

AGREEMENT BETWEEN OWNER & ENGINEER
FOR
TRI-CITY REGIONAL SANITARY DISTRICT (TRSD)
WASTEWATER COLLECTION AND TREATMENT SYSTEM

MAY 21, 2021

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AGREEMENT BETWEEN OWNER AND ENGINEER

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AGREEMENT

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**AGREEMENT
BETWEEN OWNER AND ENGINEER
FOR PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of May 21, 2021 (“Effective Date”) between
Tri-City Regional Sanitary District (TRSD) (“Owner”) and
Pacific Advanced Civil Engineering, Inc. (PACE) (“Engineer”).

Owner's Project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

TRSD Phase I Wastewater Collection and Treatment System (“Project”).

Other terms used in this Agreement are defined in Article 7.

Engineer's services under this Agreement are generally identified as follows:

Planning, design, permitting, bidding and construction services for the TRSD Phase I Wastewater Collection and Treatment System outlined in the United States Department of Agriculture – Rural Development (USDA-RD) Preliminary Engineering Report (PER) dated April 2018.

Owner and Engineer further agree as follows:

ARTICLE 1 – SERVICES OF ENGINEER

1.01 *Scope*

- A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

ARTICLE 2 – OWNER’S RESPONSIBILITIES

2.01 *General*

- A. Owner shall have the responsibilities set forth herein and in Exhibit B.
- B. Owner shall pay Engineer as set forth in Article 4 and Exhibit C.
- C. Owner shall be responsible for all requirements and instructions that it furnishes to Engineer pursuant to this Agreement, and for the accuracy and completeness of all programs, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use and rely upon such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations applicable to the furnished items.
- D. Owner shall give prompt written notice to Engineer whenever Owner observes or otherwise becomes aware of:
1. any development that affects the scope or time of performance of Engineer’s services;
 2. the presence at the Site of any Constituent of Concern; or

3. any relevant, material defect or nonconformance in: (a) Engineer's services, (b) the Work, (c) the performance of any Constructor, or (d) Owner's performance of its responsibilities under this Agreement.

ARTICLE 3 – SCHEDULE FOR RENDERING SERVICES

3.01 *Commencement*

- A. Engineer is authorized to begin rendering services as of the Effective Date.

3.02 *Time for Completion*

- A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services, or specific dates by which services are to be completed, are provided in Exhibit A, and are hereby agreed to be reasonable.
- B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.
- C. If Owner authorizes changes in the scope, extent, or character of the Project or Engineer's services, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.
- D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.
- E. If Engineer fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted **pursuant to Section 3.02(c), if applicable**, then Owner shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

ARTICLE 4 – INVOICES AND PAYMENTS

4.01 *Invoices*

- A. *Preparation and Submittal of Invoices:* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. **Invoices must include a breakdown of services provided.** Engineer shall submit its invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt.

4.02 *Payments*

- A. *Application to Interest and Principal:* Payment will be credited first to any interest owed to Engineer and then to principal.
- B. *Failure to Pay:* **Subject to the provisions of Exhibit C, Section C.202(A)(2) relating to deferred payments**, if Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:

1. amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and
 2. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. ~~Owner waives any and all claims against Engineer for any such suspension.~~
- C. *Disputed Invoices:* If Owner disputes an invoice, either as to amount or entitlement, then Owner shall promptly advise Engineer in writing of the specific basis for doing so, may withhold only that portion so disputed, and must pay the undisputed portion subject to the terms of Paragraph 4.01.
- D. *Sales or Use Taxes:* If after the Effective Date any governmental entity takes a legislative action that imposes additional sales or use taxes on Engineer's services or compensation under this Agreement, then Engineer may invoice such additional sales or use taxes for reimbursement by Owner. Owner shall reimburse Engineer for the cost of such invoiced additional sales or use taxes; such reimbursement shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

ARTICLE 5 – OPINIONS OF COST

5.01 *Opinions of Probable Construction Cost*

- A. Engineer's opinions (if any) of probable Construction Cost are to be made on the basis of Engineer's experience, qualifications, and general familiarity with the construction industry. However, because Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner requires greater assurance as to probable Construction Cost, then Owner agrees to obtain an independent cost estimate. **Opinions of Probable Cost and any revisions thereof should reflect compliance with American Iron & Steel requirements mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference.**

5.02 *Designing to Construction Cost Limit*

- A. **[Delete]**

5.03 *Opinions of Total Project Costs*

- A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in tabulating the various categories that comprise Total Project Costs. ~~Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.~~ **Opinions of Total Project Costs and any revisions thereof should reflect compliance with American Iron & Steel requirements mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development,**

Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference.

ARTICLE 6 – GENERAL CONSIDERATIONS

6.01 *Standards of Performance*

- A. *Standard of Care:* The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. ~~Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished by Engineer.~~
- B. *Technical Accuracy:* Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in Owner-furnished information.
- C. *Consultants:* Engineer may retain such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to ~~reasonable, timely, and substantive objections by Owner.~~ **notice to Owner and Owner's right to make reasonable, timely and substantive objections. In addition, any retention of a Consultant not specifically contemplated under this Agreement shall require Owner's prior written consent.**
- D. *Reliance on Others:* Subject to the standard of care set forth in Paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.
- E. *Compliance with Laws and Regulations, and Policies and Procedures:*
1. Engineer and Owner shall comply with applicable Laws and Regulations.
 2. Engineer shall comply with any and all policies, procedures, and instructions of Owner that are applicable to Engineer's performance of services under this Agreement and that Owner provides to Engineer in writing, subject to the standard of care set forth in Paragraph 6.01.A, and to the extent compliance is not inconsistent with professional practice requirements.
 3. This Agreement is based on Laws and Regulations and Owner-provided written policies and procedures as of the Effective Date. The following may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, or compensation:
 - a. changes after the Effective Date to Laws and Regulations;
 - b. the receipt by Engineer after the Effective Date of Owner-provided written policies and procedures;

- c. changes after the Effective Date to Owner-provided written policies or procedures.
- F. Engineer shall not be required to sign any document, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such document.
- G. The general conditions for any construction contract documents prepared hereunder are to be EJCDC® C-700 “Standard General Conditions of the Construction Contract” (2013 Edition), prepared by the Engineers Joint Contract Documents Committee, unless expressly indicated otherwise in Exhibit J or elsewhere in this Agreement.
- H. Engineer shall not at any time supervise, direct, control, or have authority over any Constructor’s work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of a Constructor to comply with Laws and Regulations applicable to that Constructor’s furnishing and performing of its work. Engineer shall not be responsible for the acts or omissions of any Constructor. **Engineer shall monitor the work of the Constructor for adherence to the engineered plans, address any lack of compliance with the Constructor directly, and advise Owner of any such non-compliance so that Owner can, if necessary, assert any applicable contractual remedies as to the Constructor.**
- I. Engineer neither guarantees the performance of any Constructor nor assumes responsibility for any Constructor’s, failure to furnish and perform the Work in accordance with the Construction Contract Documents.
- J. Engineer shall not be responsible for any decision made regarding the Construction Contract Documents, or any application, interpretation, clarification, or modification of the Construction Contract Documents, other than those made by Engineer or its Consultants.
- K. Engineer is not required to provide and does not have any responsibility for surety bonding or insurance-related advice, recommendations, counseling, or research, or enforcement of construction insurance or surety bonding requirements.
- L. Engineer’s services do not include providing legal advice or representation.
- M. Engineer’s services do not include (1) serving as a “municipal advisor” for purposes of the registration requirements of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) or the municipal advisor registration rules issued by the Securities and Exchange Commission, or (2) advising Owner, or any municipal entity or other person or entity, regarding municipal financial products or the issuance of municipal securities, including advice with respect to the structure, timing, terms, or other similar matters concerning such products or issuances.
- N. While at the Site, Engineer, its Consultants, and their employees and representatives shall comply with the applicable requirements of Contractor’s and Owner’s safety programs of which Engineer has been informed in writing.

6.02 *Design Without Construction Phase Services*

A. **[Delete]**

6.03 *Use of Documents*

- A. All Documents are instruments of service, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed.
- B. If Engineer is required to prepare or furnish Drawings or Specifications under this Agreement, Engineer shall deliver to Owner at least one original printed record version of such Drawings and Specifications, signed and sealed according to applicable Laws and Regulations.
- C. Owner may make and retain copies of Documents for information and reference in connection with the use of the Documents on the Project. Engineer grants Owner a limited license to use the Documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment due and owing for all services relating to preparation of the Documents, and subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to its officers, directors, members, partners, agents, employees, and Consultants; (3) Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification of the Documents without written verification, completion, or adaptation by Engineer; and (4) such limited license to Owner shall not create any rights in third parties.
- D. If Engineer at Owner's request verifies the suitability of the Documents, completes them, or adapts them for extensions of the Project or for any other purpose, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

6.04 *Electronic Transmittals*

- A. Owner and Engineer may transmit, and shall accept, Project-related correspondence, Documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website, in accordance with a mutually agreeable protocol.
- B. If this Agreement does not establish protocols for electronic or digital transmittals, then Owner and Engineer shall **may** jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items

resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

6.05 Insurance

- A. Engineer shall procure and maintain insurance as set forth in Exhibit G. Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.
- B. Owner shall procure and maintain insurance as set forth in Exhibit G. Owner shall cause Engineer and its Consultants to be listed as additional insureds on any general liability policies carried by Owner, which are applicable to the Project.
- C. Owner shall require Contractor to purchase and maintain policies of insurance covering workers' compensation, general liability, motor vehicle damage and injuries, and other insurance necessary to protect Owner's and Engineer's interests in the Project. Owner shall require Contractor to cause Engineer and its Consultants to be listed as additional insureds with respect to such liability insurance purchased and maintained by Contractor for the Project.
- D. Owner and Engineer shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.
- E. All policies of property insurance relating to the Project, including but not limited to any builder's risk policy, shall allow for waiver of subrogation rights and contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insured thereunder or against Engineer or its Consultants. Owner and Engineer waive all rights against each other, Contractor, the Consultants, and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by any builder's risk policy and any other property insurance relating to the Project. Owner and Engineer shall take appropriate measures in other Project-related contracts to secure waivers of rights consistent with those set forth in this paragraph.
- F. All policies of insurance shall contain a provision or endorsement that the coverage afforded will not be canceled or reduced in limits by endorsement, and that renewal will not be refused, until at least 10 days prior written notice has been given to the primary insured. Upon receipt of such notice, the receiving party shall promptly forward a copy of the notice to the other party to this Agreement.
- G. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of

time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

6.06 *Suspension and Termination*

A. *Suspension:*

1. *By Owner:* Owner may suspend the Project for up to 90 days upon seven days written notice to Engineer.
2. *By Engineer:* Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement if Owner has failed to pay Engineer for invoiced services and expenses, as set forth in Paragraph 4.02.B, or in response to the presence of Constituents of Concern at the Site, as set forth in Paragraph 6.10.D.

B. *Termination:* The obligation to provide further services under this Agreement may be terminated:

1. For cause,
 - a. by either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
 - b. by Engineer:
 - 1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control, or as the result of the presence at the Site of undisclosed Constituents of Concern, as set forth in Paragraph 6.10.D.
 - 3) ~~Engineer shall have no liability to Owner on account of such termination.~~
 - c. Notwithstanding the foregoing, this Agreement will not terminate under Paragraph 6.06.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.
2. For convenience, by Owner effective upon Engineer's receipt of notice from Owner.

C. *Effective Date of Termination:* The terminating party under Paragraph 6.06.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow

Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

D. *Payments Upon Termination:*

1. In the event of any termination **pursuant to Section 6.06, the parties shall reserve and retain all rights relating to claimed payments due for engineering services provided up to and until the effective date of the termination.** ~~under Paragraph 6.06, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of Paragraph 6.03.~~
2. **[Delete]**

6.07 *Controlling Law*

- A. This Agreement is to be governed by the Laws and Regulations of the state in which the Project is located.

6.08 *Successors, Assigns, and Beneficiaries*

- A. Owner and Engineer are hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer (and to the extent permitted by Paragraph 6.08.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.
- B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, money that is due or may become due) in this Agreement without the written consent of the other party, except to the extent that any assignment, subletting, or transfer is mandated by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise in this Agreement:
 1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any Constructor, other third-party individual or entity, or to any surety for or employee of any of them.
 2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.
 3. Owner agrees that the substance of the provisions of this Paragraph 6.08.C shall appear in the Construction Contract Documents.

6.09 *Dispute Resolution*

- A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights at law.
- B. If the parties fail to resolve a dispute through negotiation under Paragraph 6.09.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights at law.

6.10 *Environmental Condition of Site*

- A. Owner represents to Engineer that as of the Effective Date to the best of Owner's knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at or adjacent to the Site.
- B. If Engineer encounters or learns of an undisclosed Constituent of Concern at the Site, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.
- C. It is acknowledged by both parties that Engineer's scope of services does not include any services related to unknown or undisclosed Constituents of Concern. If Engineer or any other party encounters, uncovers, or reveals an undisclosed Constituent of Concern, then Owner shall promptly determine whether to retain a qualified expert to evaluate such condition or take any necessary corrective action.
- D. If investigative or remedial action, or other professional services, are necessary with respect to undisclosed Constituents of Concern, or if investigative or remedial action beyond that reasonably contemplated is needed to address a disclosed or known Constituent of Concern, then Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until such portion of the Project is no longer affected.
- E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on seven days notice.
- F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "owner," "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

6.11 *Indemnification and Mutual Waiver*

- A. *Indemnification by Engineer:* To the fullest extent permitted by Laws and Regulations, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors,

members, partners, agents, consultants, and employees, from losses, damages, and judgments (including reasonable consultants' and attorneys' fees and expenses) arising from third-party claims or actions relating to the Project, provided that any such claim, action, loss, damages, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants. **This indemnification provision is subject to and limited by the provisions, if any, agreed to by Owner and Engineer in Exhibit I, "Limitations of Liability."**

- B. *Indemnification by Owner:* Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants as required by Laws and Regulations **and to the extent (if any) required in Exhibit I, "Limitations of Liability."**
- C. *Environmental Indemnification:* To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from all claims, costs, losses, damages, actions, and judgments (including reasonable consultants' and attorneys fees and expenses) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (1) any such claim, cost, loss, damages, action, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (2) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.
- D. *No Defense Obligation:* The indemnification commitments in this Agreement do not include a defense obligation by the indemnitor unless such obligation is expressly stated.
- E. *Percentage Share of Negligence:* To the fullest extent permitted by Laws and Regulations, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.
- F. *Mutual Waiver:* To the fullest extent permitted by Laws and Regulations, Owner and Engineer waive against each other, and the other's employees, officers, directors, members, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to this Agreement or the Project, from any cause or causes.

6.12 *Records Retention*

- A. Engineer shall maintain on file in legible form, for a period of five years following completion or termination of its services, all Documents, records (including cost records), and design calculations related to Engineer's services or pertinent to Engineer's performance under this Agreement. Upon Owner's request, Engineer shall provide a copy of any such item to Owner at cost.

6.13 *Miscellaneous Provisions*

- A. *Notices:* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.
- B. *Survival:* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.
- C. *Severability:* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- D. *Waiver:* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.
- E. *Accrual of Claims:* To the fullest extent permitted by Laws and Regulations, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.

ARTICLE 7 – DEFINITIONS

7.01 *Defined Terms*

- A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above, in the exhibits, or in the following definitions:
 - 1. *Addenda*—Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bidding requirements or the proposed Construction Contract Documents.
 - 2. *Additional Services*—The services to be performed for or furnished to Owner by Engineer in accordance with Part 2 of Exhibit A of this Agreement.
 - 3. *Agreement*—This written contract for professional services between Owner and Engineer, including all exhibits identified in Paragraph 8.01 and any duly executed amendments.
 - 4. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Construction Contract.
 - 5. *Basic Services*—The services to be performed for or furnished to Owner by Engineer in accordance with Part 1 of Exhibit A of this Agreement.

6. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Construction Contract Price or the Construction Contract Times, or other revision to the Construction Contract, issued on or after the effective date of the Construction Contract.
7. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth in the Construction Contract, seeking an adjustment in Construction Contract Price or Construction Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Construction Contract Documents or the acceptability of Work under the Construction Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Construction Contract.
8. *Constituent of Concern*—Asbestos, petroleum, radioactive material, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, State, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
9. *Construction Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
10. *Construction Contract Documents*—Those items designated as “Contract Documents” in the Construction Contract, and which together comprise the Construction Contract.
11. *Construction Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Construction Contract Documents.
12. *Construction Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve milestones, if any, in the Construction Contract; (b) achieve Substantial Completion; and (c) complete the Work.
13. *Construction Cost*—The cost to Owner of the construction of those portions of the entire Project designed or specified by or for Engineer under this Agreement, including construction labor, services, materials, equipment, insurance, and bonding costs, and allowances for contingencies. Construction Cost does not include costs of services of Engineer or other design professionals and consultants; cost of land or rights-of-way, or compensation for damages to property; Owner’s costs for legal, accounting, insurance counseling, or auditing services; interest or financing charges incurred in connection with the Project; or the cost of other services to be provided by others to Owner. Construction Cost is one of the items comprising Total Project Costs.
14. *Constructor*—Any person or entity (not including the Engineer, its employees, agents, representatives, and Consultants), performing or supporting construction activities

relating to the Project, including but not limited to Contractors, Subcontractors, Suppliers, Owner's work forces, utility companies, other contractors, construction managers, testing firms, shippers, and truckers, and the employees, agents, and representatives of any or all of them.

15. *Consultants*—Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates and consultants; subcontractors; or vendors.
16. *Contractor*—The entity or individual with which Owner enters into a Construction Contract.
17. *Documents*—Data, reports, Drawings, Specifications, Record Drawings, building information models, civil integrated management models, and other deliverables, whether in printed or electronic format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.
18. *Drawings*—That part of the Construction Contract Documents that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date*—The date indicated in this Agreement on which it becomes effective, but if no such date is indicated, the date on which this Agreement is signed and delivered by the last of the parties to sign and deliver.
20. *Engineer*—The individual or entity named as such in this Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Construction Contract Price or the Construction Contract Times.
22. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
23. *Owner*—The individual or entity named as such in this Agreement and for which Engineer's services are to be performed. Unless indicated otherwise, this is the same individual or entity that will enter into any Construction Contracts concerning the Project.
24. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the services to be performed or furnished by Engineer under this Agreement are a part.
25. *Record Drawings*—Drawings depicting the completed Project, or a specific portion of the completed Project, prepared by Engineer as an ~~Additional Service~~ and based on Contractor's record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications, as delivered to Engineer and annotated by Contractor to show changes made during construction.

26. *Reimbursable Expenses*—The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic Services and Additional Services for the Project.
27. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site during the Construction Phase. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D.
28. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
29. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Construction Contract Documents.
30. *Site*—Lands or areas to be indicated in the Construction Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
31. *Specifications*—The part of the Construction Contract Documents that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
32. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
33. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Construction Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
34. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
35. *Total Project Costs*—The total cost of planning, studying, designing, constructing, testing, commissioning, and start-up of the Project, including Construction Cost and all other Project labor, services, materials, equipment, insurance, and bonding costs, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner's costs for legal, accounting, insurance counseling, and

auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner.

36. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Construction Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Construction Contract Documents.
37. *Work Change Directive*—A written directive to Contractor issued on or after the effective date of the Construction Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.
38. **Agency – The Rural Utilities Service or any designated representative of Rural Utilities Service, including USDA, Rural Development (USDA-RD).**

B. *Day*:

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

ARTICLE 8 – EXHIBITS AND SPECIAL PROVISIONS

8.01 *Exhibits Included*:

- A. Exhibit A, Engineer’s Services.
- B. Exhibit B, Owner’s Responsibilities.
- C. Exhibit C, Payments to Engineer for Services and Reimbursable Expenses.
- D. Exhibit D, Duties, Responsibilities and Limitations of Authority of Resident Project Representative.
- E. Exhibit E, Notice of Acceptability of Work.
- F. Exhibit F, Construction Cost Limit. **[Not Used]**
- G. Exhibit G, Insurance.
- H. Exhibit H, Dispute Resolution.
- I. Exhibit I, Limitations of Liability.
- J. Exhibit J, Special Provisions. **[Not Used]**
- K. Exhibit K, Amendment to Owner-Engineer Agreement.
- L. **Exhibit L, Engineer’s Authorization to Proceed**

8.02 *Total Agreement*

- A. This Agreement, (together with the exhibits included above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a written instrument duly executed by both parties. Amendments should be based whenever possible on the format of Exhibit K to this Agreement.

8.03 *Designated Representatives*

- A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to this Agreement on behalf of the respective party whom the individual represents.

8.04 *Engineer's Certifications*

- A. Engineer certifies that it has not engaged in corrupt, fraudulent, or coercive practices in competing for or in executing the Agreement. For the purposes of this Paragraph 8.04:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the selection process or in the Agreement execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the selection process or the execution of the Agreement to the detriment of Owner, or (b) to deprive Owner of the benefits of free and open competition;
 - 3. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the selection process or affect the execution of the Agreement.

8.05 *Federal Requirements*

- A. **Agency Concurrence. Signature of a duly authorized representative of the Agency in the space provided on the signature page of EJCDC form E-500 hereof does not constitute a commitment to provide financial assistance or payments hereunder but does signify that this Agreement conforms to Agency's applicable requirements. This Agreement shall not be effective unless the Funding Agency's designated representative concurs. No amendment to this Agreement shall be effective unless the Funding Agency's designated representative concurs.**
- B. **Audit and Access to Records. Owner, Agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Engineer which are pertinent to the Agreement, for the purpose of making audits, examinations, excerpts, and transcriptions. Engineer shall maintain all required records for three years after final payment is made and all other pending matters are closed.**

- C. **Restrictions on Lobbying.** Engineer and each Consultant shall comply with “Restrictions on Lobbying” if they are recipients of engineering services contracts and subcontracts that exceed \$100,000 at any tier. If applicable, Engineer must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Agreement. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other applicable award. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.
- D. **Suspension and Debarment.** Engineer certifies, by signing this Agreement, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal department or agency. Engineer will not contract with any Consultant for this project if it or its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. Necessary certification forms shall be provided by the Owner. The Engineer will complete and submit a form AD-1048, “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – lower tier transactions,” to the Owner who will forward it the USDA, Rural Development processing office.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner: TRSD

By: R.B. Jacques
Print name: **Robert B. Jacques**
Title: **President**
Date Signed: 05.21.21

Engineer: PACE

By: M.G. Krebs
Print name: **Michael G. Krebs, PE**
Title: **VP of Environmental Water Division**
Date Signed: 05/21/21

Engineer License or Firm's Certificate No. (if required):

10084-0

State of: Arizona

Address for Owner's receipt of notices:

5515 S. Apache Ave., Suite 200
Globe, AZ 85501-4430

Designated Representative (Paragraph 8.03.A):

Robert Jacques

Title: **President**

Phone Number: **(512) 468-6957**

E-Mail Address: **robertbjacques@gmail.com**

Address for Engineer's receipt of notices:

8723 E Via de Commercio #B-102
Scottsdale, AZ 85258

Designated Representative (Paragraph 8.03.A):

Michael G. Krebs, PE

Title: **VP of Environmental Water Division**

Phone Number: **(602) 741-2115**

E-Mail Address: **mikekrebs@pacewater.com**

This is **EXHIBIT A**, consisting of **17** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Engineer's Services

Article 1 of the Agreement is supplemented to include the following agreement of the parties.

Engineer shall provide Basic and Additional Services as set forth below.

PART 1 – BASIC SERVICES

A1.01 Study and Report Phase

A. Engineer shall:

1. **[Deleted]**
2. **[Deleted]**
3. **[Deleted]**
4. **[Deleted]**
5. **[Deleted]**
6. **[Deleted]**
7. **[Deleted]**
8. **[Deleted]**
9. **[Deleted]**
10. **[Deleted]**
11. **[Deleted]**
12. **[Deleted]**
13. **[Deleted]**
14. Perform or provide the following other Study and Report Phase tasks or deliverables:
 - a. **Funding Assistance**
 - b. **Aerial & Design Survey**
 - c. **Underground Utilities Investigations**
 - d. **Geotechnical Investigation**
 - e. **Right-of-Ways and Easements**

- f. **Detailed scope for the Study and Report Phase is included in Appendix 1 of Exhibit A.**
 - 15. Furnish review copies of ~~the Report and any other~~ Study and Report Phase deliverables to Owner and review it with Owner. Owner shall submit to Engineer any comments regarding the furnished items.
 - 16. Revise ~~the Report and any other~~ Study and Report Phase deliverables in response to Owner's **and Agency's** comments, as appropriate, and furnish **three (3) written copies and one (1) electronic copy** of the ~~revised Report and any other~~ Study and Report Phase deliverables **as applicable** to the Owner within **thirty (30)** days of receipt of Owner's **and Agency's** comments.
- B. Engineer's services under the Study and Report Phase will be considered complete on the date when Engineer has delivered to Owner the revised Report and any other Study and Report Phase deliverables.

A1.02 *Preliminary Design Phase*

- A. After acceptance by Owner **and concurrence by Agency** of the Report and any other Study and Report Phase deliverables; selection by Owner of a recommended solution **with guidance of Engineer**; issuance by Owner **with guidance of Engineer** of any instructions of for use of Project Strategies, Technologies, and Techniques, or for inclusion of sustainable features in the design; and indication by Owner **with guidance of Engineer** of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, (1) Engineer and Owner shall discuss and resolve any necessary revisions to Engineer's compensation (through application of the provisions regarding Additional Services, or otherwise), or the time for completion of Engineer's services, resulting from the selected solution, related Project Strategies, Technologies, or Techniques, sustainable design instructions, or specific modifications to the Project, and (2) upon written authorization from Owner, Engineer shall:
1. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project.
 2. In preparing the Preliminary Design Phase documents, use any specific applicable Project Strategies, Technologies, and Techniques authorized by Owner **and Agency** during or following the Study and Report Phase, and include sustainable features, as appropriate, pursuant to **Engineer's guidance and** Owner's instructions.
 3. Provide necessary field surveys and topographic and utility mapping for Engineer's design purposes. Comply with the scope of work and procedure for the identification and mapping of existing utilities selected and authorized by Owner pursuant to advice from Engineer based on ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data," as set forth in Paragraph A1.01.A.12 above. If no such scope of work and procedure for utility mapping has been selected and authorized, then at a minimum the utility mapping will include Engineer contacting utility owners and obtaining available information.
 4. Visit the Site as needed to prepare the Preliminary Design Phase documents.

5. Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.
 6. Continue to assist Owner with Project Strategies, Technologies, and Techniques that Owner has chosen to implement.
 7. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in tabulating the various cost categories which comprise Total Project Costs.
 8. ~~Obtain and review Owner's instructions regarding Owner's~~ **Assist and guide Owner in connection with the** procurement of construction services (including instructions regarding advertisements for bids, instructions to bidders, and requests for proposals, as applicable), Owner's construction contract practices and requirements, insurance and bonding requirements, electronic transmittals during construction, and other information necessary for the finalization of Owner's bidding-related documents (or requests for proposals or other construction procurement documents), and Construction Contract Documents. Also obtain and review copies of Owner's design and construction standards, Owner's standard forms, general conditions (if other than EJCDC® C-700, Standard General Conditions of the Construction Contract, ~~2013~~ **2018** Edition), supplementary conditions, text, and related documents **(to the extent such documents exist)** or content for Engineer to include in the draft bidding-related documents (or requests for proposals or other construction procurement documents), and in the draft Construction Contract Documents, when applicable. **Engineer must also incorporate all Agency regulations, forms, and design and construction standards applicable to the project in development of the documents indicated in this Article.**
 9. Perform or provide the following other Preliminary Design Phase tasks or deliverables:
 - a. **Detailed scope for the Preliminary Design Phase is included in Appendix 1 of Exhibit A.**
 10. Furnish review copies of the Preliminary Design Phase documents, opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables to Owner and review them with Owner. Owner shall submit to Engineer any comments regarding the furnished items.
 11. Revise the Preliminary Design Phase documents, opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables in response to Owner's comments, as appropriate, and furnish to Owner **three (3) hard copies and one (1) electronic copy** of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables **in a timely manner after receipt of Owner's comments to adhere to the Project schedule set forth in the Letter of Conditions Amendment (dated March 11, 2021).**
- B. Engineer's services under the Preliminary Design Phase will be considered complete on the date when Engineer has delivered to Owner the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables.

Exhibit A – Engineer's Services

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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A1.03 *Final Design Phase*

- A. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other Preliminary Design Phase deliverables, subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall:
1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor.
 2. Visit the Site as needed to assist in preparing the final Drawings and Specifications.
 3. Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities, as appropriate.
 4. Advise Owner of any recommended adjustments to the opinion of probable Construction Cost.
 5. After consultation with Owner, include in the Construction Contract Documents any specific protocols for the transmittal of Project-related correspondence, documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website. Any such protocols shall be applicable to transmittals between and among Owner, Engineer, and Contractor during the Construction Phase and Post-Construction Phase, and unless agreed otherwise shall supersede any conflicting protocols previously established for transmittals between Owner and Engineer.
 6. Assist Owner in assembling known reports and drawings of Site conditions, and in identifying the technical data contained in such reports and drawings upon which bidders or other prospective contractors may rely.
 7. In addition to preparing the final Drawings and Specifications, assemble drafts of other Construction Contract Documents based on specific instructions and contract forms, text, or content received from Owner.
 8. Prepare or assemble draft bidding-related documents (or requests for proposals or other construction procurement documents), based on the specific bidding or procurement-related instructions and forms, text, or content received from Owner.
 9. Perform or provide the following other Final Design Phase tasks or deliverables:
 - a. **The Engineer shall identify the building codes and accessibility standards used in the design and indicate them on the drawings and specifications and certify that the final drawings and specifications comply with those standards.**
 - b. **Detailed scope for the Final Design Phase is included in Appendix 1 of Exhibit A.**

10. Furnish for review by Owner, its legal counsel **and Agency**, and other advisors, copies of the final Drawings and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables, and review them with Owner. Owner shall submit to Engineer any comments regarding the furnished items, and any instructions for revisions.
 11. Revise the final Drawings and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables in accordance with comments and instructions from the Owner, as appropriate, and submit **three (3) hard copies and one (1) electronic copy** of such final documents to Owner **in a timely manner after receipt of Owner's comments to adhere to the Project schedule set forth in the Letter of Conditions Amendment (dated March 11, 2021).**
 12. **Provide the Owner and Agency with a written certification that the final Drawings and Specifications, other assembled construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables comply with all requirements of Agency. Engineer shall use the Engineer's Construction Certifications (Exhibit A, Attachment 6) for this purpose.**
 13. **Services required to determine and certify that to the best of the Engineer's knowledge and belief all iron and steel products referenced in engineering analysis, the Plans, Specifications, and Bidding Documents requiring design revisions are either produced in the United States or are the subject of an approved waiver; and services required to determine to the best of the engineer's knowledge and belief that approved substitutes, equals, and all iron and steel products proposed in the Plans, Specifications, and Bidding Documents are either produced in the United States or are the subject of an approved waiver under AIS.**
- B. Engineer's services under the Final Design Phase will be considered complete on the date when Engineer has delivered to Owner the final Drawings and Specifications, other assembled Construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables **and all Final Design Phase deliverables have been accepted by Owner.**
 - C. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently.
 - D. The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is **three (3)**. If more

Exhibit A – Engineer's Services

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.

A1.04 *Bidding or Negotiating Phase*

- A. After acceptance by Owner of the final Drawings and Specifications, other Construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall:
1. Assist Owner in advertising for and obtaining bids or proposals for the Work, assist Owner in issuing assembled design, contract, and bidding-related documents (or requests for proposals or other construction procurement documents) to prospective contractors, and, where applicable, maintain a record of prospective contractors to which documents have been issued, attend pre-bid conferences, if any, and receive and process contractor deposits or charges for the issued documents.
 2. Prepare and issue Addenda as appropriate to clarify, correct, or change the issued documents. **Obtain Agency concurrence on any Addenda that modify the Bidding Documents. Obtain prior concurrence where possible.**
 3. Provide information or assistance needed by Owner in the course of any review of proposals or negotiations with prospective contractors.
 4. Consult with Owner as to the qualifications of prospective contractors.
 5. Consult with Owner as to the qualifications of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors, for those portions of the Work as to which review of qualifications is required by the issued documents.
 6. ~~If the issued documents require, the Engineer shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by prospective contractors, provided that such proposals are allowed by the bidding-related documents (or requests for proposals or other construction procurement documents) prior to award of contracts for the Work. Services under this paragraph are subject to the provisions of Paragraph A2.02.A.2 of this Exhibit A.~~
 - a. **The Engineer shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by prospective contractors prior to award of contracts for the Work. Engineer shall issue a bid addendum for any and all approved "or equals" and substitutes. Review of substitutes and "or equals" shall be in accordance with the General Conditions of the Construction Contract and applicable Agency regulations. Services under this paragraph are subject to the provisions of Paragraph A2.02.A.2 of this Exhibit A.**
 - b. **Services required to determine and certify that to the best of the Engineer's knowledge and belief all iron and steel products referenced in Bid Addenda requiring design revisions are either produced in the United States or are the subject of an approved waiver.**

7. Attend the bid opening, prepare bid tabulation sheets to meet Owner's schedule, and assist Owner in evaluating bids or proposals, assembling final contracts for the Work for execution by Owner and Contractor, and in issuing notices of award of such contracts.
 8. If Owner engages in negotiations with bidders or proposers, assist Owner with respect to technical and engineering issues that arise during the negotiations.
 9. Perform or provide the following other Bidding or Negotiating Phase tasks or deliverables:
 - a. **Upon award of the Construction Contract, the Engineer shall furnish to Owner five executed copies of the Contract Documents and one electronic copy of the signed documents, including Drawings and Specifications.**
 - a. **Detailed scope for the Bidding Phase is included in Appendix 1 of Exhibit A.**
 10. **Provide copies of Manufacturers' Certifications to the Bidders on any brand name iron and steel products specified as sole-source in the Plans, Specifications and Bidding Documents. Manufacturers' Certifications are to be included in the Bidding Documents and must be kept in the Engineer's project file and on-site during construction.**
 11. **Provide copies of Manufacturers' Certifications to the Contractor on any brand name iron and steel products specified as sole-source in the Plans, Specifications, Bidding Documents including any Bid Addenda and Change Orders. Manufacturers' Certifications must be kept in the Engineer's project file and on-site during construction.**
- B. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors (except as may be required if Exhibit F is a part of this Agreement).

A1.05 *Construction Phase*

- A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:
1. *General Administration of Construction Contract:* Consult with Owner and act as Owner's representative as provided in the Construction Contract. The extent and limitations of the duties, responsibilities, and authority of Engineer shall be as assigned in EJCDC® C-700, Standard General Conditions of the Construction Contract (~~2013~~ **2018** Edition), prepared by the Engineers Joint Contract Documents Committee, or other construction general conditions specified in this Agreement. If Owner, or Owner and Contractor, modify the duties, responsibilities, and authority of Engineer in the Construction Contract, or modify other terms of the Construction Contract having a direct bearing on Engineer, then Owner shall compensate Engineer for any related increases in the cost to provide Construction Phase services. Engineer shall not be required to furnish or perform services contrary to Engineer's responsibilities as a licensed professional. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the Construction Contract except as otherwise provided in writing.

2. *Resident Project Representative (RPR):* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.
3. *Selection of Independent Testing Laboratory:* Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, Paragraph B2.01.
4. *Pre-Construction Conference:* Participate in **and chair** a pre-construction conference prior to commencement of Work at the Site.
5. *Electronic Transmittal Protocols:* If the Construction Contract Documents do not specify protocols for the transmittal of Project-related correspondence, documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website, then together with Owner and Contractor jointly develop such protocols for transmittals between and among Owner, Contractor, and Engineer during the Construction Phase and Post-Construction Phase.
6. *Original Documents:* ~~If requested by Owner to do so,~~ Maintain and safeguard during the Construction Phase at least one original printed record version of the Construction Contract Documents, including Drawings and Specifications signed and sealed by Engineer and other design professionals in accordance with applicable Laws and Regulations. Throughout the Construction Phase, make such original printed record version of the Construction Contract Documents available to Contractor and Owner for review.
7. *Schedules:* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.
8. *Baselines and Benchmarks:* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.
9. *Visits to Site and Observation of Construction:* In connection with observations of Contractor's Work while it is in progress:
 - a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of the Work or to involve detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Construction Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment, as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if

the Work is proceeding in accordance with the Construction Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.

- b. The purpose of Engineer's visits to the Site, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Construction Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Construction Contract Documents. **Engineer shall monitor the work of the Constructor for adherence to the engineered plans, address any lack of compliance with the Constructor directly, and advise Owner of any such non-compliance so that Owner can, if necessary, assert any applicable contractual remedies as to the Constructor.** Engineer shall not, during such visits or as a result of such observations of the Work, supervise, direct, or have control over the Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, for security or safety at the Site, for safety precautions and programs incident to any Constructor's work in progress, for the coordination of the Constructors' work or schedules, nor for any failure of any Constructor to comply with Laws and Regulations applicable to furnishing and performing of its work. Accordingly, Engineer neither guarantees the performance of any Constructor nor assumes responsibility for any Constructor's failure to furnish or perform the Work, or any portion of the Work, in accordance with the Construction Contract Documents.
 - c. **The visits described in Article A1.05.A.9.a shall be at least monthly and the Engineer shall document all visits to the project with copies furnished to the Owner and Agency.**
10. *Defective Work:* Reject Work if, on the basis of Engineer's observations, Engineer believes that such Work is defective under the terms and standards set forth in the Construction Contract Documents. Provide recommendations to Owner regarding whether Contractor should correct such Work or remove and replace such Work, or whether Owner should consider accepting such Work as provided in the Construction Contract Documents.
 11. *Compatibility with Design Concept:* If Engineer has express knowledge that a specific part of the Work that is not defective under the terms and standards set forth in the Construction Contract Documents is nonetheless not compatible with the design concept of the completed Project as a functioning whole, then inform Owner of such incompatibility, and provide recommendations for addressing such Work.
 12. *Clarifications and Interpretations:* Accept from Contractor and Owner submittal of all matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Construction Contract Documents. With reasonable promptness, render a written clarification, interpretation, or decision on

the issue submitted, or initiate an amendment or supplement to the Construction Contract Documents.

13. *Non-reviewable Matters:* If a submitted matter in question concerns the Engineer's performance of its duties and obligations, or terms and conditions of the Construction Contract Documents that do not involve (1) the performance or acceptability of the Work under the Construction Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer will not provide a decision or interpretation.
14. *Field Orders:* Subject to any limitations in the Construction Contract Documents, Engineer may prepare and issue Field Orders requiring minor changes in the Work.
15. *Change Orders and Work Change Directives:* Recommend Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives as required.
16. *Differing Site Conditions:* Respond to any notice from Contractor of differing site conditions, including conditions relating to underground facilities such as utilities, and hazardous environmental conditions. Promptly conduct reviews and prepare findings, conclusions, and recommendations for Owner's use.
17. *Shop Drawings, Samples, and Other Submittals:* **Review and approve or take other appropriate action with respect to Shop Drawings, Samples, and other required Contractor submittals, including Applications for Payment, to ensure compliance with AIS. Any iron and steel products included in any submittal by the General Contractor, must include a Manufacturers' Certification letter to verify the products were produced in the United States. Copies of Manufacturers' Certifications must be kept in the Engineer's project file and on-site during construction. In the event the Engineer requires an item to be sole-source, the Engineer must furnish the Manufacturers Certification to the Contractor for said item.** Review and approve or take other appropriate action with respect to Shop Drawings, Samples, and other required Contractor submittals, but only for conformance with the information given in the Construction Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Construction Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.
18. *Substitutes and "Or-equal":* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of Paragraph A2.02.A.2 of this Exhibit A. **Any review of substitutes and "or equals" shall be in accordance with the General Conditions of the Contract and applicable Agency regulations. Prior to approval of any substitute "or equal" review Manufacturers' Certifications provided by the Contractor to verify the product(s) meet AIS requirements. Manufacturers' Certifications must be kept in the Engineer's project file and on-site during construction to ensure compliance with AIS.**

19. *Inspections and Tests:*

- a. Receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Construction Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Construction Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Construction Contract Documents. Engineer shall be entitled to rely on the results of such inspections and tests.
- b. As deemed reasonably necessary, request that Contractor uncover Work that is to be inspected, tested, or approved.
- c. Pursuant to the terms of the Construction Contract, require special inspections or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- d. **Receive and review all Manufacturers' Certifications for materials required to comply with AIS. Manufacturers' Certifications must be kept in the Engineer's project file and on-site during construction.**

20. *Change Proposals and Claims:* (a) Review and respond to Change Proposals. Review each duly submitted Change Proposal from Contractor and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer will not resolve the Change Proposal. (b) Provide information or data to Owner regarding engineering or technical matters pertaining to Claims. **Review Change Proposals to ensure compliance with AIS.**

21. *Applications for Payment:* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:

- a. Determine the amounts that Engineer recommends Contractor be paid. Recommend reductions in payment (set-offs) based on the provisions for set-offs stated in the Construction Contract. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the Work is generally in accordance with the Construction Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Construction Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work. In the case of unit price Work, Engineer's recommendations of payment will include final

determinations of quantities and classifications of the Work (subject to any subsequent adjustments allowed by the Construction Contract Documents).

- b. By recommending payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control the Work, or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the money paid to Contractor by Owner; to determine that title to any portion of the Work, including materials or equipment, has passed to Owner free and clear of any liens, claims, security interests, or encumbrances; or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.
22. *Contractor's Completion Documents:* Receive from Contractor, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Construction Contract Documents, certificates of inspection, tests and approvals, and Shop Drawings, Samples, and other data approved as provided under Paragraph A1.05.A.17. ~~Receive from Contractor, review, and transmit to Owner the annotated record documents which are to be assembled by Contractor in accordance with the Construction Contract Documents to obtain final payment. The extent of Engineer's review of record documents shall be to check that Contractor has submitted all pages.~~ **Receive from Contractor and review the annotated record documents which are to be assembled by Contractor in accordance with the construction Contract Documents to obtain final payment. The Engineer shall prepare Record Drawings and furnish such Record Drawings to Owner.**
23. *Substantial Completion:* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, visit the Site to review the Work and determine the status of completion. Follow the procedures in the Construction Contract regarding the preliminary certificate of Substantial Completion, punch list of items to be completed, Owner's objections, notice to Contractor, and issuance of a final certificate of Substantial Completion. Assist Owner regarding any remaining engineering or technical matters affecting Owner's use or occupancy of the Work following Substantial Completion.
24. *Other Tasks:* Perform or provide the following other Construction Phase tasks or deliverables:
- a. **Upon Substantial Completion, the Engineer shall provide a copy of the Certificate of Substantial Completion to the Agency.**

b. **Detailed scope for the Construction Phase is included in Appendix 1 of Exhibit A.**

25. *Final Notice of Acceptability of the Work:* Conduct a final visit to the Project to determine if the Work is complete and acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice to Owner and Contractor in the form attached hereto as Exhibit E ("Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of the Notice and Paragraph A1.05.A.21.b) to the best of Engineer's knowledge, information, and belief, and based on the extent of the services provided by Engineer under this Agreement.

a. **Obtain the Contractors' Certification letter and copies of Manufacturers' Certifications from the Contractor for all American Iron and Steel products used in the project. Upon Substantial Completion, provide copies of Contractors' and Manufacturers' Certifications to the Owner and a copy of Contractor's Certification to the Agency.**

26. *Standards for Certain Construction-Phase Decisions:* Engineer will render decisions regarding the requirements of the Construction Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth in the Construction Contract for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

B. *Duration of Construction Phase:* The Construction Phase will commence with the execution of the first Construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in Paragraph A1.03.D, then Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction Phase services (including Resident Project Representative services, if any) are required after the original date for completion and readiness for final payment of Contractor as set forth in the Construction Contract.

A1.06 *Post-Construction Phase*

A. Upon written authorization from Owner during the Post-Construction Phase, Engineer shall:

1. Together with Owner, visit the Project to observe any apparent defects in the Work, make recommendations as to replacement or correction of defective Work, if any, or the need to repair of any damage to the Site or adjacent areas, and assist Owner in consultations and discussions with Contractor concerning correction of any such defective Work and any needed repairs.
2. Together with Owner, visit the Project within one month before the end of the Construction Contract's correction period to ascertain whether any portion of the Work or the repair of any damage to the Site or adjacent areas is defective and therefore subject to correction by Contractor.

3. Perform or provide the following other Post-Construction Phase tasks or deliverables:

a. **Detailed scope for the Post Construction Phase is included in Appendix 1 of Exhibit A.**

B. The Post-Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate twelve months after the commencement of the Construction Contract's correction period.

PART 2 – ADDITIONAL SERVICES

A2.01 Additional Services Requiring Owner's Written Authorization

A. If authorized in writing by Owner, Engineer shall provide Additional Services of the types listed below. These services are not included as part of Basic Services and will be paid for by Owner as indicated in Exhibit C.

1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements, **not including preparation of the Environmental Report defined under Basic Services**; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
2. Services to make measured drawings of existing conditions or facilities, to conduct tests or investigations of existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer, or the Project's design requirements, including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Construction Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date or are due to any other causes beyond Engineer's control.
4. Services resulting from Owner's request to evaluate additional Study and Report Phase alternative solutions beyond those agreed to in Paragraph A1.01.A.1 and 2, **but only if the Owner's request is made after completion of the Study and Report Phase.**
5. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.
6. Providing renderings or models for Owner's use, including services in support of building information modeling or civil integrated management.
7. Undertaking investigations and studies including, but not limited to:

- a. detailed consideration of operations, maintenance, and overhead expenses;
 - b. the preparation of feasibility studies (such as those that include projections of output capacity, utility project rates, project market demand, or project revenues) and cash flow analyses, provided that such services are based on the engineering and technical aspects of the Project, and do not include rendering advice regarding municipal financial products or the issuance of municipal securities;
 - c. preparation of appraisals;
 - d. evaluating processes available for licensing, and assisting Owner in obtaining process licensing;
 - e. detailed quantity surveys of materials, equipment, and labor; and
 - f. audits or inventories required in connection with construction performed or furnished by Owner.
8. Furnishing services of Consultants for other than Basic Services.
 9. Providing data or services of the types described in Exhibit B, when Owner retains Engineer to provide such data or services instead of Owner furnishing the same.
 10. Providing the following services:
 - a. Services attributable to more prime construction contracts than specified in Paragraph A1.03.D.
 - b. Services to arrange for performance of construction services for Owner by contractors other than the principal prime Contractor, and administering Owner's contract for such services.
 11. Services during out-of-town travel required of Engineer, other than for visits to the Site or Owner's office as required in Basic Services (Part 1 of Exhibit A).
 12. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructibility review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other documents as a result of such review processes.
 13. Preparing additional bidding-related documents (or requests for proposals or other construction procurement documents) or Construction Contract Documents for alternate bids or cost estimates requested by Owner for the Work or a portion thereof.
 14. Assistance in connection with bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services, except when such assistance is required to complete services required by Paragraph 5.02.A and Exhibit F.
 15. Preparing conformed Construction Contract Documents that incorporate and integrate the content of all Addenda and any amendments negotiated by Owner and Contractor.

Exhibit A – Engineer's Services

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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16. Providing Construction Phase services beyond the original date for completion and readiness for final payment of Contractor, but only if such services increase the total quantity of services to be performed in the Construction Phase, rather than merely shifting performance of such services to a later date.
17. **[Deleted]**
18. Supplementing Record Drawings with information regarding the completed Project, Site, and immediately adjacent areas obtained from field observations, Owner, utility companies, and other reliable sources.
19. Conducting surveys, investigations, and field measurements to verify the accuracy of Record Drawing content obtained from Contractor, Owner, utility companies, and other sources; revise and supplement Record Drawings as needed.
20. Preparation of operation, maintenance, and staffing manuals.
21. Protracted or extensive assistance in refining and adjusting of Project equipment and systems (such as initial startup, testing, and balancing).
22. Assistance to Owner in training Owner's staff to operate and maintain Project equipment and systems.
23. Assistance to Owner in developing systems and procedures for (a) control of the operation and maintenance of Project equipment and systems, and (b) related recordkeeping.
24. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, lien or bond claim, or other legal or administrative proceeding involving the Project.
25. Overtime work requiring higher than regular rates.
26. Providing construction surveys and staking to enable Contractor to perform its work other than as required under Paragraph A1.05.A.8; any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
27. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
28. Extensive services required during any correction period, or with respect to monitoring Contractor's compliance with warranties and guarantees called for in the Construction Contract (except as agreed to under Basic Services).
29. Other additional services performed or furnished by Engineer not otherwise provided for in this Agreement.

A2.02 *Additional Services Not Requiring Owner's Written Authorization*

- A. Engineer shall advise Owner that Engineer is commencing to perform or furnish the Additional Services of the types listed below. For such Additional Services, Engineer need not request or

Exhibit A – Engineer's Services

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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obtain specific advance written authorization from Owner. Engineer shall cease performing or furnishing such Additional Services upon receipt of written notice to cease from Owner.

1. Services in connection with Work Change Directives and Change Orders to reflect changes requested by Owner.
2. ~~Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or equal" items; services after the award of the Construction Contract in evaluating and determining the acceptability of a proposed "or equal" or substitution which is found to be inappropriate for the Project; evaluation and determination of an excessive number of proposed "or equals" or substitutions, whether proposed before or after award of the Construction Contract.~~
Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or equal" items; evaluation and determination of an excessive number of proposed "or equals" or substitutions, whether proposed before or after award of the construction Contract.
3. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.
4. Additional or extended services arising from (a) the presence at the Site of any Constituent of Concern or items of historical or cultural significance, (b) emergencies or acts of God endangering the Work, (c) damage to the Work by fire or other causes during construction, (d) a significant amount of defective, neglected, or delayed Work, (e) acceleration of the progress schedule involving services beyond normal working hours, or (f) default by Contractor.
5. Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of the Work by Owner prior to Substantial Completion.
6. Evaluating unreasonable or frivolous requests for interpretation or information (RFIs), Change Proposals, or other demands from Contractor or others in connection with the Work, or an excessive number of RFIs, Change Proposals, or demands.
7. Reviewing a Shop Drawing or other Contractor submittal more than three times, as a result of repeated inadequate submissions by Contractor.
8. While at the Site, compliance by Engineer and its staff with those terms of Owner's or Contractor's safety program provided to Engineer subsequent to the Effective Date that exceed those normally required of engineering personnel by federal, State, or local safety authorities for similar construction sites.

Engineer's Services – Detailed Scope of Work

A. Study and Report Phase

1. Funding Assistance

- a. This task is an Allowance and will be billed at Time & Expense (T&E).
- b. The scope includes efforts performed to assist Owner in any efforts pertaining to obtaining funding or funding administration for the project. Efforts include:
 - i. Preparing application or other forms to provide project information to agency(ies) including USDA, WIFA, etc.
 - ii. Communication and meetings with TRSD staff, counsel, and financial consultant.
 - iii. Meetings with agencies for required activities.
- c. Deliverables
 - i. Miscellaneous (varying depending on required information)

2. Environment Investigations (WRF & Lift Station Locations)

- a. This task is an Allowance and will be billed at Time & Expense (T&E).
- b. If new locations are selected for the WRF and Lift Station that are not included in the April 2018 PER, environmental investigations may need to be completed on new site locations.
 - i. Owner and Engineer will closely work with BHP to gather any existing information available for the proposed property and present to USDA-RD for review to verify if further investigation is necessary.
 - ii. If additional environmental investigations are required at the final determined locations, services may include:
 - a) Programmatic Agreement
 - b) Class III Cultural Resources Survey
 - c) Historic Reconnaissance Survey
 - d) Biological Assessment

3. Aerial & Design Survey

- a. Engineer shall contract a subconsultant to perform these services. The Engineer's efforts to complete the coordination (contracting, invoice review, review of work products, incorporation into design, etc.) will be billed as a Lump Sum. The remaining budget of this task is an Allowance and will be billed based on the Subconsultant contract at cost plus 10%.
- b. Aerial Survey
 - i. LiDAR Flight Services

- a) Acquire photography for mapping and imagery utilizing a dual collect LiDAR/Image platform with 10ppm and a 7.2cm digital imagery capture.
 - ii. Mapping Services
 - a) Create a 1"=40' scale map with a 1 CI collection of DTM, Contours & Plan collecting breaklines and DTM points where necessary to supplement the LiDAR data. Identify areas with obstructions for ground crews to collect supplemental ground shots to be used in the final contour generation and delivery.
 - iii. Imagery Services
 - a) Create an orthorectified 0.098' GSD file acquiring a 7.2cm digital imagery flight for color orthos and supplemental DTM data.
 - iv. Processing Services
 - a) 1100 Acres will be processed
- c. Design Survey Topographic Survey and Results of Surveys
 - i. Set ground targets for aerial survey as described above.
 - ii. Tie in local section control, centerline monumentation, and right of way control for the areas of proposed collection system.
 - iii. Perform a ground based topographic survey on a series of smaller areas to supplement the aerial topographic survey.
 - iv. All topographic features and improvements will be mapped at a 1' contour interval. Areas that need tighter vertical information will be located using RTK GPS and a robotic total station to meet or exceed an accuracy of 0.05' (\pm), with a confidence rating of 95%.
 - v. All mapping to be done on NAD 83 Arizona State Plane Coordinate System, Eastern Zone, and NAVD'88 Vertical Datum, using International feet
 - vi. Compile land deeds and Plats needed to calculate properties affected along the proposed collection line alignments. Then perform calculations necessary to show rights of way and land ownership.
 - vii. Prepare a Results of Survey (R.O.S.) following the Arizona Minimum Standards of Boundary Surveying for the properties housing the proposed Lift Station, and Water Reclamation Facility (not to exceed 5 acres each). This will include the setting of boundary corners, and recording of the R.O.S.
- d. Utility Survey
 - i. Coordinate with local utility providers (and through Arizona 811) to gather record data in the form of plans and as-builts that affect the utilities.
 - ii. Ground locate observable utilities such as manholes, valves, pull boxes, vaults, and blue stake markings witnessed during survey.

- iii. Identify all existing storm drain manholes and inlets. Manholes will be opened to confirm pipe sizes and invert flow lines.
 - e. Design Survey Additional Allowances (As needed)
 - i. Finished Floor Elevations – Locate the finished floor elevation of any structures necessary for the design (860+/-). Use ground survey methods to acquire this information to ensure a design level vertical accuracy.
 - ii. Legals/Exhibits - Prepare a legal description and exhibit for any areas where the proposed main line falls outside of public right of way and needs an additional easement granted for use. Process will be as follows:
 - a) Identify the ROW / Easement differences
 - b) Advise Owner Attorney
 - c) Meet with Gila County to discuss resolution
 - d) Present potential solution to TRSD Board (if needed)
 - e) Prepare legal description
 - iii. Additional Supplemental Topo –Ground survey areas that need higher accuracy data not gathered by the aerial topographic survey. Also verify control in these areas.
 - f. Deliverables
 - i. Aerial Survey Drawing
 - ii. Autocad 2019 Civil 3D base mapping files to include linework and site features, surface data, survey points, and property lines.
 - iii. (2) Results of Survey signed and sealed by an Arizona Registered Land Surveyor on 24"x36" bond paper and in PDF Format.
 - iv. Design Survey Additional 1 (As needed): Separate CAD file with necessary finished floor elevations along proposed collection line alignment.
 - v. Design Survey Additional 2 (As needed): (20) 8.5"x11" legal descriptions with exhibits signed by an Arizona Registered Land Surveyor.
 - vi. Design Survey Additional 3 (As needed): Separate CAD file with necessary finished floor elevations along proposed collection line alignment.
- 4. Underground Utilities Investigations
 - a. Engineer shall contract a subconsultant to perform these services. The Engineer's efforts to complete the coordination (contracting, invoice review, review of work products, incorporation into design, etc.) will be billed as a Lump Sum. The remaining budget of this task is an Allowance and will be billed based on the Subconsultant contract at cost plus 10%.
 - b. Engineer will coordinate with utility companies to determine any potential utility conflicts. Owner Attorney will be notified of potential issues. Engineer will investigate with utility company to determine actual location, size and depth of issue and if any potholing or subsurface exploration needs to be completed. Owner Attorney and Board will be notified of work to be completed for approval to proceed.

5. Geotechnical Investigation

- a. Engineer shall contract a subconsultant to perform these services. The Engineer's efforts to complete the coordination (contracting, invoice review, review of work products, incorporation into design, etc.) will be billed as a Lump Sum. The remaining budget of this task is an Allowance and will be billed based on the Subconsultant contract at cost plus 10%.
- b. Engineer shall provide geotechnical investigation data for the project by a geotechnical subconsultant. The purpose of our geotechnical engineering services will be to evaluate the subsurface conditions to provide recommendations and/or discussion for the following:
 - i. Design data, allowable bearing pressure and depth for manholes, lift station and wastewater treatment plant foundations and slab-on-grade, including settlement estimation
 - ii. Excavation conditions
 - iii. Earthwork, including backfill placement and suitability of existing soils for backfill materials
 - iv. Slope requirements for cut and fill stability, both temporary and permanent
 - v. Lateral earth pressures on temporary and permanent retaining and foundation walls
 - vi. Corrosivity
 - vii. Existing pavement thickness measurements
 - viii. Asphalt pavement design for moderate to light traffic
- c. Field Exploration
 - i. Conduct the following subsurface exploration program that is based on the general geotechnical conditions in the area:
 - a) Collection Line Areas – Approximately seventy-five (75) test borings drilled to depths of 10 and 12 feet below the existing site grades.
 - b) WRF location to the depth of 20 ft
 - c) Lift Station location to the depth of 40-50 ft
 - ii. All explorations will be advanced to the depths outlined unless refusal to auger drilling is encountered. A field engineer will log the borings, record blow counts of penetration tests, and obtain undisturbed and representative samples of soils encountered as conditions dictate.
- d. Laboratory Testing
 - i. A geotechnical engineer will examine the samples and field logs and assign the laboratory tests. The following laboratory tests may be performed:
 - a) Field moisture content
 - b) In-situ soil density

- c) Remolded expansion potential
 - d) Compression
 - e) Sieve analysis
 - f) Maximum density/optimum moisture
 - g) Liquid limit and plasticity index
 - h) Soluble salts/sulfates/chlorides
 - i) Corrosivity (ASTM A674)
 - j) Remodel wall hydraulic conductivity
- e. Analyses and Report
- i. A geotechnical engineering report will be prepared that includes a description of the project, a discussion of the field and laboratory testing programs, a discussion of the subsurface conditions, and design recommendations as required to satisfy the purpose previously described, including recommendations for further investigation and analysis, if necessary.
- f. Deliverables
- i. Geotechnical Engineering Report
6. Right-of-Ways and Easements
- a. Engineer shall assist Owner with the following tasks related to determining and addresses main line ROW issues, frontage access issues and existing onsite system locating.
 - i. Onsite System Evaluation
 - a) The billing term for this task is Lump Sum.
 - b) The purpose of this task is to obtain information related to the existing residential homes for the documentation of the location and distance from the main line to the existing house connection. This information will be assembled for bidding purposes.
 - c) For each parcel, detailed research will be performed to collect information for 1) the current location of the existing onsite system, 2) the plumbing connection at the home and 3) determination of the best route from the main collection line. To gather this information, Engineer and TRSD Staff may need to contact homeowners to assist in identifying the home connection. The procedure for obtaining the this information is as follows:
 - i) The Engineer will visit the Gila County Office, collecting all records of onsite treatment systems permits and any information on the location of the system in place on each parcel.
 - ii) These records will be scanned and saved electronically. Additionally all maps/detailed plans will be printed and

organized into a binder. The binder will be categorized by project phase and then by drainage basin in order to provide clear understanding of how each parcel may be connected to the main collection line.

- iii) In the event no information can be found through Gila County records on an individual parcel, a parcel map will be created. The map will be sent to the owner with a letter explaining that Gila County had no records for this onsite parcel information. They may be asked to outline the current location of the residence (and other obstructions) along with the location of the existing onsite system and return this information to the Engineer.
- iv) Letters will be sent to each parcel owner explaining that a lateral connection to the home needs to be established. This letter will include a copy of any plan/map that was obtained from the Gila County office with a suggested septic connection route.

ii. ROW / Easement Issues Determination

- a) The billing term for this task is Lump Sum.
- b) This task is for any ROW / Easement issues identified in proposed locations of the main line. Engineer will:
 - i) Confirm with the surveyor that issues exist.
 - ii) Meet with Gila County and/or BHP to discuss issue and proposed solution.
 - iii) Present issue and proposed solution for Owner concurrence.

iii. Non-Frontage ROW / Easement Acquisition

- a) The billing term for this task is Lump Sum.
- b) This task is to identify the existing occupied residential and non-residential parcels along the main line that do not have ROW / Easements to the main line. To connect these parcels, an easement would need to be obtained from a neighboring parcel. The burden to gain utility access will fall on the landowner; however, Engineer will assist with the process in the following way.
 - i) A letter will be sent to each landowner detailing the issue of lack of access for collection system connection. A parcel map will be drawn outlining the parcel that in need and the location of the main collection line. The letter will include the following:
 - 1. Update and description of current project status/progress

2. Explanation of lack of utility access to parcel and attached map detailing collection lines and parcel location
3. Recommendation to contact neighbors and adjacent land owners to obtain easement access
4. Provide information on type of easement to obtain and contact for further help on how to gain the correct access

ii) A suggested connection route will be traced and any adjacent parcels that will require land access for the connection to be made will be shown on the map.

iii) A list of contacts for these said parcels will be given to the landowner. It will be the landowner's responsibility to contact the neighboring parcel owners and establish utility access.

iv) All information gathered will be organized into a list and corresponding map that will be provided to Owner.

iv. Railroad Easement Coordination

a) The billing term for this task is Lump Sum.

b) Perform all coordination with railroad company as related to easements and multiple crossing and constructions standards and permits.

c) Permit fees paid by Owner.

v. Railroad Easement Documentation

a) The billing term for this task is Lump Sum.

b) Complete all permitting, easement and construction documents as needed for permit approvals.

c) Permit fees paid by Owner.

b. Deliverables

i. Easement or ROW Maps and Descriptions (as required)

B. Preliminary Design Phase

The Design Phase consists of providing design and construction documents for only Phase I of the TRSD Wastewater Collection and Treatment System. Phase I consists of the installation of 61,000+/- linear feet (LF) of new gravity mains with manholes, 650+/- new residential service connections, a new main lift station and a new membrane bioreactor (MBR) water reclamation facility. The Phase I design contains four main components:

- Gravity Collection System
- TRSD Main Lift Station and Force Main
- TRSD Water Reclamation Facility (WRF)
- Service Connections

Preliminary Design will be 60% design progress. The scheduled date of completion is July 10, 2022 per the Project schedule set forth in the Letter of Conditions Amendment (dated March 11, 2021).

1. Preliminary Design Management

- a. The billing term for this task is Lump Sum.
- b. Overall management of the Preliminary Design Phase will include efforts to ensure quality of the work product, schedule control, and cost control. All work activities will be monitored and status will be provided to Owner through ongoing communications with TRSD Board, staff and Consultants.
- c. Engineer shall attend all necessary TRSD Board and staff meetings for providing updates and addressing any questions or concerns regarding the design efforts.
- d. Progress Meetings will be held on an as needed basis. These meetings will provide a forum for delivery of project deliverables as well as meeting agendas. Agendas will identify efforts and accomplishments since the last meeting and establish expectations for the next meeting. This task includes the efforts to track time, calculate and prepare monthly invoicing based on a schedule of value format.
- e. Other possible meetings with Gila County, BHP, and other stakeholders as necessary.
- f. Schedule Management will be provided. Engineer shall develop and maintain current a project schedule that will be provided to Owner and discussed at the Progress Meetings.
- g. Deliverables
 - i. Meeting Agendas & Minutes
 - ii. Invoices (with backup)
 - iii. Schedules

2. Preliminary Collection System Design (60% Progress)

- a. The billing term for this task is Lump Sum.
- b. MAG Uniform Standard Specifications and Details shall be used in this design.
- c. Planning
 - i. Engineer shall develop a design road map, which will help identify the design sequence among the internal and external design staff. The road map will identify tasks, manhours and equipment resources needed to meet the design objectives.
 - a) The roadmap will include analyzing the gravity collection system and delineating the system into sub-basin sewersheds. This allows for parallel design by multiple design teams of the collection system, lift station and WRF.
 - b) Engineer will perform in-house planning and design to determine the necessary time and resources needed to accomplish the design task. This includes identifying site constraints, design requirements, and schedule constraints.

- ii. Engineer shall develop a detailed schedule based on the development of the road map and information received from the planning effort.
- d. Coordination
 - i. Engineer shall establish communication with external entities, such as regulatory agencies, utilities provider, mine companies, etc. to obtain information required for the design, to identify standards and design requirements, and to identify any design constraints.
- e. GIS
 - i. Engineer shall develop GIS Modeling to establish a basefile necessary for the design of the collection system, lift station and WRF. The GIS basefile will serve to incorporate all the design data and allow for ease of data dissemination for analysis and modeling during the design phase. GIS database will provide analysis for the following:
 - a) Parcel, lot analyses, EDU and frontage determinations will be used to confirm all information gathered in the Study and Report Phase.
 - b) Topographic and slope analysis
 - c) Development of collection line alignment
 - d) Utilities identification and conflict determination
- f. Modeling
 - i. Engineer shall perform hydraulic modeling of the preliminary gravity collection system design. The hydraulic model shall be performed using Bentley Sewer Gem or equal. The hydraulic model shall provide detailed analysis of the flow through the pipe and manhole nodes. This includes identifying depth to pipe diameter ratio, critical or subcritical flow conditions, velocity profiles, etc. This modeling will be used throughout the design progress to verify if any changes made have impact to the overall system and adjustments will be made as necessary.
- g. Preliminary Design Plans 60%
 - i. Engineer shall prepare 60% design plans for the construction of the Collection System. These plans shall include:
 - a) Cover sheet with plan index and from:to station numbers.
 - b) Index sheet showing the overall alignment with referencing to an alignment plan and profile sheet for each portion of the collection system design.
 - c) Alignment Plan and Profile (P&P) Sheets for the individual portion of the collection line alignment design with horizontal scale 1" = 40' and vertical scale = 1" = 5'. Plan shall depict station numbering at 100' intervals and profiles shall show a ground elevation line for all alignments.
 - d) P&P sheets shall depict an accurate placement and depth of all existing utilities. Station numbers shall be shown on the alignment profiles for all identified utilities.

- e) Profile sheets shall show the slope and length of pipe to be constructed along with invert elevations for all new pipes and manhole elevations for new manholes.
 - f) Construction call out notes with construction quantities shall be utilized on all plan sheets.
 - g) If required, roadway and street repair design can be provided on an allowance basis.
 - h. Quality Assurance Quality Control (QAQC)
 - i. Engineer shall develop an in-house QAQC plan specifically for the project to ensure:
 - a) Design conformance with industry design standards
 - b) Consistent constructability reviews are performed
 - c) Budget requirements are being met through cost effective approaches
 - d) Risks are anticipated, identified in a timely manner, and minimized or avoided
 - e) Clear communication is maintained throughout the project
 - ii. Engineer shall perform QAQC reviews according to TRSD QAQC Plan throughout the project and at major milestones. QAQC efforts will be documented and available for Owner and Agency review.
 - i. Final 60% Preliminary Design Package
 - i. For each sub-basin sewershed as 60% progress is achieved, a Final 60% Preliminary Design Package will be prepared for stakeholder reviews that include, but are not limited to:
 - a) TRSD
 - b) USDA-RD
 - c) Arizona Water Company
 - d) Southwest Gas
 - e) Arizona Eastern Railway
 - ii. Final 60% Preliminary Design Packages will be finalized by addressing all received comments and will be submitted to Owner.
- 3. Preliminary Lift Station Design
 - a. The billing term for this task is Lump Sum.
 - b. MAG Uniform Standard Specifications and Details shall be used in this design.
 - c. Preliminary Lift Station Design Plans 60%
 - i. Engineer shall prepare 60% plans for the construction of the Lift Station(s). These plans shall include:
 - a) Civil Design
 - i) Raw influent connection from the TRSD gravity collection system.

- ii) Associated onsite piping from lift station to the new TRSD WRF, including plans and profiles, horizontal/ vertical controls, and all existing utilities and easements. Civil yard piping and site grading.
- b) Mechanical Design
 - i) Pump size, specification and capacity
 - ii) Discharge Force main Sizing and Hydraulic Calculations
 - iii) Piping and valving design
- c) Structural Design
 - i) Provide design review of structural design to meet UBC Seismic Zone 2 requirements to include:
 - 1. Raw Sewage Wet Well / Lift station
 - 2. Slab on grade/ Equipment pads
 - ii) Perform Structural Engineering Calculations for Lift Station if required, for submittal to Owner and applicable agencies.
 - iii) Submit plans and engineering calculations as required for review and approval to reviewing agencies prior to construction.
- d) Electrical and Controls & Instrumentation Design
 - i) Preliminary electrical design shall include assessment of the Lift Station power requirements to include new service entrance, electrical gear, and standby generator power. The electrical design shall be coordinated with utility requirements.
 - 1. Prepare Electrical site plan of the facility showing the location of electrical equipment as related to the lift station and shall include conduit and wire between equipment. The plans will show the wiring to be done by the electrical sub-contractor.
 - 2. Prepare a single line diagram and load calculations per County and Utility requirements.
 - 3. Review mechanical specifications, system descriptions and mechanical shop drawings to determine required field wiring for the new systems.
 - 4. Provide instrumentation design and prepare a preliminary Process and Instrumentation Diagram for control of the lift station.
 - 5. Identify control and instrumentation equipment that will be required for coordination between equipment and program logic controller(s).

- 6. Design requirements for remote monitoring and alarming systems
 - d. Quality Assurance Quality Control (QAQC)
 - i. Engineer shall perform QAQC reviews according to TRSD QAQC Plan throughout the project and at major milestones. QAQC efforts will be documented and available for Owner and Agency review.
 - e. Final 60% Preliminary Design Package
 - i. The Final 60% Preliminary Design Package will be finalized by addressing all received comments and will be submitted to Owner.
- 4. Preliminary TRSD WRF Design
 - a. The billing term for this task is Lump Sum.
 - b. MAG Uniform Standard Specifications and Details shall be used in this design.
 - c. Conceptual Design
 - i. Engineer shall develop a conceptual design of the TRSD WRF, which shall include:
 - a) WRF Basis of Design
 - b) Site Layout
 - c) List of major equipment
 - d) Hydraulic and process diagram
 - e) Building Renderings
 - ii. Conceptual design will be reviewed with Owner prior to advancing to 60% design.
 - d. Performance Specifications
 - i. Engineer shall prepare and provide a Performance Specification Bid Package to obtain competitive bids on treatment facility equipment capable of meeting the design requirements and providing expansion phasing alternatives to maximize capital costs. Performance Specification Bid Package will be modified one time based on review by Owner. Based on approved Performance Specification Bid Package, Engineer shall obtain a minimum of three (3) bids from manufacturers for each component. Engineer shall assist Owner in evaluating equipment bids and shall prepare recommendations of equipment selection. This task shall include the following:
 - a) Modular MBR WRF
 - i) Develop Performance Specifications
 - ii) Review of Performance Specifications with Owner. It is anticipated that the review of this Performance Based Specification will take place parallel to the Design Progress Meetings.
 - iii) Submit, Review and Evaluate

- iv) Equipment Recommendation Memo
 - v) Review Recommendations with Owner.
 - vi) Award Equipment (Owner).
 - vii) Develop Letter of Intent for selected vendor.
- e. Preliminary Design Plans 60%
- i. Engineer shall prepare 60% plans for the construction of the TRSD WRF to include:
 - a) General / Civil
 - i) General/civil design shall include the hydraulic analysis, development of plant layout and survey control, site drainage, paving and grading and site yard piping and connection to the conveyance systems. Construction plans to be prepared for general/civil design will include Project location maps, plant flow schematics, plant hydraulic profiles, plant layouts and survey control data, paving, grading and drainage plans, utility plans, yard piping plans, plant-wide miscellaneous structure plans and associated details.
 - b) Process and Mechanical
 - i) Process and Mechanical design shall include development of the detailed control and operational schemes for the various processes and process units. The preliminary process schematic diagrams will be developed into fully detailed plans and incorporated into the construction documents. Processes and equipment shall be as set forth in the Preliminary Design Report. Mechanical design will include the mechanical equipment, location and arrangement of the equipment and the associated piping, design of the equipment and the associated piping, and design of the supports for equipment and piping. Process units may include:
 - 1. Influent screening
 - 2. Secondary and tertiary treatment process
 - 3. Odor control
 - 4. Sludge disposal
 - 5. Effluent disposal
 - c) Structural
 - i) Structural design shall include development of structural design criteria, selection of structural construction materials, design of foundations and foundation treatment in accordance with recommendations of the geotechnical investigation and design of the structural members for the various required facilities. Construction

plans will be prepared for the structural design in accordance with applicable codes.

d) Electrical

- i) Electrical design shall include assessment of the WRF and unit power requirements; design of plant-wide power distribution and lighting in compliance with local lighting codes; development of motor control schemes and design of motor control centers and power conduits; and the design of stand-by power. The electrical design shall be coordinated with utility requirements. Construction plans will be prepared for the electrical design.

e) Controls & Instrumentation

- i) Controls and Instrumentation design shall include selection/specification of instrumentation hardware and software to accomplish the control and operation scheme required; design of alarm and display systems; functional layout of area control centers; and selection of control and monitoring instruments. Instrumentation requirements will be prepared as part of the construction documents, and shown on the Process and Instrumentation Diagrams (P&IDs) and instrumentation plans. Engineer shall prepare specifications (by 90% progress) describing the plant monitoring and control systems to be furnished by the contractor. Process and Instrumentation plans shall show control devices. Specifications shall include a sequence of operations for the equipment.

f. Quality Assurance Quality Control (QAQC)

- i. Engineer shall perform QAQC reviews according to TRSD QAQC Plan throughout the project and at major milestones. QAQC efforts will be documented and available for Owner and Agency review.

g. Final 60% Preliminary Design Package

- i. The Final 60% Preliminary Design Package will be finalized by addressing all received comments and will be submitted to Owner.

5. Preliminary Service Connection Design

- a. The billing term for this entire task is Lump Sum.
- b. Engineer shall identify individual lateral connection (exact location to be field verified by Contractor) for each qualified parcel and develop standard detailed plan of typical wastewater service connection for individual residential homes. These standards will be developed for use in the field by the Contractor. The details shall include abandonment of existing septic system/cesspools, typical wastewater connection piping and fitting, clean outs and minimum installation requirements. Preliminary Service Connection Easement & Design shall consist of the following:

- i. Develop connection and abandonment standards for connection to the new TRSD collection system per Gila County standards (if available) or work closely with Gila County to ensure the standards are acceptable.
- ii. Preliminary Design Plans 60%
 - a) Engineer shall prepare 60% plans for the construction of the Service Connections.
- iii. Quality Assurance Quality Control (QAQC)
 - a) Engineer shall perform QAQC reviews according to TRSD QAQC Plan throughout the project and at major milestones. QAQC efforts will be documented and available for Owner and Agency review.

6. Deliverables

- a. TRSD WRF Conceptual Design Package
- b. TRSD WRF Performance Specifications Package
 - i. Draft Package (for review and comment) and Final, Bid Evaluation and Recommendations
- c. 60% Preliminary Design Packages
 - i. Each package will include a Draft Package (for review and comment) and a Final Package (all comments addressed). The four (4) packages are as follows:
 - a) Collection System
 - i) One (1) package for each sub-basin sewershed
 - b) Lift Station
 - c) TRSD WRF
 - d) Service Connections
 - ii. 60% Preliminary Design Cost Estimate
- d. TRSD Connection and Abandonment Standards

C. Final Design Phase

Final Design consists of progressing the design based on all comments received from the review of the Preliminary Design (60%) package. Final Design will be completed in two (2) progress milestones, 90% design and 100% design. Each milestone will be reached for each design package. The scheduled date of 90% completion is August 31, 2022 per the Project schedule set forth in the Letter of Conditions Amendment (dated March 11, 2021).

- 1. Final Design Management, Scheduling, Progress & Board Meetings
 - a. The billing term for this entire task is Lump Sum.
- 2. Final Collection System Design
 - a. The billing term for this entire task is Lump Sum.
 - b. Coordination
 - c. Collection System Final Design 90%

- i. Collection System Plans 90%
- ii. All preliminary design plans for each sub-basin sewershed will be brought to a 90% completion and will be prepared for stakeholder reviews that include, but are not limited to:
 - a) TRSD
 - b) USDA-RD
 - c) Arizona Water Company
 - d) Southwest Gas
 - e) Arizona Eastern Railway
 - f) Construction detail sheets for pipe connections to existing system and other construction work requiring such detail will be added.
- iii. Collection System Design Report 90%
 - a) Engineer shall prepare a 90% Collection System Engineering Design Report, detailing the design, and process considerations and construction cost estimates for submittal to Owner and Project Team.
- iv. Collection System Technical Specifications 90%
 - a) Engineer shall prepare a set of 90% Collection System Technical Specifications in CSI Industry standard format, which will set forth the special conditions and the technical requirements for construction of the project.
- d. Collection System Final Design 100%
 - i. Collection System Design Plans 100%
 - ii. Collection System Design Report 100%
 - iii. Collection System Technical Specifications 100%
- e. Quality Assurance Quality Control (QAQC)
- f. Final 100% Design Package
- 3. Final Lift Station Design
 - a. The billing term for this task is Lump Sum.
 - b. Lift Station Final Design 90%
 - i. Lift Station Plans 90%
 - a) All preliminary design plans will be brought to a 90% completion.
 - b) Provide details for electrical equipment mounting where necessary to clarify the intent of the design will be added.
 - ii. Lift Station Design Report 90%
 - a) Engineer shall prepare a 90% Lift Station Engineering Design Report, detailing the design, and process considerations and

construction cost estimates for submittal to Owner and Project Team.

iii. Lift Station & Force Main Technical Specifications 90%

a) Engineer shall prepare a set of 90% Lift Station Technical Specifications in CSI Industry standard format, which will set forth the special conditions and the technical requirements for construction of the project.

c. Lift Station Final Design 100%

i. Lift Station Plans 100%

ii. Lift Station Design Report 100%

iii. Lift Station Technical Specifications 100%

d. Quality Assurance Quality Control (QAQC)

e. Final 100% Design Package

4. Final TRSD WRF Design

a. The billing term for this task is Lump Sum.

b. TRSD WRF Final Design 90%

i. TRSD WRF Plans 90%

ii. TRSD WRF Design Report 90%

a) Engineer shall prepare a 90% TRSD WRF Engineering Design Report, detailing the design, and process considerations and construction cost estimates for submittal to Owner and Project Team.

iii. TRSD WRF Technical Specifications 90%

a) Engineer shall prepare a set of 90% TRSD WRF Technical Specifications in CSI Industry standard format, which will set forth the special conditions and the technical requirements for construction of the project.

c. Final Design 100%

i. TRSD WRF Plans 100%

ii. TRSD WRF Design Report 100%

iii. TRSD WRF Technical Specifications 100%

d. Quality Assurance Quality Control (QAQC)

e. Final 100% Design Package

5. Final Service Connection Design

a. The billing term for this entire task is Lump Sum.

b. Service Connection Final Design 90%

i. Service Connection Plans 90%

- a) Plans will be construction details of typical lateral connection bidding purposes.
 - ii. Service Connection Technical Specifications 90%
 - a) Engineer shall prepare a set of 90% Service Connection Technical Specifications in CSI Industry standard format, which will set forth the special conditions and the technical requirements for construction of the project.
 - c. Final Design 100%
 - i. Service Connection Plans 100%
 - ii. Service Connection Design Report 100%
 - iii. Service Connection Technical Specifications 100%
 - d. Quality Assurance Quality Control (QAQC)
 - e. Final 100% Design Package
6. Clean Water Act Section 208- Regional Water Quality Management Plan Amendment
- a. The billing term for this entire task is Lump Sum (LS).
 - b. Public Hearing Presentation and Final Amendment – Engineer will attend the public hearing to answer any questions regarding the Amendment and/or the facility. Upon receipt of public comments and review of the comments, Engineer will prepare the Final Amendment for submittal to CAG.
7. Aquifer Protection Permit (APP) Significant Amendment
- a. The billing term for this task is Lump Sum. Payment of any related permit fees will be the responsibility of the Owner.
 - b. The APP program is administered by ADEQ and regulates facilities that discharge pollutants to the land surface, underlying soil, or groundwater, where there is a reasonable probability that pollutants could reach the aquifer. Wastewater treatment facilities are required to obtain an individual APP for operation. Per ACC R18-9-A211 (Permit Amendments), material and substantial alterations or additions to a permitted facility will require a significant permit amendment.
 - c. Engineer will assist Owner with preparing the required application for the Significant Amendment to the existing APP for process and equipment modifications and operation of the WRF.
 - d. The following activities will be required to achieve the permitting objectives stated above:
 - i. APP Pre-Application Meeting
 - a) The Engineer will meet with the ADEQ to discuss the Project, the permitting schedule and permitting objectives.
 - b) This will take place early in the design phase.
 - ii. APP Application Preparation
 - a) The Engineer will collect all of the data required for the APP under AAC Title 18, Chapter 9. This information will be compiled into the draft APP application and submitted for final review.

This information will include general owner/operator information, demonstrations of financial and technical capability and site specific characteristics. Engineer will provide Owner with draft copies of the APP Significant Amendment application for review and comment prior to submission to ADEQ.

b) This will take place at 60% design progress.

iii. APP Respond to ADEQ Administrative and Technical Comments

a) Engineer will prepare written responses to ADEQ's administrative and technical comments, as necessary, during the review process. The Engineer will work with Owner to prepare timely, adequate responses to the agency.

8. ADEQ Biosolids Management Plan

- a. The billing term for this task is Lump Sum.
- b. Engineer shall prepare a detailed plan for the TRSD WRF Biosolids handling for landfill disposal. This reporting is required by ADEQ for the APP application.

9. AZPDES Permit

- a. The billing term for this task is Lump Sum. Payment of any related permit fees will be the responsibility of the Owner.
- b. Arizona is authorized by the US Environmental Protection Agency (USEPA) to operate the National Pollutant Discharge Elimination System (NPDES) Permit Program (Section 402 of the Clean Water Act) on the state level. Under the Arizona Pollutant Discharge Elimination System (AZPDES) Permit Program, all facilities that discharge pollutants from any point source into waters of the United States (navigable waters) are required to obtain or seek coverage under an AZPDES permit.

i. AZPDES Pre-Application Meeting

a) The Engineer will meet with the ADEQ to discuss the Project, the permitting schedule and permitting objectives. If possible, this meeting will take place at the same pre-application meeting for the APP.

b) This will take place early in the design phase.

ii. Application Preparation

a) Engineer shall coordinate with Arizona Department of Environmental Quality (ADEQ) to organize all necessary information for the application. Engineer will provide Owner with draft copies of the AZPDES application for review and comment prior to submission to ADEQ.

iii. Respond to ADEQ Administrative and Technical Comments

a) Engineer will prepare written responses to ADEQ's administrative and technical comments, as necessary, during the review process.

10. 4.01 General Permit & Discharge Authorization

- a. The billing term for this entire task is Lump Sum. Payment of any related permit fees will be the responsibility of the Owner.
- b. 4.01 Notice of Intent to Discharge (NOI)
 - i. Engineer review permit application requirements and gather necessary information from Owner.
 - ii. Engineer shall coordinate the ADEQ pre-application meeting and attend meeting with Owner.
 - iii. Engineer shall prepare and submit application with applicable documentation to ADEQ. The application shall be modified one time prior to application based on Owner review comments.
 - iv. Engineer shall respond, after consultation with the Owner, to ADEQ review comments.
- c. Discharge Authorization (DA)
 - i. Engineer review permit application requirements and gather necessary information from Owner.
 - ii. Engineer shall prepare with Engineer's Certificate of Completion and submit application with applicable documentation to ADEQ. The application shall be modified one time prior to application based on Owner review comments.
 - iii. Engineer shall respond, after consultation with the Owner, to ADEQ review comments.

11. District Policies and Procedures Standards

- a. The billing term for this entire task is Lump Sum.
- b. Engineer will work with the Owner Attorney in the development of the TRSD Policies and Procedures (P&Ps) standards. The work includes:
 - i. Development of standards used in project that are necessary for normal sanitary district operations.
 - ii. Standard P&Ps will be developed using design construction standards and specifications.
 - iii. Reference other sanitary districts existing P&Ps to assist Owner in organization and implementation.
- c. Data Gathering
- d. Develop TRSD Policies and Procedures Standards
- e. Design Standards

12. Deliverables

- a. 90% Final Design Packages
 - i. Collection System
 - a) One (1) package for each sub-basin sewershed
 - ii. Lift Station

- iii. TRSD WRF
 - iv. Service Connections
 - b. 100% Final Design Packages
 - i. Collection System
 - a) One (1) package including all sub-basin sewersheds
 - ii. Lift Station
 - iii. TRSD WRF
 - iv. Service Connections
 - c. CAG 208 WQMP Amendment
 - i. Draft Amendment (up to three (3) are anticipated, for review and comment)
 - ii. Final Amendment
 - d. ADEQ Aquifer Protection Permit (APP)
 - i. Draft Application (for review and comment)
 - ii. Final Application
 - e. ADEQ Biosolids Management Plan
 - i. Draft Report (for review and comment)
 - ii. Final Report
 - f. ADEQ AZPDES Permit
 - i. Draft Application (for review and comment)
 - ii. Final Application
 - g. ADEQ 4.01 NOI & DA
 - i. Draft Application of each (for review and comment)
 - ii. Final Application of each
 - h. District Policies and Procedures Standards

D. Bidding Phase

1. The billing term for this entire task is Lump Sum.
2. Bid services will be performed in close communications with USDA-RD to ensure the proper steps are taken.
3. Bid Packages

Three (3) packages are anticipated under this task:

- Collection System
- WRF & Lift Station
- Services Connections

- a. Bid Package Preparation
 - i. Engineer shall prepare new bid documents according to associated RUS Bulletins and using the required EJCDC documents. Work includes, but may not be limited to the following:
 - a) Associated plans and specifications;
 - b) Bid instructions and bid form;
 - c) Construction contract and requirements;
 - d) Bid package to be reviewed by USDA-RD for concurrence and authorization to advertise for bid.
 - ii. Electronic Bid Documents shall be posted on Quest CDN (via PACE's account) to allow for plan holder tracking and addendum issuance. A link to this project posting can be placed in the public notice and on the TRSD's website for interested parties to login in and download. Note: Anyone downloading plans will be charged a non-refundable fee of \$15.00.
 - iii. Engineer shall track registered bidders and perform any other bid process support activities required.
 - b. The scheduled date of Bid Package completion is September 10, 2022 per the Project schedule set forth in the Letter of Conditions Amendment (dated March 11, 2021).
4. Pre-Bid Conference Coordination & Moderation
 - a. Engineer shall assist Owner in coordinating and facilitating the Pre-Bid Conference, including preparing the agenda and meeting minutes.
 5. Response to RFIs & Issue Addendum(s)
 - a. Engineer shall prepare written responses to contractors' questions and prepare bid addendum(s) as required to clarify bid requirements.
 6. Bid Evaluations & Recommendation
 - a. Engineer shall review contractor bids received and provide recommendations for the contractor selection. Information shall include all items required by the USDA-RD's authorization to advertise for bid letter.
 7. Deliverables
 - a. Three (3) Bid Packages that include the following for each:
 - i. Bid documents (including any addendums)
 - ii. Bid Meeting(s) Agenda & Minutes
 - iii. Bid Tabulations
 - iv. Bid Evaluation & Recommendation

E. Construction Phase

1. Construction services will be performed in close communications with USDA-RD to ensure the proper steps are taken.

2. Three (3) prime contracts are anticipated under this task:
 - WRF & Lift Station
 - Collection System
 - Services Connections
3. Project Management (PM) / Engineer-of-Record (EOR) Progress Meetings & Coordination
 - a. The billing term for this entire task is Lump Sum.
 - b. Overall project management/coordination will be provided as required including, but not limited to preparing a project management plan, project communication/files, and quality assurance and quality control (QAQC). Efforts to track progress and prepare monthly invoicing shall be based on a schedule of value format.
 - c. Kickoff and progress meetings will be held on an as needed basis. Meeting agendas will be provided. These meetings provide a forum for submittal of project deliverables, identify efforts and accomplishments since the last meeting and establish expectations for the next meeting, ensuring that we will be available for advice and consultation.
4. Resident Project Representative (RPR) Construction Engineer
 - a. The billing term for this entire task is Lump Sum.
 - b. See Exhibit D for detailed scope of work.
5. Construction Support
 - a. The billing term for this entire task is Lump Sum.
 - b. Clerical Support
 - i. Provide support to the RPR with preparing reports, meeting agendas, meeting minutes, processing paperwork and coordination as necessary for the supervision of the three prime contracts to be fulfilled.
 - c. Engineering Support
 - i. Provide support to the RPR with processing shop drawings reviews for conformance with construction documents, shop drawing responses, responding to requests for information (RFIs), preparing engineering supplemental information (ESIs), reviewing fieldwork issues, preparing reports and coordination as necessary for the supervision of the three prime contracts to be fulfilled.
 - d. Onsite Observation Support
 - i. Provide observation activities similar to the RPR as support for the RPR due to the size and complexity of the project. This personnel will report directly to the RPR.
6. Special Inspections
 - a. This task is an Allowance and will be billed at Time & Expense (T&E).
 - b. Engineer shall provide the services of a special inspector for structural and electrical work requiring a special inspection in accordance with the Contract

Documents. The inspector shall be certified or licensed in the State of Arizona to do inspection services for the specified work. This excludes all other testing and material inspection services to be performed by the Contractor(s), such as geotechnical, concrete, etc.

- c. Structural Inspections
- d. Electrical Inspections
- e. Other Inspections (as required)
- f. Special Inspection Coordination

7. Startup & Commissioning

- a. The billing term for this entire task is Lump Sum.
- b. Engineer will provide start up and training assistance to the Owner and the Contractor. Engineer has provided ten (10) working days of onsite start up assistance with up to four (4) personnel. This task includes the following:
- c. Lift Station and WRF Start up Assistance
 - i. Engineer will evaluate the Contractor's Clean Water Testing (CWT) plan and provide comments. Engineer shall attend several pre-CWT meetings with stakeholders to ensure as much as possible all items are thought through prior to the actual CWT. Engineer will be on site to assist and observe the 24-hour clean water testing to ensure that the WRF system is functioning as intended with the design and construction documents. Engineer shall evaluate issues with contractor to make recommended adjustments as needed, where applicable.
 - ii. Engineer will evaluate the Contractor's Startup plan and provide comments. Engineer shall attend several pre-startup meetings with stakeholders to ensure as much as possible all items are thought through prior to the actual Facility startup.
 - a) Engineer will take into consideration the Contractors plan related to the lateral connections
 - b) Engineer will determine a new plant seeding plan and review with Owners operational staff and recommend new plant seeding quantity, sourcing to ensure seed quality, i.e. location and the associated coordination of sourcing and feeding quantity and frequency.
 - c) Engineer will be on site to assist and observe startup to ensure that the WRF system is functioning as intended with the design and construction documents. Engineer shall evaluate issues with contractor to make recommended adjustments as needed, where applicable.
 - iii. Engineer will provide Initial WRF Process Training for the Owner's operational staff. This training will include an initial training plus six (6) months of phone Q&A with Engineer. In addition, four (4) additional onsite training sessions to assist the Owner's operational staff of a smooth transition, continued training and complete knowledge of the WRF system.

d. Service Connections & Collection System Startup Assistance

- i. Engineer will evaluate the Contractor's Lateral Connection phasing plan and provide comments. Engineer shall attend several pre-connection meetings with stakeholders to ensure as much as possible all items are thought through prior to the actual lateral connection and LS, WRF startup.
 - a) Engineer will evaluate the detailed phasing plan of the service lateral connections in association with the plant start up. This will include the details of the connection phasing schedule and associated flows available vs needed for WRF startup.
 - b) Engineer will make the determination of flow required for WRF start up and work with Owner/Contractor on timing of this to reduce the amount of vaulting and hauling needed prior to WRF startup.

F. Post Construction Phase

1. The billing term for this entire phase is Lump Sum.
2. Post Construction services will be performed in close communications with USDA-RD to ensure the proper steps are taken.
3. Three (3) prime contracts are anticipated under this task:
 - WRF, Lift Station & Force Main
 - Collection System
 - Services Connections
4. Post Construction Management & Coordination
 - a. Overall project management/coordination will be provided as required including, but not limited to ensuring completion and organization of project communication/files, quality assurance and quality control (QAQC) and efforts to finalize invoicing with proper close-out documentation, and obtaining all necessary information for Record Drawings and Operations and Maintenance (O&M) Manual.
 - b. Engineering Completion Certificates (Substantial & Final)
 - i. Prior to Substantial Completion, Consultant shall perform a final inspection of the construction of the project.
 - ii. After final inspection, Clean Water testing, and startup have been completed and accepted, Engineer shall review testing, inspection, and startup documentation from the Contractor(s) and shall prepare a substantial completion binder and letter establishing the project is at substantial completion. Engineer shall also complete the Engineer of Record's Certification of Completion. A copy of the substantial completion binder and Certification of Completion shall be submitted to ADEQ per permit requirements.
 - c. District GIS Mapping

deliverables will be completed for each of the three (3) prime contracts as required.

- b. One (1) ESRI File Geodatabase
- c. One (1) hard copy of Record Drawings. These deliverables will be completed for each of the three (3) prime contracts as required.
- d. One (1) Electronic O&M Manual for the WRF.
- e. One (1) Electronic O&M Manual for the Collection System.

This is **EXHIBIT B**, consisting of **4** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Owner's Responsibilities

Article 2 of the Agreement is supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense **take the following actions, all with the guidance and professional assistance of Engineer:**

- A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations.
- B. Give instructions to Engineer regarding Owner's procurement of construction services (including instructions regarding advertisements for bids, instructions to bidders, and requests for proposals, as applicable), Owner's construction contract practices and requirements, insurance and bonding requirements, electronic transmittals during construction, and other information necessary for the finalization of Owner's bidding-related documents (or requests for proposals or other construction procurement documents), and Construction Contract Documents. Furnish copies (or give specific directions requesting Engineer to use copies already in Engineer's possession) of all design and construction standards, Owner's standard forms, general conditions (if other than EJCDC® C-700, Standard General Conditions of the Construction Contract, ~~2013~~ **2018** Edition), supplementary conditions, text, and related documents and content for Engineer to include in the draft bidding-related documents (or requests for proposals or other construction procurement documents), and draft Construction Contract Documents, when applicable. Owner shall have responsibility for the final content of (1) such bidding-related documents (or requests for proposals or other construction procurement documents), and (2) those portions of any Construction Contract other than the design (as set forth in the Drawings, Specifications, or otherwise), and other engineering or technical matters; and Owner shall seek the advice of Owner's legal counsel, risk managers, and insurance advisors with respect to the drafting and content of such documents.
- C. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, construction, or investigation at or adjacent to the Site.
- D. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, obtain, furnish, or otherwise make available (if necessary through title searches, or retention of specialists or consultants) such additional Project-related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:
 1. Property descriptions.
 2. Zoning, deed, and other land use restrictions.
 3. ~~Utility and topographic mapping and surveys.~~

4. ~~Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.~~
 5. ~~Explorations and tests of subsurface conditions at or adjacent to the Site; geotechnical reports and investigations; drawings of physical conditions relating to existing surface or subsurface structures at the Site; hydrographic surveys, laboratory tests and inspections of samples, materials, and equipment; with appropriate professional interpretation of such information or data.~~
 6. ~~Environmental assessments, audits, investigations, and impact statements, and other relevant environmental, historical, or cultural studies relevant to the Project, the Site, and adjacent areas.~~
 7. Data or consultations as **reasonably** required for the Project but not otherwise identified in this Agreement.
- E. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.
- F. Recognizing and acknowledging that Engineer's services and expertise do not include the following services, provide, as required for the Project:
1. Accounting, bond and financial advisory (including, if applicable, "municipal advisor" services as described in Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) and the municipal advisor registration rules issued by the Securities and Exchange Commission), independent cost estimating, and insurance counseling services.
 2. Legal services with regard to issues pertaining to the Project as Owner requires, Contractor raises, or Engineer reasonably requests.
 3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the money paid.
- G. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of samples, materials, and equipment required by the Construction Contract Documents (other than those required to be furnished or arranged by Contractor), or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof. Provide Engineer with the findings and reports generated by testing laboratories, including findings and reports obtained from or through Contractor.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructibility review.

- J. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.
- K. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, then designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.
- L. Inform Engineer in writing of any specific requirements of safety or security programs that are applicable to Engineer, as a visitor to the Site.
- M. Examine all alternative solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (including obtaining advice of an attorney, risk manager, insurance counselor, financial/municipal advisor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- N. Inform Engineer regarding any need for assistance in evaluating the possible use of Project Strategies, Technologies, and Techniques, as defined in Exhibit A.
- O. Advise Engineer as to whether Engineer's assistance is requested in identifying opportunities for enhancing the sustainability of the Project.
- P. Place and pay for advertisement for Bids in appropriate publications.
- Q. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.
- R. Attend and participate in the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Site visits to determine Substantial Completion and readiness of the completed Work for final payment.
- S. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement, as required.
- T. Perform or provide the following: **None**

- B2.02 Owners are ultimately responsible for compliance with Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference and will be responsible for the following:**
- A. Sign loan resolutions, grant agreements and letters of intent to meet conditions which include American Iron and Steel language, accepting American Iron and Steel requirements in those documents and in the letter of conditions.**
 - B. Sign change orders (i.e. C-941 of EJCDC) and partial payment estimates (i.e. C-620 of EJCDC) and thereby acknowledge responsibility for compliance with American Iron and Steel requirements.**
 - C. Obtain the certification letters from the Engineer upon Substantial Completion of the project and maintain this documentation for the life of the loan.**
 - D. Where the Owner directly procures American Iron and Steel products,**
 - 1. Include American Iron and Steel clauses in the procurement contracts;**
 - 2. Obtain Manufacturers' Certifications; and**
 - 3. Provide copies to Engineers and Contractors.**

This is **EXHIBIT C**, consisting of **4** pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated **May 21, 2021**.

Payments to Engineer for Services

Article 2 of the Agreement is supplemented to include the following agreement of the parties:

ARTICLE 2 – OWNER’S RESPONSIBILITIES

C2.01 *Compensation for Basic Services (~~other than Resident Project Representative~~) – Lump Sum Method of Payment*

A. Owner shall pay Engineer for Basic Services set forth in Exhibit A, except for services of Engineer’s Resident Project Representative, if any, as follows:

1. A Lump Sum amount of **\$4,131,673** based on the following estimated distribution of compensation (**a detailed labor breakdown has been included**):

a. Study and Report Phase	\$963,000
b. Preliminary Design Phase	\$1,165,950
c. Final Design Phase	\$885,390
d. Bidding Phase	\$75,000
e. Construction Phase	\$515,000
f. Post-Construction Phase	\$138,000
g. Resident Project Representative	\$389,333

2. Engineer may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the total Lump Sum amount unless approved in writing by the Owner **and Agency**.

3. The Lump Sum includes compensation for Engineer’s services and services of Engineer’s Consultants, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor costs, overhead, profit, expenses (other than any expressly allowed Reimbursable Expenses), and Consultant charges.

a. **Where efforts and/or Engineer’s Consultant budgets are unknown at the effective date of this contract, a budget allowance has been provided and indicated within Appendix 1 of Exhibit A Engineer’s Services – Detailed Scope of Work and in the included Labor Breakdown.**

1) **Engineer’s allowance tasks and/or subtasks will be billed by hours expended.**

2) For any Engineer's Consultant work required, a detailed proposal from the Consultant will be obtained and reviewed by TRSD & Agency for approval/concurrence prior to use of the allowance budget. The budget billed by the Engineer will be cost plus 10%.

4. [Deleted]

5. The portion of the Lump Sum amount billed for Engineer's services will be based upon Engineer's estimate of the percentage of the total services actually completed during the billing period. If any Reimbursable Expenses are expressly allowed, Engineer may also bill for any such Reimbursable Expenses incurred during the billing period.

B. *Period of Service:* The compensation amount stipulated above in ~~Compensation Packet BC-1~~ is conditioned on a period of service not exceeding **thirty-six (36)** months. If such period of service is extended, the compensation amount for Engineer's services shall be appropriately adjusted **with concurrence of the Owner and Agency.**

C2.02 Invoicing & Payments

A. **Engineer will include on its monthly pay applications (invoice) two payment designations:**

1. **USDA-RD Colonia Grant**

a. **Amount owed to Engineer that will be paid using the USDA-RD Colonia Grant that has been appropriated for the Project.**

2. **Deferred Payment**

a. **At the time of this Agreement execution, TRSD has not yet obtained a Bridge Loan.**

1) **For services rendered, but not covered by USDA-RD Colonia Grant, Engineer will invoice and accept deferred payments as described in this paragraph. Engineer will allow six (6) months interest free deferred payments to allow time for Owner to obtain a Bridge Loan. After six (6) months, amount owed to Engineer for deferred payments will accrue interest at an annual rate of 2% to be paid at the calculated value (amount due plus accrued interest) at the construction contract award when the Interim Loan is received. If a Bridge Loan is obtained prior to the construction contract award, any deferred payments at the calculated value (amount due plus accrued interest) will be paid immediately to bring account current and all subsequent invoices will no longer be deferred and will be paid monthly with these loan funds.**

b. **A payment tracker will be developed to document all payments made and deferred.**

C2.03 Compensation for Resident Project Representative Basic Services – Lump Sum Method of Payment

A. **Owner shall pay Engineer for Resident Project Representative Basic Services as follows:**

1. *Resident Project Representative Services:* For services of Engineer's Resident Project Representative, if any, under Paragraph A1.05 of Exhibit A, the Lump Sum amount of

Exhibit C – Compensation.

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\$389,333. The Lump Sum includes compensation for the Resident Project Representative's services. **Engineer represents that** appropriate amounts have been incorporated in the Lump Sum to account for labor costs, overhead, profit, and expenses (other than any expressly allowed Reimbursable Expenses) related to the Resident Project Representative's Services.

2. *Reimbursable Expenses:* Included in the Lump Sum amount in C2.03.A.1 above, Engineer is also entitled to reimbursement from Owner for the following RPR Reimbursable Expenses **including, but not limited to (see Appendix 1 of this Exhibit C for rates or charges): None.**
3. *Resident Project Representative Schedule:* The Lump Sum amount set forth in Paragraph C2.04.A.1 above is based on full-time RPR services on an eight-hour workday Monday through Friday over a **fourteen (14) month** construction schedule. Modifications to the schedule shall entitle Engineer to an equitable adjustment of compensation for RPR services. **Changes will not be effective unless and until concurred in by the Owner and Agency in writing.**

C2.04 Compensation for Additional Services – Standard Hourly Rates Method of Payment

A. Owner shall pay Engineer for Additional Services, if any, as follows:

1. *General:* For services of Engineer's personnel engaged directly on the Project pursuant to Paragraph A2.01 or A2.02 of Exhibit A, except for services as a consultant or witness under Paragraph A2.01.A.20, (which if needed shall be separately negotiated based on the nature of the required consultation or testimony) an amount equal to the cumulative hours charged to the Project by each class of Engineer's personnel times Standard Hourly Rates for each applicable billing class for all Additional Services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.
2. **The Standard Hourly Rates Schedule will be adjusted annually (as of January 1, 2021) to reflect equitable changes in the compensation payable to Engineer. Changes will not be effective unless and until concurred in by the Owner and Agency in writing.**

B. *Compensation For Reimbursable Expenses:*

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under Paragraph C2.01 and are directly related to the provision of Additional Services, Owner shall pay Engineer at the rates set forth in Appendix 1 to this Exhibit C.
2. Reimbursable Expenses include the expenses identified in Appendix 1 and the following categories: transportation (including mileage), lodging, and subsistence incidental thereto; providing and maintaining field office facilities including furnishings and utilities; toll telephone calls, mobile phone charges, and courier charges; reproduction of reports, Drawings, Specifications, bidding-related or other procurement documents, Construction Contract Documents, and similar Project-related items; and Consultants' charges. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for the use of highly specialized equipment.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be the Additional Services-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such Additional Services, the latter multiplied by a factor of **1.1**.
4. The Reimbursable Expenses Schedule will be adjusted annually (as of **January 1, 2021**) to reflect equitable changes in the compensation payable to Engineer. **Changes will not be effective unless and until concurred in by the Owner and Agency in writing.**

C. *Other Provisions Concerning Payment for Additional Services:*

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer **at cost plus 10%**.
2. *Factors:* The external Reimbursable Expenses and Engineer's Consultant's Factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.
3. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner **at no cost**.

LABOR BREAKDOWN

ACTIVITY DESCRIPTION PACE Task Number	Principal	Sr. Project Manager	Consulting Engineer	Sr. GIS Analyst	Project Engineer	Design Engineer	Sr. CAD Designer	CAD Designer/ GIS Analyst	Graphics Designer	Project Coordinator	Total Cost	Billing Term
	Rates	\$255	\$225	\$210	\$215	\$160	\$130	\$140	\$110	\$110	\$95	
Funding Assistance	\$ 10,200	\$ 1,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,040	\$ 15,000	
1.1 Funding Assistance	40	8								32	\$ 15,000	Allowance
Total Estimated Hours	40	8	0	0	0	0	0	0	0	32	80	
Environmental Investigations (WRF & Lift Station Locations)	\$ 3,060	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 560	\$ 880	\$ -	\$ 190	\$ 50,000	
2.1 Environmental Investigations											\$ 45,000	Allowance
2.2 Environmental Coordination	12						4	8		2	\$ 5,000	Lump Sum
Total Estimated Hours	12	0	0	0	0	0	4	8	0	2	26	
Aerial & Design Survey	\$ 10,200	\$ 5,400	\$ 6,720	\$ 10,320	\$ 3,840	\$ -	\$ 5,600	\$ 5,720	\$ -	\$ 3,040	\$ 262,500	
3.1 Aerial & Design Survey											\$ 211,660	Allowance
3.2 Aerial & Design Survey Coordination	40	24	32	48	24		40	52		32	\$ 50,840	Lump Sum
Total Estimated Hours	40	24	32	48	24	0	40	52	0	32	292	
Underground Utilities Investigation	\$ 10,200	\$ 5,400	\$ 6,720	\$ 10,320	\$ 3,840	\$ -	\$ 4,480	\$ 5,280	\$ -	\$ 3,040	\$ 257,500	
4.1 Underground Utilities Investigation											\$ 208,220	Allowance
4.2 Underground Utilities Coordination	40	24	32	48	24	0	32	48		32	\$ 49,280	Lump Sum
Total Estimated Hours	40	24	32	48	24	0	32	48	0	32	280	
Geotechnical Investigation	\$ 3,060	\$ -	\$ 3,360	\$ 1,720	\$ -	\$ -	\$ 560	\$ 880	\$ -	\$ 760	\$ 60,000	
5.1 Geotechnical Investigation											\$ 50,000	Lump Sum
5.2 Geotechnical Coordination	12		16	8	0	0	4	8		8	\$ 10,000	Lump Sum
Total Estimated Hours	12	0	16	8	0	0	4	8	0	8	56	
Right-of-Ways and Easements	\$ 77,520	\$ 25,200	\$ 49,560	\$ 79,120	\$ 14,080	\$ 6,240	\$ 21,280	\$ 30,800	\$ -	\$ 14,060	\$ 318,000	
6.1 Onsite System Evaluation	80	40	60	112	48	48	32	80		60	\$ 100,000	Lump Sum
6.2 ROW Issues Determination	80	24	56	80	40		40	64		24	\$ 75,000	Lump Sum
6.3 Non-Frontage ROW / Easement Acquisition	64	16	56	80			32	56		32	\$ 63,000	Lump Sum
6.4 Railroad Easement Coordination	40	16	32	48			24	40		16	\$ 40,000	Lump Sum
6.5 Railroad Easement Documentation	40	16	32	48			24	40		16	\$ 40,000	Lump Sum
Total Estimated Hours	304	112	236	368	88	48	152	280	0	148	1736	
STUDY & REPORT PHASE SUBTOTAL											\$ 963,000	
Preliminary Design Management	\$ 72,420	\$ 12,600	\$ 23,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,920	\$ 120,000	
10.1 General Design Management	172	16	24							96	\$ 56,580	Lump Sum
10.2 Scheduling	24	24	24								\$ 16,560	Lump Sum
10.3 Progress Meetings	56	16	56							16	\$ 29,700	Lump Sum
10.4 Board Meetings	32		32							24	\$ 17,160	Lump Sum
Total Estimated Hours	284	56	112	0	0	0	0	0	0	136	588	
Preliminary Collection System Design	\$ 71,400	\$ 44,100	\$ 52,920	\$ 49,020	\$ 79,360	\$ 79,040	\$ 110,880	\$ 252,120	\$ -	\$ 13,680	\$ 752,678	
11.1 Planning	60	32	32	48			32	40			\$ 48,578	Lump Sum
11.2 Coordination	60	32	32	24		80				120	\$ 56,180	Lump Sum
11.3 Preliminary Design 60%	80	48	92		496	480	560	2080			\$ 499,480	Lump Sum
11.4 GIS	16	16	16	96			80	80			\$ 51,680	Lump Sum
11.5 Modeling	32	60	32	60			72	92			\$ 61,480	Lump Sum
11.6 QAQC	16	4	24			24	24			8	\$ 17,260	Lump Sum
11.7 Final 60% Preliminary Design Package	16	4	24			24	24			16	\$ 18,020	Lump Sum
Total Estimated Hours	280	196	252	228	496	608	792	2292	0	144	5288	
Preliminary Lift Station Design	\$ 7,140	\$ 2,250	\$ 10,920	\$ 5,590	\$ -	\$ 520	\$ 5,600	\$ 10,560	\$ -	\$ 1,140	\$ 43,664	
12.1 Preliminary Design 60%	24	4	40	24			40	96		2	\$ 36,874	Lump Sum
12.2 QAQC	2	4	4							2	\$ 2,440	Lump Sum
12.3 Final 60% Preliminary Design Package	2	2	8	2		4				8	\$ 4,350	Lump Sum
Total Estimated Hours	28	10	52	26	0	4	40	96	0	12	268	
Preliminary TRSD WRF Design	\$ 14,790	\$ 2,250	\$ 30,660	\$ 860	\$ 18,560	\$ 7,280	\$ 12,320	\$ 29,040	\$ -	\$ 5,510	\$ 130,538	
13.1 Conceptual Design	16	4	8	4			8	16			\$ 10,400	Lump Sum
13.2 Performance Specification	16		48		56	32				24	\$ 29,560	Lump Sum
13.3 Preliminary Design 60%	16		72		60	24	72	224		16	\$ 68,428	Lump Sum
13.5 Structural Design 60%											\$ 9,000	Lump Sum
13.6 QAQC	2	2	2							2	\$ 1,570	Lump Sum
13.7 Final 60% Preliminary Design Package	8	4	16				8	24		16	\$ 11,580	Lump Sum
Total Estimated Hours	58	10	146	4	116	56	88	264	0	58	800	
Preliminary Service Connection Design	\$ 11,220	\$ 9,000	\$ 20,160	\$ -	\$ 5,120	\$ 4,160	\$ 7,840	\$ 15,840	\$ -	\$ 760	\$ 74,070	
14.1 Data Gathering	8		4		8	8	4	16		4	\$ 7,900	Lump Sum
14.2 Develop TRSD Connection & Abandonment Standards	8	8	24		8	8	16	24			\$ 16,050	Lump Sum
14.3 Coordination with Gila county	16	4	16							4	\$ 8,720	Lump Sum
14.4 Preliminary Design 60%	8	24	48		16	16	32	96			\$ 37,200	Lump Sum
14.5 QAQC	4	4	4				4	8			\$ 4,200	Lump Sum
Total Estimated Hours	44	40	96	0	32	32	56	144	0	8	452	
Expenses											\$ 45,000	
15 Expenses - Preliminary Design Phase											\$ 45,000	Lump Sum
PRELIMINARY DESIGN PHASE SUBTOTAL											\$ 1,165,950	
Final Design Management	\$ 48,960	\$ 9,000	\$ 18,480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,800	\$ 80,000	
20.1 General Design Management	112	16	24							24	\$ 39,240	Lump Sum
20.2 Scheduling	24	16	16								\$ 13,080	Lump Sum
20.3 Progress Meetings	32	8	32							8	\$ 17,440	Lump Sum
20.4 Board Meetings	24		16							8	\$ 10,240	Lump Sum
Total Estimated Hours	192	40	88	0	0	0	0	0	0	40	360	
Final Collection System Design	\$ 44,880	\$ 32,400	\$ 72,240	\$ 31,820	\$ -	\$ 18,980	\$ 63,280	\$ 127,600	\$ -	\$ 14,060	\$ 405,822	
21.1 Coordination	48	24	32	16						56	\$ 33,120	Lump Sum
21.2 Final Design 90%	32	32	80	72			320	840		8	\$ 186,162	Lump Sum
21.3 Design Report 90%	16	8	60			40	8	16		24	\$ 28,840	Lump Sum
21.4 Technical Specifications 90%	16	16	48			64				24	\$ 28,360	Lump Sum
21.5 Final Design 100%	32	32	60	40			120	280		16	\$ 85,680	Lump Sum
21.6 Design Report 100%	4	4	24	4			4	8		4	\$ 9,640	Lump Sum
21.7 Technical Specifications 100%	4	4	16			26				8	\$ 9,420	Lump Sum
21.8 QAQC	8	8	8	8		8		8		4	\$ 9,540	Lump Sum
21.9 Final 100% Final Design Package	16	16	16	8		8		8		4	\$ 15,060	Lump Sum
Total Estimated Hours	176	144	344	148	0	146	452	1160	0	148	2718	
Final Lift Station Design	\$ 2,550	\$ 2,250	\$ 16,170	\$ 860	\$ 3,840	\$ 2,600	\$ 3,640	\$ 7,920	\$ -	\$ 1,995	\$ 41,336	
22.1 Final Design 90%	2	2	24		24		16	56		4	\$ 18,457	Lump Sum
22.2 Design Report 90%	1	1	16				2	4		2	\$ 4,750	Lump Sum
22.3 Technical Specifications 90%	1	1	8			16				4	\$ 4,620	Lump Sum
22.4 Final Design 100%	1	1	16	2			8	8		2	\$ 6,460	Lump Sum
22.5 Design Report 100%	1	1	4					2		1	\$ 1,635	Lump Sum
22.6 Technical Specifications 100%	1	1	2			4				2	\$ 1,610	Lump Sum
22.7 QAQC	2	2	2							2	\$ 1,340	Lump Sum
22.8 Final 100% Final Design Package	1	1	5	2				2		4	\$ 2,464	Lump Sum
Total Estimated Hours	10	10	77	4	24	20	26	72	0	21	264	
Final TRSD WRF Design	\$ 7,650	\$ 6,075	\$ 22,260	\$ 1,720	\$ 320	\$ 12,480	\$ 8,960	\$ 20,240	\$ -	\$ 4,180	\$ 89,462	
23.1 Final Design 90%	16	16	40	8			40	120		4	\$ 39,749	Lump Sum
23.2 Structural Design 90%											\$ 4,500	Lump Sum
23.3 Design Report 90%	2	1	16			16	2	4		16	\$ 8,415	Lump Sum
23.4 Technical Specifications 90%	2	2	16			24				8	\$ 8,200	Lump Sum
23.5 Final Design 100%	2	2	16			16	16	40		4	\$ 13,348	Lump Sum
23.6 Structural Design 100%											\$ 1,500	Lump Sum
23.7 Design Report 100%	1	1	4			8		2		2	\$ 2,770	Lump Sum
23.8 Technical Specifications 100%	1	1	4			8				4	\$ 2,740	Lump Sum
23.9 QAQC	2	2	2		2		2	2		2	\$ 2,390	Lump Sum
23.10 Final Documents	4	2	8			4	4	16		4	\$ 5,850	Lump Sum
Total Estimated Hours	30	27	106	8	2	96	64	184	0	44	561	
Final Service Connection Design	\$ 8,670	\$ 5,400	\$ 12,600	\$ -	\$ 4,160	\$ 1,300	\$ 7,000	\$ 9,020	\$ -	\$ 1,330	\$ 49,380	
24.1 Final Design 90%	16	8	16		8		24	40			\$ 18,280	Lump Sum
24.2 Final Design 100%	8	8	8		8		16	24			\$ 11,680	Lump Sum
24.3 Specification 100%	4	2	16			8				8	\$ 6,630	Lump Sum
24.4 QAQC	4	4	4		2	2</						

ACTIVITY DESCRIPTION PACE Task Number		Principal	Sr. Project Manager	Consulting Engineer	Sr. GIS Analyst	Project Engineer	Design Engineer	Sr. CAD Designer	CAD Designer/ GIS Analyst	Graphics Designer	Project Coordinator	Total Cost	Billing Term
Rates		\$255	\$225	\$210	\$215	\$160	\$130	\$140	\$110	\$110	\$95		
District Policies and Procedures Standards		\$ 5,100	\$ 4,500	\$ 3,360	\$ 6,880	\$ 2,560	\$ -	\$ 2,520	\$ 2,200	\$ 1,760	\$ 1,140	\$ 30,000	
30.1	Data Gathering	4	8	8	8			2	4		4	\$ 7,320	Lump Sum
30.2	Develop TRSD Policies and Procedures Standards	8	8	4	8	8		8	8	8	4	\$ 10,940	Lump Sum
30.3	Design Standards	8	4	4	16	8		8	8	8	4	\$ 11,740	Lump Sum
Total Estimated Hours		20	20	16	32	16	0	18	20	16	12	170	
Expenses													
31	Expenses - Final Design Phase												
												\$ 45,000	
												\$ 45,000	Lump Sum
FINAL DESIGN PHASE SUBTOTAL												\$ 885,390	
Bid Services		\$ 22,440	\$ 10,800	\$ 21,840	\$ -	\$ 7,680	\$ 1,040	\$ 2,660	\$ 2,090	\$ -	\$ 6,840	\$ 75,000	
40.1	Bid Package Preparation (3 packages)	24	24	40		16		19	19		40	\$ 31,030	Lump Sum
40.2	Pre-Bid Conference Coordination & Moderation	24		24							8	\$ 11,920	Lump Sum
40.3	Response to RFIs & Issue Addenda	24	8	32		24					16	\$ 19,610	Lump Sum
40.4	Bid Evaluations & Recommendation	16	16	8		8	8				8	\$ 12,440	Lump Sum
Total Estimated Hours		88	48	104	0	48	8	19	19	0	72	406	
BIDDING PHASE SUBTOTAL												\$ 75,000	
Project PM / EOR Progress Meetings		\$ 18,360	\$ -	\$ 21,840	\$ -	\$ 3,840	\$ -	\$ -	\$ -	\$ -	\$ 3,800	\$ 48,000	
50.1	Project PM / EOR Progress Meetings & General Coordination	72		104		24					40	\$ 48,000	Lump Sum
Total Estimated Hours		72	0	104	0	24	0	0	0	0	40	240	
Construction Support													
												\$ 292,000	
52.1	Clerical Support (14 months for RPR support)										360	\$ 35,080	Lump Sum
52.2	Engineering Support (14 months for RPR support)	24	120	140		280	320					\$ 148,920	Lump Sum
52.3	Onsite Observation Support (14 months for RPR support)											\$ 108,000	Lump Sum
Special Inspections													
53.1	Special Inspections	SUBCONSULTANT (TBD)											
												\$ 25,000	Allowance
Startup & Commissioning		\$ 16,320	\$ -	\$ 13,440	\$ -	\$ 11,520	\$ 9,360	\$ -	\$ -	\$ -	\$ -	\$ 50,000	
54.1	Startup & Commissioning (2 weeks)	64		64		72	72					\$ 50,000	Lump Sum
Total Estimated Hours		64	0	64	0	72	72	0	0	0	0	272	
Expenses													
55	Expenses - Construction & Post Construction Phase												
												\$ 100,000	Lump Sum
CONSTRUCTION PHASE SUBTOTAL												\$ 515,000	
Post Construction Management & Coordination		\$ 30,600	\$ -	\$ 16,800	\$ 17,200	\$ -	\$ -	\$ 5,600	\$ 5,280	\$ 4,400	\$ 4,940	\$ 85,000	
60.1	Post Construction Management & Coordination	72		40							40	\$ 30,740	Lump Sum
60.2	Engineering Completion Certificates (Substantial & Final)	16		16							4	\$ 7,820	Lump Sum
60.3	District GIS Mapping	16		16	80			40	48	40	8	\$ 40,680	Lump Sum
60.4	10 Month Warranty Inspection	16		8								\$ 5,760	Lump Sum
Total Estimated Hours		120	0	80	80	0	0	40	48	40	52	460	
Record Drawings		\$ 4,080	\$ -	\$ 8,400	\$ -	\$ 2,560	\$ -	\$ 2,240	\$ 3,520	\$ -	\$ -	\$ 18,000	
61.1	Record Drawings (Collection System & WRF)	16		40		16		16	32			\$ 18,000	Lump Sum
Total Estimated Hours		16	0	40	0	16	0	16	32	0	0	120	
O&M Manual		\$ 6,120	\$ -	\$ 15,120	\$ -	\$ 15,360	\$ -	\$ -	\$ -	\$ -	\$ 3,040	\$ 35,000	
62.1	O&M Manual (Collection System & WRF)	24		72		96					32	\$ 35,000	Lump Sum
Total Estimated Hours		24	0	72	0	96	0	0	0	0	32	224	
POST CONSTRUCTION PHASE SUBTOTAL												\$ 138,000	
Resident Project Representative (RPR)													
51.1	RPR Construction Engineer (14 months)												
												\$ 389,333	
												\$ 389,333	Lump Sum
RESIDENT PROJECT REPRESENTATIVE SUBTOTAL												\$ 389,333	

PROJECT ENGINEERING COST SUMMARY	
STUDY & REPORT PHASE	\$ 963,000
PRELIMINARY DESIGN PHASE	\$ 1,165,950
FINAL DESIGN PHASE	\$ 885,390
BID PHASE	\$ 75,000
CONSTRUCTION PHASE	\$ 515,000
POST CONSTRUCTION PHASE	\$ 138,000
RESIDENT PROJECT REPRESENTATIVE	\$ 389,333
GRAND TOTAL	\$ 4,131,673

This is **Appendix 1 to EXHIBIT C**, consisting of **1** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Reimbursable Expenses Schedule

Reimbursable Expenses are subject to review and adjustment per Exhibit C. Rates and charges for Reimbursable Expenses as of the date of the Agreement are:

	Units	Cost
<u>Travel</u>		
Mileage (Per Mile)	Mile	\$0.56
Airfare, Auto Rental, Hotel		At Cost
Misc. Travel (Parking, tax, tolls, meals, etc.)		At Cost
Per Diem (Contract Rate)	DAY	Contract Rate
<u>Outside Reproduction</u>		
		At Cost
<u>Shipping (FedEx, UPS, Courier, etc.)</u>		
		At Cost
<u>Misc. (Review Fees, Specific Charges)</u>		
		At Cost
<u>Reproduction (In-House)</u>		
Sheet Bond - B/W Prints and Copies – All sizes (8 ½ x 11 to 12 x18)	SF	\$0.16
Sheet - Color Prints and Copies – All sizes	SF	\$1.20
Sheet - Glossy Color Print/Photo – All sizes	SF	\$2.60
Roll - Plots and Copies (Roll Paper)		
- Bond (B/W)	SF	\$0.88
- Bond (Color)	SF	\$1.56
Roll - Vellum or Mylar Plots	SF	\$2.60
Roll - Glossy Color Plot Exhibits (Roll Paper)	SF	\$3.12
<u>Report 3-Ring Binders</u>		
≤ 1.5"	EA	\$10.40
1.5" to 3"	EA	\$15.60
> 3"	EA	\$26.00
Coil or GBC Punch Binding	EA	\$1.04

This is **Appendix 2 to EXHIBIT C**, consisting of **1** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Standard Hourly Rates Schedule

A. *Standard Hourly Rates:*

1. Standard Hourly Rates are set forth in this Appendix 2 to this Exhibit C and include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.
2. The Standard Hourly Rates apply only as specified in Article C2.

B. *Schedule:*

Hourly rates for services performed on or after the date of the Agreement are:

Principal	\$255
Sr. Project Manager / Sr. Consulting Engineer	\$225
Sr. Electrical Engineer / Sr. GIS Analyst	\$215
Project Manager / Consulting Engineer / Sr. I&C Specialist	\$210
Sr. Project Engineer / Sr. Design Engineer	\$185
Instrumentation & Controls Specialist	\$155
Project Engineer / Design Engineer II	\$160
Sr. CAD Designer	\$140
Design Engineer	\$130
Graphic Designer	\$110
CAD Designer / GIS Analyst	\$110
Project Coordinator	\$95
Administrative Support	\$85
Assistant Designer	\$80
G.P.S. Survey Unit (w/ Operator)	\$240
Expert Witness / Legal Consultation	\$350 + Exp.

This is **EXHIBIT D**, consisting of **5** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Duties, Responsibilities, and Limitations of Authority of Resident Project Representative

Article 1 of the Agreement is supplemented to include the following agreement of the parties:

ARTICLE 1 - SERVICES OF ENGINEER

D1.01 Resident Project Representative

- A. Engineer shall furnish a Resident Project Representative (“RPR”) to assist Engineer in observing progress and quality of the Work. The RPR may provide full time representation or may provide representation to a lesser degree. RPR is Engineer’s representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR’s actions. **A full time Resident Project Representation is required unless requested in writing by the Owner and waived in writing by the Agency.**
- B. Through RPR’s observations of the Work, including field checks of materials and installed equipment, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. **Engineer, with the assistance of the RPR, shall monitor the work of the Constructor for adherence to the engineered plans, address any lack of compliance with the Constructor directly, and advise Owner of any such non-compliance so that Owner can, if necessary, assert any applicable contractual remedies as to the Constructor.** However, Engineer shall not, as a result of such RPR observations of the Work, supervise, direct, or have control over the Work, nor shall Engineer (including the RPR) have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, for security or safety at the Site, for safety precautions and programs incident to the Work or any Constructor’s work in progress, for the coordination of the Constructors’ work or schedules, or for any failure of any Constructor to comply with Laws and Regulations applicable to the performing and furnishing of its work. The Engineer (including RPR) neither guarantees the performances of any Constructor nor assumes responsibility for any Constructor’s failure to furnish and perform the Work, or any portion of the Work, in accordance with the Construction Contract Documents. In addition, the specific terms set forth in Exhibit A, Paragraph A1.05, of this Agreement are applicable.
- C. The duties and responsibilities of the RPR are as follows:
 - 1. *General:* RPR’s dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR’s dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
 - 2. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, schedule of values, and other schedules prepared by Contractor and consult with Engineer concerning acceptability of such schedules.

3. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
4. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
5. *Liaison:*
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Construction Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
6. *Clarifications and Interpretations:* Receive from Contractor submittal of any matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Construction Contract Documents. Report to Engineer regarding such RFIs. Report to Engineer when clarifications and interpretations of the Construction Contract Documents are needed, whether as the result of a Contractor RFI or otherwise. Transmit Engineer's clarifications, interpretations, and decisions to Contractor.
7. *Shop Drawings and Samples:*
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples that are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal, if RPR believes that the submittal has not been received from Contractor, or has not been approved by Contractor or Engineer.
8. *Proposed Modifications:* Consider and evaluate Contractor's suggestions for modifications to the Drawings or Specifications, and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit Engineer's response (if any) to such suggestions to Contractor.
9. *Review of Work; Defective Work:*

- a. Report to Engineer whenever RPR believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents, and provide recommendations as to whether such Work should be corrected, removed and replaced, or accepted as provided in the Construction Contract Documents.
- b. Inform Engineer of any Work that RPR believes is not defective under the terms and standards set forth in the Construction Contract Documents, but is nonetheless not compatible with the design concept of the completed Project as a functioning whole, and provide recommendations to Engineer for addressing such Work; and
- c. Advise Engineer of that part of the Work that RPR believes should be uncovered for observation, or requires special testing, inspection, or approval.

10. *Inspections, Tests, and System Start-ups:*

- a. Consult with Engineer in advance of scheduled inspections, tests, and systems start-ups.
- b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
- d. Observe whether Contractor has arranged for inspections required by Laws and Regulations, including but not limited to those to be performed by public or other agencies having jurisdiction over the Work.
- e. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work, record the results of these inspections, and report to Engineer.

11. *Records:*

- a. Maintain at the Site orderly files for correspondence, reports of job conferences, copies of Construction Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Construction Contract, RFIs, Engineer's clarifications and interpretations of the Construction Contract Documents, progress reports, approved Shop Drawing and Sample submittals, and other Project-related documents.
- b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

- c. Upon request from Owner to Engineer, photograph or video Work in progress or Site conditions.
- d. Record and maintain accurate, up-to-date lists of the names, addresses, fax numbers, e-mail addresses, websites, and telephone numbers (including mobile numbers) of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- e. Maintain records for use in preparing Project documentation.
- f. Upon completion of the Work, furnish original set of all RPR Project documentation to Engineer.
- g. Maintain all Manufacturers' Certifications in the project file and on-site during construction to ensure compliance with AIS, as applicable.

12. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. **[Deleted]**
- c. Furnish to Engineer and Owner copies of all inspection, test, and system start-up reports.
- d. Immediately inform Engineer **and Owner** of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, possible force majeure or delay events, damage to property by fire or other causes, or the discovery of any potential differing site condition or Constituent of Concern.

13. *Payment Requests:* Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

14. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

15. *Completion:*

- a. Participate in Engineer's visits to the Site regarding Substantial Completion, assist in the determination of Substantial Completion, and prior to the issuance of a Certificate of Substantial Completion submit a punch list of observed items requiring completion or correction.

- b. Participate in Engineer's visit to the Site in the company of Owner and Contractor, to determine completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - c. Observe whether all items on the final punch list have been completed or corrected, and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work (Exhibit E).
- D. Resident Project Representative shall not:
- 1. Authorize any deviation from the Construction Contract Documents or substitution of materials or equipment (including "or-equal" items).
 - 2. Exceed limitations of Engineer's authority as set forth in this Agreement.
 - 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers, or any Constructor.
 - 4. Advise on **Contractor**, issue directions **to Contractor** relative to, or assume control over any aspect of the **Contractors'** means, methods, techniques, sequences or procedures of the Work, by Contractor or any other Constructor.
 - 5. Advise **Owner and Contractor** on, issue directions **to Owner and Contractor** regarding, or assume control over security or safety practices, precautions, and programs **of Owner and Contractor** in connection with the activities or operations of Owner or Contractor.
 - 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 - 7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
 - 8. Authorize Owner to occupy the Project in whole or in part.

This is **EXHIBIT E**, consisting of **2** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.



NOTICE OF ACCEPTABILITY OF WORK

PROJECT: TRSD Phase I Wastewater Collection and Treatment System

OWNER: Tri-City Regional Sanitary District (TRSD)

CONTRACTOR:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION: TRSD Phase I Wastewater Collection and Treatment System

EFFECTIVE DATE OF THE CONSTRUCTION CONTRACT:

ENGINEER: Pacific Advanced Civil Engineering, Inc. (PACE)

NOTICE DATE:

To: _____
Owner

And To: _____
Contractor

From: _____
Engineer

The Engineer hereby gives notice to the above Owner and Contractor that Engineer has recommended final payment of Contractor, and that the Work furnished and performed by Contractor under the above Construction Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated **May 21, 2021**, and the following terms and conditions of this Notice:

CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work (“Notice”) is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer’s professional opinion.
3. This Notice is given as to the best of Engineer’s knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor’s work) under Engineer’s Agreement with Owner, and applies only to facts that are within Engineer’s knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement.
5. This Notice is not a guarantee or warranty of Contractor’s performance under the Construction Contract, an acceptance of Work that is not in accordance with the related Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Construction Contract Documents, or to otherwise comply with the Construction Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner’s reservations of rights with respect to completion and final payment.

By: _____

Title: _____

Dated: _____

DELETED – NOT USED

This is **EXHIBIT G**, consisting of **2** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Insurance

Paragraph 6.05 of the Agreement is supplemented to include the following agreement of the parties:

G6.05 Insurance

E. The limits of liability for the insurance required by Paragraph 6.05.A and 6.05.B of the Agreement are as follows:

1. By Engineer:

- a. Workers' Compensation: Statutory
- b. Employer's Liability --
 - 1) Bodily injury, each accident: **\$1,000,000**
 - 2) Bodily injury by disease, each employee: **\$1,000,000**
 - 3) Bodily injury/disease, aggregate: **\$1,000,000**
- c. General Liability --
 - 1) Each Occurrence
(Bodily Injury and Property Damage): **\$1,000,000**
 - 2) General Aggregate: **\$2,000,000**
- d. Excess or Umbrella Liability --
 - 1) Per Occurrence: **\$5,000,000**
 - 2) General Aggregate: **\$5,000,000**
- e. Automobile Liability --Combined Single Limit (Bodily Injury and Property Damage):
\$1,000,000
- f. Professional Liability --
 - 1) Each Claim Made **\$3,000,000**
 - 2) Annual Aggregate **\$6,000,000**

2. By Owner:

- a. Workers' Compensation: Statutory
- b. Employer's Liability --
 - 1) Bodily injury, Each Accident **\$1,000,000**
 - 2) Bodily injury by Disease, Each Employee **\$1,000,000**
 - 3) Bodily injury/Disease, Aggregate **\$1,000,000**

Exhibit G – Insurance.

- c. General Liability --
 - 1) General Aggregate: **\$1,000,000**
 - 2) Each Occurrence
(Bodily Injury and Property Damage): **\$2,000,000**

- d. Excess Umbrella Liability
 - 1) Per Occurrence: **\$5,000,000**
 - 2) General Aggregate: **\$5,000,000**

- e. Automobile Liability – Combined Single Limit (Bodily Injury and Property Damage):
\$1,000,000

F. *Additional Insureds:*

1. The following individuals or entities are to be listed on Owner’s general liability policies of insurance as additional insureds:
 - a. **Pacific Advanced Civil Engineering, Inc. (PACE)**
Engineer
 - b. **Dibble & Associates Consulting Engineering, Inc.**
Engineer’s Consultant
 - c. **Western Technologies, Inc.**
Engineer’s Consultant
 - d. **Logan Simpson Design, Inc.**
Engineer’s Consultant
 - e. **PK Associates, LLC**
Engineer’s Consultant
 - f. **Matrix New World Engineering, Inc.**
Engineer’s Consultant
 - g. **Square [1] Design Group**
Engineer’s Consultant

2. During the term of this Agreement the Engineer shall notify Owner of any other Consultant to be listed as an additional insured on Owner’s general liability policies of insurance.

3. The Owner shall be listed on Engineer’s general liability policy as provided in Paragraph 6.05.A.

This is **EXHIBIT H**, consisting of **1** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Dispute Resolution

Paragraph 6.09 of the Agreement is supplemented to include the following agreement of the parties:

H6.08 *Dispute Resolution*

- A. *Mediation*: Owner and Engineer agree that they shall first submit any and all unsettled claims, counterclaims, disputes, and other matters in question between them arising out of or relating to this Agreement or the breach thereof (“Disputes”) to mediation by **Skelly, Oberbillig & Phillips, LLC**. Owner and Engineer agree to participate in the mediation process in good faith. The process shall be conducted on a confidential basis, and shall be completed within 120 days. If such mediation is unsuccessful in resolving a Dispute, then (1) the parties may mutually agree to a dispute resolution of their choice, or (2) either party may seek to have the Dispute resolved by a court of competent jurisdiction.

This is **EXHIBIT I**, consisting of **1** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

Limitations of Liability

Paragraph 6.11 of the Agreement is supplemented to include the following agreement of the parties:

A. *Limitation of Engineer's Liability*

1. *Engineer's Liability Limited to Stated Amount, or Amount of Engineer's Compensation:* To the fullest extent permitted by Laws and Regulations, and notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of Engineer and Engineer's officers, directors, members, partners, agents, employees, and Consultants, to Owner and anyone claiming by, through, or under Owner for any and all injuries, claims, losses, expenses, costs, or damages whatsoever arising out of, resulting from, or in any way related to the Project, Engineer's or its Consultants' services. or this Agreement, from any cause or causes whatsoever, including but not limited to the negligence, professional errors or omissions, strict liability, breach of contract, indemnity obligations, or warranty express or implied, of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants, shall not **be subject to a contractual limitation**. exceed the total amount of \$[] or the total compensation received by Engineer under this Agreement, whichever is greater. Higher limits are available for an additional fee.

A. *Indemnification by Owner*

1. *Indemnification by Owner:* To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, ~~and damages,~~ **and judgements** (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Owner or Owner's officers, directors, members, partners, agents, **and** employees, ~~consultants, or others retained by or under contract to the Owner with respect to this Agreement or to the Project.~~

DELETED – NOT USED

This is **EXHIBIT K**, consisting of **2** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. _____

The Effective Date of this Amendment is: _____.

Background Data

Effective Date of Owner-Engineer Agreement:

Owner:

Engineer:

Project:

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- ____ Additional Services to be performed by Engineer
- ____ Modifications to services of Engineer
- ____ Modifications to responsibilities of Owner
- ____ Modifications of payment to Engineer
- ____ Modifications to time(s) for rendering services
- ____ Modifications to other terms and conditions of the Agreement

Description of Modifications:

Here describe the modifications, in as much specificity and detail as needed. Use an attachment if necessary.

Agreement Summary:

Original agreement amount:	\$ _____
Net change for prior amendments:	\$ _____
This amendment amount:	\$ _____
Adjusted Agreement amount:	\$ _____

Change in time for services (days or date, as applicable): _____

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

OWNER:

ENGINEER:

By: _____
Print
name: _____

By: _____
Print
name: _____

Title: _____

Title: _____

Date Signed: _____

Date Signed: _____

This is **EXHIBIT L**, consisting of **2** pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated **May 21, 2021**.

ENGINEER’S AUTHORIZATION TO PROCEED (ATP)

After review and approval of services and deliverables provided to date, the Owner authorizes Engineer to proceed with the following phase(s) pending Agency concurrence where applicable.

- Study and Report Phase
- Preliminary Design Phase
- Final Design Phase
 - Collection System
 - Basin 1 Main/Railroad
 - Basin 2 Broadway/Starview
 - Basin 3 Old Oak Street
 - Basin 4 Pineway
 - Basin 5 Grover Canyon
 - Basin 6 Main/Railroad
 - Basin 7 New Street
 - Basin 8 Calle de Loma
 - Basin 9 Marion Street
 - Basin 10 Mill Street
 - Lift Station
 - WRF
 - Residential Service Connections
- Bidding Phase
 - Collection System
 - Lift Station & WRF
 - Residential Service Connections
- Construction Phase
 - Collection System
 - Lift Station & WRF
 - Residential Service Connections
- Post Construction Phase
 - Collection System
 - Lift Station & WRF

_____ Residential Service Connections

OWNER:

By: _____

Print name: _____

Title: _____

Date Signed: _____

ENGINEER AGREEMENT CERTIFICATION

PROJECT NAME: TRSD Phase I Wastewater Collection and Treatment System

The Engineer and Owner hereby concur in the Funding Agency acceptable revisions to E-500 identified in RUS Bulletin 1780-26. In addition, Engineer certifies to the following:

All modifications to E-500 have been made in accordance the terms of the license agreement, which states in part that the Engineer "must plainly show all changes to the Standard EJCDC Text, using 'Track Changes' (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions." Such other means may include attachments indicating changes (e.g. Supplementary Conditions modifying the General Conditions).

SUMMARY OF ENGINEERING FEES

Note that the fees indicated on this table are only a summary and if there is a conflict with any provision of Exhibit C, the provisions there overrule the values on this table. Fees shown in will not be exceeded without the concurrence of the Agency.

Basic Services	\$ <u>3,742,340</u>
Resident Project Observation	\$ <u>389,333</u>
Additional Services	\$ <u>0</u>
TOTAL:	\$ <u>4,131,673</u>

Any adjustments to engineering fees or changes to maximum estimated values must be approved by the Agency and must include a table of what specific category or categories of fees are being changed, what fees were before and after the change, and the resulting total fee.

Michael G. Krebs 05/21/21

 Engineer Date

Michael G. Krebs, PE - Vice President of Environmental Water

 Name and Title

RB 05.21.21

 Owner Date

 Name and Title

Agency Concurrence:

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

7-26-2021

 Agency Representative Date

Lam Ho, USDA-RD, State Engineer

 Name and Title



United States Department of Agriculture

AD-1048

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
 Lower Tier Covered Transactions**

The following statement is made in accordance with the Privacy Act of 1974 (5 U.S.C. § 552(a), as amended). This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, and 2 C.F.R. §§ 180.300, 180.355, Participants' responsibilities. The regulations were amended and published on August 31, 2005, in 70 Fed. Reg. 51865-51880. Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the proposed covered transaction.

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0505-0027. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud privacy, and other statutes may be applicable to the information provided.

(Read Instructions On Page Two Before Completing Certification)

- A. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
- B. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

ORGANIZATION NAME		PR/AWARD NUMBER OR PROJECT NAME	
Pacific Advanced Civil Engineering, Inc. (PACE)		TRSD Phase I Wastewater Collection & Treatment System	
NAME(S) AND TITLE(S) OF AUTHORIZED REPRESENTATIVE(S)			
Michael G. Krebs PE, Vice President, Environmental Water Division			
SIGNATURE(S)		DATE	
		05/21/21	

Instructions for Certification


- (1) By signing and submitting this form, the prospective lower tier participant is providing the certification set out on page 1 in accordance with these instructions.
- (2) The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension or debarment.
- (3) The prospective lower tier participant shall provide immediate written notice to the person(s) to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (4) The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549, at 2 C.F.R. Parts 180 and 417. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
- (5) The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- (6) The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- (7) A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the System for Award Management (SAM) database.
- (8) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (9) Except for transactions authorized under paragraph (5) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS

The undersigned certifies, 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 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 or Federal loan, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant or loan.
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 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 or loan, the undersigned shall complete and submit Standard Form – LLL, “Disclosure of Lobbying Activities,” in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients shall certify and disclose accordingly.

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.

 Michael G. Krebs, PE _____ 05/21/21 _____
(Name) (Date)

Vice President, Environmental Water Division
(Title)