this agenda submitted to the Agency, after distribution of the agenda packet, are available for public inspection at the Agency's office located at 6075 Kimball Avenue, Chino, California during normal business hours.

- 4. AGENCY REPRESENTATIVES' REPORTS
 - A. SAWPA REPORT
 - B. MWD REPORT (WRITTEN)
 - C. REGIONAL SEWERAGE PROGRAM POLICY COMMITTEE REPORT
 - D. CHINO BASIN WATERMASTER REPORT
- 5. GENERAL MANAGER'S REPORT (WRITTEN)
- 6. BOARD OF DIRECTORS' REQUESTED FUTURE AGENDA ITEMS
- 7. DIRECTORS' COMMENTS
 - A. CONFERENCE REPORTS

This is the time and place for the Members of the Board to report on prescheduled Committee/District Representative Assignment meetings, which were held since the last regular Board meeting, and/or any other items of interest.

8. CLOSED SESSION

A. PURSUANT TO GOVERNMENT CODE SECTION 54956.9(a) – CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

1. Chino Basin Municipal Water District vs. City of Chino, Case No. RCV51010
2. Martin vs. IEUA, Case No. CIVRS 1000767
3. Mwembu vs. IEUA, Case No. CIVDS 1415762

B. PURSUANT TO GOVERNMENT CODE SECTION 54956.8 – CONFERENCE WITH REAL PROPERTY NEGOTIATOR

1. Supplemental Water Transfer/Purchase
Negotiating Party: General Manager P. Joseph Grindstaff
Under Negotiation: Price and Terms of Purchase

C. PURSUANT TO GOVERNMENT CODE SECTION 54956.9 CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION

1. Four (4) Cases

D. PURSUANT TO GOVERNMENT CODE SECTION 54957 – PERSONNEL MATTERS

1. Various Positions – Compensation Study
2. Various Positions

9. ADJOURN

*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909) 993-1736, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Declaration of Posting

Proofed by: 

I, April Woodruff, Board Secretary of the Inland Empire Utilities Agency*, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Friday, September 16, 2016.


April Woodruff

**CONSENT
CALENDAR
ITEM**

1N

Date: September 21, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee (09/14/16)

From: P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone
Manager of Engineering

Subject: Water Quality Laboratory Solar System Construction Contract Award

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award the construction contract for the Water Quality Laboratory Solar System Project No. EN15008, to Electric Service and Supply Co. in the amount of \$259,300; and
2. Authorize the General Manager to execute the construction contract.

BACKGROUND

In 2005, the Agency performed several assessments of the existing laboratory facility located at Regional Water Recycling Plant No. 1. Based on the assessments, the decision was made to construct a new laboratory behind the Agency Headquarters Building B. The construction of the Water Quality Laboratory Project was awarded to Kemp Bros. Construction, Inc., in May 2016.

As part of the Water Quality Laboratory Project, the Agency has elected to implement a roof mounted solar photovoltaic system to offset electricity costs. The Agency is a proponent of clean energy and strives to implement renewable energy generation for new facilities. Additionally, the solar system installation will help accumulate points towards the Silver or Gold LEED (Leadership in Energy & Environmental Design) certification.

On May 10, 2016, a request for design/build bids was advertised on *PlanetBids* and communicated to several solar system contractors. Two contractors participated in the job walk on May 17, 2016. On June 14, 2016, the following bids were received:

Bidder's Name	Total Price
Aikyum, Inc. (Rejected)	\$222,000
Electric Service and Supply Co. (ESSCO)	\$259,300
Engineer's Estimate	\$300,000

Agency staff evaluated both bids for compliance with the bid documents and the SRF Loan/grant requirements. Bid evaluation revealed that both bidders failed to follow the SRF Loan requirements to advertise to Disadvantaged Business Enterprise (DBE) subcontractors for 30 days prior to bid opening and to submit the necessary DBE forms, which is included in the Six Good Faith Efforts in the State DBE requirements.

In consultation with the Agency's Grant Department and the State Water Resources Control Board (State), the Agency rejected both bids on July 27, 2016, based on non-compliance with the DBE Six Good Faith Efforts. However, on July 29, 2016, ESSCO contested the bid rejection and stated they are DBE certified and will self-perform the entire project; therefore, they are not required to complete the Six Good Faith Efforts. The Agency consulted with the State who concluded that ESSCO's rebuttal and bid was acceptable.

Based upon the above determination, it was determined that ESSCO was the responsive and responsible bidder with a bid price of \$259,300. ESSCO has performed several successful solar projects for other clients in the past, showing good workmanship and responsiveness. ESSCO's business license was checked and found to be current and in good standing.

The solar system is comprised of 232 panels distributed over 4,100 square feet on the building roof. The system will generate 62 kW, which will offset Lab Building electricity usage by about 20% during the daytime. System Payback is around 11 years considering 8 hours of daily operation and \$0.12/kW power cost.

Below are the projected costs for the project:

Description	Estimated Cost
Design	\$1,625,000
Third Party Services	\$250,000
Construction	\$17,460,000
Solar System	\$259,300
Construction Services (~15%)	\$2,600,000
Contingency (~10%)	\$1,770,000
Special Laboratory Equipment	\$650,000
Total Project Cost	\$24,614,300
Total Project Budget	\$24,645,000

The following is the project schedule:

Project Milestone	Date
Construction Contract Award	September 2016
Construction Completion (with the Lab)	August 2018

The Water Quality Laboratory Solar Photovoltaic System project is consistent with the *Agency's Business Goal of Energy Management* to optimize facility energy use and effectively manage renewable resources to achieve peak power independence, contain future energy costs, and achieve statewide renewable energy, distributed generation, and greenhouse gas reduction.

PRIOR BOARD ACTION

On May 18, 2016, the Board of Directors approved the construction contract award for the Water Quality Laboratory to Kemp Bros. Construction, Inc. in the amount of \$17,460,000.

IMPACT ON BUDGET

If approved, the construction award for the Water Quality Laboratory Solar Photovoltaic System Project No. EN15008, in the amount of \$259,300 is included in the FY 2016/17 budget and is within the total project budget of \$24,645,000 in the Regional Wastewater O&M (10800) Fund.

PJG:CB:SS:jz

Water Quality Laboratory Roof Mounted Solar System Construction Contract Award

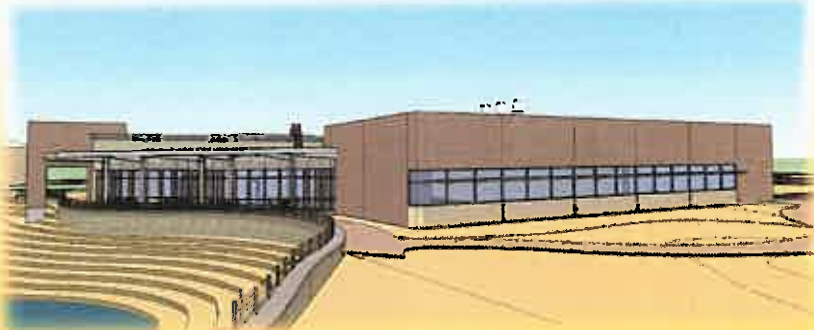
Project No. EN15008
September 21, 2016



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Project Location Headquarters (Aerial View)



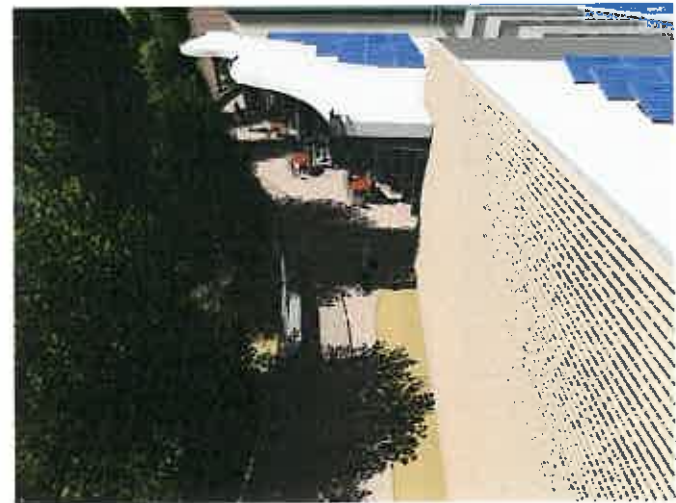
Southwest Elevation Rendering



East Elevation Rendering

Project Background

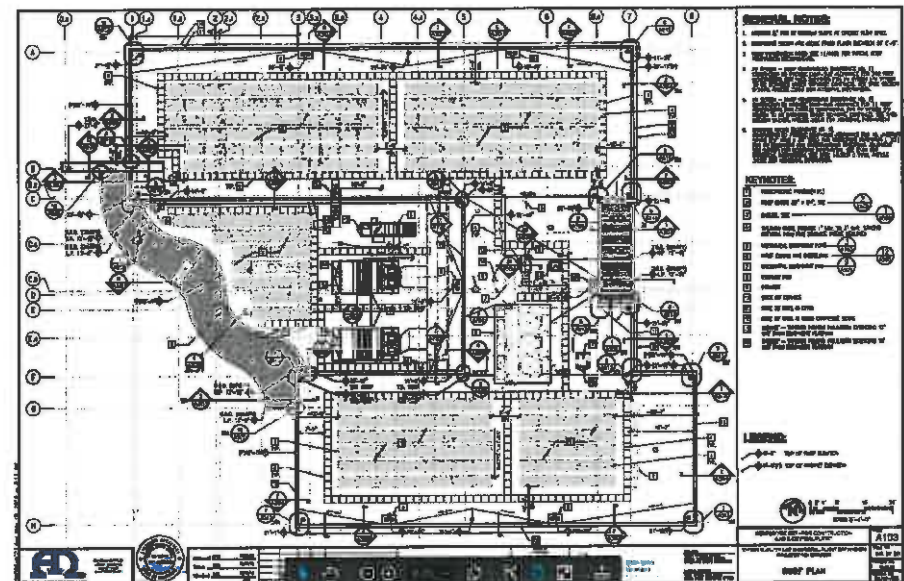
- The agency is constructing a new water quality laboratory to:
 - Replace the water quality laboratory at RP-1 due to its limited expandability
 - Provide a water quality laboratory that will meet future agency needs
- Bid separately to control technology utilized
- Roof mounted solar system benefits:
 - Offset electricity costs by 20 percent during daytime
 - Acquire additional LEED points
 - Payback: 11 years



South Elevation Depicting Solar Panels

Project Scope

- Design & construct a roof mounted solar system
- Manage all aspects of interconnection and commissioning
- Provide Training and O&M Manuals
- Solar System Data:
 - Capacity: 62 kW
 - No. of Solar Panels: 232
 - Solar System Area: 4,100 sq.ft
 - Cost per kW (installed): \$4,182



Bid Summary

Two bids received on June 14, 2016:

Bidder's Name	Total Price
Aikyum, Inc.*	\$222,000
Electric Service and Supply Co. (ESSCO)	\$259,300
Engineer's Estimate	\$300,000

*Rejected due to noncompliance with the DBE requirements for Aikyum

Project Cost and Schedule

Description	Estimated Cost
Design	\$1,625,000
Third Party Services	\$250,000
Construction	\$17,460,000
Solar System	\$259,300
Construction Services (~15%)	\$2,600,000
Contingency (~10%)	\$1,770,000
Special Laboratory Equipment	\$650,000
Total Project Cost	\$24,614,300
Total Project Budget	\$24,645,000

Project Milestone	Date
Construction Contract Award	September 2016
Construction Completion	August 2018



Agency Goal/Recommendation

Staff recommends that the Board of Directors approve the construction contract to Electric Service and Supply Co. (ESSCO) for the Water Quality Laboratory Solar System, Project No. EN15008, in the amount of \$259,300 and authorize the General Manager to execute the contract.

The Water Quality Laboratory Solar Photovoltaic System Project is consistent with the **Agency's Business Goal of Energy Management** to optimize facility energy use and effectively manage renewable resources to achieve peak power independence, contain future energy costs, and achieve statewide renewable energy, distributed generation, and greenhouse gas reduction .



CONTRACT NUMBER: 4600002209
FOR
THE WATER QUALITY LABORATORY SOLAR PHOTOVOLTAIC SYSTEM
PROJECT NO. EN15008.00

THIS CONTRACT (the "Contract"), is made and entered into this _____ day of _____, 2016 by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to as "Agency") And Electric Service & Supply Co. of Pasadena, with offices located in Pasadena, California (hereinafter referred to as "Contractor"), for the design, construction, and installation of the water quality laboratory roof-top solar photovoltaic system.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. **PROJECT MANAGER ASSIGNMENT:** All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: Jamal Zughbi, Senior Engineer
Address: 6075 Kimball Avenue, Building "B"
Chino, CA 91708
Telephone: (909) 993-1698
Email: jzughbi@ieua.org

2. **CONTRACTOR ASSIGNMENT:** Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Contractor: Matt Larrick, Project Manager
Electric Service & Supply Co. of Pasadena
Address: 2668 E. Foothill Blvd.
Pasadena, CA 91107
Telephone: (626) 795-8641, extension 106
Email: matt@esscoelectric.com

3. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions, or addenda attached, then the governing order of precedence shall be as follows:
 1. Amendments to Contract number 4600002209.
 2. Contract number 4600002209 General Terms and Conditions.
 3. Agency's Request for Proposals (RFP) number RFP-RW-16-007 and all germane addenda (**Exhibit A**).
 4. Contractor's proposal dated June 14, 2016 (**Exhibit B**).
4. **SCOPE OF WORK AND SERVICES:** Contractor services and responsibilities shall include and be in accordance with the Agency's Request for Proposals (RFP) RFP-RW-16-007, attached hereto, referenced herein, and made a part hereof as **Exhibit A**. Project Schedule within the RFP, Attachment C, will be adjusted to match the actual contract award date. Activities will be spaced accordingly.
5. **TERM:** The term of this Contract shall extend from the date of the Notice to Proceed, and terminate upon acceptance of the design's construction as signed off by the Agency's cognizant Engineering & Construction Management Department personnel and project management, unless agreed to by both parties, reduced to writing, and amended to this Contract.
6. **PAYMENT, INVOICING AND COMPENSATION:** The Contractor shall submit invoicing once monthly. Payment will be withheld for any service which does not meet the requirements of this Contract, until such service is revised, the invoice resubmitted and accepted by the Project Manager.

Contractor shall provide with their invoice certified payroll verifying that Consultant has paid prevailing wage in accordance with the Department of Industrial Relations requirements as stipulated in SB-854 (<http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>).

Effective January 1, 2015: The call for bids and contract documents must include the following information:

A. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

B. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

C. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

As compensation for the work performed under this Contract, Agency shall pay Contractor a ***not-to-exceed maximum of \$259,300.00***, as established in accordance with **Exhibit B**, for all work satisfactorily provided hereunder in accordance with RFP-RW-16-007, attached hereto, referenced herein, and made a part hereof as **Exhibit A**.

Note: All payments made, whether for design or construction build, shall be in accordance with the payment terms outlined in **Exhibit A**. Continued use of the Agency's Capital Improvement Program Office (CIPO) software is required throughout the project.

7. **INSURANCE:** During the term of this Contract, the Contractor shall maintain at Contractor's sole expense, the following insurance.

A. **Minimum Scope of Insurance:** Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
 - a. The insurance shall include coverage for each of the following hazards:
 - Premises – Operations
 - Owners and Contractors Damage
 - Broad Form Property Damage
 - Contractual for Specific Contract
 - Severability of Interests or Cross-Liability
 - XCU [Explosion, Collapse and Underground] Hazards
 - Personal Injury – with the "Employee" Exclusion Deleted
2. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
3. **Workers' Compensation and Employers Liability:** Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

4. Builders Risk completed value (course of construction) fire insurance with extended coverage and a vandalism and malicious endorsement. The policy shall cover the full value of all completed construction, which includes all material and labor invested in the construction and the full value of all equipment and material at the job site. Said policy shall remain in effect until acceptance of the by the Agency.
 5. Payment, Labor & Material, and Performance Bonds: Bonding is required, per Public Contract Code Article 121., Section 21565, for public works projects. All construction-related labor for this project is designated as the public works portion of this project and therefore subject to prevailing wage. Contractor shall furnish bonding with the use of forms furnished in the RFP.
 6. Professional Liability (Errors and Omissions): Insurance appropriate to the Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.
- B. Deductibles and Self-Insured Retention: Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention (as respects the Agency), its officers, officials, employees, volunteers, property owners and engineers under contract to the Agency; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
- C. Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:
1. General Liability and Automobile Liability Coverage
 - a. Additional Insured Status: The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).
 - b. Primary Coverage: The Consultant's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13

as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Consultant's insurance and shall not contribute with it.

- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract to the Agency
- d. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- e. The Contractor may satisfy the limit requirements in a single policy or multiple policies. Any Such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. **Workers' Compensation and Employers Liability Coverage**

The insurer shall agree to waive all rights of subrogation against the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract to the Agency for losses arising from work performed by the Contractor for the Agency.

3. **Builders Risk Insurance (Course of Construction)**

The Agency is to be named as the loss payee.

4. **All Coverages**

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Agency.

- D. Acceptability of Insurers: All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII, and who are admitted insurers in the State of California.

- E. Verification of Coverage: Contractor shall furnish the Agency with certificates of insurance and with original endorsements effecting coverage required by the Agency for themselves and all subcontractors prior to commencing work or allowing any subcontractor to commence work under any subcontract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be approved by the Agency before work commences. The Agency reserves the right to require complete, certified copies of all required insurance policies, at any time.
- F. Submittal of Certificates: Contractor shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, a Municipal Water District
Attn: Ms. Angela Witte, Risk Specialist
P.O. Box 9020
Chino Hills, California 91709-0902

8. CONTROL OF THE WORK: Contractor shall perform the Work in compliance with the Work Schedule. If performance of the Work falls behind schedule, the Contractor shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Contractor is unable to accelerate the Work, Contractor shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule.
9. LEGAL RELATIONS AND RESPONSIBILITIES
- A. Professional Responsibility: The Contractor shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. Status of Contractor: The Contractor is retained as an independent Contractor only, for the sole purpose of rendering the services described herein, and is not an employee of the Agency.
- C. Observing Laws and Ordinances: The Contractor shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, the Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such

law, ordinance, regulation, order or decree, whether by the Contractor or its employees.

Effective July 1, 2014, all Contractors must be registered with the California Dept. of Industrial Relations as required by law SB-854 for public works construction projects:

<http://www.dir.ca.gov/DIRNews/2014/2014-55.pdf>

D. Confined Space Work:

I. Precautions and Programs:

a. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work or the activities of subcontractors, suppliers, and others at the work site.

b. The Contractors and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the "Contract Work Hours and Safety Standards Act," as set forth in Title 29 C.F.R. If the Agency is notified of an alleged violation of the Occupational Safety and Health Standards referred to in this Section and it is established that there is a violation, the Contractor shall be subject to liquidated damages as provided in the Contract.

c. The Contractor and all subcontractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the United States Secretary of Labor under the "Occupational Safety and Health Act of 1970," as set forth in Title 29, C.F.R. Where an individual State act on occupational safety and health standards has been approved by federal authority, then the provisions of said state act shall control.

d. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary supervision, control, and direction to prevent damage, injury, or loss to:

- 1) All employees on the work or work site and other persons and organizations who may be affected thereby;
- 2) All the work and materials and equipment to be incorporated therein, whether in storage or on or off the work site; and
- 3) All other property at the site.

e. Contract work requiring confined space entry must follow Cal-OSHA

Regulation 8 CCR, Sections 5157 - 5158. This regulation requires the following to be submitted to IEUA for approval prior to the start of the project:

- 1) *Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157. This regulation also requires the following to be submitted to IEUA for approval prior to the entry of a confined space:*
- 2) *A written plan that includes identification of confined spaces within the construction site, alternate procedures where appropriate, contractor provisions, specific procedures for permit-required and non-permit required spaces, and a rescue plan.*

f. The Contractor must also submit a copy of their Safety Program or IIPP prior to the start of the project for approval by the Safety & Risk Department.

- E. Subcontract Services: Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager.
- F. Hours of Labor: The Contractor shall comply with all applicable provisions of California Labor Code Sections 1810 to 1817 relating to working hours. The Contractor shall, as a penalty to the Agency, forfeit \$25.00 for each worker employed in the execution of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code.
- G. Travel and Subsistence Pay: The Contractor shall make payment to each worker for travel and subsistence payments which are needed to execute the work and/or service, as such travel and subsistence payments are defined in the applicable collective bargaining agreements with the worker.
- H. Liens: Contractor shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Contractor on account of said services to be rendered or said materials to be furnished under this Contract and that may be secured by any lien against the Agency. Contractor shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- I. Indemnification: Contractor shall indemnify IEUA, its directors, employees, agents, and assigns, and shall defend and hold them harmless from all liability, demands, actions, claims, losses, and expenses, including reasonable attorney's fees, which arise out of or are related to the negligence,

recklessness or willful misconduct of Contractor, its directors, employees, agents and assigns, in the performance of work under this contract. Notwithstanding the foregoing, to the extent that this Contract includes professional design services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to defend and to indemnify Agency shall only be to the full extent permitted by Civil Code Section 2782.8.

- J. Conflict of Interest: No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- K. Equal Opportunity: During the performance of this Contract, the Contractor shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin.
- L. Disputes:
1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. The Contractor shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et seq, or their successor.
 2. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Contractor shall comply, pursuant to the Agency Project Manager instructions. If the Contractor is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Contractor to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Contractor's written protests to the General Manager, together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The General Manager shall make his

or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Contractor is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
 - a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Contractor to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Contractor are acceptable and, if so, such person will be designated as Arbitrator.
 - b. In the event that none of the names submitted by Contractor are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Contractor a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Contractor shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
 - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
4. Joinder in Mediation/Arbitration: The Agency may join the Contractor in mediation or arbitration commenced by a contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Contractor.

M. Grant-Funded: This is a grant-funded (e.g., State Revolving Funds) project. The Consultant shall be responsible to comply with all grant requirements related to the project as outlined in **Attachments 1 through 8**, referenced

herein, immediately following, and made a part hereof. These may include, but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Competitive Solicitation, Record Retention and Public Access to Records, and Compliance Review. Federal funding of any portion of this project will have separate, additional reporting accountability on the use of funds.

Note: Attachments 1 through 8 are revised latest Grant Language Requirements, and supersede those contained in the Request for Proposals.

- N. Workers' Legal Status: For performance against this Contract, Supplier shall only utilize employees and/or subcontractors that are authorized to work in the United States pursuant to the Immigration Reform and Control Act of 1986.
- O. Prevailing Wage Requirements: Pursuant to Section 1770 and following, of the California Labor Code, the Contractor shall not pay less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations for the locality in which the work is to be performed and for each craft or type of worker needed to execute the work contemplated under the Contract. The Contractor or any subcontractor performing part of said work shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, work days, nondiscrimination, apprentices, maintenance and availability of accurate payroll records and any other matters required under all Federal, State and local laws related to labor.

10. FITNESS FOR DUTY:

- A. Fitness: Consultant and its Subcontractor personnel on the Jobsite:
 - 1. shall report for work in a manner fit to do their job;
 - 2. shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
 - 3. shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
- B. Compliance: Consultant shall advise all contractor and subcontractor personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its Subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.

11. **OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY:** The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Contractor and/or the Contractor's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Contractor shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Contractor agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.

12. **PUBLIC RECORDS POLICY:** Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Contractor of any requests for disclosure of any documents pertaining to Contractor.

In the event of litigation concerning disclosure of information Contractor considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Contractor has marked "Confidential," "Proprietary," or "Trade Secret," Contractor shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

13. **NON-CONFORMING WORK AND WARRANTY:** Contractor represents and warrants that the Work shall be in conformance with the specifications provided herein and shall serve the purposes described. For a period of not less than one (1) year after acceptance of the completed Work, Contractor shall, at no additional cost to Agency, correct any and all errors or shortcomings of the Work, regardless of whether any such errors or shortcomings is brought to the attention of the Contractor by Agency, or any other person or entity.

14. **NOTICES:** Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Inland Empire Utilities Agency, a Municipal Water District
Attn: Mr. Warren T. Green
Manager of Contracts and Facilities Services
P.O. Box 9020
Chino Hills, California 91709-0902

Contractor: Electric Service & Supply Co. of Pasadena
Attn: Mr. Stanley R. Lazarian
President and Responsible Managing Officer (RMO)
2668 E. Foothill Boulevard
Pasadena, CA 91107

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

15. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Contractor, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Contractor under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of the Agency shall be null, void and of no legal effect whatsoever.
16. **INTEGRATION:** The Contract Documents represent the entire Contract of the Agency and the Contractor as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by the Agency and the Contractor.
17. **GOVERNING LAW:** This Contract is to be governed by and constructed in accordance with the laws of the State of California.
18. **TERMINATION FOR CONVENIENCE:** The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Contractor. In the event of such termination, the Agency shall pay Contractor for all authorized and Contractor-invoiced services up to the date of such termination.
19. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Contractor's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Contractor. The Contractor shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.
20. **FORCE MAJEURE:** Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, etcetera.

21. **LIQUIDATED DAMAGES:** Liquidated Damages, in the amount of \$2,000.00 per day, may be assessed by the Agency for each calendar day that the Contractor fails to complete this project in accordance with its final, contractually-committed delivery schedule. Any and all Liquidated Damages assessed by the Agency will be taken as a direct credit against the Contractor's invoice for this project. The Contractor's acceptance of a contract subsequently issued in conjunction with this solicitation, shall serve to indicate acceptance of this Liquidated Damages clause, and the daily assessment of damages expressed herein.

22. **CHANGES:** The Agency may, at any time, make changes to this Contract's Scope of Work; including additions, reductions and other alterations to any or all of the work. However, such changes shall only be made via written amendment to this Contract. The Contract Price and Work Schedule shall be equitably adjusted, if required, to account for such changes and shall be set forth within the Contract Amendment.

23. **NOTICE TO PROCEED:** No services shall be performed or furnished under this Contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Contractor.

AS WITNESS HEREOF, the parties hereto have caused the Contract to be entered as of the day and year written above.

INLAND EMPIRE UTILITIES AGENCY:
(A Municipal Water District)

ELECTRIC SERVICE & SUPPLY CO. OF
PASADENA:

P. Joseph Grindstaff
General Manager

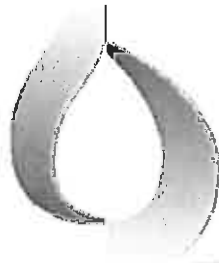
(Date)

Stanley R. Lazarian
President

(Date)

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Exhibit A



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

**REQUEST FOR PROPOSALS
NUMBER RFP-RW-16-007**

FOR

DESIGN/BUILD SERVICES

FOR THE

**WATER QUALITY LABORATORY
ROOFTOP SOLAR PHOTOVOLTAIC SYSTEM**

PROJECT NO. EN15008

May 10, 2016

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SECTION 1 - SUBMITTAL INFORMATION

A. **INTRODUCTION:** The Inland Empire Utilities Agency ("IEUA" or "Agency") is accepting sealed proposals at its Headquarters Facility at 6075 "B" Kimball Avenue, Chino, CA 91710 for Design/Build Water Quality Laboratory Rooftop Solar Photovoltaic System, PROJECT NO. EN15008. The overall project has a State Revolving Fund (SRF)/Grant and shall comply with all associated requirements specified within this document (See attachment F).

B. **ENGINEERS ESTIMATE of PROBABLE COST:** The Engineer has provided an estimate of probable cost for the work; bidders are requested to consider this estimate as they prepare costs for this work.

ENGINEER'S ESTIMATE of PROBABLE COST: \$300,000

C. **PRE-BID and JOB-WALK MEETING:** All interested bidders are requested to attend a project orientation meeting prior to submitting a proposal to provide the required services. Interested parties need to email a R.S.V.P. to the Project Manager, Jamal Zughbi, at (909) 993-1698 or jzughbi@ieua.org. The Pre-Bid and Job Walk meeting is scheduled below; Hardhats are required and will not be provided.

PRE-BID MEETING and JOB-WALK: May 17, 2016 at 10:00 AM

All participants are to meet at the Headquarters Facility at 6075 "B" Kimball Avenue, Chino, CA 91710

D. **SUBMITTAL LOCATION, CLOSING DATE, AND TIME:** Proposals will not be accepted after the "closing" date and time indicated. Faxed or emailed proposals will not be accepted.

SUBMITTAL CLOSING: Tuesday, June 14, 2016 at 2:00 pm, P.D.T

E. **COMPLETION:** All work shall be completed within the below stated period from notification to start work given by the Inland Empire Utilities Agency.

COMPLETION: Within one hundred eighty (180) calendar days of Notice of Contract Award, and as reflected in the attached schedule (Attachment C)

F. **INQUIRIES:** Inquiries regarding this solicitation should be directed to Robert Wallin, at (909) 993-1491 or rwallin@ieua.org. Please reference Request for Proposal number **RFP-RW-16-007** when contacting Agency staff or leaving messages. For technical inquiries contact Project Manager, Jamal Zughbi, at (909) 993-1698 or jzughbi@ieua.org.

G. **PROPOSAL LABELING:** The proposal shall be submitted in a **sealed envelope** with all the original pages intact. Proposal envelopes must be **plainly marked** and submitted as follows:

1. If mailing via the United States Postal Service (USPS), proposal envelopes shall be labeled as follows:

SECTION 1 - SUBMITTAL INFORMATION

**INLAND EMPIRE UTILITIES AGENCY
P.O. BOX 9020
CHINO HILLS, CA 91709**

**RE: PROPOSAL FOR Design/Build Project for the Water Quality Laboratory
Rooftop Solar Photovoltaic System
REQUEST FOR PROPOSAL NUMBER RFP-RW-16-007**

2. Proposal envelopes submitted via an express courier or personal delivery shall be labeled as follows:

**INLAND EMPIRE UTILITIES AGENCY
6075 "A" KIMBALL AVENUE
CHINO, CA 91708**

**RE: PROPOSAL FOR Design/Build Project for the Water Quality Laboratory
Rooftop Solar Photovoltaic System
REQUEST FOR PROPOSAL NUMBER RFP-RW-16-007**

- H. **PROPOSAL SUBMITTAL:** All Contractors shall complete and return one (1) original and three (3) copies of their proposal. All proposals delivered in an express courier package shall be sealed in a separate envelope within the courier package. **Any proposal found to be illegible or incomplete may be rejected.** Whether sent by courier, mail, or by means of personal delivery, Contractors assume full responsibility for having their proposal deposited at the proper address and not later than the scheduled closing time. **Faxed or emailed** proposals or modifications will not be considered. More than one (1) proposal from an individual, firm, partnership, or corporation under the same or different names, will not be considered.
- I. **PROPOSAL FORMAT:** Proposals shall be complete, clear, well organized and has page numbers for easy reference. The Proposal shall include a dated cover letter which must be signed by a person authorized to negotiate and execute contracts on behalf of the Contractor, and must remain valid for acceptance for a period of one hundred twenty (120) calendar days. Proposals should clearly communicate examples of similar types of past work done for other clients/public agencies. To summarize, all responsive proposals should include:
- Cover letter which conveys the number of years the Contractor has been in business;
 - Listing of past experience handling similar projects for public agencies and other clients;
 - Proposed team to manage/support the subject project;
 - Breakout of "in-house" services provided versus "subcontracted" services;
 - Approach to providing the Agency's required services;
 - Schedule of Values;
 - Price Schedule;
 - Contractor license classification (Class C-46); and,
 - Work samples and past experience/projects.

SECTION 2 - GENERAL INFORMATION

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THIS "REQUEST FOR PROPOSAL" SOLICITATION IN ITS ENTIRETY PRIOR TO SUBMITTING A PROPOSAL.

- A. **WAITING PERIOD / BID VALIDITY:** All Contractors are alerted that a waiting period of up to one hundred twenty (120) calendar days from the date of the proposal opening may be required before an award is made. Contractors shall assume full responsibility for the effect of such a delay on all proposed prices and terms.
- B. **INSURANCE AND BONDING:** Contractor's attention is directed to the insurance and bonding requirements set forth in Sample Contract and Bonding Requirements, as provided in Attachments "A" and "B".

The selected Contractor shall provide all bond(s) requirements within fourteen (14) calendar days following contract execution and award. All Contractors are required to submit with their proposal, certificates of insurance verifying coverage, as well as a letter from the Contractor's insurance agent or corporate Risk Management Department acknowledging that the Contractor is able to comply with all insurance requirements. It is highly recommended that each Contractor confer with their respective insurance carriers or brokers to determine in advance of proposal submittal, the availability of insurance certificates and endorsements as prescribed herein. If an apparent best-Contractor fails to strictly comply with the insurance requirements, that Contractor may be disqualified from receiving the award. All insurance certificates and endorsements meeting the Agency's requirements must be received and accepted by the Agency prior to award.

- C. **PROPOSAL PREPARATION COSTS:** IEUA is not, nor shall be deemed, liable for any costs incurred by Contractor in the preparation, submittal, or presentation of their proposal.
- D. **PROPOSAL INCLUSIONS:** The "Request for Proposal" documents shall be returned in their entirety, with ALL applicable portions fully completed by the Contractor. All Contractors are encouraged to review and confirm that their proposal includes and specifically addresses each of the following proposal requirements prior to submitting.
- Certificates of Insurance and confirmation of bonding requirements
 - Proposal Price Schedule (See Section 4)
 - Contractor Identification Form (See Section 4)
 - Subcontractor/References Form (See Section 4)
 - Workers' Compensation Certificate (See Section 4)
 - Non-Collusion Affidavit (See Section 4)
 - Exceptions Form (See Section 4)
- E. **WITHDRAWAL OF PROPOSAL BEFORE CLOSING:** Any Contractor may request the withdrawal of their submitted proposal, either in person, by telephone, or written request, at any time prior to the scheduled closing date and time. Upon receiving the written request to withdraw any proposal, IEUA will consider the Contractor's proposal null and void, and return the proposal to the Contractor unopened. Withdrawal of Contractor's proposal will not prejudice Contractor's resubmittal for this or any future proposal(s).
- F. **MISTAKE IN PROPOSAL:** Any Contractor may withdraw their proposal after the proposal opening, subject to the time restrictions indicated below, only if the Contractor can establish to IEUA's satisfaction, that a mistake was made in preparing the proposal.

SECTION 2 - GENERAL INFORMATION

1. A Contractor declaring a mistake must provide a written notice to IEUA within five (5) calendar days following the scheduled closing date, specifying in detail, how the mistake occurred, and how the mistake made the proposal materially different than as was intended.
2. Withdrawal of the proposal will **only** be permitted for mistakes made in the completion of the proposal. A Contractor who claims a mistake shall be **PROHIBITED** from submitting further proposals on the Project in which the mistake in proposal was claimed. (*Public Contract Code 5105*).

G. **PROPOSAL ACCEPTANCE:** IEUA reserves the right to **accept or reject** any or all proposals, or waive any informality(s) in any proposal, if such action is deemed to be in the best interest of IEUA. IEUA reserves the right to make multiple awards from this "Request for Proposal." Additionally, be advised that if all valid proposal prices received are found to exceed the budget appropriated for this project, IEUA may reject all proposals.

H. **INTERPRETATION OF DOCUMENTS:** During the proposal solicitation period, should a Contractor find discrepancies or omissions in the specifications of the "Request for Proposal," or should the Contractor be in doubt as to their interpretation, the Contractor shall immediately notify the contact indicated in Section 1(C), above. Should it be found necessary, an addendum will be sent to all Contractors. Any addenda issued prior to the scheduled proposal closing date and time, shall form a part of this solicitation and shall become a part of the submitted proposal.

Exceptions to this Request for Proposal: Any changes from the provisions of this Request for Proposal, which may be desired by the Contractor, shall be specifically noted on the exceptions form (see page 4-7).

I. **PUBLIC RECORD:** Be advised that **all** information contained in proposals submitted in response to this solicitation **shall** become a matter of public record, and be made available upon request.

J. **CONTRACT EXECUTION:** The Contractor shall execute a contract with the Agency for the services to be provided. A sample of the Agency's standard contract is provided as Attachment "A" at the end of this RFP. The Agency will issue the selected contractor a contract of similar form which incorporates, by reference, this "Request for Proposal" document. Thus, the Contractor is encouraged to review the acceptability of the sample contract and advise as to any exceptions to its content, or to the content of this "Request for Proposal" document, through the use of the Exceptions form contained on page 4-6 of this document.

K. **ACCEPTANCE AND PAYMENT:** Contractor's invoice(s) shall include reference to the Contract number issued for the services required by the Agency, and be accompanied by detailed supporting documentation, which includes information on the specific services rendered during the invoice period. IEUA shall pay the Contractor's properly executed invoice, subject to approval by the Project Manager, within thirty (30) days following receipt of the invoice. Total payment for each phase of the work will not exceed 95% of the estimated cost of that phase until all work under that phase is completed to the Agency's satisfaction. IEUA reserves the right to withhold 5% as retention until all work has been completed to the Agency's satisfaction.

Payment will be withheld for any services which do not meet or exceed contractual requirements, until such services are re-performed/corrected, and accepted by the Project Manager.

L. **LIENS:** The Contractor shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Contractor on account of this specific Agency project, and that

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may be secured by any lien against IEUA. The Contractor shall fully discharge each such lien not later than the time performance of the obligation.

- M. **FEDERAL, STATE, AND LOCAL LAWS:** The Contractor and all sub-Contractors shall comply with all applicable federal, state, and local laws, rules, and regulations.
- N. **EQUAL EMPLOYMENT OPPORTUNITY AND HARASSMENT PROHIBITION:** The Agency is committed to creating and maintaining an environment free from harassment and discrimination. To accomplish these goals the Agency has established procedures regarding the implementation and enforcement of the Agency's Equal Employment Opportunity and Harassment Prohibition commitments. Please refer to Agency Policies A-29 (Equal Employment Opportunity) and A-30 Harassment Prohibition or contact the Agency's Human Services Administrator. A copy of either of these Policies can be obtained by contacting the respective Project Manager for this solicitation. Please advise any of your staff who think that they might have been harassed or discriminated against while on Agency property to report said possible incident to either the Project Manager or the Agency's Human Services Administrator. Please be assured that any possible infraction will be thoroughly investigated by the Agency.
- O. **PREVAILING WAGE:** The Legislature requires "prevailing wages" to be paid to those who are employed on "public works" that are performed by a private Contractor and paid for in whole or in part with public funds. (Labor Code, §§ 1720-1780). The overall purpose of the prevailing wage law is to protect and benefit employees that work on public works projects.

"Public Works" is the construction, alteration, demolition, or repair work done under contract and paid for in whole or in part out of public funds." The Work performed under the scope of any contract issued in conjunction with this solicitation will be subject to prevailing wage.

SB854 Requirements:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

- P. **INDEMNIFICATION:** Contractor shall indemnify and hold harmless and defend as permitted by law, the Agency, its directors, officers, employees, or authorized volunteers, each of them from and against:
1. Any and all claims, demands, causes of action, damages, costs, expenses, losses or liabilities, in law or in equity, of every kind or nature whatsoever for, but not limited to, injury to or death of any person including Agency and/or Contractor, or any directors, officers, employees, or authorized volunteers of Agency or Contractor, and damages to or destruction of property of any person, including but not limited to, Agency and/or Contractor or their directors, officers, employees, or authorized volunteers, arising out of or in any manner

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directly or indirectly connected with the work to be performed under this agreement, however caused, except for the sole negligence or willful misconduct or active negligence of the Agency or its directors, officers, employees, or authorized volunteers;

2. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, or every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of the Contractor;
3. Any and all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respects to the failure, neglect, or refusal of Contractor to faithfully perform the work and all of the Contractor's obligations under the agreement. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

Q. **AWARD/ SELECTION CRITERIA:** The Agency anticipates issuing a single award in conjunction with this proposal activity to the Contractor judged to be most capable of accomplishing all specified requirements (best value) in a cost-effective and time efficient manner. However, as previously noted, the Agency reserves the right to make multiple awards subsequent to this "Request for Proposal." The following criteria will be included in the rating process for selection of the award recipient(s).

- Compliance with the Clean Water State Revolving Fund Project Requirements – See **Attachment F** and all referenced attachments therein for more details.
- Past record of performance in providing similar services; including such factors as performance, quality, adherence to schedule , change orders, safety record, and cooperation with Agency personnel
- Proposal Price
- Solar panels quality and performance
- Solar power generated
- Approach to accomplishing the project
- Composition of team assigned to the project
- Professional references
- Comprehensiveness of proposal; specifically addressing each item as noted in the "Request for Proposal" documents
- Work samples and previous experience
- Exceptions taken to project specifications

R. **PROPOSAL PRICE:** The Contractor's proposed price(s) shall be indicated on the Proposal Price Schedule located within this document on page 4-1. Each Contractor must fully complete all parts of

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the Proposal Price Schedule, or their proposal may be rejected. Be advised that, at any time, the Agency may require the Contractor to further itemize/detail components of proposed prices and/or invoices; i.e. labor, materials, travel expenses, sales taxes, freight charges, etc.). If the Contractor desires to convey clarifications/explanations to the information presented on the Proposal Price Schedule, an addendum page(s) may be attached thereto.

- S. **REFERENCES:** The Contractor shall provide a list of at least five (5) client references to which they have provided similar services within the last 10 years. Please include appropriate points of contact, telephone numbers, and a brief description of the services that were provided. (See References form contained within page 4-3 of this document.
- T. **LIQUIDATED DAMAGES:** Liquidated damages, in the amount of \$2,000 per day, may be assessed by the Agency for each calendar day that the Contractor fails to complete the required services, in accordance with the project's final agreed-upon work schedule. Any and all Liquidated Damages assessed by the Agency will be taken as a direct credit against the Contractor's invoice for this project. The Contractor's acceptance of this any Purchase Order/Contract issued in conjunction with this solicitation shall serve to indicate acceptance of this Liquidated Damages clause, and the daily assessment of damages expressed herein.
- U. **BACKGROUND INFORMATION:** Inland Empire Utilities Agency is a regional sewage treatment and water agency that provides sewage treatment, solids waste handling, and recycled water to the west end of San Bernardino county. Its 242 square mile service area includes the cities of Upland, Montclair, Ontario, Fontana, Chino, Chino Hills; Cucamonga Valley Water District which services the City of Rancho Cucamonga; State of California correctional facilities; and the unincorporated areas of San Bernardino County, including the Chino Agricultural Preserve. The Agency, a special assessment district, is governed by a five seat publicly elected Board of Directors. Each director is assigned to one of the five divisions which are: Division 1-Upland/Montclair; Division 2- Ontario/ Agriculture Preserve; Division 3- Chino/ Chino Hills; Division 4- Fontana; Division 5- Rancho Cucamonga. The Regional Technical and Policy Committees provide information on technical and policy issues, and there are representatives from each of the five divisions on these committees.

Five regional water reclamation plants are used to treat sewage from the Agency's service area. They are: Regional Plant No. 1 (RP-1), located in the City of Ontario; Regional Plant No. 2 (RP-2), located in the City of Chino; Regional Plant No. 4 (RP-4), located in the City of Rancho Cucamonga; and Carbon Canyon Water Reclamation Facility (CCWRF), located in the City of Chino and Regional Plant No. 5 (RP-5) Phase I, located in the City of Chino.

The Agency has two main service areas. Northern Service Area and Southern Service Area. The northern part of Riverside Drive in Ontario is referred to as the Northern Service Area and the southern part of Riverside Drive is the Southern Service area. The Northern Service area is approximately 162 square miles and it has two active treatment plants, RP-1 and RP-4, and one decommissioned treatment plant, RP-3.

The Inland Empire Regional Composting Authority (IERCA) was created as a public entity by a Joint Powers Agreement (JPA) between the Inland Empire Utilities Agency (IEUA) and Los Angeles County Sanitation District (LACSD). This agreement empowered both IEUA and LACSD to acquire, construct, operate and maintain a composting facility. IEUA and LACSD have jointly evaluated composting as an economically and environmentally sound method of beneficially reusing biosolids that are generated from the wastewater treatment facilities operated by each.

The IERCA operates the nation's largest indoor biosolids composting facility, located in 12645 Sixth Street, Rancho Cucamonga, California 91739. The Inland Empire Regional Composting Facility

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(IERCF) was a warehouse formerly owned by IKEA, a furnishing company. The IERCF encompasses 24 acres of which 410,000 square feet is dedicated to the compost process building. The IERCA focuses on producing top quality compost under the guidelines outlined in the United States Composting Council's Seal of Testing Assurance (STA) Program. Also IERCA focus is on manufacturing in a cost effective manner good quality compost in compliance with all local, state and federal regulations covering biosolids products, and promoting conservation and environmental protection.

- V. **ENVIRONMENTAL PURCHASING POLICY:** The goal of the Inland Empire Utilities Agency (IEUA) is to reduce global warming and other environmentally harmful effects generated by its operations. In this endeavor, the terms and conditions of all IEUA solicitations encourage, whenever possible and practical, the proposal of services and products that are proven to be beneficial to the environment.

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SECTION 3 - TECHNICAL PROVISIONS

A. PROJECT BACKGROUND/REQUIREMENTS

The Agency is in the process of constructing a new water quality laboratory to replace the existing laboratory, which is old, crowded, with limited expandability and cannot meet future Agency analytical needs. The "Water Quality Laboratory" is a single-story, steel-framed, fully-sprinklered structure. The gross floor area is 16,747 square feet. The building occupancy is a 'B' occupancy—no hazardous occupancies involved. The building construction type is Type V-B.

The Water Quality Laboratory will be pursuing LEED Silver Certification with the potential for Gold Certification.

The site of the work is located south of Building B within the IEUA Headquarters campus.
Site address is:

IEUA Headquarters
6075 Kimball Avenue, Chino, CA 91708.

The IEUA Regional Water Quality Laboratory Project (Project) is funded by a State Water Resources Control Board State Revolving Fund Loan (Agreement.) The Agreement has regulatory requirements that the Inland Empire Utilities Agency is required to include in all contracts for work related to the performance of the Agreement. The consultants and contractors must comply with and assist IEUA in meeting the federal and state requirements that apply to the scope stated in their contracts. These requirements include, but are not limited to, the State Prevailing Wages, Federal Davis-Bacon requirements, Federal Disadvantaged Business Enterprise (DBE), Buy-American Requirements, Audit, and Record Retention and Review, etc. If a sub is hired, the Agreement requirement language must be included in the sub's contract in its entirety. Refer to Attachments F-L for more details on the SRF Loan and Grant requirements. Necessary DBE forms must be filled out and completed by the solar photovoltaic (P/V) system contractor and submitted with the bid as required.

As part of the new Water Quality Laboratory facility, the Agency has decided to implement a roof-mounted solar photovoltaic (P/V) system to help offset the electricity costs. In addition, the Agency is a proponent of clean energy and strives to implement renewable energy generation for new facilities.

The Agency seeks the services of a licensed (C-46) design-build contractor to design, procure and construct, commission and test a complete and operable roof mounted solar P/V system for the Water Quality Laboratory facility.

B. PROJECT DESCRIPTION

The project intent is to design, procure, and install a complete and operable roof mounted solar photovoltaic system atop the Water Quality Laboratory building to serve a portion of the Laboratory's electrical needs. The Water Quality Laboratory is a single story building with about 16,750 square feet of floor area. The estimated available roof area is approximately 6,000 square feet. Maintenance walkways, restrictions and equipment placement on the roof have eliminated most of the total roof area available for installation of the solar P/V system. The actual area for the solar P/V system will be determined by the solar contractor within their design after investigation of the Laboratory design drawings. Reference project drawings depicting the floor plan, roof plan and building elevations are shown in Attachment E.

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The Contractor shall develop a solar photovoltaic system design around established boundaries as set by the Laboratory design drawings. Integration of the solar photovoltaic system shall be efficient and seamless as not to require design changes to the overall Laboratory facility. Provisions have been made within the Laboratory design for insertion of the solar P/V system steel support as follows:

- a. The General Contractor constructing the new Water Quality Laboratory shall include within their bid price provisions and allowances—as defined in the bid documents—for the following:
 - 1) Allowance No. 1: Roof Penetrations for Rack Supports for P/V system.
 - 2) Allowance No. 2: Roof Penetrations for Conduit Runs for P/V System.
 - 3) Allowance No. 3: Miscellaneous Steel for Rack Supports for P/V System.
 - 4) Allowance No. 4: P/V System Infrastructure.
- b. The Agency will contract directly with the P/V system contractor and bring him on board when the laboratory building roof is about to be constructed for coordination with the General Contractor.
- c. General Contractor shall be responsible for procurement and installation of:
 - 1) Roof flashing boots at roof penetrations for rack supports.
 - 2) Roof flashing boots at roof penetrations for conduit terminations.
- d. General Contractor shall be responsible for procurement and installation of:
 - 1) Roof flashing boots at roof penetrations for rack supports.
 - 2) Roof flashing boots at roof penetrations for conduit terminations.
 - 3) Supplemental steel for support of P/V system.
 - 4) Conduit runs for P/V system terminating at Electrical/UPS rooms and roof penetrations determined by P/V system provider.
- e. All other components for the complete P/V system including but not limited to P/V panels, exposed rack supports, electrical conduit at the roof level, inverters, circuit breakers, power meters, electrical equipment, etc. shall be supplied and installed by the P/V system contractor.

The solar P/V system shall include the maximum amount of high energy producing panels which can be placed on the roof of the new Water Quality Laboratory, while taking into account unusable rooftop area due to equipment, setbacks, maintenance walkways, etc. The surrounding trees within the Chino Creek Wetlands, located west of the lab building, shall also be taken into account when designing the solar P/V system as to maximize the amount of sunlight being captured by the panels. Any other hindrances shall be identified by the Contractor and accounted for in the design.

The Agency seeks the services of a design-build Contractor to design, procure, and install a solar P/V system for the New Water Quality Laboratory Project No. EN15008. The Contractor shall provide all necessary work to complete the design, procurement, construction and training for the solar P/V system for the new Water Quality Laboratory Project No. EN15008. The Contractor shall have experience in designing, procuring and installing solar P/V systems for government and/or commercial buildings of similar or greater size and complexity.

C. SCOPE OF WORK

The P/V Contractor's scope of work shall include engineering, design, procurement and construction of a complete solar P/V system for the new Water Quality Laboratory Project No. EN15008. The P/V Contractor shall perform the necessary tasks to successfully complete this project, including but not limited to the following:

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1. Review pertinent Laboratory design submittals and the electrical design calculations as necessary to complete a comprehensive solar P/V system design.
2. Perform any needed investigations and site inspection to complete the design.
3. Interact and coordinate with the design consultant and the general contractor, to integrate the solar P/V design and installation into the laboratory facility without any conflicts.
4. Design services and submittals as specified below and in subsequent sections in this document.
5. Provide a comprehensive roof mounted solar P/V system design and installation that meets all applicable codes and regulations. All electrical, mechanical and structural work shall be part of the solar system design and installation.
6. Provide a workshop for the 50% and 100% design submittal.
7. Provide a financial and system overview. The overview shall include, but not limited to the following:
 - a. System Cost – The total cost summary of the system including any incentives which the Agency qualifies to receive.
 - b. System Overview – A detailed breakdown of the system
 - i. Energy Generation
 - ii. System Size
 - iii. Number of Solar Panels
 - iv. Type of solar panels
 - v. Rooftop Area Covered (SF)
 - vi. Solar Panel Size
 - vii. P/V System Details
 - viii. Warranty Summary
 1. Comprehensive System Warranty
 2. Module Warranty
 3. Inverter Warranty
 4. Mounting Warranty
 - c. Assumptions – Any financial assumptions utilized in the financial overview
 - d. System Payback – Summary of estimated financial payback to the Agency from the solar P/V system
 - e. Cashflow Statement – A detailed breakdown of cashflow for 30 years
 - i. Cost savings and revenue
 - ii. Operating Expenses
 - f. Environmental Benefits – Summary of element amounts being removed by the solar P/V System
8. All equipment, materials, labor, work-site safety measures, and waste removal.
9. Securing all building permits and managing inspections.
10. Manage all aspects of interconnection and commissioning.
 - a. Complete the interconnection application.
 - b. Supply all required documentation and stamped drawings.
 - c. Collaborate with Southern California Edison (SCE) on the location of the AC Disconnect (AC Disconnect location has been placed outside of the electrical room for emergency access by SCE).
 - d. Coordinate witness tests as required.
 - e. Work with SCE and the Agency to verify that the interconnection agreement has been completed, approved, and documented.
 - f. All inspection and testing for final commissioning.
11. Installation and maintenance of a performance monitoring system.
12. Control system (PLC) with remote communication with SCE (telemetry) via the Agency SCADA system.

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13. Training for Agency personnel on the maintenance of the system, safety, and use of the performance monitoring system.
14. Project management throughout the duration of the project which includes periodic updates to all stakeholders.
15. Proposed project schedule with the understanding of the overall building construction duration.
16. Compiling a complete O&M Manual of the roof mounted solar P/V system and associated electrical components.

The PV Contractor shall provide all necessary consulting engineering services for design, procurement, construction, post construction services, commissioning, startup and testing services for a complete and operable roof mounted solar P/V system for the Water Quality Laboratory.

Additionally, the Scope of Work requirements below apply to the roof mounted solar P/V system for the Water Quality Laboratory.

2D AutoCAD drawings shall be required and provided to show the routing and location in space of all the runs throughout the entire design. All drawings must be clear and legible, printed on half size (11"x17"). The 2D AutoCAD drawings electronic source file shall be provided to the Agency after completion of the design and construction.

Equipment and Instrument Tag Numbers – The Consultant shall utilize equipment and instrument tag numbering formats provided by the Agency as illustrated in Attachment M. The standard tag numbering system shall be implemented throughout the design phase and will be reviewed by the Agency for compliance.

A Lump Sum fee proposal for the above scope of work shall be included in the proposal. All sub-consultant fees shall be shown and included in the total proposal fee breakdown. The lump sum proposal cost shall be inclusive of all systems components (structural, mechanical, electrical, controls, communications, etc.) and engineering services to deliver a complete and operable solar system. After award, the solar system contractor shall provide a schedule of values showing a complete and detailed breakdown of all system components pricing and costs.

The construction phase of the new Water Quality Laboratory is expected to commence in late May 2016. However, there will be a period of submittals/shop drawings review and approval process along with workshops conducted for several areas prior to mobilizing and breaking ground. Construction duration is estimated at between 24 and 27 months. The consultant shall take into account, when creating their proposal, that the installation of the roof mounted solar P/V system could possibly occur during the first half of 2018. Escalation cost estimates of material, labor, equipment and etc. shall be incorporated into the proposal due to the anticipated delayed start of the roof mounted solar P/V system construction.

The PV Contractor shall provide the engineering, procurement and construction services discussed and specified under this section and other sections such as Project Background, Project Description, and other requirements specified throughout the document including, but not limited to, the following:

1. KICKOFF MEETING

Prior to proceeding with the design of the project, the Contractor shall review all necessary documents and shall attend a kickoff meeting to receive the Agency's input and directions, introduce the project team, and discuss project approach and schedule. Following the kickoff meeting, the Contractor shall submit a technical memorandum detailing the overall project description, design

SECTION 3 - TECHNICAL PROVISIONS

criteria, equipment specifications, implementation, schedule, interconnection agreements, permitting, system control and operations, and any other necessary information that will help the Agency understand how the system will performing when completed.

2. 50% DESIGN

The Contractor shall prepare and submit a 50% design review package shall include the following:

- a. 2D AutoCAD drawings shall be required and provided to show the routing and location in space of all the electrical runs, structural support, solar panel layout, electrical equipment (inverters, circuit breakers, switches, controls, etc.) layout and locations. All drawings must be clear and legible, printed at half size (11"x17"). The 2D AutoCAD drawings electronic source file shall be provided to the Agency after completion of the design.
- b. The Consultant shall submit a 50% design review package, with the following contents:
 - Drawings – 50% Complete – Electronic copy via CIPO**
 - Solar P/V System Diagrams using
 - Structural plans
 - Electrical plans
 - Mechanical plans
 - List of all cities, agencies and/or individuals involved with each permit, including contacts, addresses, telephone numbers, requirements, and a schedule for obtaining each permit.
 - Technical Specifications – 50% complete
 - Calculations - Include all calculations (structural, solar panels and supports weights, electrical, etc.) on the building frame and of the solar system
 - CIPO** - Capital Improvement Program Office software

3. 100% DESIGN

The Contractor shall submit a review package upon 100% completion of design. The package shall include, but not limited to the following:

- a. 2D AutoCAD drawings shall be required and provided to show the routing and location in space of all the electrical runs, structural support, solar panel layout, electrical equipment (inverters, circuit breakers, switches, controls, etc.) layout and locations. All drawings must be clear and legible, printed at half size (11"x17"). The 2D AutoCAD drawings electronic source file shall be provided to the Agency after completion of the design.
- b. The Contractor shall submit a 100% design review package, with the following contents:
 - Drawings – 100% Complete – Electronic copy via CIPO
 - Solar P/V System Diagrams using
 - Structural plans

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- Electrical plans
 - Mechanical plans
 - List of all cities, agencies and/or individuals involved with each permit, including contacts, addresses, telephone numbers, requirements, and a schedule for obtaining each permit.
 - Technical Specifications – 100% complete.
 - Calculations - Include all calculations (structural, structural, solar panels and supports weights, electrical, etc.) on the building frame and of the solar system
- c. Required Permits -As a part of the final design phase, the Contractor shall obtain all permits required to construct the project and their implementing conditions shall be placed in the plans and specifications. All required permits shall be addressed in the specifications.

The Contractor shall attend a progress review meeting with the Agency staff to review the final design. Upon resolution of Agency comments, the Contractor shall submit to the Agency the final plans and specifications via CIPO for record. Electronic copies including source AutoCAD files on CDs shall also be provided to the Agency.

4. PROCUREMENT

The Contractor shall procure the necessary equipment and materials needed to furnish and install a complete and functional roof mounted solar P/V system. This shall include but not limited to:

- a. Solar Modules
- b. Roof mounting system
- c. Electrical inverter
- d. Monitoring system (power meter, SCADA interface, telemetry, etc.)
- e. System control
- f. AC Disconnect
- g. Conduit, cables, breakers, etc.
- h. Any other equipment needed for a fully functional solar P/V system

All activities within the procurement stage shall be included in the overall proposed project schedule in conjunction with the other project phases.

5. SERVICES DURING CONSTRUCTION

The Contractor shall procure and install the specified system components and perform commissioning and testing as specified in this document. The construction duration shall meet the specified project schedule. During construction, the Contractor's services shall include, but are not limited to, the following:

- a. Set up and conduct, in person as required, pre-construction conference and weekly Construction Progress Meetings. The Contractor shall prepare and provide electronic and hardcopies of the agendas, 2-week look-ahead schedules, log of submittals, Request for Information (RFIs), Request for Deviation (RFDs), etc. needed to conduct the meeting. The progress meetings are to take place at the construction site or Agency Headquarters and

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including walking the job site to review progress and quality of the project - Call-in attendance is not permitted for the Construction Progress Meetings unless allowed by the Agency's Construction Project Manager where physical meeting are required to discuss field issues. As required, the Contractor's Project Engineer and Construction Project Manager will be required to spend additional time on meeting days walking the job site weekly with the Agency's Construction Project Manager to discuss important areas and items, and to inspect issues arising. Personnel of particular discipline expertise should attend as schedule of work indicates or as requested by the Agency's Construction Project Manager.

During the weekly Construction Progress Meetings, the Contractor is required to verify weekly construction schedules versus progress made in the field, and report on findings.

- b. Prepare and submit shop and fabrication drawings for Agency review and approval.
- c. Prepare and submit schedule of values at the Preconstruction Meeting.
- d. Maintain up to date project construction schedule.
- e. Respond to Job-Site Questions from Construction Project Manager.
- f. Continued use of the Agency's Capital Improvement Program Office (CIPO) software is required throughout the project.
- g. Discuss items by phone with Construction Project Manager to answer questions, concerns, or develop needed course of action on complex items. Provide written discussion of items and questions as requested by Construction Project Manager.
- h. Prepare and deliver Operations and Maintenance Manuals.
- i. During the course of construction, the Contractor shall keep a final design set of plans marked to show changes reflected in addendums, RFIs, shop drawings and change orders. This marked up set shall be used by the Contractor to produce the as-built drawings upon completion of the project.
- j. Provide a minimum of (1) 4-hour training session with 4-6 Agency staff on overall operation and maintenance of the equipment. Contractor shall provide equipment specified training for the production of training videos. Contractor will be videotaped narrating processes implemented within the scope of this work.

D. SUBMITTALS

1. REQUIRED SUBMITTALS

- a. The Contractor shall submit all system equipment and component shop drawings for review and approval by the Agency prior to proceeding with the system design.
- b. The Contractor shall submit complete operation and maintenance manuals for review and approval by the Agency.
- c. The Contractor shall submit "as-built" versions of all contract plans and all drawings submitted as part of the project. This shall include original tracings and electronic files.

2. DESIGN SUBMITTALS

During the design, the Contractor shall keep the Agency informed of the basic design decisions as they are made and shall seek the Agency's input. The Contractor shall document all design decisions in the design drawings. Design submittal shall be as described in the sections above.

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3. SHOP DRAWING SUBMITTAL

(1) SHOP DRAWING SUBMITTAL DURING CONSTRUCTION

The Contractor shall furnish an electronic copy of each shop drawing. The term "shop drawing" as used herein shall be understood to include detail design, materials, performance, calculations, fabrication, and installation drawings, lists, graphs, operating instructions, etc. Unless otherwise required, said drawings shall be submitted at a time sufficiently early to allow review of same by the Engineer, and to accommodate the rate of construction progress required under the Contract. Electronic copies of shop drawings shall be provided through the Agency's Capital Improvement Program Office (CIPO) software. Contractor will receive training from the Agency as how to use CIPO.

Before submittal of each Shop Drawing or Sample, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the work in the RFP.

- (2) **SHOP DRAWINGS/SUBMITTALS:** All materials must conform to the specifications and guidelines given within these documents. Detailed specifications shall be produced by the Design-Build Contractor and approved by the Agency. As a minimum, submittals shall be required for the following items:

Item	DESCRIPTION
1.	Shop drawings <ul style="list-style-type: none">• Solar panels (type, material, data, performance, manufacturer, etc.)• Inverters• Conduit and cables• Electrical components• Lightning protection• Controls and monitoring• PLCs• Steel supports• Misc. hardware• Roof finishes, patching, etc.• Grout and concrete
2.	Schedule of Values
3.	SRF Loan/Grant compliance, Buy-American documentation, certificates
4.	Protective Coating (as applicable)
5.	Shutdown/Tie-in Request
6.	O&M Manuals
7.	As-built drawings
8.	Training

SECTION 3 - TECHNICAL PROVISIONS

- E. **ORDER OF PRECEDENCE:** Replace Section 2-5.2 Precedence of the Contract Documents, of the Standard Specifications for Public Works Construction (SSPWC), to include the following: If there is a conflict between any of the Contract Documents, the document with the highest order (1 being highest) in precedence shall control. The order shall be as follows:
1. Change Orders/Task Orders
 2. Permits issued by the jurisdictional regulatory agencies
 3. Amendments to the Master Services Contract
 4. Contractors with Agreements with IEUA for Minor Construction, Maintenance and Emergency Construction Services the Agreement takes precedence above the below items
 5. Amendments/Clarifications to this Contract
 6. This Contract/Agreement
 7. The Bid/Proposal for this Contract
 8. Request for Deviation
 9. Technical Specifications
 10. 2009 Edition of the Standard Specifications for Public Works Construction (SSPWC)-Green Book or most recent addition
 11. Plans
 12. Photos
- F. **CONTRACTORS RESPONSIBILITY:** All quantities **shall** be verified based on field measurements and/or Water Quality Laboratory design and construction drawings review by the Contractor before bidding and prior to fabrication.
- G. **SERVICES FURNISHED TO THE CONTRACTOR:** The Agency will provide the following services to the Contractor:
- a. Material testing for the specification compliance
 - b. Survey work required for execution of the project
 - c. Compaction testing for specification compliance, and
 - d. A web-based document tracking system, named Capital Improvement Program Office (CIPO). IEUA shall provide sufficient training to Contractor designated staff to use the system. Contractor shall use CIPO to document and record all contract correspondence including but not limited to: letters, Field Memorandums (FM), Request for Deviation (RFD), Request for Proposals (RFP), Advisory Notices (AN), Non-Compliance Reports (NCR), Shutdown Requests (SR), Request for Information (RFI), Shop Drawing Submittals, Change Orders (CO), Progress Payments (PP). Contractor's use of CIPO is mandatory throughout entire term of contract.
 - e. To access CIPO, Contractor will require at their expense,
 - a. A workstation supporting a web browser which must be one of: (A) Microsoft Internet Explorer® 7 or later, (B) Mozilla Firefox® 3.0 (C) Google Chrome 2.0 or (D) Apple Safari 3.0 of later:
 - b. A broadband internet connection with sufficient bandwidth and quality to allow trouble-free browsing and data uploading and downloading:
 - c. A workstation based, commercially available and proven anti-virus program.

SECTION 3 - TECHNICAL PROVISIONS

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SECTION 4 - FORMS

PROPOSAL PRICE SCHEDULE

Contractor shall complete this Proposal Price Schedule and return it with their submittal. All proposed prices shall include **all** labor, equipment, materials, transportation, overhead, travel, profit, insurance, bonds, sales and other taxes, licenses, incidentals, and all other related costs necessary to meet the work requirements. At any time, the Agency will require that these cost components be itemized and disclosed. Contractor shall hold their proposed prices firm, fixed and valid for acceptance through for one hundred twenty (120) calendar days from the date of submitting the proposal.

Proposed Total Lump Sum Price: \$ _____

Proposed Total Lump Sum Price (in words):

Contractor's Signature

Company Name

Print Name

Business License Number

Title

Date

SECTION 4 - FORMS

CONTRACTOR'S IDENTIFICATION

1. Legal name of Contractor: _____
 2. Street Address: _____
 3. Mailing Address: _____
 4. Business Telephone: _____
 5. Facsimile Telephone: _____
 6. Email Address: _____
 7. Type of Business: Sole Proprietor Partnership Corporation
 Other: _____
- If corporation, indicate State where incorporated: _____
8. Business License number issued by the City where the Contractor's principal place of business is located.
 Number: _____ Issuing City: _____
 9. Federal Tax Identification Number: _____
 10. Contractor's Project Manager: _____

SECTION 4 - FORMS

SUBCONTRACTORS

List any subcontractors who may provide services in support of this project.

<u>COMPANY</u>	<u>ADDRESS</u>	<u>LICENSE #</u>	<u>TRADE</u>

REFERENCES

Provide at least five (5) references for which similar products/services have been provided within the last ten (10) years.

<u>COMPANY</u>	<u>CONTACT PERSON</u>	<u>CITY</u>	<u>PHONE NUMBER</u>

SECTION 4 - FORMS

WORKERS' COMPENSATION CERTIFICATE

The Contractor shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my firm, I will comply with such provisions before commencing the performance of the services of any contract entered into.

Signature

Company Name

Printed Name

Business License Number

Title

Date

SECTION 4 - FORMS

**NON-COLLUSION AFFIDAVIT
(Per Public Contract Code Section 7106)**

State of California)
County of _____) ss.

_____, being first duly sworn, deposes and says

that he or she is _____, of _____ ("Contractor") the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the Contractor has not directly or indirectly solicited any other Contractor to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Contractors or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the Contractor has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal fee of the Contractor or any other Contractor, or to fix any overhead, profit, or cost element of the proposal fee, or of that of any other Contractor, or to secure any advantage against the public body making the award of anyone interested in the proposed award; that all statements contained in the proposal are true; and, further, that the Contractor has not, directly or indirectly, submitted his or her proposal fee or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature Company Name

Printed Name Title

SUBSCRIBED AND SWORN TO BEFORE ME

This _____ day of _____, 20_____.

Notary Public (Seal)

SECTION 4 - FORMS

EXCEPTION FORM

Should Contractor take exception to **ANY** of the terms and conditions or other contents provided in the "Request for Proposal" - list the exceptions below. **THIS COMPLETED FORM MUST BE RETURNED WITH YOUR PROPOSAL.** If no exception(s) are taken, enter "**NONE**" for the first item. *(Make additional copies of this form as necessary)*

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

**ATTACHMENT A
SAMPLE CONTRACT**



ATTACHMENT A

SAMPLE CONTRACT

FOR

XX

THIS CONTRACT (the "Contract"), is made and entered into this ____ day of _____, 20XX, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to as "Agency"), and (COMPANY NAME), of (CITY), (STATE) (hereinafter referred to as "Contractor"), for (PROJECT DESCRIPTION).

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. **PROJECT MANAGER ASSIGNMENT:** All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: (NAME)
Address: (ADDRESS)
(CITY), (STATE) (ZIP)

Telephone: (AREA CODE) (TELEPHONE), Extension (NO.)
Facsimile: (AREA CODE) (FACSIMILE)

2. **CONTRACTOR ASSIGNMENT:** Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Contractor: (NAME)
Address: (ADDRESS)
(CITY, STATE, ZIP)

Telephone: (AREA CODE) (NUMBER), Extension (NO.)
Facsimile: (AREA CODE) (NUMBER)

3. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents; each of which is hereby incorporated as an integral part of this Contract. Where any conflicts exist between the General Terms and Conditions, or addenda attached, then the governing order of precedence shall be as follows:

1. Amendments to Contract number (NO.).
2. Contract Number (NO.) General Terms and Conditions.

3. Agency Request for Proposal Number (NO.).
4. Contractor's Proposal, dated (DATE).

4. **SCOPE OF WORK AND SERVICES:** Contractor services and responsibilities shall include and be in accordance with the Agency's Request for Proposal dated (date) .
5. **TERM:** The term of this Contract shall extend from the date of the Notice to Proceed, and terminate upon completion of the Project or (date) , whichever occurs first, unless agreed to by both parties, reduced to writing, and incorporated as an amendment to this Contract.
6. **PAYMENT, INVOICING AND COMPENSATION:** The Contractor may submit an invoice not more than once per month during the term of this Contract. *(alternative language for firm fixed price / lump sum contracts)* The Contractor shall submit one lump sum invoice, valued at the total firm fixed price established for this Contract, upon completion of all required work / services and submittal of all required deliverables. Agency shall pay Contractor's properly executed invoice, approved by the Project Manager, within thirty (30) days following receipt of the invoice. The Agency may take a % discount to each Contractor invoice were payment is issued (defined as by the date of post-mark by U.S. Mail or private carrier service) within calendar days subsequent to the date of Agency's receipt of invoice. Payment will be withheld for any service which does not meet the requirements of this Contract, until such service is revised, the invoice resubmitted and accepted by the Project Manager.

All invoices shall be formulated consistent with the rates proposed within the Contractor's accepted proposal, dated XXXXXX XX, 20XX.

Contractor shall provide with their invoice certified payroll verifying that Contractor has paid prevailing wage in accordance with the Department of Industrial Relations requirements. *(Include with Public Works contracts > \$1,000.00 price).*

(Sample language for milestone payment contracts)

The milestone payment / invoicing schedule for this Contract shall be as follows:

- | | |
|-------------|---|
| \$ XXXXXXXX | Upon Contract execution |
| \$ XXXXXXXX | Upon delivery of <u>all</u> required equipment to the job-site |
| \$ XXXXXXXX | Upon completion of installation and successful start-up of both boilers |

Contractor's invoices shall be submitted electronically with all required back-up to apgroup@ieua.org.

Concurrent with submittal of each original invoice to the Agency's Accounts Payable Department, the Contractor shall forward (fax?) a copy of said invoice to the Agency's designated Project Manager identified on page 1 of this Contract.

As compensation for the work performed under this Contract, Agency shall pay Contractor, **on a firm fixed price ... alternatively (fixed price level-of-effort or time and materials)** basis, a total price *not-to-exceed* \$ XXXXXXX for all work/ services/products satisfactorily provided hereunder.

7. **LIQUIDATED DAMAGES:** Liquidated damages, in the amount of \$2,000 (to be determined and/or negotiated) per calendar day, shall apply for each full day that the Contractor's completion of the project is delinquent to (date). Any and all liquidated damages shall be paid by the Contractor, or at the Agency's discretion, credited towards payment for the project. Contractor's acceptance of an award resulting from this Request for Proposal indicates the Contractor's acceptance of this liquidated damages provision and the daily amount expressed herein.
8. **CONTROL OF THE WORK:** Contractor shall perform the Work in compliance with the Work Schedule established by the Agency's Project Manager. If performance of the Work falls behind schedule, the Contractor shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Contractor is unable to accelerate the Work, Contractor shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule.
9. **FITNESS FOR DUTY:**
 - A. **Fitness:** Contractor and its Subcontractor personnel on the Jobsite:
 1. shall report for work in a manner fit to do their job;
 2. shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
 3. shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
 - B. **Inspection:** Searches by Agency authorized personnel may be made of lockers, storage areas, vehicles, persons or personal effects on Agency-owned, or leased property at various times without prior announcement. Such facility inspections may be conducted using detection dog teams to search work areas and other common areas in order to detect evidence of unlawful drug use or the presence of pyrotechnics, explosives, firearms, weapons, or facsimiles thereof, alcoholic beverages and illegal drugs ("Prohibited Items"). Prohibited Items must not be brought onto, or kept on, Agency property.
 - C. **Compliance:** Contractor shall advise all contractor and subcontractor personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Contractor shall impose these requirements on its Subcontractors. Agency may cancel the Contract if Contractor violates these Fitness for Duty Requirements.
10. **INSURANCE:** During the term of this Contract, the Contractor shall maintain at Contractor's sole expense, the following insurance.
 - A. **Minimum Scope of Insurance:**
 1. **General Liability:** \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. Coverage shall be at least as broad as Insurance Services Office form number GL 0001-87 covering Comprehensive General Liability. If Commercial General Liability Insurance or other form with a general aggregate limit is used,

either the general aggregate limit shall apply separately to this project/location, or the general aggregate limit shall be twice the required occurrence limit.

2. **Automobile Liability:** \$300,000 combined single limit per accident for bodily injury and property damage. Coverage shall be at least as broad as Insurance Services Office form number CA 00 01 87, covering Automobile Liability, including "any auto."
 3. **Workers' Compensation and Employers Liability:** Workers' compensation limits as required by the Labor Code of the State of California and employers Liability limits of \$1,000,000 per accident.
 4. **Builders Risk completed value (course of construction) fire insurance with extended coverage and a vandalism and malicious endorsement.** The policy shall cover the full value of all completed construction, which includes all material and labor invested in the construction and the full value of all equipment and material at the job site. Said policy shall remain in effect until acceptance of the work by the Agency.
- B. **Deductibles and Self-Insured Retention:** Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
- C. **Other Insurance Provisions:** The policies are to contain, or be endorsed to contain, the following provisions:
1. **General Liability and Automobile Liability Coverage**
 - a. The Agency, its officers, officials, employees and volunteers are to be covered as insureds, endorsements GL 20 11 07 66, CG2010 1185 and/or CA 20 01 (Ed. 0178), as respects: liability arising out of activities performed by or on behalf of the Contractor, products and completed operations of the Contractor, premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the Agency, its officers, officials, employees or volunteers.
 - b. The Contractor's insurance coverage shall be primary insurance as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
 - c. **Builders Risk Insurance (Course of Construction):** The Agency is to be named as the loss payee.
 - d. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees or volunteers.
 - e. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

- f. The Contractor may satisfy the limit requirements in a single policy or multiple policies. Any Such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.
- 2. **Workers' Compensation and Employers Liability Coverage**

The insurer shall agree to waive all rights of subrogation against the Agency, its officers, officials, employees and volunteers for losses arising from work performed by the Contractor for the Agency.
- 3. **All Coverages**

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Agency.
- D. **Acceptability of Insurers:** All insurance is to be placed with insurers with a Best's rating of no less than A minus:VII, and who are admitted insurers in the State of California.
- E. **Verification of Coverage:** Contractor shall furnish the Agency with certificates of insurance and with original endorsements effecting coverage required by the Agency for themselves and all subcontractors prior to commencing work or allowing any subcontractor to commence work under any subcontract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be approved by the Agency before work commences. The Agency reserves the right to require complete, certified copies of all required insurance policies, at any time.
- F. **Submittal of Certificates:** Contractor shall submit all required certificates and endorsements to the following:
 - Attention: Manager of Safety and Risk Manager
 - Inland Empire Utilities Agency
 - P.O. Box 9020
 - Chino Hills, California 91709

11. LEGAL RELATIONS AND RESPONSIBILITIES

- A. **Professional Responsibility:** The Contractor shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. **Status of Contractor:** The Contractor is retained as an independent Contractor only, for the sole purpose of rendering the services described herein, and is not an employee of the Agency.
- C. **Observing Laws and Ordinances:** The Contractor shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, the Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor or its employees.

- D. **Subcontract Services:** Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager.
- E. **Hours of Labor:** The Contractor shall comply with all applicable provisions of California Labor Code Sections 1810 to 1817 relating to working hours. The Contractor shall, as a penalty to the Agency, forfeit \$25.00 for each worker employed in the execution of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code.
- F. **Travel and Subsistence Pay:** The Contractor shall make payment to each worker for travel and subsistence payments which are needed to execute the work and/or service, as such travel and subsistence payments are defined in the applicable collective bargaining agreements with the worker.
- G. **Liens:** Contractor shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Contractor on account of said services to be rendered or said materials to be furnished under this Contract and that may be secured by any lien against the Agency. Contractor shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- H. **Conflict of Interest:** No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- I. **Equal Opportunity and Unlawful Discrimination:** During the performance of this Contract, the Contractor shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin. The Agency is committed to creating and maintaining an environment free from harassment and discrimination. To accomplish these goals the Agency has established procedures regarding the implementation and enforcement of the Agency's Harassment Prohibition and Equal Employment Opportunity commitments. Please refer to Agency Policies A-29 (Equal Employment Opportunity) and A-30 Harassment Prohibition for detailed information or contact the Agency's Human Resources Administrator. A copy of either of these Policies can be obtained by contacting the Project Manager for your respective Contract. Please advise any of your staff that believes they might have been harassed or discriminated against while on Agency property, to report said possible incident to either the Project Manager, or the Agency's Human Resources Administrator. Please be assured that any possible infraction will be thoroughly investigated by the Agency.
- J. **Non-Conforming Work and Warranty:** Contractor represents and warrants that the Work and Documentation shall be adequate to serve the purposes described in the Contract. For a period of not less than one (1) year after acceptance of the completed Work, Contractor shall, at no additional cost to Agency, correct any and all errors in and shortcomings of the Work or Documentation, regardless of whether any such errors or shortcoming is brought to the attention of Contractor by Agency, or any other person or entity. Contractor shall within three (3) calendar days, correct any error or shortcoming that renders the Work or Documentation unusable and shall correct other errors within thirty (30) calendar days after Contractor's receipt of notice of the error. Upon request of Agency, Contractor shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar

days after Contractor's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Contractor shall notify the Project Manager, in writing, detailing the dispute and reason for the Contractor's position. Any dispute that cannot be resolved between the Project Manager and Contractor shall be resolved in accordance with the provisions of this Contract.

K. Disputes:

1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. The Contractor shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract, which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et. seq, or their successor.
2. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Contractor shall comply, pursuant to the Agency Project Manager instructions. If the Contractor is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Contractor to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Contractor's written protests to the General Manager, together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The General Manager shall make his or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Contractor is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.
3. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
 - a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Contractor to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Contractor are acceptable and, if so, such person will be designated as Arbitrator.
 - b. In the event that none of the names submitted by Contractor are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Contractor a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Contractor shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
 - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reason-

able attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et. seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.

4. **Joinder in Mediation/Arbitration:** The Agency may join the Contractor in mediation or arbitration commenced by a contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Contractor.
- L. **Workers' Legal Status:** For performance against this Contract, Contractor shall only utilize employees and/or subcontractors that are authorized to work in the United States pursuant to the Immigration Reform and Control Act of 1986.
- M. **Prevailing Wage Requirements:** Pursuant to Section 1770 and following, of the California Labor Code, the Contractor shall not pay less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations for the locality in which the work is to be performed and for each craft or type of worker needed to execute the work contemplated under the Contract. The Contractor or any subcontractor performing part of said work shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, work days, nondiscrimination, apprentices, maintenance and availability of accurate payroll records and any other matters required under all Federal, State and local laws related to labor.

SB854 Requirements:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
 - No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
 - This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
12. **INDEMNIFICATION:** Contractor or Contractor shall indemnify and hold harmless and defend as permitted by law, the Agency, its directors, officers, employees, or authorized volunteers, each of them from and against:
 - A. Any and all claims, demands, causes of action, damages, costs, expenses, losses or liabilities, in law or in equity, of every kind or nature whatsoever for, but not limited to, injury to or death of any person including Agency and/or Contractor, or any directors, officers, employees, or authorized volunteers of Agency or Contractor, and damages to or destruction of property of any person, including but not limited to, Agency and/or Contractor or their directors, officers, employees, or authorized volunteers, arising out of or in any manner directly or indirectly connected with the work to be performed under this agreement, however caused, except for the sole negligence or willful misconduct or active negligence of the Agency or its directors, officers, employees, or authorized volunteers;

- B. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, or every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of the Contractor;
- C. Any and all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respects to the failure, neglect, or refusal of Contractor to faithfully perform the work and all of the Contractor's obligations under the agreement. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

13. OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY: The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Contractor and/or the Contractor's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Contractor shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Contractor agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.

14. TITLE AND RISK OF LOSS:

- A. Documentation: Title to the Documentation shall pass to Agency when prepared; however, a copy may be retained by Contractor for its records and internal use. Contractor shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the Project.
- B. Material: Title to all Material, equipment, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Contractor shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
- C. Disposition: Contractor shall dispose of items to which Agency has title as directed in writing by the Agency.

15. PROPRIETARY RIGHTS:

- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Contractor in the performance of the Work, shall be governed by the following provisions:
 - 1. Proprietary Rights conceived, developed, or reduced to practice by Contractor in the performance of the Work shall be the property of Agency, and Contractor shall cooperate with all appropriate requests to assign and transfer same to Agency.
 - 2. If Proprietary Rights conceived, developed, or reduced to practice by Contractor prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Contractor shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use,

modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.

3. If the Work or Documentation includes the Proprietary Rights of others, Contractor shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Contractor of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Contractor in complying with this Contract.

16. INFRINGEMENT: Contractor represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trade mark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Contractor shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses arising out of any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Contractor shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

17. NOTICES: Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren Green
Manager of Contracts & Procurement
Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, California 91709

Contractor: (CONTRACTOR'S REPRESENTATIVE)
(COMPANY NAME)
(ADDRESS)
(CITY, STATE, ZIP)

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

18. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Contractor, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Contractor under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of the Agency shall be null, void and of no legal effect whatsoever.
19. **PUBLIC RECORDS POLICY:** Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Contractor of any requests for disclosure of any documents pertaining to Contractor.

In the event of litigation concerning disclosure of information Contractor considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Contractor has marked "Confidential," "Proprietary," or "Trade Secret," Contractor shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

20. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Contractor's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Contractor. The Contractor shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.
21. **INTEGRATION:** The Contract Documents represent the entire Contract of the Agency and the Contractor as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by the Agency and the Contractor.
22. **GOVERNING LAW:** This Contract is to be governed by and constructed in accordance with the laws of the State of California.
23. **TERMINATION FOR CONVENIENCE:** The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Contractor. In the event of such termination, the Agency shall pay Contractor for all authorized and Contractor-invoiced services up to the date of such termination.
24. **FORCE MAJEURE:** Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, etcetera.
25. **CHANGES:** The Agency may, at any time, make changes to this Contract's Scope of Work; including additions, reductions and other alterations to any or all of the work. However, such changes shall only be made via written amendment to this Contract. The Contract Price and Work Schedule shall be equitably adjusted, if required, to account for such changes and shall be set forth within the Contract Amendment.
26. **NOTICE TO PROCEED:** No services shall be performed or furnished under this Contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Contractor.

IN WITNESS WHEREOF, the parties hereto have caused the Contract to be entered as of the day and year written above.

INLAND EMPIRE UTILITIES AGENCY:

(COMPANY NAME):

P Joseph Grindstaff
General Manager

(Date)

(AUTH. REP.)
(TITLE)

(Date)

**ATTACHMENT B
BONDING REQUIREMENTS**

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, THAT, WHEREAS, the Inland Empire Utilities Agency, a Municipal Water District, hereinafter designated as the "Agency," has, on 20____, awarded to _____, hereinafter designated as the "Principal," the Contract for the construction of:

Design/Build Services for the Water Quality Laboratory Rooftop Solar Photovoltaic System

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract:

NOW, THEREFORE, WE, the Principal, and _____, as Surety, are held and firmly bound unto the Agency the penal sum of the total lump sum bid price lawful money of the United States, for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and will and truly keep and faithfully perform the covenants, conditions, and agreements in the said Contract and any alterations made as therein provided, on its or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless, Agency and engineer, their officers, agents, and employees as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue and Principal and Surety, in the event suit is brought on this bond, will pay to Agency such reasonable attorney's fees as shall be fixed by the court.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation in the said amount shall hold good for a period of one (1) year after the completion and acceptance of said Contract, during which time if the above bounden Principal, its heirs, executors, administrators, successors, or assigns shall fail to make full, complete, and satisfactory repair and replacements or totally protect said Agency from loss or damage made evident during said period of one year from the date of acceptance of the work under said Contract, and resulting from or caused by defective materials or faulty workmanship in the execution of the work done, the above obligation in the said amount shall remain in full force and effect. However, anything in this paragraph to the contrary notwithstanding, the obligation of the Surety hereunder shall continue so long as any obligation of the Principal remains.

Bond Number

SECOND PAGE OF PERFORMANCE BOND

Said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed there under or the specifications accompanying the same shall, in any way, affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications. Said Surety hereby waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

As a part of the obligation secured hereby and in addition to the amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by Agency in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal (print name)

Signature for Principal

(Corporate Seal)

THIRD PAGE OF PERFORMANCE BOND

Surety (print name)

Signature for Surety

(Surety Seal)

Surety address

**ATTACH POWER-OF-ATTORNEY AND NOTARIAL ACKNOWLEDGEMENT
OF SURETY BELOW**

BIDDER'S BOND (Ten (10) Percent of the Total Bid)

Bond Number

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____, as Principal

and _____, as Surety

are held and firmly bound unto the Inland Empire Utilities Agency, a Municipal Water District hereinafter designated as the "Agency", in the sum of dollars, (not less than ten (10) percent of the total amount of the bid) for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a bid to said Agency to perform all work required under the bidding schedule(s) titled:

NOW, THEREFORE, if said Principal is awarded the Contract by said Agency and within the time and in the manner required under the Instructions to Bidders (Section I) bound with said specifications, enters into a written agreement and fully executes the Contract bound with said specifications and furnishes the required bonds and verification of insurance, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event a suit is brought upon this bond by said Agency and judgment is recovered, said Surety shall pay all costs incurred by said Agency in such suit, including a reasonable attorney's fee to be fixed by the Court.

SIGNED AND SEALED, this ___ day of _____, 20___

Principal (print name)

By: _____
Signature

(Corporate Seal)

Continued on page 2

Bond Number

SECOND PAGE OF BID BOND

Bidding Schedule(s) titled:

Surety agent (print name)

By: _____ (Surety Seal)
Signature

Surety address

Bond Number _____

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, THAT, WHEREAS, the Inland Empire Utilities Agency, hereinafter designated as the "Agency", has, on _____, 20____, awarded to

_____, hereinafter designated as the "Principal," a Contract for the construction of:

Design/Build Services for the Water Quality Laboratory Rooftop Solar Photovoltaic System

WHEREAS, said Principal is required under the terms of said Contract to furnish a payment bond providing that if said Principal, or any of their subcontractors, shall fail to pay for any materials, provisions, or other supplies used in, upon, for, or about the performance of the work under said Contract, or for any work or labor done thereon of any kind, the Surety of this bond will pay the same to the extent hereinafter set forth:

NOW, THEREFORE, WE, the Principal, and _____, as Surety, are held and firmly bound unto the Agency the penal sum of the total lump sum of bid price lawful money of the United States, for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, or its heirs, executors, administrators, successors, or assigns, shall fail to pay any person specified in California Civil Code Section 3181, or for any materials, provisions, or other supplies used in, upon, for, or about the performance of the work under said Contract, or for any work or labor thereon of any kind or for amount due under the Unemployment Insurance Code with respect to work or labor performed under said Contract, or for any amounts due, or to be withheld pursuant to Sections 18806 of the Revenue and Taxation Code of the State of California, or with respect to any work or labor for which a bond is required by the provisions of Sections 3247 through 3252 of the California Civil Code, and provided that the persons, companies, or corporations so furnishing said materials, provisions, or other supplies, appliances, or power use, in, upon, for, or about the performance of the work under said Contract, or any person who performs work or labor upon same, or any person who supplies both work and materials, thereto, shall have complied with the provisions of said Civil Code, then said surety will pay the same in or to an amount not exceeding the amount herein before set forth, and also will pay in case suit is brought upon this bond, such reasonable attorney's fees to Agency as shall be fixed by the court.

Bond Number

SECOND PAGE OF PAYMENT BOND

This bond shall inure to the benefit of Agency and any and all persons, companies, and corporations and their respective assigns entitled to file claims under applicable State law, including but not limited to, California Civil Code Section 3181, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of said Contract or to the work to be performed there under or the specifications accompanying the same shall, in any way, affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications. Said Surety hereby waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

As a part of the obligation secured hereby and in addition to the amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by Agency in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this _____ day _____ of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal (print name)

Signature for Principal

(Corporate Seal)

Bond Number

THIRD PAGE OF PAYMENT BOND

Surety (print name)

Signature for Surety

(Surety Seal)

Surety address

**ATTACH POWER-OF-ATTORNEY AND NOTARIAL ACKNOWLEDGEMENT OF
SURETY BELOW**

**ATTACHMENT C
PROJECT SCHEDULE**

PROJECT SCHEDULE

Completion Date	Action/Milestone
5/10/2016	RFP Release
5/17/2016	Job Walk
6/14/2016	Bid Closing
7/20/2016	Construction Contract Award
7/27/2016	Design Kickoff Meeting
8/9/2016	Technical Memorandum
9/12/2016	50% Design
10/10/2016	100% Design
10/28/2016	Final Design
TBD**	Pre-construction Meeting
TBD***	Construction Completion (see note below)

Note **: The construction start date is dependent on the readiness of the Lab Building roof for solar system support installation.

Note***: Construction of the solar system shall be completed within six (6) months from issuing the Notice to Proceed with the solar system installation which will occur upon release from the General Contractor /Roofing subcontractor to start the work.

**ATTACHMENT D
AUTOCAD SPECIFICATIONS**

AUTOCAD SPECIFICATIONS

The following are the Computer Aided Design and Drafting (CADD) Specifications for Inland Empire Utilities Agency (IEUA). These specifications supply the basic information your firm will need to prepare construction documents for this project, should you be awarded the project. If you are working on a portion of a project with IEUA, more precise specifications will be provided that will allow your firm to match the drawing format that has been chosen for the project.

The Engineering Department of IEUA currently utilizes AutoCAD Civil 3D 2011. All construction documents (as well as CDROM copies) submitted to IEUA shall be in AutoCAD Release 2004 or later, "DWG" format. Model files are always drawn Full Scale, that is one inch equals one inch and one foot equals one foot. Civil plans are to use "decimal" units and architectural plans are to use "architectural" units. Model plans are always drawn so that the information contained in the file is in its proper coordinate system in the Design Plane. This position is defined by X and Y coordinate values and must be NAD83, California State Plane, Zone 5 with units in feet for District Facilities in San Bernardino and Los Angeles Counties, and NAD83, California State Plane, Zone 6 with units in feet for District Facilities in Orange and Riverside Counties. The District's standard datum is the NAVD88, (North American Vertical Datum 88). For the plan view only, each facility should have its own layer (i.e., pipeline, manhole, valves, CTS, etc., and should all be on separate layers). Paper-space should be used for the plot sheets.

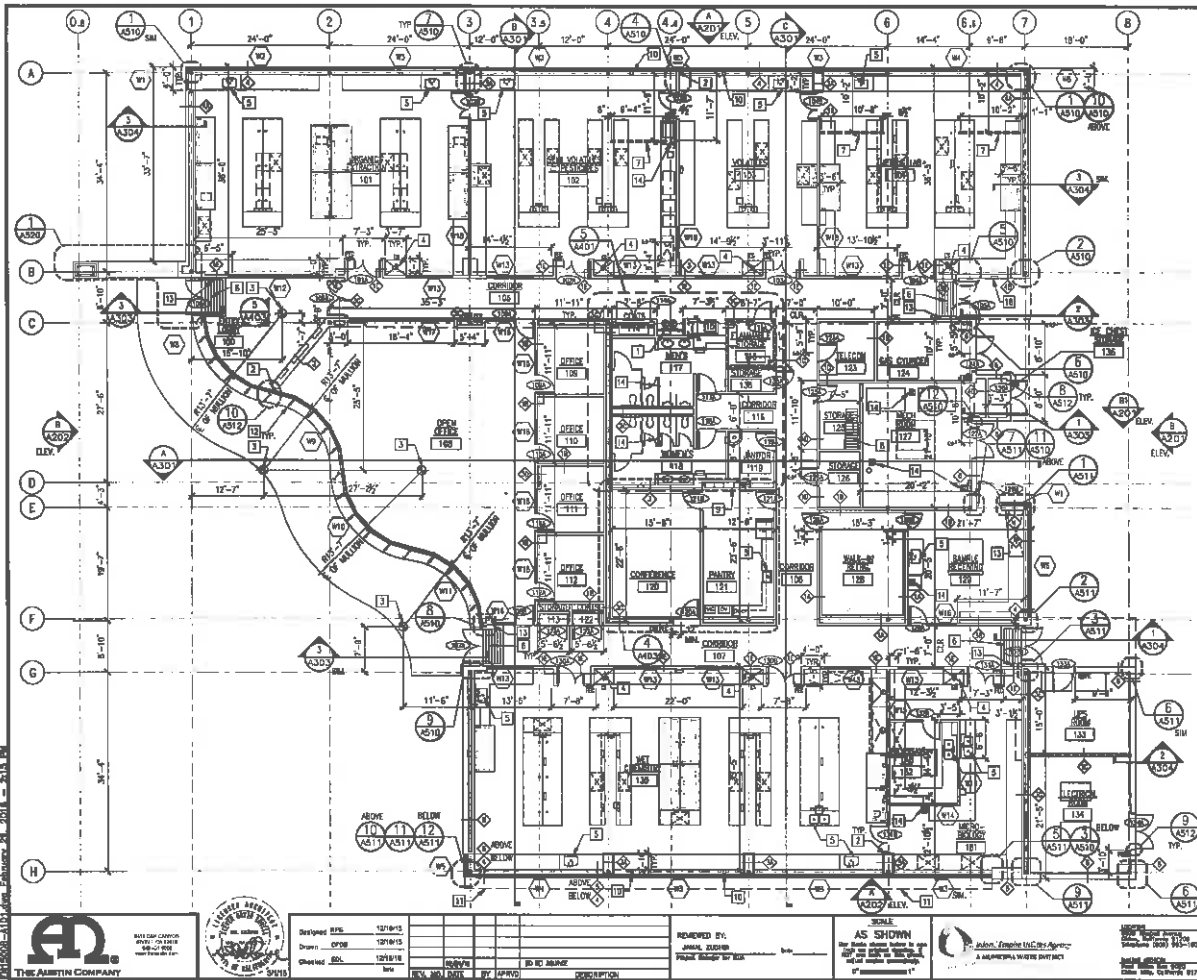
At all locations where there are angle changes, there should be northing and easting identifiers. Pipeline curves should show clear curve data which includes the BC, EC and curve geometry. For work within the plants, the X and Y coordinate values should be based on the plant grid as found in the Facility Atlas plant grid layer. Schematic drawings such as Process & Instrumentation Diagrams shall be developed using a grid. The grid is a pattern of dots that extends over the drawing area. A default grid spacing of .125 or 1/8th of inch is preferred.

IEUA's pen parameters shall be used as much as possible. General IEUA use is limited to seven pens of various thickness or equivalent to a 000 to a 4 (pen numbers are based on Koh-I-Noor's standard technical drafting pens). Any thicker line weights shall be created with polylines. These general parameters may be modified with prior approval from IEUA's Project Manager.

The final contract documents shall be produced on 22" x 34", 4 mil double matte mylar. Contract Documents plotted via wet ink pen, laser, electrostatic or ink-jet type plotters are acceptable. Documents via pen plotters shall be done in permanent opaque ink, Koh-I-Noor 3084F or 3094F (or approved equal), black in color. Colors may be used to allow subdued imaging (gray-scaling), also in permanent opaque ink. Plots developed by thermal or pencil plotters are not acceptable. Drawings with applied decals or "stick-ons" are not acceptable.

For assistance or more detailed specifications and information contact the IEUA Project Manager

**ATTACHMENT E
PROJECT DRAWINGS**



- GENERAL NOTES:**
- SEE SHEET 0101 FOR LABORATORY EQUIPMENT & CASERWORK FLOOR PLAN FOR ADDITIONAL INFORMATION
 - WALLS SHALL BE TYPE \diamond UNLESS NOTED OTHERWISE
 - ALL DIMENSIONS ON THIS PLAN ARE TO THE FACE OF FINISH UNLESS NOTED OTHERWISE
 - REFER TO BOODS FOR ADDITIONAL METAL STUD FRAMING REQUIREMENTS

- KEYNOTES:**
- DRINKING FOUNTAINS
 - CENTER WALL ON MILLION
 - CENTER OF ARC RADIUS
 - EYE/SINKER - SLOPE FLOOR WITH AREA DRAIN, SEE 6/A502 FOR ADDITIONAL INFORMATION
 - SMK
 - 37x5-4" ENTRANCE FLOOR GRILLE
 - 4" CONCRETE BELOW SLAB WITH 4" STUD-UP THROUGH SLAB FOR COOLING LINE
 - SHOPS LAGGED TO ROOF, SEE 2/A505
 - BMS : (1) TRASH (M) (3) RECYCLE BMS
 - STEEL TUBE BRACAMP PERIMETERION THRU WALL, SEE 8/A502
 - HORIZONTAL SUNSHADE ASSEMBLY, SEE 5/A507
 - VERTICAL SUNSHADE ASSEMBLY, SEE 2/A507
 - TACTILE EXIT SIGNS, SEE A106
 - FLOOR DRAIN
 - RECYCLING STATION
 - KNOX BOX (RECESSED INTO FIRE PANEL) CONTRACTOR TO ORDER KNOX BOX THROUGH CHINA VALLEY INDEPENDENT FIRE DISTRICT (800) 802-5200. CONTRAIL LOCATION WITH AGENCY PRIOR TO INSTALLATION. COORDINATE WITH GFCI FANFOLDOR.

- LEGEND:**
- \diamond WALL TYPE SEE A501
 - ROOM NUMBER, SEE FINISH SCHEDULE SHEET A501
 - DOOR NUMBER, SEE SHEET A502
 - WINDOW NUMBER, SEE SHEET A503
 - PE FIRE EXTINGUISHER WITH BRACKET
 - FE FIRE EXTINGUISHER & CABINET, SEE DET 15/A701
 - ONE HOUR RATED WALL, SEE WALL A501 FOR WALL TYPE CONSTRUCTION. NOTE: SEE A513 FOR FIRE RATED ASSEMBLIES AT WALL PENETRATIONS.
 - DEBRILLATOR AND CABINET: PHILIPS HEAVY-DUTY KED (M2056A) PHILIPS SEMI-RECESSED CABINET
 - PP PUSH PAD DOOR OPENER

SCALE: 3/8" = 1'-0"

800 PREP INSURANCE (LAB + CENTRAL PLANT)
 WATER QUALITY LAB & CENTRAL PLANT EXPANSION
 PROJECT NO. ENR008
FLOOR PLAN

SHEET NO. A101
 539 OF 627
 PRINTED ON 18x18
 2779-030

THE AMTIN COMPANY
 10000 ALDIP DRIVE, FARMERSVILLE, TX 77834-2115

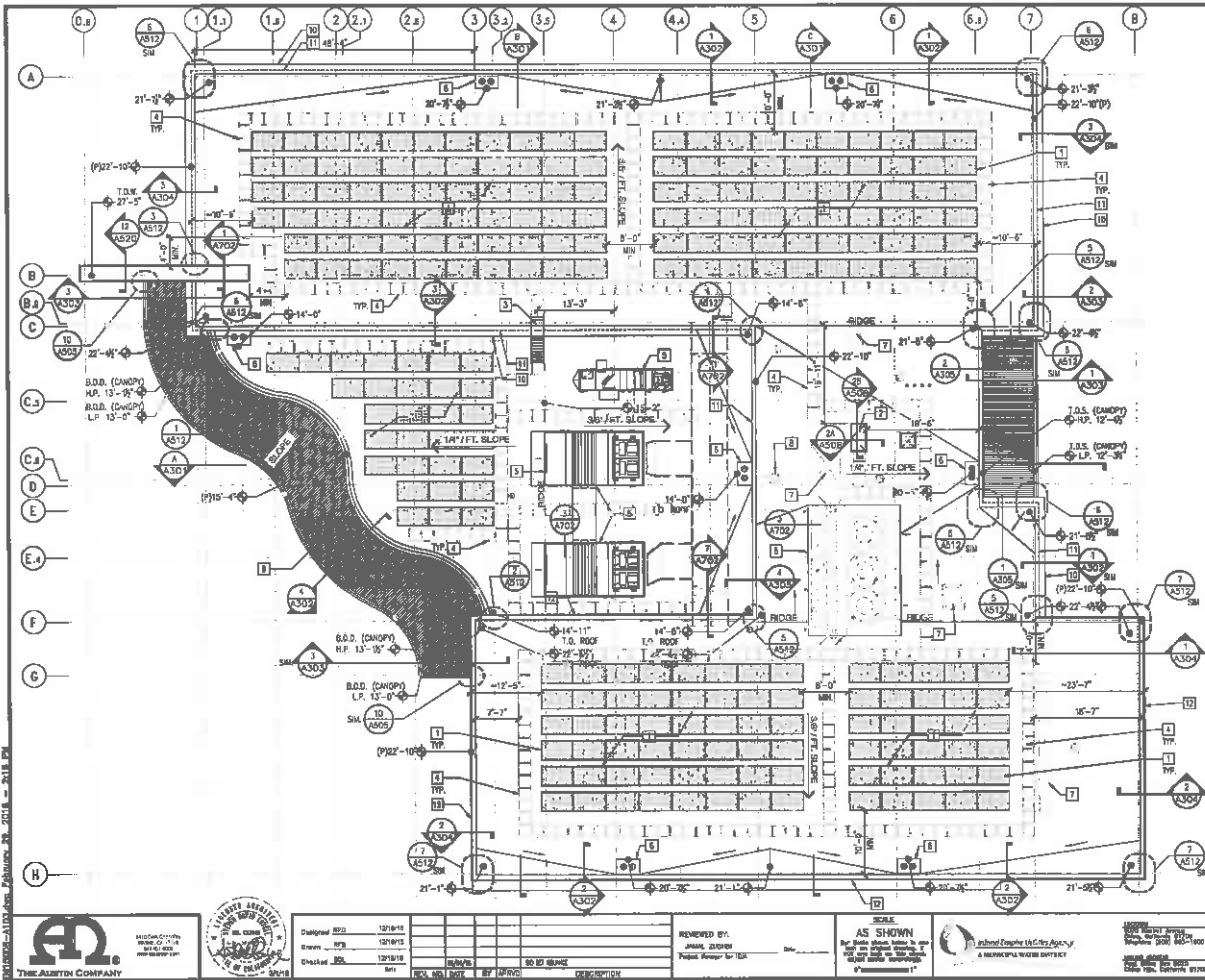
LICENSED ARCHITECT
 STATE OF TEXAS
 NO. 12345

Revised: ETL	12/16/15			
Drawn: OPB	12/16/15			
Checked: ETL	12/16/15			
Rev. No.	DATE	BY	APPROV.	DESCRIPTION

REVIEWED BY: _____
 DESIGN: _____
 PROJECT MANAGER: _____

AS SHOWN
 See notes above relative to any
 1/4" = 1'-0" SCALE
 1/4" = 1'-0" SCALE

John F. Pugh Inc. Agency
 A NATIONAL FIRE CONTRACTOR



GENERAL NOTES:

1. MAINTAIN 1/8" PER FT MINIMUM SLOPE AT CRICKET FLOW LINES.
2. ELEVATIONS SHOWN ARE ABOVE FINISH FLOOR ELEVATION OF 0'-0".
3. ROOF PENETRATION NOTES: SEE 11/4000 FOR TYPICAL ROOF PENETRATION REQUIREMENTS.
4. PV SYSTEM - ROOF PENETRATIONS (ALLOWANCE NO. 13) CONTRACTOR TO PROVIDE LUMP-SUM ALLOWANCE FOR 240 ROOF PENETRATIONS FOR RACK SUPPORTS FOR PV SYSTEM (PV SYSTEM TO BE INSTALLED UNDER SEPARATE CONTRACT). SEE SPEC SECTION 012100, ARTICLE 3.00A FOR ADDITIONAL INFORMATION.
5. PV SYSTEM - ROOF PENETRATIONS (ALLOWANCE NO. 23) CONTRACTOR TO PROVIDE LUMP-SUM ALLOWANCE FOR 31 ROOF PENETRATIONS FOR CONDUIT TERMINATIONS FOR PV SYSTEM (PV SYSTEM TO BE INSTALLED UNDER SEPARATE CONTRACT). SEE SPEC SECTION 012100, ARTICLE 3.00B FOR ADDITIONAL INFORMATION.
6. UNINSURED RISKS (ALLOWANCE NO. 5) CONTRACTOR TO PROVIDE LUMP-SUM ALLOWANCE FOR 45 UNINSURED RISKS (1/4" WIDE X 3/8" DIA) AND ASSOCIATED PLATFORMS (1' X 3') FOR PV CONDUITS AND MISCELLANEOUS ELECTRICAL EQUIPMENT. SEE 6/4000 FOR PLATFORM INFORMATION. SEE E104 FOR ELECTRICAL INFORMATION. SEE SPEC SECTION 012100, ARTICLE 3.00.C FOR ADDITIONAL INFORMATION.

KEYNOTES:

- 1 PHOTOVOLTAIC PANELS (P.V.C.)
- 2 ROOF HATCH 30" X 24", SEE 2/AS06
- 3 LADDER, SEE 2/AS09
- 4 WALKWAY PADS, PROVIDE 1" MIN TO 2" MAX SPACING BETWEEN PADS FOR DRAINAGE WHERE REQUIRED
- 5 MECHANICAL EQUIPMENT CURB 2/AS07
- 6 ROOF DRAIN AND OVERFLOW, 2/AS08
- 7 MECHANICAL EQUIPMENT PAD 2/AS02
- 8 EXHAUST FAN
- 9 PARAPET
- 10 EDGE OF CORNER
- 11 FACE OF WALL @ W/PC
- 12 FACE OF WALL @ WOOD COMPOSITE SIDING

LEGEND:

- 0'-0" TOP OF ROOF ELEVATION
- 0'-0"(P) TOP OF PARAPET ELEVATION

SCALE: 1/8"=1'-0"

NO. SET ASSISTANCE (LAB & CENTRAL PLANT) SHEET NO. A103
 WATER QUALITY LAB & CENTRAL PLANT EXPANSION PROJECT NO. 041 OF 222
 PROJECT NO. 154130
 SHEET NO. 05785-041

ROOF PLAN

THE ALBION COMPANY

REGISTERED ARCHITECT

12/18/18

12/18/18

12/18/18

NO.	DATE	BY	DESCRIPTION

DESIGNED BY: JAMES STONE

CHECKED BY: JAMES STONE

DATE: 12/18/18

AS SHOWN

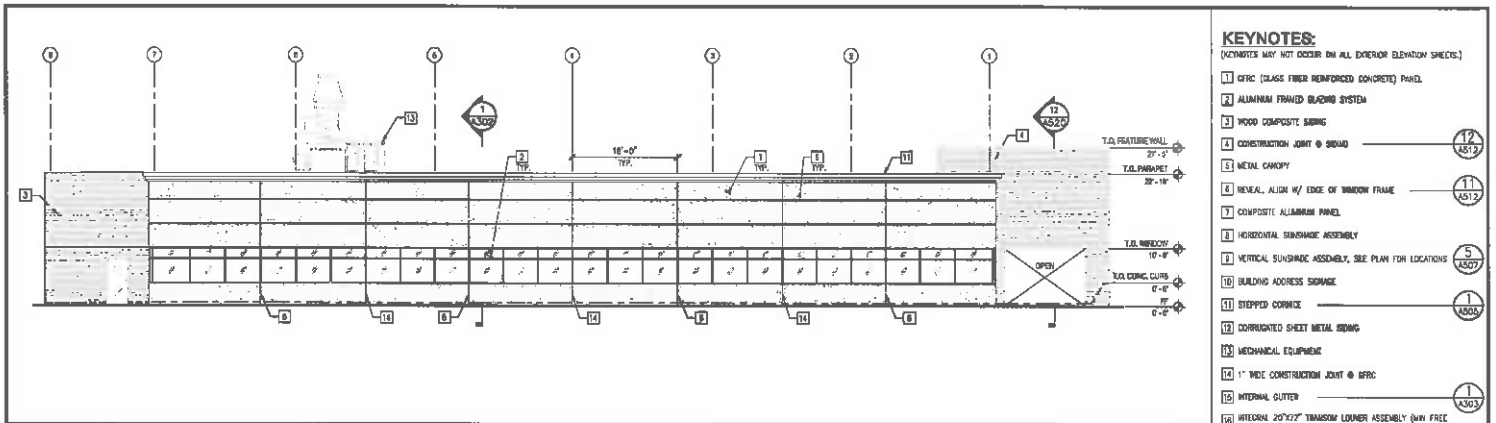
BY: JAMES STONE

DATE: 12/18/18

PROJECT: WATER QUALITY LAB & CENTRAL PLANT EXPANSION

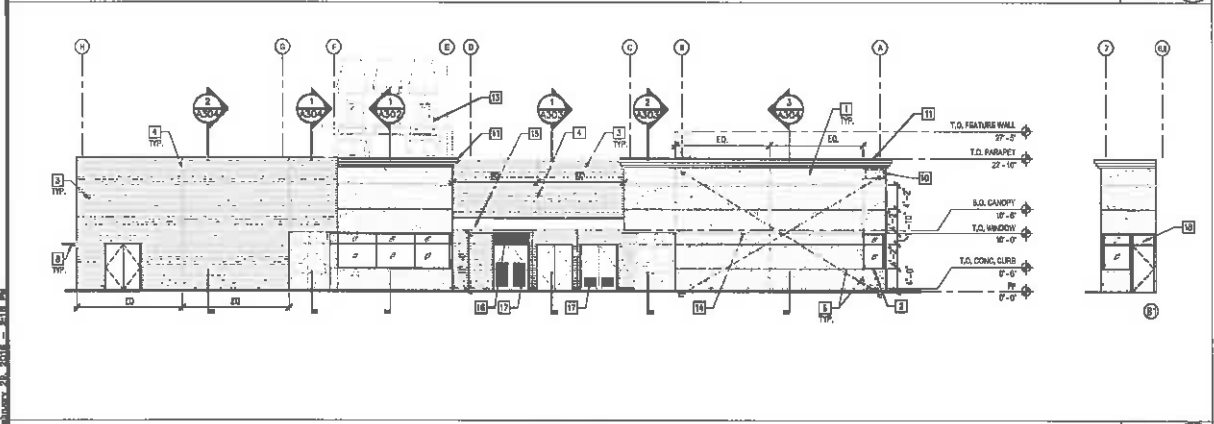
154130

05785-041



- KEYNOTES:**
(DIMETERS MAY NOT OCCUR ON ALL EXTERIOR ELEVATION SHEETS.)
- 1 CERIC (GLASS FIBER REINFORCED CONCRETE) PANEL
 - 2 ALUMINUM FRAMED GLAZING SYSTEM
 - 3 WOOD COMPOSITE SIDING
 - 4 CONSTRUCTION JOINT @ SEAM
 - 5 METAL CANOPY
 - 6 SEVERAL ALIGN W/ EDGE OF WINDOW FRAME
 - 7 COMPOSITE ALUMINUM PANEL
 - 8 HORIZONTAL SUNSHADE ASSEMBLY
 - 9 VERTICAL SUNSHADE ASSEMBLY, SEE PLAN FOR LOCATIONS
 - 10 BUILDING ADDRESS SIGNAGE
 - 11 STEPPED CORNICE
 - 12 CORRUGATED SHEET METAL SIDING
 - 13 MECHANICAL EQUIPMENT
 - 14 1" WIDE CONSTRUCTION JOINT @ BRK
 - 15 INTERNAL GUTTER
 - 16 INTERNAL 20"x20" TRANSOM LOWER ASSEMBLY (MIN FREE AREA: 3.51 SF) WITH FILTER (MFRW-8) AND BIRD SCREEN - INSTALL INTO INTEGRATED HOLLOW METAL DOOR FRAME (MANUFACTURER: GREENWICH OR EQUAL)
 - 17 DOOR LOWER ASSEMBLY (MIN FREE AREA: 3.08 SF) WITH FILTER (MFRW-8) AND BIRD SCREEN - SEE DOOR SCHEDULE (ASIS) PER SIZES (MANUFACTURER: GREENWICH OR EQUAL)
 - 18 HOLLOW METAL TRANSOM - INSULATED (R-11)

NORTH ELEVATION SCALE: 1/8"=1'-0" (A10)



EAST ELEVATION SCALE: 1/8"=1'-0" (B10)

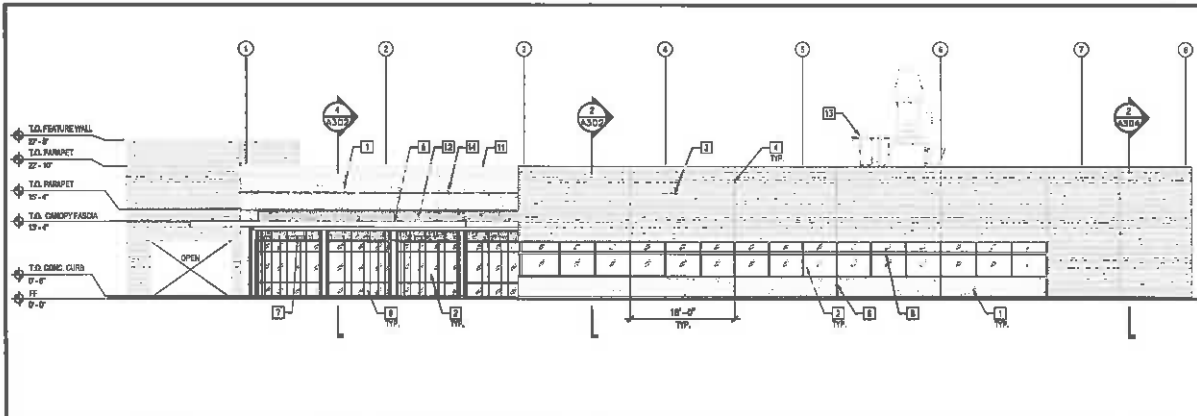


Designed BY: 12/15/15	REVIEWED BY: JAMES TUCKER
Drawn BY: JRF	DATE: 12/15/15
Checked BY: ES	DATE: 12/15/15
DATE: 12/15/15	BY: APPROV
NO. DATE	BY APPROV
DESCRIPTION	

SCALE AS SHOWN
See detail sheets for scale. If not shown, use the scale of the drawing. If not shown, use the scale of the drawing.



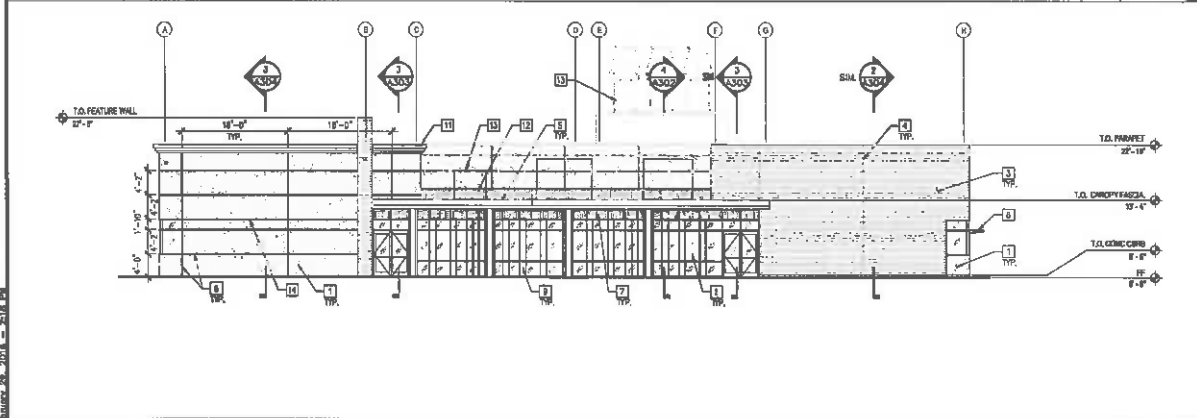
BID BEEB INSURANCE (LAB & CENTRAL PLANT)	SHEET A201
WATER QUALITY LAB & CENTRAL PLANT EXPANSION PROJECT NO. EN19008	SHEET NO. 042 OF 222
EXTERIOR ELEVATIONS	DATE: 12/15/15
	SCALE: 1/8"=1'-0"



- KEYNOTES:**
(KEYNOTES MAY NOT OCCUR ON ALL EXTERIOR ELEVATION SHEETS.)
- 1) GRC (GLASS FIBER REINFORCED CONCRETE) PANEL
 - 2) ALUMINUM FRAMED GLAZING SYSTEM
 - 3) WOOD COMPOSITE SIDING
 - 4) CONSTRUCTION JOINT IN SIDING
 - 5) METAL CASSETT
 - 6) REVEAL ALIGN W/ EDGE OF WINDOW FRAME
 - 7) COMPOSITE ALUMINUM PANEL
 - 8) HORIZONTAL SLIDING ASSEMBLY
 - 9) VERTICAL SLIDING ASSEMBLY, SEE PLAN FOR LOCATIONS
 - 10) BUILDING ADDRESS SIGNAGE
 - 11) STEPPED CORNICE
 - 12) CORRUGATED SHEET METAL SIDING
 - 13) MECHANICAL EQUIPMENT
 - 14) 1" WIDE CONSTRUCTION JOINT @ GRC
 - 15) INTERNAL GUTTER
 - 16) INTEGRAL 20"x12" TRANSOM LOWER ASSEMBLY (MIN FREE AREA: 3.91 SF) WITH FILTER (MFR-8) AND BIRD SCREEN - INSTALL BIRD INTEGRATED HOLLOW METAL DOOR FRAME (MANUFACTURER: GREENWICK OR EQUAL)
 - 17) DOOR LOWER ASSEMBLY (MIN FREE AREA: 5.08 SF) WITH FILTER (MFR-8) AND BIRD SCREEN - SEE DOOR SCHEDULE (A888) FOR SIZES (MANUFACTURER: GREENWICK OR EQUAL)
 - 18) HOLLOW METAL TRANSOM - INSULATED (R-11)

SOUTH ELEVATION

SCALE: 1/8"=1'-0"
A
A107



WEST ELEVATION

SCALE: 1/8"=1'-0"
B
A107

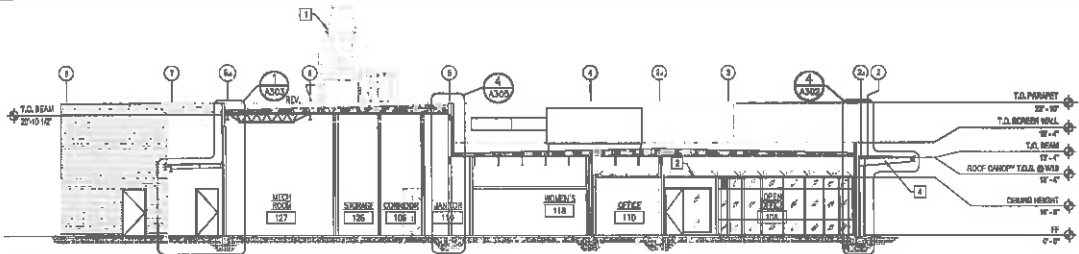


DESIGNED BY:	12/18/13	REVIEWED BY:	
DRAWN BY:	12/18/13	DATE:	
CHECKED BY:	12/18/13	BY:	
DATE:		DESCRIPTION:	

SCALE: AS SHOWN
BY: [Signature]
DATE: 12/18/13

WATER QUALITY LAB & CENTRAL PLANT EXPANSION
PROJECT NO. ENT19008
EXTERIOR ELEVATIONS

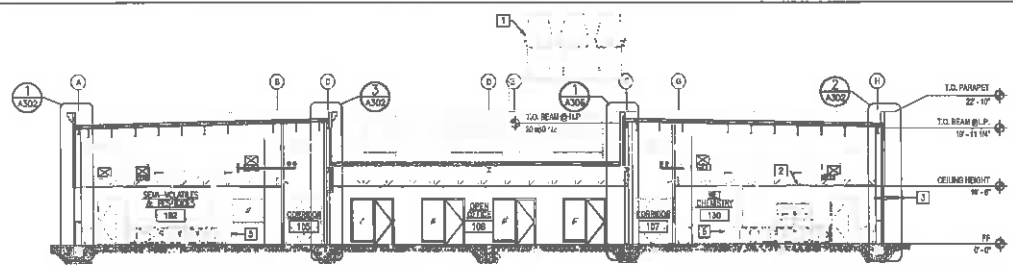
BID SET ISSUANCE (LAB & CENTRAL PLANT)	SHEET NO. A202
WATER QUALITY LAB & CENTRAL PLANT EXPANSION PROJECT NO. ENT19008	DATE: 04/11/2013
EXTERIOR ELEVATIONS	PROJECT NO. 12143
	ISSUE NO. 0078-247



- KEYNOTES:**
- 1 MECHANICAL EQUIPMENT
 - 2 ACOUSTICAL CEILING
 - 3 ALUMINUM SUN SHIELD
 - 4 STEEL CANOPY
 - 5 METAL LAB CABINETS
 - 6 FUME HOOD

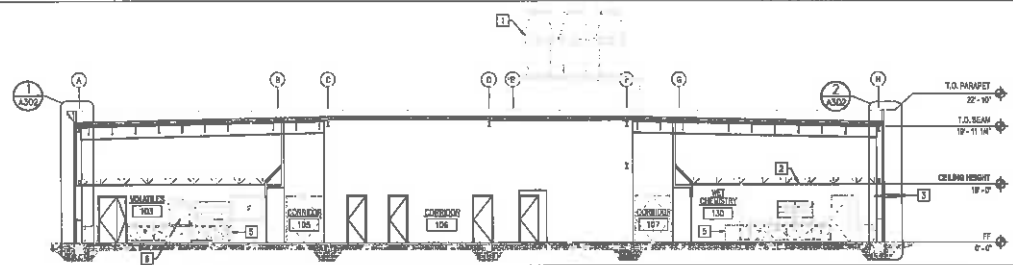
BUILDING SECTION

SCALE: 1/8"=1'-0"
A



BUILDING SECTION

SCALE: 1/8"=1'-0"
B



BUILDING SECTION

SCALE: 1/8"=1'-0"
C



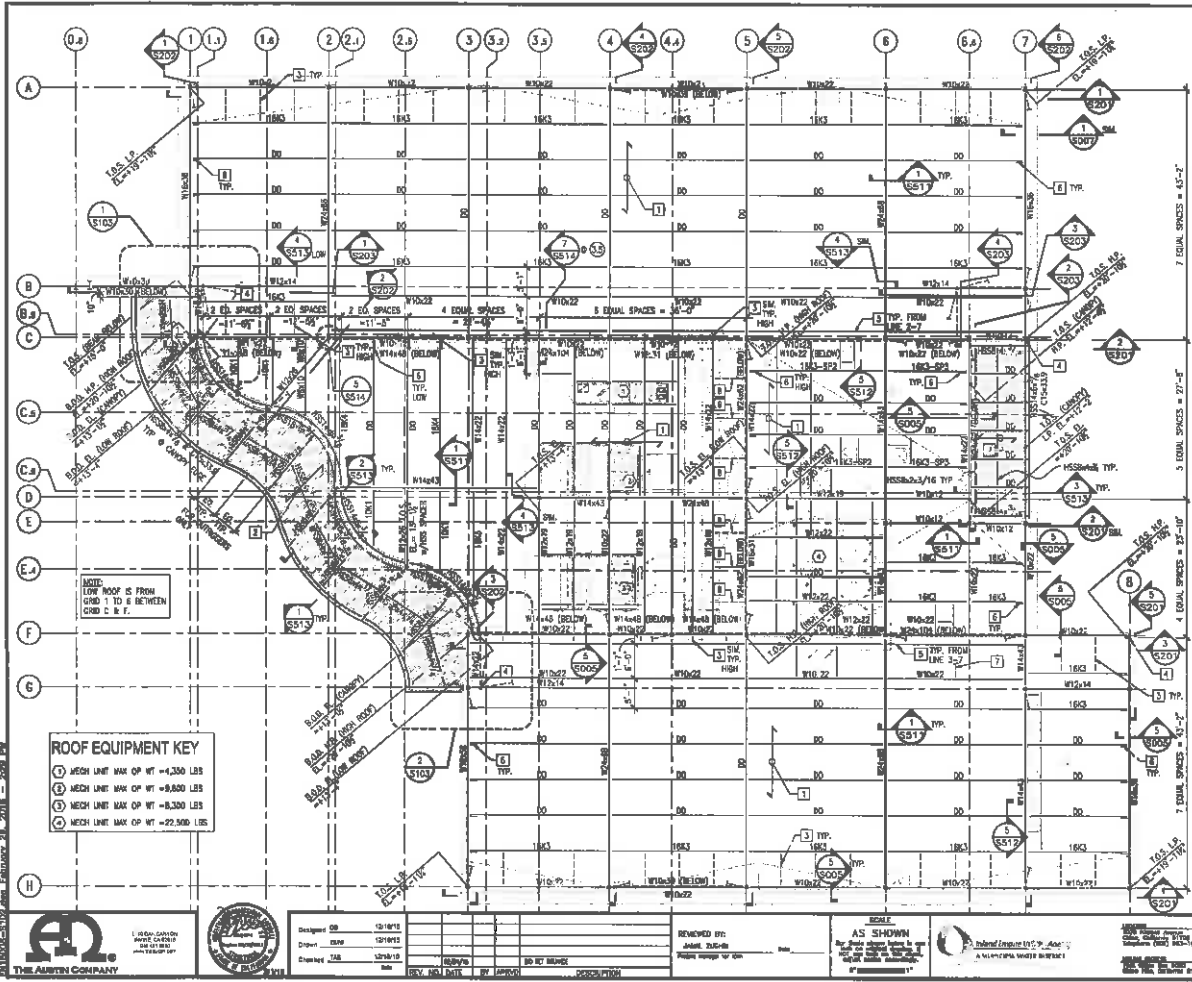
Designed: JRD	12/18/10				
Drawn: JPB	12/18/10				
Checked: JDL	12/18/10				
REV.	NO.	DATE	BY	APP'D.	DESCRIPTION

REVISIONS BY:
JRDAL, JPB, JDL
Yours Truly by JRD

SCALE:
AS SHOWN
The Austin Company
12000 N. Loop West, Suite 100
Houston, Texas 77040
Tel: 281.460.1000
Fax: 281.460.1001
www.austincorp.com



BID SET ISSUANCE (SLAB & CENTRAL PLANT)	SHEET NO. A301
WATER QUALITY LAB & CENTRAL PLANT EXPANSION PROJECT NO. 1210008	SHEET NO. 048 OF 227
BUILDING SECTIONS	PROJECT NO. 121100
	DATE 05/28-24/10



NOTES:

- FOR GENERAL NOTES SEE DRAWING S101 & S102.
- INDICATES ROOF DECK SPAN DIRECTIONS. ROOF DECK SHALL BE ATTACHED TO SUPPORTS PER S1008.
- SEE LAP ATTACHMENT- RUMBLEDECK CORN (S102) @ 12" O.C. WELDING PATTERN- 3/8" x 3/8" ARC SPOT WELDS TO SUPPORT.
- SEE LAP ATTACHMENT- RUMBLEDECK CORN (S102) @ 12" O.C. WELDING PATTERN- 3/8" x 3/8" ARC SPOT WELDS TO SUPPORT.
- ALL ROOF BEAMS NOT SUPPORTING K-JOIST T.O.S. = B.O.D. UNLESS ON ELEVATIONS OR PLANS.
- T.O.S. ELEVATIONS SHALL BE VERIFIED w/ ARCHITECTURAL DRAWINGS.
- FOR TYPICAL STEEL DETAILS, SEE DRAWING S1004.
- FOR TYPICAL LIGHT GAGE METAL FRAMING DETAILS, SEE S1005 & S1007.
- FOR TYPICAL METAL DECK DETAILS, SEE S1006.
- VERIFY SIZE & LOCATION OF MECH UNITS w/ MECH DRAWINGS. BEAM SPACING TO MEET DIMENSION REQUIREMENTS OF MECH UNITS. HYDRATION w/ APPROVED IRON SHOP DRAWINGS IS REQUIRED PRIOR TO FABRICATION.
- FOR MECH UNITS ANCHORAGE SEE DETAILS S1011 & S1012 AND REFER TO S1002 REFERRED SUBMITTALS.
- FOR FRAMES AROUND OPENINGS UP TO 4'-0" SEE DETAIL S1009.
- K.P. = HIGH POINT L.P. = LOW POINT
- ALL K JOISTS, INCLUDING THE SECS AND ATTACHMENTS, SHALL BE DESIGNED FOR ANNUAL LOAD OF 3.0 PSF. THE LOAD IS STRENGTH LEVEL SEISMIC LOAD.
- ALL K JOISTS SHALL BE ATTACHED TO STEEL SUPPORTS WITH A MINIMUM OF TWO 3/4" FLAT WELDS (2 INCHES LONG), ONE ON EACH SIDE OF JOIST SEAT, UNLESS OTHERWISE NOTED.
- ALL JOISTS SHALL BE DESIGNED PER LOAD DIAGRAMS SHOWN ON S1003. ALL BRIDGING SHALL BE PROVIDED BY K-JOIST MANUFACTURER.
- PROVIDE W/10 FOR ALL BEAMS NOT CALLED OUT ON PLAN.
- P.V. SYSTEM (ALLOWANCE NO. 3) CONTRACTOR TO PROVIDE A LUMP-SUM ALLOWANCE FOR 1 TON OF MISCELLANEOUS STEEL FOR SUPPORT OF P.V. SYSTEM (P.V. SYSTEM TO BE INSTALLED UNDER SEPARATE CONTRACT). SEE SPEC SECTION 012100, ARTICLE 3.0.3.C FOR ADDITIONAL INFORMATION.
- SPIC SYSTEM (ALLOWANCE NO. 6) CONTRACTOR TO PROVIDE A LUMP-SUM ALLOWANCE FOR 1 TON OF MISCELLANEOUS STEEL FOR SUPPORT OF SPIC SYSTEM. SEE SPEC SECTION 012100, ARTICLE 3.0.3.C FOR ADDITIONAL INFORMATION.

KEYNOTES:

- 20 GA VERCO PLB-36 ROOF DECK PER ICC ESR-1735P, SEE MORE J2A FOR ATTACHMENT.
- 18 GA VERCO PLB-36 ROOF DECK PER ICC ESR-1735P, SEE NOTE J2B FOR ATTACHMENT.
- BEAM FLANGE BRACE, SEE S1007 @ 4'-0" O.C. MAX.
- W54x46 HANDED
- W10x12 FOR UTILITY HANDED SUPPORT, T.O.S. = B.O.D. (BRACED BY DECK)
- BEAM FLANGE BRACE, SEE S1011
- W54x46 BRACE FROM ROOF WITH TO W60 BELOW PER S1014
- BEAM FLANGE BRACE END SPACED, SEE S1004 END
- W14x22 @ STRT. 2' OF CHORON BRACE, SEE S1004 & S1011

SCALE: 3/8" = 1'-0"

LAB & CENTRAL PLANT

S102

ROOF FRAMING PLAN

DESIGNED BY: 12/18/13
 DRAWN BY: 12/18/13
 CHECKED BY: 12/18/13

REVISED BY: 12/18/13

DATE: 12/18/13

PROJECT NO.: 154130

DATE: 12/18/13

SCALE: 3/8" = 1'-0"



REV.	NO.	DATE	BY	APPV.	DESCRIPTION

DESIGNED BY: 12/18/13
 DRAWN BY: 12/18/13
 CHECKED BY: 12/18/13

REVISED BY: 12/18/13

DATE: 12/18/13

SCALE: 3/8" = 1'-0"

PROJECT NO.: 154130

DATE: 12/18/13

LAB & CENTRAL PLANT

S102

ROOF FRAMING PLAN

DESIGNED BY: 12/18/13
 DRAWN BY: 12/18/13
 CHECKED BY: 12/18/13

REVISED BY: 12/18/13

DATE: 12/18/13

**ATTACHMENT F
CLEAN WATER STATE REVOLVING FUND
PROJECT REQUIREMENTS**

CLEAN WATER STATE REVOLVING FUND PROJECT REQUIREMENTS

The IEUA Regional Water Quality Laboratory Project (Project) will be funded by a State Water Resources Control Board State Revolving Fund Loan (Agreement.) The Agreement has regulatory requirements that the Inland Empire Utilities Agency is required to include in all contracts for work related to the performance of the Agreement. The consultants and contractors must assist IEUA in meeting the federal and state requirements that apply to the scope stated in their contracts. These requirements include, but are not limited to, the State Prevailing Wages, Federal Davis-Bacon requirements, Federal Disadvantaged Business Enterprise (DBE), Audit, and Record Retention and Review, etc. If a sub is hired, the Agreement requirement language must be included in the sub's contract in its entirety.

Refer to Appendices A thru F for more details about the specific requirements. The documents contained within Appendices A thru F—as listed below—shall be included in all contracts for this Project:

- A. Article V – Miscellaneous Provisions
- B. Exhibit E – Federal Conditions & Cross-Cutters
- C. Exhibit G – Davis-Bacon Labor Compliance Requirements
- D. DBE Instructions/Forms
- E. Signage on Construction Site
- F. Records

BUY AMERICAN REQUIREMENTS

1. This project is participating in a State Revolving Fund Program. With the project receiving state and federal funding, this project must comply with the "American Iron and Steel (AIS)" provision. The AIS provision requires the "Clean Water State Revolving Fund (CWSRF)" and "Drinking Water State Revolving Fund (DWSRF)" assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works.
2. The AIS requirement applies to all parts of the project, no matter the source of the funding.
3. An iron or steel product consists of the following:
 - A. Lined or unlined pipe or fittings
 - B. Manhole covers
 - C. Municipal castings
 - D. Hydrants
 - E. Tanks
 - F. Flanges
 - G. Pipe clamps and restraints
 - H. Valves
 - I. Structural steel
 - J. Reinforced precast concrete
 - K. Construction materials containing steel
 - L. Primarily iron or steel
 - M. Listed products must be made of greater than 50% iron or steel, measured by material costs.
 - N. If a product is not listed in the statute but is comprised of more than 50% iron or steel, it does not have to be produced in the United States.
 - O. Only the listed products made primarily of iron or steel—permanently incorporated into the project—must be produced in the United States.
4. Products produced in the United States shall comply with the following:

- A. All manufacturing processes must take place in the United States, with the exception of:
 - 1. Metallurgical processes involving refinement of steel additives.
 - 2. Coating processes applied to external surface of iron/steel components.
 - B. All manufacturing processes include processes such as:
 - 1. Melting
 - 2. Refining
 - 3. Forming
 - 4. Rolling
 - 5. Drawing
 - 6. Finishing
 - 7. Fabricating
 - C. Raw materials—such as iron ore, limestone and iron and steel scrap—do not have to come from the United States.
 - D. Non-iron or steel components of an iron and steel product do not have to come from the United States.
5. Compliance documentation:
- A. Certification letter:
 - 1. Final manufacturer that delivers the iron or steel product to the worksite, vendor or contractor shall provide certification asserting that all manufacturing processes occurred in the United States.
 - 2. Certification letter to include:
 - a. What is the product?: The letter shall list the specific product(s) delivered to the project site.
 - b. Where was it made?: The letter shall include the location (i.e. City and State) of the foundry/mill/factory where the product was manufactured.
 - c. To whom was it delivered?: The letter shall include the name of the project and jurisdiction where the product was delivered.
 - d. Signature of the company representative.
 - B. Step certification process
 - 1. Each handler (supplier, fabricator, manufacturer, processor, etc.) of the iron and steel products certifies that their step in the process was performed within the United States.
6. Note to Contractor:
- It is the contractor's responsibility to comply with the latest "Buy American" requirements for this project and coordinate with State and Federal staff as required to clarify any ambiguity or conflict with the design documents.

ATTACHMENT G
ARTICLE V MISCELLANEOUS PROVISIONS

ARTICLE V MISCELLANEOUS PROVISIONS

5.1 Covenants.

- (a) **Tax Covenant.** Notwithstanding any other provision hereof, the Recipient covenants and agrees that it will comply with the Tax Covenants set forth in Article IV attached hereto if any portion of the Project Funds is derived from proceeds of Bonds.
- (b) **Disclosure of Financial Information, Operating Data, and Other Information.** The Recipient covenants to furnish such financial, operating and other data pertaining to the Recipient as may be requested by the State Water Board to: (i) enable the State Water Board to cause the issuance of Bonds and provide for security therefor; or (ii) enable any underwriter of Bonds issued for the benefit of the State Water Board to comply with Rule 15c2-12(b)(5). The Recipient further covenants to provide the State Water Board with copies of all continuing disclosure reports and materials concerning the Recipient required by the terms of any financing other than this Agreement and to submit such reports to the State Water Board at the same time such reports are submitted to any dissemination agent, trustee, nationally recognized municipal securities information repository, the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA) website or other person or entity.

5.2 Assignability.

The Recipient agrees and consents to any pledge, sale, or assignment to the Bank or a trustee for the benefit of the owners of the Bonds, if any, at any time of any portion of the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement and the right to make all related waivers and agreements in the name and on behalf of the State Water Board, as agent and attorney-in-fact, and to perform all other related acts which are necessary and appropriate under this Agreement, if any, and the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement to Installment Payments (but excluding the State Water Board's rights to Additional Payments and to notices, opinions and indemnification under each Obligation). This Agreement is not assignable by the Recipient, either in whole or in part, without the consent of the State Water Board in the form of a formal written amendment to this Agreement.

5.3 State Reviews and Indemnification.

The parties agree that review or approval of Project plans and specifications by the State Water Board is for administrative purposes only and does not relieve the Recipient of its responsibility to properly plan, design, construct, operate, and maintain the Project. To the extent permitted by law, the Recipient agrees to indemnify, defend, and hold harmless the State Water Board, the Bank, and any trustee, and their officers, employees, and agents for the Bonds, if any (collectively, "Indemnified Persons"), against any loss or liability arising out of any claim or action brought against any Indemnified Persons from and against any and all losses, claims, damages, liabilities, or expenses, of every conceivable kind, character, and nature whatsoever arising out of, resulting from, or in any way connected with (1) the System or the Project or the conditions, occupancy, use, possession, conduct, or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the System or the Project or any part thereof; (2) the carrying out of any of the transactions contemplated by this Agreement or any related document; (3) any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the Toxic Substances Control Act, the Occupational Safety and Health Act, the Safe Drinking Water Act, the California Hazardous Waste Control Law, and California Water Code Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the System; or (4) any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which

they were made, not misleading with respect to any information provided by the Recipient for use in any disclosure document utilized in connection with any of the transactions contemplated by this Agreement. To the fullest extent permitted by law, the Recipient agrees to pay and discharge any judgment or award entered or made against Indemnified Persons with respect to any such claim or action, and any settlement, compromise or other voluntary resolution. The provisions of this section shall survive the discharge of the Recipient's Obligation hereunder.

5.4 Termination; Immediate Repayment; Interest.

- (a) This Agreement may be terminated by written notice during construction of the Project, or thereafter at any time prior to complete repayment by the Recipient, at the option of the State Water Board, upon violation by the Recipient of any material provision of this Agreement after such violation has been called to the attention of the Recipient and after failure of the Recipient to bring itself into compliance with the provisions of this Agreement within a reasonable time as established by the Division.
- (b) In the event of such termination, the Recipient agrees, upon demand, to immediately repay to the State Water Board an amount equal to Installment Payments due hereunder, including accrued interest, and all penalty assessments due. In the event of termination, interest shall accrue on all amounts due at the highest legal rate of interest from the date that notice of termination is mailed to the Recipient to the date of full repayment by the Recipient.
- (c) Where the Recipient is a private entity that has been determined to have violated an applicable prohibition in the Prohibition Statement below or has an employee who is determined by USEPA to have violated an applicable prohibition in the Prohibition Statement below that is either associated with performance under this aware or imputed to the Recipient using the standards and due process for imputing the conduct of an individual to an organization pursuant to 2 CFR Part 180, the Recipient acknowledges and agrees that this Obligation may become immediately due and payable and that penalties up to \$175 million may be due by the Recipient to the State Water Board, in addition to any other criminal or civil penalties that may become due. The Recipient, its employees, its contractors, and any subrecipients or subcontractors may not engage in trafficking in persons, procure a commercial sex act, or use forced labor.

5.5 Income Restrictions.

The Recipient agrees that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Recipient under this Agreement shall be paid by the Recipient to the State, to the extent that they are properly allocable to costs for which the Recipient has been reimbursed by the State under this Agreement.

5.6 Prevailing Wages.

The Recipient agrees to be bound by all the provisions of State Labor Code Section 1771 regarding prevailing wages. The Recipient shall monitor all agreements subject to reimbursement from this Agreement to assure that the prevailing wage provisions of State Labor Code Section 1771 are being met.

5.7 Timeliness.

Time is of the essence in this Agreement.

5.8 Governing Law.

This contract is governed by and shall be interpreted in accordance with the laws of the State of California.

5.9 Amendment.

No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or agreement not incorporated in this Agreement is binding on any of the parties.

5.10 Bonding.

Where contractors are used, the Recipient shall not authorize construction to begin until each contractor has furnished a performance bond in favor of the Recipient in the following amounts: faithful performance (100%) of contract value; labor and materials (100%) of contract value. This requirement shall not apply to any contract for less than \$20,000.00.

5.11 Compliance with Law, Regulations, etc.

- (a) The Recipient agrees that it will, at all times, comply with and require its contractors and subcontractors to comply with all applicable federal and state laws, rules, guidelines, regulations, and requirements. Without limitation of the foregoing, the Recipient agrees that, to the extent applicable, the Recipient will:
- (1) Comply with the provisions of the adopted environmental mitigation plan for the term of this Agreement;
 - (2) Comply with the State Water Board's "Policy for Implementing the Clean Water State Revolving Fund," dated May 7, 2013;
 - (3) Comply with and require its contractors and subcontractors on the Project to comply with federal DBE requirements; and
 - (4) Comply with and require its contractors and subcontractors to comply with the list of federal laws attached as Exhibit E.

5.12 Conflict of Interest.

The Recipient certifies that it is in compliance with applicable state and/or federal conflict of interest laws.

5.13 Damages for Breach Affecting Tax Exempt Status or Federal Compliance

In the event that any breach of any of the provisions of this Agreement by the Recipient shall result in the loss of tax exempt status for any bonds of the State or any subdivision or agency thereof, including Bonds issued on behalf of the State Water Board, or if such breach shall result in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government by reason of any arbitrage profits, the Recipient shall immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

In the event that any breach of any of the provisions of this Agreement by the Recipient shall result in the failure of Project Funds to be used pursuant to the provisions of this Agreement, or if such breach shall result in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government, the Recipient shall immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

5.14 Disputes.

- (a) An applicant or recipient may appeal a staff decision within 30 days to the Deputy Director of the Division or designee, for a final Division decision. An applicant or recipient may appeal a final Division decision to the State Water Board within 30 days. The Office of the Chief Counsel of the State Water Board will prepare a summary of the dispute and make recommendations relative to its final resolution, which will be provided to the State Water Board's Executive Director and each State Water Board Member. Upon the motion of any State Water Board Member, the State Water Board will review and resolve the dispute in the manner determined by the State Water Board. Should the State Water Board determine not to review the final Division decision, this decision will represent a final agency action on the dispute.
- (b) This clause does not preclude consideration of legal questions, provided that nothing herein shall be construed to make final the decision of the State Water Board, or any official or representative thereof, on any question of law.
- (c) Recipient shall continue with the responsibilities under this Agreement during any dispute.

5.15 Independent Actor.

The Recipient, and its agents and employees, if any, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State Water Board.

5.16 Non-Discrimination Clause.

- (a) During the performance of this Agreement, Recipient and its contractors and subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
- (b) The Recipient, its contractors, and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
- (c) The Recipient, its contractors, and subcontractors shall comply with the provisions of the Fair Employment and Housing Act and the applicable regulations promulgated thereunder. (Gov. Code, §12990, subs. (a)-(f) et seq.; Cal. Code Regs., tit. 2, § 7285 et seq.) Such regulations are incorporated into this Agreement by reference and made a part hereof as if set forth in full.
- (d) The Recipient, its contractors, and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- (e) The Recipient shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

5.17 No Third Party Rights.

The parties to this Agreement do not create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or of any duty, covenant, obligation, or undertaking established herein.

5.18 Operation and Maintenance; Insurance.

The Recipient agrees to sufficiently and properly staff, operate and maintain all portions of the Project during its useful life in accordance with all applicable state and federal laws, rules and regulations.

The Recipient will procure and maintain or cause to be maintained insurance on the System with responsible insurers, or as part of a reasonable system of self-insurance, in such amounts and against such risks (including damage to or destruction of the System) as are usually covered in connection with systems similar to the System. Such insurance may be maintained by the maintenance of a self-insurance plan so long as any such plan provides for (i) the establishment by the Recipient of a separate segregated self-insurance fund funded in an amount determined (initially and on at least an annual basis) by an independent insurance consultant experienced in the field of risk management employing accepted actuarial techniques and (ii) the establishment and maintenance of a claims processing and risk management program.

In the event of any damage to or destruction of the System caused by the perils covered by such insurance, the net proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the System. The Recipient shall begin such reconstruction, repair or replacement as expeditiously as possible, and shall pay out of such net proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same shall be completed and the System shall be free and clear of all claims and liens. If such net proceeds are insufficient to enable the Recipient to pay all remaining unpaid principal portions of the Installment Payments, the Recipient shall provide additional funds to restore or replace the damaged portions of the System.

5.19 Permits, Subcontracting, and Remedies.

The Recipient shall comply in all material respects with all applicable federal, state and local laws, rules and regulations. Recipient shall procure all permits, licenses and other authorizations necessary to accomplish the work contemplated in this Agreement, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. Signed copies of any such permits or licenses shall be submitted to the Division before construction begins.

5.20 Recipient's Responsibility for Work.

The Recipient shall be responsible for all work and for persons or entities engaged in work performed pursuant to this Agreement, including, but not limited to, contractors, subcontractors, suppliers, and providers of services. The Recipient shall be responsible for any and all disputes arising out of its contracts for work on the Project. The State Water Board will not mediate disputes between the Recipient and any other entity concerning responsibility for performance of work.

5.21 Related Litigation.

Under no circumstances may a Recipient use funds from any disbursement under this Agreement to pay costs associated with any litigation the Recipient pursues against the State Water Board or any Regional Water Quality Control Board. Regardless of the outcome of any such litigation, and notwithstanding any conflicting language in this Agreement, the Recipient agrees to complete the Project funded by this Agreement or to repay all of the disbursed funds plus interest.

5.22 Rights in Data.

The Recipient agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Agreement are subject to the rights of the State as set forth in this section. The State shall have the right to reproduce, publish, and use all such work, or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so. If any such work is copyrightable, the Recipient may copyright the same, except that, as to any work which is copyrighted by the Recipient, the State reserves a royalty-free,

nonexclusive, and irrevocable license to reproduce, publish, and use such work, or any part thereof, and to authorize others to do so, and to receive electronic copies from the Recipient upon request. (40 CFR 31.34, 31.36)

5.23 State Water Board Action; Costs and Attorney Fees.

The Recipient agrees that any remedy provided in this Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State Water Board as a result of breach of this Agreement by the Recipient, whether such breach occurs before or after completion of the Project, and exercise of any remedy provided by this Agreement by the State Water Board shall not preclude the State Water Board from pursuing any legal remedy or right which would otherwise be available. In the event of litigation between the parties hereto arising from this Agreement, it is agreed that each party shall bear its own costs and attorney fees.

5.24 Unenforceable Provision.

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

5.25 Useful Life.

The economic useful life of the Project, commencing at Project Completion, is at least equal to the term of this Agreement, as set forth in Exhibit B hereto.

5.26 Venue.

The State Water Board and the Recipient hereby agree that any action arising out of this Agreement shall be filed and maintained in the Superior Court in and for the County of Sacramento, California.

5.27 Waiver and Rights of the State Water Board.

Any waiver of rights by the State Water Board with respect to a default or other matter arising under the Agreement at any time shall not be considered a waiver of rights with respect to any other default or matter.

Any rights and remedies of the State Water Board provided for in this Agreement are in addition to any other rights and remedies provided by law.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

INLAND EMPIRE UTILITIES AGENCY:

By: _____

Name: P. Joseph Grindstaff

Title: General Manager

Date: _____

STATE WATER RESOURCES CONTROL BOARD:

By: _____

Name:

Title: Deputy Director
Division of Financial Assistance

Date: _____

ATTACHMENT H
FEDERAL CONDITIONS & CROSS CUTTERS

Exhibit E – Federal Conditions & Cross Cutters

The Recipient agrees to comply with the following conditions required by USEPA:

1. No Recipient or subrecipient may receive funding under this Agreement unless it has provided its DUNS number to the State Water Board. (2011 Cap Grant)
2. Executive Compensation. Where the Recipient received 80 percent or more of its annual gross revenues from federal procurement contracts (and subcontracts) and \$25,000,000 or more in annual gross revenues from federal procurement contracts (and subcontracts), the Recipient agrees to notify the State Water Board. The Recipient agrees to provide information regarding executive compensation to the State Water Board upon request, in order for the State Water Board to comply with USEPA requirements.
3. Trafficking in Persons. The Recipient, its employees, contractors and subcontractors and their employees may not engage in severe forms of trafficking in persons during the term of this Agreement, procure a commercial sex act during the term of this Agreement, or use forced labor in the performance of this Agreement. The Recipient must include this provision in its contracts and subcontracts under this Agreement. The Recipient must inform the State Water Board immediately of any information regarding a violation of the foregoing. The Recipient understands that failure to comply with this provision may subject the State Water Board to loss of federal funds in the amount of \$101,065,000. The Recipient agrees to compensate the State Water Board for any such funds lost due to its failure to comply with this condition, or the failure of its contractors or subcontractors to comply with this condition. The State Water Board may unilaterally terminate this Agreement and full repayment will be due immediately, if a subrecipient that is a private entity is determined to have violated the foregoing. Trafficking Victims Protection Act of 2000.
4. Contractors, Subcontractors, Debarment and Suspension, Executive Order 12549; 2 CFR Part 180; 2 CFR Part 1532. The Recipient shall not subcontract with any party who is debarred or suspended or otherwise excluded from or ineligible for participation in federal assistance programs under Executive Order 12549, "Debarment and Suspension". The Recipient shall not subcontract with any individual or organization on USEPA's List of Violating Facilities. (40 CFR, Part 31.35, Gov. Code 4477)

The Recipient certifies to the best of its knowledge and belief, that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency;
- (b) Have not within a three (3) year period preceding this Agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three (3) year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Suspension and debarment information can be accessed at <http://www.sam.gov>. The Recipient represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its contracts and subcontracts under this Agreement. The Recipient acknowledges that failing to disclose the information as required at 2 CFR 180.335 may result in the termination, delay or negation of this Agreement, or pursuance of legal remedies, including suspension and debarment.

5. Anti-Lobbying Provisions (40 CFR Part 34) & Anti-Litigation Provisions (2 CFR 220, 225, or 230). The Recipient shall ensure that no funds under this Agreement are used to engage in lobbying of the federal government or in litigation against the United States unless authorized under existing law. The Recipient shall abide by 2 CFR 225 (OMB Circular A-87) (or, if not applicable, other parallel requirements), which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities. The Recipient agrees to comply with 40 CFR Part 24, New Restrictions on Lobbying. The Recipient agrees to submit certification and disclosure forms in accordance with these provisions. In accordance with the Byrd Anti-Lobbying Amendment, any Recipient who makes a prohibited expenditure under 40 CFR Part 34 or fails to file the required certification or lobbying forms shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure. The Recipient shall abide by its respective 2 CFR 200, 225, or 230, which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities.
6. Disadvantaged Business Enterprises. 40 CFR Part 33. The Recipient agrees to comply with the requirements of USEPA's Program for Utilization of Small, Minority and Women's Business Enterprises. The DBE rule can be accessed at www.epa.gov/osbp. The Recipient shall comply with, and agrees to require its prime contractors to comply with 40 CFR Section 33.301, and retain all records documenting compliance with the six good faith efforts.
7. The Recipient agrees to comply with the Davis-Bacon provisions attached as Exhibit G.

The Recipient agrees to comply with the following federal laws, as applicable to recipients of CWSRF funding:

Environmental Authorities

1. Archeological and Historical Preservation Act of 1974, Pub. L. 86-523, as amended, Pub. L. 93-291 16 USC § 469a-1.
2. Clean Air Act, Pub. L. 84-159, as amended.
3. Coastal Barrier Resources Act, Pub. L. 97-348, 96 Stat. 1653; 16 USC § 3501 et seq.
4. Coastal Zone Management Act, Pub. L. 92-583, as amended; 16 USC § 1451 et seq.
5. Endangered Species Act, Pub. L. 93-205, as amended; 16 USC § 1531 et seq..
6. Environmental Justice, Executive Order 12898.
7. Floodplain Management, Executive Order, 11988 as amended by Executive Order 12148.
8. Protection of Wetlands, Executive Order 11990, as amended by Executive Order No. 12608.

9. Farmland Protection Policy Act, Pub. L. 97-98; 7 USC § 4201 et seq.
10. Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended.
11. National Historic Preservation Act of 1966, Pub. L. 89-665, as amended, 80 Stat. 917 (1966) 16 USC § 470 et seq.
12. Safe Drinking Water Act, Pub. L. 93-523, as amended; 42 USC § 300f et seq.
13. Wild and Scenic Rivers Act, Pub. L. 90-542, as amended, 82 Stat. 913; 16 USC § 1271 et seq.
14. Essential Fish Habitat Consultation. Pub. L. 94-265, as amended, 16 USC § 1801 et seq.
15. Recycled Materials. Executive Order 13101; Section 6002 Resource Conservation and Recovery Act – 42 USC § 6962.

Economic and Miscellaneous Authorities

1. Demonstration Cities and Metropolitan Development Act of 1966, Pub. L. 89-754, as amended, Executive Order 12372/ 42 USC § 3331 et seq.
2. Procurement Prohibitions under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans; 42 USC § 7606; 33 USC § 1368; 40 CFR Part 31.
3. Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended; 42 USC §§4601-4655
4. Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects, EO 13202, as amended by EO 13208.
6. Hotel and Motel Fire Safety Act of 1990 (PL 101-391, as amended). All conference, meeting, convention, or training funded in whole or in part with federal funds shall comply with the protection and control guidelines of this act. Recipients may search <http://www.usfa.dhs.gov/applications/hotel/>.
7. Records and financial reporting requirements. 40 CFR Part 31.
8. Copyright requirements. 40 CFR Part 31.

Social Policy Authorities

1. Age Discrimination Act of 1975, Pub. L. 94-135; 42 USC § 6102.
2. Race Discrimination. Title VI of the Civil Rights Act of 1964, Pub. L. 88-352.1; 42 USC § 2000d; 40 CFR Part 7.
3. Sex Discrimination. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (the Clean Water Act); 33 USC § 1251; 40 CFR Part 7.
4. Disability Discrimination. Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (including Executive Orders 11914 and 11250); 29 USC § 794; 40 CFR Part 7.

5. **Equal Employment Opportunity, Executive Order 11246.**
6. **Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590.**

**ATTACHMENT I
DAVIS-BACON REQUIREMENTS**

Exhibit G – Davis Bacon Requirements

1. Contract and Subcontract provisions for Recipients

(a) The Recipient shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The Recipient, on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

- (2) The classification is utilized in the area by the construction industry;
and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Recipient agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the Recipient to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and Recipient do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- (2) **Withholding.** The Recipient, shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (3) **Payrolls and basic records.**
- (i) **Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.**
- (ii)(A) **The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the Recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State or EPA. As to each payroll copy received, the Recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime**

EXHIBIT G – DAVIS BACON REQUIREMENTS

contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Recipient for transmission to the State Water Board or EPA if requested by EPA, the State Water Board, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Recipient.

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required

records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe

benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Recipient, State, EPA, the U.S. Department of Labor, or the employees or their representatives.
- (10) Certification of eligibility.
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or

firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

2. Contract Provision for Contracts in Excess of \$100,000.

- (a) **Contract Work Hours and Safety Standards Act.** The Recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Section 1, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
 - (1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - (2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.
 - (3) **Withholding for unpaid wages and liquidated damages.** The Recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
 - (4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The

prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

- (b) In addition to the clauses contained in Section 1, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the United States Environmental Protection Agency, the Department of Labor, or the State Water Resources Control Board, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

3. Compliance Verification

- (a) The Recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.
- (b) The Recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the Recipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. The Recipient must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. The Recipient shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.
- (c) The Recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The Recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the Recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. The Recipient must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the Recipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.
- (d) The Recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that

contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

- (e) The Recipient must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

General Decision Number: CA160037 01/15/2016 CA37

Superseded General Decision Number: CA20150037

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: San Bernardino County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	01/15/2016

ASBE0005-002 07/01/2015

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	\$ 36.74	19.49
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls).....	\$ 25.38	16.81

ASBE0005-004 06/29/2015

Rates	Fringes
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Asbestos Removal
 worker/hazardous material
 handler (Includes
 preparation, wetting,
 stripping, removal,
 scrapping, vacuuming, bagging
 and disposing of all
 insulation materials from
 mechanical systems, whether
 they contain asbestos or not)....\$ 18.06 10.57

 BOIL0092-003 10/01/2012

	Rates	Fringes
BOILERMAKER.....	\$ 41.17	28.27

 * BRCA0004-011 05/01/2015

	Rates	Fringes
BRICKLAYER; MARBLE SETTER.....	\$ 37.15	13.02

*The wage scale for prevailing wage projects performed in
 Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine
 Palms, Needles and 1-15 corridor (Barstow to the Nevada
 State Line) will be Three Dollars (\$3.00) above the
 standard San Bernardino/Riverside County hourly wage rate

 BRCA0018-004 06/01/2014

	Rates	Fringes
MARBLE FINISHER.....	\$ 28.45	11.38
TILE FINISHER.....	\$ 23.78	9.84
TILE LAYER.....	\$ 35.14	14.33

 BRCA0018-010 09/01/2013

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 26.59	10.34
TERRAZZO WORKER/SETTER.....	\$ 33.63	11.13

 CARP0409-001 07/01/2010

	Rates	Fringes
CARPENTER (1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor		

Worker and acoustical installer.....	\$ 37.35	11.08
(2) Millwright.....	\$ 37.85	11.08
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....	\$ 37.48	11.08
(4) Pneumatic Nailer, Power Stapler.....	\$ 37.60	11.08
(5) Sawfiler.....	\$ 37.44	11.08
(6) Scaffold Builder.....	\$ 28.55	11.08
(7) Table Power Saw Operator.....	\$ 37.45	11.08

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

 CARP0409-002 07/01/2008

	Rates	Fringes
Diver		
(1) Wet.....	\$ 663.68	9.82
(2) Standby.....	\$ 331.84	9.82
(3) Tender.....	\$ 323.84	9.82
(4) Assistant Tender.....	\$ 299.84	9.82

Amounts in "Rates" column are per day

 CARP0409-005 07/01/2010

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER.....	\$ 37.35	11.08
STOCKER/SCRAPPER.....	\$ 10.00	6.67

 CARP0409-008 08/01/2010

	Rates	Fringes
Modular Furniture Installer.....	\$ 17.00	7.41

 ELEC0440-004 05/26/2014

COMMUNICATIONS AND SYSTEMS WORK

	Rates	Fringes
Communications System		
Installer.....	\$ 28.38	4%+11.45
Technician.....	\$ 30.18	4%+11.45

SCOPE OF WORK:

Installation, testing, service and maintenance of systems utilizing the transmission and/or transference of voice, sound, vision and digital for commercial, educational, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call systems, radio page, school intercom and sound, burglar alarms, fire alarms, and low voltage master clock systems in commercial buildings. Communication Systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding all other data systems or multiple systems which include control function or power supply; excluding installation of raceway systems, conduit systems, line voltage work, and energy management systems. Does not cover work performed at China Lake Naval Ordnance Test Station.

 ELEC0477-002 06/01/2015

	Rates	Fringes
Electricians:.....	\$ 36.07	21.90

CABLE SPLICER: \$1.00 per hour above Electrician rate.

TUNNEL WORK: 10% above Electrician rate.

ZONE PAY:

Zone A - 80 road miles from Post Office, 455 Orange Show Lane, San Bernardino, will be a free zone for all contractors

Zone B - Any work performed outside Zone A's 80 road miles, shall add \$12.00 per hour to the current wage scale.

 ELEC1245-001 06/01/2015

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	\$ 52.85	15.53
(2) Equipment specialist		
(operates crawler		

tractors, commercial motor
vehicles, backhoes,
trenchers, cranes (50 tons
and below), overhead &
underground distribution
line equipment).....\$ 42.21 14.32
(3) Groundman.....\$ 32.28 14.03
(4) Powderman.....\$ 47.19 14.60

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day,
Independence Day, Labor Day, Veterans Day, Thanksgiving Day
and day after Thanksgiving, Christmas Day

ELEV0018-001 01/01/2015

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 49.90	28.38

FOOTNOTE:

PAID VACATION: Employer contributes 8% of regular hourly
rate as vacation pay credit for employees with more than 5
years of service, and 6% for 6 months to 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day,
Labor Day, Veterans Day, Thanksgiving Day, Friday after
Thanksgiving, and Christmas Day.

ENGI0012-003 07/06/2015

	Rates	Fringes
OPERATOR: Power Equipment (All Other Work)		
GROUP 1.....	\$ 39.95	23.35
GROUP 2.....	\$ 40.73	23.35
GROUP 3.....	\$ 41.02	23.35
GROUP 4.....	\$ 42.51	23.35
GROUP 5.....	\$ 41.86	23.35
GROUP 6.....	\$ 41.83	23.35
GROUP 8.....	\$ 42.84	23.35
GROUP 9.....	\$ 42.19	23.35
GROUP 10.....	\$ 42.96	23.35
GROUP 11.....	\$ 42.31	23.35
GROUP 12.....	\$ 43.13	23.35
GROUP 13.....	\$ 43.23	23.35
GROUP 14.....	\$ 43.26	23.35
GROUP 15.....	\$ 43.34	23.35
GROUP 16.....	\$ 43.46	23.35
GROUP 17.....	\$ 43.63	23.35
GROUP 18.....	\$ 43.73	23.35
GROUP 19.....	\$ 43.84	23.35
GROUP 20.....	\$ 43.96	23.35

GROUP 21.....	\$ 44.13	23.35
GROUP 22.....	\$ 44.23	23.35
GROUP 23.....	\$ 44.34	23.35
GROUP 24.....	\$ 44.46	23.35
GROUP 25.....	\$ 44.63	23.35
OPERATOR: Power Equipment (Cranes, Piledriving & Hoisting)		
GROUP 1.....	\$ 41.30	23.35
GROUP 2.....	\$ 42.08	23.35
GROUP 3.....	\$ 42.37	23.35
GROUP 4.....	\$ 42.51	23.35
GROUP 5.....	\$ 42.73	23.35
GROUP 6.....	\$ 42.84	23.35
GROUP 7.....	\$ 42.96	23.35
GROUP 8.....	\$ 43.13	23.35
GROUP 9.....	\$ 43.30	23.35
GROUP 10.....	\$ 44.30	23.35
GROUP 11.....	\$ 45.30	23.35
GROUP 12.....	\$ 46.30	23.35
GROUP 13.....	\$ 47.30	23.35
OPERATOR: Power Equipment (Tunnel Work)		
GROUP 1.....	\$ 41.80	23.35
GROUP 2.....	\$ 42.58	23.35
GROUP 3.....	\$ 42.87	23.35
GROUP 4.....	\$ 43.01	23.35
GROUP 5.....	\$ 43.23	23.35
GROUP 6.....	\$ 43.34	23.35
GROUP 7.....	\$ 43.46	23.35

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled

tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity); Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and

up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including

50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types);

Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SMB to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1,

T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a thin strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is

the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

 ENGI0012-004 08/01/2015

	Rates	Fringes
OPERATOR: Power Equipment		
(DREDGING)		
(1) Leverman.....	\$ 49.50	23.60
(2) Dredge dozer.....	\$ 43.53	23.60
(3) Deckmate.....	\$ 43.42	23.60
(4) Winch operator (stern winch on dredge).....	\$ 42.87	23.60
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 42.33	23.60
(6) Barge Mate.....	\$ 42.94	23.60

 IRON0377-002 07/01/2015

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 27.08	20.21
Ornamental, Reinforcing and Structural.....	\$ 33.50	28.85

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base,

Naval Post Graduate School - Monterey, Yermo Marine Corps
Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0300-005 01/01/2014

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 28.00	15.25

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/01/2014

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 34.79	17.92
GROUP 2.....	\$ 33.84	17.92
GROUP 3.....	\$ 30.30	17.92

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

LABO0783-002 08/01/2015

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 37.04	16.78
GROUP 2.....	\$ 37.36	16.78
GROUP 3.....	\$ 38.82	16.78
GROUP 4.....	\$ 38.51	16.78
LABORER		
GROUP 1.....	\$ 31.39	16.78
GROUP 2.....	\$ 31.94	16.78
GROUP 3.....	\$ 32.49	16.78
GROUP 4.....	\$ 34.04	16.78
GROUP 5.....	\$ 34.39	16.78

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank

scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LABO0783-005 07/01/2014

	Rates	Fringes
Brick Tender.....	\$ 29.12	15.78

LABO1184-001 08/01/2015

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer...	\$ 32.60	12.16
(2) Vehicle Operator/Hauler...	\$ 32.77	12.16
(3) Horizontal Directional Drill Operator.....	\$ 34.62	12.16
(4) Electronic Tracking Locator.....	\$ 36.62	12.16
Laborers: (STRIPING/SLURRY SEAL)		
GROUP 1.....	\$ 33.76	15.04
GROUP 2.....	\$ 35.06	15.04
GROUP 3.....	\$ 37.07	15.04
GROUP 4.....	\$ 38.81	15.04

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including

repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

LABO1414-003 08/05/2015

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER.....	\$ 30.16	17.11
PLASTER TENDER.....	\$ 32.71	17.11

Work on a swing stage scaffold: \$1.00 per hour additional.

Work at Military Bases - \$3.00 additional per hour:

Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air Facility-Seeley, North Island Naval Air Station, Vandenberg AFB.

PAIN0036-001 07/01/2015

	Rates	Fringes
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Painters: (Including Lead
Abatement)

(1) Repaint (excludes San Diego County).....	\$ 27.29	12.83
(2) All Other Work.....	\$ 30.72	12.83

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-008 10/01/2015

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 36.18	16.82

PAIN0036-015 06/01/2015

	Rates	Fringes
GLAZIER.....	\$ 40.70	20.92

FOOTNOTE: Additional \$1.25 per hour for work in a condor, from the third (3rd) floor and up Additional \$1.25 per hour for work on the outside of the building from a swing stage or any suspended contrivance, from the ground up

* PAIN1247-002 01/01/2016

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 29.85	14.01

PLAS0200-008 08/05/2015

	Rates	Fringes
PLASTERER.....	\$ 38.44	13.77

FORT IRWIN; MARINE CORPS AIR STATION 29 PALMS, AND MARINE CORPS LOGISTICS SUPPLY BASE: \$3.00 additional per hour.

PLAS0500-002 07/01/2015

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...\$	32.30	20.65

PLUM0016-002 07/01/2015

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER		
Plumber and Pipefitter		
All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....	\$ 45.96	20.71
Work at Edwards AFB.....	\$ 52.96	20.71
Work at Fort Irwin Army Base, Marine Corps Logistic Base at Nebo, Marine Corps Logistic Base at Yermo and Twenty-Nine Palms Marine Base.....	\$ 56.46	20.71
Work ONLY on new additions and remodeling of bars, restaurants, stores and commercial buildings, not to exceed 5,000 sq. ft. of floor space.....	\$ 44.54	19.73
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....	\$ 35.16	18.06

PLUM0345-001 07/01/2014

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter..	\$ 29.27	19.75
Sewer & Storm Drain Work....	\$ 33.24	17.13

ROOF0036-002 08/01/2014

	Rates	Fringes
ROOFER.....	\$ 35.02	13.57

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per

hour "pitch premium" pay.

SFCA0669-009 07/01/2013

Does not include the northern part of the City of Chino, or the
Cities of Montclair and Ontario

	Rates	Fringes
SPRINKLER FITTER.....	\$ 34.19	19.37

SFCA0709-004 01/01/2015

THE NORTHERN PART OF THE CITY OF CHINO, AND THE CITIES OF
MONTCLAIR AND ONTARIO:

	Rates	Fringes
SPRINKLER FITTER (Fire).....	\$ 40.46	24.17

* SHEE0105-003 01/01/2016

LOS ANGELES (South of a straight line drawn between Gorman and
Big Pines)and Catalina Island, INYO, KERN (Northeast part, East
of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

	Rates	Fringes
SHEET METAL WORKER (1) Commercial - New Construction and Remodel work.....	\$ 41.26	25.38
(2) Industrial work including air pollution control systems, noise abatement, hand rails, guard rails, excluding aritechtural sheet metal work, excluding A-C, heating, ventilating systems for human comfort...	\$ 41.26	25.38

TEAM0011-002 07/01/2015

	Rates	Fringes
TRUCK DRIVER GROUP 1.....	\$ 28.24	25.24
GROUP 2.....	\$ 28.39	25.24
GROUP 3.....	\$ 28.52	25.24

GROUP 4.....	\$ 28.71	25.24
GROUP 5.....	\$ 28.74	25.24
GROUP 6.....	\$ 28.77	25.24
GROUP 7.....	\$ 29.02	25.24
GROUP 8.....	\$ 29.27	25.24
GROUP 9.....	\$ 29.47	25.24
GROUP 10.....	\$ 29.77	25.24
GROUP 11.....	\$ 30.27	25.24
GROUP 12.....	\$ 30.70	25.24

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.

[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB, El Centro Naval Facility, Fort Irwin, Marine Corps Logistics Base at Nebo & Yermo, Mountain Warfare Training Center, Bridgeport, Point Arguello, Point Conception, Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles

or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate

changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

ATTACHMENT J
DBE INSTRUCTIONS & FORMS

California State Water Resources Control Board
Division of Financial Assistance (Division)
1001 I Street • Sacramento, California 95814 • (916) 341-5700 FAX (916) 341-5707
Mailing Address: P. O. Box 944212 • Sacramento, California • 94244-2120
Internet Address: <http://www.waterboards.ca.gov>

Guidelines for Meeting the California State Revolving Fund (CASRF) Programs
(Clean Water and Drinking Water SRF)
Disadvantaged Business Enterprise (DBE) Requirements
(Revised April 24, 2015)

The DBE Program is an outreach, education, and objectives program designed to increase the participation of DBEs in the CWSRF Programs.

How to Achieve the Purpose of the Program

Recipients of CASRF financing that are subject to the DBE requirements (recipients) are required to seek, and are encouraged to use, DBEs for their procurement needs. Recipients should award a "fair share" of sub-agreements to DBEs. This applies to all sub-agreements for equipment, supplies, construction, and services.

The key functional components of the DBE Program are as follows.

- Fair Share Objectives
- DBE Certification
- Six Good Faith Efforts
- Contract Administration Requirements
- DBE Reporting

Disadvantaged Business Enterprise's are:

- entities owned and/or controlled by socially and economically disadvantaged individuals as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d) (8% statute), respectively;
- a Minority Business Enterprise (MBE) are entities that are at least 51% owned and/or controlled by a socially and economically disadvantaged individual as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note), and Public Law 102-389 (42 U.S.C. 4370d), respectively.
- a Women Business Enterprise (WBE) are entities that are at least 51% owned and/or controlled by women.
- a Small Business Enterprise (SBE);
- a Small Business in a Rural Area (SBRA);
- a Labor Surplus Area Firm (LSAF); or
- an Historically Underutilized Business (HUB) Zone Small Business Concern or a concern under a successor program.

Certifying DBE Firms:

Under the DBE Program, entities can no longer self-certify and contractors and sub-contractors must be certified at bid opening. Contractors and sub-contractors must provide to the CASRF recipient proof of DBE certification. Certifications will be accepted from the following:

- The US Environmental Protection Agency (USEPA)
- The Small Business Administration (SBA);
- The Department of Transportation's State implemented DBE Certification Program (with U.S. citizenship);
- Tribal, State and Local governments;
- Independent private organization certifications.

If an entity holds one of these certifications, it is considered acceptable for establishing status under the DBE Program.

Six Good Faith Efforts (GFE)

All CWSRF financing recipients are required to complete and ensure that the prime contractor complies with the GFE below to ensure that DBEs have the opportunity to compete for financial assistance dollars.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practical through outreach and recruitment activities. For Tribal, State and Local Government Recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs. Posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid opening date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs.
4. Encourage contracting with a group of DBEs when a contract is too large for one firm to handle individually.
5. Use the services and assistance of the SBA and/or Minority Business Development Agency (MBDA) of the US Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

The forms listed in the table below and attached to these guidelines; must be completed and submitted with the GFE:

FORM NUMBER	FORM NAME	REQUIREMENT	PROVIDED BY	COMPLETED BY	SUBMITTED TO
EPA 6100-2	DBE Sub-Contractor Participation Form	As Needed to Report Issues	Recipient	Sub-Contractor	EPA DBE Coordinator
EPA 6100-3	DBE Sub-Contractor Performance Form	Include with Bid or Proposal Package	Prime Contractor	Sub-Contractor	SWRCB by Recipient
EPA 6100-4	DBE Sub-Contractor Utilization Form	Include with Bid or Proposal Package	Recipient	Prime Contractor	SWRCB by Recipient

The completed forms must be submitted with each Bid or Proposal. The recipient shall review the bidder's documents closely to determine that the GFE was performed **prior** to bid or proposal opening date. Failure to complete the GFE and to substantiate completion of the GFE before the bid opening date could jeopardize CWSRF financing for the project. The following situations and circumstances require action as indicated:

1. If the apparent successful low bidder was rejected, a complete explanation must be provided;
2. Failure of the apparent low bidder to **perform** the GFE **prior** to bid opening constitutes a non-responsive bid. The construction contract may then be awarded to the next low, responsive, and responsible bidder that meets the requirements or the Recipient may re-advertise the project.
3. If there is a bid dispute, all disputes shall be settled **prior** to submission of the Final Budget Approval Form.

Administration Requirements

- A recipient of CWSRF financing must require entities receiving funds to create and maintain a Bidders List if the recipient of the financing agreement is subject to, or chooses to follow, competitive bidding requirements;
- The Bidders list must include all firms that bid or quote on prime contracts, or bid or quote on subcontracts, including both DBEs and non-DBEs.

- Information retained on the Bidder's List must include the following:
 1. Entity's name with point of contact;
 2. Entity's mailing address and telephone number;
 3. The project description on which the entity bid or quoted and when;
 4. Amount of bid/quote; and
 5. Entity's status as a DBE or non-DBE.
- The Bidders List must be kept until the recipient is no longer receiving funding under the agreement.
- The recipient shall include Bidders List as part of the Final Budget Approval Form.
- A recipient must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the Recipient.
- A recipient must be notified in writing by its prime contractor prior to any termination of a DBE subcontractor by the prime contractor.
- If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six GFEs if soliciting a replacement subcontractor.
- A recipient must require its prime contractor to employ the six GFEs even if the prime contractor has achieved its fair share objectives.

Reporting Requirements

For the duration of the construction contract(s), the recipient is required to submit to the State Water Resources Control Board DBE reports annually by October 10 of each fiscal year on the attached Utilization Report form (UR-334). Failure to provide this information as stipulated in the financial agreement language may be cause for withholding disbursements.

CONTACT FOR MORE INFORMATION

SWRCB – CASRF Barbara August (916) 341-6952 barbara.august@waterboards.ca.gov

US-EPA Region 9 – Joe Ochab (415) 972-3761 ochab.joe@epa.gov.



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form**

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE1 subcontractor2 the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



United States

OMB Control No: 2090-0030

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Environmental Protection Agency

Approved: 8/13/2013
Approval Expires: 8/31/2015

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

This form is intended to capture the DBE1 subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <u> </u> DOT <u> </u> SBA		Meets/ exceeds EPA certification standards?
<u> </u> Other: _____		<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



United States Environmental Protection Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Table with 2 columns: Prime Contractor Signature, Print Name, Title, Date

Table with 2 columns: Subcontractor Signature, Print Name, Title, Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity:			

I have identified potential DBE certified subcontractors	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



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**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



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Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

**STATE WATER RESOURCES CONTROL BOARD - DIVISION OF FINANCIAL ASSISTANCE
DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION
CALIFORNIA STATE REVOLVING FUNDS
INSTRUCTIONS FOR COMPLETING FORM UR-334**

- Box 1** Grant or Financing Agreement Number.
- Box 2** Annual reporting period.
- Box 3** Enter the dates between which you made procurements under this financing agreement or grant.
- Box 4** Enter the total amount of payments paid to the contractor or sub-contractors during this reporting period.
- Box 5** Enter Recipient's Name and Address.
- Box 6** Enter Recipient's Contact Name and Phone Number.
- Box 7** Enter details for the **DBE purchases only** and be sure to limit them to the current period. 1) Use either an "R" or a "C" to represent "Recipient" or "Contractor." 2) Enter a dollar total for DBE and total the two columns at the bottom of the section. 3) Provide the payment date. 4) Enter a product type choice from those at the bottom of the page. 5) List the vendor name and address in the right-hand column
- Box 8** Initial here if no DBE contractors or sub-contractors were paid during this reporting period.
- Box 9** Initial this box only if all purchases under this financing agreement or grant have been completed during this reporting period or a previous period. If you initial this box, we will no longer send you a survey.
- Box 10** This box is for explanatory information or questions.
- Box 11** Provide an authorized representative signature.
- Box 12** Enter the date form completed.

**ATTACHMENT K
CONSTRUCTION SIGNAGE**

2.20 Signage.

The Recipient shall place a sign at least four feet tall by eight feet wide made of ¾ inch thick exterior grade plywood or other approved material in a prominent location on the Project site and shall maintain the sign in good condition for the duration of the construction period. The sign shall include the following color logos (available from the Division) and the following disclosure statement:



“Funding for this project has been provided in full or in part by the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California’s Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds.”

The Project sign may include another agency’s required promotional information so long as the above logos and disclosure statement are equally prominent on the sign. The sign shall be prepared in a professional manner.

The Recipient shall include the following disclosure statement in any document, written report, or brochure prepared in whole or in part pursuant to this Agreement:

“Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. (Gov. Code § 7550, 40 CFR § 31.20.)”

Signage Template

The signage template features three logos at the top: a stylized 'S' with 'Clean Water' below it, the 'CALIFORNIA Water Boards' logo with wavy lines, and the 'EPA United States Environmental Protection Agency' logo. The main text is centered and reads: 'WATER QUALITY LABORATORY & CENTRAL PLANT EXPANSION', 'PROJECT EN15008', and 'Contractor: To Be Determined'. Below this is a section titled 'PROJECT FUNDING' with a paragraph of text explaining the funding sources. At the bottom left is the 'Inland Empire Water Agency' logo, and at the bottom right is the 'San Gabriel Valley Water Agency' logo.

Clean Water

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD

EPA
United States Environmental Protection Agency

WATER QUALITY LABORATORY & CENTRAL PLANT EXPANSION
PROJECT EN15008
Contractor: To Be Determined

PROJECT FUNDING

Funding for this project has been provided in full or in part by the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and State bond proceeds. (Gov. Code § 7550, 40 CFR § 31.20.)

Inland Empire Water Agency
A REGIONAL WATER BOARD DISTRICT 1

San Gabriel Valley Water Agency
A REGIONAL WATER BOARD DISTRICT 1

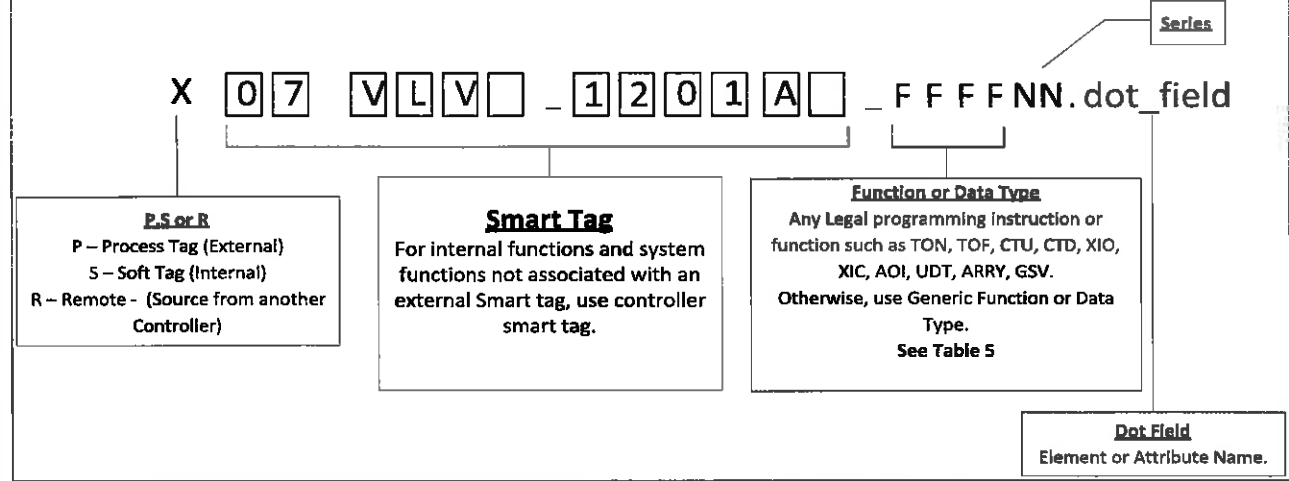
ATTACHMENT L
RECORDS RETENTION

RECORDS RETENTION

The Recipient shall be required to maintain separate books, records and other material relative to the Project. The Recipient shall also be required to retain such books, records, and other material for itself and for each contractor or subcontractor who performed work on this project for a minimum of thirty-six (36) years after Project Completion. The Recipient shall require that such books, records, and other material be subject at all reasonable times (at a minimum during normal business hours) to inspection, copying, and audit by the State Water Board, the Bureau of State Audits, the United States Environmental Protection Agency (USEPA), the Office of Inspector General, the Internal Revenue Service, the Governor, or any authorized representatives of the aforementioned, and shall allow interviews during normal business hours of any employees who might reasonably have information related to such records. The Recipient agrees to include a similar right regarding audit, interviews, and records retention in any subcontract related to the performance of this Agreement. The provisions of this section shall survive the discharge of the Recipient's Obligation hereunder and shall survive the term of this Agreement.

ATTACHMENT M
IEUA GENERAL TAG GUIDELINES

PCS / SCADA Tagging Guideline



Examples:

P07PMP-0201FA_STRT01 Start command to Ferric Pump

<u>SmartTag</u>	<u>Facility</u>	<u>Equipment</u>	<u>Proc or Soft</u>	<u>Element or Function</u>
P07PMP_0201FA_STRT01	CCWRF	Ferric Pump 1	Process	Start Command
P07PMP_0202FA_LEAK01	CCWRF	Ferric Pump 2	Process	Leak Detection
S07FIT_0401CA_AOI01	CCWRF	Basin 1 Air Flow	Software	Analog Input AIO
S07DCP_1101A_GSV.DateTime	CCWRF	DCP 1	Software	Controller Time and Date
S07COMP_0901CA_TMR01	CCWRF	Plant Air System	Software	Low Pressure Alarm Timer
S07MTR_1001EA_CTU01.ACC	CCWRF	PO Pump #1	Software	Start Counter

Table 2 - Equipment Technical Descriptor

Description of Technical Object	Technical Descriptor
Actuator	ACT
Air Conditioner	AC
Air Release Valve	ARV
Air Release/Vacuum Relief Valve	AVRV
Air Separator	ASPR
Backflow Preventer	BFP
Blender	BLDR
Blowoff	BO
Boiler	BLR
Burner	BNR
Cannon	CANN
Catholic Protection Station	CPS
Chute	CHUT
Centrifuge	CNFG
Chiller	CHLR
Compressor	COMP
Conductivity	COND
Crane	CRAN
Conveyor	CVR
Drive	DRV
Engine	ENG
Eye Wash	EYEW
Fan	FAN
Feeder	FDR
Gate	GATE
Generator	GEN
Grinder	GNDR
Harmonic Filter	HFLT
Heat Exchanger	HXGR
Antenna	IANT
Application Server	IAPP
Broadband Hardware	IBB
RSLinx, Matikon Server	IDAS
Distributed Control processor	IDCP
Historian Server	IHS
HMI Server	IHMI
Infrastructure Server	IINF
Local Control Panel	ILCP
Media Converter	IMED
Operator Interface terminal	IOIT
PCS Server	IPCS
PLC	IPLC
DCP	DCP
RIO	RIO
Printer	IPRT
RACO Alarm Hardware	IRAC
Remote I/O	IRIO
Network Router	IRTR
Scanner	ISCN
Network Security Hardware	ISEC
Network Switch	ISWT
Microwave Hardware	IWAV
WiFi Hardware	IWFI
Workstation	IWRW
Leveler	LVL
Lube Oil System	LUBS
Motor	MTR
Mixer	MXR
Pipe	PIPE
Pump	PMP
Pressure Relief Valve	PRV
Sampler	SMP
Sensor	SNSR
Shower	SHWR
Strainer	STNR
Switchgear	SWGR
Tank	TNK
Tower	TWR
Uninterruptible Power Supply	UPS
Valve	VLV
Variable Frequency Drive	VFD
Water Filter	WFLT

Table 3: Process Designation

Process Description	Process Designation	Process Description	Process Designation
Power Distribution System	01	CB-11	50
Preliminary	02	CB-13	51
Primary	03	CB-14	52
Secondary	04	CB-15	53
Solid Handling	05	CB-18	54
	06	CB-20	55
	07	OC-59	56
Renewable Energy System	08	College Height Basin	57
Plant/Facility	09	Upland Basin	58
Tertiary	10	Montclair Basin	59
PCS/SCADA System	11	Brooks Basin	60
Recycled Water Pump Station	12	7th & 8th Street Basin	61
Dump Station	13	Ely Basin	62
Recycled Water Utility System	14	Turner 1 & 2 Basin	63
Dechlorination System	15	Turner 3 & 4 Basin	64
Main Control System	16	Lower Day Basin	65
Lift Stations	17	Etiwanda Debris Basin	66
	18	Victoria Basin	67
	19	San Sevaine Basin	68
HQ - Building A	20	Banana Basin	69
HQ - Building B	21	Hickory Basin	70
Central Plant	22	RP3 Basin	71
Building	23	Declez Basin	72
	24	Grove Basin	73
	25	Jurupa Basin	74
	26	Etiwanda Conservation Basin	75
	27		76
	28		77
	29		78
800 RW Distribution System	30	Regional Sewers	79
930 RW Distribution System	31	NRWS Sewers	80
1050 RW Distribution System	32	Collection Laterals	81
1158 RW Distribution System	33	Collections NRW Industry	82
1299 RW Distribution System	34	Philadelphia Pump Station	83
1630RW Distribution System	35	San Bernardino Pump Station	84
1630 East Pump Station	36	Jurupa Pump Station	85
930/800 PRV Station	37	Montclair Pump Station	86
1630 West Pump Station	38	Diversion Structures	87
RW Remote Metering System	39	Compost Receiving/Mixing Area	88
RW Control System	40	Compost Bag House	89
1158 Reservoir	41	Compost Processing Area	90
1299 East Reservoir	42	Compost Curing Area	92
1630 East Reservoir	43	Compost Conveyor System	93
1630 West Reservoir	44	Compost Screening System	94
930 Reservoir	45	Compost Loading Area	95
	46	Compost Storage Area	96
	47	Compost Ventilation System	97
	48	Compost Bio Filtration System	98
	49	Compost Control System	99

Table 4: System Designation

System Description	System Designation
PRELIMINARY TREATMENT	
Influent Metering	A
Influent Pumping	B
Influent Flow Diversion Structure	C
Screening	D
Grit Removal	E
Ferric Injection	F
Polymer Injection	G
Odor Control	H
Auxiliary	I

PRIMARY TREATMENT	
Influent Metering	A
Clarifier Drive	B
Sludge	C
Scum	D
Influent Flow Diversion Structure	E
Effluent Flow Diversion Structure	F
Emergency Storage Basin / Equalization Basin	G
Odor Control	H
Auxiliary	I

SECONDARY TREATMENT	
Influent Metering	A
Influent Pumping	B
Aeration Basin	C
Blower and Aeration System	D
Clarifier Drive	E
Secondary Clarifier Influent Flow Diversion Structure	F
Secondary Clarifier Effluent Flow Diversion Structure	G
Secondary Clarifier Scum System	H
RAS	I
WAS	J
MLR	K
Polymer Injection	L
Auxiliary	M

TERTIARY TREATMENT AND CHEMICAL FEED SYSTEMS	
Influent Metering	A
Coagulation	B
Flocculation	C
Aium Injection	D
Polymer Injection	E
Filtration	D
Filter Backwash System	F
Filter Effluent Structure	G
Chlorination	H
Chlorine Contact Basin	I
Utility Water	J
Flow Diversion/Storage	K
De-Chlorination	L
De-Chlorination Basin	M
Effluent Metering	N
Auxiliary	O

System Description	System Designation
SOLID HANDLING	
Gravity Thickening	A
GT Bleach Injection	B
Dissolved Air Flotation Thickening	C
DAFT Polymer Injection	D
Sludge Transfer	E
Polymer Injection	F
Digestion	G
Ferric Injection	H
Digester Gas	I
Digester Gas Conditioning	J
Digester Heating	K
Dewatering	L
Dewatering Polymer Injection	M
Scale Control Chemical Injection	N
Filtrate/Centrate	O
Odor Control	P
Flare	Q
Auxiliary	R

MISCELLANEOUS SYSTEMS	
Standby Generator	A
Plant Air System	C

CONTROL SYSTEMS	
DCP Primary	A
DCP Secondary	B
Local PLC	C
DeviceNet Gateway	D
Ethernet Gateway	E
	F
	G
	H
Input Module	I
	J
	K
LonWorks Gateway	L
Modbus Gateway TCP/Serial	M
Network Device / Switch	N
Output Module	O
Power Monitor	P
Auxiliary	X

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
AOI	Add-On Instruction	OPLM	Open Limit	BOOL	Boolean
ABL	ASCII Test For Buffer Line	CLLM	Closed Limit	INT	Integer
ABS	Absolute Value	OPCM	Open Command	SINT	Single Integer
ACB	ASCII Chars in Buffer	CLCM	Close Command	DINT	Double Integer
ACL	ASCII Clear Buffer	FAIL	Failed Indication	REAL	Real Number
ACS	Arc Cosine	HAL	High Alarm	STRG	String
ADD	Add	HHAL	High High Alarm	BIN	Binary
AFI	Always False Instruction	LAL	Low Alarm	HEX	Hexadecimal
AHL	ASCII Handshake Lines	LLAL	Low Low Alarm	BCD	Binary Coded Decimal
ALM	Alarm	STAT	Status	AOI	Add-On Instruction
ALMA	Analog Alarm	HAND	Hand	UDT	User Defined Data Type
ALMD	Digital Alarm	AUTO	Auto	ARRY	Array
AND	Bitwise AND	ENBL	Enable	MDT	Module Data Type
ARD	ASCII Read	REM	Remote	MSG	Message
ARL	ASCII Read Line	LOC	Local		
ASN	Arc Sine	OFF	Off		
ATN	Arc Tangent	ON	On		
AVE	File Average	FWD	Forward		
AWA	ASCII Write Append	REV	Reverse		
AWT	ASCII Write	STBY	Standby		
BAND	Boolean AND	STRT	Start		
BNOT	Boolean NOT	STOP	Stop		
BOR	Boolean OR	JOG	Jog		
BPT	Breakpoints	OUT	Out		
BRK	Break	IN	In		
BSL	Bit Shift Left	EXTD	Extend		
BSR	Bit Shift Right	RTCT	Retract		
BTD	Bit Field Distribute	LEAK	Leak Detection		
BTDI	Bit Field Distribute with Target				
BTR	Message				
BTW	Message				
BXOR	Boolean Exclusive OR				
CC	Coordinated Control				
CLR	Clear				
QMP	Compare				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
CONC	AT String Concatenate				
COP	Copy File				
COS	Cosine				
CPS	Synchronous Copy File				
CPT	Compute				
CTD	Count Down				
CTU	Count Up				
CTUD	Count Up/Down				
D2SD	Discrete 2-State Device				
D3SD	Discrete 3-State Device				
DDT	Diagnostic Detect				
DEDT	Deadtime				
DEG	Degrees				
DELS	String Delete				
DERV	Derivative				
DFF	D Flip-Flop				
DIV	Divide				
DTOS	DINT to String				
DTR	Data Transitional				
EOT	End of Transition				
EQU	Equal to				
ESEL	Enhanced Select				
EVNT	Trigger Event Task				
FAL	File Arithmetic and Logic				
FBC	File Bit Comparison				
FFL	FIFO Load				
FFU	FIFO Unload				
FGEN	Function Generator				
FIND	Find String				
FLL	File Fill				
FOR	For				
FRD	Convert to Integer				
FSC	File Search and Compare				
GEQ	Greater than or Equal to				
GRT	Greater Than				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
GSV	Get System Value				
HLL	High/Low Limit				
HPF	High Pass Filter				
ICON	Input Wire Connector				
IMC	Internal Model Control				
INST	Insert String				
INT	G Integrator				
IOT	Immediate Output				
IREF	Input Reference				
JKFF	JK Flip-Flop				
JMP	Jump to Label				
JSR	Jump to Subroutine				
JXR	Jump to External Routine				
LBL	Label				
LDL2	Second-Order Lead Lag				
LDLG	Lead-Lag				
LEQ	Less Than or Equal to				
LES	Less Than				
LFL	LIFO Load				
LFU	LIFO Unload				
LIM	Limit				
LN	Natural Log				
LOG	Log Base 10				
LOWR	Lower Case				
LPF	Low Pass Filter				
MAAT	Motion Apply Axis Tuning				
MAFR	Motion Axis Fault Reset				
MAG	Motion Axis Gear				
MAHD	Motion Apply Hookup Diagnostics				
MAH	Motion Axis Home				
MAJ	Motion Axis Jog				
MAM	Motion Axis Move				
MAOC	Motion Arm Output Cam				
MAPC	Motion Axis Position Cam				
MAR	Motion Arm Registration				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
MASD	Motion Axis Shutdown				
MAS	Motion Axis Stop				
MASR	Motion Axis Shutdown Reset				
MATC	Motion Axis Time Cam				
MAVE	Moving Average				
MAW	Motion Arm Watch				
MAXC	Maximum Capture				
MCCD	Motion Coordinated Change Dynamics				
MCCM	Motion Coordinated Circular Move				
MCCP	Motion Calculate Cam Profile				
MCD	Motion Change Dynamics				
MCLM	Motion Coordinated Linear Move				
MCR	Master Control Reset				
MCSD	Motion Coordinated Shutdown				
MCS	Motion Coordinated Stop				
MCSR	Motion Coordinated Shutdown Reset				
MCT	Motion Coordinated Transform				
MCTP	Motion Calculate Transform Position				
MDAC	Motion Master Driven Axis Control				
MDCC	Motion Master Driven Coordinated Control				
MDF	Motion Direct Drive Off				
MDOC	Motion Disarm Output Cam				
MDO	Motion Direct Drive On				
MDR	Motion Disarm Registration				
MDW	Motion Disarm Watch				
MEQ	Mask Equal to				
MGSD	Motion Group Shutdown				
MGS	Motion Group Stop				
MGSP	Motion Group Strobe Position				
MGSR	Motion Group Shutdown Reset				
MID	Middle String				
MINC	Minimum Capture				
MMC	Modular Multivariable Control				
MOD	Modulo				
MOV	Move				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
MRAT	Motion Run Axis Tuning				
MRHD	Motion Run Hookup Diagnostics				
MRP	Motion Redefine Position				
MSF	Motion Servo Off				
MSG	Message				
MSO	Motion Servo On				
MSTD	Moving Standard Deviation				
MUL	Multiply				
MUX	Multiplexer				
MVM	Masked Move				
MVMT	Masked Move with Target				
NEG	Negate				
NEQ	Not Equal to				
NOP	No Operation				
NOT	Bitwise NOT				
NTCH	Notch Filter				
OCON	Output Wire Connector				
ONS	One Shot				
OR	Bitwise OR				
OREF	Output Reference				
OSFI	One Shot Falling with Input				
OSF	One Shot Falling				
OSRI	One Shot Rising with Input				
OSR	One Shot Rising				
OTE	Output Energize				
OTL	Output Latch				
OTU	Output Unlatch				
PATT	Attach to Equipment Phase				
PCLF	Equipment Phase Clear Failure				
PCMD	Equipment Phase Command				
PDET	Detach from Equipment Phase				
PFL	Equipment Phase Failure				
PIDE	Enhanced PID				
PID	Proportional Integral Derivative				
PIP	roportional + Integral				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
PMUL	Pulse Multiplier				
POSP	Position Proportional				
POVR	Equipment Phase Override Command				
PPD	Equipment Phase Paused				
BRN	P Equipment Phase New Parameters				
PSC	Phase State Complete				
PXRQ	Equipment Phase External Request				
RAD	Radians				
RESD	Reset Dominant				
RES	Reset				
RET	Return				
RLIM	Rate Limiter				
RMPS	Ramp/Soak				
RTO	Retentive Timer On				
RTOR	Retentive Timer On with Reset				
RTOS	REAL to String				
SBR	Subroutine				
SCL	Scale				
SCRV	S-Curve				
SEL	Select				
SETD	Set Dominant				
SFP	SFC Pause				
SFR	SFC Reset				
SIN	Sine				
BRN	P Equipment Phase New Parameters				
PSC	Phase State Complete				
PXRQ	Equipment Phase External Request				
RAD	Radians				
RESD	Reset Dominant				
RES	Reset				
RET	Return				
RLIM	Rate Limiter				
RMPS	Ramp/Soak				
RTO	Retentive Timer On				
RTOR	Retentive Timer On with Reset				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
RTOS	REAL to String				
SBR	Subroutine				
SCL	Scale				
SCRV	S-Curve				
SEL	Select				
SETD	Set Dominant				
SFP	SFC Pause				
SFR	SFC Reset				
SIN	Sine				
SIZ	E Size In Elements				
SNEG	Selected Negate				
SOC	Second-Order Controller				
SQL	Sequencer Input				
SQL	Sequencer Load				
SQO	Sequencer Output				
SQR	Square Root				
SQRT	Square Root				
SRT	File Sort				
S RTP	Split Range Time Proportional				
SSUM	Selected Summer				
SSV	Set System Value				
STD	File Standard Deviation				
STOD	String To DINT				
STOR	String To REAL				
SUB	Subtract				
SWPB	Swap Byte				
TAN	Tangent				
TND	Temporary End				
TOD	Convert to BCD				
TOFR	Timer Off Delay with Reset				
TOF	Timer Off Delay				
TONR	Timer On Delay with Reset				
TON	Timer On Delay				
TOT	Totalizer				
TPT	Tracepoints				

Table 5: Functions and Data Types

Logic Function	Description	Generic Function	Description	Data Type	Description
TRN	Truncate				
TRUN	C Truncate				
UID	User Interrupt Disable				
UIE	User Interrupt Enable				
UPDN	Up/Down Accumulator				
UPPE	R Upper Case				
XIC	Examine If Closed				
XIO	Examine If Open				
XOR	Bitwise Exclusive OR				
XPY	X to the Power of Y				

ADDENDUM NO. 1
SPECIFICATIONS/DESIGN DRAWINGS
FOR THE CONSTRUCTION OF THE
ROOFTOP SOLAR PHOTOVOLTAIC SYSTEM
RFP-RW-16-007
PROJECT NO. EN15008

June 7, 2016

To: All Construction Drawings and Specification Holders

The following changes, clarifications and additions are hereby made to the document.

ATTACHMENTS

- None

SPECIFICATIONS

- 1. Reference: Section 1 – Submittal Information, Article C – Pre-Bid and Job-Walk Meeting, Page 1-1**

Delete the following text from text box: “PRE-BID MEETING and JOB-WALK:” and replace with the following:

“OPTIONAL PRE-BID MEETING and JOB-WALK:”

- 2. Reference: Section 1 – Submittal Information, Article I – Proposal Format – Bullet Point No. 8, Page 1-2**

Delete Bullet No. 8 text in its entirety and replace with the following bullet text:

“Contractor license classification: C-46 or C-10; and,”

- 3. Reference: Section 2 – General Information, Article Q – Award/Selection Criteria – Bullet Point No. 2, Page 2-4**

Insert the following sentence at end of Bullet Point No. 2:

“LEED certification of solar design-build contractors will not be required.”

- 4. Reference: Section 3 – Technical Provisions, Article A – Project Background/Requirements – Paragraph 7, Page 3-1**

Delete the following text: "(C-46)" and replace with the following:

"(C-46 or C-10)"

5. Reference: Section 3 – Technical Provisions, Article C – Scope Of Work – Item 5, Page 3-3


Insert the following text at the end of Item 5:

"Structural work applies to solar panel external structural steel supports, which will be attached to the roof built-in supports. All built-in supports will be installed by the general contractor. All external steel supports shall be furnished and installed by the solar design-build contractor. The solar design-build contractor shall not be responsible for any roof reinforcement due to additional solar panels weight."

6. Reference: Section 3 – Technical Provisions, Article C – Scope Of Work – Paragraph 6, Page 3-4

Insert the following new paragraph after Paragraph No. 6 following Item 16:

"Early involvement of the solar design-build contractor in this project is required due to the need for close coordination with the General Contractor during the roof design submittal review process and roof construction. This will ensure that the solar panel embedded steel supports are installed properly and in the right locations. Should the contractor elect to store the solar panels and equipment at Agency's site while waiting for the Lab roof readiness, this shall be done at the solar contractor's own risk and expense."

 #1099 6-7-16

John Scherck
Acting Deputy Manager of Engineering
Inland Empire Utilities Agency

 6/7/16

Jamal Zughbi, P.E.
Senior Engineer, Project Manager
Inland Empire Utilities Agency

Please address all correspondence to:

Jamal Zughbi, P.E.
Project Manager
Fax: (909) 993-1982
jzughbi@ieua.org

Please sign, date and email/fax a signed copy showing you received this Addendum No. 1.

Signature: _____ **Date:** _____

Name of Company: _____

Exhibit B

**Electric Service & Supply Co (ESSCO)
2668 E. Foothill Blvd
Pasadena, CA 91107**

**Inland Empire Utilities Agency
6075 "A" Kimball Avenue
Chino, CA 91708**

**RE: PROPOSAL FOR "DESIGN/BUILD
PROJECT FOR THE WATER QUALITY
LABORATORY ROOFTOP SOLAR
PHOTOVOLTAIC SYSTEM"
REQUEST FOR PROPOSAL NO.
RFP-RW-16-007**

IEUA
SEALED BID
RECEIVED
6/14/2016 11:30 AM
DATE TIME
BY
Bicky Ramirez

SECTION 4 - FORMS

PROPOSAL PRICE SCHEDULE

Contractor shall complete this Proposal Price Schedule and return it with their submittal. All proposed prices shall include all labor, equipment, materials, transportation, overhead, travel, profit, insurance, bonds, sales and other taxes, licenses, incidentals, and all other related costs necessary to meet the work requirements. At any time, the Agency will require that these cost components be itemized and disclosed. Contractor shall hold their proposed prices firm, fixed and valid for acceptance through for one hundred twenty (120) calendar days from the date of submitting the proposal.

Proposed Total Lump Sum Price: \$ 259,300.00

Proposed Total Lump Sum Price (in words):

Two Hundred Fifty Nine Thousand Three Hundred and 0/100 Dollars



Contractor's Signature

Electric Service and Supply Co.

Company Name

Stanley R. Lazarian

Print Name

903358

Business License Number

President

Title

6/14/16

Date

SECTION 4 - FORMS

CONTRACTOR'S IDENTIFICATION

1. Legal name of Contractor: Electric Service and Supply Co. of Pasadena
 2. Street Address: 2668 E. Foothill Blvd, Pasadena, CA 91107
 3. Mailing Address: Same as above
 4. Business Telephone: 626-795-8641
 5. Facsimile Telephone: 626-795-9197
 6. Email Address: stan@esscoelectric.com
 7. Type of Business: Sole Proprietor Partnership Corporation
Other: _____
- If corporation, indicate State where incorporated: CA
8. Business License number issued by the City where the Contractor's principal place of business is located.
Number: 903358 Issuing City: Pasadena
 9. Federal Tax Identification Number: 95-1930918
 10. Contractor's Project Manager: Matt Larrick

SECTION 4 - FORMS

SUBCONTRACTORS

List any subcontractors who may provide services in support of this project.

<u>COMPANY</u>	<u>ADDRESS</u>	<u>LICENSE #</u>	<u>TRADE</u>
<u>The following will be used in a consulting capacity and will not perform labor on the project:</u>			
<u>Budlong & Associates</u>	<u>315 Arden Ave #23, Glendale, CA</u>	<u></u>	<u>Electrical Engineer</u>
<u>NS Structural Engineering</u>	<u>4642 Rockland Pl, La Canada, CA</u>	<u></u>	<u>Structural Engineer</u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>

REFERENCES

Provide at least five (5) references for which similar products/services have been provided within the last ten (10) years.

<u>COMPANY</u>	<u>CONTACT PERSON</u>	<u>CITY</u>	<u>PHONE NUMBER</u>
<u>St. Lucy's Priory HS</u>	<u>Helen Dziuk</u>	<u>Glendora</u>	<u>626-335-3322</u>
<u>LAUSD</u>	<u>Victor Supan</u>	<u>Los Angeles</u>	<u>213-241-3487</u>
<u>Koos</u>	<u>John Hur</u>	<u>South Gate</u>	<u>323-568-4295</u>
<u>Pacific Maritime Assoc.</u>	<u>Edward Lok</u>	<u>Wilmington</u>	<u>310-832-2681</u>
<u>Electrical Training Inst.</u>	<u>David Nott</u>	<u>Commerce</u>	<u>626-793-9695</u>

SECTION 4 - FORMS

WORKERS' COMPENSATION CERTIFICATE

The Contractor shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my firm, I will comply with such provisions before commencing the performance of the services of any contract entered into.



Signature

Electric Service and Supply Co.
Company Name

Stanley R. Lazarian
Printed Name

903358
Business License Number

President
Title

6/14/16
Date

SECTION 4 - FORMS

NON-COLLUSION AFFIDAVIT
(Per Public Contract Code Section 7106)

State of California)
County of Los Angeles) ss.

Stanley R. Lazarian, being first duly sworn, deposes and says
Electric Service

that he or she is President of and Supply Co. ("Contractor") the party making
the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any
undisclosed person, partnership, company, association, organization, or corporation; that the
proposal is genuine and not collusive or sham; that the Contractor has not directly or indirectly
solicited any other Contractor to put in a false or sham proposal, and has not directly or indirectly
colluded, conspired, connived, or agreed with any Contractors or anyone else to put in a sham
proposal, or that anyone shall refrain from bidding; that the Contractor has not in any manner,
directly or indirectly, sought by agreement, communication, or conference with anyone to fix the
proposal fee of the Contractor or any other Contractor, or to fix any overhead, profit, or cost
element of the proposal fee, or of that of any other Contractor, or to secure any advantage against
the public body making the award of anyone interested in the proposed award; that all statements
contained in the proposal are true; and, further, that the Contractor has not, directly or indirectly,
submitted his or her proposal fee or any breakdown thereof, or the contents thereof, or divulged
information or data relative thereto, or paid, and will not pay, any fee to any corporation,
partnership, company association, organization, proposal depository, or to any member or agent
thereof to effectuate a collusive or sham proposal.

I certify (or declare) under penalty of perjury under the laws of the State of California that the
foregoing is true and correct.

[Signature]
Signature

Electric Service and Supply Co.
Company Name

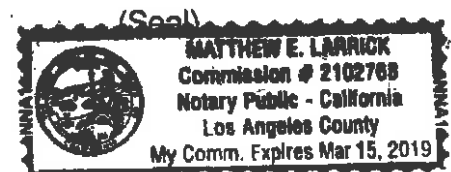
Stanley R. Lazarian
Printed Name

President
Title

SUBSCRIBED AND SWORN TO BEFORE ME

This 14th day of June, 2016.

[Signature]
Notary Public



SECTION 4 - FORMS

EXCEPTION FORM

Should Contractor take exception to ANY of the terms and conditions or other contents provided in the "Request for Proposal" - list the exceptions below. **THIS COMPLETED FORM MUST BE RETURNED WITH YOUR PROPOSAL.** If no exception(s) are taken, enter "**NONE**" for the first item. *(Make additional copies of this form as necessary)*

Page Number: _____ Section Title: _____ None _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

****TEN PERCENT THE AMOUNT BID IN DOLLARS (10%)****

BIDDER'S BOND (Ten (10) Percent of the Total Bid)

Bond Number BBSU

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That Electric Service & Supply Co. of Pasadena , as Principal

and Travelers Casualty and Surety Company of America , as Surety

are held and firmly bound unto the Inland Empire Utilities Agency, a Municipal Water District hereinafter designated as the "Agency", in the sum of ** dollars, (not less than ten (10) percent of the total amount of the bid) for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a bid to said Agency to perform all work required under the bidding schedule(s) titled:

Water Quality Laboratory Rooftop Solar Photovoltaic System #RFP-RW-16-007

NOW, THEREFORE, if said Principal is awarded the Contract by said Agency and within the time and in the manner required under the Instructions to Bidders (Section I) bound with said specifications, enters into a written agreement and fully executes the Contract bound with said specifications and furnishes the required bonds and verification of insurance, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event a suit is brought upon this bond by said Agency and judgment is recovered, said Surety shall pay all costs incurred by said Agency in such suit, including a reasonable attorney's fee to be fixed by the Court.

SIGNED AND SEALED, this 10th day of June, 20 16

Electric Service & Supply Co. of Pasadena

Principal (print name)

By: 

Signature

(Corporate Seal)

Continued on page 2

Bond Number BBSU

SECOND PAGE OF BID BOND

Bidding Schedule(s) titled:

Water Quality Laboratory Rooftop Solar Photovoltaic System #RFP-RW-16-007

Travelers Casualty and Surety Company of America

Surety agent (print name)

By: Mary Smith
MARY SMITH Signature
Attorney-in-Fact

(Surety Seal)

Surety address

Travelers Casualty and Surety Company of America

21688 Gateway Center Dr.

Diamond Bar, CA 91765

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On June 10, 2016 before me, Emily Preciado, Notary Public
Date Here insert Name and Title of the Officer

personally appeared MARY SMITH
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Emily Preciado
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

Corporate Officer — Title(s): _____

Partner — Limited General

Individual Attorney in Fact

Trustee Guardian or Conservator

Other: _____

Signer is Representing: _____

Signer's Name: _____

Corporate Officer — Title(s): _____

Partner — Limited General

Individual Attorney in Fact

Trustee Guardian or Conservator

Other: _____

Signer is Representing: _____



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 229814

Certificate No. 006493379

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Steven L. Brockmeyer, Ron Wanglin, Mary Smith, Todd F. Jackson, and Keith A. Dinwiddie

of the City of Pasadena, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 18th day of August, 2015.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 18th day of August, 2015, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.



[Signature: Marie C. Tetreault]
Marie C. Tetreault, Notary Public



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE subcontractor's description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractor's bid or proposal package.

Subcontractor Name Budlong & Associates		Project Name Water Quality Lab Rooftop Solar	
Bid/ Proposal No. RFP-RW-16-007	Assistance Agreement ID No. (if known)	Point of Contact Shield Anderson	
Address 315 Arden Ave #23, Glendale, CA 91203			
Telephone No. 818-838-8780		Email Address shield@budlong.com	
Prime Contractor Name Electric Service and Supply Co.		Issuing/Funding Entity: Inland Empire Utilities Agency	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
EN15008	Electrical engineering services	\$1,500
DBE Certified By: <input type="checkbox"/> DOT <input type="checkbox"/> SBA <input checked="" type="checkbox"/> Other: <u>State of California</u>		Meets/ exceeds EPA certification standards? <input type="checkbox"/> YES <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
	Matt Larrick
Title	Date
Project Manager	6/13/16

Subcontractor Signature	Print Name
	Shield Anderson
Title	Date
Budlong & Associates, Inc. Glendale Office Director	6/13/16

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE1 subcontractor's2 description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name NS Structural Engineering		Project Name Water Quality Lab Rooftop Solar	
Bid/ Proposal No. RFP-RW-16-007	Assistance Agreement ID No. (if known)	Point of Contact Neal Shah	
Address 4642 Rockland Place, La Canada Flintridge, CA 91011			
Telephone No. 626-840-2338		Email Address neal@ns-se.com	
Prime Contractor Name Electric Service and Supply Co.		Issuing/Funding Entity: Inland Empire Utilities Agency	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
EN15008	Structural engineering services	\$2,500
DBE Certified By: <input type="checkbox"/> DOT <input type="checkbox"/> SBA <input checked="" type="checkbox"/> Other: <u>State of California SBE</u>		Meets/ exceeds EPA certification standards? <input type="checkbox"/> YES <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



United States Environmental Protection Agency

OMB Control No: 2090-0030
 Approved: 8/13/2013
 Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
 DBE Subcontractor Performance Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
	Matt Larrick
Title	Date
Project Manager	6/13/16

Subcontractor Signature	Print Name
Neal Shah <small>Digitaly signed by Neal Shah DN: cn=Neal Shah, ou=35-Structural Engineering, Inc., c=US, email=nealshah@nshah.com, o=NSE Date: 2013.06.13 14:28:01 -0700</small>	Neal Shah
Title	Date
Principal Structural Engineer	6/13/16

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



OMB Control No: 2090-0030
 Approved: 8/13/2013
 Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
 DBE Subcontractor Utilization Form**

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name Electric Service and Supply Co.		Project Name Water Quality Lab Rooftop Solar Project	
Bid/ Proposal No. RFP-RW-16-007	Assistance Agreement ID No. (if known)	Point of Contact Matt Larrick	
Address 2668 E. Foothill Blvd, Pasadena, CA 91107			
Telephone No. 626-795-8641		Email Address matt@esscoelectric.com	
Issuing/Funding Entity: Inland Empire Utilities Agency			

I have identified potential DBE certified subcontractors	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?
Budlong and Associates	315 Arden Ave, #23, Glendale, CA 91203	\$1,500	Yes
NS Structural Engineering	4642 Rockland Place, La Canada Flintridge, CA 91011	\$2,500	Yes

Continue on back if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
<i>Matt Larrick</i>	Matt Larrick
Title	Date
Project Manager/Estimator	6/13/16

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



Electric Service & Supply Co.

2668 E. Foothill Blvd., Pasadena, CA 91107

tel (626) 795-8641, fax (626) 795-9197

Lic #169577

June 14, 2016

Inland Empire Utilities Agency
6075 "A" Kimball Ave
Chino, CA 91708

RE: Proposal for Design/Build Project for the Water Quality Laboratory Rooftop Solar Photovoltaic System
Request for Proposal Number RFP-RW-16-007

Performance Summary

The roof layout for the solar installation for the new Water Quality Laboratory allows for a quantity of 232 photovoltaic modules (60 cell module that is approximately 65.5" x 39") as shown on Sheet A103 issued with the RFP.

To evaluate the performance of the proposed PV system, we are providing a production estimate from PV Watts (see attached PV Watts report). For a system with 232 modules rated at 290 watts DC, the system size is 67.28 KW DC. **Based on this system size, the power generation estimate is 100,285 kWh per year (432 kWh per year per module).** Note that this estimate is based on an array azimuth of 180 degrees which is consistent with the roof plan provided and also assumes a 10 degree tilt, system losses consisting of soiling, shading, conversion losses of 14.08%, and inverters that are 96% efficient. Note that the energy value listed is an estimate based on a rate of .12 \$/kWh and may not match the rate that you will be paying for your facility.

Proposed PV Solar Module

Manufacturer/Model: Suniva Optimus Series OPT290-60-4-100 module (290 watt 60 cell module)

Quantity: 232

Equipment Warranty: 25 year linear warranty (see attached cut sheet)

Solar Module Origin: Manufactured in USA

Alternate PV Solar Module (if there were problems with availability for proposed module)

Manufacturer/Model: Solarworld Sunmodule Plus SW290 (290 watt 60 cell module)

Quantity: 232

Equipment Warranty: 25 year linear warranty (see attached cut sheet)

Solar Module Origin: Manufactured in USA

Proposed Inverter

Manufacturer/Model: SMA Sunny Tripower 24000TL-US

Quantity: 3

Equipment Warranty: 10 years (see attached cut sheet)

Inverter Origin: Manufactured in USA

Please call me if you have any questions regarding the performance summary.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrick". The signature is written in a cursive style with a prominent initial "M" and a long, sweeping tail.

Matt Larrick
Estimator

Sunmodule Plus

SW 285-300 MONO (5-busbar)



TÜV Power controlled:
Lowest measuring tolerance in industry



Every component is tested to meet
3 times IEC requirements



Designed to withstand heavy
accumulations of snow and ice



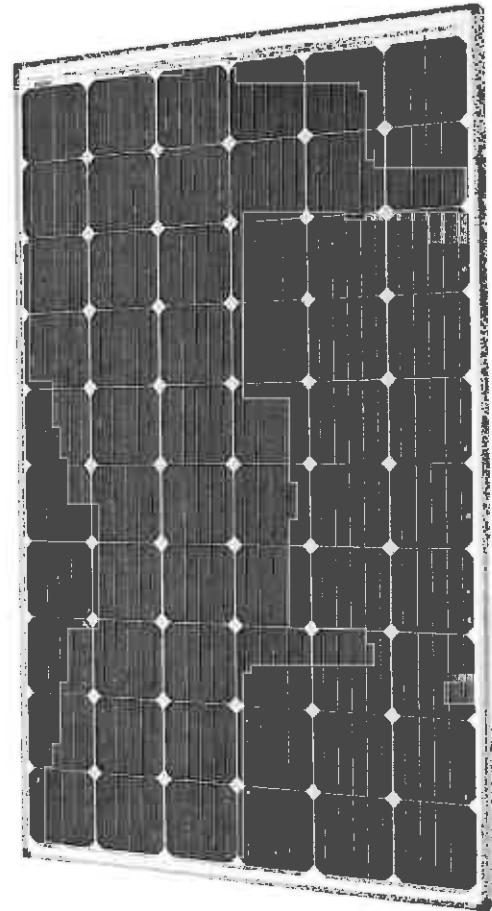
Sunmodule Plus:
Positive performance tolerance



25-year linear performance warranty
and 10-year product warranty



Glass with anti-reflective coating



World-class quality

Fully-automated production lines and seamless monitoring of the process and material ensure the quality that the company sets as its benchmark for its sites worldwide.

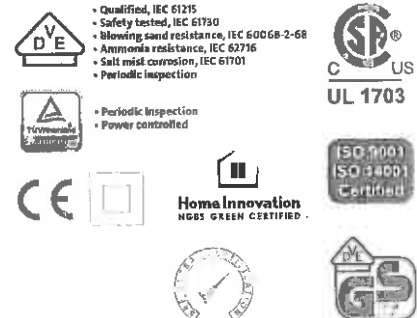
SolarWorld Plus-Sorting

Plus-Sorting guarantees highest system efficiency. SolarWorld only delivers modules that have greater than or equal to the nameplate rated power.

25-year linear performance guarantee and extension of product warranty to 10 years

SolarWorld guarantees a maximum performance digression of 0.7% p.a. in the course of 25 years, a significant added value compared to the two-phase warranties common in the industry, along with our industry-first 10-year product warranty.**

* Solar cells manufactured in U.S.A. or Germany. Modules assembled in U.S.A.
**in accordance with the applicable SolarWorld Limited Warranty at purchase.
www.solarworld.com/warranty



Sunmodule[®] Plus

SW 285-300 MONO (5-busbar)



PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

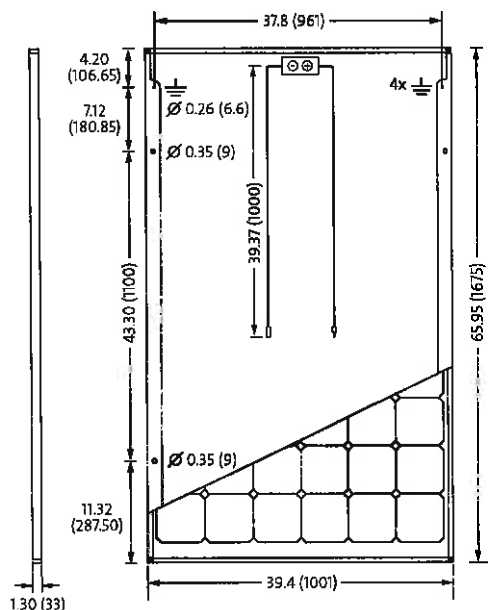
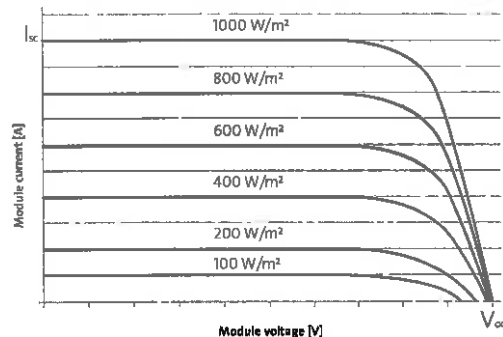
		SW 285	SW 290	SW 295	SW 300
Maximum power	P_{max}	285 Wp	290 Wp	295 Wp	300 Wp
Open circuit voltage	V_{oc}	39.7 V	39.9 V	40.0 V	40.1 V
Maximum power point voltage	V_{mpp}	31.3 V	31.4 V	31.5 V	31.6 V
Short circuit current	I_{sc}	9.84 A	9.97 A	10.10 A	10.23 A
Maximum power point current	I_{mpp}	9.20 A	9.33 A	9.45 A	9.57 A
Module efficiency	η_m	17.00 %	17.30 %	17.59 %	17.89 %

*STC: 1000W/m², 25 °C, AM 1.5

PERFORMANCE AT 800 W/M², NOCT, AM 1.5

		SW 285	SW 290	SW 295	SW 300*
Maximum power	P_{max}	213.1 Wp	217.1 Wp	220.5 Wp	224.1 Wp
Open circuit voltage	V_{oc}	36.4 V	36.6 V	36.7 V	36.9 V
Maximum power point voltage	V_{mpp}	28.7 V	28.8 V	28.9 V	31.1 V
Short circuit current	I_{sc}	7.96 A	8.06 A	8.17 A	8.27 A
Maximum power point current	I_{mpp}	7.43 A	7.54 A	7.64 A	7.75 A

Minor reduction in efficiency under partial load conditions at 25 °C: at 200 W/m², 100% of the STC efficiency (1000 W/m²) is achieved.
*Preliminary values, subject to change.



All units provided are imperial. SI units provided in parentheses.
SolarWorld AG reserves the right to make specification changes without notice.

COMPONENT MATERIALS

Cells per module	60	Front	Low-iron tempered glass with ARC (EN 12150)
Cell type	Monocrystalline 5-busbar	Frame	Clear anodized aluminum
Cell dimensions	6.17 in x 6.17 in (156.75 x 156.75 mm)	Weight	39.7 lbs (18.0 kg)

THERMAL CHARACTERISTICS

NOCT	46 °C
TCI_{sc}	0.04 % / °C
TCV_{oc}	-0.30 % / °C
TCV_{mpp}	-0.41 % / °C
Operating temp	-40 to +85 °C

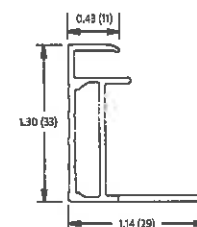
ADDITIONAL DATA

Power sorting	-0 Wp/+5 Wp
J-Box	IP65
Connector	PV wire per UL4703 with H4/UTX connectors
Module fire performance	(UL 1703) Type 1

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Maximum system voltage SC II / NEC	1000 V	
Maximum reverse current	25 A	
Number of bypass diodes	3	
Design loads*	Two rail system	113 psf downward, 64 psf upward
Design loads*	Three rail system	178 psf downward, 64 psf upward
Design loads*	Edge mounting	178 psf downward, 41 psf upward

* Please refer to the Sunmodule installation instructions for the details associated with these load cases.



- Compatible with both "Top-Down" and "Bottom" mounting methods
- Grounding Locations:
 - 4 locations along the length of the module in the extended flange.

SW-01-7510US 160324



Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at <http://sam.nrel.gov>) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

The names DOE/NREL/ALLIANCE shall not be used in any representation, advertising, publicity or other manner whatsoever to endorse or promote any entity that adopts or uses the Model. DOE/NREL/ALLIANCE shall not provide

any support, consulting, training or assistance of any kind with regard to the use of the Model or any updates, revisions or new versions of the Model.

YOU AGREE TO INDEMNIFY DOE/NREL/ALLIANCE, AND ITS AFFILIATES, OFFICERS, AGENTS, AND EMPLOYEES AGAINST ANY CLAIM OR DEMAND, INCLUDING REASONABLE ATTORNEYS' FEES, RELATED TO YOUR USE, RELIANCE, OR ADOPTION OF THE MODEL FOR ANY PURPOSE WHATSOEVER. THE MODEL IS PROVIDED BY DOE/NREL/ALLIANCE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. IN NO EVENT SHALL DOE/NREL/ALLIANCE BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO CLAIMS ASSOCIATED WITH THE LOSS OF DATA OR PROFITS, WHICH MAY RESULT FROM ANY ACTION IN CONTRACT, NEGLIGENCE OR OTHER TORTIOUS CLAIM THAT ARISES OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE MODEL.

The energy output range is based on analysis of 30 years of historical weather data for nearby , and is intended to provide an indication of the possible interannual variability in generation for a fixed (open rack) PV system at this location.

RESULTS

100,285 kWh per Year *

System output may range from 97,457 to 101,779kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)	Energy Value (\$)
January	3.62	5,792	684
February	3.95	5,756	680
March	5.67	9,010	1,064
April	6.82	10,304	1,217
May	6.69	10,385	1,226
June	7.72	11,401	1,346
July	7.48	11,272	1,331
August	7.13	10,698	1,263
September	4.98	7,311	863
October	4.18	6,605	780
November	4.28	6,452	762
December	3.32	5,299	626
Annual	5.49	100,285	\$ 11,842

Location and Station Identification

Requested Location	6075 Kimball Ave, Chino, CA 91708
Weather Data Source	(TMY3) CHINO AIRPORT, CA 2.4 mi
Latitude	33.97° N
Longitude	117.63° W

PV System Specifications (Commercial)

DC System Size	67.28 kW
Module Type	Standard
Array Type	Fixed (roof mount)
Array Tilt	10°
Array Azimuth	180°
System Losses	14.08%
Inverter Efficiency	96%
DC to AC Size Ratio	1.1

Initial Economic Comparison

Average Cost of Electricity Purchased from Utility	0.12 \$/kWh
--	-------------



SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES

OPT SERIES. OPT 60 CELL MODULES (SILVER FRAME)

ENGINEERING EXCELLENCE

- Built exclusively with Suniva's premium ARTisun Select cells, providing one of the highest power outputs per square meter at an affordable price
- The leading US-born, US-operated crystalline silicon cell and module manufacturer, spun out of Georgia Tech's University Center of Excellence in Photovoltaics, one of only two such research centers in the US
- Suniva's state-of-the-art manufacturing and module lab facilities feature the most advanced equipment and technology

QUALITY & RELIABILITY

- Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and high quality
- Rigorous in-house quality management tests beyond standard UL and IEC standards
- Performance longevity with advanced polymer backsheet
- UL1703 listed Type 2 PV module
- Passed the most stringent salt spray tests based on IEC 61701
- Passed enhanced stress tests based on IEC 61215 conducted at Fraunhofer ISE
- PAN files are independently validated

MANUFACTURED IN
Georgia & Michigan

Optimus® modules are known for their superior quality and long-term reliability. These high-powered modules consist of Suniva's premium ARTisun® Select cell technology and are designed and manufactured in the U.S.A. and North America using our pioneering ion implantation technology. Suniva's high power-density Optimus modules provide excellent performance and value.

FEATURES

- Utilizes our premier American-made cell technology, ARTisun Select®
- Superior performance and reliability; enhanced stress tests conducted at Fraunhofer ISE
- Module families ranging from 275-290W
- Positive only power tolerance
- Marine grade aluminum frame with hard anodization or powder coating
- Certified PID-free by PV Evolution Labs (PVEL)
- Made in North America
- Qualifies for Ex-Im Financing
- 1000V UL
- 25 year linear power warranty; 10 year product warranty



CERTIFICATIONS



www.suniva.com

OPTIMUS SERIES: OPT 60 CELL MODULES

ELECTRICAL DATA (NOMINAL)

The rated power may only vary by -0/+10W and all other electrical parameters by ± 5%

Model Number	OPT275-60-4-100	OPT280-60-4-100	OPT285-60-4-100	OPT290-60-4-100
Power Classification (Pmax)	275 W	280 W	285 W	290 W
Module Efficiency (%)	16.73%	17.04%	17.34%	17.65%
Voltage at Max. Power Point (Vmp)	31.5 V	31.8 V	32.3 V	32.4 V
Current at Max. Power Point (Imp)	8.74 A	8.81 A	8.82 A	8.95 A
Open Circuit Voltage (Voc)	38.6 V	38.8 V	39.4 V	39.6 V
Short Circuit Current (Isc)	9.25 A	9.57 A	9.59 A	9.73 A

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m² with AM 1.5 spectra at 25°C.

CHARACTERISTIC DATA

Type of Solar Cell	High-efficiency ARTisun Select cells, 3 and 5 busbar options available
Frame	Anodized or powder coated aluminum alloy
Glass	Tempered (low-iron), anti-reflective coating
Junction Box	NEMA IP67 rated; 3 internal bypass diodes
Cable & Connectors	12 AWG (4 mm ²) PV Wire with multiple connector options available, cable length 1000 mm

MECHANICALS

Cells / Module	60 (6 x 10)
Module Dimensions	1660 x 990 mm (65.35 x 38.98 in.)
Module Thickness (Depth)	35 mm (1.37 in.)
Approximate Weight	17.9 +/- 0.25 kg. (39.5 +/- 0.5 lb.)

TEMPERATURE COEFFICIENTS

Voltage	β, V_{oc} (%/°C)	-0.335
Current	α, I_{sc} (%/°C)	+0.047
Power	γ, P_{max} (%/°C)	-0.42
NOCT Avg	(+/- 2 °C)	46.0

LIMITS

Max. System Voltage	1000 VDC for IEC, 1000 VDC for UL
Max Series Fuse Rating	15 Amps
Operating Module Temperature	-40°C to +85°C (-40°F to +185°F)
Storm Resistance/Static Load	Tested to IEC 61215 for loads of 5400 Pa (113 psf); hail and wind resistant

Suniva® reserves the right to change the data at any time. View manual at suniva.com.

*UV 90 kWh, TC 400, DH 2000.

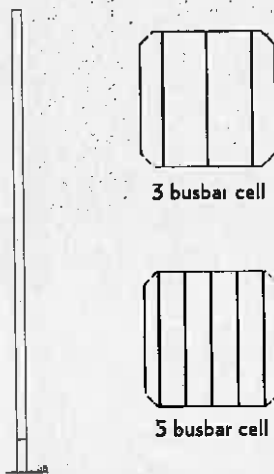
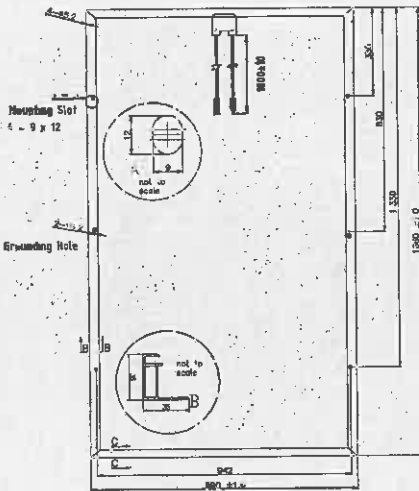
Please read installation manual before installing or working with module.

Product	Modules per Pallet	Pallets per 40' truck	Total modules
OPT - 60 cell (silver and black)	25	36	900

HEADQUARTERS
5765 Peachtree Industrial Blvd.,
Norcross, Georgia 30092 USA
Tel: +1 404 477 2700

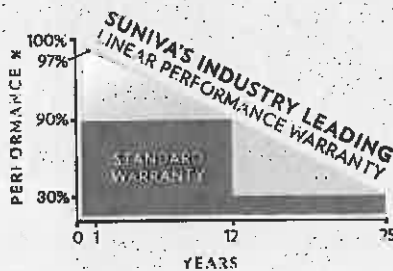
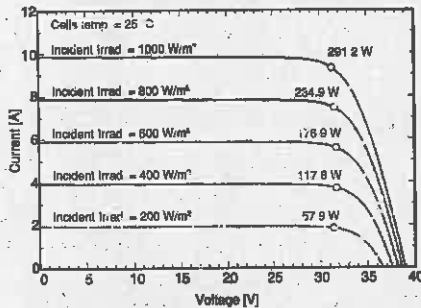
www.suniva.com

Suniva
The Brilliance of Solar Made Sensible™



PV module Suniva, OPT290-60-4-100

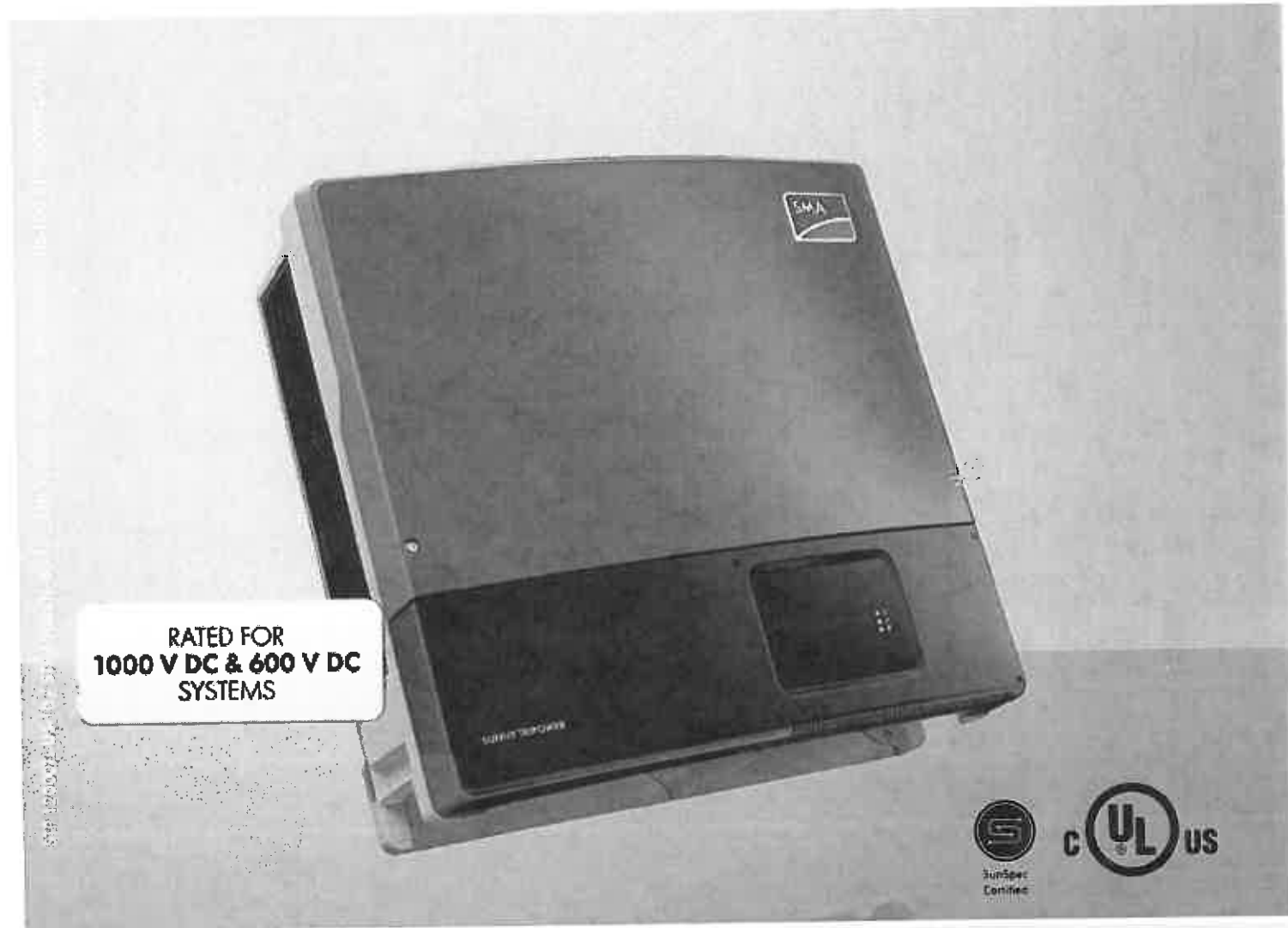
Current-Voltage (IV) as a Function of Irradiance (W/m²) and Temperature



PLEASE RECYCLE
FEBRUARY 2, 2016 (REV 3) [SAMD_0066]

SUNNY TRIPOWER 12000TL-US / 15000TL-US /
20000TL-US / 24000TL-US / 30000TL-US

SMA



RATED FOR
1000 V DC & 600 V DC
SYSTEMS

Design flexibility

- 1000 V DC or 600 V DC
- Two independent DC inputs
- 15° to 90° mounting angle range
- Detachable DC Connection Unit

System efficiency

- 98.0% CEC, 98.6% Peak
- 1000 V DC increases system efficiency
- OptiTrac Global Peak MPPT

Enhanced safety

- Integrated DC AFCI
- Floating system with all-pole sensitive ground fault protection
- Reverse polarity indicator in combination with Connection Unit

Future-proof

- Complete grid management feature set
- Integrated Speedwire, WebConnect, ModBus interface
- Bi-directional Ethernet communications
- Utility-interactive controls for active and reactive power

SUNNY TRIPOWER 12000TL-US / 15000TL-US / 20000TL-US / 24000TL-US / 30000TL-US

The ultimate solution for decentralized PV plants, now up to 30 kilowatts

The world's best-selling three-phase PV inverter, the SMA Sunny Tripower TL-US, is raising the bar for decentralized commercial PV systems. This three-phase, transformerless inverter is UL listed for up to 1000 V DC maximum system voltage and has a peak efficiency above 98 percent, while OptiTrac Global Peak minimizes the effects of shade for maximum energy production. The Sunny Tripower delivers a future-proof solution with full grid management functionality, cutting edge communications and advanced monitoring. The Sunny Tripower is also equipped with all-pole ground fault protection and integrated AFCI for a safe, reliable solution. It offers unmatched flexibility with a wide input voltage range and two independent MPP trackers. Suitable for both 600 V DC and 1,000 V DC applications, the Sunny Tripower allows for flexible design and a lower leveled cost of energy.

www.SMA-America.com



Technical data	Sunny Tripower 12000TL-US	Sunny Tripower 15000TL-US	Sunny Tripower 20000TL-US	Sunny Tripower 24000TL-US	Sunny Tripower 30000TL-US
Input (DC)					
Max. usable DC power (@ $\cos \phi = 1$)	12250 W	15300 W	20400 W	24500 W	30800 W
Max. DC voltage	*1000 V	*1000 V	*1000 V	*1000 V	1000 V
Rated MPPT voltage range	300 V - 800 V	300 V - 800 V	380 V - 800 V	450 V - 800 V	500 V - 800 V
MPPT operating voltage range	150 V - 1000 V	150 V - 1000 V	150 V - 1000 V	150 V - 1000 V	150 V - 1000 V
Min. DC voltage / start voltage	150 V / 183 V	150 V / 188 V	150 V / 188 V	150 V / 188 V	150 V / 188 V
Number of MPP tracker inputs	2	2	2	2	2
Max. input current / per MPP tracker input	66 A / 33 A	66 A / 33 A	66 A / 33 A	66 A / 33 A	66 A / 33 A
Output (AC)					
AC nominal power	12000 W	15000 W	20000 W	24000 W	30000 W
Max. AC apparent power	12000 VA	15000 VA	20000 VA	24000 VA	30000 VA
Output phases / line connections	3 / 3-N-PE				3 / 3-N-PE, 3-PE
Nominal AC voltage	480 / 277 V WYE				480 / 277 V WYE, 480 V Delta
AC voltage range	244 V - 305 V				
Rated AC grid frequency	60 Hz				
AC grid frequency / range	50 Hz, 60 Hz / -6 Hz +5 Hz				
Max. output current	14.4 A	18 A	24 A	29 A	36.2 A
Power factor at rated power / adjustable displacement	1 / 0.0 leading - 0.0 lagging				
Harmonics	< 3%				
Efficiency					
Max. efficiency / CEC efficiency	98.2% / 97.5%	98.2% / 97.5%	98.5% / 97.5%	98.5% / 98.0%	98.6% / 98.0%
Protection devices					
DC reverse polarity protection	●	●	●	●	●
Ground fault monitoring / grid monitoring	●	●	●	●	●
All-pole sensitive residual current monitoring unit	●	●	●	●	●
DC AFCI compliant to UL 1699B	●	●	●	●	●
AC short circuit protection	●	●	●	●	●
Protection class / overvoltage category	I / IV	I / IV	I / IV	I / IV	I / IV
General data					
Dimensions (W / H / D) in mm (in)	665 / 650 / 265 (26.2 / 25.6 / 10.4)				
Packing dimensions (W / H / D) in mm (in)	780 / 790 / 380 (30.7 / 31.1 / 15.0)				
Weight	55 kg (121 lbs)				
Packing weight	61 kg (134.5 lbs)				
Operating temperature range	-25°C - +60°C				
Noise emission (typical) / internal consumption at night	51 dB(A) / 1 W				
Topology	Transformerless				
Cooling concept / electronics protection rating	OptiCool / NEMA 3R				
Features					
Display / LED indicators (Status / Fault / Communication)	- / ●				
Interface RS485 / Speedwire, WebConnect	○ / ●				
Data interface SMA Modbus / SunSpec Modbus	● / ●				
Mounting angle range	15° - 90°				
Warranty 10 / 15 / 20 years	● / ○ / ○				
Certifications and approvals	UL 1741, UL 1998, UL 1699B, IEEE 1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107-1-1				

NOTE: US inverters ship with gray lids. Data at nominal conditions. *Suitable for 600 V DC max. systems.

● Standard features ○ Optional features - Not available

Type designation: STP 12000TL-US-10 STP 15000TL-US-10 STP 20000TL-US-10 STP 24000TL-US-10 STP 30000TL-US-10

Accessories



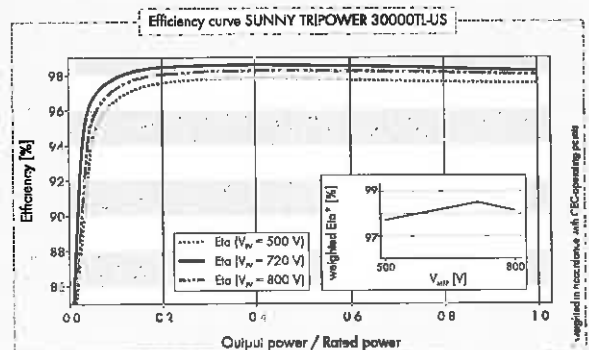
RS485 interface
DM-485CB-US-10



Connection Unit
CU 1000-US-10



SMA Cluster Controller
CLCON-10



Attachments

**ATTACHMENT 1
CLEAN WATER STATE REVOLVING FUND
PROJECT REQUIREMENTS**

CLEAN WATER STATE REVOLVING FUND PROJECT REQUIREMENTS

The IEUA Regional Water Quality Laboratory Project (Project) will be funded by a State Water Resources Control Board State Revolving Fund Loan (Agreement.) The Agreement has regulatory requirements that the Inland Empire Utilities Agency is required to include in all contracts for work related to the performance of the Agreement. The consultants and contractors must assist IEUA in meeting the federal and state requirements that apply to the scope stated in their contracts. These requirements include, but are not limited to, the State Prevailing Wages, Federal Davis-Bacon requirements, Federal Disadvantaged Business Enterprise (DBE), Audit, and Record Retention and Review, etc. If a sub is hired, the Agreement requirement language must be included in the sub's contract in its entirety.

Refer to Attachments 1 thru 8 for more details about the specific requirements. The documents contained within Attachments 1 thru 8—as listed below—shall be included in all contracts for this Project:

- A. Article V – Miscellaneous Provisions
- B. Exhibit E – Federal Conditions & Cross-Cutters
- C. Exhibit G – Davis-Bacon Labor Compliance Requirements
- D. DBE Instructions/Forms
- E. Signage on Construction Site
- F. Records
- G. Buy American Requirements

ATTACHMENT 2
ARTICLE V MISCELLANEOUS PROVISIONS

ARTICLE V MISCELLANEOUS PROVISIONS

5.1 Covenants.

- (a) **Tax Covenant.** Notwithstanding any other provision hereof, the Recipient covenants and agrees that it will comply with the Tax Covenants set forth in Article IV attached hereto if any portion of the Project Funds is derived from proceeds of Bonds.
- (b) **Disclosure of Financial Information, Operating Data, and Other Information.** The Recipient covenants to furnish such financial, operating and other data pertaining to the Recipient as may be requested by the State Water Board to: (i) enable the State Water Board to cause the issuance of Bonds and provide for security therefor; or (ii) enable any underwriter of Bonds issued for the benefit of the State Water Board to comply with Rule 15c2-12(b)(5). The Recipient further covenants to provide the State Water Board with copies of all continuing disclosure reports and materials concerning the Recipient required by the terms of any financing other than this Agreement and to submit such reports to the State Water Board at the same time such reports are submitted to any dissemination agent, trustee, nationally recognized municipal securities information repository, the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA) website or other person or entity.

5.2 Assignability.

The Recipient agrees and consents to any pledge, sale, or assignment to the Bank or a trustee for the benefit of the owners of the Bonds, if any, at any time of any portion of the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement and the right to make all related waivers and agreements in the name and on behalf of the State Water Board, as agent and attorney-in-fact, and to perform all other related acts which are necessary and appropriate under this Agreement, if any, and the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement to Installment Payments (but excluding the State Water Board's rights to Additional Payments and to notices, opinions and indemnification under each Obligation). This Agreement is not assignable by the Recipient, either in whole or in part, without the consent of the State Water Board in the form of a formal written amendment to this Agreement.

5.3 State Reviews and Indemnification.

The parties agree that review or approval of Project plans and specifications by the State Water Board is for administrative purposes only and does not relieve the Recipient of its responsibility to properly plan, design, construct, operate, and maintain the Project. To the extent permitted by law, the Recipient agrees to indemnify, defend, and hold harmless the State Water Board, the Bank, and any trustee, and their officers, employees, and agents for the Bonds, if any (collectively, "Indemnified Persons"), against any loss or liability arising out of any claim or action brought against any Indemnified Persons from and against any and all losses, claims, damages, liabilities, or expenses, of every conceivable kind, character, and nature whatsoever arising out of, resulting from, or in any way connected with (1) the System or the Project or the conditions, occupancy, use, possession, conduct, or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the System or the Project or any part thereof; (2) the carrying out of any of the transactions contemplated by this Agreement or any related document; (3) any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the Toxic Substances Control Act, the Occupational Safety and Health Act, the Safe Drinking Water Act, the California Hazardous Waste Control Law, and California Water Code Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the System; or (4) any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which

they were made, not misleading with respect to any information provided by the Recipient for use in any disclosure document utilized in connection with any of the transactions contemplated by this Agreement. To the fullest extent permitted by law, the Recipient agrees to pay and discharge any judgment or award entered or made against Indemnified Persons with respect to any such claim or action, and any settlement, compromise or other voluntary resolution. The provisions of this section shall survive the discharge of the Recipient's Obligation hereunder.

5.4 Termination; Immediate Repayment; Interest.

- (a) This Agreement may be terminated by written notice during construction of the Project, or thereafter at any time prior to complete repayment by the Recipient, at the option of the State Water Board, upon violation by the Recipient of any material provision of this Agreement after such violation has been called to the attention of the Recipient and after failure of the Recipient to bring itself into compliance with the provisions of this Agreement within a reasonable time as established by the Division.
- (b) In the event of such termination, the Recipient agrees, upon demand, to immediately repay to the State Water Board an amount equal to Installment Payments due hereunder, including accrued interest, and all penalty assessments due. In the event of termination, interest shall accrue on all amounts due at the highest legal rate of interest from the date that notice of termination is mailed to the Recipient to the date of full repayment by the Recipient.
- (c) Where the Recipient is a private entity that has been determined to have violated an applicable prohibition in the Prohibition Statement below or has an employee who is determined by USEPA to have violated an applicable prohibition in the Prohibition Statement below that is either associated with performance under this aware or imputed to the Recipient using the standards and due process for imputing the conduct of an individual to an organization pursuant to 2 CFR Part 180, the Recipient acknowledges and agrees that this Obligation may become immediately due and payable and that penalties up to \$175 million may be due by the Recipient to the State Water Board, in addition to any other criminal or civil penalties that may become due. The Recipient, its employees, its contractors, and any subrecipients or subcontractors may not engage in trafficking in persons, procure a commercial sex act, or use forced labor.

5.5 Income Restrictions.

The Recipient agrees that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Recipient under this Agreement shall be paid by the Recipient to the State, to the extent that they are properly allocable to costs for which the Recipient has been reimbursed by the State under this Agreement.

5.6 Prevailing Wages.

The Recipient agrees to be bound by all the provisions of State Labor Code Section 1771 regarding prevailing wages. The Recipient shall monitor all agreements subject to reimbursement from this Agreement to assure that the prevailing wage provisions of State Labor Code Section 1771 are being met.

5.7 Timeliness.

Time is of the essence in this Agreement.

5.8 Governing Law.

This contract is governed by and shall be interpreted in accordance with the laws of the State of California.

5.9 Amendment.

No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or agreement not incorporated in this Agreement is binding on any of the parties.

5.10 Bonding.

Where contractors are used, the Recipient shall not authorize construction to begin until each contractor has furnished a performance bond in favor of the Recipient in the following amounts: faithful performance (100%) of contract value; labor and materials (100%) of contract value. This requirement shall not apply to any contract for less than \$20,000.00.

5.11 Compliance with Law, Regulations, etc.

- (a) The Recipient agrees that it will, at all times, comply with and require its contractors and subcontractors to comply with all applicable federal and state laws, rules, guidelines, regulations, and requirements. Without limitation of the foregoing, the Recipient agrees that, to the extent applicable, the Recipient will:
- (1) Comply with the provisions of the adopted environmental mitigation plan for the term of this Agreement;
 - (2) Comply with the State Water Board's "Policy for Implementing the Clean Water State Revolving Fund," dated May 7, 2013;
 - (3) Comply with and require its contractors and subcontractors on the Project to comply with federal DBE requirements; and
 - (4) Comply with and require its contractors and subcontractors to comply with the list of federal laws attached as Exhibit E.

5.12 Conflict of Interest.

The Recipient certifies that it is in compliance with applicable state and/or federal conflict of interest laws.

5.13 Damages for Breach Affecting Tax Exempt Status or Federal Compliance

In the event that any breach of any of the provisions of this Agreement by the Recipient shall result in the loss of tax exempt status for any bonds of the State or any subdivision or agency thereof, including Bonds issued on behalf of the State Water Board, or if such breach shall result in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government by reason of any arbitrage profits, the Recipient shall immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

In the event that any breach of any of the provisions of this Agreement by the Recipient shall result in the failure of Project Funds to be used pursuant to the provisions of this Agreement, or if such breach shall result in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government, the Recipient shall immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

5.14 Disputes.

- (a) An applicant or recipient may appeal a staff decision within 30 days to the Deputy Director of the Division or designee, for a final Division decision. An applicant or recipient may appeal a final Division decision to the State Water Board within 30 days. The Office of the Chief Counsel of the State Water Board will prepare a summary of the dispute and make recommendations relative to its final resolution, which will be provided to the State Water Board's Executive Director and each State Water Board Member. Upon the motion of any State Water Board Member, the State Water Board will review and resolve the dispute in the manner determined by the State Water Board. Should the State Water Board determine not to review the final Division decision, this decision will represent a final agency action on the dispute.
- (b) This clause does not preclude consideration of legal questions, provided that nothing herein shall be construed to make final the decision of the State Water Board, or any official or representative thereof, on any question of law.
- (c) Recipient shall continue with the responsibilities under this Agreement during any dispute.

5.15 Independent Actor.

The Recipient, and its agents and employees, if any, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State Water Board.

5.16 Non-Discrimination Clause.

- (a) During the performance of this Agreement, Recipient and its contractors and subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
- (b) The Recipient, its contractors, and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
- (c) The Recipient, its contractors, and subcontractors shall comply with the provisions of the Fair Employment and Housing Act and the applicable regulations promulgated thereunder. (Gov. Code, §12990, subds. (a)-(f) et seq.; Cal. Code Regs., tit. 2, § 7285 et seq.) Such regulations are incorporated into this Agreement by reference and made a part hereof as if set forth in full.
- (d) The Recipient, its contractors, and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- (e) The Recipient shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

5.17 No Third Party Rights.

The parties to this Agreement do not create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or of any duty, covenant, obligation, or undertaking established herein.

5.18 Operation and Maintenance; Insurance.

The Recipient agrees to sufficiently and properly staff, operate and maintain all portions of the Project during its useful life in accordance with all applicable state and federal laws, rules and regulations.

The Recipient will procure and maintain or cause to be maintained insurance on the System with responsible insurers, or as part of a reasonable system of self-insurance, in such amounts and against such risks (including damage to or destruction of the System) as are usually covered in connection with systems similar to the System. Such insurance may be maintained by the maintenance of a self-insurance plan so long as any such plan provides for (i) the establishment by the Recipient of a separate segregated self-insurance fund funded in an amount determined (initially and on at least an annual basis) by an independent insurance consultant experienced in the field of risk management employing accepted actuarial techniques and (ii) the establishment and maintenance of a claims processing and risk management program.

In the event of any damage to or destruction of the System caused by the perils covered by such insurance, the net proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the System. The Recipient shall begin such reconstruction, repair or replacement as expeditiously as possible, and shall pay out of such net proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same shall be completed and the System shall be free and clear of all claims and liens. If such net proceeds are insufficient to enable the Recipient to pay all remaining unpaid principal portions of the Installment Payments, the Recipient shall provide additional funds to restore or replace the damaged portions of the System.

5.19 Permits, Subcontracting, and Remedies.

The Recipient shall comply in all material respects with all applicable federal, state and local laws, rules and regulations. Recipient shall procure all permits, licenses and other authorizations necessary to accomplish the work contemplated in this Agreement, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. Signed copies of any such permits or licenses shall be submitted to the Division before construction begins.

5.20 Recipient's Responsibility for Work.

The Recipient shall be responsible for all work and for persons or entities engaged in work performed pursuant to this Agreement, including, but not limited to, contractors, subcontractors, suppliers, and providers of services. The Recipient shall be responsible for any and all disputes arising out of its contracts for work on the Project. The State Water Board will not mediate disputes between the Recipient and any other entity concerning responsibility for performance of work.

5.21 Related Litigation.

Under no circumstances may a Recipient use funds from any disbursement under this Agreement to pay costs associated with any litigation the Recipient pursues against the State Water Board or any Regional Water Quality Control Board. Regardless of the outcome of any such litigation, and notwithstanding any conflicting language in this Agreement, the Recipient agrees to complete the Project funded by this Agreement or to repay all of the disbursed funds plus interest.

5.22 Rights in Data.

The Recipient agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Agreement are subject to the rights of the State as set forth in this section. The State shall have the right to reproduce, publish, and use all such work, or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so. If any such work is copyrightable, the Recipient may copyright the same, except that, as to any work which is copyrighted by the Recipient, the State reserves a royalty-free,

nonexclusive, and irrevocable license to reproduce, publish, and use such work, or any part thereof, and to authorize others to do so, and to receive electronic copies from the Recipient upon request. (40 CFR 31.34, 31.36)

5.23 State Water Board Action; Costs and Attorney Fees.

The Recipient agrees that any remedy provided in this Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State Water Board as a result of breach of this Agreement by the Recipient, whether such breach occurs before or after completion of the Project, and exercise of any remedy provided by this Agreement by the State Water Board shall not preclude the State Water Board from pursuing any legal remedy or right which would otherwise be available. In the event of litigation between the parties hereto arising from this Agreement, it is agreed that each party shall bear its own costs and attorney fees.

5.24 Unenforceable Provision.

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

5.25 Useful Life.

The economic useful life of the Project, commencing at Project Completion, is at least equal to the term of this Agreement, as set forth in Exhibit B hereto.

5.26 Venue.

The State Water Board and the Recipient hereby agree that any action arising out of this Agreement shall be filed and maintained in the Superior Court in and for the County of Sacramento, California.

5.27 Waiver and Rights of the State Water Board.

Any waiver of rights by the State Water Board with respect to a default or other matter arising under the Agreement at any time shall not be considered a waiver of rights with respect to any other default or matter.

Any rights and remedies of the State Water Board provided for in this Agreement are in addition to any other rights and remedies provided by law.

**ATTACHMENT 3
FEDERAL CONDITIONS & CROSS CUTTERS**

Exhibit E – Federal Conditions & Cross Cutters

The Recipient agrees to comply with the following conditions required by USEPA:

1. **No Recipient or subrecipient may receive funding under this Agreement unless it has provided its DUNS number to the State Water Board. (2011 Cap Grant)**
2. **Executive Compensation.** Where the Recipient received 80 percent or more of its annual gross revenues from federal procurement contracts (and subcontracts) and \$25,000,000 or more in annual gross revenues from federal procurement contracts (and subcontracts), the Recipient agrees to notify the State Water Board. The Recipient agrees to provide information regarding executive compensation to the State Water Board upon request, in order for the State Water Board to comply with USEPA requirements.
3. **Trafficking in Persons.** The Recipient, its employees, contractors and subcontractors and their employees may not engage in severe forms of trafficking in persons during the term of this Agreement, procure a commercial sex act during the term of this Agreement, or use forced labor in the performance of this Agreement. The Recipient must include this provision in its contracts and subcontracts under this Agreement. The Recipient must inform the State Water Board immediately of any information regarding a violation of the foregoing. The Recipient understands that failure to comply with this provision may subject the State Water Board to loss of federal funds in the amount of \$101,065,000. The Recipient agrees to compensate the State Water Board for any such funds lost due to its failure to comply with this condition, or the failure of its contractors or subcontractors to comply with this condition. The State Water Board may unilaterally terminate this Agreement and full repayment will be due immediately, if a subrecipient that is a private entity is determined to have violated the foregoing. Trafficking Victims Protection Act of 2000.
4. **Contractors, Subcontractors, Debarment and Suspension, Executive Order 12549; 2 CFR Part 180; 2 CFR Part 1532.** The Recipient shall not subcontract with any party who is debarred or suspended or otherwise excluded from or ineligible for participation in federal assistance programs under Executive Order 12549, "Debarment and Suspension". The Recipient shall not subcontract with any individual or organization on USEPA's List of Violating Facilities. (40 CFR, Part 31.35, Gov. Code 4477)

The Recipient certifies to the best of its knowledge and belief, that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency;
- (b) Have not within a three (3) year period preceding this Agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three (3) year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Suspension and debarment information can be accessed at <http://www.sam.gov>. The Recipient represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its contracts and subcontracts under this Agreement. The Recipient acknowledges that failing to disclose the information as required at 2 CFR 180.335 may result in the termination, delay or negation of this Agreement, or pursuance of legal remedies, including suspension and debarment.

5. **Anti-Lobbying Provisions (40 CFR Part 34) & Anti-Litigation Provisions (2 CFR 220, 225, or 230).** The Recipient shall ensure that no funds under this Agreement are used to engage in lobbying of the federal government or in litigation against the United States unless authorized under existing law. The Recipient shall abide by 2 CFR 225 (OMB Circular A-87) (or, if not applicable, other parallel requirements), which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities. The Recipient agrees to comply with 40 CFR Part 24, **New Restrictions on Lobbying**. The Recipient agrees to submit certification and disclosure forms in accordance with these provisions. In accordance with the Byrd Anti-Lobbying Amendment, any Recipient who makes a prohibited expenditure under 40 CFR Part 34 or fails to file the required certification or lobbying forms shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure. The Recipient shall abide by its respective 2 CFR 200, 225, or 230, which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities.
6. **Disadvantaged Business Enterprises. 40 CFR Part 33.** The Recipient agrees to comply with the requirements of USEPA's Program for Utilization of Small, Minority and Women's Business Enterprises. The DBE rule can be accessed at www.epa.gov/osbp. The Recipient shall comply with, and agrees to require its prime contractors to comply with 40 CFR Section 33.301, and retain all records documenting compliance with the six good faith efforts.
7. The Recipient agrees to comply with the Davis-Bacon provisions attached as Exhibit G.

The Recipient agrees to comply with the following federal laws, as applicable to recipients of CWSRF funding:

Environmental Authorities

1. **Archeological and Historical Preservation Act of 1974, Pub. L. 86-523, as amended, Pub. L. 93-291 16 USC § 469a-1.**
2. **Clean Air Act, Pub. L. 84-159, as amended.**
3. **Coastal Barrier Resources Act, Pub. L. 97-348, 96 Stat. 1653; 16 USC § 3501 et seq.**
4. **Coastal Zone Management Act, Pub. L. 92-583, as amended; 16 USC § 1451 et seq.**
5. **Endangered Species Act, Pub. L. 93-205, as amended; 16 USC § 1531 et seq..**
6. **Environmental Justice, Executive Order 12898.**
7. **Floodplain Management, Executive Order, 11988 as amended by Executive Order 12148.**
8. **Protection of Wetlands, Executive Order 11990, as amended by Executive Order No. 12608.**

9. Farmland Protection Policy Act, Pub. L. 97-98; 7 USC § 4201 et seq.
10. Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended.
11. National Historic Preservation Act of 1966, Pub. L. 89-665, as amended, 80 Stat. 917 (1966) 16 USC § 470 et seq.
12. Safe Drinking Water Act, Pub. L. 93-523, as amended; 42 USC § 300f et seq.
13. Wild and Scenic Rivers Act, Pub. L. 90-542, as amended, 82 Stat. 913; 16 USC § 1271 et seq.
14. Essential Fish Habitat Consultation. Pub. L. 94-265, as amended, 16 USC § 1801 et seq.
15. Recycled Materials. Executive Order 13101; Section 6002 Resource Conservation and Recovery Act – 42 USC § 6962.

Economic and Miscellaneous Authorities

1. Demonstration Cities and Metropolitan Development Act of 1966, Pub. L. 89-754, as amended, Executive Order 12372/ 42 USC § 3331 et seq.
2. Procurement Prohibitions under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans; 42 USC § 7606; 33 USC § 1368; 40 CFR Part 31.
3. Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended; 42 USC §§4601-4655
4. Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects, EO 13202, as amended by EO 13208.
6. Hotel and Motel Fire Safety Act of 1990 (PL 101-391, as amended). All conference, meeting, convention, or training funded in whole or in part with federal funds shall comply with the protection and control guidelines of this act. Recipients may search <http://www.usfa.dhs.gov/applications/hotel/>.
7. Records and financial reporting requirements. 40 CFR Part 31.
8. Copyright requirements. 40 CFR Part 31.

Social Policy Authorities

1. Age Discrimination Act of 1975, Pub. L. 94-135; 42 USC § 6102.
2. Race Discrimination. Title VI of the Civil Rights Act of 1964, Pub. L. 88-352.1; 42 USC § 2000d; 40 CFR Part 7.
3. Sex Discrimination. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (the Clean Water Act); 33 USC § 1251; 40 CFR Part 7.
4. Disability Discrimination. Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (including Executive Orders 11914 and 11250); 29 USC § 794; 40 CFR Part 7.

5. **Equal Employment Opportunity, Executive Order 11246.**
6. **Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590.**

**ATTACHMENT 4
DAVIS-BACON REQUIREMENTS**

Exhibit G – Davis Bacon Requirements

1. Contract and Subcontract provisions for Recipients

- (a) The Recipient shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF the following clauses:

(1) Minimum wages.

- (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

- (ii)(A) The Recipient, on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

- (2) The classification is utilized in the area by the construction industry;
and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Recipient agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the Recipient to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and Recipient do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
 - (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- (2) **Withholding.** The Recipient, shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (3) **Payrolls and basic records.**
- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the Recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State or EPA. As to each payroll copy received, the Recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime

EXHIBIT G – DAVIS BACON REQUIREMENTS

contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Recipient for transmission to the State Water Board or EPA if requested by EPA, the State Water Board, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Recipient.

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required

records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe

benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Recipient, State, EPA, the U.S. Department of Labor, or the employees or their representatives.
- (10) Certification of eligibility.
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or

firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

2. Contract Provision for Contracts in Excess of \$100,000.

- (a) **Contract Work Hours and Safety Standards Act.** The Recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Section 1, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
 - (1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - (2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.
 - (3) **Withholding for unpaid wages and liquidated damages.** The Recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
 - (4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The

prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

- (b) In addition to the clauses contained in Section 1, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the United States Environmental Protection Agency, the Department of Labor, or the State Water Resources Control Board, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

3. Compliance Verification

- (a) The Recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.
- (b) The Recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the Recipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. The Recipient must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. The Recipient shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.
- (c) The Recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The Recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the Recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. The Recipient must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the Recipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.
- (d) The Recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that

contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

- (e) The Recipient must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

General Decision Number: CA160037 08/12/2016 CA37

Superseded General Decision Number: CA20150037

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: San Bernardino County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	01/15/2016
2	02/26/2016
3	03/04/2016
4	04/01/2016
5	05/20/2016
6	07/08/2016
7	07/22/2016
8	08/12/2016

ASBE0005-002 07/01/2015

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	\$ 36.74	19.49
Fire Stop Technician (Application of Firestopping Materials for wall openings		

and penetrations in walls,
 floors, ceilings and curtain
 walls).....\$ 25.38 16.81

 ASBE0005-004 06/29/2015

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)....	\$ 18.06	10.57

 BOIL0092-003 10/01/2012

	Rates	Fringes
BOILERMAKER.....	\$ 41.17	28.27

 * BRCA0004-011 05/01/2016

	Rates	Fringes
BRICKLAYER; MARBLE SETTER.....	\$ 38.38	14.17

*The wage scale for prevailing wage projects performed in
 Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine
 Palms, Needles and 1-15 corridor (Barstow to the Nevada
 State Line) will be Three Dollars (\$3.00) above the
 standard San Bernardino/Riverside County hourly wage rate

 BRCA0018-004 06/01/2014

	Rates	Fringes
MARBLE FINISHER.....	\$ 28.45	11.38
TILE FINISHER.....	\$ 23.78	9.84
TILE LAYER.....	\$ 35.14	14.33

 BRCA0018-010 09/01/2013

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 26.59	10.34
TERRAZZO WORKER/SETTER.....	\$ 33.63	11.13

 CARP0409-001 07/01/2015

	Rates	Fringes
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CARPENTER

(1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....	\$ 39.83	11.58
(2) Millwright.....	\$ 40.90	11.58
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....	\$ 40.53	11.58
(4) Pneumatic Nailer, Power Stapler.....	\$ 37.60	11.58
(5) Sawfiler.....	\$ 37.44	11.58
(6) Scaffold Builder.....	\$ 28.55	11.58
(7) Table Power Saw Operator.....	\$ 37.45	11.58

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

CARP0409-002 07/01/2008

	Rates	Fringes
Diver		
(1) Wet.....	\$ 663.68	9.82
(2) Standby.....	\$ 331.84	9.82
(3) Tender.....	\$ 323.84	9.82
(4) Assistant Tender.....	\$ 299.84	9.82

Amounts in "Rates" column are per day

CARP0409-005 07/01/2015

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER....	\$ 40.40	15.03
STOCKER/SCRAPPER.....	\$ 10.00	7.17

CARP0409-008 08/01/2010

	Rates	Fringes
Modular Furniture Installer.....	\$ 17.00	7.41

ELEC0440-004 05/26/2014

COMMUNICATIONS AND SYSTEMS WORK

	Rates	Fringes
Communications System		
Installer.....	\$ 28.38	4%+11.45
Technician.....	\$ 30.18	4%+11.45

SCOPE OF WORK:

Installation, testing, service and maintenance of systems utilizing the transmission and/or transference of voice, sound, vision and digital for commercial, educational, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call systems, radio page, school intercom and sound, burglar alarms, fire alarms, and low voltage master clock systems in commercial buildings. Communication Systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding all other data systems or multiple systems which include control function or power supply; excluding installation of raceway systems, conduit systems, line voltage work, and energy management systems. Does not cover work performed at China Lake Naval Ordnance Test Station.

 ELEC0477-002 05/30/2016

	Rates	Fringes
Electricians:.....	\$ 36.29	23.48

CABLE SPLICER: \$1.00 per hour above Electrician rate.
 TUNNEL WORK: 10% above Electrician rate.

ZONE PAY:

Zone A - 80 road miles from Post Office, 455 Orange Show Lane, San Bernardino, will be a free zone for all contractors
 Zone B - Any work performed outside Zone A's 80 road miles, shall add \$12.00 per hour to the current wage scale.

 ELEC1245-001 06/01/2015

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	\$ 52.85	15.53
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes,		

trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....	\$ 42.21	14.32
(3) Groundman.....	\$ 32.28	14.03
(4) Powderman.....	\$ 47.19	14.60

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

 ELEV0018-001 01/01/2015

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 49.90	28.38

FOOTNOTE:

PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
 PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

 ENGI0012-003 07/06/2015

	Rates	Fringes
OPERATOR: Power Equipment (All Other Work)		
GROUP 1.....	\$ 39.95	23.35
GROUP 2.....	\$ 40.73	23.35
GROUP 3.....	\$ 41.02	23.35
GROUP 4.....	\$ 42.51	23.35
GROUP 5.....	\$ 41.86	23.35
GROUP 6.....	\$ 41.83	23.35
GROUP 8.....	\$ 42.84	23.35
GROUP 9.....	\$ 42.19	23.35
GROUP 10.....	\$ 42.96	23.35
GROUP 11.....	\$ 42.31	23.35
GROUP 12.....	\$ 43.13	23.35
GROUP 13.....	\$ 43.23	23.35
GROUP 14.....	\$ 43.26	23.35
GROUP 15.....	\$ 43.34	23.35
GROUP 16.....	\$ 43.46	23.35
GROUP 17.....	\$ 43.63	23.35
GROUP 18.....	\$ 43.73	23.35
GROUP 19.....	\$ 43.84	23.35
GROUP 20.....	\$ 43.96	23.35
GROUP 21.....	\$ 44.13	23.35
GROUP 22.....	\$ 44.23	23.35
GROUP 23.....	\$ 44.34	23.35
GROUP 24.....	\$ 44.46	23.35
GROUP 25.....	\$ 44.63	23.35

OPERATOR: Power Equipment
 (Cranes, Piledriving &
 Hoisting)

GROUP 1.....	\$ 41.30	23.35
GROUP 2.....	\$ 42.08	23.35
GROUP 3.....	\$ 42.37	23.35
GROUP 4.....	\$ 42.51	23.35
GROUP 5.....	\$ 42.73	23.35
GROUP 6.....	\$ 42.84	23.35
GROUP 7.....	\$ 42.96	23.35
GROUP 8.....	\$ 43.13	23.35
GROUP 9.....	\$ 43.30	23.35
GROUP 10.....	\$ 44.30	23.35
GROUP 11.....	\$ 45.30	23.35
GROUP 12.....	\$ 46.30	23.35
GROUP 13.....	\$ 47.30	23.35

OPERATOR: Power Equipment
 (Tunnel Work)

GROUP 1.....	\$ 41.80	23.35
GROUP 2.....	\$ 42.58	23.35
GROUP 3.....	\$ 42.87	23.35
GROUP 4.....	\$ 43.01	23.35
GROUP 5.....	\$ 43.23	23.35
GROUP 6.....	\$ 43.34	23.35
GROUP 7.....	\$ 43.46	23.35

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd.

without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or

finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single

engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units -

single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including

300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section

6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SBM to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a thin strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM

to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

 ENGI0012-004 08/01/2015

	Rates	Fringes
OPERATOR: Power Equipment		
(DREDGING)		
(1) Leverman.....	\$ 49.50	23.60
(2) Dredge dozer.....	\$ 43.53	23.60
(3) Deckmate.....	\$ 43.42	23.60
(4) Winch operator (stern winch on dredge).....	\$ 42.87	23.60
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 42.33	23.60
(6) Barge Mate.....	\$ 42.94	23.60

 IRON0377-002 07/01/2016

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 28.33	20.64
Ornamental, Reinforcing and Structural.....	\$ 34.75	29.20

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0300-005 01/01/2016

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 30.43	16.07

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/03/2016

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 37.89	20.50
GROUP 2.....	\$ 36.94	20.50
GROUP 3.....	\$ 33.40	20.50

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall

receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

LABO0783-002 07/04/2016

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 38.09	19.07
GROUP 2.....	\$ 38.41	19.07
GROUP 3.....	\$ 38.87	19.07
GROUP 4.....	\$ 39.56	19.07
LABORER		
GROUP 1.....	\$ 32.34	19.07
GROUP 2.....	\$ 32.89	19.07
GROUP 3.....	\$ 33.44	19.07
GROUP 4.....	\$ 34.99	19.07
GROUP 5.....	\$ 35.34	19.07

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever

and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

 * LABO0783-005 07/01/2016

	Rates	Fringes
Brick Tender.....	\$ 30.52	18.56

LABO1184-001 07/04/2016

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer...	\$ 33.65	13.95
(2) Vehicle Operator/Hauler.	\$ 33.82	13.95
(3) Horizontal Directional Drill Operator.....	\$ 35.67	13.95
(4) Electronic Tracking Locator.....	\$ 37.67	13.95

Laborers: (STRIPING/SLURRY SEAL)

GROUP 1.....	\$ 34.86	17.03
GROUP 2.....	\$ 36.16	17.03
GROUP 3.....	\$ 38.17	17.03
GROUP 4.....	\$ 39.91	17.03

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

LABO1414-003 08/05/2015

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER.....	\$ 30.16	17.11
PLASTER TENDER.....	\$ 32.71	17.11

Work on a swing stage scaffold: \$1.00 per hour additional.

Work at Military Bases - \$3.00 additional per hour:
 Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air

Facility-Seeley, North Island Naval Air Station, Vandenberg
AFB.

PAIN0036-001 07/01/2015

	Rates	Fringes
Painters: (Including Lead Abatement)		
(1) Repaint (excludes San Diego County).....	\$ 27.29	12.83
(2) All Other Work.....	\$ 30.72	12.83

REPAINT of any previously painted structure. Exceptions:
work involving the aerospace industry, breweries,
commercial recreational facilities, hotels which operate
commercial establishments as part of hotel service, and
sports facilities.

PAIN0036-008 10/01/2015

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 36.18	16.82

PAIN0036-015 06/01/2016

	Rates	Fringes
GLAZIER.....	\$ 41.70	21.13

FOOTNOTE: Additional \$1.25 per hour for work in a condor,
from the third (3rd) floor and up Additional \$1.25 per
hour for work on the outside of the building from a swing
stage or any suspended contrivance, from the ground up

PAIN1247-002 01/01/2016

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 29.85	14.01

PLAS0200-008 08/05/2015

	Rates	Fringes
PLASTERER.....	\$ 38.44	13.77

FORT IRWIN; MARINE CORPS AIR STATION 29 PALMS, AND MARINE
CORPS LOGISTICS SUPPLY BASE: \$3.00 additional per hour.

PLAS0500-002 07/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.30	23.33

PLUM016-002 07/01/2015

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER		
Plumber and Pipefitter		
All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....	\$ 45.96	20.71
Work at Edwards AFB.....	\$ 52.96	20.71
Work at Fort Irwin Army Base, Marine Corps Logistic Base at Nebo, Marine Corps Logistic Base at Yermo and Twenty-Nine Palms Marine Base.....	\$ 56.46	20.71
Work ONLY on new additions and remodeling of bars, restaurants, stores and commercial buildings, not to exceed 5,000 sq. ft. of floor space.....	\$ 44.54	19.73
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....	\$ 35.16	18.06

PLUM0345-001 07/01/2014

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter..	\$ 29.27	19.75
Sewer & Storm Drain Work....	\$ 33.24	17.13

* ROOF0036-002 08/01/2015

	Rates	Fringes
ROOFER.....	\$ 35.07	14.40

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal

tar pitch, the entire roofing crew shall receive \$1.75 per hour "pitch premium" pay.

 SFCA0669-009 01/01/2016

Does not include the northern part of the City of Chino, or the Cities of Montclair and Ontario

	Rates	Fringes
SPRINKLER FITTER.....	\$ 35.57	20.27

 SFCA0709-004 07/01/2015

THE NORTHERN PART OF THE CITY OF CHINO, AND THE CITIES OF MONTCLAIR AND ONTARIO:

	Rates	Fringes
SPRINKLER FITTER (Fire).....	\$ 42.93	24.04

 SHEE0105-003 07/01/2016

LOS ANGELES (South of a straight line drawn between Gorman and Big Pines)and Catalina Island, INYO, KERN (Northeast part, East of Hwy 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES

	Rates	Fringes
SHEET METAL WORKER		
(1) Commercial - New Construction and Remodel work.....	\$ 41.86	26.88
(2) Industrial work including air pollution control systems, noise abatement, hand rails, guard rails, excluding aritechtrual sheet metal work, excluding A-C, heating, ventilating systems for human comfort....	\$ 41.86	26.88

 TEAM0011-002 07/01/2015

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 28.24	25.24
GROUP 2.....	\$ 28.39	25.24
GROUP 3.....	\$ 28.52	25.24
GROUP 4.....	\$ 28.71	25.24
GROUP 5.....	\$ 28.74	25.24

GROUP 6.....	\$ 28.77	25.24
GROUP 7.....	\$ 29.02	25.24
GROUP 8.....	\$ 29.27	25.24
GROUP 9.....	\$ 29.47	25.24
GROUP 10.....	\$ 29.77	25.24
GROUP 11.....	\$ 30.27	25.24
GROUP 12.....	\$ 30.70	25.24

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.

[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB, El Centro Naval Facility, Fort Irwin, Marine Corps Logistics Base at Nebo & Yermo, Mountain Warfare Training Center, Bridgeport, Point Arguello, Point Conception, Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the

Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

ATTACHMENT 5
DBE INSTRUCTIONS & FORMS

California State Water Resources Control Board
Division of Financial Assistance (Division)
1001 I Street • Sacramento, California 95814 • (916) 341-5700 FAX (916) 341-5707
Mailing Address: P. O. Box 944212 • Sacramento, California • 94244-2120
Internet Address: <http://www.waterboards.ca.gov>

**Guidelines for Meeting the California State Revolving Fund (CASRF) Programs
(Clean Water and Drinking Water SRF)
Disadvantaged Business Enterprise (DBE) Requirements**
(Revised April 24, 2015)

The DBE Program is an outreach, education, and objectives program designed to increase the participation of DBEs in the CWSRF Programs.

How to Achieve the Purpose of the Program

Recipients of CASRF financing that are subject to the DBE requirements (recipients) are required to seek, and are encouraged to use, DBEs for their procurement needs. Recipients should award a "fair share" of sub-agreements to DBEs. This applies to all sub-agreements for equipment, supplies, construction, and services.

The key functional components of the DBE Program are as follows.

- Fair Share Objectives
- DBE Certification
- Six Good Faith Efforts
- Contract Administration Requirements
- DBE Reporting

Disadvantaged Business Enterprise's are:

- entities owned and/or controlled by socially and economically disadvantaged individuals as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d) (8% statute), respectively;
- a Minority Business Enterprise (MBE) are entities that are at least 51% owned and/or controlled by a socially and economically disadvantaged individual as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note), and Public Law 102-389 (42 U.S.C. 4370d), respectively.
- a Women Business Enterprise (WBE) are entities that are at least 51% owned and/or controlled by women.
- a Small Business Enterprise (SBE);
- a Small Business in a Rural Area (SBRA);
- a Labor Surplus Area Firm (LSAF); or
- an Historically Underutilized Business (HUB) Zone Small Business Concern or a concern under a successor program.

Certifying DBE Firms:

Under the DBE Program, entities can no longer self-certify and contractors and sub-contractors must be certified at bid opening. Contractors and sub-contractors must provide to the CASRF recipient proof of DBE certification. Certifications will be accepted from the following:

- The US Environmental Protection Agency (USEPA)
- The Small Business Administration (SBA);
- The Department of Transportation's State implemented DBE Certification Program (with U.S. citizenship);
- Tribal, State and Local governments;
- Independent private organization certifications.

If an entity holds one of these certifications, it is considered acceptable for establishing status under the DBE Program.

Six Good Faith Efforts (GFE)

All CWSRF financing recipients are required to complete and ensure that the prime contractor complies with the GFE below to ensure that DBEs have the opportunity to compete for financial assistance dollars.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practical through outreach and recruitment activities. For Tribal, State and Local Government Recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs. Posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid opening date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs.
4. Encourage contracting with a group of DBEs when a contract is too large for one firm to handle individually.
5. Use the services and assistance of the SBA and/or Minority Business Development Agency (MBDA) of the US Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

The forms listed in the table below and attached to these guidelines; must be completed and submitted with the GFE:

FORM NUMBER	FORM NAME	REQUIREMENT	PROVIDED BY	COMPLETED BY	SUBMITTED TO
EPA 6100-2	DBE Sub-Contractor Participation Form	As Needed to Report Issues	Recipient	Sub-Contractor	EPA DBE Coordinator
EPA 6100-3	DBE Sub-Contractor Performance Form	Include with Bid or Proposal Package	Prime Contractor	Sub-Contractor	SWRCB by Recipient
EPA 6100-4	DBE Sub-Contractor Utilization Form	Include with Bid or Proposal Package	Recipient	Prime Contractor	SWRCB by Recipient

The completed forms must be submitted with each Bid or Proposal. The recipient shall review the bidder's documents closely to determine that the GFE was performed prior to bid or proposal opening date. Failure to complete the GFE and to substantiate completion of the GFE before the bid opening date could jeopardize CWSRF financing for the project. The following situations and circumstances require action as indicated:

1. If the apparent successful low bidder was rejected, a complete explanation must be provided;
2. Failure of the apparent low bidder to perform the GFE prior to bid opening constitutes a non-responsive bid. The construction contract may then be awarded to the next low, responsive, and responsible bidder that meets the requirements or the Recipient may re-advertise the project.
3. If there is a bid dispute, all disputes shall be settled prior to submission of the Final Budget Approval Form.

Administration Requirements

- A recipient of CWSRF financing must require entities receiving funds to create and maintain a Bidders List if the recipient of the financing agreement is subject to, or chooses to follow, competitive bidding requirements;
- The Bidders list must include all firms that bid or quote on prime contracts, or bid or quote on subcontracts, including both DBEs and non-DBEs.

- Information retained on the Bidder's List must include the following:
 1. Entity's name with point of contact;
 2. Entity's mailing address and telephone number;
 3. The project description on which the entity bid or quoted and when;
 4. Amount of bid/quote; and
 5. Entity's status as a DBE or non-DBE.
- The Bidders List must be kept until the recipient is no longer receiving funding under the agreement.
- The recipient shall include Bidders List as part of the Final Budget Approval Form.
- A recipient must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the Recipient.
- A recipient must be notified in writing by its prime contractor prior to any termination of a DBE subcontractor by the prime contractor.
- If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six GFEs if soliciting a replacement subcontractor.
- A recipient must require its prime contractor to employ the six GFEs even if the prime contractor has achieved its fair share objectives.

Reporting Requirements

For the duration of the construction contract(s), the recipient is required to submit to the State Water Resources Control Board DBE reports annually by October 10 of each fiscal year on the attached Utilization Report form (UR-334). Failure to provide this information as stipulated in the financial agreement language may be cause for withholding disbursements.

CONTACT FOR MORE INFORMATION

SWRCB – CASRF Barbara August (916) 341-6952 barbara.august@waterboards.ca.gov
 US-EPA Region 9 – Joe Ochab (415) 972-3761 ochab.joe@epa.gov.



OMB Control No: 2090-0030
 Approved: 8/13/2013
 Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
 DBE Subcontractor Participation Form**

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



United States

OMB Control No: 2090-0030

.....

Environmental Protection Agency

Approved: 8/13/2013
Approval Expires: 8/31/2015

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

This form is intended to capture the DBE1 subcontractor's2 description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: __DOT __SBA		Meets/ exceeds EPA certification standards?
__Other: _____		<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



United States
Environmental Protection
Agency

OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



OMB Control No: 2090-0030
 Approved: 8/ 13/ 2013
 Approval Expires: 8/ 31/ 2015

**Disadvantaged Business Enterprise (DBE) Program
 DBE Subcontractor Utilization Form**

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity:			

I have identified potential DBE certified subcontractors	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



OMB Control No: 2090-0030
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Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

**STATE WATER RESOURCES CONTROL BOARD - DIVISION OF FINANCIAL ASSISTANCE
DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION
CALIFORNIA STATE REVOLVING FUNDS
INSTRUCTIONS FOR COMPLETING FORM UR-334**

- Box 1** Grant or Financing Agreement Number.
- Box 2** Annual reporting period.
- Box 3** Enter the dates between which you made procurements under this financing agreement or grant.
- Box 4** Enter the total amount of payments paid to the contractor or sub-contractors during this reporting period.
- Box 5** Enter Recipient's Name and Address.
- Box 6** Enter Recipient's Contact Name and Phone Number.
- Box 7** Enter details for the **DBE purchases only** and be sure to limit them to the current period. 1) Use either an "R" or a "C" to represent "Recipient" or "Contractor." 2) Enter a dollar total for DBE and total the two columns at the bottom of the section. 3) Provide the payment date. 4) Enter a product type choice from those at the bottom of the page. 5) List the vendor name and address in the right-hand column
- Box 8** Initial here if no DBE contractors or sub-contractors were paid during this reporting period.
- Box 9** Initial this box only if all purchases under this financing agreement or grant have been completed during this reporting period or a previous period. If you initial this box, we will no longer send you a survey.
- Box 10** This box is for explanatory information or questions.
- Box 11** Provide an authorized representative signature.
- Box 12** Enter the date form completed.

**ATTACHMENT 6
CONSTRUCTION SIGNAGE**

2.20 Signage.

The Recipient shall place a sign at least four feet tall by eight feet wide made of ¾ inch thick exterior grade plywood or other approved material in a prominent location on the Project site and shall maintain the sign in good condition for the duration of the construction period. The sign shall include the following color logos (available from the Division) and the following disclosure statement:



“Funding for this project has been provided in full or in part by the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California’s Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds.”

The Project sign may include another agency's required promotional information so long as the above logos and disclosure statement are equally prominent on the sign. The sign shall be prepared in a professional manner.

The Recipient shall include the following disclosure statement in any document, written report, or brochure prepared in whole or in part pursuant to this Agreement:

“Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. (Gov. Code § 7550, 40 CFR § 31.20.)”

Signage Template

The signage template features three logos at the top: the Clean Water State Revolving Fund logo (a stylized 'S' with a dollar sign), the California Water Boards logo (wavy lines with 'CALIFORNIA Water Boards' text), and the EPA logo (United States Environmental Protection Agency). Below the logos, the project title 'WATER QUALITY LABORATORY & CENTRAL PLANT EXPANSION' is centered in bold, followed by 'PROJECT EN15008' and 'Contractor: To Be Determined'. A section titled 'PROJECT FUNDING' contains a paragraph of text explaining the funding sources: 'Funding for this project has been provided in full or in part by the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and State bond proceeds. (Gov. Code § 7550, 40 CFR § 31.20)'. At the bottom left is the California State Water Resources Control Board logo, and at the bottom right is the project name and number: 'Water Quality Laboratory & Central Plant Expansion PROJECT EN15008'.

Clean Water
State Revolving Fund

CALIFORNIA
Water Boards
State Water Resources Control Board

EPA
United States
Environmental Protection
Agency

WATER QUALITY LABORATORY & CENTRAL PLANT EXPANSION
PROJECT EN15008
Contractor: To Be Determined

PROJECT FUNDING
Funding for this project has been provided in full or in part by the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and State bond proceeds. (Gov. Code § 7550, 40 CFR § 31.20)

California State Water Resources Control Board
A NATIONAL WATER PROGRAM

Water Quality Laboratory & Central Plant Expansion
PROJECT EN15008

**ATTACHMENT 7
RECORDS RETENTION**

RECORDS RETENTION

The Recipient shall be required to maintain separate books, records and other material relative to the Project. The Recipient shall also be required to retain such books, records, and other material for itself and for each contractor or subcontractor who performed work on this project for a minimum of thirty-six (36) years after Project Completion. The Recipient shall require that such books, records, and other material be subject at all reasonable times (at a minimum during normal business hours) to inspection, copying, and audit by the State Water Board, the Bureau of State Audits, the United States Environmental Protection Agency (USEPA), the Office of Inspector General, the Internal Revenue Service, the Governor, or any authorized representatives of the aforementioned, and shall allow interviews during normal business hours of any employees who might reasonably have information related to such records. The Recipient agrees to include a similar right regarding audit, interviews, and records retention in any subcontract related to the performance of this Agreement. The provisions of this section shall survive the discharge of the Recipient's Obligation hereunder and shall survive the term of this Agreement.

Attachment 8
Buy American Requirements

BUY AMERICAN REQUIREMENTS

1. This project is participating in a State Revolving Fund Program. With the project receiving state and federal funding, this project must comply with the "American Iron and Steel (AIS)" provision. The AIS provision requires the "Clean Water State Revolving Fund (CWSRF)" and "Drinking Water State Revolving Fund (DWSRF)" assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works.
2. The AIS requirement applies to all parts of the project, no matter the source of the funding.
3. An iron or steel product consists of the following:
 - A. Lined or unlined pipe or fittings
 - B. Manhole covers
 - C. Municipal castings
 - D. Hydrants
 - E. Tanks
 - F. Flanges
 - G. Pipe clamps and restraints
 - H. Valves
 - I. Structural steel
 - J. Reinforced precast concrete
 - K. Construction materials containing steel
 - L. Primarily iron or steel
 - M. Listed products must be made of greater than 50% iron or steel, measured by material costs.
 - N. If a product is not listed in the statute but is comprised of more than 50% iron or steel, it does not have to be produced in the United States.
 - O. Only the listed products made primarily of iron or steel—permanently incorporated into the project—must be produced in the United States.
4. Products produced in the United States shall comply with the following:
 - A. All manufacturing processes must take place in the United States, with the exception of:
 1. Metallurgical processes involving refinement of steel additives.
 2. Coating processes applied to external surface of iron/steel components.
 - B. All manufacturing processes include processes such as:
 1. Melting
 2. Refining
 3. Forming
 4. Rolling
 5. Drawing
 6. Finishing
 7. Fabricating
 - C. Raw materials—such as iron ore, limestone and iron and steel scrap—do not have to come from the United States.
 - D. Non-iron or steel components of an iron and steel product do not have to come from the United States.
5. Compliance documentation:
 - A. Certification letter:
 1. Final manufacturer that delivers the iron or steel product to the worksite, vendor or contractor shall provide certification asserting that all manufacturing processes occurred in the United States.

2. Certification letter to include:

- a. **What is the product?:** The letter shall list the specific product(s) delivered to the project site.
- b. **Where was it made?:** The letter shall include the location (i.e. City and State) of the foundry/mill/factory where the product was manufactured.
- c. **To whom was it delivered?:** The letter shall include the name of the project and jurisdiction where the product was delivered.
- d. **Signature of the company representative.**

B. Step certification process

1. Each handler (supplier, fabricator, manufacturer, processor, etc.) of the iron and steel products certifies that their step in the process was performed within the United States.

6. Note to Contractor:

It is the contractor's responsibility to comply with the latest "Buy American" requirements for this project and coordinate with State and Federal staff as required to clarify any ambiguity or conflict with the design documents.

**CONSENT
CALENDAR
ITEM**

10



Date: September 21, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee (09/14/16)

From: P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone
Manager of Engineering

Subject: RP-5 Recycled Water Pipeline Bottleneck Consulting Engineering Services Contract Award

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award the consulting engineering services contract for the RP-5 Recycled Water Pipeline Bottleneck Project No. EN14043, to Stantec Consulting Services, Inc., for the not-to-exceed amount of \$201,987; and
2. Authorize the General Manager to execute the consulting engineering services contract.

BACKGROUND

Regional Water Recycling Plant No. 5 (RP-5) has been operating and producing quality recycled water (RW) pursuant to the State of California Title 22 regulations since 2004. The RP-5 has a nominal treatment capacity of 16.3 million gallons per day (MGD) and the RW is used for farming and irrigation.

The RP-5 Recycled Water Pipeline Bottleneck project launched after completing the 2015 Recycled Water Program Strategy (RWPS). The primary objective of the RWPS was to update supply and demand forecasts and to help map changes for the Recycled Water Program to maximize the beneficial use of recycled water throughout the year.

This project will evaluate and eliminate the immediate piping bottleneck downstream of the RP-5 RW Pump Station and upgrade the piping system and associated components to meet the RWPS requirements. Additionally, the scope includes the replacement of all nonfunctional isolation valves and installation of new valves in strategic locations within the plant. New basket strainers will be installed downstream of the pump station to capture fruit stickers migrating through the system. The last component of the project scope is to perform surge analysis on the RW system and provide the design for the necessary surge control and protection equipment, if deemed necessary.

On June 30, 2016, Agency staff advertised on *Planet Bids* the Request for Proposals for consulting engineering services. On July 28, 2016, the Agency received proposals from LEE & RO, Inc., Stantec Consulting Services, Inc. (Stantec), and Civil Tec Engineering, Inc. The proposals were reviewed by a selection committee of Agency staff from Engineering and Construction Management, Technical Services, and Operations. Based on the project team qualifications and experience, understanding of the project scope, and ability to meet the project schedule, the committee unanimously concurred that Stantec was the most qualified firm to do the work.

Below are the projected costs for the project:

Description	Estimated Cost
Project Development	\$55,000
Consulting Engineer (Stantec)	\$201,978
Design Services (~5%)	\$85,000
Construction	\$1,700,000
Construction Services (~15%)	\$255,000
Contingency (~15%)	\$255,000
Total Projected Cost	\$2,551,978
Total Project Budget	\$2,755,000

The overall project schedule is as follows:

Project Milestone	Date
Consultant Contract Award	September 2016
Design Completion	May 2017
Construction Contract Award	August 2017
Construction Completion	September 2018

The RP-5 Recycled Water Pipeline Bottleneck project is consistent with the *Agency's Business Goal of Water Reliability* of commitment to support maximizing beneficial reuse of recycled water to enhance reliability and reduce dependence on imported water.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the cost for the consulting engineering services contract award for the RP-5 Recycled Water Pipeline Bottleneck Project No. EN14043, in the amount of \$201,987 is included in the FY 2016/17 budget and is within the total project budget of \$2,755,000 in the Recycled Water (WC) Fund.

PJG:CB:SS:jz

RP-5 Recycled Water Pipeline Bottleneck Engineering Services Contract Award

Project No. EN14043
September 2016



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Jamal Zughbi, P.E.
Project Manager

Project Location



Project Background

- RP-5
 - Recycled Water Program Strategy forecasts and demand
 - Flow reduction caused by piping bottleneck
 - Fruit stickers complaints
 - Non-functional buried isolation valves



Project Scope

- Evaluate RW system piping, capacity, and configuration
- Upgrade/upsizes system piping and eliminate bottleneck
- Install basket strainers and bypass
- Perform surge analysis and install surge control equipment
- Replace non-functional valves
- New valves in strategic locations



Pump Station Bottleneck

Consultant Selection

- Three proposals received on July 28, 2016
 - LEE & RO, Inc., Stantec Consulting Services, Inc. and Civil Tec Engineering, Inc.
- Evaluation and selection committee
 - Engineering and Construction Management, Technical Services, and Operations
- Justification for unanimously selecting Stantec Consulting
 - Good understanding of scope of work
 - Extensive experience on previous Agency projects
 - Project team qualification and experience

Project Budget and Schedule

Description	Estimated Cost
Project Development	\$55,000
Consulting Engineer	\$201,978
Design Services (~5%)	\$85,000
Construction	\$1,700,000
Construction Services (~15%)	\$255,000
Contingency (~15%)	\$255,000
Total Project Cost	\$2,551,978
Total Project Budget	\$2,755,000

Project Milestone	Date
Consultant Contract Award	September 2016
Design Completion	May 2017
Construction Contract Award	August 2017
Construction Completion	September 2018



Agency Goal/Recommendation

Staff recommends that the Board of Directors approve the consulting engineering services contract award to Stantec Consulting Services, Inc. for the RP-5 Recycled Water Pipeline Bottleneck Project for the not-to-exceed amount of \$201,978, and authorize the General Manager to execute the contract.

The RP-5 RW Pipeline Bottleneck project is consistent with the **Agency's Business Goal of Water Reliability** of commitment to support maximizing beneficial reuse of recycled water to enhance reliability and reduce dependence on imported Water.



CONTRACT NUMBER: 4600002205
FOR
CONSULTING ENGINEERING SERVICES
FOR THE
RP-5 RECYCLED WATER PIPELINE BOTTLENECK PROJECT
PROJECT NO. EN14043

THIS CONTRACT (the "Contract"), is made and entered into this ____ day of _____, 2016, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to as "Agency") and Stantec Consulting Services, Inc. with offices located in Irvine, California and Denver, Colorado (hereinafter referred to as "Consultant"), for design and construction services for the Recycled Water Pipeline Bottleneck Project, Project No. EN14043.00.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. **PROJECT MANAGER ASSIGNMENT:** All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: Jamal Zughbi, P.E., Senior Engineer
Address: 6075 Kimball Avenue, Building B
Chino, California 91708-9174
Telephone: (909) 993-1698
Email: jzughbi@ieua.org
Facsimile: (909) 993-1982

2. **CONSULTANT ASSIGNMENT:** Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Consultant: Jeff Dunn, P.E., Senior Project Manager
Address: 38 Technology Drive, Suite 100
Irvine, CA 92618-5312
Telephone: (949) 923-6974
Email: jeff.dunn@stantec.com
Facsimile: (949) 923-6121

3. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions, or addenda attached, then the governing order of precedence shall be as follows:
 - A. Amendments to Contract 4600002205.
 - B. Contract Number 4600002205, General Terms and Conditions.
 - C. Agency's Request for Proposals RFP-RW-16-019 and all germane Addenda, incorporated herein by reference. Addenda are incorporated by this reference.
 - D. Consultant's Proposal dated July 28, 2016, which is attached hereto, incorporated herein, and made a part hereof as **Exhibit A**.
4. **SCOPE OF WORK AND SERVICES:** Consultant services and responsibilities shall include and be in accordance with tasks identified in Agency's Request for Proposals and all germane Addenda which are incorporated herein by this reference. This project is grant funded by the State Water Resource Control Board; therefore, all work and design shall comply with the State Revolving Fund Loan requirements stipulated in the Request for Proposals referenced above and which is attached hereto, incorporated herein, and made a part hereof as **Attachment A**.
5. **TERM:** The term of this Contract shall extend from the date of the Notice to Proceed and terminate one (1) year after acceptance of the construction project by the Agency's Board of Directors, unless agreed to by both parties, reduced to writing, and amended to this Contract.
6. **COMPENSATION:** The Agency shall pay Consultant's properly-executed invoices, subsequent to approval by the Project Manager, within thirty (30) calendar days following receipt of the invoice. Payment will be withheld for any service which does not meet the requirements of this Contract or has proven unacceptable until such service is revised, resubmitted, and accepted by the Project Manager.

As compensation for work performed under this Contract, Agency shall pay Consultant, on a **Fixed Price Level-of-Effort basis** at the rates specified within Consultant's Fee Schedule, contained in **Exhibit A**, attached hereto and made a part hereof, up to the **NOT-TO-EXCEED MAXIMUM OF \$201,987.00**.

Consultant's invoice must be submitted according to milestones achieved by Consultant and accepted by the Agency's Project Manager, and shall include a breakdown by items completed, all associated labor categories provided, labor hours supplied and associated hourly rates, dates worked, the current monthly amount due, and the cumulative amount invoiced to-date against this Contract, using the Agency's standard Excel-based invoicing template **Exhibit B**. Invoice shall not be submitted in advance and shall not be dated earlier than the actual date of submittal. A copy of subject Excel invoicing template shall be furnished by the Agency's Project Manager.

All invoices shall be submitted electronically with all required back-up to apgroup@ieua.org.

Payment shall be made according to milestones achieved by Consultant and accepted by the Agency's Project Manager.

6. **CONTROL OF THE WORK:** Consultant shall perform the Work in compliance with the Work Schedule. If performance of the Work falls behind schedule, the Consultant shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Consultant is unable to accelerate the Work, Consultant shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule.

8. **FITNESS FOR DUTY:**
 - A. **Fitness:** Consultant and its Subcontractor personnel on the Jobsite:
 1. Shall report for work in a manner fit to do their job;
 2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
 3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
 - B. **Compliance:** Consultant shall advise all Consultant and subcontractor personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its Subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.

9. **INSURANCE:** During the term of this Contract, the Consultant shall maintain at Consultant's sole expense, the following insurance.
 - A. **Minimum Scope of Insurance:** Coverage shall be at least as broad as:
 1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
 2. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.

3. **Workers' Compensation and Employers Liability:** Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
 4. **Professional Liability (Errors and Omissions):** Insurance appropriate to the Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.
- B. **Deductibles and Self-Insured Retention:** Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.
- C. **Other Insurance Provisions:** The policies are to contain, or be endorsed to contain, the following provisions:
1. **General Liability and Automobile Liability Coverage**
 - a. **Additional Insured Status:** The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).
 - b. **Primary Coverage:** The Consultant's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Consultant's insurance and shall not contribute with it.
 - c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees or volunteers.
 - d. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

e. The Consultant may satisfy the limit requirements in a single policy or multiple policies. Any such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. Workers' Compensation and Employers Liability Coverage

The insurer hereby grants to Agency a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Agency by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Agency has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Agency.

D. Acceptability of Insurers: All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-VII, and who are admitted insurers in the State of California.

E. Verification of Coverage: Consultant shall furnish the Agency with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The Agency reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

F. Submittal of Certificates: Consultant shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, A Municipal Water District
Attn: Ms. Angela Witte, Risk Specialist
P.O. Box 9020
Chino Hills, California 91709

10. LEGAL RELATIONS AND RESPONSIBILITIES

A. Professional Responsibility: The Consultant shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.

- B. **Status of Consultant:** The Consultant is retained as an independent Consultant only, for the sole purpose of rendering the services described herein, and is not an employee of the Agency.
- C. **Observing Laws and Ordinances:** The Consultant shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Consultant shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, the Agency, its officers and employees against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the Consultant or its employees.
- D. **Subcontract Services:** Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager.
- E. **Hours of Labor:** The Consultant shall comply with all applicable provisions of California Labor Code Sections 1810 to 1817 relating to working hours. The Consultant shall, as a penalty to the Agency, forfeit \$25.00 for each worker employed in the execution of the Contract by the Consultant or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) calendar week in violation of the provisions of the Labor Code.
- F. **Travel and Subsistence Pay:** The Consultant shall make payment to each worker for travel and subsistence payments which are needed to execute the work and/or service, as such travel and subsistence payments are defined in the applicable collective bargaining agreements with the worker.
- G. **Liens:** Consultant shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Consultant on account of said services to be rendered or said materials to be furnished under this Contract and that may be secured by any lien against the Agency. Consultant shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- H. **Conflict of Interest:** No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- I. **Equal Opportunity and Unlawful Discrimination:** During the performance of this Contract, the Consultant shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin. The Agency is committed to creating and maintaining an environment free from harassment and discrimination. To accomplish these goals the Agency has established procedures regarding the implementation and enforcement of the Agency's Harassment Prohibition and Equal Employment Opportunity commitments. Please refer to Agency Policies A-29 (Equal

Employment Opportunity) and A-30 Harassment Prohibition for detailed information or contact the Agency's Human Resources Administrator. A copy of either of these Policies can be obtained by contacting the Project Manager for your respective Contract. Please advise any of your staff that believes they might have been harassed or discriminated against while on Agency property, to report said possible incident to either the Project Manager, or the Agency's Human Resources Administrator. Please be assured that any possible infraction shall be thoroughly investigated by the Agency.

- J. Non-Conforming Work and Warranty: Consultant represents and warrants that the Work and Documentation shall be adequate to serve the purposes described in the Contract. For a period of not less than one (1) year after acceptance of the completed Work, Consultant shall, at no additional cost to Agency, correct any and all errors in and shortcomings of the Work or Documentation, regardless of whether any such errors or shortcoming is brought to the attention of Consultant by Agency, or any other person or entity. Consultant shall within three (3) calendar days, correct any error or shortcoming that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of the error. Upon request of Agency, Consultant shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar days after Consultant's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Consultant shall notify the Project Manager, in writing, detailing the dispute and reason for the Consultant's position. Any dispute that cannot be resolved between the Project Manager and Consultant shall be resolved in accordance with the provisions of this Contract.

The total amount of all claims the Agency may have against the Consultant under this Contract or arising from the performance or non-performance of the Work under any theory of law, including but not limited to claims for negligence, negligent misrepresentation and breach of contract, shall be strictly limited to the lesser of the fees or \$500,000. As the Agency's sole and exclusive remedy under this Contract any claim, demand or suit shall be directed and/or asserted only against the Consultant and not against any of the Consultant's employees, officers or directors.

The Consultant's liability with respect to any claims arising out of this Contract shall be absolutely limited to direct damages arising out of the Work and the Consultant shall bear no liability whatsoever for any consequential loss, injury or damage incurred by the Agency, including but not limited to, claims for loss of use, loss of profits and loss of markets.

K. Disputes:

1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. The Consultant shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract, which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be

conducted under California Code of Civil Procedure Sections 1280, et. seq, or their successor.

2. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Consultant shall comply, pursuant to the Agency Project Manager instructions. If the Consultant is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Consultant to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Consultant's written protests to the General Manager, together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The General Manager shall make his or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Consultant is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.
3. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
 - a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Consultant to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person shall be designated as Arbitrator.
 - b. In the event that none of the names submitted by Consultant are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Consultant a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
 - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et. seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.

4. **Joinder in Mediation/Arbitration:** The Agency may join the Consultant in mediation or arbitration commenced by a contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Consultant.
- L. **Grant Funded:** This is a grant-funded (e.g., State Revolving Funds) project. The Consultant shall be responsible to comply with all grant requirements related to the project as outlined in **Attachment A**, referenced herein, immediately following, and made a part hereof. These may include, but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Competitive Solicitation, Record Retention and Public Access to Records, and Compliance Review. Federal funding of any portion of this project will have separate, additional reporting accountability on the use of funds.
11. **INDEMNIFICATION:** Consultant shall indemnify the Agency, its directors, employees and assigns, and hold them harmless from all liabilities, demands, actions, claims, losses and expenses, including reasonable attorneys' fees, which arise out of or are related to the negligence, recklessness or willful misconduct of the Consultant, its directors, employees, agents and assigns, in the performance of work under this contract. Notwithstanding the foregoing, to the extent that this Contract includes professional design services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to defend and to indemnify Agency shall only be to the full extent permitted by Civil Code Section 2782.8.
12. **OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY:** The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data ("Work Product") prepared by the Consultant and/or the Consultant's subcontractor(s) pertaining to this Contract upon full payment of all monies owed to the Consultant. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Consultant shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Consultant agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.
13. **TITLE AND RISK OF LOSS:**
- A. **Documentation:** Title to the Documentation shall pass to Agency when prepared; however, a copy may be retained by Consultant for its records and internal use. Consultant shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the project.
- B. **Material:** Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Consultant shall have risk of loss of any Material or Agency-owned equipment of which it has custody.

C. Disposition: Consultant shall dispose of items to which Agency has title as directed in writing by the Agreement Administrator and/or Agency.

14. PROPRIETARY RIGHTS:

A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Consultant in the performance of the Work, shall be governed by the following provisions:

Proprietary Rights conceived, developed, or reduced to practice by Consultant in the performance of the Work shall be the property of Agency, and Consultant shall cooperate with all appropriate requests to assign and transfer same to Agency.

If Proprietary Rights conceived, developed, or reduced to practice by Consultant prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.

If the Work or Documentation includes the Proprietary Rights of others, Consultant shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Consultant of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Consultant in complying with this Contract.

15. INFRINGEMENT: Consultant represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trade mark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Consultant shall indemnify and hold harmless Agency, its officers, directors, employees, successors, assigns, and servants free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses arising out of any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Consultant shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its reasonable efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement.

16. **NOTICES:** Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Mr. Warren T. Green
Manager of Contracts and Facilities Services
Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, California 91709

Consultant: Mr. Robert Reid
Senior Associate
Stantec Consulting Services, Inc.
38 Technology Drive, Suite 100
Irvine, CA 92618

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

17. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Consultant, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Consultant under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of the Agency shall be null, void and of no legal effect whatsoever.
18. **PUBLIC RECORDS POLICY:** Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Consultant of any requests for disclosure of any documents pertaining to Consultant.

In the event of litigation concerning disclosure of information Consultant considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Consultant has marked "Confidential," "Proprietary," or "Trade Secret," Consultant shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

19. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Consultant's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Consultant. The Consultant shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.
20. **INTEGRATION:** The Contract Documents represent the entire Contract of the Agency and the Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by the Agency and the Consultant.
21. **GOVERNING LAW:** This Contract is to be governed by and constructed in accordance with the laws of the State of California.
22. **TERMINATION FOR CONVENIENCE:** The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Consultant. In the event of such termination, the Agency shall pay Consultant for all authorized and Consultant-invoiced services up to the date of such termination.
23. **FORCE MAJEURE:** Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, etcetera.
24. **NOTICE TO PROCEED:** No services shall be performed or furnished under this Contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Consultant.

IN WITNESS WHEREOF, the parties hereto have caused the Contract to be entered as of the day and year written above.

INLAND EMPIRE UTILITIES AGENCY:
(A Municipal Water District)

STANTEC CONSULTING SERVICES, INC.:

P. Joseph Grindstaff
General Manager

(Date)

Robert Reid
Senior Associate

(Date)

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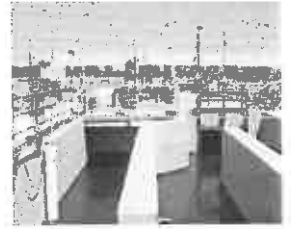
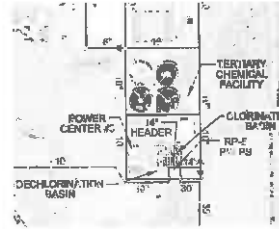
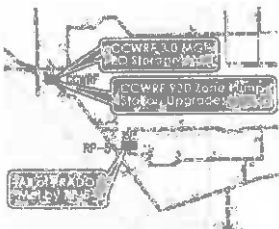
Exhibit A

Proposal to Provide Consulting Engineering Services for the
**RP-5 Recycled Water Pipeline
Bottleneck Project**



Project No. EN14073 / RP-RW-18-019

10/23/2018



Design with community in mind





38 Technology Drive, Suite 100
Irvine, CA 92618
P: (949) 923-6000
F: (949) 923-6121

July 28, 2016

Attention

Jamal Zughbi
Inland Empire Utilities Agency
6075 Kimball Avenue, Building B
Chino, California 91708

Reference

Proposal to Provide Consulting Engineering Services for RP-5 Recycled Water Pipeline Bottleneck
Project No. EN14043

Dear Mr. Zughbi,

We understand that Inland Empire Utilities Agency (Agency) is seeking a consultant to evaluate, design and construct an upgraded recycled water system piping to eliminate immediate bottleneck and improve flow and pressure in the 800 Pressure Zone. The RP-5 Recycled Water Pump Station, which supplies the zone with recycled water, has a sudden reduction in the discharge header from 36 inches to 14 inches, creating a bottleneck, and thus causing high velocities and losses within the piping system and limiting flow in the 800 Pressure Zone. In addition to upsizing pipelines, flow meter devices, and other appurtenances, a surge analysis will need to be conducted to address pipe bursting incidents within the RP-5 facility and surrounding areas north of Kimball Avenue.

After carefully reviewing your request for proposal and services to be provided, Stantec Consulting Services Inc. (Stantec) is confident that we are the best team to provide the necessary services.

Following are a few of the benefits we offer you.

Resources to provide flexibility and timely responses to task orders—With our recent acquisition of MWH Global, Inc., Stantec now has an additional 350 water resources staff in California readily available to provide as-needed support. We have a vast pool of resources to allow us the flexibility and capability to quickly and efficiently respond to any request or need from the Agency for this project.

Specific related experience with IEUA - The enlarged Stantec team has performed planning, design and construction support services for the Agency for more than a decade. Our history with the Agency provides unparalleled experience and knowledge, making us the most effective team to provide services proposed. We prepared the previous recycled water implementation and program strategies, including design and construction support services for many of the recycled water system facilities currently in operation.

Qualified key personnel and team created for you—While the reputation and capacity of our team are important, perhaps most critical are the individuals assigned to lead your project. **Jeff Dunn, PE**, will provide project management, working closely with the team to ensure that we provide clear, concise, and accurate project communication and coordination. Having recently prepared your Recycled Water Program Strategy, which helped determine a need for your proposed project, he understands your goals and requirements, including the importance of timely responsiveness.

Our pipeline task leader, **Nancy Baker, PE**, will work closely with Jeff to recommend the best design solutions for your project. Nancy also has firsthand knowledge of your project, having recently conducted a preliminary analysis to provide funding for your proposed project. **Mike Georgalas, PE**, will work closely with our subconsultant, **Larry Crossley** of ZZ Technology, to conduct surge analysis. Both recently provided services for your 1630 East and West Recycled Water Pump Station Surge Protection projects. **Dennis Gregory** and **Chris Simko, PE** will lead the Operation and Maintenance Manual (O&M) and Standard Operation Procedures (SOP), respectively.

Both previously prepared the O&M Manual and SOP for your RP-5 Recycled Water Pump Station Expansion project. To further strengthen our team, we have assigned John Robinson of John Robinson Consulting, Inc. to lead compliance with Prop 1 Funding. Having previously provided funding services for the Inland Empire Utilities Agency Program, John understands your goals and requirements and will use his same successful approach to obtain and manage funding for this project.

Our team's prior knowledge of your proposed project eliminates learning curves, allowing us to deliver your project timely and efficiently. Please see more information on our qualified team in the Project Team section.

Our approach focuses on key project considerations—The success of the project will begin at the preliminary engineering phase and alternatives analysis portion of the project. That is why our approach will bring specialists to the table to properly analyze and determine the best project to be designed and built. Our team will include pipeline, mechanical and electrical design, hydraulic analysis, and surge analysis experts to work collaboratively with the Agency through workshop style meetings to make the best recommendations to the project.

Fee reasonableness— At Stantec, we strongly believe that the measurement of value is partially referenced from pricing, but also from credentials and capabilities. Our proposal has been created with an understanding of this balance. We offer proven approaches ideal for your community's needs.

Demonstrated record of successfully delivering similar projects for the Agency and/or other public agencies—Our experience is aligned with your project needs. We have worked extensively with the Agency, as exemplified with the following projects:

- IEUA Recycled Water Program Strategy
- IEUA RP-5 Recycled Water Pump Station Expansion
 - IEUA RP-1 South Zone Pump Station
 - IEUA 1630 East and West Pump Station Surge Protection
 - IEUA 1630 West Pump Station and 1299 Zone Surge Analysis
 - IEUA 930 Zone Reservoir and Pipeline

In addition to the Agency, we have established strong, long-term relationships with various public agencies, including Orange County Water District (OCWD), Irvine Ranch Water District (IRWD), City of Anaheim, and various other agencies throughout southern California.

If you have any questions or require additional information, please do not hesitate to contact us at the information below.

Acknowledgements

- We acknowledge receipt of Addendum No.1 dated July 19, 2016.
- We acknowledge receipt of Addendum No. 2 dated July 21, 2016.
- Stantec Consulting Services Inc. does not have any prohibited conflicts of interest.

Sincerely,
STANTEC CONSULTING SERVICES INC.



Jeff Dunn, PE
Project Manager
(949) 923-6974
jeff.dunn@stantec.com



Robert Reid, PE
Principal-in-Charge
(949) 923-6037
robert.reid@stantec.com

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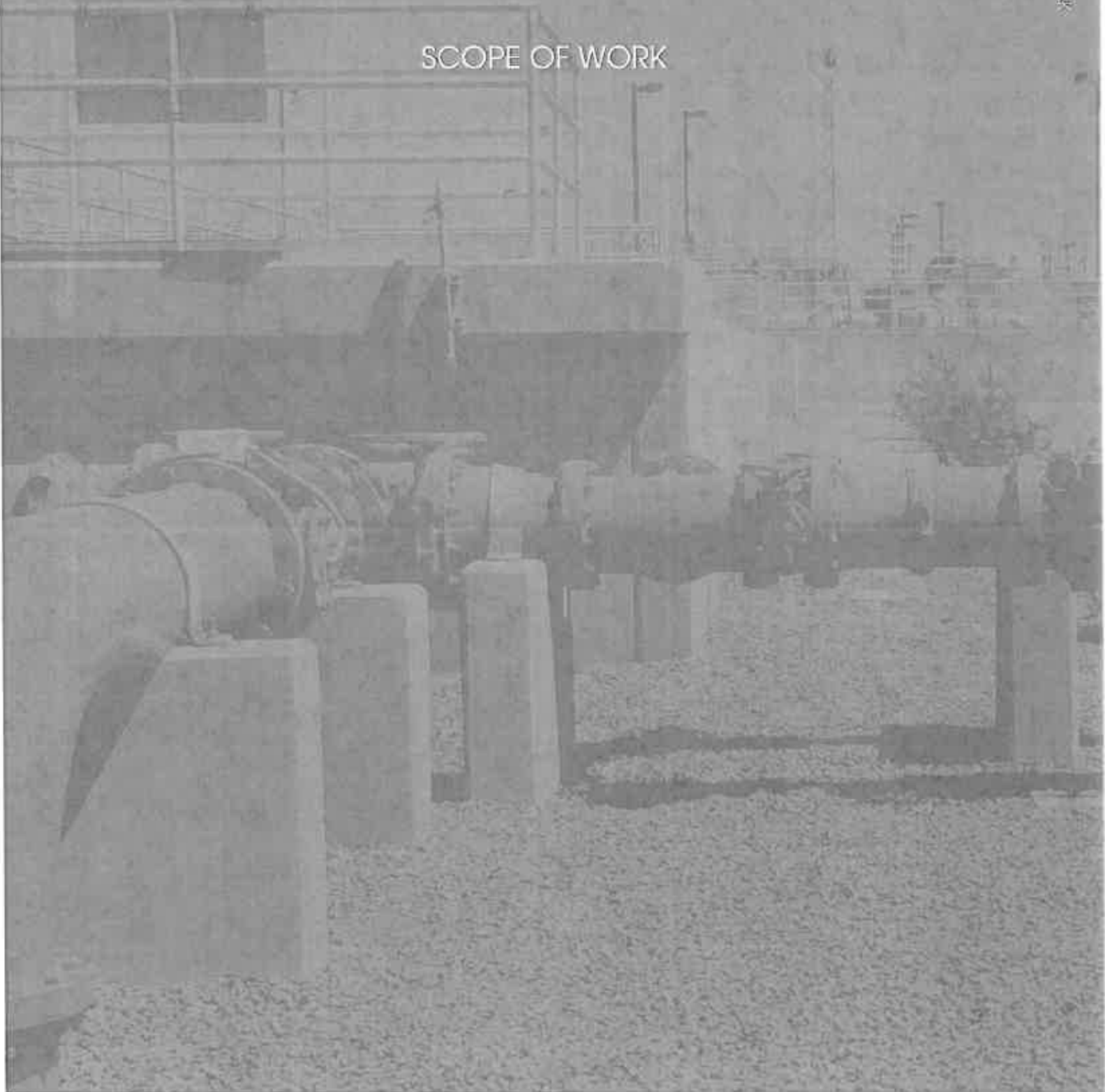
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SCOPE OF WORK



Scope of Work

Project Understanding

Regional Plant 5 (RP-5) Recycled Water Pump Station collects recycled water from the treatment process and supplies recycled water to the 800 Pressure Zone, with an approximate capacity of 14 MGD. As shown in **Figure 1**, the pump station has a 36-inch discharge header, which is sized for the ultimate recycled water flow; however, the discharge header size is reduced immediately to 14 inches and branches into two segments.

The first pipeline segment serves the demand for the RP-5 Plant and farming area located north of Kimball Avenue. This segment consists of a 14-inch piping system, which includes valves, fittings, flow meter, and a pressure regulating valve. The other pipe segment is also 14 inches in size and joins the 30-inch header that runs to the east side of the RP-5 Plant toward Mountain Avenue. This 30-inch pipeline is also reduced to 18 inches just east of the RP-5 Plant southeast fence line. At the 14-inch and 30-inch junction, there is another 10-inch branch, which serves demands on the west side of the RP-5 Plant, including the headquarters' pond/water fall feature and Chino Creek Wetlands. See **Figure 2** for existing discharge piping configuration.

The sudden reduction in the discharge header from 36 inches to 14 inches is believed to create a bottleneck, causing high velocities and losses within the piping system and results in a flow reduction in the receiving zone. Along with pipeline upsizing, flow meter devices and miscellaneous pressure and flow control equipment will be upsized.

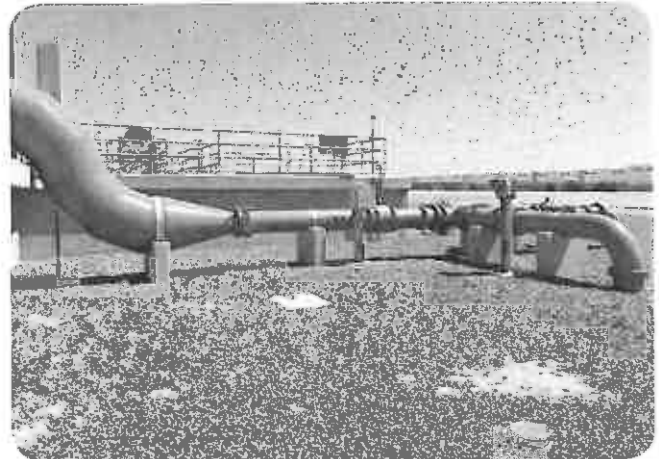


Figure 1 – RP-5 800 Pressure Zone Pump Station discharge header with 36-inch to 14-inch reducer

Additionally, farmers in the 800 Pressure Zone have complained about fruit stickers and labels getting into their irrigation piping system and clogging the sprinklers. This project will provide redundant basket strainers to address and eliminate this issue.

Replacement of the existing PVC piping at the RP-5 campus is not part of the scope for this project; however, the decision was made to replace most of the existing recycled water system valves, both buried and exposed, with new and more reliable valves. The type of valves to be replaced are to be part of the design coordination with Agency staff. See **Figure 3** for potential valves to be replaced.

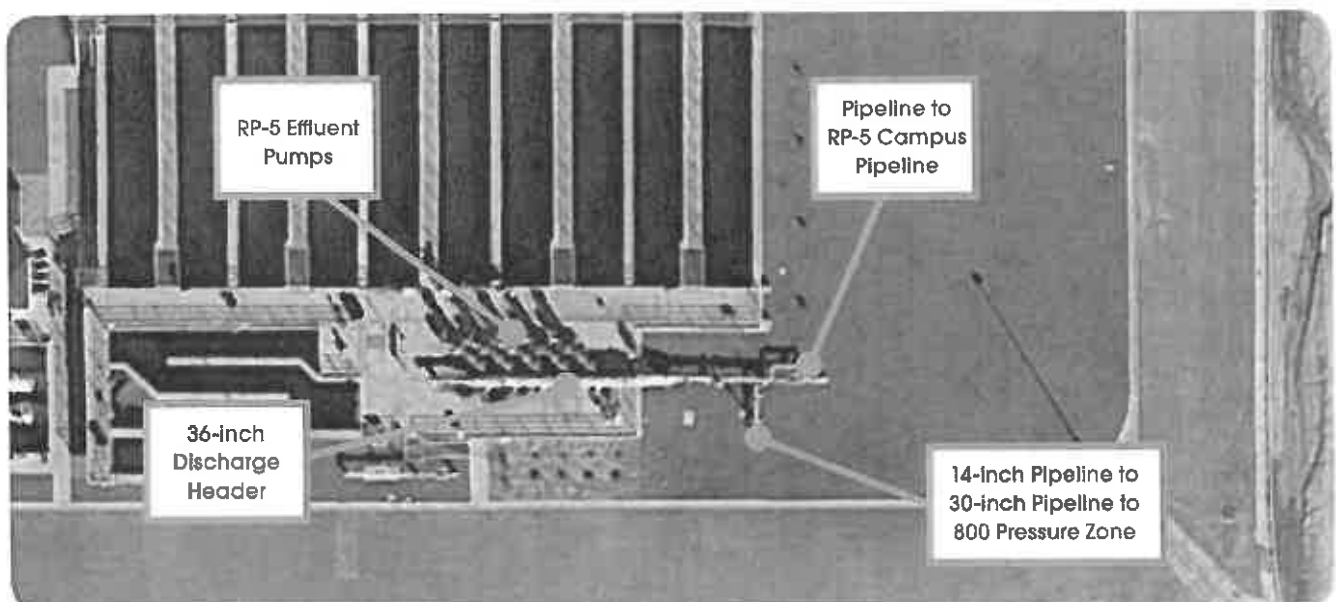
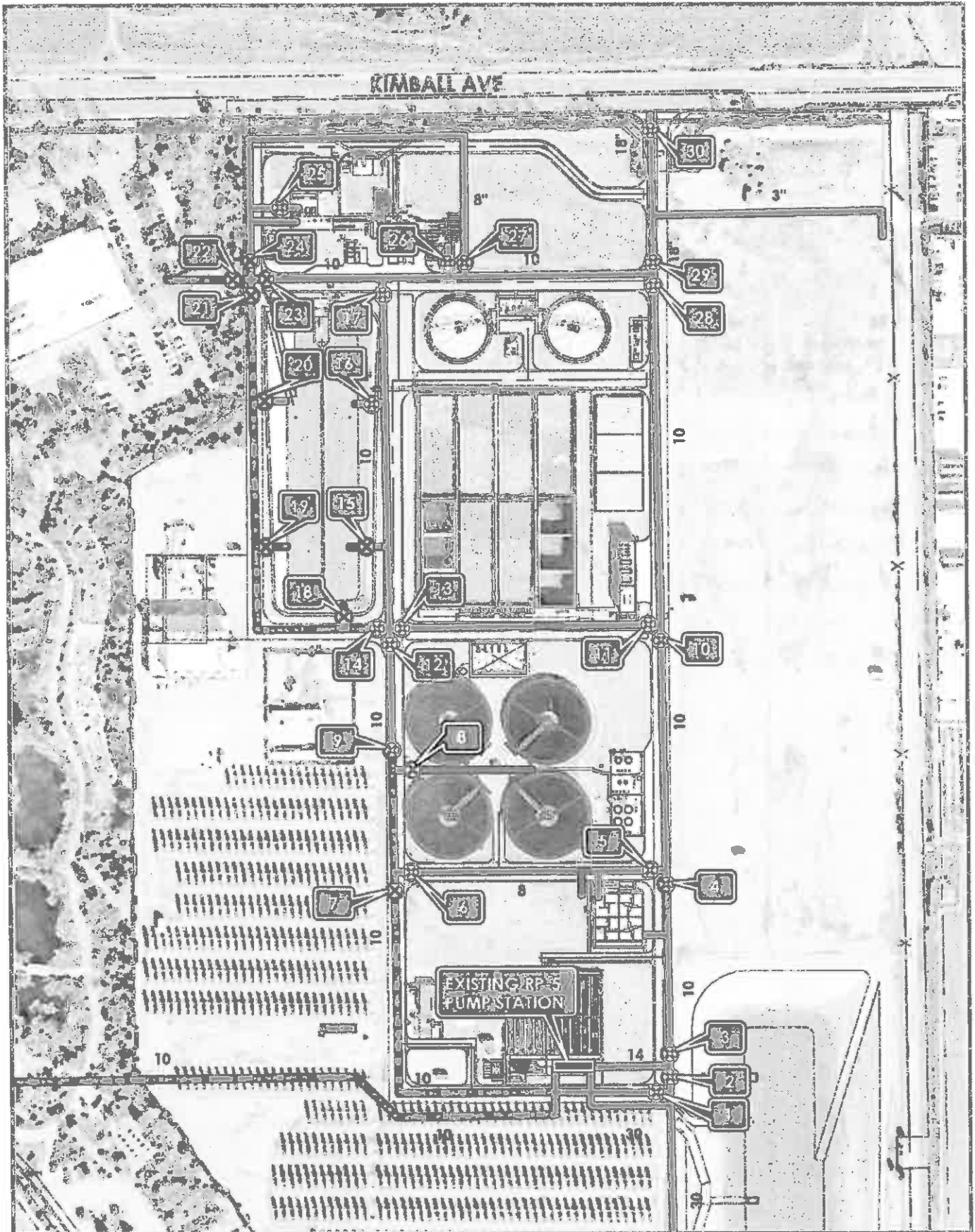
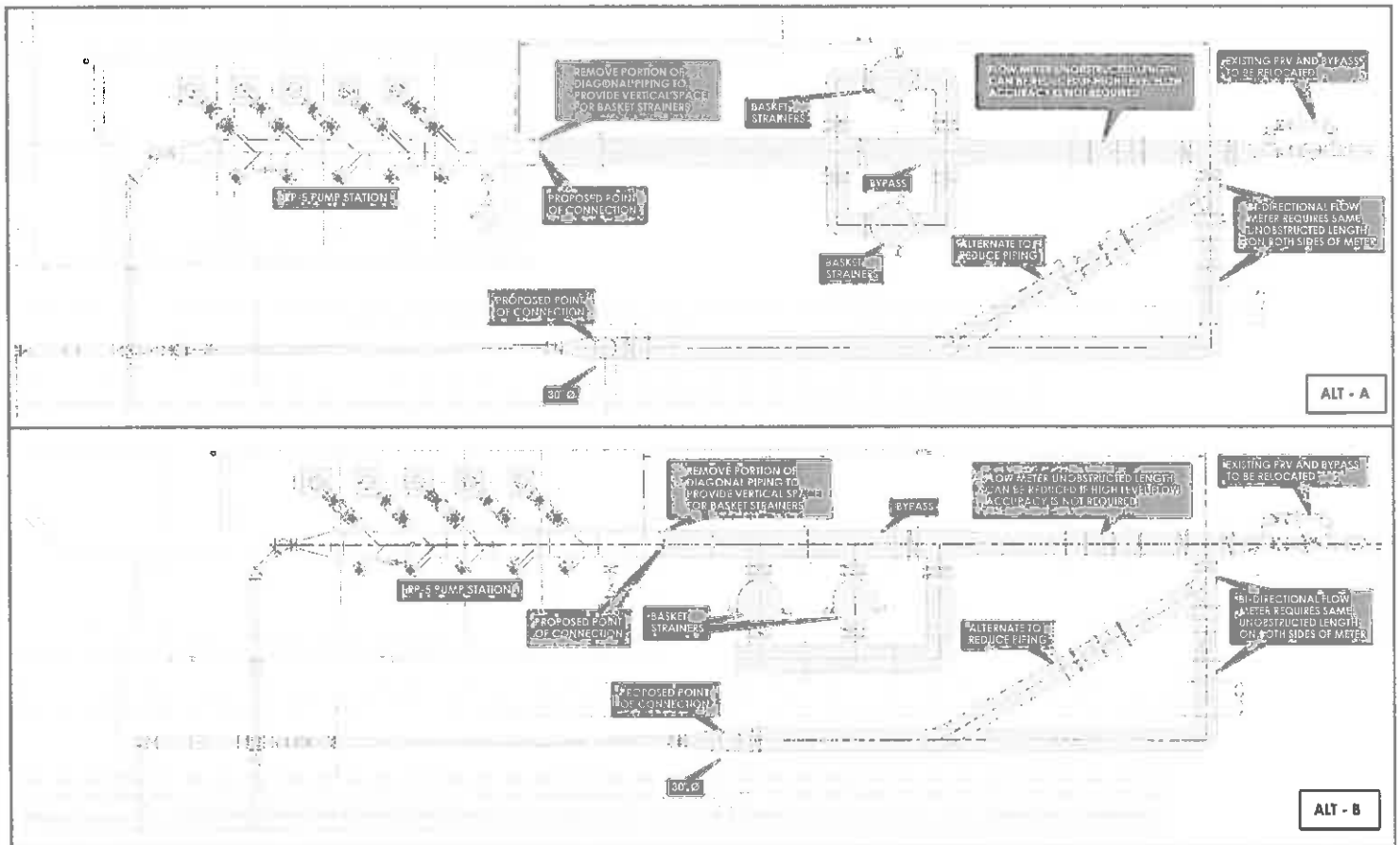


Figure 2 – Existing RP-5 site showing effluent pumps, campus pipeline, 36-inch discharge header, and 14-inch to 30-inch pipeline to the 800 PZ





A surge analysis shall be conducted, as part of the project scope, to address the several recycled water pipe bursting incidents that took place within the RP-5 facility and areas that may lead to the farm located north of Kimball Avenue. Additionally, the existing recycled water PVC piping within the RP-5 campus suffered several ruptures or bursting incidents, which necessitated emergency response to isolate the problem area and provide repairs to restore the service to the affected customers in a timely manner. It is unclear at this time if the cause of the pipe bursting was due to poor workmanship or system surges.

Project Objectives

The project's objective is to evaluate, design and construct an upgraded recycled water system piping in the project area to eliminate immediate bottleneck and improve flow and pressure in the 800 Pressure Zone. Currently, the bottleneck downstream of the RP-5 Recycled Water Pump Station limits the flow to the 800 Pressure Zone, imposes higher friction and causes unnecessary energy losses in the system.

1. Hydraulic Evaluation

The project involves review of the 2015 Recycled Water Program Strategy (RWPS) with respect to future demands and pumping capacities followed by an evaluation of existing piping system capacity and configuration to determine the upgraded system size and capacity.

2. Pump Station Discharge Improvements

- ✦ Replace the entire recycled water piping system and its components downstream of the 36-inch by 14-inch reducer located at the RP-5 Recycled Water Pump Station as follows:
 - ✓ From the 36-inch by 14-inch reducer to the 14-inch pipe flange going underground in the easterly direction past the existing pressure reducing valve assembly and including long radius elbow (Item #48)
 - ✓ From the 14-inch by 14-inch branch upstream of the pressure reducing valve assembly to the 30-inch connection
- ✦ Replace all piping and appurtenances components including the following:
 - ✓ Two (2) magnetic flow meters
 - ✓ One (1) pressure reducing valve
 - ✓ Isolation valves (valve type per Agency Design Guidelines)
 - ✓ Miscellaneous fittings and couplings

- ✦ Provide two fully redundant basket strainers (type to be determined as part of the design)
- ✦ Provide a bypass, sized to match new piping system, around the two basket strainers to facilitate future maintenance work
- ✦ Provide necessary pipe supports
- ✦ Provide necessary electrical and SCADA integration of new flow meters with existing SCADA system

3. RP-5 Campus Isolation Valves Replacements

- ✦ Replace existing recycled water valves within the RP-5 campus
- ✦ Provide additional isolation valves at strategic locations of the recycled water pipeline for added operational flexibility

4. Surge Analysis

The project involves conducting a surge analysis for the recycled water system within RP-5 facility to address the repeated pipe bursting and provide recommendations and design for the remedy.

5. Shutdown and Bypass Coordination

The project involves coordinating shutdown activities and providing system bypass options/alternatives in the event construction requires a long duration.

6. Cost/Benefit Analysis

The project includes preparing a cost benefit analysis to determine the best value to the Agency for all viable and feasible options at the predesign level.

7. Complete Design and Bid Package

- ✦ Provide a complete design, and bid period and construction administrative services for the overall project.
- ✦ In general, we will provide all necessary consulting engineering services for design, bid and award, construction administration support, post construction services, commissioning, startup and testing services for a complete and operable system.

Proposed Methods of Proceeding with the Project

We are committed to completing your project on budget and schedule. The following is a brief description of our general approach to this project to meet your goals and project objectives.

Project Management Activities

We will provide the required project management activities, as described in the Scope of Work section herein. Jeff, our proposed project manager, will make sure the project management activities are completed successfully. He will do the following:

- Efficiently initiate the project and take a proactive role in ensuring the Agency's goals and objectives are met
- Respond to requests and questions in a timely manner, treating the Agency with the high priority deserved
- Coordinate all aspects of the work plan between the Agency and team members
- Provide deliverables on schedule
- Facilitate communications with you and other agencies
- Provide routine status reports via brief email
- Provide advisory services as needed

Jeff will be the focal point for internal and external communication and facilitation, serving as a link between you and team members. He will appropriate, assign, and direct the required resources to complete each task.

Bi-Weekly Project Status Reporting

We will prepare a bi-weekly project status report to provide an accurate accounting of work effort rendered and a continuous appraising and monitoring of work progress, schedule, and budget status.

Scheduling

We will prepare and submit an initial schedule with the critical milestones for the major tasks involved in the project to be provided at the Project's kickoff meeting. The schedule will be updated and submitted with the status reports, or at least monthly. Additional schedules may be provided as directed by the Agency. This will enable our project manager to inform the Agency of any scheduling constraints or issues that may be out of our control or to look out for.

QA/QC Procedures

We are committed to the improvement of project execution, product quality, and the reduction of quality related costs. ISO 9001 is an internationally recognized standard for quality management and has been adopted by Stantec since 2008 as a means to reduce the risk and consequences of design errors, improve productivity and efficiency, promote the quality and reliability of our services, improve the financial performance, increase client confidence, and support regulatory compliance. We obtained companywide ISO 9001 certification in 2008 after undergoing an extensive internal and external scrutiny of established policies and practices. As part of our quality management system and project management frameworks tools to make sure our team of professionals meets appropriate standards of quality and expectations of our clients, Stantec has developed office guidelines, practices, and procedures for quality control. Our project team members recognize that our primary purpose is to serve the needs of our clients while preserving the safety and welfare of the public.

The following general procedures and policies have been established with respect to Stantec's quality control program:

- Each team member must be committed to provide a quality service to our clients. This commitment includes adequate communication with other team members to make sure that the accepted standards of the profession are met.
- Each member of our team is accountable for assigned responsibilities.
- Calculations will be prepared in a neat and organized manner, recognizing the importance of accuracy and format.
- Written documents and reports will be clear and concise, following the accepted standards of the profession.
- Established checking procedures will be followed to make sure the accepted standards of the profession are met.

In general, all documents, analyses, and calculations will be checked by an independent checker (someone other than the originator), and marked to identify any area of concern. The originator will then back-check the checker's comments. Changes or modifications will be made as mutually agreed upon.



Our methodology helps reduce the risk and consequences of design errors and improve productivity and efficiency.

Following is our Stantec Project Management Framework identifying the key tasks that will help us manage risk and quality. These tasks also represent the project requirements of our ISO 9001 Quality Management System.

STANTEC PROJECT MANAGEMENT FRAMEWORK

The Stantec Project Management Framework is critical for the successful delivery you and your client expect. It is a proven process and structure on a project period. This guide describes the key requirements of our ISO 9001 Quality Management System.

- 0** Prepare a proposal that includes a primary Project Plan including scope, project budget, resources, deliverables, and schedule. Conduct and document an independent review of the final proposal.
- 1** Obtain written instructions to proceed and execute an approved written contract. Obtain written subcontract agreements (if applicable).
- 2** Prepare a Project Plan to an appropriate level of detail. Conduct and document an independent review.
- 3** Establish hard copy and/or electronic project record directories and file project records accordingly.
- 4** Complete a Health, Safety & Environmental (HSE) risk management assessment and documentation for all projects involving field work.
- 5** Monitor the Project Management Dashboard on a regular basis. Follow best practices for managing project financials, including time changes, work in progress (WIP), accounts receivable (AR), and estimates to complete (ETC).
- 6** Define the client's written requirements for project record storage and file access control.
- 7** Collect and document all deliverables and final project information.
- 8** Conduct and document an independent review of all final deliverables prior to issue.
- 9** Close out the project including and Close out the record (RRC).

Use of Preview of Submittal Meetings

We will conduct a preview submittal meeting when draft technical memoranda, submittals, or other reports are submitted. At the preview submittal meetings we will walk you through the submittal contents, providing explanations or clarifications for specific areas where your input or decision-making is required before moving on to the next phase. These previews will help facilitate your review process and make the reviews more meaningful. After your review, we will attend a review meeting for you to explain your comments. These meetings may be in person or via conference call, depending upon the nature of the submittal.

Use of Design and Alternatives Analysis Workshops

Our approach will include workshops with the Agency, with the appropriate staff present, to review the design and/or alternatives being evaluated. Open discussions will take place as we discuss subject(s) of the workshop between Agency and Stantec team members. This will enable our team to explain and discuss the findings and assumptions properly, and to provide the Agency with a better understanding while increasing confidence that the project is achieving the correct goals. Essentially the workshops will be used to achieve the following:

- Confirm the correct design elements are provided and agreed on so that the project stays on schedule, while minimizing changes in later design phases
- Clarify constraints, problems, and design preferences by your staff

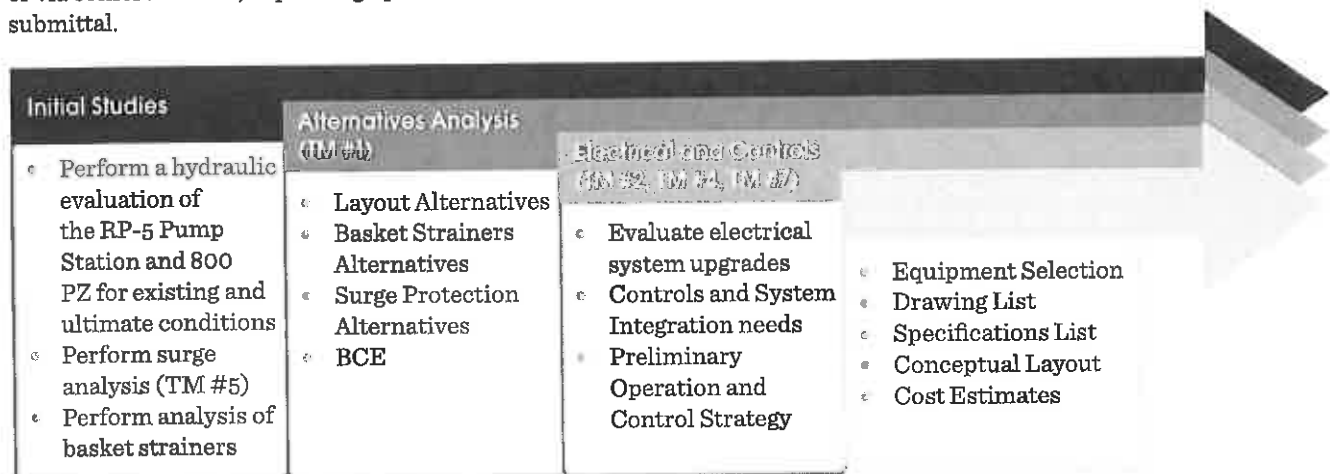
Our Data Coordination

To establish a clear and efficient communication protocol pertaining to data collection and coordination, we will provide a primary and secondary point-of-contact that will be maintained throughout the project.

We will log and electronically store all information. Our coordination plan includes a similar approach to maintaining a construction shop drawing submittal log. We will log requested data according to the date and recipient, and include the collection date and data description. Our main points of contact will correspond directly with you to verify all information is received and responded to, and all questions are answered in a timely fashion.

Our Proposed Preliminary Design Work Flow

The RFP contains a list a total of seven (7) Technical Memorandums (TMs) in a numeric sequence. To better accomplish the scope of work and make the appropriate analyses and decisions for the project's improvements, we propose to combine a number of TMs and perform the TMs in a different sequence than that listed in the RFP. Our proposed preliminary design work plan will flow according to the chart below:



Scope of Work Items

The scope of work is to provide engineering design, bid and construction administration assistance for the RP-5 Recycled Water Pipeline Bottleneck Project No. EN14043. We will perform the necessary tasks to successfully complete this project, including but not limited to the following scope of services.

A. Meetings

In addition to the project kick-off meeting, we propose to conduct other meetings throughout the course of the project to include: submittal meetings, progress meetings, review meetings, and workshops during the preliminary design phase of the project.

We recommend conducting two workshops to discuss the following topics:

- Hydraulic analysis, surge analysis, and basket strainers evaluations
- Alternatives analysis and recommendations

We will also attend a monthly meeting to update the project status. The status report will be provided in writing, and likely via email.

For each meeting we will prepare and submit draft meeting notes within five (5) calendar days after the meeting. Final meeting notes will be submitted within three (3) days after receiving the Agency's comments.

B. Environmental Review

In accordance with the RFP, we assume the Agency will be responsible for the preparation and processing of all environmental documents. However, Stantec also assumes that we will assist the Agency by providing reviews as directed and providing any maps and design layouts as may be required.

C. Preliminary Design (10 Percent Design)

Stantec will perform the following services to develop a preliminary design for the project. The preliminary design is assumed to be approximately a 10-percent design level of completion.

6.1 Preparation of Technical Memorandums

The preliminary design will be a compilation of several Technical Memorandums (TMs) that will be completed for specific areas of analysis or design. The RFP lists seven (7) TMs to be completed for the preliminary design phase of the project. We propose to complete the work for each of these TMs, however, we propose to prepare and submit these TMs in the following order of work.

- Initial Studies
 - Hydraulic Evaluations
 - Surge Analysis – TM #5 (will be submitted separately ahead of TM #1)
 - Basket Strainer research and evaluations
- Alternative Analysis – TM #1
 - Preliminary layouts
 - Types of surge protection, if necessary
 - Types of strainers
 - Perform BCE analysis of alternatives
- Electrical Systems and Controls – TM #3, TM #4, TM #7 Combined
 - Electrical System Description and Upgrades
 - Preliminary Single Line Diagram
 - System Controls and Integration
 - Preliminary P&IDs
 - Preliminary operational and control philosophy
- Design Criteria for Selected Alternative – TM #2, TM #6
 - Equipment list and data
 - Drawing and Specifications list
 - Conceptual project layout
 - Construction cost estimate

By combining the TMs to be prepared into the four main TMs as described above will help the preliminary design phase of the project move along more efficiently and be completed sooner.

6.2 Kickoff Meeting

A kickoff meeting will be held to receive the Agency's requirements and any updated goals for the project. The kickoff meeting will allow the Agency to comment on our proposed work plan, schedule, data collection, and communications.

6.3 Facility

The project area contained entirely within the RP-5 campus, and as such, entirely within the Agency's property. Therefore, we do not propose that any permits or permitting scope of services will be required. However, we will make a brief review of the project area and consult with the Agency to verify this assumption during the preliminary design phase.

C.4 Alternatives Analysis

The alternatives analysis will be performed to evaluate the various layout options for the improvements, including types of basket strainers, bypass requirements, and potential surge protection facilities. We will investigate up to three (3) alternatives. For each alternative, the hydraulic analysis of the system will be performed to verify facility sizing and operation for present and ultimate conditions. The alternatives will be evaluated for capital costs, operating costs, and ability to serve current and future customers. A Business Case Evaluation (BCE) will be prepared and presented to the Agency for review.

C.5 Preliminary Design

The preliminary design and layouts, including vertical sections based on a 10-percent design level, will be prepared for the selected alternative. Descriptions of the recommended project, hydraulic and surge analyses, and equipment requirements will be provided for Agency review and comment.

C.6 Geotechnical Evaluation

We assume that the previous geotechnical investigations and reports prepared for the RP-5 facility will be valid for use on this project. We assume that the Agency will provide previous reports for our review and evaluation to determine any geotechnical constraints and design requirements to be incorporated into the design.

C.7 Utility Research

We do not anticipate existing utility conflicts to be a significant concern since this area is small and was recently improved. However, we will perform a utility search of existing utilities, including research with the Agency for obtaining all the necessary as-built plans.

We will perform a thorough record search utilizing the USA DigAlert database and available record drawings. Using the USA DigAlert database and our contacts with the various agencies, we will request all available as-built data, and request information on existing facilities and any future planned projects in the area that may potentially impact the proposed construction schedule.

The utility information obtained at this project stage will be completed and sufficient for use in the analysis of alternatives, site layouts, vertical design requirements, and the remaining design phases.

C.8 Survey

The survey work for this preliminary design phase will consist of our team members visiting the site, taking pictures, and taking measurements for the aboveground piping systems and existing vaults and valve cans. Measurements between flanges, flow meters, and tee connections will be critical for verifying feasibility of the proposed changes.

C.9 Control System Design

We will review and proposed conceptual PLC design and DCS control integration design. In conjunction with these designs, we will prepare a preliminary operational and control philosophy.

C.10 Construction Cost Estimate

We will prepare construction cost estimates for each alternative during the alternatives evaluation and BCE analysis. For the selected alternative, we will prepare a preliminary cost estimate with the appropriate details in coordination with the Agency's comments and based on similar projects.

C.11 Potholing

We assume that potholing may be required for only the RP-5 pump discharge area and where potential new valves may be located within the RP-5 campus. The areas where valves will be replaced are assumed to not need potholing. For budgetary purposes, we anticipate that up to ten (10) pothole locations will be required. A deduction in fees may be provided if less potholes are required.

C.12 Preliminary Alternative Design Review Package

At the conclusion of the preliminary design phase of the project, we will prepare a preliminary design review package to be submitted to the Agency. The preliminary design review package will consist of the following:

- ✓ **Alternative Analysis** — A description of each alternative, estimated construction cost, comparison of alternatives and recommendation for the most desirable project
- ✓ **Project Description** — A description of the recommended project; the description shall include pipe types and sizes; flow metering, equipment, strainers; design flow rates; operating pressures; and preliminary horizontal and vertical alignments
- ✓ **Design Criteria** — Provide the design criteria recommended for the design of the project

- ✓ **Catalog Cuts** – Provide catalog cuts for the selected equipment
- ✓ **Calculations** – Provide a set of calculations used in the alternative analysis and the preliminary sizing of the selected alternative
- ✓ **Schedule** – Review and confirm the project schedule
- ✓ **Comments on the Agency’s Standards** – Comments shall include but not be limited to suggestions for changes in the Agency’s standard bedding and trench backfill specification and standard drawings.

D. 50 Percent Final Design

After meeting with you, we will develop construction plans and specifications to a 50-percent design level.

D.1 50 Percent Design Workshop

Although not specified in the RFP, we propose that prior to submitting our 50-percent design review package, we will conduct a 50-percent design workshop with your appropriate staff. This workshop will be used to discuss the following:

- Requirements to be included in the 50 percent design review package
- Any other difficult design concerns, construction aspects, or decisions to be made that may have developed as the 50-percent design is being prepared

D.2 50 Percent Construction Drawings and Specifications

We will prepare construction plans and specifications based on the selected project alternative. However, since we do not know surge protection requirements, if any are determined, any surge protection design and plan preparation is proposed as an optional task item, Task J, on page 11.

The construction plans will be prepared for a horizontal scale of 1" = 40'. The 50-percent plans will include all utility information from agencies and field measurements for the above ground equipment. The plan will include existing aboveground features, pavement limits, curbs and horizontal and vertical control. The location of all facilities, existing and those to be constructed, will be called out by dimensions. This includes small underground pipeline and electrical conduits within the project area.

We will prepare technical specifications for the equipment to be constructed.

D.3 Survey

We will create the field survey as an AutoCAD file that will be used for the project design. Our survey crew will visit the site to verify and locate all aboveground features. The horizontal and vertical control will be verified.

D.4 Utility Research

We will perform a thorough record search utilizing the USA DigAlert database and available record drawings. Using the USA DigAlert database and our contacts with the various agencies, we will request all available as-built data and information on existing facilities, including any future planned projects in the area that may potentially impact the proposed construction schedule.

Based on this task’s importance and during the pipeline alignment analysis, our project manager will back-check the utility data and record drawing information with the AutoCAD drawing files and construction plans. This back-check procedure will verify that the information from the record drawings and utility data is correctly translated onto the construction plans.

A thorough search at this project site is critical because we know the impacts that any missing or wrong information will have on the project’s success and potential for contractor change orders. We will also keep an active tracking log of all the requests and data received, including what was received and when. We will catalog the data received according to utility location and type/size.

The utility information obtained at this project stage will be completed and sufficient for use in the remaining design phases.

D.5 Preliminary Construction and Control Philosophy

Based on the proposed 50-percent design, a draft operational and control philosophy will be prepared.

D.6 50 Percent Design Review Package

The 50-percent design plans and specifications are assumed to consist of the following:

- Design drawings for the following plan sheets:
 - ✓ Civil and Demo drawings and details
 - ✓ RW Piping and Mechanical drawings and details
 - ✓ Electrical and control drawings and details
- Technical specifications
- Calculations
- Catalog cut sheets
- Pothole results (if any)
- Design conditions discussion of expected difficulties
- Estimate of probable construction costs
- Draft of the Operational and Control Philosophy

D. 100 Percent and Final Design

After we have met with you and received your review comments on the 50-percent design package, final construction plans and specifications will be developed to a 100-percent design level.

E.1 100 Percent Complete

The 100-percent design drawings will include all of the comments received by the Agency from previous submittals and workshops. We estimate that the project will require approximately nine (9) plan sheets, not including any potential surge protection. The following is the list of plan sheets anticipated for this project. The 100-percent plans will be submitted for the Agency's review and comments.

Sheet No.	Description
1	Title Sheet
2	Notes and Index Sheet
Civil and Mechanical	
3	RP-5 PS Discharge Site and Demolition Plan
4	RP-5 PS Discharge Piping and Mechanical Plan and Profile
5	RP-5 PS Discharge Piping and Mechanical Plan and Profile
6	RP-5 PS Details
7	RP-5 PS Details
8	RP-5 Campus Valve Replacements Plan
9	RP-5 Campus Valve Replacements Details
Electrical/SCADA	
10	Legend, Abbreviations, and Notes Sheet
11	Electrical Plans
12	One Line Diagram
13	Strainer
14	Instrumental Legend Sheet
15	P&ID
16	Control Panel Layout
17	Loop Diagrams

E.2 Specifications

We will prepare the project specifications in your basic formatting in order to bid and award the project. We assume that we will prepare the technical specifications. Other sections will be prepared assuming the Agency's templates are provided used, such as the instructions to bidders, bid forms, general conditions, and special provisions. The specifications will be bound for your review and comment, in addition to the digital files for editing.

E.3 Final Engineer's Estimate

The final design package will include the latest engineer's estimate of probable construction costs reflecting the final design.

E.4 Preliminary Construction Schedule

We will provide a construction schedule with the final design package that reflects all of the anticipated construction and equipment procurement activities, including the bidding process.

E.5 Final Design Package

Upon completion of the Agency's review of the 100-percent design plans and specifications, we will prepare a final design package. The final design will be a complete set of checked plans and specifications. The plans and specifications will be fully reviewed and quality controls processed completed and be ready to be advertised for construction bids. The bid package will reflect all Agency input and requirements. The final design package will also include all final calculations for the project.

Upon acceptance of the specifications, one set of master specifications on both 8-1/2-inch by 11-inch paper unbound and in digital form will be provided.

The original plans, Mylar and digital forms, will be provided upon acceptance of the plans. It is assumed that the title sheet, or cover sheet, will be Mylar. The remaining sheets may be bond paper.

F. Control Philosophy/Programming Scope

We will prepare a General Operation and Control Philosophy for the PLC and DCS system integration. A detailed control description is required by Stantec to implement the general philosophy. We will submit the control philosophy and P&ID for review by the Agency, attend a meeting with the Agency staff, address staff comments and submit a final version to be included in the construction bid documents.

Once the project is clearly defined and equipment identified, the control programming will be developed, which clearly identifies the work to be done by the control programmer. This scope will identify the current programs in use at the Agency (e.g. HMI, DCS), what changes are needed to the current programs, and the addition of any features, functions or new programming not currently existing.

The Construction DCS system integrator contract shall be pre-negotiated and assigned to the general contractor's construction contract.

Construction Administration Assistance

Item	Notes
Bid Support	We will respond to bidders' questions, bid evaluations as required, interpret contract documents, and prepare addenda.
Pre-Bid Meeting	Our project manager and project engineer will attend one meeting.
Pre-Construction Conference	We will attend one meeting.
Conformed Plans and Specifications	We will prepare a conformed set of plans and specifications reflecting changes from the bid phase.
Weekly Construction Progress Meetings	We will attend meeting conference calls and as necessary spend time after the meeting to walk the job site and inspect issues arising from RFIs, other team members or discipline leads will be available when requested.
Review Shop Drawings	We will review, catalog, and process submittals per your Standard Conditions; we assume approximately 15 submittals.
Provide Text and Drawings for Change Orders	We will assist during construction with cost estimates for RFIs and change orders to validate the quotes received from the contractor, we assume up to three to be provided.
Respond to Job Site Questions from Construction Manager	We will provide written responses to RFIs using CIPO for all documentation; simple items may be discussed on the phone.
Operations and Maintenance Manuals	We will produce an electronic Standard Operation Procedures Manual and Operations and Maintenance Manual.
Start-up Protocol and Workshop	We will provide a written start-up protocol and assistance with the existing facility's integration.
Start-up Workshop with Contractor	We will attend a two-hour start-up workshop.

G. Construction Administration Assistance

Our construction administration assistance will include the items in the table above.

H. Post-Construction Assistance

We will provide post-construction assistance, including preparing the contract plans' as-built drawings. This will consist of the original tracings and digital versions that will be sent electronically. The as-built drawings will be prepared in accordance with the RFP requirements. The as-built changes will be created from mark-ups made on the conformed set plans by the construction contractors, IEUA construction managers, and Stantec. We assume at least one (1) review by IEUA for incorporation of comments.

As-built drawings will be submitted to you both as revisions to the conformed set original tracings and on CD, in accordance with Attachment E of the RFP.

I. Training

After project completion, we will train your staff to define the new system's purpose to the operators. This training will be combined with that of the contractor's training. Due to this project's size and complexity, we assume four (4) hours of training will be required.

J. Surge Protection Design (Optional)

Facilities, if needed, for surge protection will be determined during the project's Preliminary Design phase, as a result of the surge analysis technical memorandum and recommendations. Since the need for surge protection and types of facilities required are unknown at this time, we provide this optional task for design of the surge protection facilities.

To identify fees and scope of work for purposes of this proposal, the surge protection facilities are assumed to consist of a new surge tank, air compressor, and associated electrical and controls equipment.

We will prepare construction plans and specifications for the surge protection facilities and follow the submittal format and contents requirements, as set forth for the 50-percent, 100-percent and Final Design Review Packages. The appropriate operational and controls philosophy will also be included with the specifications and submittal documents.

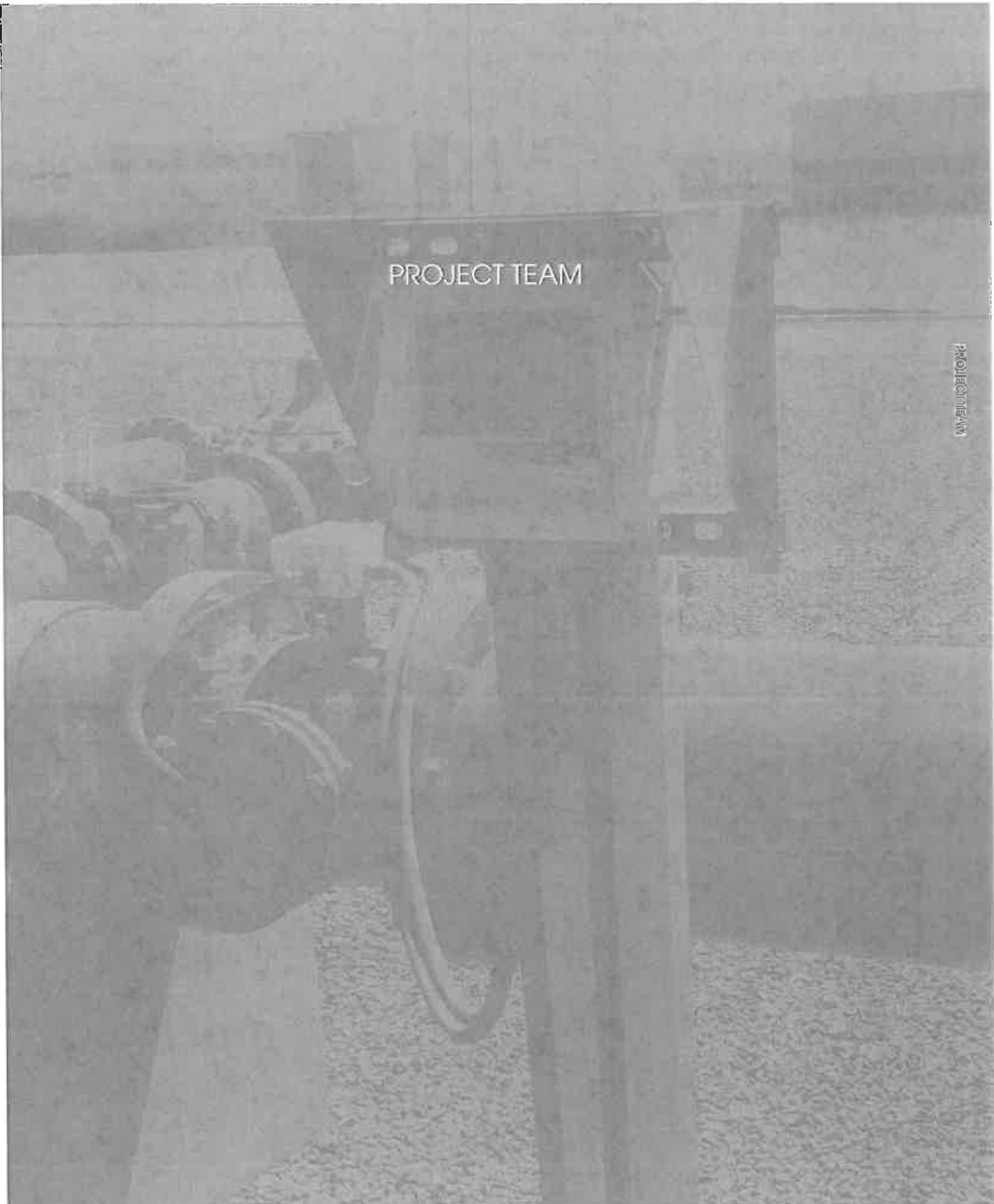
The design for the surge protection facilities will require mechanical layout and design, electrical design, and system controls design, in accordance with the Agency standards. Stantec has prepared surge protection design for the Agency's various pump station facilities and will assume similar standards, design, and requirements for operation of the surge protection facilities for this project.

The following table shows the additional plan sheets that could be prepared for surge protection design.

Sheet No.	Description
1	Surge Site Layout
2	Surge Mechanical Plan and Sections
3	Surge Mechanical Details
4	Electrical Power Plan
5	Electrical One Line Diagram
6	Electrical Control Schematic
7	Surge Tank Control Schematic
8	Electrical Digital Input Wiring
9	Electrical Details and Panel Schedule

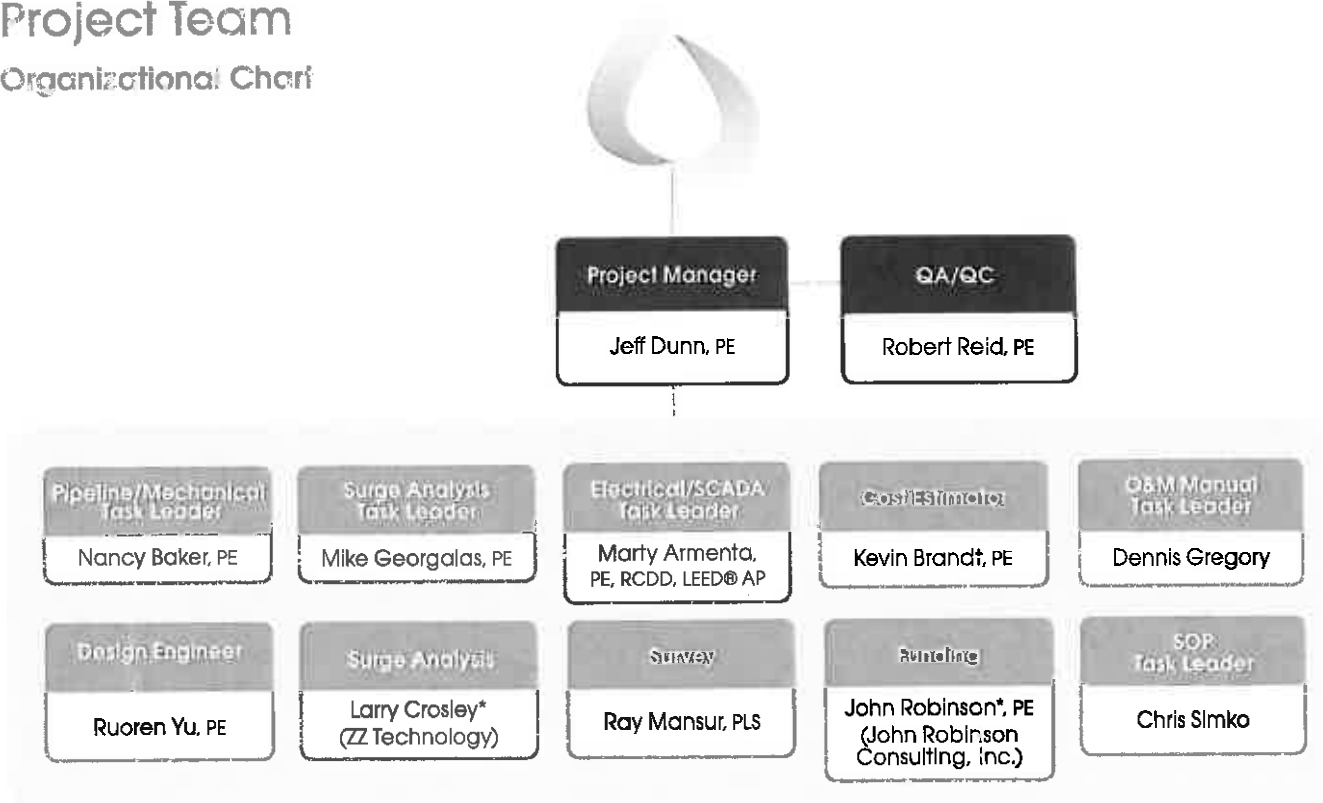
PROJECT TEAM

PROJECT TEAM



Project Team

Organizational Chart



Subconsultant

Water Resources Engineering

At Stantec, we believe that one of a professional consultant's primary responsibilities is to execute planning studies and designs to respect the past and adequately service the future. It is this philosophy that serves as the foundation to our projects' approaches. We pride ourselves in our ability to manage any situation with an open mind. We provide the attention that both the project and client deserves, while maintaining a high level of efficiency and effectiveness.

Our project team members have industry leading water resources experience, familiarity with your infrastructure, and local leadership to successfully deliver your project. We are committed to you as a long-term partner and will provide the necessary resources to meet your technical and schedule requirements.

Our team is comprised of highly qualified personnel, who specialize in hydraulic analysis, pump station design, pipeline design, and surge protection. Our combined experience is one of several key formulas that will help provide you with necessary resources to meet your technical and schedule requirements.

Acquisition of MWH Global, Inc. (MWH)

In late March 2016, Stantec joined forces with MWH Global, Inc., bringing 6,800 additional water resources engineering personnel to our global team. MWH is an engineering, consulting and construction management firm focused on water and natural resources for built infrastructure and the environment. With 187 offices distributed across 26 countries, the acquisition expands our position as a global leader in water resources infrastructure. With offices also located in Irvine, Pasadena, and San Diego, we now have an additional 350 water resources staff in California readily available to provide as-needed support to your project should the scope of work grows.

ZZ Technology

Established in 1998 by **Larry Crossley**, ZZ Technology provides specialty services in hydraulic transient modeling, surge control equipment design, and fabrication and field testing in municipal and industrial pipeline applications. Larry will work closely with Jeff and our design team to provide a surge analysis to address the repeated pipe bursting, and provide recommendations and design solution.

Key Personnel

While the reputation and capacity of our team are important, perhaps most critical are the individuals assigned to lead your task. We have provided brief biographies of our key personnel, as well as a schedule showing the percentage of time each could contribute to the project.



Proposed project manager, **Jeff Dunn, PE**, is a highly respected water resources engineer and project manager who is dedicated to the successful completion of all the projects he leads and supports.

He brings you a wealth of expertise, a successful history with your pipeline projects, firsthand knowledge of your service area, and 22 years of diversified experience in the water resources industry. Jeff has completed over 30 planning studies and hydraulic analyses of domestic water, reclaimed water, and sewer collection system facilities, which have included developments as large as 35,000 acres and over 20,000 dwelling units. He has also designed over 2,700 pipe networks and modeling projects and over 45 miles of pipelines ranging in diameter of up to 36 inches. Additionally, Jeff recently prepared your **Recycled Water Program Strategy**, which evaluated a strategy to maximize the beneficial reuse of recycled water to enhance local water resources and reduce reliance on imported water.



Jeff developed your **Recycled Water Program Strategy**, which helped determine a need for this proposed project.

In addition to the program strategy, Jeff previously managed your **1630 East and West Pump Station Surge Protection** project, which analyzed surging and pump failures of the existing facility. The project added a new surge tank, air compressor, and new electrical controls. Jeff's firsthand knowledge with your projects will eliminate any learning curves associated with your proposed project. He will lead a carefully selected team of engineers, who specialize in pipeline, surge analysis, electrical/SCADA, and survey.



Robert Reid, PE, will provide QA/QC management and oversight and will work closely with Jeff, as he has done for more than 15 years, to ensure that we provide clear, concise, and accurate project information. Robert recently

provided QA/QC services for your **Recycled Water Program Strategy** and has successfully delivered more than 45 pumping station projects and more than 200 miles of pipeline. He currently oversees all phases of our water resources projects.



Nancy Baker, PE, will serve as our pipeline/mechanical task leader, working closely with Jeff and our surge analysis team to recommend the best mechanical solutions for your project, as it relates to upsizing, strainers, flow meter devices

and pressure and flow control equipment. Nancy has more than 25 years of experience in design and construction for transmission mains, pumping stations, water storage reservoirs, lift stations, pressure reducing stations, and water reclamation facilities. Nancy recently provided design services for your **1630 East and West Recycled Water Pump Station Surge Protection** project, which provided a new 1,000 cubic foot surge tank to address surging and pump failures.

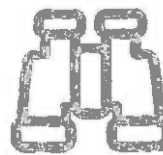


Nancy conducted a preliminary analysis to obtain funding for your proposed project.



Our proposed surge analysis task leader, **Mike Georgalas, PE**, will conduct a surge analysis, alongside **Larry Crossley**, to address the several recycled water pipe bursting incidents. Mike has extensive experience in conducting surge analysis

studies, as well as mitigation design for both existing and new water systems. He represents a unique blend of practical design and computer simulation expertise. With more than 20 years of experience in water conveyance system design, he ensures proposed solutions are practical and constructible. Mike has completed more than 50 surge-related projects throughout North America. These projects included analyzing existing and proposed systems to quantify the magnitude of potential pressures that could be experienced under various transient inducing events and recommending measures to eliminate or mitigate the transient pressures. Both Mike and Larry recently worked alongside Jeff and Nancy to provide surge analysis for your **1630 East and West Recycled Water Pump Station Surge Protection** project.



We have already performed a site visit, initiated the research effort, and developed an initial work plan in an effort to generate positive momentum moving into this project.



Dennis Gregory will prepare an Operations and Maintenance (O&M) manual that is consistent with IEUA standards. He will also ensure existing facility O&M manuals are upgraded and/or updated to reflect the current facility

process and system descriptions and operations.

Chris Simko, PE, will work closely with Dennis and Jeff to prepare Standard Operating Procedures (SOP) to reflect the current facility processes and systems for RP-5. Both Dennis and Chris were directly involved in your **RP-5 Recycled Water Pump Station Expansion project**, having authored the O&M Manual and SOP, respectively. Their direct experience with your project eliminates any learning curves, allowing us to complete your project quickly and more efficiently, ultimately saving you time and money.



Our proposed electrical/SCADA task leader, **Marty Armenta, PE, RCDD, LEED® AP**, will provide electrical and SCADA integration of new flow meters using the existing SCADA system. With more than two decades of electrical

engineering experience, Marty's expertise includes the design of medium voltage (2.4kV-46kV) power distribution, low voltage (120V-600V) power distribution, exterior area lighting, interior lighting, street lighting, grounding, traffic signals, lightning protection, fire alarm, telecommunications, access control, closed circuit television, integrated security, intercom, distributed control systems, and PLC/HMI control systems. Marty is currently providing electrical/SCADA services for nine of your basins, as part of the **Recharge Master Plan Update (RMPU) Yield Enhancements** project, and also engineered the Carbon Canyon Recycled Water Pump Station's power distribution, grounding, lighting, motor control and process control systems, as part of your **Carbon Canyon Recycled Water Pump Station Expansion** project.



Ray Mansur, PLS, will provide field topographical survey. Where applicable, he will conduct research and comment on the project's horizontal and vertical design survey control. Ray also has strong familiarity with your project site

and understands your survey goals and requirements. He is currently providing surveying services for nine of your basins, as part of the **RMPU Yield Enhancements** project, and is also overseeing your task orders under the **On-Call Design Surveying Services** contract.



Our proposed cost estimator, **Kevin Brandt, PE, QSD/QSP**, will provide construction cost estimates for your project. Kevin has 27 years of experience, including more than five years of working directly with your staff. He is currently

managing preliminary design services for nine of your basins, as part of the **RMPU Yield Enhancements** project. Kevin's last ten cost estimates and the associated bid amounts are provided in his resume.



To further strengthen our team, we have included **John Robinson** of John Robinson Consulting, Inc., who will review bid documents and ensure compliance with Prop 1 Funding. John has more than two decades of experience

and has provided funding services for numerous projects, including the Inland Empire Utilities Agency Program. His effective coordination with various agencies was instrumental in obtaining and managing the U.S. Bureau of Reclamation Title XVI funding, SRF, Proposition 50, and Metropolitan Water District of Southern California Local Resources Program monies for the program. The program involved the design of 10 miles of up to 30-inch diameter pipelines, design of two recycled water pump stations at RP-2 and RP-4, reservoir rehabilitation, and development of a recycled water management plan (RWMP).

300+ combined years of key personnel experience

We acknowledge that key personnel assigned to the projects shall not be reassigned without prior written approval from the Agency.

Résumés for all key team members are provided on the following pages.

Schedule of Project Team's Potential Percentage of Time Contribution

Team Member	Role	% of Contribution
Jeff Dunn, PE	Project Manager	10%
Robert Reid, PE	QA/QC	2%
Nancy Baker, PE	Pipeline/Mechanical Task Leader	23%
Marty Armenta, PE, RCDD, LEED AP	Electrical/SCADA Task Leader	13%
Dennis Gregory	Operations and Maintenance (O&M) Task Leader	2%
Chris Simko, PE	Standard Operating Procedures (SOP) Task Leader	2%
Michael Georgalas, PE	Surge Analysis Task Leader	1%
Larry Crossley, PE*	Surge Analysis	5%
Ray Mansur, PLS	Survey	1%
Ruoren Yu, PE	Design Engineer	20%
Kevin Brandt, PE	Cost Estimator	2%
John Robinson*	Funding Compliance	6%

*Subconsultant

An aerial photograph of a construction site. The ground is covered with a grid of rebar (steel reinforcement) laid out in a rectangular pattern. Several concrete slabs are visible, some of which are partially completed. The overall scene is in grayscale, emphasizing the geometric patterns and textures of the construction materials.

PAST RECORD OF PERFORMANCE

PAST RECORD OF PERFORMANCE

Past Record of Performance

You need a team that has a consistent record of outstanding performance. Having worked directly with you on many water resources projects, including the RP-5 Recycled Water Pump Station Expansion, we understand your processes and expectations. We are familiar with your team, we know our way around your project sites, and we will not need to spend a significant amount of time directing our work efforts. Most importantly, we are already ahead of the curve when it comes to understanding what this project entail. The projects described on the following pages demonstrate a consistent record of cost control, innovation, quality of work, and our ability to meet schedules on prior projects.

Cost Control Methods

Cost control begins during the preliminary design phase. Our alternatives are designed to be affordable, constructible, operationally cost-efficient, and sustainable for long-term use. We will work with you to select an alternative that best meets these criteria, as well as any other requirements set forth by the Agency.

Innovations

Creativity and innovation are critical to our ongoing success. At the same time, it is important to understand when innovation is needed and when tried and true methods should be employed. Innovation often requires the right minds to join forces. At Stantec, we have a deep bench of global experts and we are also readily willing to supplement our team with other expert consultants. Although we are extremely confident in our own abilities, we are also eager to learn more and are very open to helping advance the ideas of others.

Quality of Work

We consider return clients a testimony to the quality of our work product. We have included several client contacts on the following pages, and we invite you to reach out to them as a point of reference to discuss how our practical, experienced approach will benefit your projects.

Ability to Meet Schedules

We understand the importance of timelines and quality; therefore, we will work closely with you to determine key project milestones and then adjust our schedule to meet those milestones. Our proposed schedule for this contract is just one example of the ways in which we can better adhere to the project schedule.



We currently hold three ISO certifications: quality, sustainability, and information technology

Project Experience Information



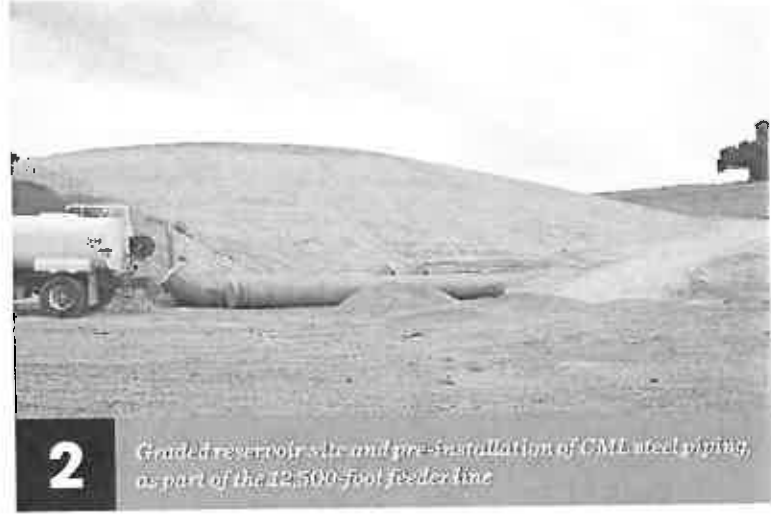
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RP-5 Recycled Water Pump Station after previous expansion

IEUA RP-5 Recycled Water Pump Station Expansion Inland Empire, California

Client: Inland Empire Utilities Agency
Address: 6075 Kimball Avenue, Chino, California 91708
Contact: Adham Almasri, Senior Engineer
Phone: (909) 993-1462
E-mail: aalmasri@ieua.org
Completion date: 2014
Design cost: \$250,000

Stantec upgraded the existing recycled water pump station at RP-5, which consisted of five pumps with a total capacity of 3,100 gpm with a total dynamic head (TDH) of 208 feet. To maximize the amount of recycled water produced by RP-5 to supply customers in their 800 pressure zone, IEUA needed to increase the capacity of the pump station to more closely match the peak effluent flows from the plant. To meet the upcoming summer demands, the pump station expansion had to be operational by the end of May 2010. This required a design and construction schedule of less than seven months. IEUA's criteria was to have a pump station with a 10,400 gpm capacity by May 2010, expandable to an ultimate capacity of 13,700 gpm in the future. Due to the time constraints and limitations in IEUA's existing recycled water distribution system and the pump station power center, the first phase of the expansion had to be limited to 9,625 gpm with a TDH of 262 feet. The first phase included five 1,925-gpm vertical turbine pumps each with 150-hp motors. The manifold was designed for additional future pumps to meet IEUA's ultimate demands. The project was designed and constructed within the required schedule and budget.



2

Graded reservoir site and pre-installation of CML steel piping, as part of the 12,500-foot feeder line

IEUA 930 Zone Chino Hills Recycled Water Reservoir and Pipeline, Chino Hills, California

Client: Inland Empire Utilities Agency
Address: 6075 Kimball Avenue, Chino, California 91708
Contact: Adham Almasri, Senior Engineer
Phone: (909) 993-1462
E-mail: aalmasri@ieua.org
Completion date: 2012
Design cost: \$790,000

To relieve the pressures on Chino Valley's domestic water supply, Stantec worked directly with IEUA for the implementation of its Reclaimed Water Program. The success of IEUA's plan hinged on providing a comprehensive distribution and storage net to deliver reclaimed water to end users, such as the City, for irrigation of public lands, including parks and golf courses.

We provided design and construction support services for a 5-million-gallon recycled water reservoir and 12,500-foot feeder line. We also developed future phases, including the design and implementation of new pump stations and interconnect facilities between IEUA's water reclamation plants.

The 930 Zone recycled water backbone improvements were part of IEUA's Three-Year Business Plan to provide 50,000 acre-feet per year of recycled water to customers by 2009-2010.



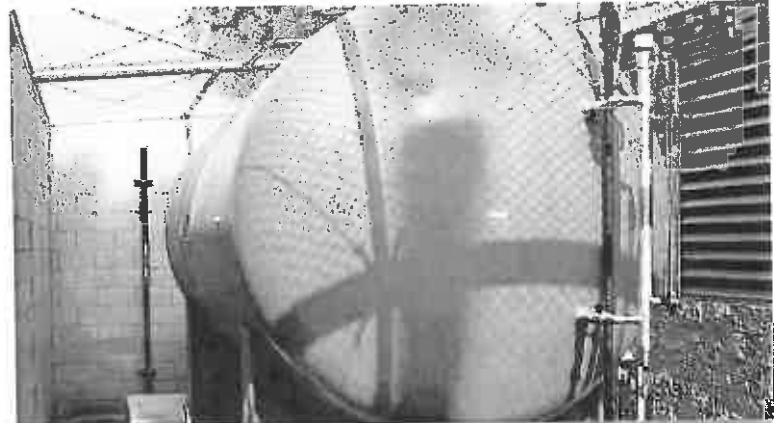
3

RP-1 Recycled Water Pump Station discharge pipelines

IEUA RP-1 South Zone Pump Station Inland Empire, California

Client: Inland Empire Utilities Agency
Address: 6075 Kimball Avenue, Chino, California 91708
Contact: Adham Almasri, Senior Engineer
Phone: (909) 993-1462
E-mail: aalmasri@ieua.org
Completion date: 2011
Design cost: \$100,000

Stantec was selected by the Inland Empire Utilities Agency (IEUA) in 2010 to upgrade their existing RP-1 South Zone Pump Station. The existing pump station consisted of three 2,790-gpm vertical turbine pumps and one 9,330-gpm vertical turbine pump, each with variable frequency drives. The project consisted of adding a fifth pump with associated variable frequency drive and controls. The new pump was a 9,330-gpm vertical turbine pump with 500-hp motor and variable frequency drive. The project also included modifications to the existing control programming to incorporate the fifth pump as a standby pump to alternate duty with the existing 9,300-gpm pump. This expansion was required to be operational by the end of May 2011 to meet IEUA's summer demands. The project was designed and constructed with the required schedule and budget.



4

Existing 1630 West Pump Station before replacement of valves and addition of new surge tank

IEUA 1630 East and West Pump Station Surge Protection, Ontario, California

Client: Inland Empire Utilities Agency
Address: 6075 Kimball Avenue, Chino, California 91708
Contact: Nasrin Maleki, Senior Engineer
Phone: (909) 993-1696
E-mail: nmaleki@ieua.org
Completion date: Ongoing construction
Design cost: \$162,000

Stantec performed preliminary and final engineering services for the replacement of the existing check valves and addition of a new surge tank to the suction side of the existing pump station. The pump station experienced significant surging and pump failures. To resolve the problem, Stantec analyzed and provided design solutions for a new 1,000 cubic foot surge tank, air compressor, and electrical controls for the facility.



5

RP-1 Recycled Water Pump Station elevated discharge surge tank

6

RP-1 Recycled Water Pump Station discharge pipelines and elevated discharge surge tank

IEUA 1299 Zone/1630 West Pump Station Risk Management and Surge Protection Analysis, Chino, California

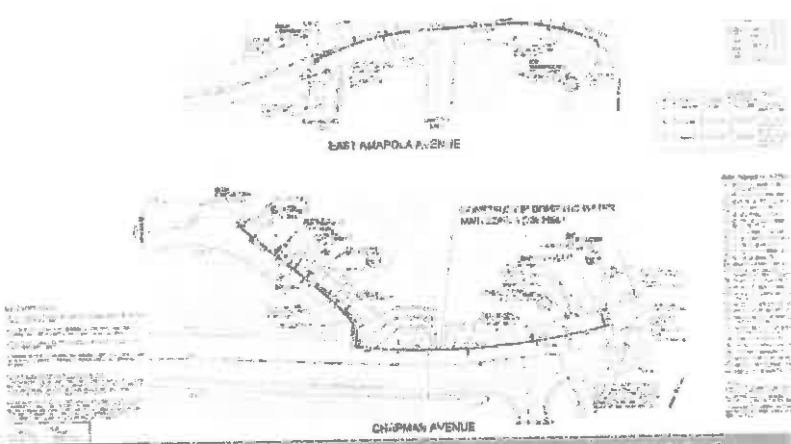
Client: Inland Empire Utilities Agency
Address: 6075 Kimball Avenue, Chino, California 91708
Contact: Nasrin Maleki, Senior Engineer
Phone: (909) 993-1696
E-mail: nmaleki@ieua.org
Completion date: 2015
Design cost: \$52,000

To resolve surging and pump failure problems in the 1299 Zone and the 1630 West Pump Station, Stantec performed hydraulic model services to evaluate the system operation, system, surge and risk of pipeline failures. We prepared a technical memorandum that recommended a new surge tank, including a benefit cost evaluation (BCE) of alternatives and risk management analysis.

IEUA 1158 Zone Pump Station Upgrades and RP-4 1158 Zone Outfall Pipeline Feasibility Study, Chino, California

Client: Inland Empire Utilities Agency
Address: 6075 Kimball Avenue, Chino, California 91708
Contact: Nasrin Maleki, Senior Engineer
Phone: (909) 993-1696
E-mail: nmaleki@ieua.org
Completion date: Ongoing
Design cost: \$75,000

Stantec is currently performing feasibility and surge protection analyses for the proposed upgrades to the RP-1 1158 Pressure Zone effluent pump station. The upgrades to the pump station are a recommendation of the current RWPS and the Agency requires better definition of the pumps capacity, and design recommendations, and feasibility of the improvements in conjunction with the existing facilities. Additionally, Stantec is evaluating the possible causes of leaks occurring in the 42-inch RP-4 1158 Zone Pipeline, and providing recommendations. A surge analysis is also being performed for recommendations to the existing surge tank and future surge protection needs.



7 *Fire flow improvement designs showing proposed 8-inch domestic water main zones in East Amargosa Avenue and Chapman Avenue*

IRWD Orange Park Acres Transmission Main Replacement/Fire Flow Improvements Irvine, California

Client: Irvine Ranch Water District
Address: 15600 Sand Canyon Avenue, Irvine, California 92618
Contact: Jon McGehee, Engineer
Phone: (949) 453-5422
E-mail: jmcgehee@irwd.com
Completion date: 2012
Design cost: \$225,000

We provided design and construction support services for a new transmission main that transports well water supplies to the Orange Park Acres (OPA) service, as well as the future East Orange development area east of Jamboree Road. We analyzed and recommended a new alignment and pipeline diameter for the proposed Zone 5 OPA Transmission Main.

Stantec prepared construction plans, specifications, and cost estimates for approximately 3,500 linear feet of 8-inch PVC pipeline to replace old, undersized existing pipelines within their Orange Park Acres distribution system. The improvements included design for new valve installations, fire hydrant reconnections, and service meter reconnections along the new pipeline improvements. We performed field investigations and visits to verify hydrant and service meter locations to be shown on the plans. Due to varying pavement conditions, the plans also included a pavement replacement table on each sheet with pavement requirements described for each location.



8 *Proposed site for installation of pipeline reconnections at Lolita Street and Santiago Canyon Road*

IRWD Randall and Lolita Street Domestic Water Improvements Irvine, California

Client: Irvine Ranch Water District
Address: 15600 Sand Canyon Avenue, Irvine, California 92618
Contact: Malcolm Cortez, Principal Engineer
Phone: (949) 453-5854
E-mail: cortez@irwd.com
Completion date: 2013
Design cost: \$230,000

Stantec prepared plans and specifications, including cost estimates, for the Lolita and Randall Street Domestic Water Improvements projects. The project included approximately 1,300 linear feet of 8-inch PVC pipeline in existing streets, including traffic control for busy Santiago Canyon Avenue. Improvements were required due to an old 8-inch steel pipeline that was leaking and needed to be abandoned. Pipeline improvements and services reconnected the existing system to the new pipeline, including connections and valves to IRWD's intertie with City of Orange, along with service meter reconnections.



9 Intersection of Lincoln Avenue and Dale Avenue

Lincoln Avenue 16-inch Water Main Replacement (Beach Boulevard to approximately 1,250 east of Dale Avenue) Anaheim, California

Client: City of Anaheim
Address: 200 South Anaheim Boulevard, California 92805
Contact: Dan Setty, Associate Engineer
Phone: (714) 765-4440
E-mail: dsetty@anaheim.net
Completion date: 2016
Design cost: \$150,000

Stantec completed the preparation of construction plans and bid documents for the installation of a new 16-inch water main that will be routed 3,800 linear feet along Lincoln Avenue from the point of connection in Beach Boulevard, south of Lincoln Avenue, to existing PR-2, which is east of Dale Street. The new water main will parallel existing water mains to improve the hydraulic performance during a fire flow event and to improve system reliability, since the existing water main is around 50 years old. To minimize work within the Caltrans' right-of-way, the water main alignment paralleling Beach Boulevard was chosen to be in an unpaved area behind the sidewalk, near a gas station. The new pipeline will include 12-inch through 4-inch laterals to join the existing distribution pipes, fire hydrants and services along the route and the removal of these facilities' connections to the older water main. In addition to the new pipe laterals, the overall length of pipe installed will be more than 5,000 linear feet.



10 Proposed point of connection of upstream reach

Richfield Road Transmission Main Replacement Placentia/Anaheim, California

Client: Yorba Linda Water District
Address: 1717 East Miraloma Avenue
 Placentia, California 92870
Contact: Steve Conklin, General Manager
Phone: (714) 701-3102
E-mail: sconklin@ylwd.com
Completion date: 2012
Design cost: \$900,000

Stantec designed a steel pipe water main, approximately 2,145 linear feet, with diameters up to 36 inches. The steel water main will be installed to convey water from YLWD Well No. 21 to the nearby chlorination plant. Two chlorine injection vaults will be installed along the alignment near the chlorine injection plant. A static mixer will be installed immediately downstream of each of the injection vaults. One chlorine analyzer manhole will be constructed downstream of each of the static mixers. Two 1-1/2 inch chlorine injection lines, encased in 6-inch Schedule 40 PVC conduits, will be used to inject chlorine into the water main, while two 1-1/2 inch chlorine analyzer lines, encased in 6-inch Schedule 40 PVC conduits, will be used to relay analytical results back to the plant. This project is currently under construction.



JOINT VENTURE

JOINT VENTURE

Joint Venture

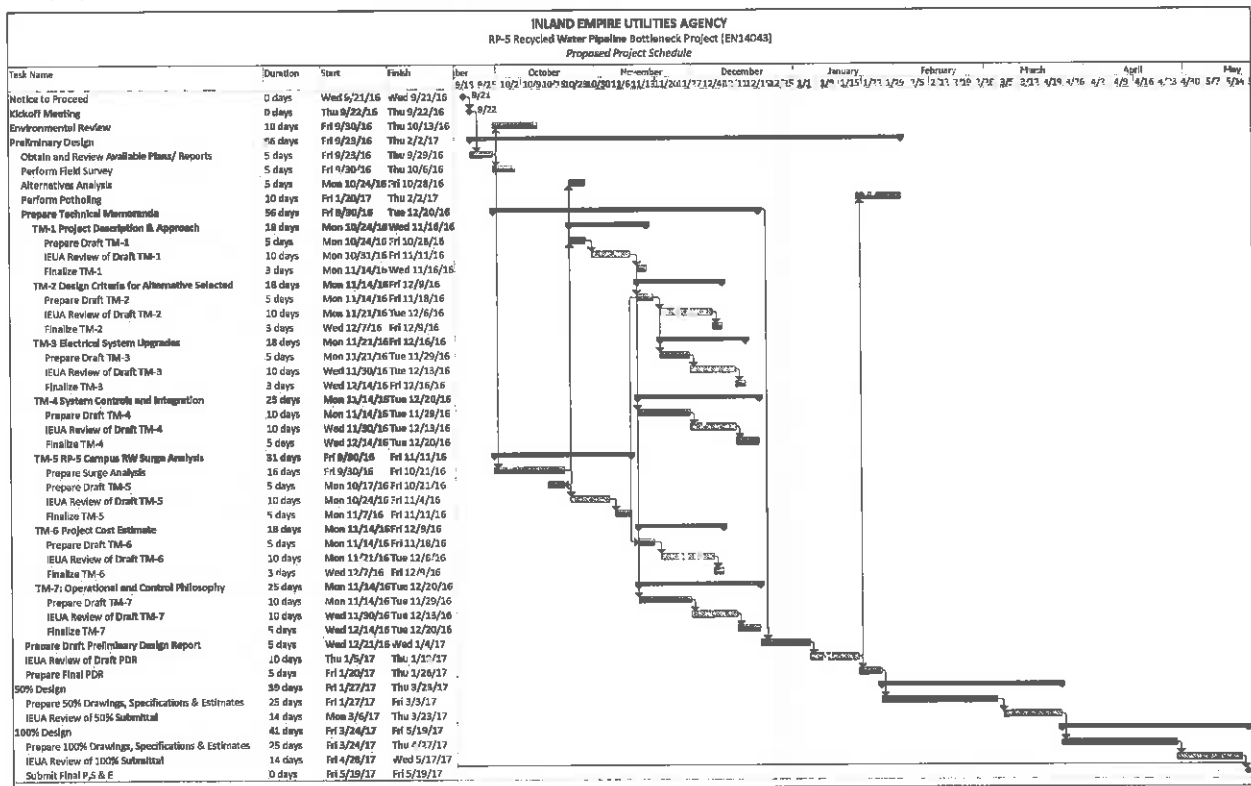
We will not be participating in any joint ventures; however, we propose to enter upon a subconsultant agreement with ZZ Technology and John Robinson Consulting, Inc.



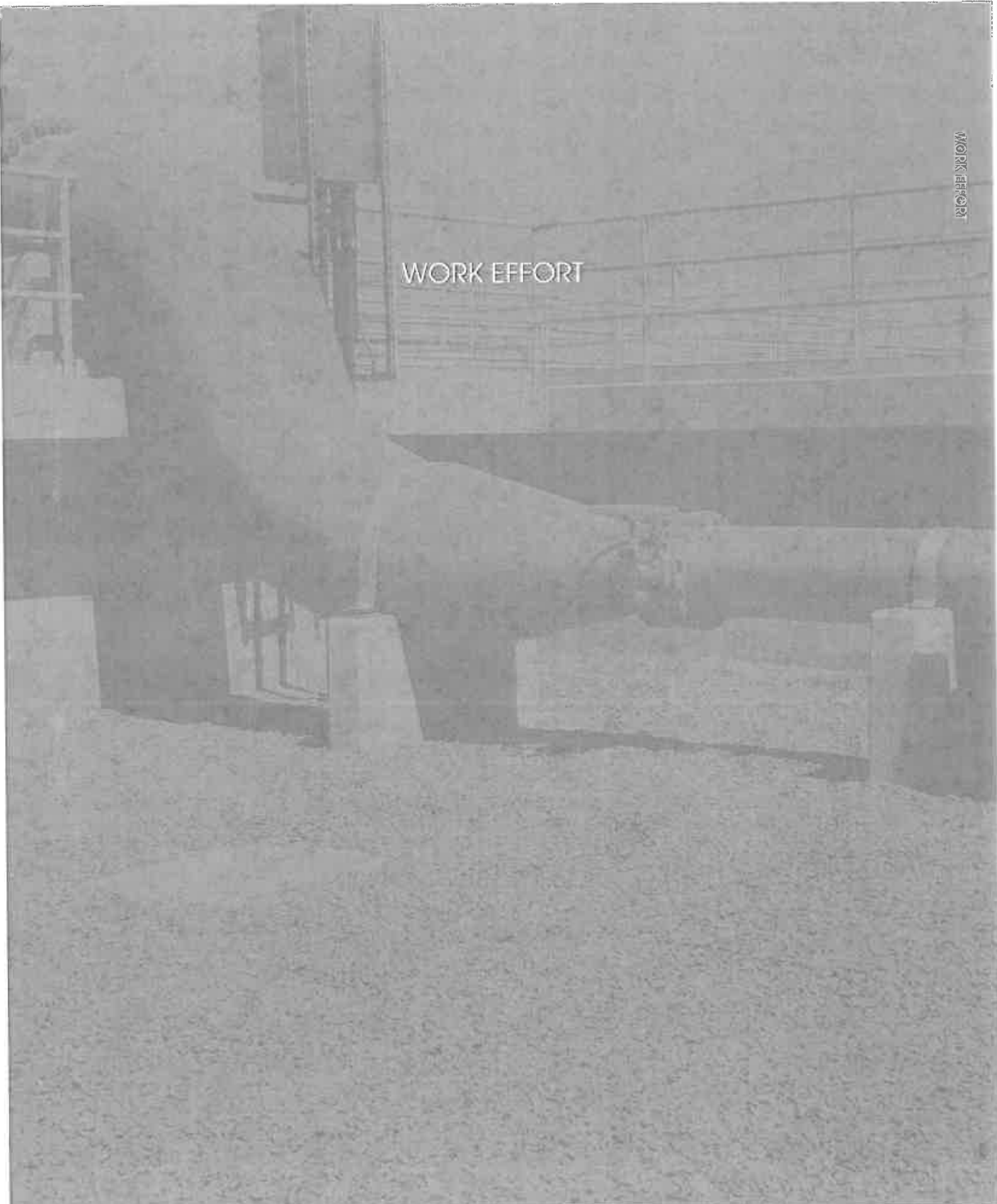
PROPOSED SCHEDULE

Proposed Schedule

The schedule that you have set forth in the RFP is a realistic goal. We will use our project management tools to monitor the schedule and hours on a weekly basis, throughout the duration of the project. This way, we can identify early on and adjust our plan immediately if need be.



WORK EFFORT



Work Effort

Below is a fully itemized schedule of estimated effort for each task, expressed in work hours, for each team member classification required to complete the work.

Our work effort is based on our proposed scope of work as described herein, including the required submittals and reviews. If selected, we are willing to negotiate the effort required for each task and the corresponding task requirements you desire.

Inland Empire Utilities Agency RP-5 Recycled Water Pipeline Bottleneck Project EN14043 Proposed Labor Hours

A. Meetings	4	16	12														32
B. Environmental Review		2	2	6						8							18
C. Preliminary Design (10%) Design)	8	24	32	44	8	28	0	0	66	8	0	0	1	4			223
C.1 Preparation of Technical Memorandums	4	8	8	16	8	20			32	8							104
C.2 Kickoff Meeting		2	2														4
C.3 Permits		1	1														2
C.4 Alternatives Analysis		4	4	8					12								28
C.5 Preliminary Design		2	2	6					8								18
C.6 Geotechnical Evaluation		1	2														3
C.7 Utility Research			1	2					8								11
C.8 Survey			4	4													8
C.9 Control System Design			2			8											10
C.10 Construction Cost Estimate		2	4	2													8
C.11 Potholing		2	2	2					2				1	4			11
C.12 Prepare a Preliminary Design Review Package	4	2	2	4					4								18
D. 50% Final Design	0	20	55	50	0	30	0	0	73	12	2	2	4	12			260
D.1 50% Design Workshop		2	2														4
D.2 50% Construction Drawings and Specifications		13	40	34		24			69	12							192
D.3 Survey			1	2							2	2	4	12			23
D.4 Utility Research			2	2													4
D.5 Preliminary Operation and Control Philosophy		1	2			6											9
D.6 50% Design Review Package		4	8	12					4								28
E. 100% and Final Design	4	17	46	38	0	24	0	0	69	12	0	0	0	0			210
E.1 100% Complete Drawings		7	16	34		24			65								148
E.2 100% Specifications		6	20							12							38
E.3 Final Engineer's Estimate		1	2	2													6
E.4 Preliminary Construction Schedule		1	2														3
E.5 Final Design Package	4	2	4	2					4								16
F. Control Philosophy/Programming Scope		2	2			10											14
G. Construction Administration Assistance	0	8	64	36	0	22	20	20	8	0	0	0	0	0			178
Bid Support		2	4	2													8
Pre-Bid Meeting		2	2														4
Pre-Construction Conference			2														2
Confirmed Plans and Specifications			4	6					8								18
Weekly Construction Progress Meetings		2	12	2													16
Review Shop Drawings			10	12													22
Provide Text & Drawings for Change Orders			8	8		8											24
Respond to Job Site Questions from CM			8	4		8											20
Operations and Maintenance Manuals		2	4	2			20	20									48
Start-Up Protocol and Workshop			6			2											8
Start-Up Workshop with Contractor			4			4											8
H. Post Construction Assistance	1	2	8	4		8			16								39
I. Training		2	2														4
Optional Surge Protection Facilities																	

FEE

FEE



Fee Schedule

As requested in the RFP, we have provided our fee in a separately sealed envelope.



ATTACHMENT E -
EXCEPTION FORM

ATTACHMENT E -
EXCEPTION FORM

Attachment E – Exception Form

ATTACHMENT E

EXCEPTION FORM

Should your firm take exception to **ANY** of the terms and conditions or other contents provided in the Request for Proposal, submit the following form with your proposal. If no exception(s) are taken, enter “NONE” for the first item. Make additional copies of this form if necessary.

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

NONE

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____



ATTACHMENT F -
WORKER'S COMPENSATION
CERTIFICATE

ATTACHMENT F - WORKER'S
COMPENSATION CERTIFICATE

Attachment F – Worker’s Compensation Certificate

ATTACHMENT F

WORKERS' COMPENSATION CERTIFICATE

The Consultant shall execute this form to acknowledge and comply with the requirements of California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my Consultant, I will comply with such provisions before commencing the performance of the work of any contract entered into.

Robert S Reid

Stantec Consulting Services Inc.

Signature

Company Name

Robert Reid

3259819

Printed Name

Business License Number

Senior Associate

7/28/2016

Title

Date

A grayscale photograph of a classical building facade. The image shows a large, fluted stone column on the left side, supporting a structure. To the right of the column is a window with a decorative frame. The background shows a grid-like pattern, possibly a window or architectural detail. The overall tone is muted and historical.

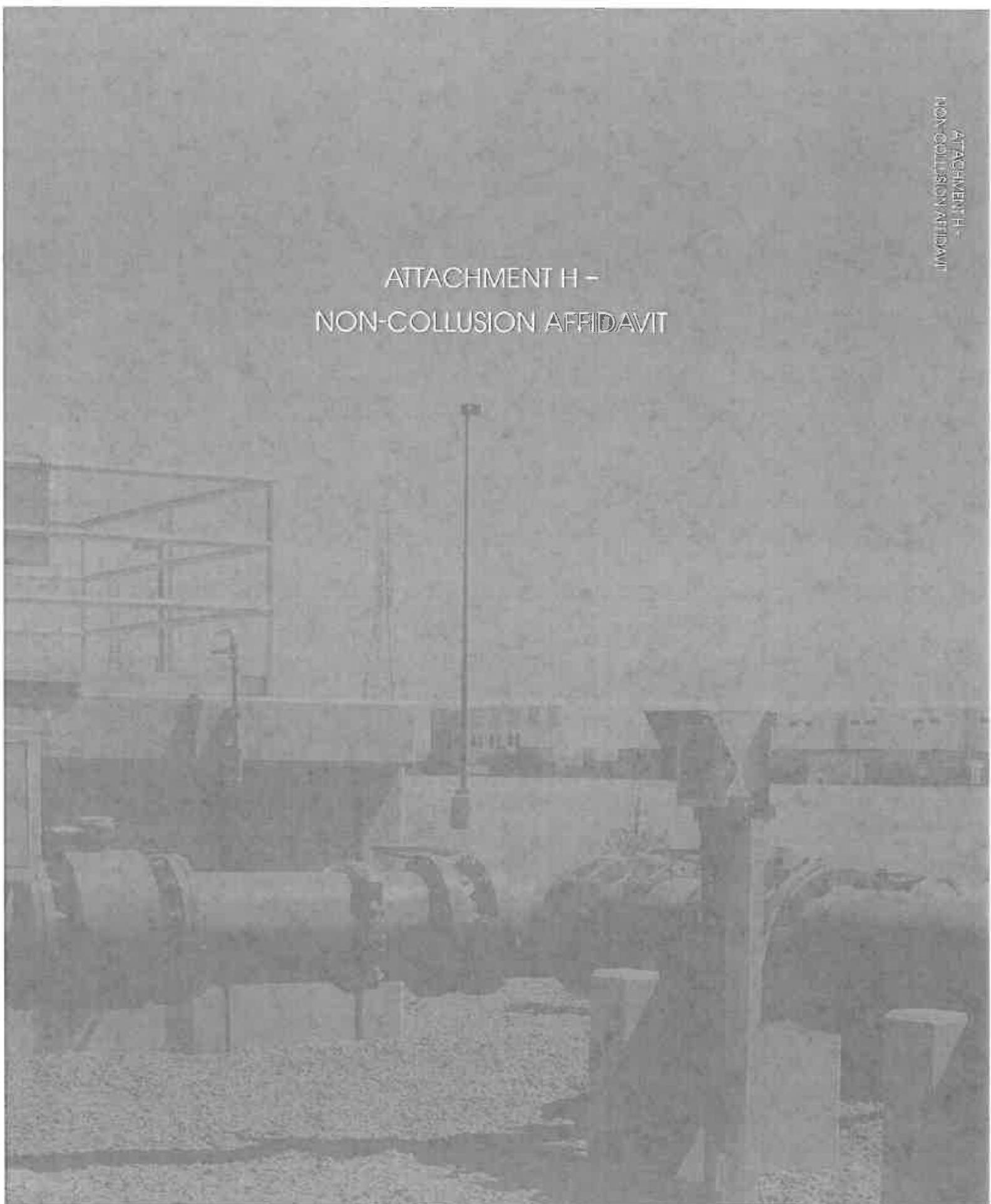
ATTACHMENT G -
CONSULTANT IDENTIFICATION

Attachment G – Consultant Identification

ATTACHMENT G CONSULTANT IDENTIFICATION

1. Legal name of Consultant: Stantec Consulting Services Inc.
2. Street Address: 38 Technology Drive, Suite 100, Irvine, California 92618
3. Mailing Address: 38 Technology Drive, Suite 100, Irvine, California 92618
4. Business Telephone: (949) 923-6000
5. Facsimile Telephone: (949) 923-6121
6. Email Address: jeff.dunn@stantec.com
7. Type of Business:
 Sole Proprietor Partnership Corporation
Other: _____
If corporation, indicate State where incorporated: New York
8. Business License number issued by the City where the Consultant's principal place of business is located.
Number: 110111 Issuing City: Irvine, California
9. Federal Tax Identification Number: 11-2167170
10. Consultant's Project Manager: Jeff Dunn, PE

ATTACHMENT H -
NON-COLLUSION AFFIDAVIT



Attachment H – Non-Collusion Affidavit

ATTACHMENT H

NON-COLLUSION AFFIDAVIT

State of California)
) ss.
County of Orange)

Robert Reid, being first duly sworn, deposes and says

that he or she is Senior Associate of Stantec Consulting Services Inc. ("Bidder") the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the Bidder has not directly or indirectly solicited any other Bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal fee or the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the proposal fee, or of that of any other Bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the proposal are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her proposal fee or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

Robert Reid

Signature

Stantec Consulting Services Inc.

Company Name

Robert Reid

Printed Name

3259819

Consultant License Number

Senior Associate

Title

7/28/2016

Date



ATTACHMENT I -
BUSINESS OWNERSHIP INFORMATION

ATTACHMENT I - BUSINESS
OWNERSHIP INFORMATION

Attachment I – Business Ownership Information

ATTACHMENT I

BUSINESS OWNERSHIP INFORMATION

Business Ownership Information

Are you a WMDVBE* certified business? Yes No

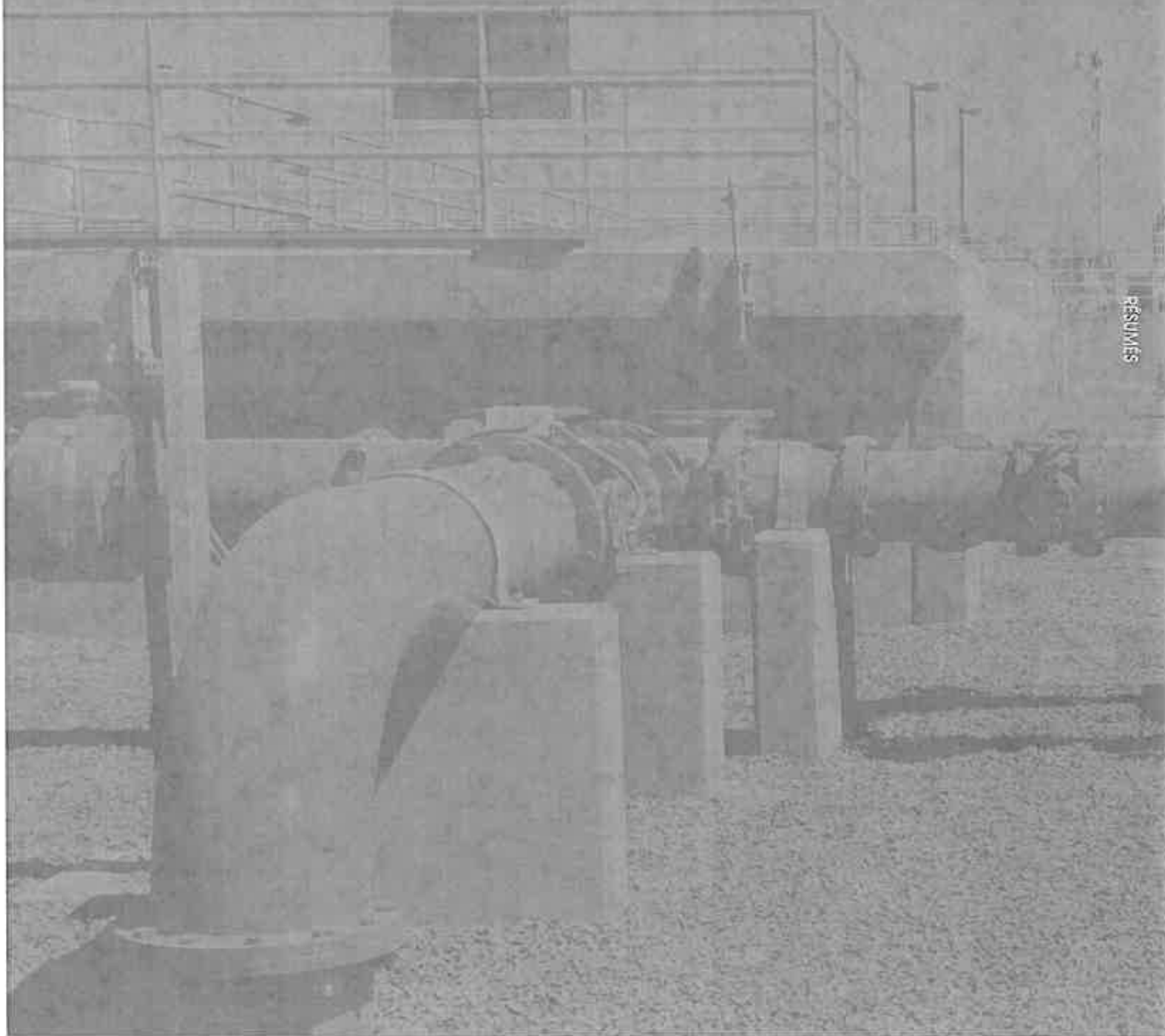
*(Women, Minority, Disabled, Veteran Business Enterprise)

Certification must be received from California Public Utilities Commission clearing House. Call Toll Free: 800-359-7998 or 415-928-6892 for additional information. Please check those that apply:

- | | |
|--|--|
| <input type="checkbox"/> Women-Owned Business | <input type="checkbox"/> African-American-Owned Business |
| <input type="checkbox"/> Disabled-Owned Business | <input type="checkbox"/> Veteran-Owned Business |
| <input type="checkbox"/> Native-American-Owned Business | <input type="checkbox"/> Hispanic-Owned Business |
| <input type="checkbox"/> Caucasian-American-Owned Business | <input type="checkbox"/> Underrepresented Asian-Owned Business |

All firms need to be registered with the Agency. Please logon to www.icua.org and under the heading of Procurements, click on the registration tab. This will allow your firm to access solicitations for the commodities or services that apply. Additionally, other agencies have access to the vendor information in the Bid Net system which will increase your access for available solicitations.

RÉSUMÉS



Jeff has 22 years of experience in water resource planning and engineering involving domestic water, reclaimed water, and sewer facilities. He has prepared more than 30 facility master-planning projects including hydraulic analyses for domestic, recycled, and sewer system designs. He has performed feasibility studies and pumping station analyses for several recycled water projects for clients, such as Irvine Ranch Water District, Orange County Water District, and City of Anaheim. In addition to the facility planning, he has designed over 40 miles of water, reclaimed water, and sewer pipelines; water and recycled water pressure-reducing stations; and water and recycled water reservoir storage analyses.

EDUCATION

BS in Civil Engineering, California Polytechnic University, Pomona, California, 1995

REGISTRATIONS

Professional Engineer #58455, State of California

PROJECT EXPERIENCE

IEUA Recycled Water Program Strategy, California (Project Manager)

Jeff prepared a program strategy for IEUA's future recycled water system to incorporate their member Agency's demands plus maximizing recycled water recharge to their spreading basins. Customer billing data and diurnal demands were evaluated for hydraulic model analyses evaluating pipeline and pump station capacities. The model required source water diurnal flow information from the treatment plants to understand the supply constraints to their system. A basin implementation strategy was developed along with system model analyses out to year 2035. A 20-year CIP was developed in 5-year increments.

IEUA 930 Zone 30-inch Recycled Water Pipeline, California (Project Engineer)

Jeff prepared the hydraulic analyses and pipeline layouts and design for approximately 12,500 lf of 30-inch diameter pipeline. The pipeline would connect a new recycled water reservoir to the existing recycled water system. The alignment of the pipeline required several Caltrans and flood control channels, including several thousand feet within the access road of the channel. Coordination and permitting was required from the Army Corps.

IEUA 1630 West Pump Station Risk Management and 1299 Zone Surge Protection Analysis, California (Project Manager)

To resolve surging and pump failure problems in the 1299 Zone and the 1630 West Pump Station, Jeff performed hydraulic model services to evaluate the system operation, system, surge and risk of pipeline failures. Technical Memorandum was prepared that recommended a new surge tank, including BCE evaluation of alternatives and risk management analysis.

IEUA On-Call Hydraulic Modeling, California (Project Manager)

Jeff managed and performed hydraulic modeling services for the Agency of their recycled water model using the InfoWater software. Hydraulic modeling was performed to support the Recycled Water Program Strategy and preparation of technical memorandums such as for the WRCWRA supply options, and City of Ontario's Euclid Ave expansion project.

IEUA Regional Plant 5 (RP-5) Recycled Water Pump Station Expansion, California (Project Engineer)

Jeff served as project engineer on a team that met the challenge of designing and delivering this project for construction to meet the IEUA's schedule of full project completion in less than seven months. The project involved upgrading IEUA's existing recycled water pump station at RP-5. The existing pump station consisted of five pumps with a total capacity of 3,100 gpm with a total dynamic head (TDH) of 208 feet. To maximize the amount of recycled water produced by RP-5 to supply customers in their 800 pressure zone, IEUA needed to increase the capacity of the pump station to more closely match the peak effluent flows from the plant, which were 13,700 gpm. The project was designed and constructed within the required schedule and budget.

* denotes projects completed with other firms

IEUA Carbon Canyon Wastewater Reclamation Facility (CCWRF) Pump Station Expansion, California (Project Manager)

Jeff was responsible for the hydraulic analysis of the Agency's recycled water system consisting of the 1050 Zone, 930 Zone, 930 Zone Reservoir, 800 Zone, RP-1 South Zone Recycled Water Pump Station, RP-5 Recycled Water Pump Station, and the CCWRF Recycled Water Pump Station to determine the optimum pump sizing for the CCWRF Recycled Water Pump Station. As a result of the analysis, the design consisted of the existing pumps replaced with five pumps of equal capacity, with four duty pumps, and one standby pump. Each pump is to have a design flow of 2,585 gpm at a total dynamic head (TDH) of 342 feet and a 300-hp motor. This provided IEUA with a pump station with a total capacity of 10,340 gpm.

IEUA Regional Plant 1 (RP-1) South Zone Pump Station, California (Project Engineer)

Jeff provided civil design services to upgrade the existing RP-1 South Zone Pump Station, which consisted of three 2,790-gpm vertical turbine pumps and one 9,330-gpm vertical turbine pump, each with variable frequency drives. The project involved adding a fifth pump with associated variable frequency drive and controls. The new pump was a 9,330-gpm vertical turbine pump with 500-hp motor and variable frequency drive. The project also included modifications to the existing control programming to incorporate the fifth pump as a standby pump to alternate duty with the existing 9,300-gpm pump. This expansion was required to be operational by the end of May 2011 to meet IEUA's summer demands.

IRWD Regional Recycled Water System Analysis, (Project Engineer)

Jeff prepared a hydraulic model analysis and pump station feasibility analyses for the IRWD's northern recycled water distribution system. The District's calibrated model, of their whole system was utilized for the analysis. Recycled water demands were estimated for various demand and operating scenarios to determine future facility layout, sizing, and capacities. Pump design analysis was performed to verify pump curves for their Multi-Zone Pump Station. Several alternatives for a pump station layout were evaluated, with recommendations and project costs provided.

IRWD Orchard Hills Zone A-C Recycled Water Pump Station and Zone C Pipelines, California (Project Engineer)

Jeff performed the planning and system layout analyses for the design of the pump station and 16-inch pipelines to serve the future developments. The pump station has a capacity of 6,000 GPM located on a site near the IRWD Rattlesnake Complex. Three hydropneumatic surge tanks are located on the site to handle both suction and discharge surge pressures. The project consisted of the preparation of a preliminary design report, and the preparation of construction plans and specifications.

IRWD Randall Street Domestic Water Improvements, Orange, California (Project Engineer)

Jeff prepared plans and specifications, including cost estimates, for the Lolita and Randall Street Domestic Water Improvements projects. The project included approximately 1,300 LF of 8-inch PVC pipeline in existing streets, including traffic control for the congested Santiago Canyon Avenue. Improvements were required due to an old 8-inch steel pipeline that was leaking and needed to be abandoned. Pipeline improvements and services were reconnected the existing system to the new pipeline, including connections and valves to IRWD's intertie with City of Orange, along with service meter reconnections.

IRWD Orange Park Acres Transmission Main Replacement/Fire Flow Improvements, Irvine, California (Project Manager)

Jeff managed design and construction support services for a new transmission main that transports well water supplies to the Orange Park Acres (OPA) service, as well as the future East Orange development area east of Jamboree Road. Stantec analyzed and recommended a new alignment and pipeline diameter for the proposed Zone 5 OPA Transmission Main. Stantec prepared construction plans, specifications, and cost estimates for approximately 3,500 linear feet of 8-inch PVC pipeline to replace old, undersized existing pipelines within their Orange Park Acres distribution system. The improvements included design for new valve installations, fire hydrant reconnections, and service meter reconnections along the new pipeline improvements. The project also involved field investigations and visits to verify hydrant and service meter locations to be shown on the plans. Due to varying pavement conditions, the plans also included a pavement replacement table on each sheet with pavement requirements described for each location.

* denotes projects completed with other firms

Robert brings 28 years of diversified experience in water resources engineering and consulting for the public sector. Robert has managed all phases of water resource projects, including conceptual planning, feasibility studies, facility design, and construction management; evaluated numerous water distribution systems; and developed facility plans to meet projected future needs. These plans have involved major infrastructure projects related to water transmission, treatment and storage facilities. Robert's extensive technical expertise includes preparing preliminary and final designs, as well as providing construction management services for water distribution facilities. He has managed design teams and construction inspectors for a wide array of projects such as water reservoirs, water booster pump stations, pressure-reducing stations, water and wastewater flow monitoring stations, wastewater lift stations, force mains, and pipelines.

EDUCATION

MBA, Business, University of Michigan, Ann Arbor, Michigan, 1986

BS, Mechanical Engineering, University of Michigan, Ann Arbor, Michigan, 1984

REGISTRATIONS

Professional Engineer #C049624, State of California

MEMBERSHIPS

Past President, Orange County Water Association

Member, American Water Works Association

Member, American Society of Civil Engineers

Member, WaterReuse Association

PROJECT EXPERIENCE

San Joaquin Marsh Improvements, Irvine Ranch Water District (Project Manager)

Robert is managing various upgrades to the water system that flows through the San Joaquin Marsh. The improvements include replacing pumps and the motor control center (MCC), installation of a new automated strainer and by-pass piping, and flow monitoring equipment to meter flows.

Santiago Creek Pipeline, Orange County Water District (Project Manager)

Robert oversaw the design of an underground concrete vault that provides access to an existing 66-inch pipeline. The project required the demolition of the existing structure and the replacement of the air-vac valve and lateral to accommodate the proposed permanent access vault. Robert also developed the construction specifications and cost estimates and provided traffic control plan oversight.

Big Canyon Reservoir Flow Metering Vault and Treatment Improvements, City of Newport Beach (Project Manager)

Robert is managing services to provide a new flow metering vault and treatment improvements within the control building at the Big Canyon Reservoir. The purpose of this project is to construct improvements that will eliminate the inability to accurately meter flows and the inadequate chemical mixing downstream. The project will remove a propeller meter, and install a static mixer and hydraulic mixer in its location. A mag meter will be installed in a vault approximately 200-feet downstream of the control building.

Randall Street Domestic Water Improvements, Irvine Ranch Water District (QA/QC)

Robert performed QA/QC services for the Lolita and Randall Street Domestic Water Improvements projects. The project included 1,300 LF of 8-inch pipeline in existing streets. Improvements were required due to an old 8-inch steel pipeline that was leaking and needed to be abandoned. Pipeline improvements and services were reconnected the existing system to the new pipeline, including connections and valves to IRWD's intertie with City of Orange, along with service meter reconnections.

Well 21 Wellhead Equipping, Yorba Linda Water District (Project Manager)

Robert managed the wellhead facilities improvements at the potable water Well No. 21. The project involved preparation of CEQA documents, bidding support, and construction management services. The capacity of the new Well No. 21 is more than 2,500 gpm.

Lincoln Ave 16" Water Main (Beach Blvd. to approx. 1,250 feet east of Dale Ave.), City of Anaheim (Principal-in-Charge, QA/QC)

Robert oversaw the design of 4,500 lf of new 16-inch ductile iron pipe (DIP). The project required installation of water main laterals in Beach Boulevard to the north and south to join the City's existing water mains.

Design with community insight

930 Zone Recycled Water Pipeline, Inland Empire Utilities Agency (QA/QC)

Robert provided QA/QC services for the design of the 30-inch recycled water pipeline to service IEUA's southwest service area. The pipeline provides recycled water to Chino and Chino Hills, as well as to a new 5-mg recycled water reservoir. The pipeline was cement mortar lined and coated steel pipe.

New Model Colony, Ontario (QA/QC)

Robert provided QA/QC services for the design of the master planned infrastructure for the development of the 3,700-acre New Model Colony (East) in southern Ontario. This project included the major public infrastructure required for the development of the site, including more than 49 miles of domestic and recycled water lines.

Jeffrey Lateral Recycled Water Relocation, Irvine Ranch Water District (Project Manager/Engineer)

Robert was responsible for final design, bid services, and construction support for the relocation of 2,500 lf of 36- and 42-inch non-potable water transmission main. Relocations occurred in an existing roadway.

Irvine Avenue and Dover Drive 24-inch Water Main Replacement, City of Newport Beach (Project Manager)

Robert managed the design for replacement of an existing 16-inch steel pipe. The replacement pipe, extending 7,500 lf, was 24-inch cement mortar lined and tape wrapped steel pipe. He also designed 3,000 feet of a new eight-inch distribution pipe to replace an existing pipeline.

Orchard Hills Domestic/Recycled Water Pump Stations, Irvine Ranch Water District (Project Manager)

Robert managed the design of two separate pump station facilities. The DW BPS is an above grade facility capable of pumping 3,000 gpm. The RW BPS is a buried facility with a pumping capacity of 6,000 gpm. Three hydropneumatic surge tanks are located on the site to handle both suction and discharge surge pressures. The project includes surge control tanks, a temporary VFD control system to handle interim demand conditions, flow meters, and yard piping.

Irvine Center Drive Water Relocation, Irvine Ranch Water District (Project Manager)

Robert was responsible for the preliminary design report, final design, and construction support services for the relocation of 1,400 lf of 18-inch diameter water transmission pipeline.

48-inch Sand Canyon Transmission Main Relocation, Irvine Ranch Water District (Project Manager)

Robert managed the design for the relocation of 9,500 lf of a 48-inch CML&C steel pipe, along with three 48-inch valve vault structures and numerous system interconnections.

Aliso Creek Recycled Water Pump Station Addition and Upgrade, Moulton Niguel Water District (Project Manager)

Robert was responsible for the expansion of an existing pump station to include the addition of a fourth pump. A hydraulic analysis was performed to determine the new pump's requirements. The project included the replacement of the existing pump control valves with swing type check valves.

Crystal Cove Zone 2 to 4 Water Booster Pump Station, Irvine Ranch Water District (Project Manager)

Robert managed the design for a buried water BPS. The project involved the design of two 250-gpm duty pumps, a 2,750-gpm fire pump, a 12-inch discharge and suction piping and valving, a 500-gallon air chamber surge tank, a dual-valve pressure-reducing/relief system, electrical and instrumentation controls, chlorination/dechlorination capabilities, a flow meter, and site improvements.

Vellano Domestic and Recycled Booster Pump Stations, City of Chino Hills (Principal in Charge)

Robert oversaw the design for two domestic and recycled water booster pump stations. Each pump station housed two domestic water pumps and two recycled water pumps in the same building, but in separate pump rooms, and integrated with the City's telemetry system.

K-12 Educational Center Reservoir and Booster Station, Coachella Valley Water District (Project Manager)

Robert was the project manager of a hydropneumatic booster pump station. Primary components of the pump station include use of two jockey pumps, four variable-frequency drive duty pumps, three fire pumps, and two spare pump cans.

Trilogy at Glen Ivy Domestic Water Booster Station, Lee Lake Water District (Project Manager)

Robert managed the design for a 4,000 gpm capacity domestic water booster pump station. The station was integrated with the telemetry system.

Nancy has more than 25 years of experience in the Water Industry and Civil Engineering fields in both private and public sectors. She has extensive knowledge in developing water and sewer master plans, as well as managing construction for large diameter transmission mains, pumping stations, water storage reservoirs and small capacity wastewater treatment plants. Her expertise includes complete design and construction for sewage lift stations, pressure reducing stations, and water reclamation projects.

EDUCATION

BS, Civil Engineering, California State University,
Long Beach, Long Beach, California, 1999

REGISTRATIONS

Professional Engineer #67448, State of California

MEMBERSHIPS

Member, Orange County Water Association

Member, American Water Works Association

PROJECT EXPERIENCE

Lincoln Ave 16" Water Main (Beach Blvd. to approx.
1,250 feet east of Dale Ave.), Anaheim, California
(Senior Project Engineer)

Nancy provided civil engineering designs to install approximately 4,500 lf of new 16-inch ductile iron pipe (DIP) in Lincoln Avenue between Beach Boulevard and 1,250 lf east of Dale Avenue. The project also required installation of water main laterals in Beach Boulevard to the north and south to join the City's existing water mains. Nancy's effective coordination with the City ensured completion within the expedited schedule and budget.

Bombero Street 6-inch Recycled Water Pipeline,
Newport Beach, California (Project Engineer)

Nancy provided civil engineering design services for the preliminary and final design of a 500 lf, 6-inch diameter pipe recycled water pipeline in Bombero Street. The project included a feasibility study and hydraulic analysis for converting existing potable water customer meters serving landscape demands to a new recycled water system. The project included alternatives system layouts and sizing, phasing, and meter vault requirements and points of connection requirements from the OCWD pipeline.

Richfield Road Transmission Main, Anaheim,
California (Project Engineer)

Nancy provided civil engineering design services for the design of an approximately 2,145 feet steel pipe water main with diameters up to 36 inches. The steel water main will be installed to convey water from YLWD Well No. 21 to the nearby chlorination plant. Two chlorine injection vaults will be installed along the alignment near the chlorine injection plant. A static mixer will be installed immediately downstream of each of the injection vaults. One chlorine analyzer manhole will be constructed downstream of each of the static mixers. Two 1-1/2 inch chlorine injection lines, encased in 6-inch Schedule 40 PVC conduits, will be used to inject chlorine into the water main, while two 1-1/2 inch chlorine analyzer lines, encased in 6-inch Schedule 40 PVC conduits, will be used to relay analytical results back to the plant. Complete designs are being reviewed by the client.

1630 East and West Pump Station Improvements,
Ontario, California (Project Engineer)

Nancy is providing preliminary and final engineering services for the replacement of the existing check valves and adding a new surge tank to the suction side of the existing pump station. The pump station experienced significant surging and pump failures, and to resolve the problem, Stantec was retained to analyze and provide design solutions. A new 1,000 cf surge tank, along with air compressor, and new electrical controls have been designed for the facility.

Main Replacement Project*, Various Locations,
California (Project Manager/Project Engineer)

Nancy managed and designed over 400,000 linear feet of water main replacement projects in multiple locations throughout California. She prepared water main plan layouts within street right-of-ways and easements, and researched existing locations. The plans also included main trench details, street pavement sections, fire hydrant connections, and water service connections to the water meter box. Nancy worked closely with the client and permitting agency to provide all standard notes and prepare plan views showing alternative construction for department of public health approval.

* denotes projects completed with other firms

Big Canyon Reservoir Flow Metering Vault and Treatment Improvements, Newport Beach, California (Project Manager)

The City of Newport Beach owns and operates the Big Canyon Reservoir, a two-hundred-million-gallon potable water reservoir. A flow metering vault on the west side adjacent to the control building is needed for access to the 30-inch Zone 2 pipeline. Treatment improvements in the control building on the 42-inch effluent pipeline are also needed. The pump station that takes suction from the reservoir has a failed variable frequency drive (VFD). Nancy is managing design replacements for both pump stations' VFDs. Additionally, the disinfection system from the reservoir does not dose properly due to inaccuracies in the flow rate measurement in the low flow ranges. Stantec is designing a new flow metering vault further downstream that will more accurately measure flow rates throughout all operating conditions. A new chemical mixing device will be added where the existing meter was located.

Lake Marie Well #5*, Santa Maria, California (Project Manager)

Nancy was the Project Manager/Engineer for the development and equipping of a new 500-gpm domestic water production well within an existing plant that included a partially buried reservoir. Because there was no local drainage system, Nancy designed an above grade HDPE pipelines to carry the water from the well site, through a residential neighborhood, to a pond owned and operated by the Lake Marie Country Club 2,000 feet away.

Orange Park Well Rehabilitation Study*, Orange County, California (Project Manager/Project Engineer)

Nancy prepared an evaluation study to size a new submersible well pump and new motor control center (MCC) to replace an existing vertical turbine well pump and MCC. The well supplies water to the Santiago Hills Zone 5 Reservoir through a network of nearly century-old pipes that were in poor condition and expected to be replaced within the next five years. The new pump was sized to meet the current system conditions and is capable of increasing capacity to meet future system needs.

I-5 Freeway Crossing Segment 3 and 4*, Norwalk, California (Project Manager)

Nancy managed design efforts to relocate two water pipelines impacted by the I-5 Freeway Widening Project in Norwalk. The project used jack and bore to move the impacted pipelines within Caltrans right-of-way underneath I-5 at two separate locations. Nancy effectively coordinated with Caltrans and adjacent utilities to complete the pipeline relocation.

Large Valve Replacement Project*, Long Beach, California (Project Manager/Project Engineer)

Nancy was the project manager and engineer for two, 30-inch diameter isolation valve replacements located at critical locations within the LBWD water distribution system. Nancy worked closely with LBWD operations and used 30-inch line stops to minimize system interruptions.

Hawaiian Plant Performance Enhancement Project*, Lakewood, California (Project Manager/Project Engineer)

Nancy managed and designed improvements an existing water treatment plant that treatment to an on-site groundwater well with high levels of manganese, iron and arsenic. To increase the system's effectiveness, she designed a mixing system and control valves to control the TDS concentrations in the backwash tank prior to discharge to the City sewer system; replaced the existing sodium bisulfate storage tank, chemical metering pump, and chemical piping with a new ferric chloride feed system; replaced existing propeller flow meter with a magmeter flowmeter; installed a new chemical injection vault with static mixers; and installed a new programmable logic controller.

Valley Crest Booster Pump Station and Reservoir*, Apple Valley, California (Project Manager/Project Engineer)

Nancy managed and provided designs for a 0.60 MG steel tank reservoir and pump station located within the historical Sunset Hills Memorial Park & Mortuary in Apple Valley California. The pump station design included three (3) vertical turbine pumps with electric motors ranging from 10 to 40 hp, flow metering, piping, instrumentation and controls, motor control center, electrical equipment and site work. Site work included design of an earthen berm to screen the pump station from view of the mortuary and on-site detention basin for retention of on-site water.

* denotes projects completed with other firms

Marty brings more than 25 years of electrical engineering and project management experience to a project team. His expertise include the design of medium voltage (2.4kV - 46kV) power distribution, low voltage (120V - 600V) power distribution, exterior area lighting, street lighting, interior lighting, grounding, traffic signals, lightning protection, fire alarm, telecommunications, access control, closed circuit television, integrated security, intercom, public address, distributed control systems, and PLC/HMI control systems for design-build, CMAR, and conventional delivery projects.

EDUCATION

BS, Electrical Engineering, University of Arizona, Tucson, Arizona, 1989

REGISTRATIONS

Professional Engineer #E1 6438, State of California

MEMBERSHIPS

LEED Accredited Professional, U.S. Green Building Council

PROJECT EXPERIENCE

Water

Inland Empire Utilities Agency Recharge Master Plan Update (RMPU) Yield Enhancement Improvements, Inland Empire, California (Engineer of Record)

Marty engineered the water retention basin power distribution, lighting and process control systems. He established a new electrical service for the power distribution system and integrated a wireless communication system with the agency's existing process control system.

Inland Empire Utility Agency Turner Basin Recharge Improvements, Chino, California (Engineer of Record)

Marty engineered the 240V power distribution system and integrated instrumentation into the existing process control system. Overall efforts provide additional recharge water, as well as a hydraulic head, creating the potential to store more water in additional basins.

Inland Empire Utility Agency Carbon Canyon Recycle Water Pump Station Expansion, Chino, California (Engineer of Record)

Marty engineered the pump station's power distribution, grounding, lighting, motor control and process control systems. The power distribution system designed included upgrading a medium voltage transformer to accommodate the larger motor load. The process control system was integrated with the plant's existing process control system.

Big Canyon Reservoir Flow Metering Vault and Treatment Improvements, Newport Beach, California (Engineer of Record)

Marty engineered the reservoir's pump station variable frequency drive (VFD) replacement. The existing 18 pulse VFD will be replaced with newer technology and retrofitted into the existing process control system.

San Joaquin Marsh Improvements, Irvine, California (Engineer of Record)

Marty engineered multiple improvements to the natural filtration marsh. The influent pump station MCC will be replaced with an MCC that implements variable frequency drives (VFDs) as required to modulate the influent flow based on San Diego Creek's flow rate, which feeds the marsh. Wireless flow meter monitoring was added as required to better monitor and control the natural filtration system.

Water System Improvements, Kiowa, Colorado (Engineer of Record)

Marty engineered the 480V power distribution system for the system improvements.

Water Transmission Main and Pump Station, Apache Junction, Arizona (Engineer of Record)

Marty engineered the 480V normal and standby power systems for the pump station. He also designed the motor controls, lighting, grounding and process control system for the pump station.

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**Barton Pump Station, Ann Arbor, Michigan
(Engineer of Record)**

Marty engineered the 15kV and 480V power distribution system for the pump station. He also designed improvements to the buildings power and lighting systems.

**West High Service Water Delivery System
Improvements, Ann Arbor, Michigan (Engineer of
Record)**

Marty engineered the 15kV and 480V power distribution system for the water delivery system. He also designed the new building's power, lighting and fire alarm systems.

**Well # 14 Standby Power System, Hamilton, Virginia
(Project Engineer)**

Marty engineered the 480V standby power distribution system for a well pump station.

**Hualapai Indian Reservation Peach Springs Water
Distribution Improvements, Peach Springs, Arizona
(Engineer of Record)**

Marty engineered the 480V power distribution system and motor controls for the water distribution system improvements.

**Edmonton Power Corporation Chaparral City
Water Company - Well 11 Electrical Equipment
Rehabilitation, Fountain Hills, Arizona (Engineer of
Record)**

Marty engineered the 480V power distribution system improvements to an existing well pump station.

**Adaman Water District ADOT SR-303L Segment 3 -
Utility Relocation, Phoenix, Arizona (Engineer of
Record)**

Marty engineered the 480V power distribution system and motor controls for the relocation of a well pump station.

**City of Rio Vista Trilogy Wells & Well 10 Arsenic
Treatment Project, Solano County, California
(Engineer of Record)**

Marty engineered the power distribution system required to serve the arsenic treatment system.

**Gila Indian Reservation Pima Maricopa Irrigation
Project - West Side Acres Pipeline Turnouts,
Maricopa, Arizona (Engineer of Record)**

Marty engineered the 208Y/120V power distribution system and cellular wireless process control system for the canal valve and metering station. He also engineered the process automation system.

**Gila Indian Reservation Pima Maricopa Irrigation
Project - WS-10 Level Top Canal, Maricopa, Arizona
(Engineer of Record)**

Marty engineered the 208Y/120V power distribution system and cellular wireless process control system for the canal valve and metering station. He also engineered the process automation system.

**Edmonton Power Corporation Chaparral City
Water Company - ARC Flash Study, Fountain Hills,
Arizona (Project Engineer)**

Marty managed the arc flash study performed on all of the water company's power distribution systems.

**Edmonton Power Corporation Chaparral City
Water Company - Water Tank Photovoltaic System,
Fountain Hills, Arizona (Engineer of Record)**

Marty engineered the photovoltaic solar power system to serve the water tank's remote telemetry unit.

**Salt River Project Horseshoe Dam Improvements,
Maricopa County, Arizona (Engineer of Record)**

Marty engineered the 208Y/120V power distribution system for the building that houses the dam's discharge pipeline valves and for the solenoid actuated valves. He also engineered the process automation system.

**Navajo County Public Works Complex Water
Storage and Pump Station, Holbrook, Arizona
(Engineer of Record)**

Marty engineered the pump stations 480V power system, motor control system and process automation system.

Dennis' experience includes providing project management, asset management consulting and implementation assistance of computerized maintenance management (CMMS) and asset management (AM) applications, for municipal infrastructure including water and wastewater treatment plants, sewer and storm water collections systems, potable water distribution systems, buildings, fleet services and streets. Dennis' other experience includes setup and configuration of water quality tracking systems to facilitate Federal and State reporting requirements for wastewater treatment plants. Other skills include process and work flow reengineering, more than 20 years of writing and production of technical manuals for operations, maintenance, repair; training curriculum development and classroom and online training in both private and public sectors; and the development of Internet-based interactive manuals.

EDUCATION

A.S., Electronics Technology, Cabrillo College, Aptos, California, 1973

MEMBERSHIPS

Member, California Water Environment Association

PROJECT EXPERIENCE

South San Joaquin Irrigation District - Division 9 Irrigation Enhancement Project, San Joaquin County, California (Technical Writer/Developer)
Dennis was responsible for the concept and development of the Operator's Guide and online Help manual for the water distribution system, formatted for access via the Internet.

Operations and Maintenance, Various O&M Manual Projects, California

Dennis developed operations and maintenance manuals including some interactive Internet-based manuals for projects in California including:

- *City of San Andreas WWTP, San Andreas, CA*
- *City of Merced WWTP, Merced, CA*
- *City of Grass Valley WTP, Grass Valley, CA*
- *City of Live Oak WWTP, Live Oak, CA*
- *City of Williams WWTP, Williams, CA*
- *City of Angels WWTP, Angels, CA*
- *City of Auburn, WWTP, Auburn, CA*
- *City of Fairfield WWTP, Fairfield, CA*

San Andreas Sanitary District Interactive Online Manual (IOM), San Andreas, California (Technical Writer/Developer)

Dennis was responsible for the organization, technical writing and formatting of operations and maintenance documentation for access via an Internet platform.

City of Merced Wastewater Treatment Facility (Phase I-V), Merced, California (Asset Management Specialist)

Services included project management, consulting and implementation assistance of an asset management application for the wastewater treatment plant. Other services included process and work flow mapping, training, setup of a work order scheduling process, and technical writing for the operations and maintenance manual.

San Andreas Sanitary District Computer Maintenance Management System (CMMS), San Andreas, California (CMMS installation and database population, and water information management system)

Services included project management, consulting and implementation assistance of a CMMS application for the wastewater treatment plant. Other services included process and work flow mapping, onsite and online training, the implementation and programming of a water information management system, the development of self-monitoring reports (SMR) to meet state reporting requirements, technical writing for the operations and maintenance manual, and development of an Internet-based, interactive O&M manual.

City of Lathrop Wastewater Collection System, Lathrop, California (Asset Management planning, implementation and integration)

Dennis provided project management, consulting, and implementation assistance of an asset management application tied to existing GIS for a City-wide sewer collections system, including lift stations. Other services included the implementation of a work order scheduling process.

* denotes projects completed with other firms

Design/Build contracting firm

City of Lincoln Wastewater Treatment and Reclamation Facility, Lincoln, California (Asset Management Specialist)

Dennis provided project management, consulting and implementation assistance of a CMMS application for the wastewater treatment plant. Other services included process and work flow mapping, training and the implementation and programming of a water quality information management tracking and reporting system, and the development of self-monitoring (SMR) and discharge monitoring reports (DMR) to meet state and federal reporting requirements.

City of Lathrop Potable Water and Recycled Water Systems, Lathrop, California (Asset management planning, implementation and integration)

Services included project management, consulting, and implementation assistance of an asset management application tied to existing GIS for a City-wide potable and separate recycled water distribution systems, including pump stations. Other services included the implementation of a work order scheduling process.

City of Lathrop Storm Water Collection System, Lathrop, California (Asset management planning, implementation and integration)

Services included project management consulting and implementation assistance of an asset management application tied to GIS for a City-wide storm drainage system, including lift stations and emergency storage basins. Other services included the implementation of a work order scheduling process.

Coastside County Water District Computer Maintenance Management Services (CMMS), Half Moon Bay, California (Asset Management Specialist)

Services included consulting and implementation assistance of an asset management application for multiple pump stations, wells, and two water treatment plants. Other services included process and work flow mapping, identifying and tagging assets, onsite training and the implementation of a work order scheduling process.

City of Ceres Sewer System Capacity Assessment, Update, and Sewer Master Plan, Ceres, California (Asset management planning, implementation and integration)

Services included project management, asset management consulting and implementation assistance of an asset management system for the wastewater treatment plant and sewer collections system as part of a city-wide master plan. Wastewater and collections database input included condition and risk assessment, purchase date, value or installation cost, and asset life. Other services included process and work flow mapping, setup of a work order scheduling process, classroom and online training, and the addition of fleet services management.

PUBLICATIONS

Presentation. Interactive Online Manual: Access Anywhere!. CWEA Regional Conference, 2012.

Presentation. Comprehensive Asset Management: A Predictive & Dynamic Decision Making Tool. CWEA Regional Conference, 2009.

The 80/20 Rule and Asset Management ROI. CWEA Regional Conference, 2009.

* denotes projects completed with other firms

Chris has professional experience in planning, design, and construction administration of public works projects including water supply, transmission, storage, pumping, and distribution; wastewater collection, pumping, treatment and reuse; drainage hydrology, runoff collection, and conveyance; and site development. He has been directly involved with designs and project coordination through various agencies including Arizona Department of Environmental Quality, Arizona Department of Transportation, U.S. Air Force, EPA, Corps of Engineers, and local entities across Arizona.

EDUCATION

BS, Civil Engineering, Arizona State University, Tempe, Arizona, 1993

MS, Civil Engineering, Arizona State University, Tempe, Arizona, 1995

REGISTRATIONS

Professional Engineer #31713, State of Arizona

MEMBERSHIPS

Member, American Public Works Association (Arizona)

Member Representative, Society of American Military Engineers, Phoenix Post

PROJECT EXPERIENCE

Marana Wastewater Treatment Facility, Marana, Arizona (Lead Design)

Chris provided treatment for the existing service area and new planned development. Stantec provided all design upgrades for the Marana Wastewater Treatment Facility since the initial conversion from a lagoon facility in early 2000. We were selected in 2006 to design a 6.0 MGD expansion in 1.5 MGD increments. However, due to significant development pressures, the facility was eminent danger of overflowing. Stantec recommended using one of the old lagoons to construct a 0.5 MGD Biolac interim expansion. The increased treatment capacity was designed, permitted, and constructed via CM@Risk alternate delivery method in less than 15 months for less than \$3 a gallon. Due to a slowdown in development and pending litigation between Pima County and the Town of Marana, the construction of the remaining upgrades went on hold. We also provided technical assistance to meet the permitting requirements and operator training as part of our post-design services, as well as assistance with commissioning.

91st Avenue Wastewater Treatment Facility Process and Training Support (Project Engineer)

Chris provided training for operations and engineering staff that support 91st Ave WWTP on various topics, including BNR, 2-stage anaerobic digestion and wetlands. Providing on-call process analysis for specific questions or problems at the WWTP.

Lift Station 41 Odor Control, Phoenix, Arizona (Project Manager/Engineer)

Stantec completed a comprehensive odor control Technical Memo for the 13.0 MGD (currently receiving 3.1 MGD) Lift Station (LS) 41 located in southeast Ahwatukee. The Technical Memo recommended a soil biofilter to be installed at LS 41 based upon the testing results, a 25-year life cycle cost analysis, and operation and maintenance requirements. Stantec is designing the soil biofilter utilizing the space where the existing wet scrubber is located. We are planning to use carbon units for odor control during construction.

El Prado Sewer Line, Yuma, Arizona (QA/QC)

The 126-lot mobile home park currently discharges sewage via a 5-mile force main into the City of Yuma collection system, which is co-owned by a private development. This long force main has led to odor and corrosion problems in the City collection system and co-ownership of the force main has led to operational and maintenance problems. The County, the City, and Stantec collaborated to resolve both problems and determined that separating the two systems would be best. A new 1.5 mile, 3-inch diameter force main will be connected to the Terraces at the View Lift Station and a small vapex odor control unit will be installed to control hydrogen sulfide issues.

Nogales International Wastewater Treatment Plant, Nogales, Arizona (Project Engineer)

Chris prepared a design study for final sludge disposal at the IWWTP site. During the startup, Chris assisted with the operation of the new facility.

* denotes projects completed with other firms

Design with community in mind

Town of Clarkdale Wastewater Treatment Plant Modifications, Clarkdale, Arizona (Project Manager)

Chris designed interim modifications to a 250,000 gpd Aeration Lagoon/Stabilization Pond wastewater treatment plant that was not meeting State of Arizona effluent discharge or direct reuse standards. The modifications are to improve the effluent quality to Class B direct reuse standards so that it can be used on a restricted access landscape irrigation site in Clarkdale. These interim improvements to the wastewater treatment plant include installing new pumps to deliver the effluent to the reuse site, an automatic strainer to reduce suspended solids, effluent meter to monitor flow, algae removal system, and sodium hypochlorite injection system to provide disinfection.

Central Mesa LRT Extension, Mesa, Arizona (Design Engineer and QA/QC)

Chris completed the design for utility relocation on Main Street from the end of the starter line to Ashland, as well as design for improvements to the City of Mesa water and sewer lines in the vicinity of the rail. In total, almost 2 miles of new 12-inch and 8-inch waterline was installed and 0.5 miles of 8-inch and 12-inch sewer lines. In addition to the new mains, rehabilitation for a mile of 12-inch sanitary sewer and manholes was completed. All work was completed to City of Mesa 2012 Design Standards.

RP-5 Recycled Water Pump Station Expansion, California (Project Engineer)

Chris designed the expansion of the RP-5 recycled water pump station that included the addition of five new 150 HP vertical turbine pumps. The expanded facility provides a greater capacity to deliver recycled water from RP-5 to IEUA's distribution system.

RP-1 930 Recycled Water Pump Station Expansion, California (Project Engineer)

Chris designed the addition of a second 500 HP vertical turbine pump at the RP-1 930 Zone Recycled Water Pump Station. The new 500 HP pump provides critical redundancy for the IEUA recycled water system.

Val Vista Water Transmission Main, Phase 2, Mesa, Arizona (Design Engineer)

Chris designed 2.3 miles of 60-inch diameter reach transmission main, including utility coordination and relocation, a Salt River Project canal and box culvert crossing, corrosion control design, transportation system analysis, and isolation valves.

Town of Clarkdale Broadway Water Reclamation Facility, Clarkdale, Arizona (Project Engineer)

Chris provided engineering services for the planning and design of a new 600,000 GPD Water Reclamation Facility. The new WRF increases the town's current wastewater treatment capacity from 0.25 MGD to 0.65 MGD, expandable to 1.8 MGD, to serve the population growth in the area. The WRF replaces the existing wastewater treatment plant and produces a higher quality effluent that could provide more reuse options for the town while allowing the discharge of effluent into a tributary of the environmentally protected Verde River. The SBR system reduces total nitrogen and phosphorus concentrations to satisfy direct reuse and discharge permit requirements. The WRF also includes a sludge drying facility and new control and lab building.

City of Apache Junction Water Transmission Main and Booster Pump Station, Apache Junction, Arizona (Project Engineer)

Chris designed approximately 3.5 miles of 16-inch diameter ductile iron water transmission main and appurtenances along Baseline Road from the City of Mesa to Apache Junction. Special features included modeling of the Mesa and Apache Junction water systems, design of a pump station, CAP crossing, utility coordination, extensive surface features, and existing system connections.

Town of Clarkdale Broadway Water Reclamation Facility, Clarkdale, Arizona (Project Manager/Lead Civil Engineer)

Chris provided coordination of this multidisciplinary project including the civil, electrical, structural, and landscape architecture design. As the lead civil engineer, he will develop the design report, prepare the aquifer protection permit application, and provide calculations. He is also provided site work design, headworks, treatment process, clarifiers, filters, UV disinfection system, sludge drying facility, odor control facility, and an effluent storage and conveyance system.

* denotes projects completed with other firms

Michael has extensive experience in conducting fluid transient analysis studies, as well as mitigation design for both existing and new water and wastewater systems. He represents a unique blend of practical design and computer simulation expertise. With more than 20 years of experience in conducting modeling assignments and water, and wastewater conveyance system design, he ensures proposed solutions are practical and constructible. Michael has completed more than 50 hydraulic transient (water hammer) projects at locations throughout North America. These projects included analyzing existing and proposed systems to quantify the magnitude of potential pressures that could be experienced under various transient inducing events and recommending measures to eliminate, or mitigate, the transient pressures.

Potential mitigation measures can include both operational and design recommendations. Operational measures include recommending the sequencing and timing of pump start-ups and shut-downs, as well as recommended times for valve closures. Design recommendations include assisting in determining the type and pressure class of pipe to be used in a project, specifying appropriate check, air release, vacuum, surge anticipating, pressure relief, and combination valves, and sizing air chambers. Michael has constructed transient models using Pipe 2010: Surge by KYPipe, AFT Impulse by Applied Flow Technology, and HAMMER by Bentley Systems.

EDUCATION

BS, Civil Engineering, University of Arizona, Tucson, Arizona, 1991

REGISTRATIONS

Professional Engineer #33988, State of Arizona

PROJECT EXPERIENCE

Transient Analysis

Seymour-Capilano Filtration Project, Capilano Pumping Station Transient Analysis Update and Field Testing, Vancouver, British Columbia (Transient Analyst)

Michael updated the previously completed transient analysis for the 285 MGD Capilano pumping station, which includes eight 2,000-Hp pumps and is one of the largest municipal water pumping stations in North America. Recommended and provided specifications for surge-suppression air valves that release air from the raw water main slowly to eliminate the occurrence of full vacuum conditions. Recommended pump control valve closure time after power failure, or an emergency stop command has been issued, and recommended high pressure relief setting for surge relief valves.

He developed a detailed field testing plan to confirm model results and the effectiveness of the surge mitigation measures. The field testing plan evaluated high speed pressure data loggers, identified data logger locations for the hydraulic transient field tests, and identified additional information needed from the computerized data acquisition and control, as well as the SCADA systems. Coordinated three days of hydraulic transient field tests and then compared model versus field results to ensure agreement.

Campbell River Highway 28 Watermain, Hydraulic Transient Analysis, Campbell River, British Columbia (Transient Analyst)

Michael completed hydraulic and transient analyses for pump station and highway watermain. Efforts associated with analyses included recommending the location of a pressure sustaining valve (PSV) to maintain minimum pressures within the pipeline; estimating the additional pump head needed to accommodate the PSV; recommending the pipe to be designed to withstand full vacuum conditions; confirming the size, location, and type of air valves needed; confirming the pipeline pressure class; and determining that a surge-anticipated valve on the discharge header of the proposed pump station is not needed.

* denotes projects completed with other firms

Ship Creek Energy Recovery Station, Anchorage, Alaska (Transient Analyst)

The AWWU Ship Creek Water Treatment Facility Heat Exchanger project includes a number of improvements to Ship Creek Energy Recovery Station (SCERS). These improvements include installation of heat exchangers and the installation of pressure reducing valves (PRVs) within the SCERS Building. The transient analysis focused on evaluating operation of five of the new PRVs within the SCERS Building. These PRVs include two PRVs that will convert Phase I, II, III, and IV segments of the South Anchorage Loop Line to operate at an HGL of 475 instead of 630; two PRVs to replace an existing 16-inch sleeve valve and supply the 347 HGL Pressure Zone and Reservoirs 1 and 2; and a PRV to provide surge protection to the 475 HGL pressure zone by discharging into the 347 HGL pressure zone. Efforts associated with the transient analysis included recommendations for closure times of the PRVs at the SCERS, evaluating the impacts of the pump on the inlet side of the air heat exchanger, and confirming the need for the surge relief PRV.

Veterans Memorial Parkway Station, Transient Analysis, Colwood, British Columbia (Transient Analyst)

As part of the VMP PS Design, a fluid transient analysis was completed to provide operations and surge mitigation design recommendations to minimize pressure fluctuations within the Sooke Lake Reservoir head tank to Fulton Reservoir pipeline. The analysis estimated maximum and minimum pressures experienced within the system for various operating conditions such as pump start-up and shut-down. Operational recommendations included using a two-stage pump ramp-up and ramp-down time for the VMP PS pumps of 60 seconds. In addition, the design included a surge relief valve on the pump station discharge header.

Lynden Water Treatment Plant, Lynden, Washington (Transient Analyst)

Michael completed transient analysis for 6 MGD pumping station delivering finished water from City of Lynden Water Treatment Plant to Fairgrounds storage tank through 6,500-foot of 16-inch water transmission main. Based upon model results, confirmed transmission main pressure rating, recommended installation of surge-suppression air valves near the water treatment plant, provided three types of surge-suppression air valves for consideration by the design team, recommended 60-second period for pump start-up and shut-down, and recommended consideration of two stage pump start-up and shut-down.

Mountain Regional Water Services Commission, Bowden-Innisfail Alignment Contract 8, Bowden, Innisfail, Alberta (Transient Analyst)

Michael completed a fluid transient analysis to support design of 42-km, 600-mm diameter water supply pipeline. Evaluated pipe material pressure class and recommended pump start-up and shut-down times, as well as control valve closure rates. Also recommended surge-suppression air valves and identified air valves locations to limit minimum pressures experienced in the pipeline after a downsurge to one-half full vacuum pressure. Provided three types of surge-suppression air valves for consideration by the design team.

Metro Vancouver Seymour-Capilano Filtration Plant: Seymour Raw Water Delivery System, Vancouver, British Columbia (Transient Analyst)

Michael completed a fluid transient (water hammer) analysis for delivery system to convey raw water from the Seymour Reservoir to the Seymour-Capilano Filtration Plant. Analysis included 10,600 m of existing 2,300 mm raw water main and evaluating closure characteristics of 1200 mm ball valve.

Lake Huron Primary Water Supply System, Middlesex Centre, Ontario (Transient Analyst)

Michael performed a fluid transient analysis; which included modeling two pumping stations, 48 km of 1,200 mm steel transmission main, 52 air valves, and four air chambers; to determine if hydraulic transients contributed to a break the transmission main. Recommendations were provided to prevent column separation and minimize hydraulic transients within the pipeline and included replacing the existing air/vacuum valves with triple-acting air valves at three locations and revising the opening and closing time of all control valves to a minimum of 180 seconds.

PUBLICATIONS

Air Valves and Hydraulic Transients. 86th Annual AZ Water Conference and Exhibition, 2013.

Grace Under Pressure: Protecting Your Pumps and Pipes from Fluid Transients. 82nd Annual Arizona Water and Pollution Control Association's Conference and Exhibition, 2009.

* denotes projects completed with other firms

Ray is a licensed professional land surveyor with 24 years of experience in the surveying and mapping industry. He manages a talented staff of professionals on projects of varying magnitude and complexity, ranging from transportation projects to residential properties, commercial and industrial site developments, and master-planned communities.

Ray's experience includes right-of-way engineering, geodetic control, tentative and final subdivision mapping, preparing ALTA/ACSM land title surveys, and construction surveys. He has extensive knowledge of GPS-related applications, field data collection, and boundary retracement. Ray also has a high degree of technical expertise to field operations and instrumental in enhancing and streamlining many field procedures that have contributed to increased productivity and efficiency.

EDUCATION

BS, Engineering Technology, Construction,
California State Polytechnic University, Pomona,
Pomona, CA, 1990

REGISTRATIONS

Professional Land Surveyor #7185, State of
California

PROJECT EXPERIENCE

Inland Empire Utilities Agency Recharge Master
Plan Update (RMPU) Yield Enhancement
Improvements, Inland Empire, California (Project
Surveyor)

Ray is providing aerial topography, basemapping, and field surveys for this project involving the feasibility of modifying nine basins to store and recharge additional storm water runoff. The project will also increase recycled water recharge.

Inland Empire Utilities Agency On-Call Design
Surveying and Related Services, Riverside,
California (Principal)

Ray is overseeing the recent task orders assigned under Stantec's contract for on-call surveying services of IEUA. His tasks have included peer review of legal descriptions and topographic surveys for the Regional Water Recycling Plant Number 4. The surveys were performed in conjunction with proposed grading and drainage improvements.

Upland Basin Expansion, Upland, California (Project
Surveyor)

The scope consisted of expanding the existing basin from a capacity of 350 acre-feet to an ultimate capacity of 1,050 acre-feet. Other details involved with the project included flood routing, structural design of inlet structures, geotechnical investigations, and permitting efforts for a spillway structure with the U.S. Army Corps of Engineers.

La Palma Recharge Basin, Anaheim, California
(Project Surveyor)

Ray provided surveying services for the La Palma Recharge Basin in the Anaheim Canyon Business Center Specific Plan in Anaheim, California. This project involved redevelopment of a previous industrial site into a new groundwater recharge basin. Located between La Palma Avenue and Coronado Street, the new basin provides an additional 51,000 acre-feet of recharge per year to the ground water basin. Stantec provided civil and mechanical design, including survey and mapping services, grading plan and site improvement plans, pipeline improvement plans, dewatering pump system design, electrical and SCADA design services and plans, geotechnical services and recommendations, structural engineering services, bidding and construction support services, and landscape improvement plans. Our close coordination with the City of Anaheim, OCWD, Orange County Public Works Department, County of Orange, and electrical and geotechnical subconsultants was critical in meeting the project's overall budget and schedule.

River Trails Recharge Basin, Anaheim, California
(Survey Manager)

Ray directed the work for the River Trails Recharge Basin. The scope of services included designing the facility that had an excavated basin with a storage volume of approximately eight acre-feet; a 24-inch pressure pipeline from the Santiago Pipeline (located about 800 feet southerly of the basin) to the northerly end of the basin; a drain pipe from the basin to the Fletcher Flood Control Channel (located about 300 feet northerly of the basin); a motor-operated valve (MOV) and isolation valves; a flow meter; and an enclosed Supervisory Control And Data Acquisition (SCADA) system for remote operation of the MOV and for monitoring basin operation data. These facilities were designed to supply the necessary daily volume of water from the existing Santiago Pipeline to maintain the estimated percolation rate (2.5 feet per day) on a continuous basis.

* denotes projects completed with other firms

Design with community in mind

Orange County Sanitation District On-Call Surveying Services, Orange County, California (Principal)

As principal, Ray is overseeing the recent task orders assigned under our three-year contract for on-call surveying services. His tasks have included construction staking and as-built surveys for the J-106 gas line, topographic surveys for the operations center, and legal descriptions for the Rocky Point Pump Station.

On-Call Surveying and Mapping Services, Costa Mesa, California (Survey Manager)

Ray was responsible for providing on-call surveying and mapping related services for the Mesa Consolidated Water District. The two-year contract was originally issued in 2003, and was renewed in 2005 for an additional year. Services included hand and CADD drafting to update existing Atlas Maps, GIS related services to accommodate various studies and exhibits, and field survey work to assist the District in locating and repairing various pipelines and structures.

Chino Basin Storm Water, Recharge and Imported Water Recharge Facilities Improvements, San Bernardino, California (Survey Manager)

Ray worked on the preliminary and final design for improvements of 19 recharge facilities in San Bernardino County. The scope of work included field survey and aerial topography, geotechnical investigation, hydraulic analysis, and flood routing and preliminary design of the basins, inlet and outlet structures and related facilities. Construction drawings, specifications, and management were also a part of the scope of services.

MCWD On-Call Surveying and Mapping Services, Costa Mesa, California (Project Manager)

Ray served as project manager for a two-year contract with a one-year extension for on-call survey and mapping services. Services have included hand and CADD drafting to update existing Atlas Maps, GIS related services to accommodate various studies and exhibits, and field survey work to assist the district in locating and repairing various pipelines and structures.

Serrano Creek Trunk Sewer Protection, Irvine, California (Director of Survey)

Ray served as director of survey for the preparation of a concept report to evaluate alternatives for an 18-inch sewer trunk main from erosions and undermining during storm flows in Serrano Creek. Additional services included environmental documentation of preferred alternatives; assisting the owner in obtaining right-of-way and approvals for work on U.S. Navy Property; and prepare construction plans and specifications.

Bastanchury Road Zone 3, 4, and 5 Transmission Pipelines, Yorba Linda, California (Survey Manager)

Ray was responsible for overseeing the construction staking for the Bastanchury Road transmission pipelines project. The project involves both horizontal (plan) and vertical (profile) pipeline alignment design. The design included approximately 1,700 linear feet of 18-inch (Zone 3) pipeline, 1,700 linear feet of 36-inch (Zone 4) pipeline, 5,500 linear feet of 12-inch (Zone 5) pipeline, as well as all required valves, water service meters, hydrants, air and vacuum release valves, blow-off valves, water sampling stations, and fire hydrants. The design also included one Pressure Reducing Station with conduits designed for all necessary telemetry, electrical, and power requirements.

Prado Dam Enlargement, Eastvale, California (Survey Manager)

Ray was responsible for providing surveying and mapping services in conjunction with the development of Tract 36382 in newly incorporated Eastvale, CA. The scope of services has included aerial mapping, ALTA and boundary surveys, design surveys, and subdivision mapping. In addition, surveys, review, and analysis were performed over large portions of the property slated for condemnation to the County of Orange for enlargement of the Prado Dam Basin Area. Multiple fee parcels and flowage easements were surveyed and/or reviewed, including the proposed 566-foot inundation line as had been established through the property.

* denotes projects completed with other firms

Ruoren has three years of experience in water and wastewater infrastructure having successfully accomplished engineering design, consulting, and field services in excess of \$8 million in capital. His areas of expertise include water distribution, advanced wastewater treatment, water recycling, reservoir water quality enhancements, and industrial water treatment technology development. A key design team member, Ruoren specializes in hydraulic and biological modeling, civil, mechanical, electrical, and automation design, which are innovative, cost-effective, and operator-friendly.

Ruoren's software expertise includes WaterGEMS, H2ONet, FlowMaster, BioWin, AutoCAD Civil 3D and IMSDesign. He also has strong familiarity in Visual Hydraulics, ArcGIS, SolidWorks, and Microsoft Office.

EDUCATION

MS, Environmental Engineering, Georgia Institute of Technology, Atlanta, Georgia, 2012

BS, Mechanical Engineering, Zhejiang University, Zhejiang, China, 2010

REGISTRATIONS

Professional Engineer #C85038, State of California

MEMBERSHIPS

Member, WaterReuse Association

Member, Water Environment Federation

PROJECT EXPERIENCE

Las Virgenes Municipal Water District and Triunfo Sanitary District Joint Powers Authority Recycled Water Reservoir 2 Improvements*, Calabasas, California (Project Engineer)

Ruoren provided civil engineering design services to improve the quality of recycled water (treated effluent) stored in a 15-MG reservoir before pumped to customers. The temporary storage system design maintained the recycled water system in service without downtime during the four-month reservoir cleaning and lining period. A delicate temporary control system cycled two massive pumping facilities (10,000 gpm feed and 6,000 gpm drain) with a minimum buffering volume. By running a hydraulic model, Ruoren designed a valving system that would minimize the reservoir turnover time while maintaining the required pump suction head. He performed civil, mechanical, and electrical design, specifications, and construction cost estimate. Ruoren also reviewed all shop drawings and responded requests for information (RFI) during construction.

Recharge Master Plan Update (RMPU) Yield Enhancement Improvements, Inland Empire, California (Project Engineer)

Client: Inland Empire Utilities Agency

Ruoren provided preliminary designs to modify nine basins, as part of the Recharge Master Plan Update (RMPU) Yield Enhancements Improvements in the Inland Empire. The project will store and recharge additional storm water runoff and increase recycled water recharge.

Rancho Las Virgenes Centrate Equalization Tank and Centrate Pipeline Rehabilitation*, Calabasas, California (Project Engineer)

This design project will provide 480,000 gallons of equalization of existing sludge centrate treatment facility. Ruoren designed the glass-lined steel tank system with ancillary pipes, valves, electrical and control equipment, grading and pavement of the tank site and the access road.

City of Lathrop Consolidated Treatment Facility Expansion*, Lathrop, California (Project Engineer)

This design project expands the capacity of the MBR based facility from 1 MGD to 2.5 MGD Average Dry Weather Flow. Ruoren conducted comprehensive biological modeling of wastewater and biosolids treatment at different flow conditions and system configurations, developed the preliminary design package, and completed P&IDs of the proposed facility. To reduce the total dissolved solids (TDS) in the future effluent, he completed the preliminary design and process modeling of an RO desalination system as a supplement to the expansion project. The project budgeted \$22 million in capital.

* denotes projects completed with other firms

Orange Grove & Rancho Mesa Verde Water Infrastructure*, Somerton, Arizona (Project Engineer)

Budgeted \$1.8 million in capital, the project's goal was to design the infrastructure that serves Orange Grove and Rancho Mesa Verde subdivisions with potable and fire water from the City of Somerton. Proposed infrastructure includes 11,000 linear feet of transmission and distribution lines, a 2,100 gpm booster pump station, an 180,000-gallon storage tank, and new hydrants. The water infrastructure will serve 313 existing homes and over 9,000 future populations. Ruoren prepared contract drawings and specifications, a design report, and provided permitting, bidding, and construction services.

Stage 1 River Islands at Lathrop Master Plans*, Lathrop, California (Project Engineer)

As the first development stage of the River Islands at Lathrop community, the project includes 4,400 homes, a town center, two schools, business parks, and recreational areas. Ruoren provided a series of master planning documents for the domestic water, wastewater, and non-potable water systems. He projected domestic, fire, and irrigation water demands and wastewater flows based on the planned land use, built and performed hydraulic models to evaluate proposed distribution and collection piping systems, and developed basis of design of proposed 4.5 MG water storage tanks and 12,000 gpm booster pump stations.

City of Somerton Water Master Plan*, Somerton, Arizona (Project Engineer)

Ruoren provided civil engineering design services for the 2014 City of Somerton Water Master Plan. The Master Plan evaluated water supply, treatment, storage and pumping facilities in the master plan, under current (2013), short-term and build-out growth conditions. He also developed hydraulic models analyzing the distribution systems for each condition. Findings from the water models helped the city identify 3 deficiencies of the existing distribution piping system. Ruoren's efforts helped the city obtain the State Special Project grant for the Orange Grove Water Infrastructure project.

Barona Resort & Casino Reclamation Facility Upgrade*, Lakeside, California (Project Engineer)

Based on the technical assessment completed by Ruoren in 2013, the Barona Water Reclamation Facility (WRF) requires inspection and repair of the underground tank concrete structure. A twin underground concrete tank with pumping equipment was designed to serve as the anoxic reactor while the existing tank is taken off-line. Ruoren performed mechanical and automation design, and oversaw civil, structural and electrical plans. He also reviewed all shop drawings and responded to RFI during construction.

Chumash Casino and Resort WRF Evaluation and Facility Expansion Plan*, Santa Ynez, California (Project Engineer)

By evaluating the capacity of the existing SBR based treatment facility and estimating future flow and loading, Ruoren helped develop an expansion plan to upgrade the facility with a 0.32 MGD rated MBR system of which the effluent will meet Title 22 requirements. Ruoren performed biological processes modeling of the proposed treatment facility and developed the preliminary design parameters, such as tank sizes, internal mix liquor flow rates, waste flow rates, and process aeration rates. This information was adopted by the following design-build expansion project.

BASF Biological Nitrogen Removal Improvements Assessment*, Attapulgus, Georgia (Project Engineer)

The project's purpose was to repurpose existing ponds and implement a new biological nitrogen removal facility to meet a prospective, more stringent nitrogen discharge limit of 10 mg/L. Ruoren compared the capital and operation and maintenance costs for different treatment technologies, including MBBR, BAF, and IFAS processes, calculated organic carbon and alkalinity demands for denitrification, and drafted a technical memorandum of this assessment.

PUBLICATIONS

Health effects associated with wastewater treatment, reuse, and disposal. *Water Environment Research*, 2016.

* denotes projects completed with other firms

Kevin has 27 years of experience managing the design and construction of both municipal and private projects. His project background includes the management of multiple drainage-related design projects, such as regional flood control basins; groundwater recharge basins; master-planned storm drain infrastructure improvements; and roadway, bridge, and trail improvements and rehabilitations. Kevin's wide range of expertise includes design engineering, preparation of construction documents, construction support services, and resource agency permitting. He has strong relationships with numerous agencies in southern California, including the Orange County Water District, Metropolitan Water District of Southern California, Irvine Ranch Water District, Inland Empire Utilities Agency, Orange County Flood Control District, and San Bernardino County Flood Control District.

EDUCATION

B.Sc., Civil Engineering, University of Alabama, Tuscaloosa, Alabama, 1989

REGISTRATIONS

Professional Engineer #54873, State of California

PROJECT EXPERIENCE

Chino Basin Facilities Improvement Project, San Bernardino, California (Project Manager)

The Chino Basin Facilities Improvement Program (CBFIP) was a joint effort of the Chino Basin Watermaster (CBWM), the Chino Basin Water Conservation District (CBWCD), the Inland Empire Utilities Agency (IEUA), and the San Bernardino County Flood Control District (SBCFCD). This program, which was partially funded by the State Water Resources Control Board and a recipient of The American Society of Civil Engineers (ASCE) Public Works Project of the Year Award, increased the annual recharge of storm, imported, and recycled water to the Chino groundwater basin and reduced long-term maintenance costs.

As project manager, Kevin was responsible for the preliminary and final design for improvements of 19 recharge facilities in San Bernardino County. The scope of work included field survey and aerial topography, geotechnical investigation, hydraulic analysis and flood routing and final design of the basins, inlet and outlet structures, and related facilities. Project highlights include the design of three Metropolitan Water District turnouts, six rubber dams, two pump stations, and three miles of force mains.

Upland Basin Expansion, City of Upland, California (Project Manager)

The City of Upland developed The West Upland Master Drainage Plan (MDP) to address the City's westerly limits watershed consisting of approximately 2,218 acres. A majority of the watershed is tributary to the Upland Basin, once a mining pit and now a regional flood control facility. Stantec was responsible for the phased design and ultimate approvals for constructing the facility issued by the US Army Corps of Engineers and the State of California Division of Dam Safety. More than two million cubic yards of earth was moved to configure the basin and consisted of both native and undocumented fill. Accurate earthwork analysis and quantity take-offs were critical to the success of this project with export, remedial excavations, dam material specifications, processing and special handling, and stringent dam embankment compaction were entailed with this project.

Kevin developed the ultimate basin configuration, preparing flood routing studies, designing inlet and outlet structures and ultimately the approval from both the US Army Corps of Engineers and the State of California Division of Dam Safety. The project, referred to as the Upland Basin Expansion Project, consisted of expanding the existing basin from a capacity of 350 acre-feet to an ultimate capacity of 1,050 acre-feet. Other details involved with the project included construction of a 20-foot-high earthen dam and a spillway structure approved for connection to the adjacent San Antonio Creek Channel.

* denotes projects completed with other firms

Design with sustainability in mind

**Hickory Basin Pump Station and Force Main,
Fontana, California (Project Manager)**

Kevin managed construction of a pump station and force main to deliver water from Hickory Basin to Banana Basin and included a submersible pump designed for a maximum flow rate of 1,800 gallons per minute. Kevin helped design 3,500 lineal feet of 20-inch CML&C steel pipeline with a 36-inch jack-and-bore steel casing under Metrolink railroad tracks. The force main was also designed for dual use to allow recycled water deliveries to Hickory Basin. Kevin worked closely with IEUA to ensure the project's completion within budget and schedule.

**Jeffrey Road Reclaimed Water Pipeline and Trunk
Sewer, Irvine, California (Project Engineer)**

Kevin served as project engineer on this project that included providing preliminary and final design and engineering services for the reclaimed water pipeline and Jeffrey Road trunk sewer that extends from Irvine Center Drive to Trabuco Road in Irvine. The team was responsible for the relocation of facilities for the Jeffrey Road under crossing; preparing the preliminary design report; evaluating environmental concerns and identifying necessary measures to mitigate impacts of the construction; providing aerial photo strips and topographic maps; and performing necessary geotechnical investigations. The project required close coordination with Caltrans, the County of Orange, the City of Irvine, and the Regional Water Quality Control Board.

**Turner Basin Recharge Improvements, Ontario,
California (Project Manager)**

The Turner Basins is comprised of four separate basins; Basins 1 and 2 receive water from Cucamonga Creek Channel through a Stantec-designed rubber dam and a drop inlet in Deer Creek Channel; and Basins 3 and 4 receive water from the same drop inlet in Deer Creek Channel. Additional existing basins, Basin 5 and 8, located on the east side of Archibald Avenue, have not been in service since the channel's construction in 1980. Kevin managed design efforts to reestablish the Deer Creek Turnout connection to Basin 8 and required pipeline and control structures construction. By implementing a higher hydraulic head, his efforts helped maximize the amount of recharge water and to potentially store more water in additional basins. Kevin's efforts enhanced IEUA's high nutrient water flow and overall water supply reliability and groundwater quality.

**New Model Colony, Ontario, California (Project
Manager, Drainage and Water Quality)**

Kevin provided all drainage and water quality design plans for the New Model Colony Backbone Infrastructure Facilities Eastern Portion. The infrastructure facilities included approximately 34 miles of arterial streets, backbone water and recycled transmission water mains, sewers, storm drains, and dry utilities. New Model Colony is comprised of approximately 7,676 acres consisting of 30 planning areas. The Stantec team provided professional engineering and consulting services for approximately 3,500 acres which includes 12 of the 30 planning areas. The ultimate uses of these historical dairy farmlands include homes, commercial buildings, business parks, recreational facilities, golf facilities, government buildings, schools, parks, and other amenities.

**Planning Area 6 Portola Springs, Irvine Boulevard
and Portola Parkway, Irvine, California (Project
Engineer)**

Kevin helped prepare the preliminary design report and design of the domestic water, reclaimed water, and sewer pipelines in the existing Irvine Boulevard and Portola Parkway within the City of Irvine. The project involved the design of nearly 20,000 linear feet of 3-inch and 3,087 linear feet of 12-inch domestic water pipeline; 12,700 linear feet of 16-inch and 7,073 linear feet of 20-inch reclaimed water pipeline; and approximately 2,800 linear feet of 12-inch sewer pipe. For pipes smaller than 20 inches, PVC pipe material was used and for pipes 20 inches and larger, alternate materials were provided using ductile iron pipe or CML&C steel pipe. In addition to the coordination of other utilities and connection points to existing pipes, the design also involved crossing large concrete drainage boxes and underpasses that required jack-and-bore construction within steel casings.

**Jurupa Basin Pump Station and Force Main,
Fontana, California (Project Manager)**

The Jurupa Basin pump station and force main were constructed as a part of the Chino Basin Facilities Improvement Project. Kevin managed pump station designs to deliver water from Jurupa Basin to the RP-3 Basins. The design included a vertical turbine pump designed for a maximum flow rate of 9,000 gallons per minute with ultimate expansion flow rate of 18,000 gallons per minute. The pump station wet well was about 50 feet deep and included a concrete masonry unit building to enclose the pump and controls. The force main design included 11,500 lineal feet of 36" CML&C steel pipeline with several jack and bores along the alignment. Kevin's effective coordination with IEUA ensured the project's completion within budget and schedule.

* denotes projects completed with other firms

Proposed Cost Estimator's Last Ten Cost Estimates Completed and Associated Bid Amount

Item	Description	Engineer's Estimate	Bid Amount
1	Miralema Recharge Basin Project	✓ \$5,200,000.00	✓ \$4,250,000.00
2	Burriss and Lincoln Basins Project	✓ \$7,000,000.00	✓ \$5,800,000.00
3	Upland Basin Phases I & II	✓ \$12,400,000.00	✓ \$12,100,000.00
4	Turner Basin Recharge Facilities Expansion	✓ \$632,000.00	✓ \$752,000.00
5	La Palma Recharge Basin	✓ \$6,800,000.00	✓ \$7,100,000.00
6	CBGRP College Heights Basins	✓ \$1,570,000.00	✓ \$1,461,000.00
7	CBGRP Lower Day Basin	✓ \$497,000.00	✓ \$437,000.00
8	CBGRP RP-3 Basins	✓ \$3,030,000.00	✓ \$3,055,000.00
9	CBGRP Turner Basins 1, 2, 3, and 4	✓ \$1,429,000.00	✓ \$1,320,000.00
10	CBGRP Phase II Improvements	✓ \$7,223,000.00	✓ \$6,987,000.00



John has more than 21 years of experience in engineering consulting, construction management, project leadership/project management, operational/fiscal management and market sector strategy development focused most recently on obtaining local, State and Federal grants and/or loans for public agencies and special districts. John assisted in obtaining and managing the U.S. Bureau of Reclamation Title XVI funding, State Revolving Fund (SRF) Proposition 50, State Water Resources Control Board (SWRCB) Proposition 13, Department of Water Resources Proposition 84 Rounds 1, 2 and 3 and Metropolitan Water District of Southern California Local Resources Program and Recycled Water Retrofit Pilot Program monies in order to complete the approximately \$175M of recycled water projects for clients in southern California. John assisted in completing the coordination with the funding agency on the behalf of clients including monthly reports, progress deliverables, proposed financial breakdowns and coordinating field meetings.

EDUCATION

BS, Civil Engineering, California State University, Long Beach, California, 1993

REGISTRATIONS

Engineering-in-Training #109865, State of California

MEMBERSHIPS

- Member, American Society of Civil Engineers
- Board of Directors, California Water Environment Association
- Board of Directors, Orange County Water Association
- Board of Directors, WaterReuse Association

PROJECT EXPERIENCE

Inland Empire Utilities Agency Program, California
John assisted in obtaining and managing the U.S. Bureau of Reclamation Title XVI funding, SRF, Proposition 50, and Metropolitan Water District of Southern California Local Resources Program monies in order to complete this program. John assisted in completing the coordination with USBOR, SWRCB and MWD on the behalf of Inland Empire Utilities Agency including monthly reports, progress deliverables, proposed financial breakdowns and coordinating field meetings. The program involves the design of 10 miles of 16-, 24- and 30-inch pipeline, design of two recycled water pump stations at RP-1 and RP-4, reservoir rehabilitation, and development of a RWMP.

Water System Master Plan Update and Recycled Water System Feasibility Report, City of Signal Hill, California

John assisted in obtaining and managing the Proposition 13 monies (approximately \$75,000) to complete the above study. John Robinson while with another firm completed all the coordination with SWRCB on the behalf of Signal Hill including monthly reports, progress deliverables, proposed financial breakdowns and coordinating field meetings. John was the Project Manager for the update of Signal Hill's 1995 Master Plan, including the projection and analysis of future demands for a 10-year planning period, upgrade of the existing system, conversion of existing hydraulic water model from Cybernet to H₂O Net, updating model, analysis of source water supply, distribution facilities, storage facilities, booster pump stations, reconfiguration of pressure zones, and alternatives for improved disinfection. The recycled water feasibility portion of the master plan update included identifying potential customers, potential sources, establishing a partnership between source providers, construction feasibility, and economic analysis.

Upper San Gabriel Valley Municipal Water District Program, California

John assisted in obtaining and managing the U.S. Bureau of Reclamation Title XVI funding, State Revolving Fund (SRF) Proposition 50, State Water Resources Control Board (SWRCB) Proposition 13 and Metropolitan Water District of Southern California Local Resources Program monies in order to complete the project listed below as part of the overall program. John assisted in completing the coordination with USBOR, SWRCB and MWD on the behalf of Upper San Gabriel Valley Municipal Water District including monthly reports, progress deliverables, proposed financial breakdowns and coordinating field meetings.

* denotes projects completed with other firms

Recycled Water Demonstration Project, Foothill Municipal Water District, California (Project Engineer)

John assisted in obtaining Department of Water Resources Proposition 84, Round 2 funding at \$1.48M. John coordinated with the application consultant and Foothill MWD staff to develop all sections of the application and complete the review of the application before submittal to the DWR. John made all the presentation to the Greater Los Angeles Steering Committee for the application. The project was an innovative plan to capture, treat and recycled local sewage water, storm water and irrigation runoff for groundwater percolation (recharge). The project aimed to help increase local water source reliability while decreasing FMWD need for imported water. The Project was to be funded 50-percent from DWR Proposition 84 Round 2 funding. The project is to connect to a 18-inch sanitary sewer pipeline owned and operated by Los Angeles Sanitation District for the raw supply then a 300,000 gallons per day Membrane Bioreactor (MBR) treatment plant is planned to be placed at the La Canada United Methodist Church which will be discharged into a groundwater infiltration gallery underneath athletic fields at La Canada High School.

Program Management Team Member Water Reclamation Program, Central Basin MWD and West Basin Municipal Water District Program, California

John assisted in obtaining and managing the U.S. Bureau of Reclamation Title XVI funding, SRF, Proposition 50, State Water Resources Control Board (SWRCB) Proposition 13 and Metropolitan Water District of Southern California Local Resources Program monies in order to complete this program. John assisted in completing the coordination with USBOR, SWRCB and MWD on the behalf of both Central Basin MWD and West Basin MWD including monthly reports, progress deliverables, proposed financial breakdowns and coordinating field meetings. The project involved various engineering services during the design of pump stations, distribution systems, and customer connections. In addition, John assisted with the identifications of potential reclaimed water customers, developed on-site retrofit drawings, and prepared engineering reports for industrial user for approvals by the state and county health departments.

Rose Hills Memorial Park and Mortuary, California

John assisted in obtaining Department of Water Resources Proposition 84, Round 3 Part A funding at \$0.5M. John coordinated with the application consultant, Upper District and Rose Hills staff to develop all sections of the application and complete the review of the application before submittal to the DWR. John made all the presentation to the Greater Los Angeles Steering Committee for the application. John was response for the expansion of the Upper San Gabriel Valley Municipal Water District's recycled water system to Rose Hills. The facilities for the project include 12,000 linear feet of pipeline and the recycled water conversion of approximately 600 acres of Rose Hills property to utilize recycled water while maintaining potable water in hose bibs.

* denotes projects completed with other firms



ADDENDUM

Addendum No. 1

ADDENDUM NO. 1

REQUEST FOR PROPOSALS FOR CONSULTING ENGINEERING SERVICES

For The

RP-5 RAW PIPELINE BOTTLENECK PROJECT

PROJECT NO. EN14043

July 29, 2016

To: All Proposal Holders

The following changes, clarifications and additions are hereby made to the document:

ATTACHMENT

- *Pre-Proposal Briefing Sign-in Sheet*

1. Reference: Request for Proposals, Section 2 – Processing of Proposals, Page # 1

In the Third Paragraph, delete the incorrect Project's Manager email address and replace with the following email address:

"Email: jzughbi@icau.org (preferred)"


Shaun Stone, P.E.
Manager of Engineering and Construction Management
Inland Empire Utilities Agency

 #738
Jamal Zughbi, P.E.
Senior Engineer, Project Manager
Inland Empire Utilities Agency

Please address all correspondence to

Janet Lightb, P.E.
Project Manager
Ph: 909/923-1962
jalight@stantec.com

Please sign, date and email back a signed copy showing you received this Addendum No. 1

Signature: _____



Date: **July 19, 2016**

Name of Company: _____

Stantec Consulting Services Inc.



Inland Empire Utilities Agency

Pre-Proposal Briefing - Sign In Sheet

Project No. EN14043

Project Name: RP-5 RW Pipeline Bottleneck

Meeting Date: 14 July 2016

Meeting Location: Anza Conference Room ext 2403

Meeting Time: 10:00 pm - 11:00 pm

Meeting Organizer: Jamal Zughbi - Sr. Engineer - Project Manager

Name	Company	Contact No.
David St. Pierre	INLAND EMPIRE UTILITIES AGENCY	909 751 2035
Bob Dawood	Quintec	626-357-0358
Rick Luskow	Lee & Co	(26) 667-5329
PHILIP HOUTER	ERIC RESOURCES	714-965-8011 x 1357
ROBERT REID	STANTEC	(949) 923-6037
JEFF DUNN	STANTEC	(949) 923-6774
Jeff St Nette	IEUA	x1912
STEVE SMITH	IEUA	x1621
TINO RODRIGUEZ	HINDO & MOORE	909-759-9960 x 19220
Jacob Schwab	James Schwab	x1547
JOSE A. CASANOVA	CHANDHARU & ASSOCIATES	(562) 595-0900 (805) 533-9559
ROBERT WALKER	IEUA CONTRACTS	x1491
JERRY BURKE	IEUA	x1548

Addendum No. 2

ADDENDUM NO. 2

REQUEST FOR PROPOSALS FOR CONSULTING ENGINEERING SERVICES

For The

RP-5 RW PIPELINE BOTTLENECK PROJECT

PROJECT NO. EN14043

July 21, 2016

To: All Proposal Holders

The following changes, clarifications and additions are hereby made to the document.

ATTACHMENTS

- Attachment "A" Project Schedule (revised)
- Attachment "P" RP-5 Utility Water Valve Map - 2012
- Attachment "Q" Recycled Water Program Strategy – By Stantec

REQUEST FOR PROPOSALS

1. Reference: Section 4- Project Background, Paragraph No. 2, Page 3

Delete Paragraph in its entirety and replace with the following:

“The project was launched after the 2015 Recycled Water Program Strategy (RWPS) was completed by Stantec Consulting to update the 2005 Recycled Water Implementation Plan and 2007 Recycled Water Three Year Business Plan (see Attachment Q). The primary objective of the RWPS was to update supply and demand forecasts and to help map changes for the Recycled Water (RW) Program to maximize the beneficial use of recycled water throughout the year. This project focuses on eliminating the immediate bottleneck downstream of the RP-5 RW Pump Station, replacing all existing isolation valves on the RP-5 campus recycled water system (see Attachment P), and installing additional isolation valves at strategic locations throughout the RP-5 campus for operational flexibility. See Attachment “J” for Vicinity Maps and Scope Areas.”

2. Reference: Section 5- Project Description, Paragraph No. 3, Page 5

Delete the third sentence and replace with the following:

“Replacement of the existing PVC piping is not part of the scope; however the replacement of all the existing buried and exposed recycled water system valves with new and more reliable valves is part of the scope (see Attachment P). The

type of valves to be replaced shall be part of the design in coordination with the Agency staff”

3. Reference: Section 6- Scope Of Work, Item No. 7, Page 6

Add the following to the end of Item 7:

“(see Attachment P).”

4. Reference: Section 6- Scope Of Work, No. 5, Page 6

Delete Item 5 in its entirety and replace with the following:

“Provide two fully redundant basket strainers and bypass. Location of the basket strainers shall be evaluated during the design phase in coordination with the Agency (basket strainer type shall be determined as part of the design).”

5. Reference: Attachment A – Project Schedule

Delete Attachment A in its entirety and replace with the revised Attachment A.

6. Reference: Section 6- Scope Of Work, C- Preliminary Design, Item V, Page 9

Add the following to the end of sentence:

“Previous geotechnical reports for the RP-5 facility will be available to the Consultant after award.”

7. Reference: Section 6- Scope Of Work, Item No. 11, Page 6

Add the following to the end of the paragraph:

“Since it’s not known at this time whether there is a surge issue or not, the Consultant shall provide as an option an itemized design fee for the surge control system design such as tanks, compressors, piping, control, etc.”

ON BEHALF

 #1099

Shaun Stone, P.E.

Manager of Engineering and Construction Management
Inland Empire Utilities Agency

 # 738

Jamal Zughbi, P.E.

Senior Engineer, Project Manager
Inland Empire Utilities Agency

Please address all correspondence to:

Jamal Zughbi, P.E.
Project Manager
Fax: (909) 993-1982
jzughbi@ieua.org

Please sign, date and email/fax a signed copy showing you received this Addendum No. 2.

Signature:  Date: July 21, 2016
Name of Company: Stantec Consulting Services Inc.



38 Technology Drive, Suite 100
Irvine, CA 92618
P: (949) 923-6000
F: (949) 923-6121

July 28, 2016

Attention

Jamal Zughbi
Inland Empire Utilities Agency
6075 Kimball Avenue, Building B
Chino, California 91708

Reference

Fee Proposal to Provide Consulting Engineering Services for RP-5 Recycled Water Pipeline Bottleneck
Project No. EN14043

Dear Mr. Zughbi:

We are pleased to provide the Inland Empire Utilities Agency (Agency) with our fee schedule in conjunction with our technical proposal. At Stantec, we strongly believe that the measurement of value is partially referenced from pricing, but also from credentials and capabilities. Our proposal has been created with an understanding of this balance.

Thank you again for considering us to provide our services on this important project. We look forward to working for you with the assurance that we will commit our best resources for a successful project.

If you have any questions or require additional information, please do not hesitate to contact us at the contact information below.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Dunn".

Jeff Dunn, PE
Project Manager
(949) 923-6974
jeff.dunn@stantec.com

A handwritten signature in black ink, appearing to read "Robert Reid".

Robert Reid, PE
Senior Associate
(949) 923-6037
robert.reid@stantec.com

ATTACHMENT A

GRANT AND SRF LOAN REQUIREMENTS

Grants and SRF loan Requirements

The RP-5 Bottleneck Project (Project) will be funded by a State Water Resources Control Board (SWRCB) State Revolving Fund Loan and Water Recycling Grant Agreement (Agreement). The Agreement will have regulatory requirements that Inland Empire Utilities Agency (IEUA) are required to include in all contracts for work related to the performance of this Agreement. IEUA does not yet have an executed loan or grant agreement from SWRCB. When the executed agreement is received, there may be additional project specific requirements that must be included in the contractor/consultant contracts so a revised contractor/consultant contract may be needed.

The consultants and contractors must comply with and assist IEUA in meeting the Federal and State requirements that apply to the scope stated in their contracts. These requirements include, but are not limited to, the State Prevailing Wages, Federal Davis-Bacon requirements, Federal Disadvantaged Business Enterprise (DBE), Single Audit, and Records Retention, etc. If a subcontractor or consultant is hired, the grant requirements language must be included in the subcontractor or consultant's contract in its entirety. In addition, the contractor will need to provide proof of advertising for thirty (30) days if a subcontractor is hired. The following attachments provide more details about the specific requirements and must be included in all contracts for this Project:

- 1. Article VI - Miscellaneous Provisions**
- 2. Exhibit E - Federal Conditions & Cross-Cutters**
- 3. Exhibit G - Davis-Bacon Labor Compliance Requirements**
- 4. DBE instructions/forms**
- 5. Signage on Construction Site**
- 6. Records**

ARTICLE VI MISCELLANEOUS PROVISIONS

6.1 Covenants

- (a) **Tax Covenant.** Notwithstanding any other provision hereof, the Recipient covenants and agrees that it will comply with the Tax Covenants set forth in Article IV attached hereto if any portion of the Project Funds is derived from proceeds of Bonds.
- (b) **Disclosure of Financial Information, Operating Data, and Other Information.** The Recipient covenants to furnish such financial, operating and other data pertaining to the Recipient as may be requested by the State Water Board to: (i) enable the State Water Board to cause the issuance of Bonds and provide for security therefor; or (ii) enable any underwriter of Bonds issued for the benefit of the State Water Board to comply with Rule 15c2-12(b)(5). The Recipient further covenants to provide the State Water Board with copies of all continuing disclosure reports and materials concerning the Recipient required by the terms of any financing other than this Agreement and to submit such reports to the State Water Board at the same time such reports are submitted to any dissemination agent, trustee, nationally recognized municipal securities information repository, the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA) website or other person or entity.

6.2 Assignability

The Recipient agrees and consents to any pledge, sale, or assignment to the Bank or a trustee for the benefit of the owners of the Bonds, if any, at any time of any portion of the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement and the right to make all related waivers and agreements in the name and on behalf of the State Water Board, as agent and attorney-in-fact, and to perform all other related acts which are necessary and appropriate under this Agreement, if any, and the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement to Installment Payments (but excluding the State Water Board's rights to Additional Payments and to notices, opinions and indemnification under each Obligation). This Agreement is not assignable by the Recipient, either in whole or in part, without the consent of the State Water Board in the form of a formal written amendment to this Agreement.

6.3 State Reviews and Indemnification

The parties agree that review or approval of Project plans and specifications by the State Water Board is for administrative purposes only and does not relieve the Recipient of its responsibility to properly plan, design, construct, operate, and maintain the Project. To the extent permitted by law, the Recipient agrees to indemnify, defend, and hold harmless the State Water Board, the Bank, and any trustee, and their officers, employees, and agents for the Bonds, if any (collectively, "Indemnified Persons"), against any loss or liability arising out of any claim or action brought against any Indemnified Persons from and against any and all losses, claims, damages, liabilities, or expenses, of every conceivable kind, character, and nature whatsoever arising out of, resulting from, or in any way connected with (1) the System or the Project or the conditions, occupancy, use, possession, conduct, or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the System or the Project or any part thereof; (2) the carrying out of any of the transactions contemplated by this Agreement or any related document; (3) any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the Toxic Substances Control Act, the Occupational Safety and Health Act, the Safe Drinking Water Act, the California Hazardous Waste Control Law, and California Water Code Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the System; or (4) any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which

they were made, not misleading with respect to any information provided by the Recipient for use in any disclosure document utilized in connection with any of the transactions contemplated by this Agreement. To the fullest extent permitted by law, the Recipient agrees to pay and discharge any judgment or award entered or made against Indemnified Persons with respect to any such claim or action, and any settlement, compromise or other voluntary resolution. The provisions of this section shall survive the discharge of the Recipient's Obligation hereunder.

6.4 Termination; Immediate Repayment; Interest

- (a) This Agreement may be terminated by written notice during construction of the Project, or thereafter at any time prior to complete repayment by the Recipient, at the option of the State Water Board, upon violation by the Recipient of any material provision of this Agreement after such violation has been called to the attention of the Recipient and after failure of the Recipient to bring itself into compliance with the provisions of this Agreement within a reasonable time as established by the Division.
- (b) In the event of such termination, the Recipient agrees, upon demand, to immediately repay to the State Water Board an amount equal to Installment Payments due hereunder, including accrued interest, and all penalty assessments due. In the event of termination, interest shall accrue on all amounts due at the highest legal rate of interest from the date that notice of termination is mailed to the Recipient to the date of full repayment by the Recipient.
- (c) Where the Recipient is a private entity that has been determined to have violated an applicable prohibition in the Prohibition Statement below or has an employee who is determined by USEPA to have violated an applicable prohibition in the Prohibition Statement below that is either associated with performance under this aware or imputed to the Recipient using the standards and due process for imputing the conduct of an individual to an organization pursuant to 2 CFR Part 180, the Recipient acknowledges and agrees that this Obligation may become immediately due and payable and that penalties up to \$175 million may be due by the Recipient to the State Water Board, in addition to any other criminal or civil penalties that may become due. The Recipient, its employees, its contractors, and any subrecipients or subcontractors may not engage in trafficking in persons, procure a commercial sex act, or use forced labor.

6.5 Income Restrictions

The Recipient agrees that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Recipient under this Agreement shall be paid by the Recipient to the State, to the extent that they are properly allocable to costs for which the Recipient has been reimbursed by the State under this Agreement.

6.6 Prevailing Wages

The Recipient agrees to be bound by all the provisions of State Labor Code Section 1771 regarding prevailing wages. The Recipient shall monitor all agreements subject to reimbursement from this Agreement to assure that the prevailing wage provisions of State Labor Code Section 1771 are being met.

6.7 Timeliness

Time is of the essence in this Agreement.

6.8 Governing Law

This contract is governed by and shall be interpreted in accordance with the laws of the State of California.

6.9 Amendment.

No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or agreement not incorporated in this Agreement is binding on any of the parties.

6.10 Bonding.

Where contractors are used, the Recipient shall not authorize construction to begin until each contractor has furnished a performance bond in favor of the Recipient in the following amounts: faithful performance (100%) of contract value; labor and materials (100%) of contract value. This requirement shall not apply to any contract for less than \$20,000.00.

6.11 Compliance with Law, Regulations, etc

- (a) The Recipient agrees that it will, at all times, comply with and require its contractors and subcontractors to comply with all applicable federal and state laws, rules, guidelines, regulations, and requirements. Without limitation of the foregoing, the Recipient agrees that, to the extent applicable, the Recipient will:
- (1) Comply with the provisions of the adopted environmental mitigation plan for the term of this Agreement;
 - (2) Comply with the State Water Board's "Policy for Implementing the Clean Water State Revolving Fund," dated May 7, 2013;
 - (3) Comply with and require its contractors and subcontractors on the Project to comply with federal DBE requirements; and
 - (4) Comply with and require its contractors and subcontractors to comply with the list of federal laws attached as Exhibit E.

6.12 Conflict of Interest.

The Recipient certifies that it is in compliance with applicable state and/or federal conflict of interest laws.

6.13 Damages for Breach Affecting Tax Exempt Status or Federal Compliance

In the event that any breach of any of the provisions of this Agreement by the Recipient shall result in the loss of tax exempt status for any bonds of the State or any subdivision or agency thereof, including Bonds issued on behalf of the State Water Board, or if such breach shall result in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government by reason of any arbitrage profits, the Recipient shall immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

In the event that any breach of any of the provisions of this Agreement by the Recipient shall result in the failure of Project Funds to be used pursuant to the provisions of this Agreement, or if such breach shall result in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government, the Recipient shall immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

6.14 Disputes

- (a) An applicant or recipient may appeal a staff decision within 30 days to the Deputy Director of the Division or designee, for a final Division decision. An applicant or recipient may appeal a final Division decision to the State Water Board within 30 days. The Office of the Chief Counsel of the State Water Board will prepare a summary of the dispute and make recommendations relative to its final resolution, which will be provided to the State Water Board's Executive Director and each State Water Board Member. Upon the motion of any State Water Board Member, the State Water Board will review and resolve the dispute in the manner determined by the State Water Board. Should the State Water Board determine not to review the final Division decision, this decision will represent a final agency action on the dispute.
- (b) This clause does not preclude consideration of legal questions, provided that nothing herein shall be construed to make final the decision of the State Water Board, or any official or representative thereof, on any question of law.
- (c) Recipient shall continue with the responsibilities under this Agreement during any dispute.

6.15 Independent Actor.

The Recipient, and its agents and employees, if any, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State Water Board.

6.16 Non-Discrimination Clause.

- (a) During the performance of this Agreement, Recipient and its contractors and subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
- (b) The Recipient, its contractors, and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
- (c) The Recipient, its contractors, and subcontractors shall comply with the provisions of the Fair Employment and Housing Act and the applicable regulations promulgated thereunder. (Gov. Code, §12990, subds. (a)-(f) et seq.; Cal. Code Regs., tit. 2, § 7285 et seq.) Such regulations are incorporated into this Agreement by reference and made a part hereof as if set forth in full.
- (d) The Recipient, its contractors, and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- (e) The Recipient shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

6.17 No Third Party Rights.

The parties to this Agreement do not create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or of any duty, covenant, obligation, or undertaking established herein.

6.18 Operation and Maintenance; Insurance

The Recipient agrees to sufficiently and properly staff, operate and maintain all portions of the Project during its useful life in accordance with all applicable state and federal laws, rules and regulations.

The Recipient will procure and maintain or cause to be maintained insurance on the System with responsible insurers, or as part of a reasonable system of self-insurance, in such amounts and against such risks (including damage to or destruction of the System) as are usually covered in connection with systems similar to the System. Such insurance may be maintained by the maintenance of a self-insurance plan so long as any such plan provides for (i) the establishment by the Recipient of a separate segregated self-insurance fund funded in an amount determined (initially and on at least an annual basis) by an independent insurance consultant experienced in the field of risk management employing accepted actuarial techniques and (ii) the establishment and maintenance of a claims processing and risk management program.

In the event of any damage to or destruction of the System caused by the perils covered by such insurance, the net proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the System. The Recipient shall begin such reconstruction, repair or replacement as expeditiously as possible, and shall pay out of such net proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same shall be completed and the System shall be free and clear of all claims and liens. If such net proceeds are insufficient to enable the Recipient to pay all remaining unpaid principal portions of the Installment Payments, the Recipient shall provide additional funds to restore or replace the damaged portions of the System.

6.19 Permits, Subcontracting, and Remedies

The Recipient shall comply in all material respects with all applicable federal, state and local laws, rules and regulations. Recipient shall procure all permits, licenses and other authorizations necessary to accomplish the work contemplated in this Agreement, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. Signed copies of any such permits or licenses shall be submitted to the Division before construction begins.

6.20 Recipient's Responsibility for Work.

The Recipient shall be responsible for all work and for persons or entities engaged in work performed pursuant to this Agreement, including, but not limited to, contractors, subcontractors, suppliers, and providers of services. The Recipient shall be responsible for any and all disputes arising out of its contracts for work on the Project. The State Water Board will not mediate disputes between the Recipient and any other entity concerning responsibility for performance of work.

6.21 Related Litigation.

Under no circumstances may a Recipient use funds from any disbursement under this Agreement to pay costs associated with any litigation the Recipient pursues against the State Water Board or any Regional Water Quality Control Board. Regardless of the outcome of any such litigation, and notwithstanding any conflicting language in this Agreement, the Recipient agrees to complete the Project funded by this Agreement or to repay all of the disbursed funds plus interest.

6.22 Rights in Data

The Recipient agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Agreement are subject to the rights of the State as set forth in this section. The State shall have the right to reproduce, publish, and use all such work, or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so. If any such work is copyrightable, the Recipient may copyright the same, except that, as to any work which is copyrighted by the Recipient, the State reserves a royalty-free,

nonexclusive, and irrevocable license to reproduce, publish, and use such work, or any part thereof, and to authorize others to do so, and to receive electronic copies from the Recipient upon request. (40 CFR 31.34, 31.36)

6.23 State Water Board Action; Costs and Attorney Fees

The Recipient agrees that any remedy provided in this Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State Water Board as a result of breach of this Agreement by the Recipient, whether such breach occurs before or after completion of the Project, and exercise of any remedy provided by this Agreement by the State Water Board shall not preclude the State Water Board from pursuing any legal remedy or right which would otherwise be available. In the event of litigation between the parties hereto arising from this Agreement, it is agreed that each party shall bear its own costs and attorney fees.

6.24 Unenforceable Provision

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

6.25 Useful Life.

The economic useful life of the Project, commencing at Project Completion, is at least equal to the term of this Agreement, as set forth in Exhibit B hereto.

6.26 Venue

The State Water Board and the Recipient hereby agree that any action arising out of this Agreement shall be filed and maintained in the Superior Court in and for the County of Sacramento, California.

6.27 Waiver and Rights of the State Water Board

Any waiver of rights by the State Water Board with respect to a default or other matter arising under the Agreement at any time shall not be considered a waiver of rights with respect to any other default or matter.

Any rights and remedies of the State Water Board provided for in this Agreement are in addition to any other rights and remedies provided by law.

Project No.:

Project No.:

EXHIBIT E — FEDERAL CONDITIONS & CROSS-CUTTERS

The Recipient agrees to comply with the following conditions required by USEPA:

1. **No Recipient or subrecipient may receive funding under this Agreement unless it has provided its DUNS number to the State Water Board. (2011 Cap Grant)**
2. **Executive Compensation.** Where the Recipient received 80 percent or more of its annual gross revenues from federal procurement contracts (and subcontracts) and \$25,000,000 or more in annual gross revenues from federal procurement contracts (and subcontracts), the Recipient agrees to notify the State Water Board. The Recipient agrees to provide information regarding executive compensation to the State Water Board upon request, in order for the State Water Board to comply with USEPA requirements.
3. **Trafficking in Persons.** The Recipient, its employees, contractors and subcontractors and their employees may not engage in severe forms of trafficking in persons during the term of this Agreement, procure a commercial sex act during the term of this Agreement, or use forced labor in the performance of this Agreement. The Recipient must include this provision in its contracts and subcontracts under this Agreement. The Recipient must inform the State Water Board immediately of any information regarding a violation of the foregoing. The Recipient understands that failure to comply with this provision may subject the State Water Board to loss of federal funds in the amount of \$101,065,000. The Recipient agrees to compensate the State Water Board for any such funds lost due to its failure to comply with this condition, or the failure of its contractors or subcontractors to comply with this condition. The State Water Board may unilaterally terminate this Agreement and full repayment will be due immediately, if a subrecipient that is a private entity is determined to have violated the foregoing. Trafficking Victims Protection Act of 2000.
4. **Contractors, Subcontractors, Debarment and Suspension, Executive Order 12549; 2 CFR Part 180; 2 CFR Part 1532.** The Recipient shall not subcontract with any party who is debarred or suspended or otherwise excluded from or ineligible for participation in federal assistance programs under Executive Order 12549, "Debarment and Suspension". The Recipient shall not subcontract with any individual or organization on USEPA's List of Violating Facilities. (40 CFR, Part 31.35, Gov. Code 4477)

The Recipient certifies to the best of its knowledge and belief, that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency;
- (b) Have not within a three (3) year period preceding this Agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three (3) year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Project No.:

Project No.

EXHIBIT E — FEDERAL CONDITIONS & CROSS-CUTTERS

Suspension and debarment information can be accessed at <http://www.sam.gov>. The Recipient represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its contracts and subcontracts under this Agreement. The Recipient acknowledges that failing to disclose the information as required at 2 CFR 180.335 may result in the termination, delay or negation of this Agreement, or pursuance of legal remedies, including suspension and debarment.

5. **Anti-Lobbying Provisions (40 CFR Part 34) & Anti-Litigation Provisions (2 CFR 220, 225, or 230).** The Recipient shall ensure that no funds under this Agreement are used to engage in lobbying of the federal government or in litigation against the United States unless authorized under existing law. The Recipient shall abide by 2 CFR 225 (OMB Circular A-87) (or, if not applicable, other parallel requirements), which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities. The Recipient agrees to comply with 40 CFR Part 24, New Restrictions on Lobbying. The Recipient agrees to submit certification and disclosure forms in accordance with these provisions. In accordance with the Byrd Anti-Lobbying Amendment, any Recipient who makes a prohibited expenditure under 40 CFR Part 34 or fails to file the required certification or lobbying forms shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure. The Recipient shall abide by its respective 2 CFR 200, 225, or 230, which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities.
6. **Disadvantaged Business Enterprises. 40 CFR Part 33.** The Recipient agrees to comply with the requirements of USEPA's Program for Utilization of Small, Minority and Women's Business Enterprises. The DBE rule can be accessed at www.epa.gov/osbp. The Recipient shall comply with, and agrees to require its prime contractors to comply with 40 CFR Section 33.301, and retain all records documenting compliance with the six good faith efforts.
7. The Recipient agrees to comply with the Davis-Bacon provisions attached as Exhibit G.

The Recipient agrees to comply with the following federal laws, as applicable to recipients of CWSRF funding:

Environmental Authorities

1. Archeological and Historical Preservation Act of 1974, Pub. L. 86-523, as amended, Pub. L. 93-291 16 USC § 469a-1.
2. Clean Air Act, Pub. L. 84-159, as amended.
3. Coastal Barrier Resources Act, Pub. L. 97-348, 96 Stat. 1653; 16 USC § 3501 et seq.
4. Coastal Zone Management Act, Pub. L. 92-583, as amended; 16 USC § 1451 et seq.
5. Endangered Species Act, Pub. L. 93-205, as amended; 16 USC § 1531 et seq..
6. Environmental Justice, Executive Order 12898.
7. Floodplain Management, Executive Order, 11988 as amended by Executive Order 12148.

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EXHIBIT E — FEDERAL CONDITIONS & CROSS-CUTTERS

8. Protection of Wetlands, Executive Order 11990, as amended by Executive Order No. 12608.
9. Farmland Protection Policy Act, Pub. L. 97-98; 7 USC § 4201 et seq.
10. Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended.
11. National Historic Preservation Act of 1966, Pub. L. 89-665, as amended, 80 Stat. 917 (1966) 16 USC § 470 et seq.
12. Safe Drinking Water Act, Pub. L. 93-523, as amended; 42 USC § 300f et seq.
13. Wild and Scenic Rivers Act, Pub. L. 90-542, as amended, 82 Stat. 913; 16 USC § 1271 et seq.
14. Essential Fish Habitat Consultation. Pub. L. 94-265, as amended, 16 USC § 1801 et seq.
15. Recycled Materials. Executive Order 13101; Section 6002 Resource Conservation and Recovery Act – 42 USC § 6962.

Economic and Miscellaneous Authorities

1. Demonstration Cities and Metropolitan Development Act of 1966, Pub. L. 89-754, as amended, Executive Order 12372/ 42 USC § 3331 et seq.
2. Procurement Prohibitions under Section 306 of the Clean Air Act and Section 506 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans; 42 USC § 7606; 33 USC § 1368; 40 CFR Part 31.
3. Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended; 42 USC §§4601-4655
- 4.. Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects, EO 13202, as amended by EO 13208.
6. Hotel and Motel Fire Safety Act of 1990 (PL 101-391, as amended). All conference, meeting, convention, or training funded in whole or in part with federal funds shall comply with the protection and control guidelines of this act. Recipients may search <http://www.usfa.dhs.gov/applications/hotel/>.
7. Records and financial reporting requirements. 40 CFR Part 31.
8. Copyright requirements. 40 CFR Part 31.

Social Policy Authorities

1. Age Discrimination Act of 1975, Pub. L. 94-135; 42 USC § 6102.
2. Race Discrimination. Title VI of the Civil Rights Act of 1964, Pub. L. 88-352.1; 42 USC § 2000d; 40 CFR Part 7.

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EXHIBIT E — FEDERAL CONDITIONS & CROSS-CUTTERS

3. **Sex Discrimination.** Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (the Clean Water Act); 33 USC § 1251; 40 CFR Part 7.
4. **Disability Discrimination.** Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (including Executive Orders 11914 and 11250); 29 USC § 794; 40 CFR Part 7.
5. **Equal Employment Opportunity,** Executive Order 11246.
6. **Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988,** Pub. L. 100-590.

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EXHIBIT G – DAVIS BACON REQUIREMENTS

1. Contract and Subcontract provisions for Recipients

(a) The Recipient shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Recipients and subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The Recipient, on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

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- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Recipient agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the Recipient to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and Recipient do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to

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set aside in a separate account assets for the meeting of obligations under the plan or program.

- (2) Withholding. The Recipient, shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (3) Payrolls and basic records.
- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the Recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State or EPA. As to each payroll copy received, the Recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee

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(e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Recipient for transmission to the State Water Board or EPA if requested by EPA, the State Water Board, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Recipient.

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the

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required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to

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journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and

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Recipient, State, EPA, the U.S. Department of Labor, or the employees or their representatives.

- (10) Certification of eligibility.
- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

2. Contract Provision for Contracts in Excess of \$100,000.

(a) **Contract Work Hours and Safety Standards Act.** The Recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Section 1, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- (1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- (2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.
- (3) **Withholding for unpaid wages and liquidated damages.** The Recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same

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prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

- (4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.
- (b) In addition to the clauses contained in Section 1, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the United States Environmental Protection Agency, the Department of Labor, or the State Water Resources Control Board, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

3. Compliance Verification

- (a) The Recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The Recipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.
- (b) The Recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the Recipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. The Recipient must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. The Recipient shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.
- (c) The Recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The Recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the Recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. The Recipient must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that

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the contractor or subcontractor is not complying with DB. In addition, during the examinations the Recipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

- (d) The Recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.
- (e) The Recipient must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

Signage.

The Recipient shall place a sign at least four feet tall by eight feet wide made of 3/4 inch thick exterior grade plywood or other approved material in a prominent location on the Project site. The sign shall include the following color logos and the following disclosure statement:

“Funding for this project has been provided in full or in part by the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California’s Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds.”

The Project sign may include another agency's required promotional information so long as the above logos and disclosure statement are equally prominent on the sign. The sign shall be prepared in a professional manner.



Written Documents, Reports or Brochures

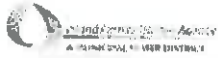
The Recipient shall include the following disclosure statement and logos in any document, written report, or brochure prepared in whole or in part pursuant to this Agreement:

Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. (Gov. Code § 7550, 40 CFR § 31.20.)



The Recipient shall be required to maintain separate books, records and other material relative to the Project. The Recipient shall also be required to retain such books, records, and other material for itself and for each contractor or subcontractor who performed work on this project for a minimum of thirty-six (36) years after Project Completion. The Recipient shall require that such books, records, and other material be subject at all reasonable times (at a minimum during normal business hours) to inspection, copying, and audit by the State Water Board, the Bureau of State Audits, the United States Environmental Protection Agency (USEPA), the Office of Inspector General, the Internal Revenue Service, the Governor, or any authorized representatives of the aforementioned, and shall allow interviews during normal business hours of any employees who might reasonably have information related to such records. The Recipient agrees to include a similar right regarding audit, interviews, and records retention in any subcontract related to the performance of this Agreement. The provisions of this section shall survive the discharge of the Recipient's Obligation hereunder and shall survive the term of this Agreement.

Exhibit B



**INLAND EMPIRE UTILITIES AGENCY
CONSULTING SERVICES INVOICE**

Company: ABC Company	Pay Est. No.:	Contract Date:	Invoice Date: #####
Address:	Contract No.: 46-xxxx	IEUA Project Manager: Jamal Zughbi	This Period: From: 9/1/2015 To: 9/30/2015
Phone No.:	Proj. Name & No: RP-1 Improvements Project, EN15xxx		Invoice No. /Consult Ref XXXXXX

ORIGINAL CONTRACT:

PO No.	SAP Line Item No.	WBS Element No.	Item Description	Original Contr. Value	Total This Period		Total to Date		Progress to Date	Remaining Contract Value
				Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)		
45-xxxxx	1	EN15xxx.00.F.DN50	50% Design Services	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
	2	EN15xxx.00.F.DN85	85% Design Services	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
	3	EN15xxx.00.F.DFLP	Final Design	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
	4	EN15xxx.00.G.CNSW.00	Constr Support Services		#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
Subtotal Original Contract				\$0.00		\$0.00		\$0.00		\$0.00

CONTRACT AMENDMENTS:

PO No.	SAP Line Item No.	WBS Element No.	Amendment Description	Amended Contract Value	Total This Period		Total to Date		Progress to Date	Remaining Contract Value
				Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)		
						\$0.00		\$0.00	0%	0%
						\$0.00		\$0.00	0%	0%
						\$0.00		\$0.00	0%	0%
Subtotal Contr. Amendm				\$0.00		\$0.00		\$0.00		\$0.00
Total Cont. with Amendr				\$0.00		\$0.00		\$0.00		\$0.00

PAYMENT SUMMARY FOR THIS PERIOD:

	From: 9/1/2015	
	To: 9/30/2015	
Amount Earned Original Contract	\$0.00	
Amount Earned Amendments	\$0.00	
Back Charges	\$0.00	
Amount Due This Period	\$0.00	

PRIOR PAYMENT SUMMARY:

	From:	
	To:	
Amount Earned Orig Contract	\$0.00	
Amount Earned Amendments	\$0.00	
Back Charges	\$0.00	
Prior Payments	\$0.00	

TOTAL PAYMENT SUMMARY:

	Total Contract
Total Original Contract	\$0.00
Total Contract Amendments	\$0.00
Total Payments to Date	\$0.00
Back Charges	\$0.00
Payment this period	\$0.00
Balance of Contract	\$0.00

CONTRACT SCHEDULE SUMMARY:

Contract Start Date:	10/9/2014
Contract Duration:	365
Contract Completion Date:	10/9/2015
Authorized Time Extension:	0
Revised Completion Date:	10/9/2015

PROJECT COMPLETION SUMMARY:

Contract Time Expired:	102%
Contract Work Complete:	#DIV/0!

Consultant Approval:

Title: _____ Signature: _____ Date: _____

Inland Empire Utilities Agency Approvals:

Proj. Engineer: _____ Date: _____ Exec Mgr. / Assistant GM: _____ Date: _____
 Deputy Manager: _____ Date: _____ General Manager: _____ Date: _____
 Dept. Manager: _____ Date: _____