AGREEMENT WITH KDC SYSTEMS TO PROVIDE INDUSTRIAL CONTROL PANEL BUILDING AND DESIGN SERVICES

THIS AGREEMENT is made and entered into this 18th day of January 2022 by and between KDC Systems, a division of KDC, Inc., a California corporation ("Contractor"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On September 10, 2021, the City issued Request for Proposal No. 21-100, by which it sought qualified contractors to provide industrial control panel construction/fabrication and design services, not including control panel programming and system integration, on an as-needed basis for the Water Resource Division of the City's Public Works Agency.

B. Contractor submitted a responsive proposal that was among those selected by the City. Contractor represents that it is able and willing to provide the services described in the scope of work that was included in RFP 21-100.

C. In undertaking the performance of this Agreement, Contractor represents that it is knowledgeable in its field and that any services performed by Contractor under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Contractor shall perform the services described in the scope of work that was included in RFP No. 21-100, which is attached as **Exhibit A** and incorporated in full, and as further described in Contractor's Proposal, which is attached as **Exhibit B** and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Contractor under this Agreement. Contractor shall be paid only for actual services performed under this Agreement at the rates and charges identified in **Exhibit C**. Contractor is one of three (3) contractors selected to provide services on an as-needed basis under RFP 21-100. The total compensation for services provided by all contractors selected under RFP No. 21-100, including any extension period, shall not exceed the shared aggregate amount of seven hundred fifty thousand dollars and zero cents (**$750,000**).

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on January 18, 2022 and terminate on January 17, 2025, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one (1) two (2) year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Contractor is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. Contractor shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Contractor shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Contractor performs the services which are the subject matter of this Agreement; however, the services to be provided by Contractor shall be provided in a manner consistent with all applicable standards and regulations governing such services. Contractor shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Contractor under this Agreement ("Documents & Data"). Contractor shall require all subcontractors to agree in writing that City is granted a non-exclusive and

perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Contractor represents and warrants that Contractor has the legal right to license any and all Documents & Data. Contractor makes no such representation and warranty in regard to Documents & Data which were provided to Contractor by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Contractor shall maintain and shall require its subcontractors, if any, to obtain and maintain insurance as described below:

a. Minimum Scope and Limit of Insurance

1. **Commercial General Liability (CGL)**: Insurance Services Office 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 **$2,000,000** 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 Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with a limit no less than **$1,000,000** per accident for bodily injury and property damage.

3. **Workers' Compensation**: 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. If Contractor is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than **$2,000,000** per claim with $2,000,000 in the aggregate.

<u>If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.</u>

b. Other Insurance Provisions

1. **Additional Insured Status:** The City, 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 Contractor 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 Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 2037 if a later edition is used).

2. **Primary Coverage:** For any claims related to this contract, the Contractor's insurance coverage shall be primary coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

3. **Notice of Cancellation:** Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the City.

4. **Waiver of Subrogation:** Contractor hereby grants to City a waiver of any right to subrogation that any insurer of said Contractor may acquire against the City by virtue of the payment of any loss under such insurance. Contractor 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 City has received a waiver of subrogation endorsement from the insurer.

5. **Self-Insured Retentions:** Self-insured retentions must be declared to and approved by the City. The City may require the Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.

6. **Acceptability of Insurers:** Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

7. **Claims Made Policies (applicable only to professional liability):**

   i. The Retroactive Date must be shown, and must be before the date of the contract or the beginning of contract work.

   ii. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***

   iii. If coverage is canceled or non-renewed, and not replaced ***with another claims-made policy form with a Retroactive Date prior to*** the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of work.

8. **Verification of Coverage:** Contractor shall furnish the City with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage requiredby this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing allpolicy endorsements to City before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them.

   The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

9. **Subcontractors:** Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.

10. **Special Risks or Circumstances:** City reserves the right to modify these requirements, including limits, based on the nature of therisk, prior experience, insurer, coverage, or other special circumstances.

8. INDEMNIFICATION

Contractor agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Contractor or its subcontractors, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation,

restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Contractor further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Contractor's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Contractor.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Contractor shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Contractor to the City pursuant to this Agreement.

10. RECORDS

Contractor shall keep records and invoices in connection with the work to be performed under this Agreement. Contractor shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Contractor under this Agreement. All such records and invoices shall be clearly identifiable. Contractor shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Contractor shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Contractor under this Agreement.

11. CONFIDENTIALITY

If Contractor receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Contractor agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Contractor disclosed in a publicly available source; (c) is in rightful possession of the Contractor

without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Contractor without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Contractor covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702

To Contractor: KDC Systems
4462 Corporate Center Drive
Los Alamitos, CA 90720
Attn: Ed Kazimierski, General Manager

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Contractor regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Contractor. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Contractor or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Contractor, Contractor may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services that are the subject to this Agreement performed by City personnel or by other contractors retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Contractor shall be entitled to receive and the City shall pay Contractor compensation for all services performed by Contractor prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Contractor to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Contractor consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work that fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Contractor shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, gender identity, gender expression, gender, medical conditions, genetic information, or military and veteran status, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, teaching, training, utilization, promotion, termination or other employment related activities or any services provided under this Agreement. Contractor affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Contractor shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Contractor shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

[signatures on next page]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first above written.

ATTEST:

Daisy Gomez
Clerk of the Council

CITY OF SANTA ANA

Kristine Ridge
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: _____
Brandon Salvatierra
Deputy City Attorney

KDC SYSTEMS

Name: BEN. MARTIN
Title: C.F.O.

RECOMMENDED FOR APPROVAL

Nabil Saba, PE
Executive Director
Public Works Agency

EXHIBIT A

SCOPE OF WORK

A. INTRODUCTION AND BACKGROUND

The City of Santa Ana is located in the County of Orange in Southern California. The City encompasses 27.2 square miles and a population over 343,000 people. The City of Santa Ana Public Works Agency – Water Resources Division oversees and maintains the daily operations of the Water System and Sanitary Sewer System. The City of Santa Ana's water system is comprised of approximately 478 miles of water main, 45 MG of storage at five (5) sites, seven (7) MWD connections, 21 groundwater wells, seven (7) pump stations, four (4) pressure regulating stations and utilizes two (2) pressure zones. Control and monitoring of the water system is coordinated via the City's supervisory control and data acquisition (SCADA) system. The City maintains and operates over 50 remote terminal units and control panels.

The City of Santa Ana Public Works Agency Water Resources Division is soliciting proposals from qualified firms to provide industrial control panel construction/fabrication and design services on an as-needed basis. Control panel programming and system integration is not included in this contract. The City intends to select and enter into agreements with up to **three** firms to provide the described services for an aggregate annual amount amongst all selected firms.

B. CONTRACTOR RESPONSIBILITIES

The City of Santa Ana invites proposals to establish multiple contracts with vendors who can build and/or design industrial control panels for pressure control stations, water pump stations, sewer lift stations and water well sites. The Contractor shall provide all supervision, labor, tools, supplies, materials, vehicles, lifts, equipment, and transportation to ensure effective performance of services as described herein. The Contractor shall also be responsible for providing any required quality assurance and quality control testing services and training services. All work shall be in accordance with applicable trade practices, workmanship, meet warranties and shall conform to all applicable laws, codes and regulations. Business hours are considered from 7:00 A.M. to 5:00 P.M. (Monday through Friday). Any time outside of business hours of operation may be considered after hours/weekends.

C. SCOPE OF SERVICES

The scope of work will include industrial control panel building services, factory acceptance testing (FAT), in-field verification testing, panel design services, training, and all miscellaneous work (not including programming and integration) necessary to complete the following types of tasks:

1. PANEL BUILDING SERVICES

The Contractor shall construct and furnish industrial control panels, and all work shall be in compliance with the National Electric Code (NEC), Underwriters Laboratories (UL) 508A (standard for the construction of industrial control panels) and UL508 (standard for safety for industrial control equipment). The Contractor shall be responsible for the procurement of all materials and the fabrication of the control panels based on provided design drawings

and/or functional specifications. The Contractor shall be capable of providing panel building services consisting of the following components:

1. Motor control centers (MCCs)
2. Remote terminal unit (RTU) control panels
3. Human machine interfaces (HMIs)
4. Programmable logic computers (PLCs)
5. Variable frequent drives (VFD)
6. Motor operated valves (MOV)
7. Magnetic flowmeters (various brands)
8. Radio and communications equipment
9. Other related appurtenances

Prior to the commencement of panel building services, the Contractor shall assess the project and provide a submittal to the City containing proposed equipment and components as well as a project schedule for the construction of the panels. The Contractor shall provide separate quotes, which shall be approved by the City's Project Manager prior to the commencement of work with a clearly established scope and timeline parameters. After receiving the City's Notice to Proceed, the Contractor shall begin the procurement of all equipment and materials associated with the construction of the new control panel. The Contractor shall inform the City of any long lead times that may affect project deadlines and the overall construction schedule. In addition and upon request by the City, the Contractor shall also repair and retrofit existing panels per the City's specifications and adhering to codes and regulations.

2. FACTORY ACCEPTANCE TEST

The Contractor shall provide quality assurance and quality control through factory acceptance testing (FAT) on all constructed industrial control panels. The initial un-witnessed FAT procedures shall be performed by the Contractor's Test Engineer internally, and all self-identified non-conformances shall be rectified by the Contractor. Once all self-identified non-conformances are rectified, the final witnessed FAT procedures shall be overseen by a City Representative and performed by the Contractor's Test Engineer. The Contractor's Test Engineers shall be responsible for recording items checked and non-conformances. The following panel components shall be verified by the Contractor and City Representative during the FAT when applicable:

1. Panel Components and Mounting:

a. The Contractor shall verify the panel assembly and the interior/exterior layout with the design.
b. The Contractor shall confirm the enclosure mechanical components match the design and operate as specified (includes door latches, door closed switches, door stops, laptop shelf, disconnect handles, etc.).
c. The Contractor shall confirm the spacing requirements of components and accessibility are met for panel installation and maintenance purposes (per design specifications).
d. Heat vents, exhausts, fans, and dissipation areas of all applicable components shall be checked in addition to wires, devices, and shipping

stickers on components.

e. The Contractor shall confirm all items specified on bill of materials (including placement of parts in the panel schematics and panel layout sheets) have been provided and installed per specifications.
f. The Contractor shall confirm the mounting security of each component by physically shaking each component without causing damage to the panel.
g. All control panel labels shall be checked and labeled properly.
h. The Contractor shall verify the panel construction comments have been implemented, if applicable.

2. Panel Wiring

a. The Contractor shall verify all fuse types and rating; as well as ensure fuses are not damaged or blown (by verifying continuity).
b. If applicable, DIN rails mounted on insulated standoffs shall be removed to verify there is no continuity between the DIN rail and back panel ground bus. Upon completion of the verification, the Contractor shall reconnect the bonding jumper.
c. The Contractor shall verify each DIN rail mounted ground terminal for continuity between the ground terminal and the back panel ground bus, if applicable.
d. The Contractor shall confirm all wire sizes and colors match the design specifications.
e. Verification of wire number labels (clear, correct, and facing forwards)
f. Verification of terminal number labels (clear, correct, and facing forwards)
g. The Contractor shall confirm labeled wires are connected to the correct component terminals and blocks.
h. "Tug test" to confirm proper termination on wires
i. Confirm there are no loose wire strands or fraying at termination points
j. The Contractor shall verify all shields are cut off and properly insulated at non-connected end of shielded wires.
k. The Contractor shall ensure dual in-line package (DIP) switches, rotatory switches, and jumpers for PLC modules and other components are set correctly.

3. Power Distribution and Initial Power Up Sequence

The Contractor shall perform the following sequence to verify the power distribution circuits are operating correctly:

a. Verify no voltage present on the wires of the incoming power wires, terminals, and the line side of the circuit breakers.
b. Turn on all alternation current (AC) circuit breakers, close all AC fused disconnect terminal blocks, and close all direct current (DC) fused disconnect terminal blocks (if applicable) that serve auxiliary DC loads, and pull out the Emergency-Stop pushbutton (if present).
c. Confirm there is no direct connection between each AC phase and ground. Verify no continuity, if multiple AC sources exist check each one separately.
d. Confirm there is no direct connection between each AC phase and neutral.

Verify no continuity, if multiple AC sources exist check each one separately.

e. Confirm there is no direct connection between each DC positive and ground. Verify no continuity, if multiple DC sources exist check each one separately.
f. Confirm there is no direct connection between each DC positive and common. Verify no continuity, if multiple DC sources exist check each one separately.
g. Turn off all AC circuit breakers, open all AC fused disconnect terminal blocks, and open all DC fused disconnect terminal blocks (if applicable) that serve auxiliary DC loads (not fuses associated with I/O loops), and push in Emergency-Stop pushbutton (if present).
h. Earth ground wire of AC control power source is connected to the ground bus within the panel.
i. Connect and power-up AC control power source. Verify there is the correct AC voltage (measured from line-to-neutral) on line and load sides of input transient voltage surge protector (if present) and line side of AC main circuit breaker.
j. Close AC main circuit breaker, AC main fuse, and/or AC main disconnect. Verify that the correct AC voltage is present on the AC terminal blocks and on the line side of all AC secondary circuit breakers.
k. Verify the AC main circuit breaker de-energizes and energizes all AC power circuits in the panel. Close each AC secondary circuit breaker or fused disconnect one-at-a-time. Verify that the correct AC voltage is present at each of the devices served by these circuit breakers.
l. Verify each AC secondary circuit breaker de-energizes and energizes each of the devices served by these breakers.
m. Verify receptacle is properly connected by testing with a receptacle polarity tester.
n. If panel is equipped with a humidistat and panel heater, verify proper operation of heater.
o. If panel is equipped with a cooling fan, verify proper operation of the fan.
p. Verify that the correct DC voltage is present on the output of the DC power supply(s).
q. Verify that the correct DC voltage is present on the output of the DC uninterruptible power supply (UPS).
r. Disconnect the battery backup to the DC UPS. Verify that DC voltage is maintained on the output of the DC UPS. Following the test, reconnect battery backup.
s. Open the AC main circuit breaker. Verify there is no DC voltage on the output of the DC UPS. Following the test, close AC main circuit breaker and verify the DC voltage is present on the output of the DC UPS.
t. Open the AC secondary circuit breaker for the DC power supply. Verify there is no DC voltage on the output of the DC UPS. Following the test, close AC circuit breaker for the DC power supply and verify the DC voltage is present on the output of the DC UPS.
u. Electrically trip the AC main circuit breaker (Only if the breaker has manual trip function). Verify that DC voltage is maintained on the output of the DC UPS. Following the test, reset the AC main circuit breaker and verify the DC voltage is present on the output of the DC UPS.
v. Electrically trip the AC secondary circuit breaker for the DC power supply

(Only if the breaker has manual trip function). Verify that DC voltage is maintained on the output of the DC UPS. Following the test, reset the AC circuit breaker for the DC power supply and verify the DC voltage is present on the output of the DC UPS.

w. If panel is equipped with DC fuses for auxiliary devices (not fuses associated with input/output (I/O) loops), close each fused disconnect terminal block one-at-a-time. Verify that the correct DC voltage is present at each of the devices served by these fuses.
x. If panel is equipped with DC fuses for I/O loops, close each fused disconnect terminal block one-at-a-time. Verify that the correct DC voltage is present at each of the I/O served by these fuses.
y. Verify each DC fuse de-energizes and energizes each of the devices or I/O points served by these fuses.
z. Disconnect AC power from the panel without opening the AC main circuit breaker or AC main fused disconnect terminal block. Verify that DC voltage on the output of the DC UPS is maintained for at least 10 minutes. Following the test, reapply AC power to panel, verify the UPS is charging the battery backup.

4. I/O Checkout

The Contractor shall verify every I/O point operates correctly, including ones marked as spare by completing the following:

a. Configure the PLC for I/O checkout (PLC program, networking configured, etc.).
b. Test digital inputs by applying the appropriate voltage or by applying a jumper to the field terminals and checking the status lights on the input module and appropriate tag in the controller.
c. Test the digital outputs by forcing the output in the Controller and checking the status light on the output module and that the correct voltage or contact state is present at the field terminals.
d. Test analog inputs by applying 3.8mA, 4mA, 12mA, 20mA, and 20.2mA to the filed terminals and checking that the tag in the Controller varies accordingly.
e. Test analog outputs by forcing the output in the Controller to values between the minimum and the maximum and checking that the current at the field terminals varies accordingly.
f. If the panel is equipped with any indicating lights or process displays, verify they operate correctly.

The Contractor shall utilize the form in Exhibit C or an equivalent approved equal to complete the FAT. Upon completion of the witnessed FAT with a City Representative, the Contractor shall provide a UL508 certification label and supporting documentation confirming and validating proper operation of the equipment as well as conformance with quality, configuration, and testing standards.

3. POST-INSTALLATION FIELD TESTING

Once the installation of all industrial control panels, field instrumentation, and other related

equipment has been completed, the Contractor shall perform the following post-installation field verification tests:

1. **Site Acceptance Test (SAT)**

   Once system installation has been successfully completed and installed, the Contractor shall perform a site acceptance test (SAT). The Contractor shall test the full operation and functionality of the completed system in the SAT with a City Representative. The Contractor shall provide any rectifications required to complete the SAT. **The Contractor shall utilize the form in Exhibit C to complete the SAT and shall advise any additional components that necessitate testing.** Once all operation and functionality are confirmed and approved by City Personnel in the SAT, the Contractor shall commence on-site closeout and final completion of the project.

2. **On-Site Closeout**

   During the on-site closeout, the Contractor shall review the panel construction drawings for any redlines, changes or corrections that have been added and confirm they match in the field. The Contractor shall confirm all non-conformances have been corrected, re-tested, and signed off. The Contractor shall confirm the UL508 label has been affixed to the panel. The Contractor shall clean and vacuum the panel as well as take detailed photos after installation.

3. **In-Office Closeout**

   The Contractor shall redline all changes to the design made during construction and testing on the as-built panel schematics and shall provide all records including photos and schematics to the City upon closeout of the project.

4. PANEL DESIGN SERVICES

Upon request by the City, the Contractor shall provide control panel design services that conform to City standards. Control panel designs and drawings shall contain fully engineered diagrams that specify all equipment, back panels, terminal blocks, and special components and related items. The wiring diagrams, specific I/O, panel dimensions, items and quantity list with specific part numbers shall also be included in the designs. All wiring diagrams shall show all components, including power and control wiring, instrumentation wiring, ground wiring, terminal blocks, and their associate nameplates with terminal block termination designations, identification labels, and wire sizes, types and colors. Panel design documents shall be complete and inclusive of all information necessary for the City to utilize for construction purposes. When applicable all panel designs and schematics shall include, but are not limited to:

1. Table of Contents
2. Drawing Symbol Key
3. Bill of Materials
4. Construction Comments and Special Instruction
5. Control Panel Exterior Detail

6. Terminal Strip Detail
7. Control Panel Labels
8. AC Power Distribution
9. DC Power Supply
10. Time Relays
11. Panel Temperature Monitor
12. Switch Details
13. AC Discrete Output Relays
14. Discrete Input Module
15. Analog Input Module
16. Analog Output Module
17. Network Components
18. Interior Panel Dimensions
19. Exterior Panel Dimensions

The Contractor shall also provide calculations regarding the temperature, load power, and uninterruptable power source (UPS) runtime when applicable as described below:

1. Enclosure temperature calculations shall be based on operating duty cycle for equipment in the enclosure. Size enclosures to use passive or active cooling techniques as required to maintain the recommended operating temperature for any component inside the enclosure given project environmental conditions as specified by the City.

2. Full load power calculations for all sources of power shall be provided.

3. UPS runtime calculations for the calculated full load supplied by the UPS and the selected batteries shall be provided to the City.

All panel designs and calculations shall be completed in compliance with all functional specifications and applicable standards, codes and regulations.

5. ADDITIONAL PANEL EQUIPMENT

The Contractor shall procure and provide miscellaneous equipment required to complete tasks related to industrial control panels for water pump stations, pressure control stations, sewer lift stations, water well sites, and any additional sites upon request by the City. Miscellaneous equipment may include but is not limited to replacement parts, retrofits, upgrades, any additional supplementary parts required for repair, etc.

6. TRAINING SERVICES

Upon request by the City, the Contractor shall provide in-person training services in accordance with National Electrical Code (NEC) and Underwriters Laboratories Inc (UL) regulations. The Contractor shall provide customizable training classes regarding specific-use industrial control panels, panel components, wiring, switching devices, etc. The Contractor shall also review the operation and maintenance for each component of the control panels. All manufacturer's manuals for equipment shall be included as well as operations and maintenance manuals for key components.

D. CODE COMPLIANCE

All control panels shall be manufactured in accordance with:

- Underwriters Laboratories Inc (UL508 & UL508A)
- Institute of Electrical and Electronics Engineers (IEEE)
- National Electrical Manufacturers Association (NEMA ICS 6 & 250)
- International Electrotechnical Commission (IEC)
- National Electrical Code (NEC) standards
- National Fire Protection Agency (NFPA 70)
- American National Standards Institute (ANSI)

E. PROJECT MANAGEMENT AND COORDINATION

When a request for service is issued to the City, the Contractor shall issue an estimate to the City's designated Project Manager. The Contractor shall not proceed with any work without the approval of the City's designated project manager.

Contractors shall invoice the City on a monthly basis for all work performed during the period or provide a one-time invoice at the completion of work issued. Each invoice shall be accompanied by a summary of tasks performed, contract agreement number, results and progress on long-term tasks if any.

F. SUBCONTRACTORS

The use of Subcontractors is allowed, but will require approval by City prior to start of any assigned work. Upon commencement of work, the Contractor shall be responsible for services provided by any subcontractor as if Contractor were providing the services with its own organization. When a Subcontractor performs all or any part of the work, a markup shall be applied to the Subcontractor's actual cost of such work. The Contractor may add a markup of 10 percent on the first $5,000 of the subcontracted portion of the extra work and a markup of 5 percent on work added in excess of $5,000 of the subcontracted portion of the work may be added by the Contractor.

G. MARKUP

The following markup percentages shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits (to the sum of the costs and markups, one (1) percent shall be added as compensation for bonding):

1)	Labor	20
2)	Materials	15
3)	Equipment Rental	15
4)	Other Items and Expenditures	15

H. MINIMUM QUALIFICATIONS

The Contractor shall meet the following minimum qualifications:

1. All work is to be performed in compliance with all applicable codes, ordinances, laws, standards, due care, and Occupational Safety and Health Administration (OSHA) safety requirements.
2. The Contractor shall have a minimum of five (5) years of experience in providing industrial control panel building services.
3. The Contractor shall possess state and local permits, licenses and certificates required by law to commence, carry, and complete the work.
4. Provide all necessary equipment to competently perform and complete work as specified.

I. SAFETY

Proposer shall be solely and completely responsible for the condition of the project site, including safety of all persons and properties during the performance of the work. In addition, proper safety equipment must be worn at all times. These requirements shall apply continuously until the contract is terminated and shall not be limited to normal working hours.

The Contractor/Consultant shall assure that each employee or subcontractor under the contractor's supervision is trained in the work practices necessary to safely perform his or her job.

J. INSURANCE REQUIREMENTS

The successful bidders shall furnish the City with original copies of valid insurance policies herein required upon execution of the contract and shall maintain said policies in full force and effect at all times during the term of this contract. Said insurance policies shall comply with all requirements set forth in these specifications. Contractor(s) shall keep a current certificate of insurance at the City of Santa Ana at all times and shall immediately report any changes to the City.

K. FEE SCHEDULE

Contractor shall submit a fee schedule as described in Section IV.B.3 of RFP. **The Well 40 and SA-7 panel design drawings provided as Exhibit A and Exhibit B respectively are to be used as the basis for completing the Fee Schedule form.** No separately stated freight or deliveries will be considered. Bidders shall include all costs in the unit price bid.

Furthermore, the Contractor shall submit additional labor, material and rental equipment rates along with fee schedule. Contractor's labor and equipment rate sheet shall list rates for all labor designations, equipment, rentals, and materials. The bid items specified in the fee schedule are for reference purposes only. Labor increases shall be subject to mutually agreeable terms between the City and the Contractor. The City may request related services that will be paid at the vendor's standard labor and equipment rate submitted. Fee proposal shall be outlined as follows:

---End of SCOPE OF WORK Section---

EXHIBIT B

KDC Systems
An EMCOR Company

RFP 21-100

WATER RESOURCES PANEL

BUILDING SERVICES

Statement of Qualifications
PREPARED FOR THE CITY OF SANTA ANA

PROPOSAL ID - 210366

KDC Systems
An EMCOR Company

KDC Systems
4462 Corporate Center Drive
Los Alamitos, CA 90720
T: 714.484.2300 F: 714.236.2291
www.kdc-systems.com

Cover Letter

October 6, 2021

KDC Systems was founded in 1985. Today, we are one of the largest and most trusted control systems integrators in California. We are based in Los Alamitos, California.

KDC Systems is the systems group within Dynalectric LA. Dynalectric LA was founded in 1950. It is among the largest Electrical Contractors in Southern California with over 300 employees. KDC Systems / Dynalectric work out of a 50,000 sq ft facility in Los Alamitos, California.

KDC Systems is one of the few system integrators that self-perform all aspects of control system projects, without any need for sub-contractors. For customers, this means a fully coordinated and integrated project with a single point of contact for warranty and follow ups. By eliminating the gaps that can appear between contractors, we increase the overall quality of the project.

Our customers are primarily in process industries including; Water, Biotech, Food and Beverage, Pharmaceuticals and Chemicals. Our customers have included City of Los Angeles, Orange County Sanitation District, Orange County Water District, Los Angeles

KDC Systems
An EMCOR Company

County Sanitation District, numerous other water districts, LAX, Genentech, Amgen, Takeda, Allergan, Gilead, Skechers, Coca Cola, Frito Lay and Pepsi

The benefits of working with KDC Systems include:

- **Local Support** – all our employees are based in Southern California.
- **A Financially and Operationally Stable Partner –** We combine the flexibility of a small, local company with the stability of an industry giant. We have very low employee turnover.
- **An Experienced Team –** 30+ Years of project experience
- **A Full Service Portfolio –** We can design, build, install and commission your system. (see Section 3)
- **A Deep Pool of Skilled Engineers –** As illustrated below (Section 5) our team has a diverse set of skills and experience.
- **Scalability** - We are uniquely capable of scaling up to meet project needs. We do this by combining our efforts with our sister company, Dynalectric San Diego, as needed.

KDC Systems currently has **27** employees who work out of our Los Alamitos Office.

We are a Division of KDC Inc. which is a wholly owned subsidiary of EMCOR Group Inc. **EMCOR** (NYSE – EME) is the largest mechanical and electrical contractor in the United States, Canada and Great Britain. EMCOR has annual sales of $8.8B. It consists of 75+ Operating Companies and has 33,000 employees. EMCOR is listed on the NYSE and is #360 on the 2017 Fortune 500.

KDC Systems is confident we can provide City of Santa Ana with the level of professional services required.

Regards,

10/06/21

Edward Kazimierski
General Manager
KDC Systems

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KDC Systems
An EMCOR Company

1. AGREEMENT STATEMENT

KDC Systems has reviewed the standard agreement supplied with the RFP and does not have any concerns at this time.

2. FIRM AND TEAM EXPERIENCE

KDC is a Full-Service System Integrator. We have the skills to take your project from concept all the way through commissioning and startup. We can then provide all the services you will need to maintain your system.

KDC Systems is primarily focused on the Water and Wastewater Industries. We have conducted hundreds of projects for public agencies. These projects range from smaller I&C projects thru large turn-key projects. (10,000+ IO points)

Being a part of EMCOR brings many advantages to our customers. KDC Systems has an operational stability that is unusual for a Systems Integrator. This stability is evidenced by the long tenures of our employees. It makes us a reliable partner for the long term.

Another benefit of being EMCOR, is that we have a network of sister companies. This provides us the opportunity to scale up to meet project needs. Dynalectric San Diego can also be utilized to meet City of Santa Ana's needs.

2.1. Services

We offer the following services,

System Design

Conceptual Design
Automation Technology Selection
Existing System Analysis
Customer Requirements Analysis
Specification Documentation

Detailed Design

Electrical Design

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Automation Architecture
Instrument Specification
Network Design
Functional Design

System Build

PLC Programming
DCS Programming
Network Configuration
Server Build, Setup and Configuration
HMI / OIT Programming
MES Integration
Test Protocol Development
System Documentation

Panel Fabrication

UL508A / UL-698 listed panel shop located in our Los Alamitos office

System Commissioning

System Installation
Startup Assistance
Test Protocol Execution (FAT/FDT/SAT/ORT)
Calibration Services
Operator Training

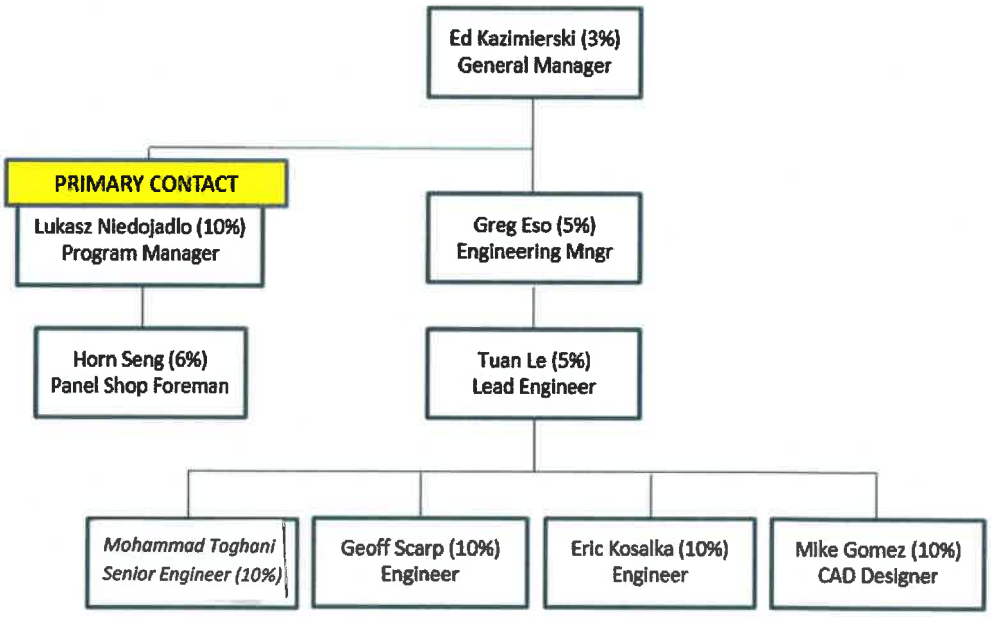
Support Services

24 x 7 Emergency Support
Scheduled Service Calls
Maintain Test Platform
Software / Firmware Updates
Calibration Services

KDC Systems is committed to providing the highest quality services to City of Santa Ana. Our intention is to form a team specifically dedicated to supporting your design, project and support needs.

2.2. Key Personnel

KDC Systems would assign the following team to support City of Santa Ana. Each team members anticipated time focused on Santa Ana is in parenthesis.



Our philosophy is to have a group of engineers who are familiar with a supported facility. All assigned Engineers will familiarize themselves with City of Santa Ana engineering standards and facilities. All team members are locally based and work out of our facility in Los Alamitos.

See Resumes – **APPENDIX A**

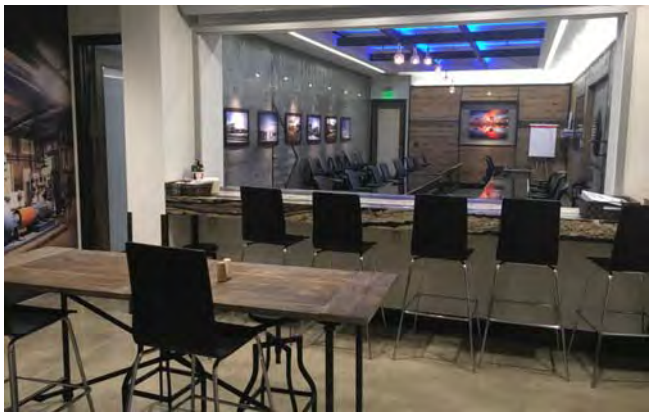
2.3. Panel Fabrication

KDC Systems operates a 4000 square foot, UL508A / UL-698 listed Panel Shop. This is adjacent to our headquarters in Los Alamitos.

Building our own panels enables close collaboration between our engineering team and our fabrication team. Engineers supervise the fabrication of their panels and can also support testing. We build panels to the highest quality and generally exceed our customer's expectations. References are available.

2.4. Training Room

KDC Systems has built a Training Room at our headquarters in Los Alamitos. This facility is ideal for presenting customer training. We also use this facility for Design Workshops.



2.5. Factory Acceptance Testing & Metrology Lab

This Lab is used for conducting Factory Acceptance Tests. This Lab is also used to house Test Systems for supported customers.

2.6. On Going Support

KDC Systems is committed to supporting City of Santa Ana for the next 5 years and beyond. Here are some additional services, which may be of value to City of Santa Ana.

2.6.1. Emergency Support

KDC Systems maintains a 24-Hour Emergency Number. We can contractually commit to getting an engineer on-site within a specified time frame in the case of an emergency.

2.6.2. Scheduled Service Calls

We will schedule regular service calls. The purpose of these calls is two-fold.

Firstly, we will meet with City of Santa Ana and discuss the performance of the system. This would be the forum for raising minor / non-emergency issues. These meetings would also be used for planning future upgrades and small maintenance projects.

Secondly, KDC Systems would use this service call to review system logs in order to detect emerging issues. Special attention would be paid to alarm logs. Recurring alarms can be indicative of an emerging problem which needs attention. Alternatively, they may indicate an alarm that needs to be tuned or reprogrammed. KDC envisions working with City of Santa Ana to reduce the volume of nuisance alarms generated and 'rationalize' the system alarms.

2.6.3. Software Updates / Patches

KDC Systems is also available to monitor all city software and firmware for updates. Software Updates will be applied at regular intervals (such as quarterly). In the

case of emergencies (eg. Security patches) we will notify City of Santa Ana and expedite the installation.

Firmware upgrades will be applied as agreed with City of Santa Ana.

3. UNDERSTANDING SCOPE OF SERVICES

3.1. Panel Building Services

We will construct and furnish industrial control panels and all work will be in compliance with the National Electric Code (NEC), Underwriters Laboratories (UL) 508A (standard for the construction of industrial control panels) and UL508 (standard for safety for industrial control equipment). We will be responsible for the procurement of all material and fabrication of control panels on provided drawings and/or functional specifications.

Prior to commencement of panel building services, we will assess the project and provide a submittal to the City containing proposed equipment and components as well as project schedule for the construction of the panels. We will provide separate quotes for City's review and approval. Once a notice to proceed is received, we will commence procurement and fabrication activities.

3.2. Factory Acceptance Test

Any control panel fabricated by KDC systems is inspected by our engineers for compliance to drawings by verifying interior/exterior layout with the design. We confirm all items on bill of material have been provided and installed per specification.

We verify all fuse types and rating and ensure fuses are not blown by continuity testing. We will verify all wire sizes, colors, labels and terminal numbers.

For power distribution circuits we open all circuits before power up and close circuits in sequence after proper wiring, fuses and voltages have been confirmed.

For control panels with PLCs we will verify I/O checkout and any applicable networks. We will configure required I/O in a PLC test program and verify proper digital input operation by jumpers and digital outputs by forcing and verifying relays and lights. Analog inputs will be verified using signal generators and analog outputs will be confirmed using multimeters.

Once KDC has completed all testing and verification, the same test will be repeated with the City's Representative and results documented on City's Control Panel Testing form.

3.3. Post-Installation Field Testing

Once system installation has been successfully completed and installed, we will perform a site acceptance test. We will test the full operation and functionality of the completed system in the SAT with a City Representative.

Once all operation and functionality are confirmed and approved by the City Personnel in the SAT, we will commence on-site closeout and final completion of the project.

During on-site closeout, we will review panel drawings for any redlines, changes or corrections and make sure these are implemented and captured on the drawings. We will make sure any non-conformances have been corrected and re-tested. We will clean and vacuum the panel and take detailed photos after installation.

For in-office closeout we will update drawings to reflect as-built condition and provide all records including photos and schematics to the City upon closeout of the project.

3.4. Panel Design Services

Upon request by the City, we will provide control panel design services that conform to City standards.

Depending on the application, the drawing sets will include Panel Layouts, Power Distribution, Network Diagrams, IO Drawings and a Bill of Materials (these will reference the Layout Drawings and part numbers).

Where required we will also develop IO Lists. These IO Lists will specify tag names in accordance with city standards.

Where applicable, drawings will include enclosure temperature calculations, full load power calculations and UPS runtime calculations.

4. RELEVANT PROJECT EXPERIENCE

4.1. IRWD, Baker Water Treatment Facility

Project Size $1.8M
Years 2014-2017

Overview
The Baker Water Treatment Plant is a greenfield drinking water plant. It is designed to produce 28.1 Million Gallon per day. This is a regional facility, owned by 5 South Orange County water districts.

KDC Scope
KDC was responsible for PLC Programming, HMI Programming, Historian Configuration, Alarm Dialer Configuration, specification and procurement of server hardware, virtualization setup, Testing and Commissioning.

Details
Technologies deployed included Wonderware System Platform, Wonderware Enterprise Historian, VMWare Virtualized Environment, Dell Servers, Modicon PLCs, Win911

The biggest challenges on this project were the use of a third party code Library and interfacing with multiple equipment vendors. Our engineers quickly became proficient in the IRWD Library. Our project managers communicated constantly with the various equipment vendors.

4.2. IRWD, Michelson Water Recycling Plant, Biosolids and Energy Recovery

Project Size $4M (est)
Years 2017 - present

Overview

The IRWD Michelson Water Recovery Plant is being expanded to provide recycled water for use in landscaping and irrigation.

KDC Scope

KDC is providing all PLC and HMI Programming, Historian Configuration, Win 911 Configuration, Testing and Commissioning

Details

This project was originally awarded to another integrator. When the project ran into trouble, IRWD and Morrow Meadows approached KDC Systems to take over and compete the project. KDC Systems had recently completed the successful Baker Ranch Project so the awarding of this work was a vote of confidence for our prior performance.

This project is still in progress. Technologies being deployed include Wonderware System Platform, Wonderware Enterprise Historian, VMWare Virtualized Environment, Dell Servers, Modicon PLCs, Win911. KDC Systems is maintaining a Test Bed at our facility to support testing and debug.

4.3. Orange County Water District, Advanced Water Treatment Facility

Project Size $15.3M
Years 2004 – present (Initial project, Phase 2 expansion & Final expansion)

Overview

The Ground Water Replenishment System (GWRS) is the world's largest advanced water purification system for indirect potable reuse. The system takes highly treated wastewater that would have previously been discharged into the Pacific Ocean and purifies it. A three-step advanced treatment process is utilized. This process consists of microfiltration, reverse osmosis and the application of ultraviolet light with hydrogen peroxide. The process produces high-quality water that meets or exceeds all state and federal drinking water standards

KDC Scope

DeltaV Programming (Control Strategies, Operator Stations, Historian), Design and Build of 100+ UL-508A Control Panels and Local Operator Stations, Electrical Design, Instrumentation, Field Calibrations, Commissioning, Testing.

Details

The core system is 8,000 IO points with an additional 7,000 points being monitored in sub-systems. DeltaV Version 11, M Series Hardware, Delta V Historian and Win 911 were utilized. Both Fieldbus and DeviceNet were used on these projects

Perhaps the biggest challenge in this project was the fact that the process itself was somewhat experimental. Nobody had ever attempted to clean up effluent from a Wastewater Facility to drinkable level on this scale before. The experimental nature of the process resulted in the need to absorb multiple changes to the control narrative during the course of the project.

To facilitate this collaborative effort, we conducted Design Workshops. The purpose of these Workshops was to get input from all stakeholders and get their sign off on the design. A custom software library was built and maintained. This library was managed and pushed out to sub-vendors who were responsible for providing some of the sub-systems.

The control system was built and tested off-site using a Test Platform. Rigorous testing protocols were developed with the engineer and OCWD. Unwitnessed and witnessed testing was conducted at our facility using the Test Platform. The thoroughly tested code was then deployed on-site, greatly reducing startup time and issues. The same testing was then repeated in the field on actual equipment with water to commission the system.

Another, challenge on this project was the use of the DeltaV DCS. DeltaV is a very powerful and highly integrated process controls technology which can be challenging to implement. KDC Systems has mastered this technology and as a result OCWD has repeatedly chosen to use us over the local Emerson business partner.

4.4. Los Angeles World Airports, LAX Central Utilities Plant Upgrade

Project Size $4.7M
Years 2010 - 2016

Overview

KDC developed a 'Balance of Plant' control system for the new LAX Central Utilities Plant. The Wonderware System Platform SCADA System provided visualization for the Central Utilities Plant and also for Air Handling Units distributed throughout the airport. Process values were captured and historized to a Wonderware Historian

KDC Scope

Our scope included all PLC and HMI programming along with the design and fabrication of all Control Panels

Details

The heart of this system consisted of Redundant Control Logix Processors. These controllers communicated with multiple geographically dispersed systems over protocols including Ethernet, BACNet and Modbus.

A library was developed using Wonderware Templates and Logix Modules. Standard Logix Modules were developed. These modules utilized User Defined Tags (UDTs) for public interfaces. and were comprehensively documented. The SCADA system was deployed in a VMWare Virtualized environment consisting of 3 physical servers, each hosting 5 virtual servers with Dual Redundancy

This was a very challenging project. It is always challenging working in a fast-paced environment like an airport. Implementation mistakes had the potential to cause severe

discomfort to the thousands of daily travelers and commercial discomfort to LAWA who have commitments to their customer airlines.

As the 'Balance of Plant' integrator we were required to interface with multiple equipment vendors. The airport is physically and organizationally dispersed. Every terminal has its' own systems and service contracts which made this a very difficult project to manage.Our schedules had to be constantly revised to ensure that specific modules were ready and tested to coincide with changing construction and installation schedules.

KDC Systems met our customer's requirements through careful planning and coordination with all parties.

4.5. City of Santa Ana - Various Projects Well 21, South Station Well Integration, Wells 16&33 Control Panels, SA-5 Vault Modifications, Walnut Pump Station, Cambridge Bypass, Santa Ana SA-7 Radio Repeater Panels & Well 20 Meter Integration

5. REFERENCES

IRWD, Baker Water Treatment Plant
Scott Toland, PE
Senior Engineer, Baker WTP Construction Manager
(949) 458-4200 Baker WTP direct
(760) 822-3194 mobile
toland@irwd.com

Orange County Water District, AWTF / GWRS
Jay Kalinowski
Process Control and System Manager
T - (714) 378-3250
jkalinowski@ocwd.com

LAWA, LAX Central Utility Plant
Robert 'Bob' Johnson
Senior Building Operating Engineer
T – 424-646-7834
RJohnson2@lawa.org

City of Santa Ana
Brian Ige
Assistant Engineer II
T – 714-647-3385
bige@santa-ana.org

PROFESSIONAL BIO

Lukasz Niedojadlo
Project Manager

Experience

Dynalectric/ KDC Systems
7 yrs 7 mos

Project Manager
May 2015 – Present · 6 yrs 6 mos
Los Alamitos, CA

Estimates, plans, and co-ordinates activities of multiple projects ranging in value from $1,000 to $8,000,000 in the areas of the pharmaceutical industry, water treatment plants, BMS, systems integration and re-engineering.

Defines project scope, objectives, staffing, resources and deliverables. Plans and schedules project timelines and milestones. Monitors project risks and scope creep to identify potential problems and proactively identifies solutions to address them in advance. Liaises with, and updates progress to senior management.

Provides strategic direction during the implementation stages. Implements and manages project changes. Manages and controls project budgets as well as develops and presents reports on project progress. Maintains client expectations by ensuring the delivery of the highest quality service while staying on schedule.

see less

Project Coordinator
Apr 2014 – Jul 2015 · 1 yr 4 mos
Los Alamitos, Ca

Responsible for tracking and ensuring key project dates were met. Ensured all commitments were met in accordance with the goals and objectives of the project. Prepared reports on financial aspects and progress for the project. Managed and coordinated change activities. Assisted with project planning, documentation, and closeout activities. Coordinated all relevant departments' activities to ensure smooth flow.

see less

Dynalectric

KDC Systems

EMCOR Companies

PROFESSIONAL BIO

Greg Eso
Engineering Manager
22 years with Dynalectric LA / KDC Systems
31 Years in Trade

Education/Training:
Electrical Engineering and Control Systems, University of Victoria, Victoria, British Columbia

Professional Bio:
Mr. Eso has extensive experience managing project teams in designing, installing, and testing control systems utilizing PLC, HMI, and DCS technologies across a broad range of industries including life science, water treatment, automotive, material handling, high speed sortation, and robotic palletizing. His direct responsibilities have included:

- managing technical personal
- providing guidance on technical issues
- cost estimating and proposals
- conceptual design, P&ID development, and process functional description
- hardware and software specification
- detailed power, control panel, and field electrical engineering
- material requisition
- PLC and HMI programming
- installation, testing, startup, and training
- documentation including drawings, user manuals, troubleshooting guides, and O&M manuals
- managing people and resources in the execution of these tasks

Selected Project Experience:

Gilead Sciences
KDC Systems is providing instrumentation and control system engineering and installation expertise to automate a new formulation and filling suite for Gilead Sciences in La Verne, CA. The process control system hardware and software are Rockwell Automation and the project is using specialty subvendors for other proprietary systems. KDC Systems is the systems integrator for the project and is responsible for instrumentation specification and procurement, control panel design and fabrication, plant network expansion to incorporate the new control hardware, vendor equipment integration, and software development, testing, and commissioning. KDC will hold workshops with the owner and develop software detailed designs, test plans, and a complete software library. Unwitnessed and witnessed testing will be conducted at our facility and repeated in the field. KDC electricians are responsible for installing, terminating, and testing all control system wiring for the project.

OCWD GWRS Final Expansion
Construction of the Final Expansion of the Groundwater Replenishment System for the Orange County Water District (OCWD) has begun. Located at the OCWD Advanced Water Treatment Facility (AWTF) on Ward Street in Fountain Valley, CA, the $310 million project will create an additional 30 million gallons per day of new water supplies to serve north and central Orange County. Once completed, the AWTF's total production will reach 130 million gallons per day, enough water for 1,000,000 people. The project entails expansion of the existing flow equalization, microfiltration, reverse osmosis, ultraviolet, and related support facilities. The process control system hardware and software are Emerson Delta V combined with Ethernet and Foundation Fieldbus connected control devices. KDC Systems is the systems integrator for the project and is responsible for instrumentation specification and procurement, control panel design and fabrication, plant network expansion to incorporate the new control hardware, vendor equipment integration, and software development, testing, and commissioning. KDC will develop software detailed designs and test plans. Unwitnessed and witnessed testing will be conducted at our facility and repeated in the field. KDC electricians are responsible for terminating and testing all control system wiring for the project.

Project Experience under Tenure:
AV Thomas
Starkist
Skechers USA
LAX Terminal 7
Toyota
JPL

Training and Certs:
Electrical Engineering
Rockwell Solutions Provider
First Aid/CPR

Dynalectric

KDC Systems
EMCOR Companies

PROFESSIONAL BIO

Tuan Le, P.E.

Senior Applications Engineer

15 years with Dynalectric / KDC Systems

Education

- Bachelor of Science, Mechanical Engineering, California State Polytechnic University, Pomona.
- California Registered Professional Engineer, Mechanical, 1995, #M29864

Selected Project Experience

IRWD Biosolids and Energy Recovery Project (2017-2020)

Application: Biosolids and Energy Recover Facilities
PLC: Schneider Modicon Quantum, M340
Tasks: Lead team for programming and configuration of the Process Control System for new plant, including submittals, development, configuration, and testing of PLC programs, HMI templates and instances, graphics, historian, reports, and alarm dialer; setup and testing of redundant SCADA servers running on VMware ESXi; integration and testing of packaged equipment skids; field startup, device commissioning and acceptance testing.

Orange County Water District Initial Expansion of GWRS (2011-2015)

Application: Expansion of existing MF, RO, UV and supporting systems to increase plant water production from 70MGD to 100MGD.
DCS: Emerson DeltaV
Tasks: Software detail design, programming and commissioning of MF, RO and UV systems; control network and control panel power load calculations; setup and testing of motor-operated valves, variable frequency drives, power monitors, and various Foundation Fieldbus and DeviceNet devices; integration and testing of packaged equipment skids; field startup, device commissioning and acceptance testing.

LAX Central Utility Plant (2011-2015)

Application: Central Utility Plant SCADA system.
PLC: A-B ControlLogix communicating with various vendor systems.
HMI/OIT: Wonderware ArchestrA System Platform, InTouch.
Tasks: SCADA System design and configuration for central utility plant and building automation system; setup alarming, historical data collection and reporting.

LADWP Owens Lake Dust Mitigation, Phase 7 (2008-2010)

Application: Shallow flooding 27 square miles of dry lake bed to mitigate dust
PLC: A-B SLC and ControlLogix miles apart communicating via radio network
HMI/OIT: GE iFIX, A-B PanelView
Tasks: Project engineering, programming and commissioning; control panel design and power load calculations; software and hardware detailed design; developing FAT, SAT, training and O&M manual documentation; software and graphics development, and submittals; setup historical data collection and reporting.

Orange County Water District AWTF and GWRS (2005-2008)

Application: Purification of treated waste water using microfiltration, reverse osmosis and ultraviolet light; product water is used to keep ocean out of groundwater basin and to replenish drinking water supplies.

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DCS:	Emerson DeltaV
Tasks:	Engineering, programming and commissioning; control network and control panel power load calculations; software detailed design; software and graphics development, submittals and testing; setup and testing of motor-operated valves, variable frequency drives, power monitors, and various Foundation Fieldbus and DeviceNet devices; integration and testing of packaged equipment skids; field startup, device commissioning and acceptance testing.

Allergan (2004-2005)

Application:	Bioscience Laboratory Process Utilities
PLC:	A-B SLC and ControlLogix
HMI/OIT:	A-B VersaView w/ RSView
Tasks:	Engineering, programming, commissioning and validation support; software detailed design, software development, simulation development and testing; setup and testing of alarm callout/paging system; training of operators and supervisors; creating operations and maintenance manuals.

Baxter LAFC (2001-2003)

Application:	Manufacturing of Recombinant Factor VIII product for treating hemophilia.
DCS:	Emerson DeltaV
Tasks:	Engineering, programming, commissioning and validation support; responsible for detailed control power and control panel design and engineering, DeviceNet and Foundation Fieldbus network segment design, continuous and batch DeltaV programming, software testing and startup, documentation and validation support.

Other Projects Completed Under Tenure

- Disneyland Resorts Distribution System SCADA
- Baxter Suite D PCS Additions
- CSUF Trigen SCADA
- Smith International Reports
- Skechers Conveyor & Sortation System
- Maruchan Robotic Sortation System
- Wineshopper Conveyor & Sortation System
- Freightliner Conveyor System
- Upright Conveyor System
- Lasco Conveyor System

PLCs

- Allen-Bradley MicroLogix, Point I/O, Flex I/O, PLC-5, SLC-500, ControlLogix
- Schneider Modicon Quantum, M340
- GE Fanuc, Mitsubishi, AutomationDirect

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SCADA, HMIs and OITs

- Emerson DeltaV Distributed Control System (DCS) Control Studio, Operate, Batch, Historian
- Wonderware System Platform Application Server, InTouch, Historian, Information Server
- Rockwell FactoryTalk View SE & ME, Historian
- GE Proficy HMI/SCADA iFIX, Historian
- Allen-Bradley PanelView, VersaView
- Inductive Automation Ignition
- Iconics GENESIS64

Training and Certifications

- Rockwell Automation PlantPAx Design & Development - System Integrator Training
- Rockwell Automation ThinManager Integrator Training
- Wonderware System Platform Application Server
- Emerson DeltaV Operate, Batch & Implementation for System Integrators
- GE Proficy HMI/SCADA iFIX
- Iconics GENESIS64 Standard

MOHAMMADREZA TOGHIANI, PE

(United States Citizen)

Summary of Qualifications:

Professional, motivated, and highly experienced Electrical Engineer with experiences in wide variety of areas including instrumentation, automation, control, and low-voltage electrical system design at process and manufacturing industries including water treatment, water reclamation, pharmaceutical, oil and gas, petrochemical, cement, and textile industries.
Extensive knowledge and experience in control system of the different utility and process units such as micro filtration, reverse osmose, ultra-violate, centrifuges, aeration basin, odor control systems and N2, H2, steam, demineralization and hot oil production units, gas turbo generators and process equipment (heaters, boilers, gas compressors, distillation towers, pumps).

Area of Expertise:

Low-Voltage Electrical System Design

- Design and Create electrical schematic drawings by implementing UL508, NFPA 70, and NEMA standards by using Eplan and AutoCAD softwares.
- VFD Setup and Configuration.
- Test, Commissioning, and Troubleshooting of the electrical panels.

Automation and Control Systems

- Hardware configuration and software programming for Programmable Logic Controllers (PLC) including but not limited to Siemens, Allen Bradly, Modicon, GE Fanuc by TIA Portal, Simatic Manager, RSLogix 5000/500, Unity Pro, ProWORX32, Concept and Proficy Machine Edition programming software's for all IEC 1131-3 languages, FBD, LD, ST, SFC, IL and for the special applications, Safety Instrument Systems (SIS), redundant and high available systems per IEC 61508 and IEC 61511/ISA-84 standards.
- Distributed Control System (DCS) Programming including DeltaV, Plant PAx, GEMS, Yokogawa Centum CS3000, PCS7.
- Human Machine Interfaces (HMI) Programming by Siemens WinCC flexible, Schneider vizio and Indusoft, and Rockwell PanelView; SCADA programing by Ignition, Wonderware, WinCC, FactoryTalk and Zenon.
- Configuration for Industrial Networks like industrial Ethernet, Profibus, Modbus, Profinet, ControlNet for all medias, antenna and radios, fiber optics and network cable Medias.
- Create control schematics, and loop drawings.
- Create commissioning plans like ORT, FAT, and RAT plans; control strategies and control audit reports.
- Accomplish the factory demonstrated tests for control and electrical panels.
- Implement the loop checks and start-ups for control systems.

Instrumentation

- Design and Find the best solution per necessary standards such as NEC, API, ISA.
- Orifice Calculation, valve and regulator sizing with popular software's like InstCalc, Fisher, Samson.
- Documentation: creating data sheet, instrument submittal, O&M manual submittal.
- Commissioning, setup and calibration by HART communicators, reference gauges, multimeters and handheld calibrators.
- Preventive maintenance (PM), troubleshooting.

For all kind of flow, pressure, level and temperature instruments and analyzers like pH, conductivity, oxygen, ammonia, nitrate, dissolved oxygen, chlorine, turbidity, dew point, flue gas and CEMS analyzers, CO, CO2, SO2, NH3, O2, LEL, Cl2, Cl2O ambient gas detectors.

Professional Experiences:

Applications Engineer Oct 2018 – Present
KDC Systems
Automation and control system Integrator Company in Southern California.
- PLC, SCADA and HMI programming.
- Instrumentation design and submittals.
- Control panel design.
- Instrumentation Job estimates.
- FDT tests of the control panels.
- Field support and troubleshooting of the control systems.

Control System Engineer Feb 2015 – Oct 2018
Trimax Systems Inc.
Automation and control system Integrator Company in Southern California.
- PLC, SCADA and HMI programming.
- FDT tests of the control panels.
- Startup, field commissioning, loop checks, FAT and control System troubleshooting.
- Instrument set up, calibration and troubleshooting.
- Creating commissioning plans, control strategies and control audit reports.
- Instrument design, creating datasheet, instrument submittal, O&M manual submittal and training packages.
- Instrumentation and control system trainings.

Instrumentation Repair Supervisor 2008 – 2014
Control System Engineer 2005 – 2008
Iran Chemical Industries Investment Company (ICIIC)
Petrochemical company in Iran with a complicated process and massive advance control system.
- Troubleshooting, preventive and emergency maintenance for instrumentation and control systems.
- Developing and improvement of instrumentation and control systems.
- Accomplishment of different projects and design, programming, commissioning, installation and startup like tank monitoring system, air fan speed control system, and Platinum extraction plant.

Electrical and Control Engineer 2011 – 2014
Nemooneh Saz Sarooj
Designer and manufacturer of cement sampling machines in Iran
- Design, programming, commissioning, installation and startup of the electrical and control systems and electrical equipment for the cement sampler packages.

Educations:

- **B.Sc. Applied Electronics Engineering** 2001 - 2003
  Shiraz University, Shiraz, Iran

- **A.S. Electrical Technology – Electronics** 1998 - 2001
  Shiraz University, Shiraz, Iran

Certificates:

- Engineer-In-Training, Board of California
- SCADA Ignition 8, Inductive Automation
- SCADA GEMS, Rockwell Automation

- Basic Programming of PLCs, Festo
- Intermediate Programming of PLCs, Festo
- PLC Redundancy, Aryan Elmosanaat Training Center
- Introduction to Industrial Profibus, Kian Control Engineering Co. Ltd.
- Modbus, Aryan Elmosanaat Training Center
- Introduction to Simatic WINCC (Siemens SCADA), Kian Control Engineering Co. Ltd.
- Variable Frequency Drives, E and M
- Introduction to EPLAN Electric, Kian Control Engineering Co. Ltd.
- General Principles of Metrology & Calibration, Khat Ramz Co.Ltd.

Recent Projects:

- Gilead Clinical Flex Fill Line and Second Formulation Suite
  Instrument and panel design. In-Current
  PLC, HMI and SCADA programming.
- Orange County Water District Ground Water Replenishment System
  Instrument and panel design. In-Current
  PLC, HMI and SCADA programming.
- City of Santa Ana Well 16 and 33 SA-5.
  PLC and HMI programming. 2019
- Irvine Ranch Water District Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities
  SCADA programming. 2019
- Edwards Air Force Base ACU and Aircraft Support Equipment Upgrades.
  PLC, HMI and SCADA programming, Commissioning, Startup. 2018
- Automation Plating Corporation Plating Line PLC Upgrade.
  PLC and HMI programming, Commissioning, Startup. 2018
- Water Replenishment District of Southern California Goldsworthy Desalter Expansion
  Commissioning, Loop check, FAT and PLC program modification. 2017
- Global Harvest Foods Mixing System.
  Panel Design, PLC and SCADA programming, Commissioning, Startup. 2017
- City of San Clemente Marblehead Coastal Urban Runoff System.
  PLC and HMI programming, Loop check and commissioning. 2017
- MWD Henry J. Mills WTP Industrial Wastewater Handling Improvement.
  Commissioning Plan, Instrument and control system training. 2017
- Western Riverside County Regional Wastewater Authority 14MGD Plant Expansion.
  Commissioning Plan for whole Plant. 2016
- Irvine Ranch Water District Baker Water Treatment Plant
  Control Panel FDT, Instrument Setup and calibration, Loop checks. 2016
- MWD Weymouth Water Treatment Plant. Oxidation and Ozonation Facilities.
  Instrument setup and calibration. Loop checks, Instrument training. 2015 - 2016

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EMCOR Companies

PROFESSIONAL BIO

Edward Kazimierski
General Manager
21 years with Dynalectric/ KDC Systems

Education:
B.Sc., Electrical Engineering, California State University, Long Beach

Division Manager – KDC Systems

Edward oversees Dynalectric's Automation division, aka KDC Systems. His team specializes in Industrial/Process automation, Building automation and UL 508A panel fabrication. His division is one of the most respected system's integrators in southern California and have worked on some of the most visible projects in the area including all three phases of the OCWD GWRS project, the LAX CUP project as well as various prominent Life Science projects to name a few.

He has worked in the automation field for over 27 years. 21 of these years have been with Dynalectric/KDC Systems in positions including Engineer/programmer, Commissioning Manager, Engineering Manager and Division Manager.

Selected Projects:

Orange County Water District GWRS AWTF
KDC Systems provided electrical, instrumentation and control system engineering and installation expertise to automate the Orange County Water District Groundwater Replenishment System (GWRS) in Fountain Valley, CA. The process control system hardware and software was Emerson DeltaV with I/O devices by Allen-Bradley and Phoenix Contact, and the project used specialty subvendors for the Microfiltration and Ultraviolet Disinfection systems. The Reverse Osmosis system and balance of plant were automated by KDC; and KDC was in the unique position of combining the other subvendor controls work to establish one integrated control system. KDC produced about (30) main control panels, and another (70) panels for instrumentation, local control, etc. There are around (60) DeltaV controllers for this project, many of them redundant. KDC performed all control wire terminations and instrument calibrations.
The overall project I/O count of 8,000 points was substantially implemented using Foundation Fieldbus and DeviceNet, and there were about 15,000 historized points. About half of the points were KDC's direct responsibility, while the balance was indirectly our responsibility as overall system integrator. KDC held workshops with the owner and developed software detailed designs, test plans, and a complete software library which we administrated among the other subvendors. Unwitnessed and witnessed testing was conducted at our facility, and was repeated in the field on actual equipment with water to commission the system.

OCWD GWRS Initial Expansion
Construction of the Initial Expansion of the Groundwater Replenishment System for the Orange County Water District (OCWD) has begun. Located at the OCWD Advanced Water Purification Facility (AWPF) on Ward Street in Fountain Valley, Calif., the $142.7 million project will create an additional 31,000 acre-feet per year (AFY) of new water supplies to serve north and central Orange County. Once completed, the AWFP's total production will reach 103,000 AFY, enough water for 850,000 people.
The project entails expansion of the existing microfiltration facility by constructing eight new below-grade treatment basins and enlarging the existing basement facility. Other work includes construction of a new 32,000-square-foot reverse osmosis building, the installation of five new ultraviolet light (UV) treatment trains to match the existing systems, as well as retrofitting the existing post treatment systems to employ a new lime feed system. McCarthy will also construct two above ground steel tanks, each is 215 feet in diameter with a height of 35 feet and a capacity to hold 7.5 million gallons of water.

Select Projects Completed Under Tenure:

Orange County Water District
IDEC NIMO Project
Fiber Composites, NC
Albemarle Corporation, AK
IRWD Baker WTP
Los Angeles Harbor College
Morongo Casino CUP
Baxter TOFX
LAX CUP CHP
Toyota Technical Center
Cal State Fullerton Central Utilities Plant
DPR Baxter Lamp
OCSD P2-66

Contractor shall submit additional labor, material and rental equipment rates along with fee schedule. Contractor's labor and equipment rate sheet shall list rates for all labor designations, equipment and materials.

KDC INC. dba KDC SYSTEMS		95-3041910
COMPLETE LEGAL NAME OF COMPANY		TAXPAYER I.D. NO.
4462 CORPORATE CENTER DR,	LOS ALAMITOS, CA	90720-2539
BUSINESS ADDRESS STREET	CITY/STATE	ZIP CODE
X	BEN. MARTIN	C.F.O.
SIGNATURE OF AUTHORIZED AGENT	NAME (PRINT)	TITLE
BMARTIN@DYNA-LA.COM		
EMAIL ADDRESS		PHONE NUMBER
550173		1000001129
CSLB NUMBER		DIR REGISTRATION NUMBER

Appendix
ATTACHMENT 3: REFERENCES

List and describe fully the contracts performed by your firm which demonstrate your ability to provide the supplies, equipment or services included in the scope of the proposal specifications. Attach additional pages if required. The City reserves the right to contact each of the references listed for additional information regarding your firm's qualifications.

Reference

Customer Name: Morrow Meadows
Contact Individual: Scott Toland (IRWD)
Address: Irvine - Michelson Biosolids Project
Phone Number: (949)458-4200
Facsimile Number:
Contract Amount: $4M+
Year: 2017 to present

Description of supplies, equipment, or services provided:

Control systems programming, engineering, commissioning and calibration support

Reference

Customer Name: Shimmick Construction
Contact Individual: Jay Kalinowski (OCWD)
Address: Fountain Valley - OCWD Final Expansion
Phone Number: (714)378-3250
Facsimile Number:
Contract Amount: $6M+
Year: 2019 to present

Description of supplies, equipment, or services provided:

Control panel fabrication, instrumentation, programming, engineering, start-up and commissioning and calibration support

Reference

Customer Name: City of Santa Ana
Contact Individual: Brian Ige
Address: Santa Ana - Various control projects
Phone Number: (714)647-3385
Facsimile Number:
Contract Amount: Various - $10k to $50k
Year: 2017 - present

Description of supplies, equipment, or services provided:

Control panel fabrication, instrumentation, programming, engineering, start-up and commissioning and calibration support

THIS FORM MUST BE COMPLETED AND INCLUDED WITH THE PROPOSAL.
PROPOSALS THAT DO NOT CONTAIN THIS FORM WILL BE CONSIDERED NONRESPONSIVE.

Please see proposal for additional information

APPENDIX
ATTACHMENT 5: CERTIFICATIONS

NON-COLLUSION AFFIDAVIT

(Title 23 United States Code Section 112 and Public Contract Code Section 7106)

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any other BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____ BEN, MARTIN, CFO

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this 30th day of SEPT., 2021, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me

_____
Notary Public Signature

Notary Public Seal

~ See attached Jurat ~

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☒ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

1
2
3
4
5
6

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

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

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 30th day of September, 20 21, by
Date *Month* *Year*

(1) Ben Martin

(and (2) _____),
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

WENDY BOWLING
Notary Public - California
Orange County
Commission # 2267914
My Comm. Expires Nov 20, 2022

Signature _____
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

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

Description of Attached Document

Title or Type of Document: Non-Collusion Affidavit **Document Date:** None

Number of Pages: 1 **Signer(s) Other Than Named Above:** None

NON-LOBBYING CERTIFICATION

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

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

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

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

Signed: BEN. MARTIN

Title: C.F.O.

Firm: KDC INC. dba KDC SYSTEMS

Date: 9/30/2021

NON-DISCRIMINATION CERTIFICATION

The undersigned Contractor or corporate officer, during the performance of this contract, certifies as follows:

1. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Contractor shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Contractor shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Contractor shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Contractor's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Contractor shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or Contractor as a result of such direction by the administering agency, the Contractor may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended, no discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any Contractor of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: C.F.O.

Firm: KDC INC. dba KDC SYSTEMS

Date: 9/30/2021

EXHIBIT C

Appendix
ATTACHMENT 2: FEE SCHEDULE

Certification - I certify that I have read, understand and agree to the terms and conditions of this Request for Proposals. I have examined the Scope of Services (Appendix: Attachment 1) and am familiar with the scope of work. I am familiar with all the existing conditions and limitations that may impact work requests. I understand and agree that I am responsible for reporting any errors, omissions or discrepancies to the City for clarification prior to the submission of my proposal.

Proposer shall submit hourly rates schedule, which shall include but not limited to, direct and indirect costs for labor, for staff per job classification, material, equipment rates, overhead, incidental supplies, travel, mileage, and fuel. Any special materials will be purchased by the contractor only after discussed and authorized by the City projects manager or designee in writing.

Prior to commencement of services, Contractor shall provide separate quotes, upon request by the City, which shall be approved by the City's Public Works Agency.

Note: **This contract is subject to prevailing wages.**

TO: CITY COUNCIL OF THE CITY OF SANTA ANA

FROM: KDC Inc. dBA KDC Systems

ITEM #	BID ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
Panel Building Services					
1.	SA-7 Radio Repeater Panels as Specified in ~~Exhibit A~~ Exhibit B	EA	1	$ 21,830	$ 21,830
2.	Well 40 Remote Terminal Unit Panels as Specified in ~~Exhibit B~~ Exhibit A	EA	1	$ 34,074	$ 34,074
3.	One-Day Training Session	EA	2	$ 983	$ 1,966
			TOTAL	$ 56,887	$ 57,870

NOTES ① PRICING IS VALID FOR 120 DAYS FROM DATE OF PROPOSAL SUBMISSION
② PRICING FOR ITEM #2 CAN BE REDUCED TO $ 30813 IF BOM ITEM #20 - 6E ETHERNET RADIO IS PROVIDED BY THE CITY OF SANTA ANA

1. FEE

KDC Systems is offering the rates listed below for work conducted under the proposed contract.

Classification	Hourly Rate
Project Manager	$157
General Manager	$157
Engineering Manager	$157
Senior Engineer	$145
Engineer	$134
CAD Designer	$67
Shop Fabrication	$62

Clarifications -

1. Please note the fees shown above are for the first year of this contract, which must be executed within 120 days of submission. Each additional year is subject to a yearly increase of 3%.