

**PROFESSIONAL SERVICES AGREEMENT BETWEEN APACHE
JUNCTION WATER UTILITIES COMMUNITY FACILITIES DISTRICT
AND CAROLLO ENGINEERS, INC. FOR SUPERSTITION AREA
WATER PLANT UPGRADES PRELIMINARY DESIGN STUDY**

PROJECT NO. WD 2020-01

This Agreement is made as of the ____ day of _____ 20____ (the “Effective Date”) by and between APACHE JUNCTION WATER UTILITIES COMMUNITY FACILITIES DISTRICT, an Arizona municipal corporation (“District”), and CAROLLO ENGINEERS, INC., an Delaware corporation (“Consultant”), both of which may be hereinafter referred to collectively as the “Parties” or individually as a “Party”.

RECITALS

A. District desires to retain a consultant to assist in Superstition Area Water Plant upgrades preliminary design study and to make payment for the same in accordance with the terms and conditions set forth in this Agreement, including all attachments and addenda which are appended hereto by mutual agreement of the Parties.

B. The open market Apache Junction Code procedures have been satisfied to the extent they apply.

C. The Parties have set forth below contemplated services Consultant will provide District, including payment terms for such services and products.

AGREEMENT

NOW, THEREFORE, in consideration of the Recitals noted above, the mutual covenants and conditions below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. **CONSULTANT’S DUTIES:** Consultant agrees to perform the professional services detailed in Exhibit A.

2. **COMPENSATION:** The total amount payable by District to Consultant for professional services is an amount not to exceed one hundred nineteen thousand four hundred thirty nine dollars (\$119,439.00), in accordance with the price sheet set forth in Exhibit B.

3. **CONSULTANT BILLING:** Consultant shall bill District on a time and expense basis in a total amount not to exceed Section 2 above. District shall pay such billings within thirty (30) calendar days of the date of receipt.

4. **TERM/RENEWAL:** The term of this Agreement is January 21, 2020 to June 16, 2020.

5. **DISTRICT'S STANDARD OF PERFORMANCE:** District shall furnish Consultant with all data, information and other supporting services specified in Exhibit A.

6. **CONSULTANT'S STANDARD OF PERFORMANCE:** While performing the services, Consultant shall exercise the reasonable professional care and skill customarily exercised by reputable members of Consultant's profession practicing in the Phoenix Metropolitan Area, and shall use reasonable diligence and best judgment while exercising its professional skill and expertise. Consultant shall be responsible for all errors and omissions Consultant commits in the performance of this Agreement.

7. **NOTICES:** All notices to a Party required under this Agreement shall be in writing and sent by first class certified mail, postage prepaid, return receipt requested, addressed to the following:

If to District: Apache Junction Water District
Attn: Mike Loggins, Water District Director
300 East Superstition Boulevard
Apache Junction, AZ 85119

And to: R. Joel Stern, District Counsel
c/o City of Apache Junction
300 East Superstition Boulevard
Apache Junction, AZ 85119

If to Consultant: Carollo Engineers, Inc.
Attn: Mark Gross, Project Manager
4600 East Washington Street, Suite 500
Phoenix, AZ 85034

8. **INSURANCE:** Consultant, at its own expense, shall purchase and maintain the herein stipulated minimum insurance with companies duly licensed, possessing a current A.M. Best, Inc. Rating of B++6, or approved unlicensed in the State of Arizona with policies and forms satisfactory to District.

All insurance required herein shall be maintained in full force and effect until all work or service required to be performed under the terms of the Agreement is satisfactorily completed and formally accepted; failure to do so may, at the sole discretion of District, constitute a material breach of this Agreement.

Consultant's insurance shall be primary insurance as respects the District, and any insurance or self-insurance maintained by District shall not contribute to it.

Any failure to comply with the claim reporting provisions of the insurance policies or any breach of an insurance policy warranty shall not affect coverage afforded under the insurance policies to protect District.

The insurance policies, except Workers' Compensation, shall contain a waiver of transfer rights of recovery (subrogation) against District, its agents, officers, officials and employees for any claims arising out of Consultant's acts, errors, mistakes, omissions, work or service.

The insurance policies may provide coverage which contains deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall not be applicable with respect to the coverage provided to District under such policies. Consultant shall be solely responsible for the deductible and/or self retention and District, at its option, may require Consultant to secure payment of such deductibles or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

District reserves the right to request and to receive, within ten (10) working days, certified copies of any or all of the herein required insurance policies and/or endorsements. District shall not be obligated, however, to review same or to advise Consultant of any deficiencies in such policies and endorsements, and such receipt shall not relieve Consultant from, or be deemed a waiver of, District's right to insist on strict fulfillment of Consultant's obligations under this Agreement.

The insurance policies, except Workers' Compensation and Professional Liability, required by this Agreement, shall name District, its agents, officers, officials and employees as Additional Insureds.

REQUIRED COVERAGE

Commercial General Liability

Consultant shall maintain Commercial General Liability insurance with a limit of not less than \$1,000,000 for each occurrence with a \$2,000,000 Products/Completed Operations Aggregate and a \$2,000,000 General Aggregate limit. The policy shall include coverage for bodily injury, broad form property damage, personal injury, products and completed operations and blanket contractual coverage including, but not limited to, the liability assumed under the indemnification provisions of this Agreement, which coverage will be at least as broad as that on Insurance Service Office, Inc. Policy Form No. CG 00011093, or the equivalent thereof.

Such policy shall contain a severability of interest provision, and shall not contain a sunset provision or commutation clause, nor any provision which would serve to limit third party action over claims.

The Commercial General Liability additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional Insured, Form B, CG 20101185, or the equivalent thereof, and shall include coverage for Consultant's operations and products and completed operations.

If required by this Agreement, if Consultant sublets any part of the work, services or operations, Consultant shall purchase and maintain, at all times during prosecution of the work, services or operations under this Agreement, an Owner and Consultant's Protective Liability insurance policy for bodily injury and property damage, including death, which may arise in the prosecution of Consultant's work, service or operations under this Agreement. Coverage shall be on an occurrence basis with a limit not less than \$1,000,000 per occurrence, and the policy shall be issued by the same insurance company that issues Consultant's Commercial General Liability insurance.

Automobile Liability

Consultant shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence with respect to Consultant's owned, hired, and non-owned vehicles assigned to or used in performance of Consultant's work. Coverage will be at least as broad as coverage code 1, "any auto", (Insurance Service Office, Inc. Policy Form CA 00011293, or the equivalent thereof). Such insurance shall include coverage for loading and off loading hazards. If hazardous substances, materials or wastes are to be transported, MCS 90 endorsement shall be included and \$5,000,000 per accident limits for bodily injury and property damage shall apply.

Workers' Compensation

Consultant shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Consultant's employees engaged in the performance of the work or services; and, Employer's Liability insurance of not less than \$100,000 for each accident, \$100,000 disease for each employee, and \$500,000 disease policy limit.

By execution of this Agreement, Consultant certifies as follows:

"I am aware and understand the provisions of A.R.S. § 23-900 *et seq.* which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of this chapter, and I will comply with such provisions before commencing the performance of the work of this Agreement."

If Consultant has no employees for whom workers' compensation insurance is required, Consultant shall submit a declaration or affidavit to District so stating and covenanting to obtain such insurance if and when Consultant employs any employees subject to coverage.

In case any work is subcontracted, Consultant will require subcontractors to provide Workers' Compensation and Employer's Liability insurance to at least the same extent as required of Consultant.

Professional Liability

Consultant retained by District to provide the work or service required by this Agreement will maintain Professional Liability insurance covering acts, errors, mistakes and omissions arising out of the work or services performed by Consultant, or any person employed by Consultant, with a limit of not less than \$1,000,000 each claim.

Certificates of Insurance

Prior to commencing work or services under this Agreement, Consultant shall furnish District with Certificates of Insurance, or formal endorsements as required by the Agreement, issued by Consultant's insurer(s), as evidence that policies providing the required coverages, conditions and limits required by this Agreement are in full force and effect. The form of the certificates of insurance and endorsements shall be subject to the approval of the Apache Junction City Attorney's Office, shall comply with the terms of this Agreement, and shall be issued and delivered to District Attorney, Apache Junction Water Utilities Community Facilities District, 300 East Superstition Boulevard, Apache Junction, AZ 85119.

In the event any insurance policies required by this Agreement are written on a "claims made" basis, coverage shall extend for two (2) years past completion and acceptance of Consultant's work or services and as evidenced by annual Certificates of Insurance.

If a policy does expire during the life of the Agreement, a renewal certificate must be sent to District thirty (30) calendar days' prior to the expiration date.

All Certificates of Insurance shall be identified with bid serial number and title. Policies or certificates and completed forms of District's Additional Insured Endorsement (or a substantially equivalent insurance company form acceptable to the District Attorney) evidencing the coverage required by this section shall be filed with the District and shall include the District as an additional insured. The policy or policies shall be in the usual form of a public liability insurance, but shall also include the following provision:

“Solely as respects work done by or on behalf of the named insured for the Apache Junction Water Utilities Community Facilities District, it is agreed that the Apache Junction Water Utilities Community Facilities District and its officers and employees are added as additional insureds under this policy.”

Insurance required herein shall not expire, be canceled, or materially changed without thirty (30) calendar days’ prior written notice to District.

9. APPLICABLE LAW AND VENUE: The terms and conditions of this Agreement shall be governed by and interpreted in accordance with the laws of the State of Arizona. Any action at law or in equity brought by either Party for the purpose of enforcing a right or rights provided for in this Agreement, shall be tried in a court of competent jurisdiction in Pinal County, State of Arizona. The Parties hereby waive all provisions of law providing for a change of venue in such proceeding to any other county or removal to federal jurisdiction. In the event either Party shall bring suit to enforce any term of this Agreement or to recover any damages for and on account of the breach of any term or condition in this Agreement, it is mutually agreed that the prevailing Party in such action shall recover all costs including: all litigation and appeal expenses, collection expenses, reasonable attorney fees, necessary witness fees and court costs to be determined by the court in such action.

10. FORCE MAJEURE: Neither District nor Consultant, as the case may be, shall be considered not to have performed its obligations under this Agreement in the event of enforced delay (an “Enforced Delay”) due to causes beyond its control and without its fault or negligence or failure to comply with applicable laws, including, but not restricted to, acts of God, fires, floods, epidemics, pandemics, quarantine, restrictions, embargoes, labor disputes, and unusually severe weather or the delays of subcontractors or materialmen due to such causes, acts of a public enemy, war, terrorism or act of terror (including but not limited to bio-terrorism or eco-terrorism), nuclear radiation, blockade, insurrection, riot, labor strike or interruption, extortion, sabotage, or similar occurrence or any exercise of the power of eminent domain of any governmental body on behalf of any public entity, or a declaration of moratorium or similar hiatus (whether permanent or temporary) by any public entity directly affecting the obligations under this Agreement. In no event will Enforced Delay include any delay resulting from unavailability for any reason of labor shortages, or the unavailability for any reason of particular subcontractors, vendors or investors desired by Consultant in connection with the obligations under this Agreement. Consultant agrees that Consultant alone will bear all risks of delay which are not Enforced Delay. In the event of the occurrence of any such Enforced Delay, the time or times for performance of the obligations of the Party claiming delay shall be extended for a period of the Enforced Delay; provided, however, that the Party seeking the benefit of the provisions of this Section shall, within thirty (30) calendar days after such Party knows or should know of any such Enforced Delay, first notify the other Party of the specific delay in writing and claim the

right to an extension for the period of the Enforced Delay; and provided further that in no event shall a period of Enforced Delay exceed ninety (90) calendar days.

11. **TERMINATION**: This Agreement may be terminated by either Party for any reason upon thirty (30) calendar days' written notice. If this Agreement is terminated, District shall be reimbursed from Consultant the amount paid for any undelivered and/or unaccepted products or services. Upon termination, District agrees to pay for all delivered, accepted, and properly invoiced services that were provided up to the announced Termination Date.

12. **INDEMNIFICATION**: To the fullest extent permitted by law, Consultant shall defend, indemnify and hold harmless District, its elected and appointed officers, officials, agents, and employees from and against any and all liability including but not limited to demands, claims, actions, fees, costs and expenses, including attorney and expert witness fees, arising from or connected with, or alleged to have arisen from or connected with, relating to, arising out of, or alleged to have resulted from the acts, errors, mistakes, omissions, Work or services of Consultant, its agents, employees, or any tier of Consultant's subconsultants in the performance of this Agreement, but only to the extent caused by the negligence, recklessness or intentional wrongful conduct of Consultant or its subconsultants in the performance of this Agreement or any subcontract. Consultant's duty to defend, hold harmless and indemnify District, its special districts, elected and appointed officers, officials, agents, and employees shall arise in connection with any tortious claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property including loss of use resulting therefrom, caused by an Consultant's acts, errors, mistakes, omissions, work or services in the performance of this Agreement including any employee of Consultant, any tier of Consultant's subconsultants or any other person for whose acts, errors, mistakes, omissions, Work or services Consultant may be legally liable. The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

Consultant shall not be responsible for warranties, guarantees, fitness for a particular purpose, breach of fiduciary duty, loss of anticipated profits or for economic, incidental, liquidated, or consequential damages to District or any third party arising out of breach of contract, delay, termination, or for any other reason whatsoever. Additionally, Consultant shall not be responsible for acts and decisions of third parties, including governmental agencies, other than Consultant's subconsultants, that impact project completion and/or success.

13. **TAXES**: Consultant shall pay all license, sales, consumer, transaction privilege, use and other similar taxes for services provided by Consultant which are legally enacted at the time the obligations under this Agreement are performed.

14. **PERMITS & FEES:** Unless otherwise provided in this Agreement, Consultant shall secure and pay for all applicable permits, government fees, licenses and inspections necessary for the proper execution and completion of services which are customarily secured after execution of the Agreement. Consultant shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the obligations. Consultant represents and warrants that any license necessary to perform the services under this Agreement is current and valid. Consultant understands that the activity described herein constitutes “doing business in the City of Apache Junction” and Consultant agrees to obtain a business license pursuant to Chapter 8 of the Apache Junction City Code, Vol. I, and keep such license current during the term of this Agreement. Consultant also acknowledges that the tax provision of the Apache Junction Tax Code, Chapter 8A, may also apply and if so, shall obtain a transaction privilege license and/or other licenses as may be required by all applicable laws. Further, Consultant agrees to pay all applicable privilege and use taxes that are applicable to the activities, products and services provided under this Agreement.

15. **RECORDS:** Records of Consultant’s labor, payroll, and other costs pertaining to this Agreement shall be kept on a generally recognized accounting basis and made available to District for inspection on request. Consultant shall maintain records for a period of at least two (2) years after termination of this Agreement, and shall make such records available during that retention period for examination or audit by District personnel during regular business hours.

16. **RIGHT OF DISTRICT TO CONTRACT WITH OTHERS:** Nothing in this Agreement shall imply District is obligated to obtain the services described herein with only this particular Consultant.

17. **INDEPENDENT CONTRACTOR:** District and Consultant agree and understand that the relationship between both Parties is that of an independent contractor.

18. **WAIVER OF TERMS AND CONDITIONS:** The failure of District or Consultant to insist in any one or more instances on performance of any of the terms or conditions of this Agreement or to exercise any right or privilege contained herein shall not be considered as thereafter waiving such terms, conditions, rights or privileges, and they shall remain in full force and effect.

19. **COMPLIANCE WITH FEDERAL AND STATE LAWS:** Consultant understands and acknowledges the applicability of the American with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989 to the services performed under this Agreement.

As required by A.R.S. § 41-4401, Consultant hereby warrants its compliance with all federal immigration laws and regulations that relate to its employees and

A.R.S. § 23-214(A). Consultant further warrants that after hiring an employee, Consultant will verify the employment eligibility of the employee through the E-Verify program. If Consultant uses any subcontractors in performance of services, subcontractors shall warrant their compliance with all federal immigration laws and regulations that relate to its employees and A.R.S. § 23-214(A), and subcontractors shall further warrant that after hiring an employee, such subcontractor verifies the employment eligibility of the employee through the E-Verify program. A breach of this warranty shall be deemed a material breach of the Agreement that is subject to penalties up to and including termination of this Agreement. Consultant is subject to a penalty of \$100 per day for the first violation, \$500 per day for the second violation, and \$1,000 per day for the third violation. District at its option may terminate this Agreement after the third violation. Consultant shall not be deemed in material breach of this Agreement if the Consultant and/or subcontractors establish compliance with the employment verification provisions of Sections 274A and 274B of the federal Immigration and Nationality Act and the E-Verify requirements contained in A.R.S. § 23-214(A). District retains the legal right to inspect the papers of any Consultant or subcontractor employee who works under this Agreement to ensure that the Consultant or subcontractor is complying with the warranty. Any inspection will be conducted after reasonable notice and at reasonable times. If state law is amended, the Parties may modify this paragraph consistent with state law.

20. ENTIRE AGREEMENT: This Agreement and any attachments represent the entire agreement between District and Consultant and supersede all prior negotiations, representations or agreements, either express or implied, written or oral. It is mutually understood and agreed that no alteration or variation of the terms and conditions of this Agreement shall be valid unless made in writing and signed by the Parties hereto. Written and signed amendments shall automatically become part of the Supporting Documents, and shall supersede any inconsistent provision therein; provided, however, that any apparent inconsistency shall be resolved, if possible, by construing the provisions as mutually complementary and supplementary.

21. SEVERABILITY: District and Consultant each believe that the execution, delivery and performance of this Agreement are in compliance with all applicable laws. However, in the unlikely event that any provision of this Agreement is declared void or unenforceable (or is construed as requiring District to do any act in violation of any applicable laws), such provision shall be deemed severed from this Agreement and this Agreement shall otherwise remain in full force and effect; provided that this Agreement shall retroactively be deemed reformed to the extent reasonably possible in such a manner so that the reformed agreement (and any related agreements effective as of the same date) provide essentially the same rights and benefits (economic and otherwise) to the Parties as if such severance and reformation were not required. Unless prohibited by any applicable laws, the Parties further shall perform all acts and

execute, acknowledge and/or deliver all amendments, instruments and consents necessary to accomplish and to give effect to the purposes of this Agreement, as reformed.

22. **SUCCESSORS, ASSIGNMENT & DELEGATION:** District and Consultant each bind themselves, their partners, successors, assigns and legal representatives to the other Party hereto and to the partners, successors, assigns and legal representatives of such other Party in respect to all covenants, agreements and obligations contained in the Agreement. Neither Party to the Agreement shall assign the Agreement or sublet it as a whole or delegate the duties hereunder, without the written consent of the other, nor shall Consultant assign any monies due or to become due to it without the previous written consent of District.

23. **ACCURACY OF WORK:** Acceptance of services or work by District shall not relieve Consultant of the responsibility for subsequent correction of any such errors and the clarification of any ambiguities. Consultant shall make all necessary revisions or corrections resulting from errors and omissions on the part of Consultant without additional compensation.

24. **TIME IS OF THE ESSENCE:** Time is of the essence with respect to all provisions in this Agreement. Any delay in performance by either Party shall constitute a material breach of this Agreement.

25. **PROHIBITION TO CONTRACT WITH CONSULTANTS WHO ENGAGE IN BOYCOTT OF THE STATE OF ISRAEL:** The Parties acknowledge A.R.S. §§ 35-393 through 35-393.03, as amended, which forbids public entities from contracting with Consultants who engage in boycotts of the State of Israel. Should Consultant under this Agreement engage in any such boycott against the State of Israel, this Agreement shall be deemed automatically terminated by operation of law. Any such boycott is a material breach of contract.

26. **CONFLICTS OF INTEREST:** This Agreement is subject to, and may be terminated by District in accordance with, the provisions of A.R.S. § 38-511.

IN WITNESS WHEREOF, Consultant and District have executed this Agreement as of the date first set forth above.

CONSULTANT:

CAROLLO ENGINEERS, INC., a Delaware corporation

By: _____
Its: _____

DISTRICT:

**APACHE JUNCTION WATER UTILITIES
COMMUNITY FACILITIES DISTRICT, an
Arizona municipal corporation**

By: Jeff Serdy

Its: Chairman

ATTEST:

Jennifer Peña, Deputy District Clerk

APPROVED AS TO FORM:

R. Joel Stern, District Attorney

EXHIBIT A

CONSULTANT'S DUTIES

Exhibit A



Apache Junction Water District Proposed Scope of Work and Fee Superstition Area Water Plant Upgrades Preliminary Design Study January 13, 2020

INTRODUCTION

This proposed Scope of Work defines the engineering services that Carollo Engineers, Inc. (Carollo) will provide for the Apache Junction Water District (District). The purpose of this preliminary design study is to develop recommendations and preliminary design criteria for upgrades at the District's Superstition Area Water Plant (SAWP) facilities including the addition of a permanent chlorine dioxide feed facility, and a new raw water impoundment with planning for future conversion to serve as a pretreatment facility and to also potentially receive reclaimed water as a future potable reuse water resource. The District's current potable water resources portfolio includes treated Central Arizona Project (CAP) canal water, groundwater wells, and an emergency supply through an interconnection with the City of Mesa. CAP canal water is treated through the SAWP, a direct filtration water treatment plant.

The District anticipates the SAWP will undergo a capacity expansion within the next 5 or so years to serve new developments. The addition of a raw water impoundment will improve the reliability of the SAWP by reducing solids loading to the main treatment process. Adding a permanent chlorine dioxide feed facility is also anticipated to aid in disinfection byproducts (DBPs) control of regulated total trihalomethanes (TTHMs).

After bringing the SAWP on-line in August of 2016, 4th quarter compliance samples collected from the distribution system by the District had total trihalomethanes (TTHMs) concentrations ranging from 78 - 106 parts per billion (ppb), exceeding the Environmental Protection Agency's (EPA's) maximum contaminant level (MCL) for TTHMs of 80 ppb. The District made operational adjustments to reduce the level of TTHMs in the distribution system, including lowering the usual water levels in the Booster 1 and Booster 2 storage tank sites to reduce water age, and generally lowering the target chlorine residual leaving the plant. Water quality changes in the canal source water (Lake Pleasant vs. flows from the Colorado River) may also contribute to water quality issues. The SAWP has experienced varying turbidity levels and total organic concentrations (TOCs) since the plant was started up in 2016. TOC generally consists of natural organic matter that can react with chlorine to form DBPs that include regulated TTHMs. Other

Exhibit A

Phoenix metro area water utilities treating CAP water also must deal with DBPs, and have used a variety of approaches and technologies for DBP compliance including granular activated carbon, chlorine dioxide, and operational adjustments (e.g. reduced water age) to get back into compliance. The original SAWP design included space planning for DBP mitigation strategies including the addition of chlorine dioxide and GAC pressure vessels.

With the recent advancement of the potable reuse regulations in Arizona including the direct potable reuse permit issued to the City of Scottsdale in September 2019, the District is also looking to evaluate options for indirect and/or direct potable reuse options to improve resiliency for the District's water supply and its customers. WIFA funding may also be available to assist the District with financing the project and in particular if potable reuse is included in the planning.

PURPOSE

The purpose of this preliminary design study is to evaluate the alternatives summarized below. Carollo will also develop preliminary design criteria and layouts for the selected alternative for the raw water impoundment, and for a new chlorine dioxide feed facility at the SAWP. The selected raw water impoundment alternative and preliminary design criteria can then be carried forward into detailed design for implementation (detailed design under separate contract). Planning level cost estimates will also be developed for each alternative and for the preliminary design work items. This preliminary design study will include these components:

- Evaluate design alternatives for a new raw water impoundment, including the potential future conversion of the impoundment to a full pretreatment facility with coagulation/flocculation and sedimentation.
- Evaluate indirect versus direct potable water reuse options at the SAWP. This includes evaluating conveying reclaimed water to the new impoundment, and working with Water Infrastructure Finance Authority (WIFA) to develop potential funding sources. Arizona Department of Environmental Quality (ADEQ) permit requirements will also be reviewed.
- Provide a preliminary design criteria, layouts, and a planning level cost for the selected raw water impoundment configuration.
- Provide a preliminary design criteria, layouts, and planning level costs for a new chlorine dioxide building.

PROJECT SCOPE

Carollo will perform the following work items.

Exhibit A

Task Series 100 – Project Management and Meetings

Task 110 – Project Management and Meetings. Carollo will track and monitor the progress of the project, provide monthly status reports, invoices, and schedule updates.

Assumptions: It is assumed there will be six meetings as detailed below. It is assumed the District will provide historical water quality data, reports and other information related to the existing conditions at the SAWP prior to Meeting 1 (Project Kickoff). Each meeting will last approximately one to two hours.

- Meeting 1: Meeting will include a review/discussion of the existing SAWP (water quality summary, historical plant production, future plant production needs, potential reclaim water flows, etc.). It will also include a discussion of alternatives to achieve the District's water supply goals and timing (i.e., indirect or direct potable water reuse from reclaimed water, expansion of the SAWP facility, recovered CAP water from future recharge facilities, etc.). Carollo will bring raw water impoundment and chlorine dioxide feed facility design concepts to the meeting for review. The desired outcome of this meeting is to identify one or two preferred alternatives for a raw water impoundment configuration, and to identify a preferred general configuration and location for a new chlorine dioxide feed facility.
- Meeting 2: Meet with ADEQ and the District to discuss potable reuse options and considerations for SAWP, and in particular that would impact the raw water impoundment design.
- Meeting 3: Meet with WIFA and the District to discuss funding options.
- Meeting 4: Preliminary results meeting to review draft layouts and design criteria developed from the inputs from Meetings 1, 2, and 3. Inputs from the District at Meeting 4 on these draft concepts will be incorporated into the Preliminary Design Report.
- Meeting 5: Site visit(s) to a local water treatment plant with a similar raw water impound design.
- Meeting 6: Review Draft Preliminary Design Report Workshop

District Inputs: Provide inputs on meeting minutes.

Deliverables: Carollo will provide monthly project status and schedule updates (with invoices). Other deliverables for this task include meeting agendas, presentation materials, and meeting minutes, transmitted via emailed .pdf files.

Task Series 200 – Data Collection

Task 210 – Carollo will provide the District with a list of data needed to evaluate the aspects of this project. After receipt of the requested data Carollo will perform a preliminary evaluation of the process alternatives. Carollo will also recommend additional samples and laboratory analyses that may be needed.

Assumptions: none

Exhibit A

District Inputs: Provide requested data.

Deliverables: Carollo will provide summary tables of the data provided for the project, which will be presented at meetings and included in the Preliminary Design Report.

Task Series 300 – Preliminary Design Alternatives

Task 310 - The goal of this task is to evaluate the following options, present potential alternatives, and make recommendations.

- A raw water impoundment with outlet gate options to draw from the impoundment at different levels. The baseline raw water impoundment concept will use the master-planned design for the SAWP, which includes a second raw water pump station in the impoundment, lined sides and a concrete bottom with concrete ramp to allow periodic removal of solids using front end loaders.
- A raw water impoundment bypass to maintain the ability to pump directly from the CAP canal to the raw water strainers.
- Master planning for installing future equipment to convert the raw water impoundment to a pretreatment process that includes coagulation/flocculation and sedimentation similar to a conventional water treatment plant. The following technologies are currently typically used for conventional pretreatment processes and will be included in the evaluation:
 - Pumped or vertical turbine flash mixing for coagulation
 - Vertical turbine, hydrofoil, or hydraulic flocculation
 - Circular or rectangular sedimentation basins with circular, chain and flight, or scraper type sludge collectors
- As an alternative to converting the raw water impoundment to a custom engineered conventional pretreatment, evaluate installing a packaged and pre-engineered type pretreatment system. The prepackaged systems that will be considered include ballasted flocculation and prepackaged conventional pretreatment.
- Master planning the raw water impoundment/future pretreatment basin to receive reclaimed water from the Superstition Mountain Sanitation District water reclamation facility.
- Configuration of storm water retention at the site to accommodate the raw water impoundment.
- Location, access, and configuration of the new chlorine dioxide feed facility.
- Operational adjustments incorporating proposed plant improvements

Assumptions: None.

District inputs: Provide inputs on configurations and approaches.

Exhibit A

Deliverables: Carollo will provide workshop materials. Carollo will present the results of the screened alternatives analysis from Task 300 in Meeting 4. Based on the District's input and Carollo's recommendations, preferred alternatives will be selected and used for the preliminary design under Task 400.

Task 400 – Draft and Final Preliminary Design Report

Task 410 - Carollo will summarize the results of the study in a draft Preliminary Design Report. Carollo will develop process sizing and preliminary design criteria tables, preliminary control descriptions, and opinions of cost for the selected alternatives for the raw water impoundment and chlorine dioxide feed facility from Task 300. Carollo will develop the preliminary design concepts and provide design documents (drawings and specifications table of contents only) to a 30% level of completion.

The 30% design drawings will include:

1. Process and hydraulic design:
 - Hydraulics: Preliminary hydraulic profile
 - Process: Summary general sheet for process equipment (e.g. impoundment configuration, chemical feed pumps, etc.).
2. Civil:
 - Overall site layout, large diameter pipe, yard piping and major grading elements.
 - Site civil showing revised drainage patterns and means for control.
3. Structural/Architectural:
 - Layout plan drawings and preliminary principal sections.
 - Architectural concepts defined.
4. Mechanical (includes process equipment):
 - Preliminary layout of major equipment completed.
 - Major equipment and piping elevations, pipe sizes, and clearances are shown.
5. Electrical:
 - Site power plan
 - Preliminary single line diagrams of major distribution system and motor control centers.
 - Preliminary electrical plans showing locations of switch gear, conduit runs and main motor control centers are prepared.
6. Instrumentation:
 - Preliminary P&IDs showing, equipment, type of instrumentation, controls
 - Preliminary network diagram showing communication integration of new equipment into existing plant computer control system.

Exhibit A

Carollo will conduct a preliminary design workshop (Meeting 6) at the District's office to present, discuss, and gather input on the draft Preliminary Design Report and draft 30% drawings. Carollo will implement comments received from the District into the final Preliminary Design Report.

Assumptions: Carollo assumes approximately 20 drawings will be included for the preliminary design package.

Deliverables: Draft and Final Preliminary Design Report and 30% Design Drawings in report appendix. Drawings will be 11"x17" – half size format. CAD files can be provided upon request.

PROJECT SCHEDULE

The schedule for the project is as follows:

Notice to Proceed (NTP).....	_____
Task 200 Data Collection/Meeting 1	<u>four weeks after NTP</u>
Task 300 Preliminary Design Alternatives/Meetings 2, 3, 4, 5.....	<u>eight weeks after NTP</u>
Task 400 Draft Preliminary Design Report and Drawings/Meeting 6.....	<u>fourteen weeks after NTP</u>
Task 400 Final Preliminary Design Report and Drawings	<u>sixteen weeks after NTP</u>

Carollo's fee for services is included as Exhibit B.

GENERAL PROJECT ASSUMPTIONS

1. Carollo CAD and drawing standards and formatting will be followed for the preliminary design drawings. The drawings will be completed in Microstation.
2. Obtaining permits and permit fees are not included in this scope.
3. Carollo intends to utilize existing geotechnical reports from the SAWP.
4. Carollo will be responsible to the level of competency and standard of care presently maintained by other practicing Professional Engineers performing the same or similar type of work at the time Notice to Proceed is issued. Carollo and District mutually agree that standard of care, as applied to design professionals, shall be defined as the ordinary and reasonable care required and established by expert testimony of what a reasonable and prudent professional would have done under the same or similar circumstances.
5. Carollo has no control over the cost of labor, materials, equipment, services, or schedules furnished by others, or over Contractor's methods of determining prices, or other competitive bidding or market conditions, or bidding strategies or scheduling methodologies. Cost estimates and construction schedule estimates are based on Carollo's opinion based on experience and judgment. Carollo cannot and does not

Exhibit A


guarantee that proposals, bids, or actual Project construction costs and/or schedules will not vary from cost estimates and construction schedule estimates prepared by Carollo.

6. District shall furnish Carollo available studies, reports and other data pertinent to Carollo's services; obtain or authorize Carollo to obtain or provide additional reports and data as required; furnish to Carollo services of others required for the performance of Carollo's services hereunder, and Carollo shall be entitled to use and rely upon all such information and services provided by District or others in performing Carollo's services under this Scope of Work.
7. Documents, including drawings and specifications, prepared by Carollo pursuant to this Scope of Work are not intended or represented to be suitable for reuse by District or others for this Project or on any other project. Any reuse of completed documents or use of partially completed documents without written verification or concurrence by Carollo for the specific purpose intended will be at District's sole risk and without liability or legal exposure to Carollo.
8. The services to be performed by Carollo are intended solely for the benefit of District. No person or entity not a signatory to the Agreement shall be entitled to rely on Carollo's performance of its services hereunder, and no right to assert a claim against Carollo by assignment of indemnity rights or otherwise shall accrue to a third party as a result of the Agreement or the performance of Carollo's services hereunder."

EXHIBIT B
PRICE SHEET

RAW WATER IMPOUND EVALUATION AND PRELIMINARY DESIGN
Thursday, November 14, 2019

Fee

Item	Task	Lisa Freestone Sr. Proj. Mgr.	M. Gross Principal/Sr. Tech Adv.	Disc. Engrs. Sr. Engrs.	Blake Abts Proj. Prof.	Proj. Engr.	Sr. Designer CAD	Word Processing /Clerical	Total Hours	Total Costs
ESTIMATED LABOR EFFORT										
100	Project Management and Meetings	16	10	10	30	30			96	\$ 19,579
110	Project Management and Meetings	16	10	10	30	30			96	\$ 19,579
200	Data Collection	2			4	4			10	\$ 2,002
210	Data Collection	2			4	4			10	\$ 2,002
300	Preliminary Design Alternatives	12	10	40	40	40	40		182	\$ 33,496
310	Develop and Evaluate Alternatives	12	10	40	40	40	40		182	\$ 33,496
400	Preliminary Design	39	20	78	47	51	98	39	372	\$ 63,663
410	Draft and Final Preliminary Design Report, 30% Dwgs.	39	20	78	47	51	98	39	392	\$ 64,466
TOTAL LUMP SUM LABOR		69	40	128	121	125	138	39	660	\$ 118,739
Printing/Scanning/Courier Services										
LABOR RATES										
Hourly Labor Rate (includes overhead, profit)		\$233.46	\$233.46	\$199.58	\$208.82	\$174.94	\$125.66	\$82.54		
ALLOWANCES										
Reprographics, Courier										\$ 500
Mileage										\$ 200
Subtotal Direct Costs										\$ 700
										
TOTAL ESTIMATED PROJECT COST										\$ 119,439