ENGINEERING, OPERATIONS, AND WATER RESOURCES COMMITTEE MEETING OF THE BOARD OF DIRECTORS INLAND EMPIRE UTILITIES AGENCY AGENCY HEADQUARTERS, CHINO, CALIFORNIA

WEDNESDAY, JANUARY 10, 2018 9:45 A.M.

Or immediately following the Community & Legislative Affairs Committee Meeting

CALL TO ORDER

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 is 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
   The Committee will be asked to approve the Engineering, Operations, and Water Resources Committee meeting minutes of December 13, 2017.

B. RECYCLED WATER SYSTEM CATHODIC PROTECTION CONSULTANT CONTRACT AWARD
   Staff recommends that the Committee/Board:

   1. Award an engineering consultant services contract for the RW System Cathodic Protection Improvements, Project No. EN17080, to Corrpro Companies Inc., for a not-to-exceed amount of $198,900; and
2. Authorize the General Manager to execute the contract subject to non-substantive changes.

C. **RP-1 MIXED LIQUOR RETURN PUMPS CONSULTANT CONTRACT AMENDMENT**
   Staff recommends that the Committee/Board:

   1. Approve a contract amendment for the RP-1 Mixed Liquor Return Pumps, Project No. EN16024, to RMC Water and Environment, Inc. for a not-to-exceed amount of $95,246; and
   2. Authorize the General Manager to execute the contract amendment subject to non-substantive changes.

D. **RP-1 RECYCLED WATER PUMP STATION CONSULTANT CONTRACT AMENDMENT**
   Staff recommends that the Committee/Board:

   1. Approve a contract amendment for the RP-1 RW Pump Station Upgrades, Project No EN14042, to Stantec for a not-to-exceed amount of $88,900; and
   2. Authorize the General Manager to execute the contract amendment subject to non-substantive changes.

E. **SCADA PROGRAMMING MASTER SERVICES CONTRACT AWARD**
   Staff recommends that the Committee/Board:

   1. Award a three-year contract to Technical System, Inc., for PlantPAX programming and all associated support services required to maintain a standard controls platform for a not-to-exceed total amount of $1,800,000; and
   2. Authorize the General Manager to execute the contract subject to non-substantive changes.

2. **INFORMATION ITEM**

   A. **2ND QUARTER PLANNING & ENVIRONMENTAL RESOURCES UPDATE (POWERPOINT)**
   B. **COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS) (POWERPOINT)**
   
   RECEIVE AND FILE INFORMATION ITEM

   C. **ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECT UPDATES (POWERPOINT)**
3. GENERAL MANAGER’S COMMENTS

4. COMMITTEE MEMBER COMMENTS

5. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS

6. 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.

Proofed by: ______

DECLARATION OF POSTING

April Woodruff, Board Secretary of the Inland Empire Utilities Agency, A Municipal Water District, hereby certify that a copy of the agenda has been posted by 5:30 p.m. in the foyer at the Agency's main office, 6075 Kimball Ave., Building A, Chino, CA on Thursday, January 4, 2018.

April Woodruff
Engineering, Operations, and Water Resources Committee

ACTION
ITEM
1A
MINUTES

ENGINEERING, OPERATIONS, AND WATER RESOURCES COMMITTEE MEETING
INLAND EMPIRE UTILITIES AGENCY
AGENCY HEADQUARTERS, CHINO, CA

WEDNESDAY, DECEMBER 13, 2017
9:45 A.M.

COMMITTEE MEMBERS PRESENT
Michael Camacho, Chair
Kati Parker

STAFF PRESENT
Chris Berch, Executive Manager of Engineering/AGM
Kathy Besser, Executive Manager of External Affairs & Policy Development/AGM
Randy Lee, Executive Manager of Operations/AGM
Christina Valencia, Executive Manager of Finance & Administration/AGM
Jerry Burke, Deputy Manager of Engineering
Warren Green, Manager of Contracts & Procurement
Jason Gu, Grants Officer
Elizabeth Hurst, Water Resources Planner
Sally Lee, Executive Assistant
Liza Munoz, Senior Engineer
Jason Pivovaroff, Senior Engineer
Craig Proctor, Source Control/Environmental Resources Supervisor
John Scherck, Senior Project Manager
Travis Sprague, Senior Associate Engineer
Shaun Stone, Manager of Engineering
Ken Tam, Senior Associate Engineer
Teresa Velarde, Manager of Internal Audit
April Woodruff, Board Secretary/Office Manager

OTHERS PRESENT
Leticia White, Innovative Federal Strategies
Shavi Winters, Innovative Federal Strategies

The meeting was called to order at 10:23 a.m. There were no public comments received or additions to the agenda.

ACTION ITEMS
The Committee:

- Approved the Engineering, Operations, and Water Resources Committee meeting minutes of November 8, 2017.
Recommended that the Board:

1. Award a consultant contract for the RP-1 Capacity Recovery, Project Nos. EN24001 and EN24002, to Carollo Engineers Inc., for the not-to-exceed amount of $13,637,633; and

2. Authorize the General Manager to execute the consultant contract subject to non-substantive changes;

as an Action Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board:

1. Award a construction contract for the RP-5 Aeration Diffuser Replacement, Project No. PA17006.02, to Genesis Construction in the amount of $2,987,654; and

2. Authorize the General Manager to execute the contract;

as an Action Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board:

1. Award a construction contract for the Headquarters Buildings Roofing Replacement, Project No. CP16003, to Best Contracting Services Inc., in the amount of $1,024,070;

2. Approve a project budget reclassification in the amount of $1,311,000 in the Administration Services (GG) Fund from O&M to Capital Project; and

3. Authorize the General Manager to execute the contract and budget reclassification;

as an Action Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board:

1. Award a construction contract change order to J.F. Shea for the RP-1 Aeration Basin Panel Repairs, Project Nos. EN17040/PA17006.01, for the not-to-exceed amount of $115,218; and

2. Authorize the General Manager to execute the construction contract change order;

as a Consent Calendar Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board:

1. Approve a two-year On-Call Design and Construction Surveying Master Service Contract to WestLAND Group, Inc., for a not-to-exceed amount of $750,000;
2. Approve a two-year On-Call Design and Construction Surveying Master Services Contract to CASC Engineering and Consulting, Inc., for a not-to-exceed amount of $750,000; and

3. Authorize the General Manager to execute the Master Services Contracts subject to not-substantive changes;

as a Consent Calendar Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board:

1. Award a consultant contract for the Baseline Recycled Water Pipeline Extension, Project No. EN17049, to Carollo Engineers, Inc., for the not-to-exceed amount of $394,766; and

2. Authorize the General Manager to execute the consultant contract subject to non-substantive changes;

as a Consent Calendar Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board adopt Resolution No. 2017-12-2, requesting LAFCO to initiate a sphere adjustment and reorganization of the area to detach the 4.81 acres from IEUA and annex into SBVMD;

as a Consent Calendar Item on the December 20, 2017 Board meeting agenda.

Recommended that the Board:

1. Approve the Regional Pretreatment Agreement (Agreement) between IEUA and the City of Fontana; and

2. Authorize the General Manager to execute the Agreement, subject to non-substantive changes;

as a Consent Calendar Item on the December 20, 2017 Board meeting agenda.

INFORMATION ITEMS
The following information items were presented or received and filed by the Committee:

- Septic to Sewer Feasibility Study Update
- Upper Santa Ana River Habitat Conservation Plan & Integrated River Model Update
- SARCCUP Update
- Planning and Environmental Resources
- Engineering and Construction Management Projects Updates

GENERAL MANAGER’S COMMENTS
There was no comment.

COMMITTEE MEMBER COMMENTS
There were no Committee Member comments.

COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS
There were no Committee Member requested future agenda items.
With no further business, Director Camacho adjourned the meeting at 10:37 a.m.

Respectfully submitted,

April Woodruff
Board Secretary/Office Manager

*A Municipal Water District

APPROVED: JANUARY 10, 2018
Engineering, Operations, and Water Resources Committee

ACTION
ITEM
1B
Date: January 17, 2018
To: The Honorable Board of Directors
From: Halla Razak, General Manager
Committee: Engineering, Operations & Water Resources

Executive Contact: Chris Berch, Executive Manager of Engineering/AGM
Subject: Recycled Water System Cathodic Protection Consultant Contract Award

Executive Summary:
The recycled water (RW) distribution system is comprised of a 76-mile pipeline network within the IEUA service area. Some pipelines were constructed as early as 1977 with other segments as recent as 2017. Seventeen miles of the pipeline network does not have corrosion monitoring. Nineteen miles of the pipeline network requires an evaluation of the existing corrosion monitoring test stations. A partial evaluation of the corrosion monitoring test stations was completed in 2014. This project is intended to evaluate the corrosion monitoring test stations along the majority of the remaining pipeline and measure the soil corrosiveness along the pipeline network that does not have corrosion monitoring test stations. The consultant will be required to identify areas of corrosive soil and recommend whether additional engineering controls are required to prolong the life of the pipelines.

On November 28, 2017, IEUA received two consultant proposals which were evaluated by an internal selection committee to determine which proposal offered the best value. Staff determined that Corpro Companies Inc., provided the best value for this project due to their technical experience and approach. Corpro's fee proposal of $198,900 is within the project budget and was determined to be comprehensive and reasonable.

Staff's Recommendation:
1. Award an engineering consultant services contract for the RW System Cathodic Protection Improvements, Project No. EN17080, to Corpro Companies Inc., for a not-to-exceed amount of $198,900; and

2. Authorize the General Manager to execute the contract subject to non-substantive changes.

Budget Impact  Budgeted (Y/N): Y  Amendment (Y/N): N  Amount for Requested Approval:
Account/Project Name:
EN17080/RW System Cathodic Protection Improvements

Fiscal Impact (explain if not budgeted):
None.
Prior Board Action:
None.

Environmental Determination:
Categorical Exemption
CEQA identifies certain categories of projects as exempt from more detailed environmental review because these categories have been deemed to have no potential for significant impact on the environment. This project qualifies for a Categorical Exemption Class 6 as defined in Section 15306 of the State CEQA Guidelines.

Business Goal:
The RW System Cathodic Improvements Project is consistent with IEUA’s Business Goal of Water Reliability, specifically the Water Supplies objective that IEUA will support the region with the development of reliable, resilient, and sustainable water supplies from diverse sources.

Attachments:
Attachment 1 - PowerPoint
Attachment 2 - Consultant Contract
RW System Cathodic Protection Consultant Contract Award
Project No. EN17080

Travis Sprague
January 2013
The Project

- 76-miles of 10-inch to 72-inch pipelines constructed between 1977 and 2017
- Performed corrosion monitoring test station evaluation and measurement along 27-miles of pipeline in 2014
- 17-miles of pipeline without protection or corrosion monitoring
- 19-miles of pipeline require an evaluation of the corrosion monitoring stations
Consultant Selection

- Request for Proposals issued on October 25, 2017
- Two proposals received on November 28, 2017

<table>
<thead>
<tr>
<th>Proposals Received</th>
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<tbody>
<tr>
<td>Corpro Companies Inc.</td>
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<tr>
<td>HDR Inc.</td>
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</table>

- Evaluation and Selection Committee
  - Engineering and Construction Management, Operations and Maintenance, and Contracts and Procurement
  - Invitation sent to the Cities of Chino, Chino Hills, and Ontario
- Unanimously selected Corpro Companies Inc.
  - Comprehensive scope of work, project team experience, reputation with performing work, and project approach including innovative alternatives
# Project Budget and Schedule

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td><strong>Design Services</strong></td>
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<tr>
<td>Project Evaluation Contract (this item/NTE)</td>
<td>$198,900</td>
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<tr>
<td>Consultant Design Contract (estimate)</td>
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<td>IEUA Design Services (5%)</td>
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<td><strong>Construction Services</strong></td>
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<td>Design Consultant Construction Services (4%)</td>
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<tr>
<td>IEUA Construction Services (5%)</td>
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<tr>
<td><strong>Construction</strong></td>
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<tr>
<td>Construction (estimate)</td>
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<tr>
<td>Contingency (10%)</td>
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<td><strong>Total Project Cost:</strong></td>
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<td><strong>Total Project Budget:</strong></td>
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<td><strong>Remaining Budget:</strong></td>
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<th>Project Milestone</th>
<th>Date</th>
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<td><strong>Design</strong></td>
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<tr>
<td>Project Evaluation Contract Award</td>
<td>January 2018</td>
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<td>Tech Memo Completion</td>
<td>June 2018</td>
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<td>Consultant Design Contract Award</td>
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<td>Design Completion</td>
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<tr>
<td><strong>Construction</strong></td>
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<tr>
<td>Construction Contract Award</td>
<td>TBD</td>
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<tr>
<td>Construction Completion</td>
<td>TBD</td>
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</tbody>
</table>
Recommendation

- Award an engineering consultant services contract for the RW System Cathodic Protection Improvements, Project No. EN17080, to Corrpro Companies Inc., for a not-to-exceed amount of $198,900; and
- Authorize the General Manager to execute the contract subject to non-substantive changes.

The RW System Cathodic Improvements Project is consistent with IEUA's Business Goal of Water Reliability specifically the Water Supplies objective that IEUA will support the region with the development of reliable, resilient, and sustainable water supplies from diverse sources.
CONTRACT NUMBER: 4600002464

FOR

CORROSION ASSESSMENT SERVICES

OF

RECYCLED WATER CATHODIC PROTECTION IMPROVEMENTS

SOIL ANALYSIS SURVEY PROJECT NO. EN17080

THIS CONTRACT (the "Contract"), is made and entered into this day of January, 2018, 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 interchangeably as "IEUA" and "Agency") and Corpro Companies, Inc., an Aegion Company, with offices located in Santa Fe Springs, California (hereinafter referred to as "Consultant"), for professional soil analysis and pipe-to-soil potential survey on the recycled water distribution pipelines in support of Project EN17080.

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

1. **AGENCY 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: Travis Sprague
   Senior Associate Engineer
   Address: 6075 Kimball Avenue, Bldg. "B"
   Chino, California 91708
   Telephone: (909) 993-1942
   Facsimile: (909) 993-1982
   Email: tsprague@ieua.org

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

   Consultant: Sarvjit Singh
   Project Manager
   Address: 10260 Matern Place
   Santa Fe Springs, California 90670
   Telephone: (562) 944-1636
   Facsimile: (562) 946-5634
   Email: ssingh@aegion.com
3. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions the governing order of precedence shall be as follows:

   A. Amendments to Contract Number 4600002464.
   B. Contract Number 4600002464 General Terms and Conditions.
   C. IEUA Request for Proposals RFP-RW-17-032 and all germane addenda, incorporated herein by this reference.
   D. Consultant's Proposal received November 28, 2017, incorporated herein by this reference.

4. **SCOPE OF WORK AND SERVICES:** Consultant services and responsibilities, hereinafter referred to as "the Work," shall include and be in accordance with IEUA Request for Proposals RFP-RW-17-032 and all germane addenda, incorporated herein by this reference.

   A. Method of Work Inspection:
      
      1. Work performed under this Contract may be required to undergo monthly, weekly, or daily inspections.
      
      2. The Project Manager shall be responsible for performance of the inspections.
      
      3. If Consultant fails an inspection, the Project Manager shall be responsible for providing a written notice to the Consultant explaining the error and a determination of the urgency for the correction of the error (herein referred to as a "Cure Notice").

   B. Cure Procedure:
      
      1. For a Cure Notice deemed by the Agency to be **urgent**, Consultant shall correct any error of the Work within three (3) calendar days after Consultant's receipt of a Cure Notice, as directed by the Project Manager.
      
      2. For a Cure Notice deemed by the Agency to be **important**, Consultant shall correct any error of the Work within seven (7) calendar days after Consultant's receipt of a Cure Notice, as directed by the Project Manager.
      
      3. If the Project Manager rejects all, or any part of, the Work as unacceptable and agreement to correct such Work cannot be reached without modification to the Contract, Consultant shall notify the Project Manager, in writing, detailing the dispute and the reason(s) 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.
C. 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.

5. **TERM:** The term of this Contract shall extend from the date of the Notice to Proceed, and terminate upon **December 31, 2018** unless agreed to by both parties, reduced to writing, and amended to this contract.

6. **PAYMENT, INVOICING, AND COMPENSATION:**

A. As compensation for the Work performed under this Contract, Agency shall pay Consultant's monthly invoicing for a total **NOT-TO-EXCEED MAXIMUM $198,900.00** for all services satisfactorily provided during the term of this Contract, as referenced in Consultant's Price Schedule and Fee Schedule, attached hereto, referenced herein, and made a part hereof as [Attachment 1](#). Consultant shall submit invoicing by email to [APGroup@ieua.org](mailto:APGroup@ieua.org).

B. The Consultant may submit an invoice not more than once per month during the term of this Contract utilizing Consulting Services Invoice Template [Attachment 2](#), attached hereto and made a part hereof, for the submittal of each invoice. (The template in Excel format will be furnished to Consultant by the cognizant IEUA Project Manager.) Agency shall pay Consultant's properly executed invoice, approved by the Project Manager, within thirty (30) days following receipt of the invoice.

C. **No Additional Compensation:** Nothing set forth in this Contract shall be interpreted to require payment by the Agency to Consultant of any compensation specifically for the assignments and assurances required by the Contract, other than the payment of expenses as may be actually incurred by Consultant in complying with this Contract, as approved by the Project Manager.

D. Consultant may request taking advantage of the Agency's practice of offering an expedited payment protocol to a Consultant who has proposed accepting an invoice amount reduction in exchange for early payment.

E. For performance of any Work determined to be public works in excess of $25,000.00 per occurrence, Contractor shall provide with their invoice a [certified payroll](#) verifying that Consultant has paid prevailing wage in accordance with the Department of Industrial Relations requirements as stipulated in California Senate Bill SB-854 [http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html](http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html).

7. **CONTROL OF THE WORK:** Consultant shall perform the Work in compliance with the Schedule of Work and Services. 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. **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 appropriates to the Consultant's profession, with limit no less than $1,000,000 per occurrence or claim, $2,000,000 aggregate.

   a. **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.

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

5. **Commercial 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.

6. 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.

7. 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.
c. **Acceptability of Insurers:** All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A minus:VII, and who are admitted insurers in the State of California.

d. **Verification of Coverage:** Consultant shall provide 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.

e. **Submittal of Certificates:** Consultant shall submit all required certificates and endorsements to the following:

   Inland Empire Utilities Agency, a Municipal Water District  
   Attn: Risk Specialist Angela Witte  
   P.O. Box 9020  
   Chino Hills, California 91709  
   Email: AWitte@ieua.org

9. **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 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.
C. **Effective January 1, 2015:** The call for bids and contract documents must include the following information in compliance with The Department of Industrial Relations (DIR):

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

2. 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 DIR pursuant to Labor Code section 1725.5.

3. This project is subject to compliance monitoring and enforcement by the DIR. As such, a PWC-100 will be generated for any Work determined to be public works with valuation of $25,000.00 or greater.

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 providing 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 relevant existing state and federal laws and all relevant county and city ordinances and regulations which pertain to structural engineering 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 laws, ordinances, regulations, orders and decrees, and shall to the extent of Consultant's negligence, 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 Consultant or its employees.

D. **Precautions and Programs:**

1. 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.

2. 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.

3. 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.

4. 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:
   a) All employees on the work or work site and other persons and organizations who may be affected thereby;
   b) All the work and materials and equipment to be incorporated therein, whether in storage or on or off the work site; and
   c) All other property at the site.

5. 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.

6. 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. Grant Funded Projects: This is not a grant funded project. For grant-funded projects, the Consultant shall be responsible to comply with all grant requirements related to the Project. 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.
G. **Hours of Labor:** The Consultant shall comply with all applicable provisions of California Labor Code Sections 1810 to 1815 relating to working hours. The Consultant shall, as a penalty to the Agency, forfeit $25.00 for each worker employed in the completion 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 hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code.

H. **Travel and Subsistence Pay:** The Consultant shall make payment to each worker for travel and subsistence payments which are needed to complete the work and/or service, as such travel and subsistence payments are defined in an applicable collective bargaining agreements with the worker.

I. **Liens:** Consultant shall pay all sums of money that become due from any labor, services, materials or equipment provided to Consultant on account of said services to be rendered or said materials to be provided 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.

J. **Indemnification:** Consultant shall indemnify the Agency, its directors, employees and assigns, and shall defend 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.

Consultant agrees to indemnify, including the cost to defend, entity and its officers, officials, employees, and volunteers from and against any and all claims, demands, costs, or liability that arise out of, or pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant and its employees or agents in the performance of services under this contract, but this indemnity does not apply to liability for damages arising from the sole negligence, active negligence, or willful acts of the Public Entity; and does not apply to any passive negligence of the Public Entity unless caused at least in part by Consultant.

K. **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.

L. **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

M. Non-Conforming Work and Warranty: Consistent with the standard of skill and care set forth in Section 10.4, Professional Responsibility, Consultant represents and warrants that the Work and Documentation shall be adequate to serve the purposes described in the Contract. 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 Consultant's position. Any dispute that cannot be resolved between the Project Manager and the Consultant, shall be resolved in accordance with the Dispute Section of this Contract.

N. 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 prior to the work starting 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 to this Contract 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. Association in Mediation/Arbitration: The Agency may join the Consultant in mediation or arbitration commenced by a Consultant on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such association shall be initiated by written notice from the Agency's representative to the Consultant.

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 Consultant and/or the Consultant'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 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.

Said materials and documents shall not be changed or used for purposes other than those set forth in the Contract without the prior written approval of Consultant. If Agency reuses the materials and documents without Consultant's prior written consent, changes or uses
the materials and documents other than as intended under this Contract, Agency shall do so at its sole risk and discretion, and Consultant shall not be liable for any claims and/or damages resulting from use or connected with the release of or any third party's use of the reused materials or documents.

12. **TITLE AND RISK OF LOSS:**

A. **Documentation:** Title to the Documentation shall pass, subject to payment therefore, 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, subject to payment therefore, 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.

13. **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:

1. 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.

2. 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 are necessary for Agency to have complete control of the Work, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete control of the Work, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and grant sublicenses to others with respect to the Work.

3. If the Work 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 control of the Work,
including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and grant sublicenses to others with respect to the Work. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

14. **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 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 to the extent of Consultant's negligence for 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 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.

15. **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 T. Green  
Manager of Contracts and Procurement  
Inland Empire Utilities Agency, a Municipal Water District  
P.O Box 9020  
Chino Hills, California 91709

**Consultant:** Michael Kolster  
Operations Manager  
Corpro Companies, Inc.  
10260 Matern Place  
Santa Fe Springs, California 90670

Any notice given pursuant to this section 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.

16. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall take effect to the benefit of and be binding upon the Agency, the Consultant, and their respective successors and assigns. 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.

17. **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.

18. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Consultants' 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.

19. **INTEGRATION:** The Contract Documents represent the entire Contract made and entered into by and between the Agency and the Consultant as to those matters contained in this contract. 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.

20. **GOVERNING LAW:** This Contract is to be governed by and constructed in accordance with the laws of the State of California, in the County of San Bernardino.

21. **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, as approved by the Project Manager.

22. **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.

23. **NOTICE TO PROCEED:** No services shall be performed or provided 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.
24. AUTHORITY TO EXECUTE CONTRACT: The Signatories, below, each represents, warrants, and covenants that they have the full authority and right to enter into this Contract on behalf of the separate entities shown below.

25. DELIVERY OF DOCUMENTS: The Parties to this Contract and the individuals named to facilitate the realization of its intent, with the execution of the Contract, authorize the delivery of documents via facsimile, via email, and via portable document format (PDF) and covenant agreement to be bound by such electronic versions.

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)

Halla H. Razak  
General Manager

CORRPRO COMPANIES, INC.:  

Edward Bonar  
Area Operations Manager

(Date)  
(Date)

[ Balance Of This Page Intentionally Left Blank ]
Attachment 1
PROPOSAL PRICE SCHEDULE

Offeror shall complete this Proposal Schedule and shall return with their submittal. All proposal costs shall include respective itemized costs associated with all labor, equipment, materials, transportation, overhead, travel, profit, insurance, sales and other taxes, licenses, incidentals, and all other related costs necessary to meet the work requirements. At any time, IEUA may require that these costs be itemized.

Offeror shall hold their pricing firm, and free from expiration, for ninety (90) days.

Offeror has thoroughly read this RFP and agrees to all the terms and conditions provided herein.

Total Amount of Bid: $198,900

Total Amount In Words: One hundred ninety eight thousand and nine hundred.

Delivery Lead-time in calendar days after receipt of Contract: 180 days

ADDITIVE UNIT PRICE

The Agency assumes that all additive unit costs have been filled in and that the prices are reasonable. However, it is understood that the additive prices are subject to the IEUA's approval prior to award of the Contract. Unit prices shall be used for actual additions of actual items and quantities performed in the field.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Description</th>
<th>Quantities</th>
<th>Unit Price $</th>
<th>Unit Price (written)</th>
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<tr>
<td>1.</td>
<td>Additional Wenner testing</td>
<td>1 test</td>
<td>$650</td>
<td>Six hundred ninety dollars</td>
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<tr>
<td>2.</td>
<td>Investigation and documentation of any identified foreign facilities</td>
<td>1 investigation and documentation</td>
<td>$1,900</td>
<td>One thousand nine hundred dollars</td>
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Offeror Signature

SARVJIT SINGH

Printed Name

Title

Company Name

Date
### IEUA - Corrosion Assessment Services Project RFP-RW-17-032
Cathodic Protection Systems Testing Project
Fee Schedule - Estimated Cost Breakdown for Corrosion Engineering and Testing Services

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Manpower Hours</th>
<th>Total (Hrs.)</th>
<th>Cost ($)</th>
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<td>Labor Rate ($/Hr.)</td>
<td>Project Director (Hrs.)</td>
<td>Project Sr. Manager (Hrs.)</td>
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<td>Task 1 - General Coordination, Project Administration and Planning</td>
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<td>Task 1.1 Project kick-off meeting, agenda and meeting minutes</td>
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<td>16</td>
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<tr>
<td>Task 1.2 Prepare CPM schedule and update it as required</td>
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<td>Task 1.3 Administration of budget and schedule</td>
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<td>Task 1.4 Review of pertinent project information for the project</td>
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<td>Subtotal of Tasks 1.1 through 1.8</td>
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<td>116</td>
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<td>Task 2 - Field Testing</td>
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<tr>
<td>Task 2.1 Perform soil resistivity testing using Emag method and identify potential source of interference</td>
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<td>182</td>
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<tr>
<td>Task 2.2 Conduct 4-pin Wenner soil resistivity testing</td>
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<td>115</td>
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<tr>
<td>Task 2.3 Soil sample collection and lab testing</td>
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<td>121</td>
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<td>Task 2.4 Electrochemical potential and FK testing, GIS data collection</td>
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<td>Subtotal of Tasks 2.1 through 2.4</td>
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<td>Task 3 - Technical Memorandum</td>
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<tr>
<td>Task 3.1 Prepare draft technical memorandum including GIS information</td>
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<td>Task 3.2 Conduct a technical workshop</td>
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<tr>
<td>Task 3.3 Incorporate comments and issue final technical memorandum</td>
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<td>Subtotal of Tasks 3.1 through 3.3</td>
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<tr>
<td>Task 4 - Traffic Control plans, Equipment and Permits</td>
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<tr>
<td>Task 4.1 Prepare traffic control plans, setup traffic control eqpt and obtain permits</td>
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| Total Fee | $198,600.00 |
Attachment 2
## INLAND EMPIRE UTILITIES AGENCY
### CONSULTING SERVICES INVOICE

**Company:** ABC Company  
**Address:**  
**Phone No.:**  
**Pay Est. No.:**  
**Contract Date:**  
**Invoice No./Consult Ref:** XXXXXX  
**Contract No.:** 45-xxxx  
**IEUA Project Manager:** Jamal Zughbi  
**Invoice Date:**  
**This Period:** From: 9/1/2015 To: 9/30/2015  
**Proj. Name & No.: RP-1 Improvements Project, EN15xxxx**

### ORIGINAL CONTRACT:

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<th>PO No.</th>
<th>SAP Line Item No.</th>
<th>WBS Element No.</th>
<th>Item Description</th>
<th>Original Contr. Value</th>
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<th>Total to Date From: 9/1/2015 To: 9/30/2015</th>
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<td>Constr Support Services</td>
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<td>Subtotal Original Contr.</td>
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### CONTRACT AMENDMENTS:

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<th>WBS Element No.</th>
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<th>Amended Contract Value</th>
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<th>Total to Date From: To:</th>
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|                          |                  |                  |                       |                          | Subtotal Contr. Amend | $0.00 | $0.00 | $0.00 | $0.00 |
|                          |                  |                  |                       |                          | Total Cont. w/ 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 Original 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  
**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  
**Contract Time Expired:** 102%

### PROJECT COMPLETION SUMMARY:

**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:*  

---

11/11/2015
ACTION
ITEM
1C
Executive Contact: Chris Berch, Executive Manager of Engineering/AGM

Subject: RP-1 Mixed Liquor Return Pumps Consultant Contract Amendment

Executive Summary:

In 2015, the RP-1 Mixed Liquor Return Pumps Project was created to add new mixed liquor return pumps to each of the aeration basin systems. These improvements will regain the lost treatment capacity due to higher strength wastewater by enhancing the removal of total inorganic nitrogen.

In November 2015, an engineering service contract was awarded to RMC Water and Environment (RMC). In September 2016, the existing contract with RMC was amended for engineering services during construction. During construction, additional engineering support effort was required; this included additional shop drawing review, field visit/meetings, and standard operations manual preparation.

Staff is recommending a contract amendment to RMC for engineering services during construction in the amount of $95,246, increasing RMC's contract from $691,736 to $786,982.

Staff's Recommendation:

1. Approve a contract amendment for the RP-1 Mixed Liquor Return Pumps, Project No. EN16024, to RMC Water and Environment for a not-to-exceed amount of $95,246; and

2. Authorize the General Manager to execute the contract amendment subject to non-substantive changes.

Budget Impact  

Budgeted (Y/N): Y  Amendment (Y/N): N  Amount for Requested Approval:

Account/Project Name:
EN16024/TP-1 Mixed Liquor Return Pumps Project

Fiscal Impact (explain if not budgeted):

None.
Prior Board Action:

On September 21, 2016, the Board of Directors approved a contract amendment for engineering services during construction for the RP-1 Mixed Liquor Return Pumps, Project No. EN16024, to RMC Water and Environment for a not-to-exceed amount of $203,000.

On November 18, 2015, the Board of Directors awarded a contract for engineering consulting services for the RP-1 Mixed Liquor Return Pumps, Project No. EN16024, to RMC Water and Environment for a not-to-exceed amount of $424,198.

Environmental Determination:
Categorical Exemption

CEQA identifies certain categories of projects as exempt from more detailed environmental review because these categories have been deemed to have no potential for significant impact on the environment. This project qualifies for a Categorical Exemption Class 1 as defined in Section 15301(b) of the State CEQA Guidelines.

Business Goal:

The RP-1 Mixed Liquor Return Pumps Project is consistent with IEUA’s Business Goal of Wastewater Management, specifically the Water Quality Objective where IEUA will ensure that Agency systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.

Attachments:
Attachment 1 - PowerPoint
Attachment 2 - Consultant Contract Amendment
RP-1 Mixed Liquor Return Pumps
Consultant Contract Amendment
Project No. EN16024

Shaun J. Stone, P.E.
January 2018
The Project

- Engineering support effort exceeded originally anticipated support of the following:
  - Review of RFIs and submittals
  - O&M manual development
  - Project Management
  - Site visits and meetings
# Project Budget and Schedule

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<td>September 2016</td>
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<tr>
<td>Construction Completion</td>
<td>April 2018</td>
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*Inland Empire Utilities Agency*
*A Municipal Water District*
Recommendation

- Approve a contract amendment for the RP-1 Mixed Liquor Return Pumps, Project No. EN16024, to RMC Water and Environment for a not-to-exceed amount of $95,246; and
- Authorize the General Manager to execute the contact amendment subject to non-substantive changes.

The RP-1 Mixed Liquor Return Pumps Project is consistent with IEUA's Business Goal of Wastewater Management, specifically the Water Quality Objective where IEUA will ensure that Agency systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.
AMENDMENT NUMBER: 4600002012-005

FOR

MIXED LIQUOR RETURN PUMPS, PROJECT NO. EN16024

THIS AMENDMENT NUMBER FIVE to Contract Number 4600002012, made and entered into this _____ day of ________________, ________ between the Inland Empire Utilities Agency, a Municipal Water District and RMC Water and Environment, Inc., a Woodard & Curran Company with offices in Irvine, California shall revise the Contract as follows:

REVISE SECTION 4, SCOPE OF WORK AND SERVICES TO ADD:

Additional services and responsibilities shall include and be in accordance with Consultant’s letter proposal dated November 20, 2017, which is attached hereto and made a part hereof by this reference as Attachment 1.

REVISE SECTION 6, COMPENSATIONS, THIRD PARAGRAPH TO READ:

In compensation for the additional work represented by this Contract Amendment, Agency shall pay Consultant a Not-to-Exceed maximum total of $786,982.00 for all services provided in accordance with Attachment 1 referenced herein. (NOTE: This Amendment represents a net increase of $95,246.00 as per SAP Purchase Requisition 10043103.)

ALL OTHER PROVISIONS OF THIS CONTRACT REMAIN UNCHANGED.

The parties hereto have mutually covenanted and agreed as per the above amendment item(s), and in doing so have caused this document to become incorporated into the Contract documents.

INLAND EMPIRE UTILITIES AGENCY
(a Municipal Water District)

RMC WATER AND ENVIRONMENT, INC.,
A WOODARD & CURRAN COMPANY:

Halla H. Razak (Date) Scott Goldman (Date)
General Manager Principal-in-Charge
Attachment 1
November 20, 2017

Ryan Walker
Project Manager
Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91708

Subject: RP-1 Mixed Liquor Return Pumps, IEUA Project No. EN16024 Revised Amendment Request No. 5

Dear Mr. Walker:


The enclosed proposal includes background, scope of work, schedule impacts, and fee impacts to complete the additional work. If you have any questions or would like to discuss this proposal, please contact me at (949) 420-5314.

Sincerely,

Woodard & Curran

[Signature]

Scott Goldman
Principal-in-Charge

Approved by:

Inland Empire Utilities Agency

[Signature]

Name ___________________________ Date _______________________
BACKGROUND

Engineering Support During Construction (Task 7)
On October 5, 2016, the Inland Empire Utilities Agency (IEUA) issued Contract Amendment No. 4600002012-003 to RMC (now Woodard & Curran) in the amount of $202,557.00 for Engineering Services During Construction (ESDC) of RP-1 Mixed Liquor Return Pumps (Project No. EN16024) and RP-1 Aeration Basin Panel Repairs (Project No. EN17040). The scope of these services included the following tasks:

- Task 7.1 – Preparation of Conformed Drawings
- Task 7.2 – Meetings and Site Visits
- Task 7.3 – Submittal Reviews
- Task 7.4 – Respond to Requests for Information (RFIs)
- Task 7.5 – Review of Construction Change Order Requests
- Task 7.6 – Startup and Testing Assistance
- Task 7.7 – Preparation of Record Drawings
- Task 7.8 – Project Management

Since the level of effort for each of these tasks was highly dependent upon variables beyond Woodard & Curran’s direct control, assumptions used as the basis for the Fee Estimate were detailed in the scope of services. The assumptions used in the original scope of services are stated below under “Estimate to Complete”.

On May 2, 2017, IEUA was notified that the budgets for several tasks were nearing or had exceeded their originally estimated line item budgets, but that the overall budget had not been exceeded. It was agreed to proceed with the work and to provide an Estimate to Complete if the overall budget was anticipated to be exceeded. Based on progress to date, the original ESDC amount will be exceeded. An estimate to complete ESDC tasks has been prepared and a basis for adjustment to the original line item budgets for the following tasks is included herein:

- Task 7.2 – Meetings and Site Visits
- Task 7.3 – Submittal Reviews
- Task 7.4 – Respond to Requests for Information (RFIs)
- Task 7.8 – Project Management

Expanded Operations & Maintenance Manual (Task 8)
Under Contract No. 4600002012, Woodard & Curran was required to update the existing Operations & Maintenance (O&M) Manual for the RP-1 Aeration System to reflect the new Mixed Liquor Return Pump system. The amount included for this scope of work was $12,969.00. On February 2, 2017, IEUA issued Contract Amendment No. 4600002012-004 in the amount of $21,468.00 for additional costs to expand the scope of the O&M Manual to include the entire RP-1 Secondary Treatment Process. The scope of services included 1) updating existing procedures to reflect current operations and equipment, and 2) incorporating these procedures into IEUA’s revised O&M Manual format. The following elements were identified for inclusion in the scope of services:

- Intermediate Pump Station Systems
- Aeration Basins
- Aeration Blowers
- Secondary Clarifiers

Amendment No. 5 for RP-1 Mixed Liquor Return Pumps
• Return Activated Sludge Pump Systems
• Waste Activated Sludge Pump Systems
• Chemical Feed Systems

On June 13, 2017, Woodard & Curran met with IEUA to discuss progress and completion of the O&M Manual. Based on progress to date and additional effort required to develop portions of the O&M Manual, an estimate to complete this task has been prepared and a basis for adjustment to the original line item budget is included herein.

On September 11, 2017 Woodard & Curran submitted Amendment Request No. 5 that included the additional effort to complete the O&M Manual. The O&M Manual for RP-4 was provided as a template for the new format. However, the equipment, controls and system at RP-4 are very different from the RP-1.

ESTIMATE TO COMPLETE

Engineering Support During Construction (Task 7)

Task 7.2 – Meetings and Site Visits

As a basis for its original estimate, Woodard & Curran assumed the following regarding meetings and site visit tasks:

• Woodard & Curran will attend the following workshops:
  • Preconstruction Meeting
  • Overall System Workshop
  • Electrical, I&C and Mechanical Workshop
  • SCADA System Programming Workshop
  • 70% Complete Workshop
  • Testing, Training, Start-Up and Commissioning Workshop

For budgeting purposes, Woodard & Curran has assumed two attendees will participate in each workshop, except for the Preconstruction Meeting and the 70% Complete Workshop, which will only have one Woodard & Curran attendee. This task assumes 8 labor hours per attendee per workshop, including travel time and preparation.

• Woodard & Curran will attend select weekly progress meetings by teleconference. For budgeting purposes, Woodard & Curran will remotely attend 20 progress meetings via teleconference, assuming 1.5 labor hours per progress meeting.

Through October 2017, the total expenditure for Task 7.2, Meetings and Site Visits, is $38,877.71. With an original budget of $33,514.00, Woodard & Curran has exceeded the existing budget by $5,363.71 because Woodard & Curran has been requested to attend weekly construction meetings by teleconference. Progress meetings are now scheduled every other week, leaving a total of 10 progress meetings to be attended by teleconference through March 2018, which is the completion date reflected in the Contractor’s latest schedule update. The budget request includes 1 hour for W&C and 1 hour for TJC for each progress meeting.
In addition, both the 70% Complete Workshop and Testing, Training, Start-Up and Commissioning Workshop require Woodard & Curran attendance. However, both workshops can be attended by teleconference and do not require any preparation from Woodard & Curran. The budget request includes 2 hours for W&C and TJC to attend the Startup Workshop, and 2 hours for only W&C to attend the 70% Workshop.

Task 7.3 – Submittal Reviews

Based on a List of Anticipated Submittals developed during the design phase, the original scope of work included review of 80 submittals/resubmittals at an average of 4.5 hours per submittal/resubmittal for a total of 360 hours. To date, Woodard & Curran has spent 430 hours reviewing and responding to 92 submittals/resubmittals, as requested by IEUA. At this time, it is anticipated that a total of 8 submittals/resubmittals that will require review remain, including:

- Integrated Power Center Structural Calculations
- Submersible Propeller Pump Factory Test Results
- Variable Frequency Drive Certificate of Compatibility
- Various O&M Manuals
  - Submersible Propeller Pumps
  - Submersible Mixers
  - Instrumentation
  - Electrical Switchgear
  - Control Panels

The budget increase requested for this task, as detailed in the attached Fee Estimate, is to cover the exceedance of the original estimated level of effort, plus an additional amount to review and respond to the estimated 8 submittals/resubmittals that remain.

Task 7.4 – Respond to Requests for Information (RFIs)

The original scope and fee included review of up to 20 RFIs at an average of 4 hours per RFI for a total of 80 hours. To date, Woodard & Curran has spent 202 hours reviewing 65 RFIs, as requested by IEUA. At this time, IEUA does not see that Woodard & Curran will need to respond to any additional RFIs.

The budget increase requested for this task, as detailed in the attached Fee Estimate, is to cover the exceedance of the original estimated level of effort.

Task 7.8 – Project Management

As a basis for its original estimate, Woodard & Curran assumed the following regarding project management (PM) tasks:

- Project management includes regular client communications; monthly progress reports submitted with the project invoice; and schedule, scope and budget tracking for this phase of the project. Project management effort was based on a 16-month duration for construction. For budgeting purposes, a total of 76 hours for project management was assumed.
This task assumed 8 hours to support development and finalization of an Asset List for IEUA. For the 70% Complete Workshop, Woodard & Curran would develop an Asset List that reflects actual equipment installed at that time and proposed remaining equipment to be installed. This list would be turned over to the Contractor to update with information such as cost, warranty period, etc. and submit at 95% Construction Completion. Woodard & Curran would then review and prepare a Final Asset List for IEUA.

During construction, Woodard & Curran has expended considerably more effort in PM tasks than originally anticipated, responding to unanticipated Agency queries (e.g., baffle wall design criteria, pipe support design criteria, etc.), and additional communications with pre-selected equipment suppliers at the request of the Agency. Another unanticipated PM task included reviewing and responding to a letter from JTI Companies, Inc. contesting the Contractor’s use of an alternate pipe support system. At this time, it is anticipated that the monthly PM tasks will decrease as construction heads into the remaining aeration basins. The average monthly project management cost to date has been approximately $2,645. This is assumed to be reduced for the remainder of the construction to approximately $1,100 per month over the remaining five months (November 2017 through March 2018).

**Expanded Operations & Maintenance Manual (Task 8)**
As a basis for its original estimate, Woodard & Curran assumed that existing information would be readily available for the identified elements of the O&M Manuals, including the Standard Operating Procedures (SOP) and Unit Process Control Procedures (UPCP). As work has proceeded, Woodard & Curran has discovered that the SOPs and UPCPs for the RP-1 Secondary Treatment System either did not exist or could not be reused and needed to be developed.

Currently, Woodard & Curran has expended approximately 90% of its budget for work associated with the O&M Manual. To complete the O&M Manual, Woodard & Curran estimates that an additional 120 hours will be required, which includes additional site visits and interviews with IEUA Operations staff.

The estimated level of effort to complete this task has been estimated based on the following assumptions:

1) Three (3) additional site visits, including interviews with IEUA Operations staff.
2) IEUA will provide operational data, SCADA information, record drawings and control system settings showing the existing configuration of processes, as requested by Woodard & Curran.
3) IEUA will provide Manufacturer shop drawings, product information and operating data for installed equipment.
4) IEUA’s revised Operations & Maintenance Manual Standard Specifications and Template will be followed.

**BUDGET**

**Engineering Support During Construction (Task 7)**
The total estimated cost to complete the tasks included under Task 7 is $75,571.00. This amount covers the exceedance of the original estimated level of effort and includes additional estimated fees to complete the project. A breakdown of the additional fees is attached.

**Expanded Operations & Maintenance Manual (Task 8)**
The total estimated cost to complete the tasks included under Task 8 is $19,675.00. A breakdown of the additional fees is attached.

*Amendment No. 5 for RP-1 Mixed Liquor Return Pumps*
SCHEDULE

**Engineering Support During Construction (Task 7)**
The schedule to complete ESDC tasks will continue to be dictated by the Contractor’s schedule and actual progress. Currently, the Contractor’s latest schedule update reflects project completion in March 2018.

**Expanded Operations & Maintenance Manual (Task 8)**
The following schedule is proposed for the Secondary Treatment Process O&M Manual:

- Draft O&M Manual: 4 weeks following approval of Amendment
- Final O&M Manual: 2 weeks following receipt of IEUA comments
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1. The individual hourly rates include salary, overhead and profit.
2. Subconsultants will be billed at actual cost plus 10%.
3. Other direct costs (GDCs) such as reproduction, delivery, mineage.
4. RMC reserves the right to adjust its hourly rate structure and GDC.
ACTION
ITEM
1D
Date: January 17, 2018
To: The Honorable Board of Directors
From: Halla Razak, General Manager
Committee: Engineering, Operations & Water Resources

Executive Contact: Chris Berch, Executive Manager of Engineering/AGM
Subject: RP-1 Recycled Water Pump Station Consultant Contract Amendment

Executive Summary:
In May 2017, IEUA awarded an engineering services contract to Stantec for the RP-1 1158 Recycled Water (RW) Pump Station Upgrades Project. Following the completion of the pre-design phase, a site walk was conducted with RP-1 operations staff. During the site visit, additional scope items were identified that were deemed relevant to the project.

Engineering staff reviewed and vetted the additional scope. The additional scope items include the following:

1. Replacement of the two pump station transformers
2. Evaluation/replacement of the isolation valves
3. Evaluation of the pump station flow meter
4. Evaluation the Power Center Building HVAC system

The expanded scope of work will require an additional level of effort by the design consultant. A contract amendment is requested for an amount of $88,900 to cover the additional engineering design services, increasing Stantec's contract from $445,618 to $534,518.

Staff’s Recommendation:
1. Approve a contract amendment for the RP-1 RW Pump Station Upgrades, Project No. EN14042, to Stantec for a not-to-exceed amount of $88,900; and

2. Authorize the General Manager to execute the contract amendment subject to non-substantive changes.

Budget Impact

Budgeted (Y/N): Y
Amendment (Y/N): N
Amount for Requested Approval:

Account/Project Name:
EN14042/RP-1 1158 RW Pump Station Upgrades

Fiscal Impact (explain if not budgeted):
None.
Prior Board Action:

On May 17, 2017, the Board of Directors awarded a contract for engineering consulting services for the RP-1 1158 RW Pump Station Upgrades, Project No. EN14042, to Stantec for a not-to-exceed amount of $428,000.

Environmental Determination:
Categorical Exemption

CEQA identifies certain categories of projects as exempt from more detailed environmental review because these categories have been deemed to have no potential for significant impact on the environment. This project qualifies for a Categorical Exemption Class 1 as defined in Section 15301(b) of the State CEQA Guidelines.

Business Goal:

The RP-1 RW Pump Station Upgrades Project is consistent with IEUA’s Business Goal of Wastewater Management, specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.

Attachments:

Attachment 1 - PowerPoint
Attachment 2 - Consultant Contract Amendment
RP-1 Recycled Water Pump Station Consultant Contract Amendment Project No. EN14042

John Scherck, CCM
January 2018
Project Location: RP-1

1158 Recycled Water Pump Station
The Project

- **Current Project Scope**
  - Replace existing 400 HP pumps with 700 HP pumps
  - Replace existing variable frequency drives
  - Replace existing surge tank with larger surge control system

- **Proposed Amendment Scope**
  - Replace two existing transformers
  - Replace existing isolation valves
  - Evaluate existing flow meter
  - Evaluate existing Power Center Building HVAC system
# Project Budget and Schedule

<table>
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<tr>
<th>Description</th>
<th>Estimated Cost</th>
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*The total project budget will be adjusted during the FY 2018/19 budget process. The project has a pending SRF loan.

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</table>
Recommendation

• Approve a contract amendment for the RP-1 RW Pump Station Upgrades, Project No. EN14042, to Stantec for a not-to-exceed amount of $88,900; and
• Authorize the General Manager to execute the contract amendment subject to non-substantive changes.

The RP-1 Recycled Water Pump Station Upgrades Project is consistent with IEUA’s Business Goal of Wastewater Management, specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.
AMENDMENT NUMBER ONE is made and entered into this _____ day of ____________, ______, 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 interchangeably as "Agency" and "IEUA") and Stantec Consulting Services, Inc., with offices located in Irvine, California (hereinafter referred to as "Consultant") for consulting services related to RP-1 1158 Recycled Water Pump Station Upgrades, Project No. EN14042, and shall revise the Contract as amended:

SECTION 4. SCOPE OF WORK AND SERVICES, IS HEREBY AMENDED TO ADD THE FOLLOWING:

Consultant shall also provide the additional consulting services outlined in Consultant’s December 7, 2017 Proposal, which is referenced herein, attached hereto as Exhibit A-002, and incorporated herein by reference. Consultant shall provide such services at the time, place, and in the manner specified in Exhibit A-002, subject to the direction of the Agency through its staff.

SECTION 6. COMPENSATION, IS HEREBY AMENDED TO ADD THE FOLLOWING:

The total NOT-TO-EXCEED amount of the Contract, inclusive of this Amendment No. 2, is $534,518.00, a net increase of $88,900.00 as compensation for additional work represented by Exhibit A-002, for all services provided throughout the term of this Contract and as authorized by SAP Purchase Requisition 10043091.

ALL OTHER PROVISIONS OF THIS CONTRACT REMAIN UNCHANGED.

[Signature Page To Follow]
WITNESSETH, that the parties hereto have mutually covenanted and agreed as per the above amendment item(s), and in doing so have caused this document to become incorporated into the Contract Documents.

INLAND EMPIRE UTILITIES AGENCY:  
(A MUNICIPAL WATER DISTRICT)  

Halla H. Razak  
General Manager  
(Date)  

STANTEC CONSULTING SERVICES, INC:  

Robert Reid  
Principal-In-Charge  
(Date)  

12/18/17

[ Balance Of This Page Intentionally Left Blank ]
December 7, 2017
File: 2042518702

Attention:  John Scherck, CCM
Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91708

Reference: Proposal for Second Contract Amendment for Additional Services for the RP-1 1158 Zone Recycled Water Pump Station Upgrades, Project EN14042

Dear John,

We are pleased to provide you with this proposal for the additional services related to the design of the 1158 Zone RW Pump Station Upgrades project. This proposal is provided at the request of the IEUA based on the review comments provided for the draft PDR. Additionally, a site visit was performed on September 26 where IEUA operation staff had the opportunity to explain the issues and basis for the request of the additional work to be done at the site. From the PDR review comments and site visit, Stantec understands the following additional work to be performed at the site:

- Energy Dissipation Valve (EDV) Facility
  - Isolation valves inspection/replacement
  - Justification will need to be provided for replacement of all valves

- 1158 RWPS Discharge Appurtenances
  - The pump discharge piping appurtenances will be evaluated for replacement including the existing pump connectors, air release valve, check valves, and isolation valves.
  - Removal and replacement of pressure gauges and hose bibs associated with discharge piping. This will include the fittings leading to the gauges and bibs. New fittings will be stainless steel.
  - Investigate flange connection of discharge piping prior to reentry into the subsurface header
  - Pipe recoating of above ground piping associated with the 1158 RW pump station project only - RP-1 Operations will address balance of pipe coating at PS
  - Existing discharge pipe will remain and not be replaced.

Design with community in mind
Reference: Proposal for Second Contract Amendment for Additional Services for the RP-1 1158 Zone Recycled Water Pump Station Upgrades, Project EN14042

- Existing electrical conduit supports (currently galvanized) will be replaced with new stainless steel supports at each pump location.
- Other types of tilted disc valves/air relief valves will need to be considered. We understand that Operations prefers ARI, and manufacturers will be in accordance with IEUA Design Guidelines.

- Waste Washwater Basin drain valve inspection/replacement of the 12-inch valve with a new 12-inch butterfly valve
- 1158 RWPS flow meter and valve evaluations
  - Existing flow meter along the 42-inch pipeline from the 1158 RWPS is a 24-inch mag flow meter in a vault. The existing reducers are located outside the vault. The flow meter will need to be evaluated for adequacy for the capacity of the proposed 1158 RWPS Upgrades. If the size of the flow meter is found to be inadequate, we will prepare a design for replacement of the existing flow meter.
- Power Center Building
  - Improve air circulation in the building to mitigate hot spots
  - Remove or install solid steal plating over existing vents on the south side of the building to prevent escape of cool air
- Replace the existing Transformers

Based on the above, the following is brief description of the additional scope of services required to provide the additional work.

SCOPE

1. Additional Design Survey

Due to the additional locations of vaults, valves, and piping to be evaluated and shown on the plans, we will perform additional design survey services. Our survey crew will accurately provide ground elevations and horizontal and vertical locations of the necessary above ground features.

2. Additional Base Map Preparation

With the additional survey provided, we will update our current base map to include all of the facilities to be replaced or modified accurately on the plans.
3. Valve Replacement/Capacity Analysis

For each valve to be replaced we will perform the necessary evaluation of the existing valve, research for valve replacement type and manufacturer, and provide recommendations for IEUA. Justification for the replacement will be provided.

We will also perform a sizing evaluation of the existing 24-inch flow meter to verify the size required for the proposed flow rates. If the flow meter is found to be undersized, we will provide recommendations and design for the appropriate upsizing.

4. Power Center Building (PCB) Circulation

The existing air circulation within the room will be analyzed to improve the current air flow through existing floor vents to better diffuse the air or with the addition of fans. Recommendations will be included with the mechanical design for the project. We anticipate that one more site visit to the power center building may be required if required information is not provided with the current as-buils of the facility. For budgetary purposes, we have assumed the improved air flow can be attained by providing diffusers at the current flow vents.

5. Prepare a Technical Memorandum to Address Valves/Piping/PCB

To help provide the necessary justification and assist with the determination of replacement recommendations to be done, we will prepare a brief technical memorandum. The technical memorandum will include a description of the operational concerns and current condition of the existing equipment. It is assumed a draft TM will be submitted for IEUA review and review workshop will be attended. A final TM will then be prepared. This TM is anticipated to be completed prior to the 85% submittal for the project.

6. Technical Memorandum to Replace Transformers

We will perform the following prior to the 85% submittal:

- Review the switchgear shop drawings to determine if space exists on the bus to add additional terminal lugs for additional conductors.
- Review the transformer shop drawings to determine the primary conduit entrance and secondary conduit exit locations.
- Review cut-sheets for new transformers to determine the primary conduit entrance and secondary conduit locations.
- Compare the locations determined in 2 and 3 to determine the amount of demolition, if any, that is required.
7. Prepare Construction Plans

Construction plans will be prepared for the additional work items. Some of the improvements may be included or added to already proposed plan sheets. Some will require re-work to current 50% design drawings. Other work items will require a new plan sheet. Altogether, we anticipate the additional work to impact approximately nine (9) civil and mechanical plan sheets to provide the necessary design plan, sections, and details. We also anticipate up to an additional six (6) electrical sheets to address the replacing the transformers with the necessary demo, line diagrams, conductor schedules and details. A total of up to fifteen (15) additional plan sheets are proposed. We assume the additional construction plans will be incorporated with the 1158 RWPS Upgrades project with the 85%, 100% and final design submittals.

Due to the additional field work and design work to be included with the 85% submittal, we estimate the submittal of the 85% Design Submittal will be changed to be March 30, 2018 to accommodate the addition field work and transformer technical memorandum. The remaining schedule is as shown in the attached Project Schedule.

8. Prepare Equipment Specifications

Additional specifications will be required for the additional work items and for the new equipment that will replace the existing equipment. Additional specifications that were not originally thought to be utilized could include items such as check valves, isolation valves, and PCB ventilation improvements. Also, for the transformers there will be additional Division 16 specifications to be prepared.

9. Construction Cost Estimates

Construction cost estimates will be revised for the 85% and 100% submittals to include the additional work and equipment.

10. Project Management, Coordination, and Meetings

Additional project management and coordination time will be required for this project which will also include additional QA/QC time and meetings. We assume that the project will require one (1) additional workshop.
December 7, 2017
Page 5 of 5

Reference: Proposal for Second Contract Amendment for Additional Services for the RP-1 1158 Zone Recycled Water Pump Station Upgrades, Project EN14042

FEE

To perform the above scope of services, Stantec respectively requests a budget of $ 88,900 to be amended to the current contract.

We thank you for the opportunity to perform these additional engineering services. We have also attached a revised project design schedule. If you have any questions related to this proposal please do not hesitate to contact me.

Regards,

STANTEC CONSULTING SERVICES INC.

Jeff Dunn, PE
Senior Project Manager
Phone: (949) 923-6974
Fax: (949) 923-6121
jeff.dunn@stantec.com

Attachment: Budget Labor Hour and Costs Breakdown
Updated Project Schedule
## Inland Empire Utilities Agency

**Contract Amendment No. 2 - RP-1 1158 Pump Station Upgrades Project No. EN14042**

**Proposed Labor Hours and Budget**

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<th>Total Fees</th>
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ACTION
ITEM
1E
Date: January 17, 2018
To: The Honorable Board of Directors                      From: Halla Razak, General Manager
Committee: Engineering, Operations & Water Resources       01/10/18

Executive Contact: Chris Berch, Executive Manager of Engineering/AGM

Subject: SCADA Programming Master Services Contract Award

Executive Summary:
Consistent with IEUA's Supervisory Control and Data Acquisition (SCADA) Master Plan, the
control systems at IEUA's treatment plants will be migrated to a standardized software platform,
Rockwell PlantPAX. The PlantPAX platform requires specific programming strategies to
integrate the controls hardware into the treatment plant's monitoring system. This work will
require significant programming efforts from specialized integrators and will be authorized on a
per project basis. As new capital projects are constructed at RP-1, it is necessary to migrate the
existing SCADA systems to the new platform.

IEUA pre-qualified integrators with the required experience and expertise to perform all
necessary programming during the RP-1 migration to ensure the control systems are
programmed consistently. Technical Systems, Inc. (TSI) was selected among two prospective
integrators to perform all RP-1 programming services and provide on-call support as needed
through January 2021.

Staff’s Recommendation:
1. Award a three-year contract to Technical Systems, Inc., for PlantPAX programming and all
   associated support services required to maintain a standard controls platform for a not-to-exceed
   total amount of $1,800,000; and

2. Authorize the General Manager to execute the contract subject to non-substantive changes.

Budget Impact  Budgeted (Y/N): Y  Amendment (Y/N): N  Amount for Requested Approval:

Account/Project Name:
This agreement is for work required on various projects throughout the next three years. Funding
for the work is included in each individual project and department O&M budget under various
program funds.

Fiscal Impact (explain if not budgeted):
None.

Full account coding (internal AP purposes only):  Project No.: Various Projects
Prior Board Action:
None.

Environmental Determination:
Not Applicable

Business Goal:
The SCADA Enterprise System Project is consistent with IEUA’s Business Goal of Wastewater Management that ensures quality asset management and that systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.

Attachments:
Attachment 1 - PowerPoint
Attachment 2 - Programming Services Master Services Contract
RP-1 SCADA Programming to Technical Systems, Inc.
Master Service Agreement

Inland Empire Utilities Agency
A Municipal Water District

Jesse Pompa, P.E., PMP
January 2018
SCADA Migration Project Background

- SCADA Master Plan – Standardize control systems at IEUA facilities
  - Phase I (CCWRF) – Complete
  - Phase II (RP-4 & RP-5) – In design
  - Phase III (RP-1) – In pre-design
- All process equipment to be reprogrammed to Rockwell PlantPAx standards
  - Requires specific training and experience
Service Agreement Benefits

- Several RP-1 capital projects scheduled in the next three years
  - Require PlantPAX programming
- Projects span different process areas
- Allows for standard programming strategy

- Headworks Upgrades Completion – Dec 2018
- Digester Gas Flare Improvements Completion – Aug 2019
- Mixed Liquor Return Pumps Completion – Apr 2018
- Disinfection Improvements Completion – Oct 2018
- 1158 Recycled Water Pump Station Upgrades Completion – Oct 2019
Consultant Selection

- Two proposals received on December 5, 2017
- Evaluation and Selection Committee
  - Engineering and Construction Management
  - Maintenance Department
- Evaluation criteria for selection:
  - Qualifications and experience
  - Project scope understanding
  - Availability of resources
  - Level of effort
- Justification for selecting TSI
  - Success in CCWRF migration
  - More available resources than ATSI, which is programming RP-4/RP-5

Proposals Received
- Technical Systems, Inc. (TSI)
- Advanced Telemetry Systems, Inc. (ATSI)
Agreement Scope and Budget

- Assistance on controls design and process control narrative development
- On-call services for system maintenance
- All programming, testing, training, and startup services to support control systems and reporting software
- Estimated cost for services over three years = $1,800,000
  - Programming task orders to be funded through individual project budgets ($1.6M)
  - On-call services to be funded through maintenance budget ($200k)
Recommendation

- Award a three-year contract to Technical Systems, Inc., for PlantPAX programming at RP-1 and all associated support services required to maintain a standard controls platform for a not-to-exceed total amount of $1,800,000; and
- Authorize the General Manager to execute the contract subject to non-substantive changes.

The SCADA Enterprise System Project is consistent with the IEUA's Business Goal of Wastewater Management that ensures quality asset management and that systems are planned, constructed, and managed to protect public health, the environment, and meet anticipated regulatory requirements.
MASTER SERVICES CONTRACT NUMBER: 4600002467
FOR PROVISION OF
SCADA PROGRAMMING SERVICES

THIS CONTRACT (the "Contract"), is made and entered into this ___ day of __________, 2018, 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 interchangeably as "IEUA" and "Agency") and Technical Systems, Inc., with offices in Lynnwood Washington and Irvine California (hereinafter referred to as "Consultant"), in order to establish mutually acceptable terms and conditions which will hold for and govern all "Task Order" releases subsequently issued under this Master Services Contract.

RECITALS

Whereas the Agency anticipates future need(s) to retain the services of the Consultant to provide professional programming services on an "as needed" Task Order assignment basis;

Whereas the Consultant is willing to undertake performance of such Task Order assignments under which the terms and conditions set forth herein shall apply;

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

ORDER OF PRECEDENCE: The documents referenced below constitute the Contract Documents and are each hereby incorporated herein. In the event of any conflicts or inconsistencies between any of the Contract Documents, the governing order of precedence shall be as follows:

A. Amendments to Task Order releases under this Master Services Contract.
B. Task Order releases under this Master Services Contract.
C. Amendments to this Master Services Contract No. 4600002467.
D. Master Services Contract Number 4600002467, General Terms and Conditions.
E. IEUA Request for Proposals RFP-RW-17-041 and Addendum Number One, both incorporated herein by this reference.
F. Consultant's Project Rates and Fee Schedule (Attachment 1).
1. **SCOPE OF WORK AND SERVICES:** Consultant shall provide all labor, research, documents, software, tools, and other items and services necessary to properly perform the Work as set for in each individual Task Order agreed to and released under this Master Services Contract, including exhibits, addenda, and amendments hereto. The Work shall be carried out in accordance with the Contract Documents in a workmanlike manner, utilizing qualified personnel. All resources utilized under this contract shall be covered by a signed copy of Agency’s “Waiver/Release of Liability” form, attached hereto, referenced herein, and made a part hereof as **Attachment 2**. Further, Consultant shall perform only those work assignments authorized by Task Orders issued in conjunction with this Contract.

The Task Orders issued under this agreement shall include the services to be provided by the Consultant in accordance with IEUA Request for Proposals RFP-RW-17-041 and Addendum Number One, both incorporated herein by this reference.

2. **Ordering Provisions and Understandings**

**Negotiation of Task Orders:** Agency and Consultant each reserve and retain the right to negotiate the Scope of Work, price, and term of any specific Task Order. However, both parties agree that the various proposed labor and expense rates used to develop each Task Order’s price will be consistent with those specified within **Attachment 1**, Consultant’s Project Rates, attached hereto, referenced herein, and made a part hereof.

**Task Order Price:** A firm fixed price or not-to-exceed price for each Task Order will be addressed and authorized via the content of each specific Task Order.

**Task Order Format:** Each Task Order issued under this Master Services Contract will be based on **Attachment 3**, referenced herein and attached hereto as “Sample Task Order Template.”

**Task Order Assignment Method:**

a. As the need for work arises, specific Statements of Work will be forwarded to Consultant for purposes of Task Order proposal formulation. If the Consultant desires to propose for award of the Work, the Consultant shall respond no-later-than the specified proposal submittal date/time, (which shall be not less than five [5] working days after solicitation issuance) with submittal of a price and technical proposal (if applicable) to perform the requested services. This proposal will be reviewed and, if selected by the Agency, negotiated (if required) to develop mutually-agreed-upon Task Order content and price. Each Task Order will designate a specific Scope of Work,
schedule, firm-fixed or not-to-exceed compensation, and other specifications and terms particular to the Work. Upon agreement and execution by both parties, the Task Order will be released, a written notice-to-proceed order will be issued and the Consultant may then begin performance of the Work provided for under the executed Task Order.

b. There is neither a maximum nor minimum number of Task Orders that may be issued under this Contract. Further, there is no guarantee that any Task Orders will be released against this Contract. Conversely, multiple Task Orders may be issued requiring work in support of concurrent projects.

c. Any Task Order executed during the term of this Contract, and not completed within the term of this Contract, shall nevertheless be completed within the time specified in the Task Order. This Contract shall govern the rights and obligations of the parties with respect to that Task Order to the same extend as if it were being completed within the Contract's term.

d. Each Task Order executed hereunder, including any changes to or terminations of such Task Orders, shall be automatically incorporated into this Contract, and therefore shall be subject to the terms and conditions of this Contract.

3. **TERM OF CONTRACT AND OPTION:** The initial term of this Contract shall extend from the date of IEUA's Notice to Proceed and terminate on January 31, 2021, unless agreed to by both parties, reduced to writing, and formally incorporated as an amendment to this Contract. Additionally, at the unilateral discretion and option of the Agency, the Consultant shall agree to allow the Agency to extend this Contract on an annual basis, up to a total Contract term of four (4) additional years. In the event the Agency desires to exercise the Contract extension option provided for in this Section, the Agency shall provide written notice to the Consultant, prior to the expiration of the original Contract term.

4. **SCHEDULE:** The Consultant shall complete the Work specified by each Task Order in accordance with the schedule established within said Task Order. All Work shall be fully finished no later than the date specified in said Task Order, unless terminated sooner or extended as provided for herein.

5. **INVOICING, PAYMENT DISCOUNT & PAYMENT:** Throughout the term of this Contract, Consultant's invoices issued in conjunction with "time and materials" Task Orders may be submitted on a semi-monthly basis and shall be calculated in accordance with the Consultant's labor and expense Project Rates and Fee Schedule specified within Attachment 1.
Agency shall pay the full/approved invoice amount within thirty (30) days following receipt of the invoice. Payment will be withheld for any service which does not meet the requirements of this Contract or the associated Task Order, until such service is revised, the invoice resubmitted and accepted by the Project Manager.

Consultant's invoices shall include reference to “Contract Number 4600002467” and the associated Task Order Number. All original invoices shall be submitted electronically via email to apgroup@jeua.org. Should Consultant engage in any public works activity in excess of $25,000.00 in billing value, Consultant shall provide with all public works invoicing 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].

6. **COMPENSATION AND CHANGES:** Funding for the Task Orders authorized by this Contract shall be obligated from individual IEUA Projects. As compensation for the Work satisfactorily performed against Task Order releases under this Contract, Agency shall pay Consultant a **NOT-TO-EXCEED MAXIMUM OF $1,800,000.00** for all products and services furnished in conjunction with this Contract. Any additional products/services/costs must be approved in advance by the Agency's Contract Administrator, and a subsequent Task Order, or Task Order Amendment, for the additional work must be issued and bi-laterally executed.

7. **CONTROL OF THE WORK:** Consultant shall perform the Work in compliance with the Task Order-specified 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 for consideration by the Project Manager.

8. **FITNESS FOR DUTY:**

A. **Fitness:** Consultant's 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. Confined Space Work:

1. Precautions and Programs:

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

b. The Consultants or Contractors and subconsultants or 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 Consultant shall be subject to liquidated damages as provided in the Contract.

c. The Consultant or Contractor and all subconsultants or 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 Consultant or 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. Property of Consultant and all subconsultants left on-site shall be governed by Attachment 2, which is attached hereto, referenced herein, and made a part hereof. Signed copies shall remain on file with the IEUA Project Manager as part of the project file.

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, Consultant provisions, specific procedures for permit-required and non-permit required spaces, and a rescue plan.

f. The Consultant or Contractor must also submit a copy of their Safety Program or Injury and Illness Prevention Program (IIPP) prior to the start of the project for approval by the Safety Department.

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. General Liability: 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, 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 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**
Consultant 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: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A minus: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, CA 91709
Via Email: awitte@ieua.org

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, 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 Consultant or its employees.

D. **Subcontracted Services:** Any subcontracts for the performance of any services under this Contract shall be subject to the prior written approval of the Project Manager.

E. **Grant Funded Projects:** The Consultant shall be responsible to comply with all grant requirements specified within any Task Order assignments. 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, Records Retention and Public Access to Records, and Compliance Review. Consultant shall be advised for each Task Order issued if Work is grant funded.

F. **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.

G. **Indemnification:** Consultant shall indemnify the Agency, its directors, employees and assigns, and shall defend 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, should any Task Order include design professional services under Civil Code Section 2782.8, such duties of Consultant to defend and to indemnify Agency shall only be to the full extent permitted by Civil Code Section 2782.8.
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:** 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.

J. **Non-Conforming Work:** Consultant represents that the Work and Documentation shall meet the standard of care of Consultant's profession. 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 agreed-to errors in the Work or Documentation, regardless of whether any such errors are brought to the attention of Consultant by Agency, or any other person or entity. Consultant shall within three (3) calendar days, correct any error 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 any or all 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.

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 mediation.

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 mediation with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of mediation, the parties hereto agree that there shall be a single neutral Mediator who shall be selected in the following manner:

a. The Demand for a Mediator shall include a list of five names of persons acceptable to the Consultant to be appointed as Mediator. The Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person will be designated as Mediator.

b. In the event that none of the names submitted by Consultant are acceptable to Agency, or if for any reason the Mediator 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 Mediator. The Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.

4. Joinder in Mediation/Arbitration: The Agency may join the Consultant in mediation or arbitration commenced by an agreement mediator 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.

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
Consultant and/or the Consultant's subConsultant(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 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. Any reuse of such documents for other than the specific purpose, intended as stated herein, shall be at the sole risk of the user, and without liability or legal exposure to the Consultant.

Notwithstanding any provision to the contrary contained in this Contract, Consultant shall retain sole ownership to its preexisting information including but not limited to computer programs, software, standard details, figures, templates and specifications.

When transferring data in electronic media format, Consultant makes no representation as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by Consultant at the beginning of the Project.

Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) days of receipt, after which the Agency shall have deemed to have accepted the data transferred. Any errors detected within the sixty days will be corrected by the Consultant at no additional cost to the Agency. Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by the Agency. The original hard copy of the documents containing the professional engineer's seal shall take precedence over the electronic documents.

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 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 California Public Records Act.
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 Contract 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:

1. 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.

2. 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.
3. 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 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.

Consultant 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.

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: Warren T. Green  
Manager of Contracts and Procurement  
Inland Empire Utilities Agency, a Municipal Water District  
P.O. Box 9020  
Chino Hills, California 91709
Consultant: Brad Peistrup  
Sr. Vice President - Business Development  
Technical Services, Inc.  
Southern California Office: 36-B Mauchly  
Irvine, CA 92618  
Washington Office: 2303 196th Street SW  
Lynnwood, WA 98036

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. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Consultants' records related to the work assigned by subsequent Task Orders. 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.

19. **INTEGRATION:** The Contract Documents represent the entire agreement 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.

20. **GOVERNING LAW:** This Agreement is to be governed by and constructed in accordance with the laws of the State of California.

21. **TERMINATION FOR CONVENIENCE:** The Agency reserves and has the right to immediately suspend, cancel or terminate this Agreement 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.

22. **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, etc.

23. **CHANGES:** The Agency may, at any time, make changes to a given Task Order's Scope of Work, including additions, reductions, and changes to any or all of the Work, as directed in writing via a Task Order Amendment issued by the Agency and executed by both Parties. The Task Order Amendment will, if warranted, convey any associated change to the established Task Order price and/or performance schedule.

24. **NOTICE TO PROCEED:** No services shall be performed or furnished under this Master Services Contract unless and until a Notice to Proceed and an associated Task Order has bi-laterally executed and issued to the Consultant.

[ Signature Page Immediately Follows ]
IN WITNESS WHEREOF, the parties hereto have caused this Contract to be entered as of the day and year written above.

INLAND EMPIRE UTILITIES AGENCY:  
(A Municipal Water District)  

--(Signature)--  
Halla H. Razak  
General Manager  
(Date)

TECHNICAL SYSTEMS, INC.:  

--(Signature)--  
Brad Peistrup  
Sr. Vice President - Business Development  
(Date)  
12/27/17

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Attachment 1
Fee Schedule for
RFP RP-1 SCADA Migration
Programming Services
Project No. RFP-RW-17-041

Submitted By:

Technical Systems, Inc.
Lynnwood, WA
Irvine, CA

December 5, 2017
December 5, 2017

Inland Empire Utilities Agency
Attention: Jesse Pompa
6075 Kimball Avenue, Building A
Chino, CA 91708

RE: Fee Schedule for RFP RP-1 SCADA Migration Programming Services

Dear Jesse,

Please find enclosed our Fee Schedule for the RFP RP-1 SCADA Migration Programming Services project.

If you have any questions or concerns please let me know. This fee schedule is valid for acceptance for 90 days. Fee Schedule also includes all applicable taxes. Have a great day.

Sincerely,

Brad E Peistrup
Sr. Vice President – Business Development
Technical Systems, Inc.
(425) 678-4170
bradp@tsicontrols.com
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>ITEM COST</th>
<th>TASK COST</th>
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<tbody>
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<td></td>
<td>$1,600,000.00</td>
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<td>PLC Programming</td>
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<td>SCADA/Vantage Point Programming</td>
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<td>90-day Maintenance</td>
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# Project Rates for IEUA Programming Support Services

The following is a list of hourly rates for Project Management, Professional and Project/Software Engineering, Field Service, Shop Fabrication and Repair, Drafting, and Engineering Support Services. **These rates are valid until January 31, 2021.**

<table>
<thead>
<tr>
<th>Position</th>
<th>Rate</th>
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<tbody>
<tr>
<td>Project Manager/Registered Professional Engineer</td>
<td>$190.00 per Hour</td>
</tr>
<tr>
<td>Senior Engineer/Senior Software Engineer</td>
<td>$175.00 per Hour</td>
</tr>
<tr>
<td>Project Engineer/Software Engineer</td>
<td>$170.00 per Hour</td>
</tr>
<tr>
<td>Field Engineer/Technician</td>
<td>$145.00 per Hour</td>
</tr>
<tr>
<td>Shop Technician/Shop Repair</td>
<td>$95.00 per Hour</td>
</tr>
<tr>
<td>Auto-Cad Design &amp; Drafting</td>
<td>$85.00 per Hour</td>
</tr>
<tr>
<td>Documentation</td>
<td>$85.00 per Hour</td>
</tr>
<tr>
<td>Clerical</td>
<td>$80.00 per Hour</td>
</tr>
</tbody>
</table>

Services in excess of 10 hours per day, Monday through Friday, will be billed at 1.5 times the hourly rate. Saturdays, Sundays, and all business holidays will be billed at 2 times the hourly rate. Emergency services are billed at a minimum of four (4) hours plus $100.00 which is paid to the on call technician or engineer. All travel time will be billed, portal to portal, at the hourly rate in effect on the day of travel.

**General Terms and Conditions**

Services will be billed via invoice, with field service reports, every two (2) weeks. All vehicle travel and meal expenses are included in the hourly rate. All other expenses, (hotel, airline, rental car, etc.), will be billed at documented cost plus 10% service charge. All invoices are Net 30 days.

Panel fabrication is F.O.B. Lynnwood, Washington.

All prices are net prices and do not include any State, local or use taxes.

**Standard Warranty Policy**

*Technical Systems Inc.* warrants defects in material and workmanship for all systems supplied by *Technical Systems, Inc.* for a period of one (1) year beginning on the date of shipment. Individual component warranties will be limited to the published warranty for the component purchased and supplied by *Technical Systems Inc.* All published warranties provided by the component manufacturers will be assigned, in their entirety, to the end user. No warranties are verbally expressed or implied. Defective materials or workmanship will be repaired or replaced free of charge during the warranty period. Labor, travel and other expenses to repair or replace components at the end user's facility will be billed to the end user in accordance with the above Standard Labor Policies.
Attachment 2
INLAND EMPIRE UTILITIES AGENCY  
(A Municipal Water District)  

WAIVER/RELEASE OF LIABILITY

I, the undersigned, on behalf of ___________________________ (hereinafter called Firm) fully understand that the storage or leaving of __________________ at the Agency’s __________________ facility, located at __________________ _____________________________, California, during the period of _________ to _________ exposes Firm to the risk of, but not limited to, theft, fire damage, vandalism, water damage, wind damage, and possible personal injury to Firm’s employees. For the privilege of storing/leaving __________________ at said location, Firm agrees to assume any and all such risks.

In consideration of being able to store/leave said item(s) at said location, Firm hereby releases, agrees not to sue, or bring any action against, the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers for any and all liability, claims, or actions for injury or death to Firm’s employees, or damage or theft of said property arising out of or in connection with the storage or leaving of said item(s) for whatever cause, including the active or passive negligence of the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers.

I have carefully read this Waiver/Release of Liability and covenant not to sue, and fully understand its contents, and the possible exposures that Firm is agreeing to assume. I am aware that this Waiver/Release of Liability is a full release of any and all liability. I am signing such as the authorized agent of Firm, and of my own free will.

________________________________________
Name of Firm

By:
_______________________________________
Representative’s signature
_______________________________________
Date

_______________________________________
Print Name
_______________________________________
Title

Approved:
_______________________________________
Department Manager’s signature
_______________________________________
Date

Distribution: As Required.
Attachment 3
SAMPLE TASK ORDER

Date: XXXXXXXXXX
Consultant: XXXXXXXXXX
Project / Task Description:

Task Order Number: XXX
Contract Number: 460000XXXX

I. RECITALS

This Task Order is issued for the procurement of services needed in conjunction with Agency Project No. XXXXXX.

Agency and Consultant previously entered into Master Services Contract No. 460000XXXX. Except as otherwise specified herein, all terms and conditions of that Agreement are incorporated into this Task Order via this reference.

II. TASK ORDER AGREEMENTS

1. Scope of Work: Consultant shall furnish the qualified personnel, equipment, materials, and supplies necessary to perform the work described in the attached Statement of Work.

2. Period of Performance: XXXXXX through XXXXXX. All work is to be performed in a timely manner and in accordance with the Project Manager's schedule.

3. Compensation: Authorized total payments to Consultant for performance of this time-and-materials Task Order shall sum to a total not-to-exceed price of $ XXXXXXXX. (NOTE: Compensation is based on submitted fees rates included in the Master Services Contract.)

4. Assigned Personnel: The below-listed named personnel are assigned to direct the performance of this Task Order on behalf of the respective Parties.

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

- Project Manager: XXXXXXXXXX
- Address: 6075 Kimball Ave, Bldg. X
  Chino, California 91708
- Telephone: (909) 993-XXXX
- Facsimile: (909) XXXXXXXX
- Email: XXXXXXXX@ieua.org

CONSULTANT ASSIGNMENT: Special inquiries related to this Agreement and the effects of this Agreement shall be referred to the following:

- Consultant: XXXXXXXXXX
- Project Manager: XXXXXXXXXX
- Address: XXXXXXXXXX
5. **Task Order Modifications**: No communication, either written or oral, by other than written and bi-laterally executed change order shall be effective to modify or otherwise affect the provisions of this Task Order.

III. **SIGNATURES**

Inland Empire Utilities Agency: ____________________

________________________

Date: ____________________  Date: ____________________

[ Balance Of This Page Intentionally Left Blank ]
2nd Quarter Planning &
Environmental Resources Update
Water Resources Activities

- **Dry Year Yield**
  - June 2017: Metropolitan Water District initiated request to store water
  - 25,000 AFY storage requirement
  - Through IEUA ground water recharge and Monte Vista Water District injection well
    - FY 16/17: 6,318 AF
    - FY 17/18: 25,500 AF (through November)
  - Chino Basin Watermaster approved additional storage for FY17/18 up to 50,000 AF
Regulatory Permit Activities

- US Army Corps Individual Permit (IP) for Groundwater Recharge
  - Current permit expires every 5 years
  - IP provides 10-20 year permit for recharge
  - Permit application submitted March 2016
    - Public comment period completed
    - Consultation with Fish & Wildlife service completed
- In process of receiving draft permit
Recycled Water Feasibility Studies

- United States Bureau of Reclamation (USBR) Program
- Title XVI/Water Infrastructure Improvements for the Nation (WIIN)
- USBR approved study is required to apply for funding opportunities
- IEUA Recycled Water (RW) Feasibility Studies:
  - IEUA/Pomona/Monte Vista Water District RW Intertie ($71M)
  - IEUA/Jurupa Community Services District RW Intertie ($54M)
INFORMATION
ITEM
2B
Computerized Maintenance Management System (CMMS)
Grounding Terms and Concept

Reliability Centered Maintenance (RCM)
Preventative Maintenance (PM)
Predictive Maintenance (PdM)

Condition Based Monitoring (CBM)
Computerized Maintenance Management System (CMMS)

Reliability Centered Maintenance
Preventative, Predictive, Condition Based Maintenance,
Defect Elimination, Turnaround, Overhaul

Asset Management Plan
Reinvestment/Rehab/Replace

Probability of Failure
Low
High

New
Equipment Age
Old
Wear Out

Inland Empire Utilities Agency
A Municipal Water District
The Maintenance Challenges

• The Challenge
  – Do more with less!
  – Deliver superior services!
  – Comply with regulatory requirements!
  – Provide detailed financial accountability!

• Meeting the Challenge
  – Industry are arming themselves with
    • Reliability Centered Maintenance (RCM)
      – Data Management
      – Reporting
      – Maintenance Equipment Strategies (CBM)
      – Execution (Planning & Scheduling)
Work Process

Standardised Maintenance Work Management Process

1. I meet with the Production Supervisor and prioritise the work.
2. Then Production and Maintenance meet weekly to fix the schedule and plant access.
3. Lastly, I meet with the Maintenance Supervisor and explain the details.

- Preventive Maintenance
- Maintenance Job Request
- Set Job Priorities
- Planning
- Scheduling
- Job Execution
- Job History
- Failure Analysis
- KPI Reporting
- Reliability Growth
- Strategy Review

Cost Control

Behind the whole process sits the CMMS with all its databases and accounting information.

Materials Management, Purchasing, Stores

Lifetime Reliability Solutions

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT
What is Computerized Maintenance Management System (CMMS)?

CMMS is a computer software designed to simplify maintenance management and facilitate the maintenance work-process.

Major Functions:
- Work Notification/Order Generation
- Approval/Prioritization
- Planning
- Scheduling
- Procurement
- Warehouse
- History

Essentials:
- Reporting
- Equipment Database
  - Organized/Comprehensive/Accurate
<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Current Status</th>
<th>Future Post Enhancement Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Database</td>
<td>Incomplete/Incoherent/Inaccurate</td>
<td>Robust foundation</td>
</tr>
<tr>
<td>2</td>
<td>Work Notification/Order</td>
<td>Limited prioritization</td>
<td>Prioritization based on criticality</td>
</tr>
<tr>
<td>3</td>
<td>Planning</td>
<td>Very limited</td>
<td>Planning driving efficiency</td>
</tr>
<tr>
<td>4</td>
<td>Scheduling</td>
<td>Limited and outside of SAP</td>
<td>Resources coordinated</td>
</tr>
<tr>
<td>5</td>
<td>Preventative Maintenance</td>
<td>Inadequate/confusing</td>
<td>PM based on failure modes preventing failures</td>
</tr>
<tr>
<td>6</td>
<td>Predictive Maintenance</td>
<td>Program in place but not based on criticality of equipment</td>
<td>Early detection of failures of critical equipment</td>
</tr>
<tr>
<td>7</td>
<td>Reporting</td>
<td>None</td>
<td>Managing the work-process and driving improvement and sustainability</td>
</tr>
<tr>
<td>8</td>
<td>Bill of Materials</td>
<td>None</td>
<td>Materials identified and the correct spare parts are housed in the Warehouse</td>
</tr>
<tr>
<td>9</td>
<td>Warehousing</td>
<td>Low transparency &amp; pigeon-holing is occurring</td>
<td>High transparency, trusted and valuable to the organization</td>
</tr>
</tbody>
</table>
Benefits of Reliability Centered Maintenance (RCM)

- Cultural change
  - Shift from fighting fires to focusing on proactive activities that prevent fires

- CMMS
  - A robust tool, strong data system are critical to the success of an RCM based culture

- Couple the elements of RCM with a true culture change will improve
  - Safety Performance
  - Cost Effectiveness
  - Machine Uptime
  - Reliability
  - Understanding of Risk
Engineering and Construction Management Project Updates

Jerry Burke, P.E.
January 2018
DL37141 – CDA Structures Coating

- Construction Contractor: Industrial Coating & Restoration
- Current Contract (Construction): $170 K
- Total Project Budget: $220 K
- Project Completion: December 2017
- Percentage Complete: 95%
- Scope of Work:
  - Recoat all specified process vessels, chemical tanks, light poles, electrical structures, pipelines, and pumps
- Current Activities:
  - Final touch-ups and punch list
- Focus Points:
  - Finalize and close project
EN11031 – RP-5 Flow Equalization

- Construction Contractor: SCW
- Current Contract (Construction): $1.2 M
- Total Project Budget: $3.4 M
- Project Completion: April 2018
- Percentage Complete: 80%
- Scope of Work:
  - Install level transmitters
  - Replace chemical pumps
  - Concrete repair and coating at chemical facility
- Current Activities:
  - Review and approve final control submittal
  - Install weir gate actuator at emergency splitter box
- Focus Points:
  - Start-up and testing of chemical pumps

Inland Empire Utilities Agency
A Municipal Water District
EN16021 – TCE Plume Cleanup

- Design Engineer: Multiple Consultants
- Total Project Budget: $20.1 M
- Project Completion: October 2019
- Percentage Complete: 27%

Scope of Work:
- Wells: 2 monitoring, 1 supply
- Pipelines: 30,000 feet of 18” and 24”
- Treatment: Modify Chino II Desalter’s decarbonators

Current Activity:
- Wells: Acquire property for well location
- Pipelines: Award design contract January 2018
- Treatment: Solicit design consultant January 2018

Focus Points:
- Secure property for well location and begin construction on monitoring well
EN16049 - Conference Rooms Audio Visual Upgrades

- Construction Contractor: New Millennium
- Current Contract (Construction): $1.1 M
- Total Project Budget: $1.4 M
- Project Completion: January 2018
- Percentage Complete: 99%
- Scope of Work:
  - Design and install audio visual upgrades at the Headquarters' Conference Rooms and Board Room
- Current Activities:
  - Project close out and warranty
- Focus Points:
  - Close out job
EN17052 – RP-1 and RP-4 Safety Improvements

- Construction Contractor: Ferreira
- Current Contract (Construction): $708 K
- Total Project Budget: $1.0 M
- Project Completion: December 2017
- Percentage Complete: 100%
- Scope of Work:
  - Safety enhancement at RP-1
  - South facing fencing at RP-4
- Current Activities:
  - Project close out
- Focus Points:
  - Punch list items
EN17059 – RP-1 Iron Sponges Installation

- Construction Contractor: W.A. Rasic
- Current Contract (Construction): $367 K
- Total Project Budget: $600 K
- Project Completion: December 2017
- Percentage Complete: 100%
- Scope of Work:
  - Installation of two new iron sponges and tie-ins
  - Piping, fittings, valves, supports, and appurtenances similar to the existing iron sponge
  - Protective coatings for the new and existing iron sponges
- Current Activities:
  - Project close out
- Focus Points:
  - Punch list items