AGREEMENT FOR SERVICES

THIS AGREEMENT ("AGREEMENT") is made and entered into this _____ day of_____, _____, by and between the CITY OF MANTECA, a municipal corporation of the State of California (hereinafter referred to as "CITY"), and

Kleinfelder Inc.
Consultant

2001 Arch Airport Road Suite 100	Stockton	CA	95206
MAILING ADDRESS	CITY	STATE	ZIP

a California (State of inception) Corporation (business structure)

STATE LICENSE CLASSIFICATION & NUMBER (if required)
hereinafter referred to as "CONSULTANT".

WITNESSETH:

A. WHEREAS, CITY desires to enter into this Agreement for services for Well 22 Treatment Facility

B. WHEREAS, CITY desires to retain CONSULTANT to provide these services by reason of its qualifications, applicable license(s), and experience for performing such services, and CONSULTANT has offered to provide the required services on the terms and in the manner set forth herein.

NOW, THEREFORE, in consideration of their mutual covenants, the parties hereto agree as follows:

AGREEMENT

1. SCOPE OF SERVICES:

A. Consultant shall do all work, attend all meetings, produce all reports and carry out all activities necessary to complete the services described in **Exhibit "A"**. This AGREEMENT and its exhibits shall be known as the "Agreement Documents". Terms set forth in any Agreement Document shall be deemed to be incorporated in all Agreement Documents as if set forth in full herein. In the event of conflict between terms contained in these Agreement Documents, the more specific term shall govern. If any portion of the Agreement Documents is in conflict with any other portion or provisions contained in the AGREEMENT, the AGREEMENT shall govern over the conflicting provisions contained in the exhibits to the AGREEMENT. To eliminate doubt, in the case of conflict between Consultant's proposal or Consultant's attachments and the City's AGREEMENT and attachments, the City's AGREEMENT and attachments shall take precedence over Consultant's proposal and attachments.

B. Consultant enters into this AGREEMENT as an independent contractor and not as an employee of the City. The Consultant shall have no power or authority by this AGREEMENT to bind the City in any respect. Nothing in this AGREEMENT shall be construed to be inconsistent with this relationship or status. All employees, agents, contractors or subcontractors hired or retained by the Consultant are employees, agents, contractors or subcontractors of the Consultant and not of the City. The City shall not be obligated in any way to pay any wage claims or other claims made against Consultant by any such employees, agents, contractors or subcontractors, or any other person resulting from performance of this AGREEMENT.

C. The Consultant agrees it has satisfied itself by its own investigation and research regarding the conditions affecting the work to be done and labor and materials needed, and that its decision to execute this AGREEMENT is based on such independent investigation and research.

2. TERM OF AGREEMENT

A. The services of Consultant are to commence upon execution of this Agreement and shall be completed and this AGREEMENT terminated on June 30, 2028, unless otherwise extended in writing by the mutual agreement of both parties.

B. The City Manager or designee may, by written instrument signed by the Parties, extend the duration of this AGREEMENT in the manner provided in Section 5, provided that the extension does not require the payment of compensation in excess of the maximum compensation set forth in Section 3, Compensation.

C. The Agreement Deliverables are as follows:

Deliverables	Date
Project Kickoff Meeting	Week of January 12, 2026
Water Quality Bench Scale Testing(s)	Week of March 23, 2026
Water Quality Technology Assessment	Week of March 30, 2026
Capital Cost Estimate	Week of February 25, 2026

Payment for services shall be made upon City's approval of deliverables. Deliverables are subject to change upon continuation of project.

3. COMPENSATION:

A. The Consultant shall be paid in accordance to the attached Fee Schedule in **Exhibit "C"**. Consultant charges separately for certain costs incurred in the representation, as well as for any disbursements to third parties made on City's behalf. Such costs and disbursements include, for example, the following: mileage (at the IRS rate in effect at the time the travel occurs), overnight delivery and messenger services. Consultant shall be reimbursed for expenses related to travel, for example (flights, hotels, meals). However, Consultant shall not make travel arrangements or incur costs on behalf of City without prior written authorization to

incur said expenses and in no event shall total compensation under this AGREEMENT exceed $200,000 without City's prior written approval.

B. Said amount shall be paid upon submittal of monthly billings showing completion of the tasks that month. Consultant shall furnish City with invoices for all expenses as well as for all materials authorized by this AGREEMENT. The invoices shall be submitted with the monthly billings.

C. If the work is temporarily suspended at the request of the City, compensation shall be based upon the portion of work completed as of the date of the suspension , subject to Section 4.

4. TERMINATION:

A. This AGREEMENT may be terminated by either party, provided that the other party is given not less than thirty (30) calendar days' written notice (delivered by registered mail) of intent to terminate.

B. The City may temporarily suspend this AGREEMENT, at no additional cost to City, provided that the Consultant is given written notice (delivered by certified mail, return receipt requested) of temporary suspension. If City gives such notice of temporary suspension, Consultant shall immediately suspend its activities under this AGREEMENT.

C. Notwithstanding any provisions of this AGREEMENT, Consultant shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this AGREEMENT by Consultant, and the City may withhold any payments due to Consultant until such time as the exact amount of damages, if any, due the City from Consultant is determined.

D. In the event of termination, the Consultant shall be compensated as provided for in this AGREEMENT, except as provided in Section 4C. Upon termination, the City shall be entitled to all final work and draft work, including but not limited to, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date in accordance with Section 7 herein.

5. AMENDMENTS, CHANGES OR MODIFICATIONS:

Amendments, changes or modifications in the terms of this AGREEMENT may be made at any time by mutual written agreement between the parties hereto and shall be signed by the persons authorized to bind the parties hereto.

6. EXTENSIONS OF TIME:

Consultant may, for good cause, request extensions of time to perform the services required herein. Such extensions shall be authorized in advance by the City in writing and shall be incorporated in written amendments to this AGREEMENT in the manner provided in Section 5.

7. PROPERTY OF CITY:

A. It is mutually agreed that all draft and final materials prepared by the Consultant under this AGREEMENT shall become the property of the City, and the Consultant shall have no property right therein whatsoever. Immediately upon termination, the City shall be entitled to, and the Consultant shall deliver to the City, all data, drawings, specifications, reports, estimates, summaries and other such materials as may have been prepared or accumulated to date by the Consultant in performing this AGREEMENT which is not Consultant's privileged information, as defined by law, or Consultant's personnel information, along with all other property belonging exclusively to the City which is in the Consultant's possession.

B. Additionally, it is agreed that the parties intend this to be an AGREEMENT for services and each considers the products and results of the services to be rendered by Consultant herein (the "Work") to be a work made for hire. Consultant acknowledges and agrees that the Work (and all rights therein, including, without limitation, copyright) belongs to and shall be the sole and exclusive property of the City.

8. COMPLIANCE WITH ALL LAWS:

A. Consultant shall comply with all applicable laws, ordinances, and codes of federal, State and local governments, and shall commit no trespass on any public or private property in performing any of the work authorized by this AGREEMENT. It shall be City's responsibility to obtain all rights of way and easements to enable Consultant to perform its services herein. Consultant shall assist City in providing the same.

B. Consultant warrants to the City that it is licensed by all applicable governmental bodies to perform this AGREEMENT and will remain so licensed throughout the progress of the Work, and that it has, and will have, throughout the progress of the Work, the necessary experience, skill and financial resources to enable it to perform this AGREEMENT.

9. WARRANTIES AND RESPONSIBILITIES - CONSULTANT:

A. Consultant agrees and represents that it is qualified to properly provide the services set forth in **Exhibit "A"** in a manner which is consistent with the generally accepted standards of Consultant's profession.

B. Consultant agrees and represents that the work performed under this AGREEMENT shall be in accordance with applicable federal, State and local law in accordance with Section 17A hereof.

C. Consultant shall designate a project manager who at all times shall represent the Consultant before the City on all matters relating to this AGREEMENT. The project manager shall continue in such capacity unless and until he or she is removed at the request of the City, is no longer employed by Consultant, or is replaced with the written approval of the City, which approval shall not be unreasonably withheld.

D. Consultant shall provide corrective services without charge to the City for services which fail to meet the above professional and legal standards and which are reported to Consultant in writing within sixty (60) days of discovery. Should Consultant fail or refuse to perform promptly its obligations, the City may render or undertake performance thereof and the Consultant shall be liable for any expenses thereby incurred**.**

10. SUBCONTRACTING:

None of the services covered by this AGREEMENT shall be subcontracted without the prior written consent of the City., which will not be unreasonably withheld. Consultant shall be fully responsible to the City for the negligent acts and omissions of its contractors and subcontractors, and of persons either directly or indirectly employed by them, as it is for the negligent acts and omissions of persons directly employed by Consultant.

11. ASSIGNABILITY:

Consultant shall not assign or transfer any interest in this AGREEMENT whether by assignment or novation, without the prior written consent of the City. However, claims for money due or to become due to Consultant from the City under this AGREEMENT may be assigned to a financial institution, or to a trustee in bankruptcy, without such approval. Notice of any assignment or transfer whether voluntary or involuntary shall be furnished promptly to the City.

12. INTEREST IN AGREEMENT:

Consultant covenants that neither it, nor any of its employees, agents, contractors, subcontractors has any interest, nor shall they acquire any interest, direct or indirect, in the subject of the AGREEMENT, nor any other interest which would conflict in any manner or degree with the performance of its services hereunder. Consultant shall make all disclosures required by the City's conflict of interest code in accordance with the category designated by the City, unless the City Manager determines in writing that Consultant's duties are more limited in scope than is warranted by the category designated by the City code and that a narrower disclosure category should apply. Consultant also agrees to make disclosure in compliance with the City conflict of interest code if, at any time after the execution of this AGREEMENT, City determines and notifies Consultant in writing that Consultant's duties under this AGREEMENT warrant greater disclosure by Consultant than was originally contemplated. Consultant shall make disclosures in the time, place and manner set forth in the conflict of interest code and as directed by the City.

13. MATERIALS CONFIDENTIAL:

All of the materials prepared or assembled by Consultant pursuant to performance of this AGREEMENT are confidential and Consultant agrees that they shall not be made available to any individual or organization without the prior written approval of the City, except by court order.

14. LIABILITY OF CONSULTANT-NEGLIGENCE:

Consultant shall be responsible for performing the work under this AGREEMENT in a manner which is consistent with the generally-accepted standards of the Consultant's profession and shall be liable for its own negligence and the negligent acts of its employees, agents, contractors and subcontractors. The City shall have no right of control over the manner in which the work is to be done but only as to its outcome, and shall not be charged with the responsibility of preventing risk to Consultant or its employees, agents, contractors or subcontractors.

15. INDEMNITY AND LITIGATION COSTS:

To the fullest extent permitted by law, Consultant shall indemnify, defend, and hold harmless the City, its officers, officials, agents, and employees against all claims, damages, demands, liability, costs, losses and expenses, including without limitation court costs and reasonable attorneys' fees, arising from Consultant's negligent acts or negligent failure to act,

errors, omissions or willful misconduct incident to the performance of this AGREEMENT except such loss or damage caused solely by the active negligence**,** sole negligence, or willful misconduct of the City. The provisions of this paragraph shall survive termination or suspension of this AGREEMENT.

16. CONSULTANT TO PROVIDE INSURANCE:

A. Consultant shall not commence any work before obtaining, and shall maintain in full force at all times during the duration and performance of this AGREEMENT, the policies of insurance specified in this Section. Such insurance must have the approval of the City as to limit, form, and amount, and shall be placed with insurers with a current A.M. Best's rating of no less than "A" in Class VII (an NR rating is acceptable for Worker's Compensation insurance written with the State Compensation Insurance Fund of California).

B. Prior to execution of this AGREEMENT and prior to commencement of any work, the Consultant shall furnish the City with certificates of insurance and copies of endorsements providing evidence of coverage for all policies required by the AGREEMENT. The Consultant and its contractors and subcontractors shall, at their expense, maintain in effect at all times during the performance of work under the AGREEMENT not less than the following coverage and limits of insurance, which shall be maintained with insurers and under forms of policy satisfactory to the City. The maintenance by Consultant and its contractors and subcontractors of the following coverage and limits of insurance is a material element of this AGREEMENT. The failure of Consultant or of any of its contractors or subcontractors to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of this AGREEMENT. Approval of the insurance by the City shall not relieve or decrease any liability of Consultant.

1. Commercial General Liability Insurance.

a. Commercial General Liability Insurance with $2,000,000 minimum limit for each occurrence and $4,000,000 minimum limit for general aggregate.

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

c. Commercial General Liability Additional Insured Endorsement naming the following as insured on 2001 or earlier issued endorsement forms: "City of Manteca, its officers, officials, employees, agents, and volunteers".

2. Automobile Liability: If the vehicles are brought onto city facilities, covering any auto, or of Contractor has no owned autos, hired, and non-owned autos, the Contractor shall maintain automobile liability with limits no less than:

a. Automobile Liability Insurance with $1,000,000 minimum limit per accident for bodily injury and property damage.

b. Automobile Liability Additional Insured Endorsement naming the following as additional insured: "City of Manteca, its officers, officials, employees, agents, and volunteers".

3. Workers' Compensation: As required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease.

4. Professional Liability (Errors and Omissions): Insurance appropriates to the Contractor's profession, with limit no less than $2,000,000 per occurrence or claim, $2,000,000 aggregate.

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

a. The City of Manteca, its officers, officials, employees, agents and volunteers are to be covered as insured's as respect to: liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance at least as broad as CG 20 10 and CG 20 37 if completed operations coverage is required.

b. For any claims related to this contract, the Consultant's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents or volunteers, shall be excess of the Consultant's insurance and shall not contribute with it.

c. The applicant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

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

6. Verification of Coverage: Consultant shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Entity before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The City of Manteca reserves the right to require complete, certified copes of all required insurance policies, including endorsements required by these specifications, at any time.

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

8. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City of Manteca.

9. Waiver of Subrogation: Consultant hereby grants to The City of Manteca a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Entity by virtue of the payment of any loss under such insurance. Consultant agrees to

obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Entity has received a waiver of subrogation endorsement from the insurer.

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

11. SPECIAL RISKS OR CIRCUMSTANCES: The City of Manteca reserves the right to modify these requirements based on the nature of the risk, prior events, insurance coverage, or other special circumstances.

12. Consultant shall sign the Certificate of Compliance with labor Code 3700 (Exhibit B).

13. No other provision of this Agreement or any attachment thereto shall reduce the insurance or indemnity obligations imposed under this Section.

C. In addition to any other remedy the City may have, if Consultant fails to maintain the insurance coverage as required in this Section, the City may obtain such insurance coverage that is not being maintained, in the form and amount substantially the same as is required herein, and the City may deduct the cost of such insurance from any amounts due or which may become due to Consultant under this AGREEMENT.

D. No policy required by this AGREEMENT shall be suspended, cancelled, terminated by either party, or reduced in coverage or in limits unless written approval is obtained by Consultant from the City.

E. Any deductibles or self-insured retentions in excess of $10,000 must be declared to, and approved by, the City.

F. The requirement as to types, limits, and the City's approval of insurance coverage to be maintained by Consultant are not intended to, and shall not in any manner, limit or qualify the liabilities and obligations assumed by Consultant under the AGREEMENT.

17. MISCELLANEOUS PROVISIONS:

A. Compliance with Laws. Consultant shall keep itself fully informed of, shall observe and comply with, and shall cause any and all persons, firms or corporations employed by it or under its control to observe and comply with, applicable federal, state, county and municipal laws, ordinances, regulations, orders and decrees which in any manner affect those engaged or employed on the work described by this AGREEMENT or the materials used or which in any way affect the conduct of the work.

B. Unlawful Acts. Consultant shall not engage in unlawful employment discrimination. Such unlawful employment discrimination includes, but is not limited to, employment discrimination based upon a person's race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, gender, citizenship, or sexual orientation.

C. Record Retention. Consultant shall maintain and make available for inspection by the City and its auditors accurate records of all of its costs, disbursements and receipts with respect to any work under this AGREEMENT. Such inspections may be made during regular office hours at any time until six (6) months after the final payments under this AGREEMENT are made to the Consultant.

D. Notice. All notices that are required to be given by one party to the other under this AGREEMENT shall be in writing and shall be deemed to have been given if delivered personally or enclosed in a properly addressed envelope and deposited in a United States Post Office for delivery by registered or certified mail addressed to the parties at the following addresses:

City:

Wing Chang
Assistant Engineer
City of Manteca
1001 W. Center St.
Manteca, CA 95337

Consultant:

Mark W. Connelly
Vice President
Kleinfelder Inc.
2001 Arch Airport Road, Suite 100
Stockton, CA 95206
(209) 948-1345

E. Governing Law and Venue. This AGREEMENT shall be interpreted and governed by the laws of the State of California, and any legal action relating to this AGREEMENT shall take place in the Superior Court, County of San Joaquin.

F. Waiver. Waiver of any breach or default under this Agreement shall not constitute a continuing waiver of a subsequent breach or default of the same or any other provision under this AGREEMENT.

G. Severability. If any provision of this AGREEMENT is held to be invalid, illegal or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this AGREEMENT shall continue in full force and effect.

H. Mediation. In the event of any controversy or claim arising out of or relating to this Agreement or the Services provided by Consultant (each referred to as a “Dispute” and all collectively referred to as the “Disputes”), the Parties shall try to resolve all Disputes through good faith, direct discussions involving the representatives of each Party who possess the necessary authority to resolve such Dispute. If direct discussions are unsuccessful in resolving a Dispute, the Parties shall endeavor to resolve the matter by mediation through and administered by JAMS or its successor in interest. JAMS shall provide the parties with the name of five (5) qualified mediators. Each party shall have the option to strike two of the five mediators selected by JAMS, and thereafter the mediator remaining shall hear the dispute. If the dispute remains unresolved after mediation, either party may commence litigation.

I. Costs and Attorney' Fees. If either party commences any legal action against the other party arising out of this Agreement or the performance thereof, the prevailing party in such action may recover its reasonable litigation expenses, including court costs, expert witness fees, discovery expenses, and attorneys' fees.

J. Entire Agreement. This AGREEMENT constitutes the entire agreement between the parties relative to the services specified herein and no modification hereof shall be effective unless and until such modification is evidenced by a writing signed by both parties to this AGREEMENT. There are no understandings, agreements, conditions, representations, warranties or promises, with respect to this AGREEMENT, except those contained in or referred to in writing.

K. Execution. This AGREEMENT may be executed in several counterparts, each of which shall constitute one and the same instrument and shall become binding upon the parties when at least one copy has been signed by both parties.

L. Authority to Enter Agreement Consultant warrants that it has all requisite power and authority to conduct its business and to execute, deliver, and perform this AGREEMENT. Each party warrants to the other that the signature to this AGREEMENT have the legal power, right, and authority to enter into this AGREEMENT and to bind each party.

M. California Prevailing Wage Requirement Pursuant to California Labor Code sections 1720 through 1861, the Consultant, its Contractor and all subcontractors shall ensure that all workers who perform work under this Agreement are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR), if applicable. This includes work performed during the design, site assessment, feasibility study, and other preconstruction phases of construction, including but not limited to inspection and land surveying work, regardless of whether any further construction work is conducted, and work performed during the post-construction phases of construction, including but not limited to all cleanup work at the jobsite. The most current prevailing wage determination can be found at https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm.

TO EFFECTUATE THIS AGREEMENT, each of the parties has caused this Agreement to be executed by its duly authorized representative as of the date set forth in the introductory paragraph on page 1 above.

CITY OF MANTECA:

Toni Lundgren
City Manager

ATTEST:

Cassandra Candini-Tilton,
Director of Legislative Services

COUNTERSIGNED:

Matt Boring
Director of Finance

COUNTERSIGNED:

Stephanie Van Steyn,
Director of Human Resources

APPROVED AS TO FORM:
Riana E Daniel, City Attorney

By_____
Kousha Mckeenejad, Deputy City Attorney

CONSULTANT:

Kleinfelder Inc. / California Corporation
(Type name of Consultant/form of organization)*

By: M W Connelly
(Signature)

Mark W Connelly,
Vice President

By: _____
(Signature)

_____
(Type name and title)

Address: 2001 Arch Airport Road, Suite 100
Stockton, CA 95206

Telephone: (209) 948-1345

EXHIBIT A

Consultant Proposal/Scope of Work

PROJECT APPROACH

BACKGROUND

The City of Manteca, California (City) operates Well 22 located at 364 Victory Avenue (Figure 1). The well is located between a residence and City park with approximately 2,500 square feet (SF) of open area between the existing Well Treatment and Storm Station 25 buildings.

Well 22 is one of 17 wells (15 active and 2 stand-by) owned and operated by the City. Well 22 was installed in 1999 to a depth of 425 feet. The well has a 1,000-gallon-per-minute (gpm) turbine pump.

Currently at Well 22, the groundwater is disinfected with sodium hypochlorite (NaOCl) prior to blending with surface water from the South San Joaquin Irrigation District (SSJID) and distribution.

Fig. 1: Manteca Well 22 (Front and Back Views, L to R)

However, per the City's 2024 Water Master Plan, it was recommended to add wellhead treatment at Well 22 for arsenic removal rather than relying on blending to provide the required water quality. Additionally, analytical results for per and polyfluoroalkyl substances (PFAS) indicate detections of three PFAS compounds. A summary of the latest detections provided by the City, relevant regulatory screening levels, and assumed treatment targets are included as **Table 1**.

Table 1

Constituent [A]	Unit	Detection	Target [B]	State NL / RL	Federal MCL
PFOA	ng/L	5.9	2.8	4.0 / 10	4.0
PFHxS	ng/L	19	2.1	3.0 / 10	10
PFHxA	ng/L	9.6	700	1,000 / 10,000	none
Arsenic	µg/L	10.5	7	10	10

Notes

A. We have assumed that PFOS, PFBS, and HFPO-DA (GenX) are present below analytical detection and do not require treatment.

B. Target for arsenic obtained from City's previous Arsenic Removal, Disposal, and Replacement Services RFP – dated November 6, 2024. Targets for PFAS based on commensurate approach of 70% notification level (NL), response level (RL), or Federal maximum contamination level (MCL), whichever is lower.

OBJECTIVES

The main objectives of this project are to provide the City with:

1. A comprehensive assessment of water quality.
2. Feasible treatment options to confirm the well water meets regulatory standards.
3. A detailed design for the recommended treatment approach.

TECHNICAL APPROACH

The Kleinfelder/Trussell team (project team) has prepared a proposed technical approach (presented below), to describe how the project delivery elements will be executed.

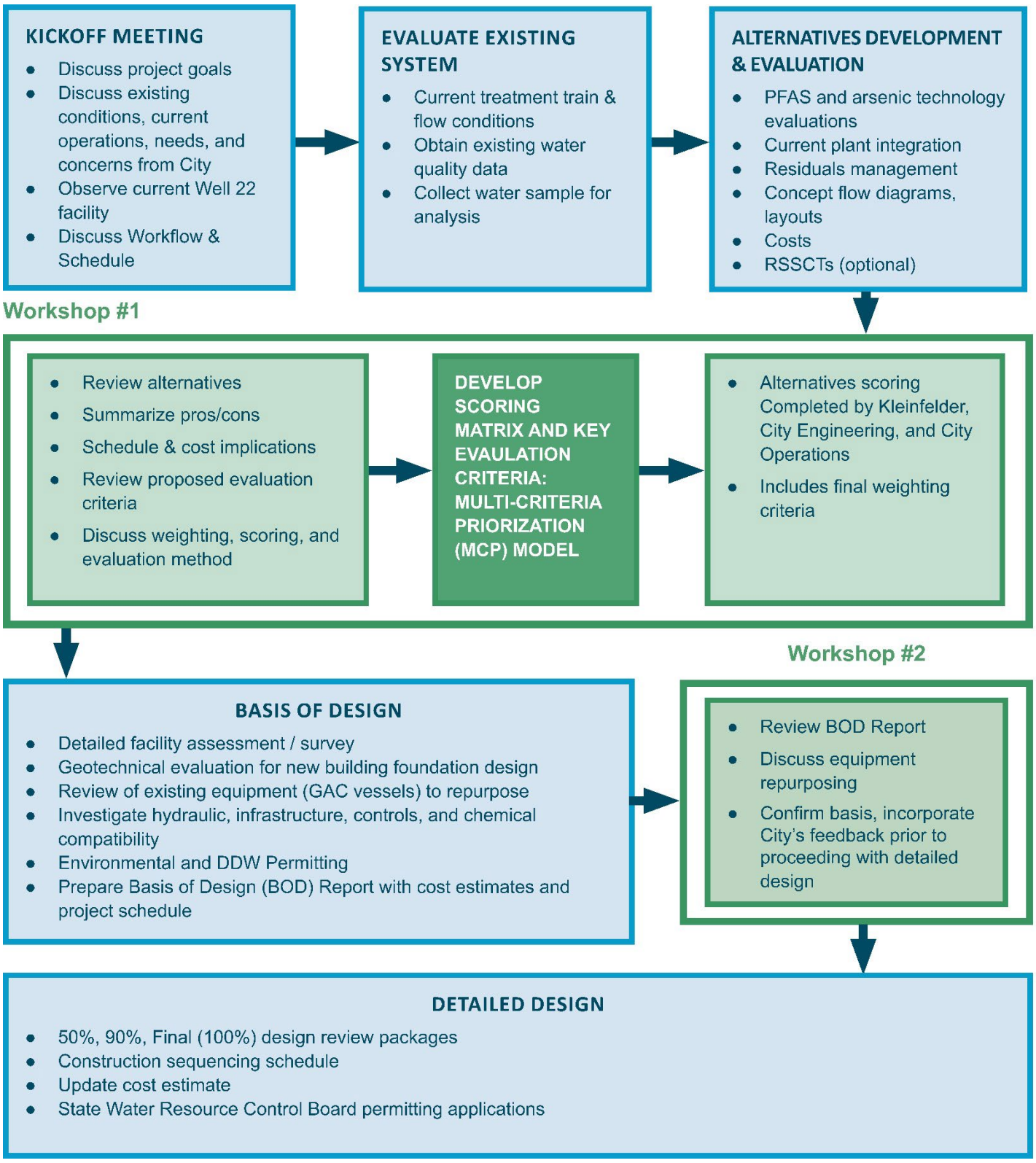
Our technical approach demonstrates our project understanding and outlines the anticipated tasks/project delivery elements and associated activities for this contract. Kleinfelder's proposed methodology is grounded in strong technical expertise, regulatory precision, and cost-effective project execution. Our proven approach provides safe, compliant, and sustainable implementation of advanced treatment systems across municipal, industrial,

and commercial sectors. Our project-specific technical approach is tailored to meet the City's project management and water quality needs while aligning with applicable standards.

The project team has also provided three optional tasks for the City's consideration. We believe that each of these are value-added for the City's approach to upgrading the Well 22 system:

1. Engineering support during construction (as requested in the RFP)
2. Rapid small-scale column testing (RSSCT) for PFAS removal
3. RSSCT testing to enhance selection of arsenic treatment technology

Our overall approach is coordinated and collaborative, which is graphically provided in **Exhibit 1**. The cornerstone of our approach is to effectively engage multiple disciplines, including Operations, Engineering, Water Quality, and Management in the decisions related to this project. From our experience, we believe that holding workshops at key decision milestones is the most effective method to get input from stakeholders and make informed decisions. We propose leading two collaborative workshops: one to discuss data and technology evaluations to select a technical approach for treatment, and one to review and discuss the Basis of Design before proceeding with detailed design phases. At each phase of detailed design, a review meeting will be conducted to receive the City's input prior to proceeding to the next design phase.


KICKOFF MEETING
Discuss project goals
Discuss existing conditions, current operations, needs, and concerns from City
Observe current Well 22 facility
Discuss Workflow & Schedule
EVALUATE EXISTING SYSTEM
Current treatment train & flow conditions
Obtain existing water quality data
Collect water sample for analysis
ALTERNATIVES DEVELOPMENT & EVALUATION
PFAS and arsenic technology evaluations
Current plant integration
Residuals management
Concept flow diagrams, layouts
Costs
RSSCTs (optional)
Workshop #1
Review alternatives
Summarize pros/cons
Schedule & cost implications
Review proposed evaluation criteria
Discuss weighting, scoring, and evaluation method
DEVELOP SCORING MATRIX AND KEY EVAULATION CRITERIA: MULTI-CRITERIA PRIORIZATION (MCP) MODEL
Alternatives scoring Completed by Kleinfelder, City Engineering, and City Operations
Includes final weighting criteria
Workshop #2
BASIS OF DESIGN
Detailed facility assessment / survey
Geotechnical evaluation for new building foundation design
Review of existing equipment (GAC vessels) to repurpose
Investigate hydraulic, infrastructure, controls, and chemical compatibility
Environmental and DDW Permitting
Prepare Basis of Design (BOD) Report with cost estimates and project schedule
Review BOD Report
Discuss equipment repurposing
Confirm basis, incorporate City's feedback prior to proceeding with detailed design
DETAILED DESIGN
50%, 90%, Final (100%) design review packages
Construction sequencing schedule
Update cost estimate
State Water Resource Control Board permitting applications

TASK 1: Project Management

The project team proposes Mr. Jeremy Scott, PE, as the project manager for this design project. Mr. Scott will be responsible for efficient coordination of project activities, engaging with City stakeholders, quality and timely completion of project deliverables, documenting and recording of key decisions, and submittal of project-related documents.

Mr. Scott will structure the project to align with the objectives of the City of Manteca Groundwater Sustainability Agency (GSA) perspective and coordinate closely with City staff on project objectives, project delivery timelines, technical requirements, project progress, and obstacles encountered during project execution. Mr. Joe Zilles, PG, who has worked closely with City staff on multiple previous projects, will support project execution as assistant project manager to align the project team with known preferences from City staff. Jointly, our project management team provide the City with:

- Project completed on time and within budget
- Project deliverables that meet the City's requirements and expectations
- Project activities that follow project contract requirements

In addition, Mr. Scott will be supported by a group of specialists selected for the anticipated scope of work. Kleinfelder's experienced project team includes the necessary technical support and other resources needed to effectively manage and provide the services required on this contract. A proposed project schedule with key tasks, milestones, and durations is provided below.

The City has requested our team to provide an electronic document management platform to avoid the transmission of technical and other project-related documents via email. We propose using our internal SharePoint platform for file exchange and project document storage; Kleinfelder utilizes SharePoint as a centralized, secure repository, with our teams regularly utilizing project-specific SharePoint sites for collaboration with internal and external staff members. Kleinfelder utilizes in-house SharePoint specialists when establishing new project-specific sites, to confirm internal and external staff have appropriate permissions, to establish the appropriate level of cyber security, and to organize contract files in conformance with City standards.

The City has requested our team to provide costs for two separate phases of project management activities. Task 1a – Project Management and Set-Up Part I covers the project management support for project kickoff up to the initial treatment alternatives evaluation and cost estimate deliverables (see Task 2 below). Task 1b – Project Management and Set-Up Part II covers the project management support for the remaining efforts under Tasks 2, 3, 4, and Optional Task 5.

Providing quality projects on time within scope and budget is Kleinfelder's commitment to the City and our primary responsibility. Mr. Scott will serve as the primary liaison between the City and our in-house technical leads. Throughout the duration of the contract, Mr. Scott will assign contract work to the team, facilitate internal teleconferences with project staff throughout the project life cycle, and bring the appropriate staff to the City or regulatory agency's offices, as necessary. Our project teams use the project management values outlined in Exhibit 2; these values were developed over decades of successful design project execution. Mr. Scott uses the following project delivery procedures:

Team Building

Mr. Scott will assign the task to the most qualified technical lead and work closely with them to develop a staffing and project management plan.

Kickoff Meeting

Execution of the project will be initiated with the project Kick-Off meeting. The meeting is expected to be held between the City, Kleinfelder's key personnel, and other relevant project stakeholders to verify project goals and objectives, establish project communication lines, provide a clear vision of the project issues and goals, deliverables, and permits required. A field visit will be conducted preceding the kick-off meeting. Additional key project stakeholders may be identified and engaged in the project through the project kick-off meeting. Early coordination with City representatives and other stakeholders helps clarify project goals, constraints, and expectations, fostering transparency and collaboration from the outset.

Project Workplan

A workplan will be prepared for the project execution, which will be the team's internal project management document, but is expected to be made available for the City's review. The workplan is expected to include a manpower-loaded schedule indicating major milestones, an organizational chart with the Kleinfelder/Trussell design team and the City stakeholders, a list of contact information, communications protocols, and other tools as appropriate.

Exhibit 2

City Approvals and Communication

Design deliverables for all phases are expected to be reviewed by the City staff. The review comments will be revisited by the Kleinfelder/Trussell project team, and mutually agreed comments will be incorporated in the next design phase. Kleinfelder typically does not proceed in the next design phase until approved by the City's Project Manager. Communication with the City's project team will be prompt. Verbal instructions and requests will be acted upon immediately, with written follow-up distributed for filing. We will verify that communications are received and acknowledged by all necessary parties. Project progress reports will be submitted monthly to the City. Regular progress updates will be communicated weekly between Mr. Scott and the City's Project Manager. A sample monthly report is provided in Appendix C to this proposal.

Quality Assurance and Quality Control

Our services are be performed in accordance with Kleinfelder's Quality Management Program (QMP), which will be customized as appropriate for the project and approved by the technical lead. Kleinfelder implements and maintains an ISO-9000/FHWA-complaint QMP and seeks to continually improve its effectiveness. Additional details on our team's quality assurance practices are presented below.

TASK 2: Water Quality Assessment and Evaluation of Treatment Options

Water Quality

Background water quality is of vital importance to effective and reliable treatment selection. Specifically, total organic carbon (TOC), anionic strength, and certain metals should be tested for PFAS treatment process selection, and pH, vanadium, phosphate, and silica will be tested for arsenic treatment process selection. A full analytical characterization of the Well 22 groundwater is anticipated to be obtained at the start of the project. Our team will provide a request to the City for specific water quality parameters (including TOC, heavy metals, anions, silica, VOCs, and PFAS). Based on available data we will develop a list of constituents to sample and coordinate delivery of sample materials (i.e., bottles, coolers, field/trip blanks, etc.) from a third-party accredited laboratory. We will provide a brief (1-2 page) sampling plan, outlining the sampling and shipping instruction for the City's review and acceptance. Sampling is expected to be conducted by our team's local staff.

Evaluation of Treatment Options

Prior to commencing an alternative technology evaluation, a site visit will be conducted by our team to review existing conditions; technology selection for PFAS removal is as much about the efficiency of treatment as it is about the operation and maintenance considerations and space availability.

Reverse osmosis is likely to be excluded from consideration due to high energy costs and large PFAS-containing residual volume to be continuously managed. The two most-used media treatment approaches are granular activated carbon (GAC) and single use anion exchange resin (IX), which are listed as Best Available Technologies (BAT) under the USEPA Safe Drinking Water Act PFAS regulations for PFAS. **It should be noted that single use IX for PFAS does not require increased level of operator license. The operation of IX for PFAS removal is equivalent to GAC. This is different from a regenerable IX system used for nitrate removal, for example, which does increase operator level requirements.** Additionally, innovative alternative adsorbents such as CETCO Fluoro-sorb (FS) are gaining wider acceptance but have yet to be approved for use by Department of Drinking Water (DDW) in California. Our project team has experience testing and implementing all three of these media types for PFAS and will consider each of these options for Well 22.

Our project team understands that the City operates four systems using Bayoxide E33 (i.e., SORB33®). The RFP requested a technical evaluation of arsenic treatment options. Our project team has experience testing and implementing the common arsenic adsorption media, such as granular ferric hydroxide (GFH), granular ferric oxide (GFO), and titanium-based media (i.e., SORB33®) and could consider alternatives such as iron-impregnated GAC (Fe-GAC) if desired. Selection of an appropriate media type depends on water chemistry, arsenic speciation, and effective pH range. A technical evaluation of these media is included in this task.

It should be noted that specific to PFAS treatment media, each type has unique start-up and operational requirements due to differences in composition and manufacturing process. Often of biggest concern is backwashing and rinsing volume required related to water conservation, available space for backwash tankage, and available/allowable sewer capacity. An example consideration related to rinsing (GAC for arsenic and pH stabilization; IX for leachable NDMA) for a single lead-lag train at start-up is shown in **Table 2**.

Table 2

Approach	Step	GAC (gal)	IX (gal)
Rinse	Initial BW	136,000	13,600 (*)
	Rinse	600,000	12,000
	TOTAL	**736,000**	**<25,600**
Flowrate required (gpm)		450 to 1130	450 to 680

Notes:
(*) – If required
Assumes:
- Lead-lag 12-foot-diameter vessels.
- 2 lead-lag trains for GAC; 1 Lead-lag train for IX
- GAC 10 min EBCT; IX 2 min EBCT each vessel
- Rinse (continuous): GAC 36 BV; IX 3 BV
- Backwash GAC 10 gpm/ft^2 (30 minutes), IX 6 gpm/ft^2 (10 minutes)

Our team recognizes that PFAS removal performance is not the only criterion for a successful treatment project. Other important design and operational considerations such as start-up backwashing and rinsing (as well as other operational items) are equally important to consider during the initial alternatives evaluation phase. Our approach is discussed in more detail below.

Rapid Small-scale Column Testing

Although not requested in the RFP, our team proposes including RSSCTs as a value-added innovation to support the City during technology selection, cost estimating, and permitting.

RSSCTs are a time-efficient and cost-effective means to quantify performance of various adsorbent media. The project team is proficient at conducting these tests with the various media types applicable for both PFAS and arsenic. The existing Water Master Plan stated that the deep groundwater aquifer used for the drinking water wells has little water quality fluctuation. This makes Well 22 a good candidate for short-term RSSCT testing. RSSCTs will be conducted in an off-site laboratory setting using water collected from the site during a single sampling event. Stable groundwater sources such as Well 22 are a good fit for RSSCTs since there is little concern for varying water quality over time.

RSSCT allows the project team to evaluate the equivalent of months to years of operation in a compressed test time of days or weeks of testing. The results obtained are representative of field-scale operations, thus allowing the ability to compare performance of different media and provide a sound basis for projecting operational costs.

Conducting the RSSCT testing on PFAS media provides the following advantages:

1. RSSCTs provide a breakthrough curve that can be directly equated to full-scale operation. Media changeout is the largest operational expense of PFAS treatment; as such, these data allow a sound basis for projecting and comparing operating costs of different media.
2. Media performance and projected changeout frequency is a key concern related to developing the Operational Maintenance and Monitoring Plan (OMMP) required by DDW. Conducting RSSCT (in lieu of a costly and time-consuming field-scale pilot) provides DDW with the information required for successful permitting.
3. Specific PFAS compounds present in water sources at ng/L concentrations often compete with background water quality parameters at mg/L concentrations (1 million times greater); as such, predicted concentrations from mathematical models are not widely accepted as a substitute for physical testing when permitting, and are frequently inaccurate to provide accurate operating cost projections.
4. Ancillary adsorption of arsenic can be evaluated during testing to identify if a single media could reduce effluent arsenic to acceptable concentrations. If adequate arsenic reduction is observed, the data will provide a basis to calculate operational changeout frequency (and thus economics) if targeting PFAS alone versus both PFAS and arsenic.

In addition to evaluating co-contaminant removal of arsenic on the PFAS-specific media, we will evaluate targeted treatment of arsenic using RSSCT with arsenic-specific media:

1. Comparing common media types (GFH, GFO, Fe-GAC, and SORB33®) using RSSCTs provides a quick and effective means to compare performance and provide a basis for well-specific changeout frequency and operating costs.
2. Local water quality has a large influence on the arsenic media performance and thus the required changeout frequency. The Water Master Plan data indicates that phosphate and vanadium concentrations vary across the City and the speciation of arsenic is uncertain; an RSCCT will evaluate the potential impacts of the Well 22-specific water quality characteristics on the SORB33® performance.
3. The resulting data will provide a basis of separate arsenic treatment operating costs to include with the results of PFAS-focused media data. This will also allow a comparison of economics of separate treatment of arsenic and PFAS versus combined treatment with a single media (if deemed feasible from testing).

Fig. 2: RSSCT Testing

Photo: Courtesy of Trussell

We will develop a bench-scale test plan and perform RSSCTs at Trussell's Pasadena laboratory. The budget assumes the evaluation

of a single source water type and up to four media types (i.e., two GAC and two single-use IX) for PFAS along with four media types (i.e., GFH, GFO, SORB33®, and Fe-GAC) specific to targeted arsenic removal. Trussell will conduct a site visit to Well 22 to collect water for the RSSCT and transport the water to the laboratory. Testing of the water quality will be performed pre- and post-bench scale testing. For the four PFAS-focused media columns, up to 15 samples will be analyzed per column for PFAS per Method 533 and arsenic per EPA Method 200.8. Other key parameters (TOC, nitrate, sulfate, chloride, and alkalinity) will be included on the influent (one sample) and effluent (three samples). For the arsenic-focused media columns, up to 15 samples will be analyzed per column condition for arsenic per Method 200.8. Other key parameters (vanadium, phosphate, chloride, and silica) will be included on the influent (one sample) and effluent (three samples).

While this testing adds up-front costs during the design phase, the long-term benefits of increased confidence in the treatment efficiency and residual generation provides lasting value to the City. The RSSCT process also allows for estimation of operating costs and estimating of the residuals that would be generated during full-scale operation of the treatment system.

Technology Selection

The development of treatment technology alternatives based on the site-specific water quality obtained at Well 22 will be documented in a technical memorandum. The technical memorandum is anticipated to include up to three conceptual designs and cost estimates for each identified feasible alternative. Evaluating each alternative against key criteria and ranking each alternative to identify the most desirable option should be done in collaboration with the City's stakeholders. Facilitating a collaborative and interactive workshop is an efficient means to accomplish this goal. During this workshop, the City's stakeholders will be engaged to identify the criteria that are most important (**Table 3**) and collectively select the technical approach that will feed into the basis of design and detailed design phases of this project.

WORKSHOP #1: Kleinfelder recognizes that key stakeholders within the City's operations, engineering, and administration groups may have different levels of knowledge regarding PFAS and arsenic treatment, as well as different priorities and concerns. Presenting the Technology Feasibility Assessment approach in a detailed, yet distilled and organized, framework within an interactive workshop setting allows:

- Each City stakeholder to receive the same information and provide input.
- Our team to address questions and establish an agreed-upon ranking to evaluate alternative technologies.

Our team is experienced in facilitating these workshops and will develop a multi-criteria evaluation worksheet to incorporate weighting to the decision criteria as a part of the interactive workshop. This approach provides:

- A means of evaluating non-cost technical, economic, and operations and maintenance (O&M) benefits
- An efficient way to evaluate several treatment alternatives for cost and non-cost benefits
- Identification of technologies with effective benefit-cost ratio
- A systematic selection of treatment to advance the design process.

The City has requested our team to provide costs for two separate phases of Water Quality Assessment and Evaluation of Treatment Alternatives activities. Task 2a – Water Quality Assessment and Evaluation of Treatment Options Part I covers key discussions with City of Manteca staff to allow for identification of initial treatment alternatives and preparation of a capital and operational cost estimate (i.e., Class IV or V construction cost estimates). Task 2b – PFAS and Arsenic RSSCT and Reporting includes the RSSCT scope described above. Task 2c – Water Quality Assessment and Evaluation of Treatment Options Part II covers the remaining portions of Task 2 as described in this section, and concludes with selection of the preferred treatment alternative by City staff. Task 2c will proceed only after the City of Manteca reviews and approves the conclusions from the treatment alternatives evaluation and capital and operational cost estimating efforts under Task 2.

Table 3

Category	Criteria
TECHNICAL SUITABILITY	**Performance** • Removal of measured PFAS and arsenic and ability to manage changes in concentration **Function** • Resistance to fouling or premature exhaustion • Type and quantity of residuals generated • Media rinsing and cleaning requirements **Future-proofing** • Ability to treat other compounds of emerging concern (CECs) and provide flexibility to change media types • Sensitivity to price escalation or regulatory changes **Implementation Schedule** • Identification of equipment lead times and critical path procurement items • Can existing equipment be repurposed to save cost and time?
COMPATIBILITY WITH EXISTING SYSTEM AND INFRASTRUCTURE	**Compatibility with Hydraulics** • Are new pumps required? **Compatibility with Chemicals** • Do systems need to be modified or relocated? • Manage changes in corrosion indices, if present **Compatibility with Infrastructure** • Controls integration
AESTHETICS AND COMMUNITY IMPACT	**Aesthetics** • Provide treatment building architecture to fit the existing structures and neighborhood • Reduce visual impacts with fencing or plantings **Community Impact** • Reduce impacts to the neighborhood (trucks, noise, etc.)
COST	**Cost Estimates** • Capital Cost • Operating cost (power, media, chemicals, labor, disposal) • Present Value (or Life Cyle Cost) and cost-benefit analysis
RESIDUALS MANAGEMENT	• Identify waste types and quantities, disposal means, estimated costs, and risks to regulatory changes
REGULATORY COMPLIANCE	• Confirm performance to current regulatory requirements under DDW and USEPA. • Identify risks or concerns with possible changes in future regulations (DDW, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Resource and Conservation Recovery Act (RCRA), Clean Water Act (CWA)

TASK 3: Prepare Treatment System Basis of Design Report

Tasks 3 and 4 will proceed after the City of Manteca reviews the conclusions from the initial treatment alternatives and capital and operational cost estimating efforts under Task 2. Kleinfelder will not initiate activities on the Treatment System Basis of Design Report until authorized by City staff.

The design of the selected treatment system is anticipated to be completed using the results of the alternatives evaluation and subsequent workshop. We recognize that the City of Manteca is a Groundwater Sustainability Agency (GSA) and a part of the Eastern San Joaquin Groundwater Authority (ESJGWA). The design will consider the needs and associated requirements of the Eastern San Joaquin Subbasin.

Kleinfelder will leverage the **City's design standards and relevant reports** including but not limited to:

- City of Manteca Improvement Plan Submittal Checklist
- Standard Specifications for the City of Manteca Department of Public Works
- Standard Plans for the City of Manteca (Engineering, Miscellaneous, Storm Drain, Streets, Underground and Water)
- 2022 DRAFT Groundwater Sustainability Plan (GSP)
- 2023 Reclaimed Water Facilities Master Plan
- 2024 Water Master Plan
- 2020 SCADA Standards

Survey, Utility Identification, and Mapping

To provide site-specific data within the existing project boundaries, buildings, and site utilities, Kleinfelder proposes to complete a 3D scan of the project site using internal staff and equipment. This innovative procedure provides equivalent detail when compared with a conventional topographic survey, with the benefit of enhanced structural details provided during the scan. Details on the proposed technology are provided below. Utility identification is completed using as-built record drawings, City GIS databases, and alignment with the findings from the 3D scan.

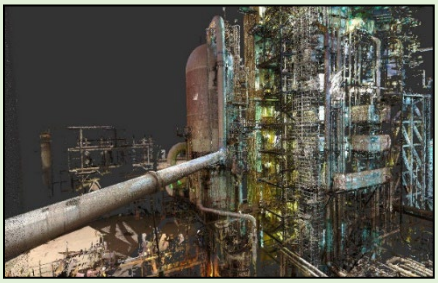
3D Site Scanning

Through completing equipment and piping upgrades at numerous municipal water and wastewater facilities, the project team developed an understanding that putting new equipment into existing sites can lead to construction conflicts. To mitigate against conflicts, repeat field visits, and conflicting as-built information, Kleinfelder is using 3D facility scanning capabilities which allow us to efficiently provide our clients with leading-edge technology that helps us confidently deliver detailed design solutions, saving the client time and money. Kleinfelder can provide this service at the same price of a traditional field inspection, but the results are accurate to within +/-1mm. This advancement allows Kleinfelder to enhance treatment system design within existing site conditions, run conflict analysis of newly designed improvements with the existing structures, equipment, and piping to integrate our solutions seamlessly within the existing facilities. The 3D scanner is capable of obtaining omni-directional high-resolution photos, which provides a significant advantage when paired with condition assessment. 3D scanning and photo data will be uploaded to a secure online viewer to allow the City and the project team to virtually walk through the project site, reducing the number of site visits, and supporting virtual collaboration for project meetings. This approach increases efficiency and quality while limiting multiple, recurring site visits and coordination.

3-D Scanner – Data Collection
What is a Point Cloud?

HD 360-DEGREE DATA

CONVERTED COLOURIZED POINT CLOUD DATA



Accurate XYZ coordinates to 1mm at 100 meters, intensity with RGB information, visual representation and record of site, snapshot in time, measurable in 3D, photo quality, easy to interface with design.

Basis of Design Report (BODR)

Based on the results of the alternatives evaluation and subsequent workshop, the Basis of Design Report (BODR) will be completed to incorporate the design criteria and technical concepts of the selected treatment alternative.

The **Basis of Design** phase typically represents a 30% design submittal, with submittal of a BODR for review by City staff. Under this task, a more detailed site-specific focus will be advanced. This includes several key areas outlined in the City's RFP, as presented below:

Table 4

Focus Area	Approach	Comment
Detailed Facility Assessment	• Provide a more detailed evaluation of existing space and infrastructure to integrate the new treatment system. • Provide a site topographic survey.	• The topographic survey and geotechnical investigation will be prepared for the previously selected treatment alternative
Repurposing of existing equipment	• Our team will review the shop drawings and commensurate physical inspection of the units.	• The sizing of the existing slotted underdrains will be confirmed for use of each media being considered.

Focus Area	Approach	Comment
	• Provide recommendations of applicability for the recommended media. • Identify required repairs / modifications / upgrades.	• Alternatives for implementation could include replacement of the laterals or protection of the laterals using a granular media under- bedding.
Hydraulic, Infrastructure, Controls, and Chemical Compatibility	• Evaluate existing pump hydraulics. Recommend upgrades or replacement to provide required flow and pressure into distribution. • Review existing SCADA infrastructure and develop for integration of control, monitoring, and alarm elements. • Develop plan to integrate treatment and existing chemical feed to be compatible with new treatment and compliant with disinfection requirements.	• Identify new instrumentation to be integrated into existing SCADA (differential pressures, flow, etc.) • Consider current water quality and changes to treated water quality without surface water blending. Confirm corrosion potential and incorporate remedies if required.
Permitting and Environmental Support	• Assist in preparation of required environmental document using a defensible and strategically efficient approach. • Develop initial requirements for permit application for DDW.	• Review proposed project against CEQA framework to confirm project will not trigger full Environmental Impact Study, and support preparation of Initial Study (IS) / Mitigated Negative Declaration (MND) as appropriate.
Cost Estimating	• Include updated capital and operating cost estimates based on efforts completed during the BOD.	• This will be planning level cost estimate with +/-30% accuracy

A BOD report will be developed including:

- Basis of treatment
- Process and control descriptions
- Major equipment list/data sheets
- Site survey
- Site layout drawing
- Equipment arrangement
- Equipment re-purposing plan
- Process and instrument diagrams
- Architectural rendering of new building
- Permitting plan

WORKSHOP #2 is intended to be held in person to review the BODR. This is a key step to receive input from the City and define the basis for the subsequent detailed design phases.

TASK 4: Detailed Design and Bid Services

Based on the results of the alternatives evaluation and subsequent workshop, the design of the selected water treatment alternative is anticipated to be performed using a phased approach of design packages.

DESIGN PACKAGES (Plans, Construction Specifications and Engineering Cost Estimate)

Detailed design package including Plans, Engineering Specifications and Engineering Cost Estimate (PS&E) will be advanced after finalization of the BODR in progression of 70% and Final (100%) design submittals. At each design milestone, our team will issue the design package to the City for review and comment. A review meeting will be held prior to advancing to each subsequent design milestone phase. In addition to PS&E, Kleinfelder intends to provide the appropriate discipline calculations that the design is based on and construction sequencing.

ENVIRONMENTAL, PERMITTING, AND REGULATORY ENGAGEMENT

Permitting and Compliance

The project team anticipates the need to navigate complex regulatory landscape by supporting the City in securing necessary permits and complying with federal, state, and local requirements, including environmental protection laws and water resource regulations. Our team is well-versed in applicable regulations and standards, and we employ strong risk management practices, including contract review, insurance compliance, and ongoing staff training—to protect client interests.

Agency Liaison

We maintain proactive communication with state and local regulatory agencies and local stakeholders to streamline approvals and confirm alignment throughout project lifecycle:

- Eastern San Joaquin Groundwater Authority (ESJGWA)

- Manteca City Council
- Manteca Development Services Office
- State Water Control Board - Department of Drinking Water (DDW)

For this task, Trussell will engage DDW to achieve regulatory approval for the arsenic and PFAS treatment system. The project team will lead three meetings with DDW over the course of the project to discuss the approach and adapt the project in accordance with DDW input. The meetings are expected to be attended virtually and are anticipated to be scheduled 1) prior to completion of alternatives analysis, 2) prior to completion of 100% design, and 3) as needed to keep DDW apprised of key project milestones.

This task also includes preparation of OMMP, which is one of the required documents in the permitting project. The OMMP will include a monitoring schedule that achieves public health protection while also considering cost-effectiveness.

Environmental Stewardship

Our approach prioritizes recycling of materials, proper removal and disposal of hazardous components, and restoration of disturbed areas to reduce environmental impacts.

CONSTRUCTION SEQUENCING

Since this facility is a critical source of potable water for the City's customers, and because construction may impact operations of the water system and normal site activities, detailed planning is required to guard against water service disruption to Manteca's customers. We will prepare clear and concise plan sheets and specifications including maintenance of plant operations and construction sequencing, clearly indicating the contractor's responsibilities in executing construction elements which either limit water production or require a shutdown of facilities. We are expecting to develop a series of phases illustrating the project beginning, interim, and completion. Follow-up and planning sessions between the design team and City operations and engineering personnel aid our team in addressing key risks and challenges to cost and schedule overruns. Having prepared designs for similar facilities for more than 30 years, our team members know how to effectively contribute solutions. These actions were valuable for the recent completion of the Miramar Clearwell Improvements Project, where all tie-ins were made as planned with no issues.

BID SERVICES

Kleinfelder's construction bidding support services will include preparation of construction bidding documents, attendance to the pre-bidding meeting, replying to bidders' requests for information, and providing support to City in bid reviews.

Preparation of Conformed Bidding Documents

Using the final design documents, the project team will prepare a comprehensive construction bidding package consisting of project plans and specifications. The package typically includes a bidding schedule, a construction schedule, and preliminary engineering construction cost estimates. Kleinfelder expects to deliver up to six copies of bidding documents that will include design drawings produced in 11" by 17" sheet format.

Attendance to Pre-Bidding Meeting

Our project manager and key design engineer will attend the preproposal meeting to present engineering aspects of the project work and answer bidders' technical questions.

Replying to Bidders' Requests for Information

During the course of construction bid preparation, Kleinfelder will provide replies to bidders' requests for information (RFI).

Support to City in Bid Reviews

Kleinfelder will assist with contractor prequalification and support the City in bids' evaluation, including review of submitted bids for compliance with bidding documents.

Why Kleinfelder

- ✓ **Our experience on similar municipal projects with our proven team**
- ✓ **Specialized technical skill in preparing plans and specifications. Our projects have included preparing plans and specifications for municipalities throughout California.**
- ✓ **Our team has worked together on several projects and has a clear working relationship that translates to a successful project for the City.**

OPTIONAL TASK 5: Engineering Support During Construction

Included in our proposal is providing Engineering Support During Construction under Optional Task 5; we will continue supporting the City's efforts to construct the project treatment facilities through extended engagement with the relevant design professionals. For the purpose of estimating the level of effort, we have assumed that Kleinfelder's engineering support during construction includes the tasks listed below. This task will be billed on as-needed basis not to exceed the amount given in the cost proposal.

- Progress Meetings: Kleinfelder's project manager and key design engineer are expected to attend regular construction meetings. We are estimating that our representatives will be attending up to (18) construction meetings.
- RFI's Review: of up to 25 RFIs.
- Submittals: Review of up to 40 contractor submittals including resubmittals.

- Change Orders: Review of up to 10 change orders.
- Site Visits and Reporting: The project team's qualified representative(s) will be attending, as may be requested, on-call construction meetings. We are estimating that our representatives will be attending up to 18 construction meetings.
- Design Changes: Up to 4 design changes.
- Record Drawings: Modify and resubmit design drawings as needed.

The construction process prioritizes involvement and communication with the plant operations, neighboring residents, businesses, and community facilities. To keep each of these groups informed and reduce construction impacts, our engineering support during construction is expected to include:

- Engage design team when construction-related issues need an engineering solution.
- Review start-up and commissioning plan prepared by the construction contractor to confirm conformance to City goals and the new process systems are successfully deployed.
- Witness testing of critical equipment at the manufacturing facilities to confirm compliance with the design specification prior to shipment.

QUALITY ASSURANCE AND QUALITY CONTROL

Every deliverable is based on a well-defined scope of work. Senior project team members develop the scope of work. The scope of work includes an anticipated level of effort broken down by staff level including task and subtasks. Included in scope development phase is input and review by a Kleinfelder Sr. Professional as an Independent Technical Reviewer. A Kleinfelder Senior Professional practicing in the field of work prepared will review draft work products prior to submittal. This includes a high-level quality review and independent technical review.

Kleinfelder will conduct QA/QC reviews at each submittal to confirm our work meets the scope of services and required standards. All deliverables, including health and safety plans, reports, and test results, receive a thorough review by our QA/QC manager and qualified peer reviewer before submittal. At Kleinfelder, our quality management functions include:

Quality Assurance: Planned and systematic actions, processes, and programs that are designed to provide confidence that deliverables, test results, inspections, etc. meet requirements. The purpose of QA is to confirm that QC has occurred.

Quality Control: Documented independent, routine, and regular checking of calculations, data analysis, data transcription, tables, report writing, etc. that is performed by a designated QC person throughout life of a project. The purpose of QC is to fulfill quality requirements.

Independent Technical Review (ITR): Confirmation that technical approach, methodology, calculations, conclusions, recommendations, etc. are consistent with client expectations, as well as good engineering, scientific, and architectural practices.

The QA/QC manager and qualified peer reviewer is expected to remain the same throughout completion of each deliverable. Deliverables are submitted after a quality peer reviewer signs off that work meets or exceeds requirements of the contract and industry standard of care.

OTHER ELEMENTS OF KLEINFELDER'S APPROACH

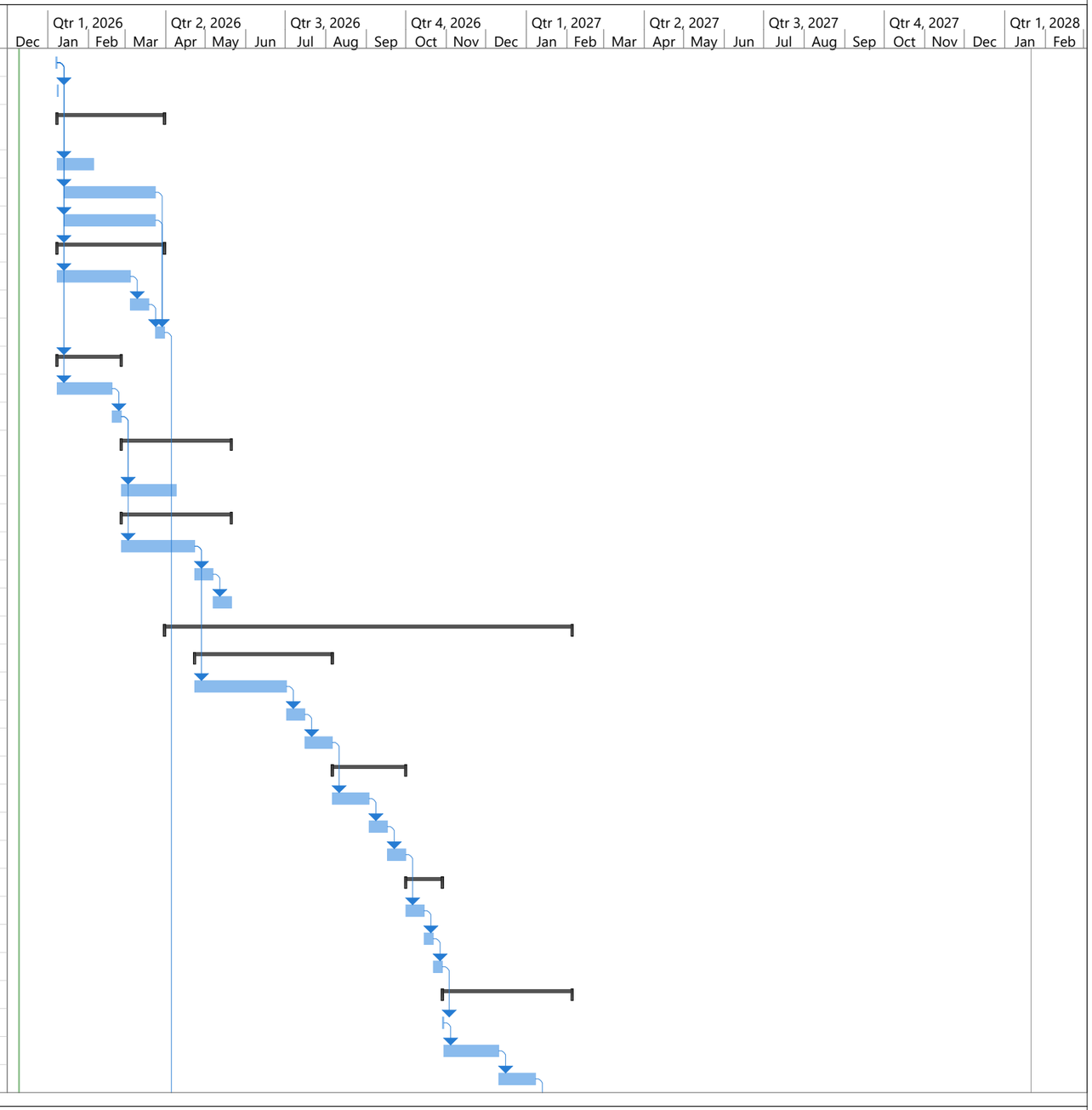
Best Practices: Kleinfelder's best practices include providing a certified project manager that has completed Kleinfelder's Project Management Qualifications training, qualified professional and licensed staff with relevant project experience, and in-house project controls processes to track project metrics (e.g., milestones, budget spent to date, cost to complete, etc.). Kleinfelder utilizes a comprehensive set of best practices to deliver high quality and value in our work. Our approach is rooted in decades of experience, technical knowledge, and a commitment to continuous improvement.

Key best practices include:

- **Project Controls:** Each project document is assigned a unique identifier and metrics are tracked through secure systems, maintaining document integrity and compliance with retention policies.
- **Continuous Process Improvement:** We regularly evaluate and refine our methods, incorporating lessons learned and innovative approaches to exceed client expectations and adapt to evolving industry standards.
- **Commitment to Safety:** Kleinfelder's Loss Prevention System (LPS) is a behavior-based safety program that empowers staff to identify and mitigate risks, promoting a safe work environment for both our employees and clients.
- **Sustainability and Environmental Stewardship:** Sustainable practices are included in our project work to reduce environmental impact and promote long-term value.
- **Staffing Continuity and Local Resources:** We maintain consistent project teams and leverage local resources to provide responsive, timely service.

Design & Construction Detailed Schedule
City of Manteca:Well 22 Treatment Facility

ID	Task Name	Duration	Start	Finish	Predecessors
1	**0-NTP**	**1 day**	**Wed 1/7/26**	**Wed 1/7/26**	
2	**TASK 1 - PROJECT MANGEMENT AND SET UP**	**1 day**	**Thu 1/8/26**	**Thu 1/8/26**	**1**
3	**TASK 2 - WATER QUALITY ASSESSMENT & EVALUATION OF TREATMENT OPTIONS**	**58 days**	**Thu 1/8/26**	**Mon 3/30/26**	
4	**2.1: Records Review**	**20 days**	**Thu 1/8/26**	**Wed 2/4/26**	1
5	**2.2a: Bench-Scale PFAS Testing**	50 days	Tue 1/13/26	Mon 3/23/26	1
6	**2.2b: Bench-Scale Arsenic Testing**	50 days	Tue 1/13/26	Mon 3/23/26	1
7	**2.3: Water Quality Technology Assessment**	**58 days**	**Thu 1/8/26**	**Mon 3/30/26**	1
8	2.3.1: Draft Deliverable	40 days	Thu 1/8/26	Wed 3/4/26	1
9	-City Review and Comments-	10 days	Thu 3/5/26	Wed 3/18/26	8
10	2.3.2: Final Deliverable	5 days	Tue 3/24/26	Mon 3/30/26	9,5,6
11	**2.4: Capital Cost Estimate**	**35 days**	**Thu 1/8/26**	**Wed 2/25/26**	**1**
12	2.4.1: Draft Capital Cost Estimate	30 days	Thu 1/8/26	Wed 2/18/26	1
13	-City Review and Approve Capital Cost Estimate-	5 days	Thu 2/19/26	Wed 2/25/26	12
14	**TASK 3 - PREPARE TREATMENT SYSTEM BASIS OF DESIGN REPORT**	**60 days**	**Thu 2/26/26**	**Wed 5/20/26**	
15	**3.1: Determine Locations and Elevations of Existing Utilities**	**30 days**	**Thu 2/26/26**	**Wed 4/8/26**	13
16	**3.2: Basis of Design Report**	**60 days**	**Thu 2/26/26**	**Wed 5/20/26**	
17	3.2.1: Draft Deliverable	40 days	Thu 2/26/26	Wed 4/22/26	13
18	-City Review and Comments-	10 days	Thu 4/23/26	Wed 5/6/26	17
19	3.2.2: Final Deliverable	10 days	Thu 5/7/26	Wed 5/20/26	18
20	**TASK 4: DETAILED DESIGN & BID SERVICES**	**223 days**	**Tue 3/31/26**	**Thu 2/4/27**	
21	**4.2: 70% Design Package (PS&E)**	**75 days**	**Thu 4/23/26**	**Wed 8/5/26**	
22	4.2.1: Draft Deliverable	50 days	Thu 4/23/26	Wed 7/1/26	17
23	-City Review and Comments-	10 days	Thu 7/2/26	Wed 7/15/26	22
24	4.2.2: Final Deliverable	15 days	Thu 7/16/26	Wed 8/5/26	23
25	**4.3: 100% Design Package (PS&E)**	**40 days**	**Thu 8/6/26**	**Wed 9/30/26**	
26	4.3.1: Draft Deliverable	20 days	Thu 8/6/26	Wed 9/2/26	24
27	-City Review and Comments-	10 days	Thu 9/3/26	Wed 9/16/26	26
28	4.3.2: Final Deliverable	10 days	Thu 9/17/26	Wed 9/30/26	27
29	**4.4: Conformed Design Package**	**20 days**	**Thu 10/1/26**	**Wed 10/28/26**	
30	4.4.1: Draft Deliverable	10 days	Thu 10/1/26	Wed 10/14/26	28
31	-City Review and Comments-	5 days	Thu 10/15/26	Wed 10/21/26	30
32	4.4.2: Final Deliverable	5 days	Thu 10/22/26	Wed 10/28/26	31
33	**4.5: Bid Services**	71 days	Thu 10/29/26	Thu 2/4/27	
34	4.5.1: Attend Pre-Bid Conference and Site Visit	1 day	Thu 10/29/26	Thu 10/29/26	32
35	4.5.2: Respond to Technical Inquiries/Clarifications	30 days	Fri 10/30/26	Thu 12/10/26	34
36	4.5.3: Prepare Technical Addenda	20 days	Fri 12/11/26	Thu 1/7/27	35

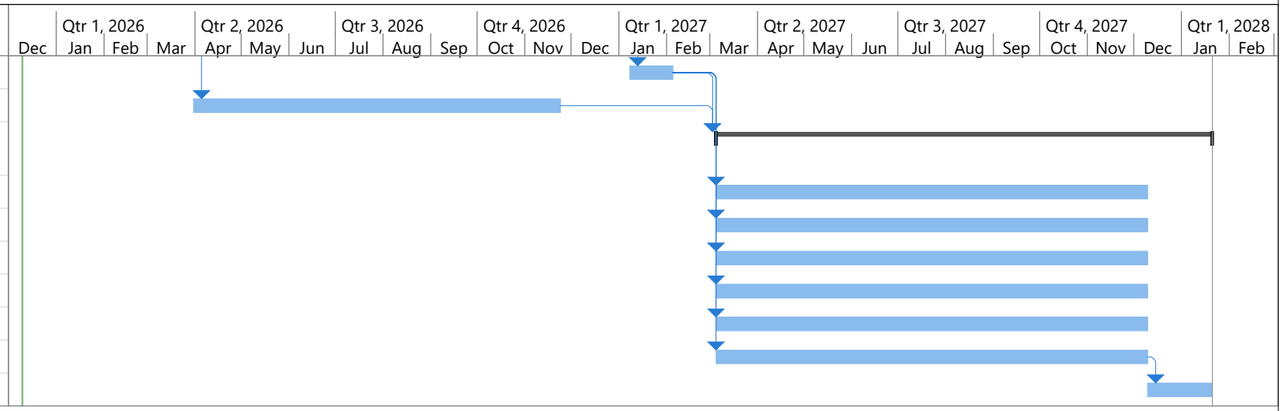


Project: City of Manteca:Well 22 Treatment Facility
Date: Wed 12/10/25

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

Design & Construction Detailed Schedule
City of Manteca:Well 22 Treatment Facility

ID	Task Name	Duration	Start	Finish	Predecessors
37	4.5.4: Incorporate Addenda into the Bid Documents	20 days	Fri 1/8/27	Thu 2/4/27	36
38	**4.6: Environmental, Permitting & Regulatory**	170 days	Tue 3/31/26	Mon 11/23/26	10
39	**TASK 5: ENGINEERING SUPPORT DURING CONSTRUCTION (OPTIONAL)**	**230 days**	**Fri 3/5/27**	**Thu 1/20/28**	**37,38**
40	5.1: Progress Meetings	200 days	Fri 3/5/27	Thu 12/9/27	37FS+20 days
41	5.2: RFI's	200 days	Fri 3/5/27	Thu 12/9/27	37FS+20 days
42	5.3: Submittals	200 days	Fri 3/5/27	Thu 12/9/27	37FS+20 days
43	5.4: Change Order Review	200 days	Fri 3/5/27	Thu 12/9/27	37FS+20 days
44	5.5: Site Visits & Reporting	200 days	Fri 3/5/27	Thu 12/9/27	37FS+20 days
45	5.6: Design Changes	200 days	Fri 3/5/27	Thu 12/9/27	37FS+20 days
46	5.7: Record Drawings	30 days	Fri 12/10/27	Thu 1/20/28	45



Project: City of Manteca:Well 22 Treatment Facility
Date: Wed 12/10/25

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

QUALIFICATIONS, RELATED EXPERIENCE AND REFERENCES

WORK OF A SIMILAR NATURE

The matrix provided under Exhibit 3 below illustrates the Kleinfelder and Trussell project team's participation in projects similar in scope to this project.

WATER SUPPLY AND WATER QUALITY ENGINEERING EXPERIENCE

Our team has selected three of the projects contained on the example project table to provide additional detail, based on their similarities to the City's scope of work.

1. Straightway and Hyannisport PFAS Water Treatment Facilities | Town of Barnstable, MA

The Town of Barnstable's Straightway and Hyannisport Treatment Facilities serve four wells with a combined permit capacity of 4 million gallons per day (MGD). However, deteriorating wells, declining water source water quality and inadequate treatment facilities limit their capacity by 50%. The facilities must be upgraded with a long-term solution to remove elevated levels of iron (1.96 mg/L), manganese (0.875 mg/L), 1-4 dioxane (0.85 ug/L), and PFAS (86 ng/L). Kleinfelder provided engineering services for the design which includes two new replacement wells and vertical turbine pump stations, winterization of existing GAC units, and construction of a new 4-MGD Straightway Water Treatment Facility. The new 11,000-SF facility will house greensand pressure filtration, UV-AOP treatment to remove 1,4 dioxane, and GAC for PFAS removal, as well as 4-log disinfection, chemical feed addition for corrosion control, and backwashing and residuals management systems. The multi-part site also requires extensive stormwater management design and MEPA Environmental Impact Report with Environmental Justice components.

Prior to starting design, Kleinfelder performed pilot testing and prepared a holistic supply-demand analysis which showed that a single facility would be the preferred alternative overall and save over $6M in capital costs. The reduction in overall cost was achieved by combining the two facilities, winterizing the existing seasonal GAC system, and reuse of existing infrastructure to decrease service disruptions.

KEY PERSONNEL: Scott Grieco

DESIGN FEE: $2.065M | **CONSTRUCTION COST:** $38.49M at award. (EOCP $89.5M) **CHANGE ORDER:** N/A (Construction just underway)

Exhibit 3

Project	Completed On Schedule	Cost Estimation and Budgeting	Water Quality Analysis	Alternatives Evaluation/ Process	Treatability Testing	Conceptual Design	Procurement	Detailed Design	Construction & Startup	Permitting Support	Treatment of Multiple Contaminants
1. Straightway and Hyannisport PFAS Water Treatment Facilities, Town of Barnstable, MA.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Alameda County Water District Groundwater Facilities, PFAS Treatment, Fremont, CA (Trussell)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3. City Of San Diego, Miramar Clearwell Improvements, San Diego, CA	✓	✓		✓		✓	✓	✓	✓	✓	✓
4. City of San Diego North City Water Reclamation Plant, San Diego, CA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Badger Water Treatment Plant Improvements, Santa Fe Irrigation District, Santa Fe, CA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6. Town of Millis Well 1 & 2 PFAS Treatment and Well Pump Station Upgrades, Millis, MA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Town of Windsor Groundwater Consulting Services (Arsenic) (Trussell)		✓		✓	✓	✓		✓			
8. San Joaquin Delta College, Water Treatment and Distribution System, Stockton, CA		✓	✓	✓	✓	✓	✓	✓	✓	✓	
9. South Bay Water Reclamation Plant Reverse Osmosis, San Diego, CA	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓

2. PFAS Treatment at Alameda County Water District's Groundwater Facilities | Fremont, CA (Trussell)

Alameda County Water District (ACWD) is constructing a 6-MGD PFAS treatment facility for their groundwater system with the ability for future expansion to a 24-MGD facility including hardness removal via RO. ACWD currently blends their groundwater with water from the San Francisco Public Utilities Commission to meet hardness and PFAS goals, but the target blending ratio limits their production capacity. ACWD selected Trussell to evaluate treatment alternatives, conduct bench-scale testing, design the treatment system, and support construction and permitting efforts on an accelerated timeline.

Trussell conducted rapid small-scale column testing (RSSCT) to evaluate the performance of six media (GAC and IX) for removal of PFAS using groundwater collected from ACWD's wellfields. Based on the RSSCT results and an extensive alternatives analysis by Trussell, ACWD decided to proceed with the design and construction of a 6-MGD IX treatment facility. Trussell, along with its teaming partner, completed all phases of design and continues to manage the project through construction and startup, the first phase of which was completed in fall 2024. Trussell also played a significant role in the regulatory and permitting efforts with DDW and helped ACWD secure an amendment to their drinking water permit on an accelerated schedule. The second phase of startup occurred in spring 2025.

Photo: Courtesy of Trussell

KEY PERSONNEL: Trussell: Jacob Newman | Kleinfelder: Scott Grieco
DESIGN FEE: $2.57M | **CONSTRUCTION COST: $25M | CHANGE ORDER** %: 0%

3. City of San Diego, Miramar Clearwell Improvements | San Diego, CA

The project comprises the design for decommissioning, demolition, and replacement of two 30-million-gallon concrete clearwells adding 6 MG of capacity at the facility. In addition to the clearwells, additional scope included the construction of a new chlorine contact chamber with adjoining lift station, an operation and maintenance building, a new security guard shack with surveillance equipment and fences, a pump station, an electrical building, a pre-fabricated storage building, miscellaneous vaults and structures, and the installation of a 1-megawatt solar power system. This project included complex and extensive demolition planning and construction sequencing to allow continued operation of the facility.

KEY PERSONNEL: Christina Nishimoto, Trevor Shackelford, Art Garcia, Sava Nedic
DESIGN FEE: $8.5 M | **CONSTRUCTION COST:** $91 M at Award (EOCP $89.5M) | **CHANGE ORDER** %: 2.87%

KEY PERSONNEL

PROPOSED STAFFING AND PROJECT ORGANIZATION

All team members, regardless of current assigned location, will be invoiced with the Stockton office as the starting and ending point.

This contract is a priority for Kleinfelder. **Kleinfelder's key personnel are committed and 100% available to the City anytime that we are requested by the City to provide services. When project volume needs arise, we provide 100% availability.**

Key personnel will be available to the extent proposed for the duration of the project, acknowledging that no person designated as "key" to the project shall be removed or replaced without the prior written concurrence of the City.

PROJECT KEY

1. Straightway and Hyannisport PFAS Water Treatment Facilities; 2. PFAS Treatment at Alameda County Water District's Groundwater Facilities (Trussell); 3. Miramar Clearwell Improvements; 4. City of San Diego North City Water Reclamation Plant; 5. Badger Water Treatment Plant Improvements; 6. Town of Millis Well 1 & 2 PFAS Treatment and Well Pump Station Upgrades; 7. Town of Windsor Groundwater Consulting Services; 8. San Joaquin Delta College, Water Treatment and Distribution System

Simon Wong, Principal in Responsible Charge | Professional Engineer (PE) - Civil, No. 37416, CA | *Structural* Engineer (SE), No. 2906, CA | Education: MS, Structural Engineering; BS, Civil Engineering | Current Location: San Diego, CA | Current Assignment: QAQC on various projects / Level of Commitment: 50% | Years of Experience: 40 | Years with Firm: 12

Mr. Wong has 40 years of experience managing and performing major civil, structural, water/wastewater engineering projects throughout California, across the US, and overseas. His proficiencies are water and wastewater treatment, civil and structural design construction management. Mr. Wong also has diverse background including structural design encompassing various disciplines including the design of tertiary water treatment facilities and water bearing structures including pump stations, water and wastewater facilities, reservoirs, and seismic design.

Similar Project Experience

(3) City of San Diego, Miramar Clearwell Improvements, San Diego, CA. As Principal-in-Charge, Mr. Wong currently served as the leading technical expert on the City of San Diego's Miramar Treatment Plant Clearwells Replacement Project. Kleinfelder was the prime consultant for this project that consists of the design of two new concrete rectangular hopper bottom reservoirs serving as clearwells with a total volume of 58.3 MG, a 5-MG chlorine contact chamber (CCC), and a maintenance facility in the 215-MGD capacity Miramar Water Treatment Plant. The scope includes geotechnical studies, environmental report amendments, architectural, civil, landscape, electrical, reservoir water quality studies, baffles, disinfection design including meeting DDW water quality requirements. The CCC will replace the existing ozone disinfection system in case of power outage and is designed to meet 3 log virus and 1 log giardia deactivation credit.

Jeremy Scott, Senior Project Manager | Professional Engineer (PE) - Civil, No. 96748, CA | Education: MS, Environmental Engineering; BS, Civil Engineering | Current Location: Concord, CA | Current Assignment: ITR and PM on various projects/ Level of Commitment: 50% | Years of Experience: 24 | Years with Firm: 3

Mr. Scott has 24 years of experience managing and performing major civil and environmental engineering projects throughout California, across the US, and overseas. His proficiencies are in site investigation and remediation, construction management, compliance, water and wastewater treatment, civil and geotechnical design, environmental due diligence, and renewable energy. Mr. Scott's previous design experience includes effluent treatment plant design and operation, geotechnical repair design (landslide response activities: gabion basket retaining wall, soldier pile retaining wall, and rock slope protection), water system improvement design projects, hydraulic barrier wall design, soil vapor extraction system design, and landfill liner design. Mr. Scott also has diverse groundwater pump/treat operations experience, along with vertical construction, construction management, brownfields redevelopment, and regulatory compliance and permitting experience.

Similar Project Experience

Remedial Action Implementation, Jennings Radio Manufacturing, San José, CA. Project manager for design and installation of remedial actions at electronics manufacturing facility. Remedial actions included hydraulic barrier wall, soil vapor extraction, in situ bioremediation of groundwater, and installation of a permeable reactive barrier. Also included subsurface investigation of VOC impacts in soil, soil vapor, and groundwater

Remaining Road Repairs Design, Hetch Hetchy Water and Power, Various Locations, CA. Project manager for design of landslide and erosion repair projects at 21 sites across Northern California, including soldier pile wall with soil anchors, gabion basket retaining wall, rock slope protection, culvert repair, and bridge abutment stabilization. Includes detailed design, technical specifications, bid specifications, and geotechnical reporting.

Scott Grieco, PhD, PE*, Treatment Lead | Professional Engineer (PE) - Civil, No. 073554-01, NY | PhD, Bioprocess Engineering; MS, Environmental Engineering; BS, Chemical Engineering | Current Location: Fishkill, NY | Current Assignment: ITR various projects / Level of Commitment: <20% | Years of Experience: 34 | Years with Firm: 1

Dr. Grieco has 34 years of experience in water treatment systems. Direct experience with each phase of design, bench and pilot-scale studies, process modeling, alternatives evaluations, capacity assessments, technical reports/presentations, detailed design and development of training materials. **Advanced technical knowledge** in physical/chemical treatment of emerging contaminants and persistent environmental compounds. Has focused on evaluation and treatment of PFAS in drinking water for the past 10 years and is a recognized national subject matter expert regarding PFAS occurrence and treatment.

Similar Project Experience

(2) PFAS Treatment at Alameda County Water District's Groundwater Facilities, Fremont, CA. Conducted rapid small-scale column tests (RSSCTs). Evaluated GAC, IX, and alternative surface-modified clay. Evaluating bench scale data to develop full-scale lead-lag model and costs for each water source. Included detailed design of 15 MGD for PFAS treatment, with future provisions of an additional 22 MGD of membrane softening. Provided internal technical review and oversight of media testing and process design review.

(1) Straightway and Hyannisport PFAS Water Treatment Facilities, Town of Barnstable, MA. Advised process team and provided technical review of pilot proposals and process designs and calculations, related to treatment technology evaluation, conceptual design, and alternatives analysis to determine the solution that would provide flexibility, resiliency, and cost-effective treatment. The Town of Barnstable's Treatment Facilities serve four wells with a combined pumping capacity of 2,700 gpm. Treatment designed to remove elevated levels of iron, manganese, 1-4 dioxane, and PFAS.

Verona Township, Verona, NJ. Provided technical review and oversight of media testing and process design. Project included two well-head treatment systems: one for arsenic and PFAS (200,000 GPD) and one for only PFAS (500,000 GPD). Conducted rapid small-scale column tests (RSSCTs). Evaluated IX media for PFAS and GFH for arsenic. GAC was not considered due to lack of facilities to accommodate size and backwashing. Included detailed design and technical bid documents for both systems.

David Hokanson, PhD, PE, BCEE, Treatment Lead, Bench Scale Testing | Professional Engineer (PE) - Civil, No. 70254, CA; Board Certified Environmental Engineer (BCEE) | Education: PhD, Environmental Engineering; MS, Civil Engineering; BS, Environmental Engineering | Current Location: Pasadena, CA | Current Assignment: Various current projects as including PFAS, hexavalent chromium, UV, corrosion control, and desalination / Level of Commitment: 80% | Years of Experience: 29 | Years with Firm: 20+

Dr. Hokanson is a specialist in physical and chemical processes applied to water treatment and potable reuse, with over 29 years of experience and more than 75 publications. Dr. Hokanson specializes in groundwater treatment for removal of PFAS, perchlorate, and VOCs. Recent projects include GAC/IX facilities treating PFAS for Monterey Park, Alameda County and Fallbrook. Additionally, Dr. Hokanson has developed models for GAC and IX treatment technologies and set up the RSSCT capabilities for Trussell that have been used for several utilities on PFAS projects.

Similar Project Experience

(2) PFAS Treatment at Alameda County Water District's Groundwater Facilities, Fremont, CA. Dr. Hokanson served as a technical advisor and provided expert guidance on RSSCT with both GAC and IX media. Dr. Hokanson also reviewed the project at various stages of design.

Brie Post, PE (Trussell), Process Design Engineer, Permitting Support | Professional Engineer (PE) – Civil, No. 86849, CA; | Education: MS, Civil and Environmental Engineering; BS, Civil Engineering | Current Location: Oakland, CA | Current Assignment: Various current projects include arsenic and manganese treatment system designs, water treatment pilot facility design / Level of Commitment: 80% | Years of Experience: 11+ | Years with Firm: 11+

Ms. Post is a principal engineer at Trussell Technologies with over 11 years of experience. She leads projects on evolving topics like direct and indirect potable reuse, onsite reuse, contaminated groundwater, and algal bloom mitigation for surface water treatment. Ms. Post's work on these topics includes treatment system design, planning-level studies, pilot testing design and execution, data analysis and technical report development, project management, and regulatory support including interactions with the DDW and Regional Water Boards.

Similar Project Experience

(7) Town of Windsor Groundwater Consulting Services, Windsor, MA. Trussell and its teaming partners developed a new groundwater supply for the Town of Windsor. Trussell is leading the process design of an arsenic and manganese treatment system for a 400-gpm well. Trussell built and operated a pilot facility, conducted jar testing, and executed RSSCT testing to evaluate treatment alternatives. Trussell is developing designs for filter backwash residuals treatment at the well site, with Ms. Post as the project manager, leading the development of the BODR and the 30% design.

Art Garcia, PE, Mechanical Design | Professional Engineer (PE)-Civil, No. 82672, CA | MS, Civil Engineering; BS, Environmental Engineering | Current Location: San Diego, CA | Current Assignment ITR and PM on various projects / Level of Commitment: <20% | Years of Experience: 15 | Years with Firm: 11

Mr. Garcia is experienced in the design and management of municipal water, recycled water, and wastewater infrastructure projects. He has a strong technical background with experience executing projects in both project management and engineering leadership roles. Mr. Garcia is experienced in comprehensive phases including condition assessments, planning, design, and construction. He has demonstrated the ability to be a successful technical lead on a variety of water and wastewater infrastructure projects. Mr. Garcia is experienced in the design of piping systems in treatment plants, collection systems, and distribution systems. He is responsible for detailed design and layout, civil/mechanical calculations and analysis, equipment selection, cost estimation, and development of plans and specifications.

Similar Project Experience

(8) San Joaquin Delta College, Water Treatment and Distribution System, Stockton, CA. Mr. Garcia was responsible for estimating system demands, developing design criteria, selecting the treatment technology, and sizing the treatment, pumping and storage equipment. Mr. Garcia prepared a technical memorandum that defined design criteria, described treatment system alternatives and provided treatment recommendations. Design drawings and specifications were then prepared for manufacturers to competitively bid on an ion-exchange treatment and distribution system. Mr. Garcia reviewed bids from multiple manufacturers and provided a recommendation to our client.

(5) Santa Fe Irrigation District (SFID), RE Badger Water Filtration Plant Solids Handling Improvements, Rancho Santa Fe, CA. Mr. Garcia was responsible for the design of upgrades to an existing mechanical dewatering facility. He coordinated with several disciplines and subconsultants to develop design criteria, evaluate project alternatives, prepare technical memoranda, and prepare construction plans and specifications. Mr. Garcia developed a holistic mass-balance of the plant's solids to identify and develop design criteria for the improvements.

(4) City of San Diego, North City Water Reclamation Plant (NCWRP) Equipment Condition for Hydraulic Capacity Assessment, San Diego, CA. Lead project engineer coordinating and executing an evaluation of hydraulic equipment at the 30-MGD NCWRP to assess the plant's overall hydraulic capacity.

Trevor Shackelford, PE*, Mechanical Design | Professional Engineer (PE) - Civil, No. 050634, NC | Education: BS, Civil Engineering | Current Location: San Diego, CA | Current Assignment: ITR and PM on various projects/ Level of Commitment: 40% | Years of Experience: 13 | Years with Firm: 8

Mr. Shackelford is a project manager with 13 years of experience specializing in water and wastewater infrastructure design and construction. His varied experience includes condition assessment, design, and construction services encompassing pipelines, process systems, water/wastewater treatment systems, pump stations, and pipelines. He has been responsible for condition assessments, detailed design and development of plans and specifications, project management, civil/mechanical calculations and analysis, equipment commissioning, cost estimating, and construction services.

Similar Project Experience

(3) City of San Diego, Miramar Clearwell Improvements, San Diego, CA. Project engineer focusing on construction services and design for multiple scopes of work at the Miramar Water Treatment Plant.

(9) South Bay Water Reclamation Plant Reverse Osmosis, San Diego, CA. Project manager providing design engineering, bidding support, and construction support services to the City of San Diego to replace an existing Electro Dialysis Reversal (EDR) treatment system with a new Reverse Osmosis (RO) treatment system. Kleinfelder performed desktop hydraulic evaluations to select new feed and effluent pumps and design mechanical

infrastructure to accommodate the process equipment including interconnecting piping, utility water systems, and drains. Kleinfelder provided design of new chemical containment area with concrete walls and pads for various equipment.

Keith Galligan, PE, Civil Design | Professional Engineer (PE) - Civil, No. 97851, CA | Education: BS, Civil Engineering | Current Location: San Diego, CA | Current Assignment: Design Lead on various projects / Level of Commitment: 60% | Years of Experience: 10 | Years with Firm: 3

Mr. Galligan has 10 years of experience in storm water design, land development, CAD drafting, and plan processing on various projects throughout California. He specializes in stormwater management and hydrology and hydraulic studies, with experience in other aspects of work including grading design, roadway design, and plan production. Mr. Galligan has worked with various agencies and project teams to provide engineering design services for the development of a wide variety of project types, including bridges, solar and wind farms, residential developments, airports, commercial and industrial facilities, and state parks.

Similar Project Experience

Caballero BESS & Substation, FastGrid, Lost Hills, CA. Mr. Galligan provided site civil engineering design for Battery Energy Storage System (BESS) equipment foundations, and surveying services. The project consists of approximately 6.8 acres of total fenced area. Design includes a retention basin, gravel access roads, equipment pads, perimeter fencing, and electrical substation.

Revamp - POME BESS, Revamp Engineering, Inc., Poway, CA. Mr. Galligan provided design for the installation of a BESS and substation on approximately 4 acres of paved commercial land. Design included a biofiltration basin, asphalt-paved access roads, equipment pads, 7-foot-tall perimeter fencing with 3-strand barbed wire, electrical substation.

Matthew Hawkeye, PhD, PE*, Electrical and I&C Design | Professional Engineer (PE) - Electrical, No. 033363, NV | Education: PhD, Electrical Engineering; BS, Engineering | Current Location: Edmonton, AB, Canada | Current Assignment Team Lead, ITR and PM on various projects 75% / Level of Commitment: 25% | Years of Experience: 22 | Years with Firm: 11

Dr. Hawkeye's experience includes front-end engineering, detailed design and development of construction specifications and plans, and construction and start-up support. He liaises in the areas of electrical design for power distribution, control, instrumentation systems, and other electrical equipment.

Similar Project Experience

(5) City of San Diego, North City Water Reclamation Plant – Electrical, Instrumentation, and Controls Design, San Diego, CA. As lead electrical engineer, Dr. Hawkeye led the electrical design for the project, preparing detailed construction plans for demolition, wiring system design, PLC integration, and network tie-ins. The client's existing pump station needed to be replaced to accommodate increased water flow demand. This required replacing existing electrical and controls infrastructure, including pump motors, conduit duct bank, instrumentation, as well as the installation of a custom pump control system and fiber optic link to remote SCADA.

Christina Nishimoto, PE, SE, Structural Design | Professional Engineer (PE)-Civil, No. 73208, CA; Structural Engineer (SE), CA No. S6084 | Education: MS, Structural Engineering; BS Structural Engineering | Current Location: San Diego, CA | Current Assignment: ITR and PM on various projects / Level of Commitment: 40% | Years of Experience: 19 | Years with Firm: 19

Ms. Nishimoto has 19 years of experience with structural design of steel, concrete, masonry, and timber structures. She is knowledgeable about the design considerations of all four materials and has a deep understanding of their respective governing codes. Her project experience includes the design and analysis of reservoirs, outlet towers, pump stations, power buildings, and other appurtenant structures at water and wastewater treatment plants. Ms. Nishimoto's design phase work has included structural analysis and detailing, leading meetings, and coordinating with professional trades. Ms. Nishimoto has experience managing multi-disciplinary teams and supporting the preparation of reports, design drawings, and cost estimates.

Similar Project Experience

(3) Miramar Clearwell Improvements, City of San Diego Public Utilities Department, San Diego, CA. As assistant project manager and lead structural engineer, Ms. Nishimoto designed two new rectangular hopper bottom reservoirs, totaling 58.3 MG. The structural system is a two-way reinforced concrete roof with drop panels supported seismically by perimeter concrete shearwalls. Ms. Nishimoto also designed a 5-MG chlorine contact chamber of similar structural system. Ms. Nishimoto assisted in managing the work of a number of subconsultants, including the water disinfection process, and architectural, civil, landscaping, and environmental permitting. She also provided construction support services.

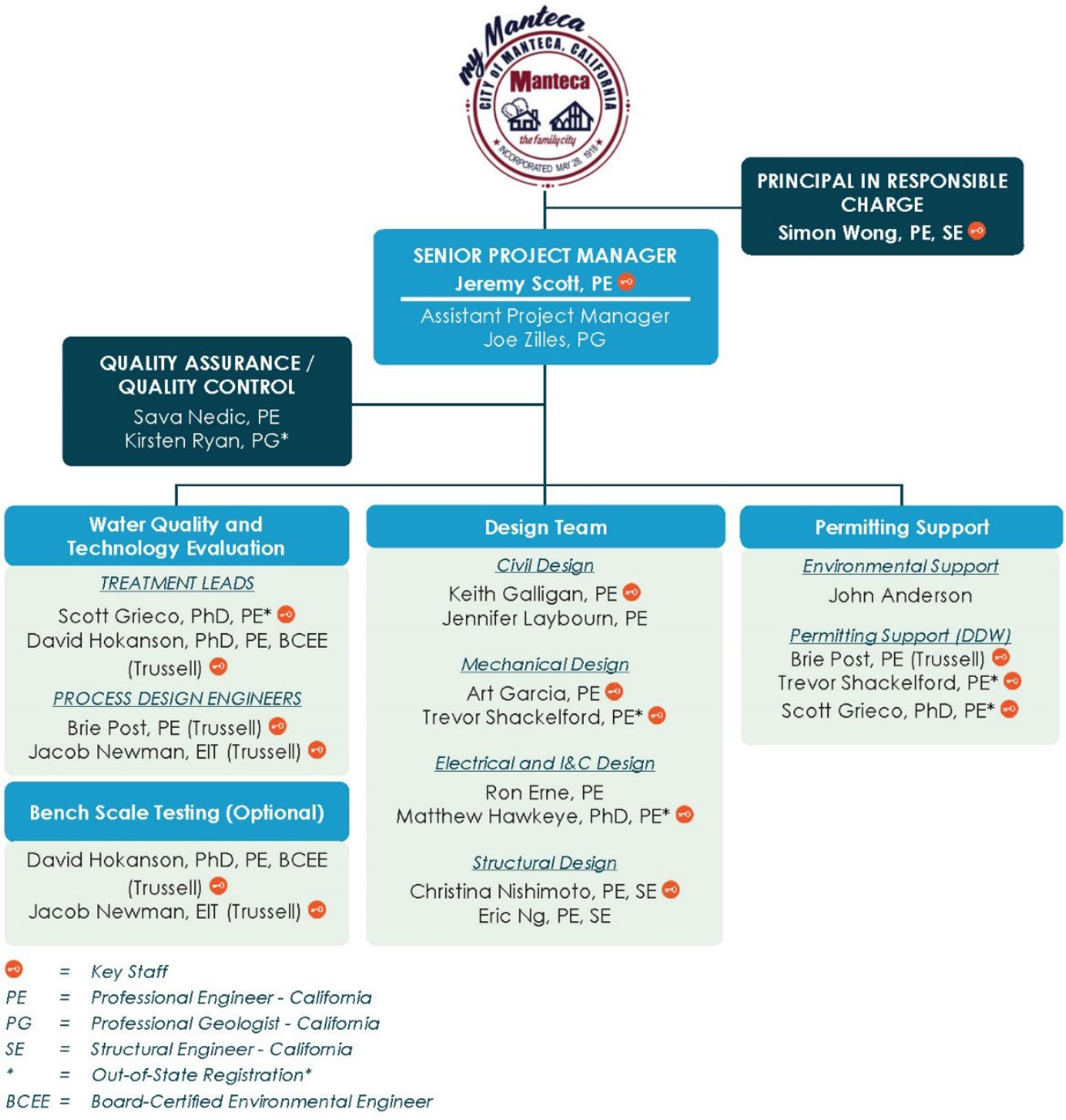
(5) Badger Water Filtration Plant, Santa Fe Irrigation District, Rancho Santa Fe, CA. As lead structural engineer, analyzed an existing 13.0-MG clearwell constructed in 1967 following the standards set forth by the 2016 California Building Code. Analysis showed that the perimeter walls, roof, and columns of this buried concrete reservoir were deficient based on the 2016 CBC requirements. Ms. Nishimoto design structural improvements to improve the structural performance of the clearwell to meet the requirements of the 2016 CBC. Ms. Nishimoto also designed a new one-story CMU building with a 15-ton bridge crane supported on concrete pilasters. Ms. Nishimoto provided structural construction support services.

ORGANIZATIONAL CHART

Kleinfelder has carefully selected team members to provide qualified, available professionals familiar with the City and the local conditions. The organizational chart outlines Kleinfelder's assigned key staff and support staff and basic reporting relationship structure for this contract.

CALIFORNIA PE, PRINCIPAL IN RESPONSIBLE CHARGE

California PE, Simon Wong, will be the Principal in Responsible Charge. A copy of his license and the licenses for other design professionals who are expected to be stamping contract documents, submittal packages, and permit applications are included in Appendix B.



= *Key Staff*
PE = *Professional Engineer - California*
PG = *Professional Geologist - California*
SE = *Structural Engineer - California*
* = *Out-of-State Registration**
BCEE = *Board-Certified Environmental Engineer*

KEY PERSONNEL STATEMENT

Key personnel will be available to the extent proposed for the duration of the project; no person designated as "key" to the project shall be removed or replaced without the prior written concurrence of City.

REFERENCES

Project	Referenc Contact Information
Straightway Water Treatment Facilities and Well Replacements Barnstable, MA	Town of Barnstable, MA Hans Keijser, Supervisor Water Supply Division 47 Old Yarmouth Road Hyannis MA 02601 508.778.9617
City of San Diego Miramar Clearwell Improvements San Diego, CA	City of San Diego Julie Adam, Project Manager Public Works Department 1010 Second Avenue, Suite 1100 San Diego, CA 92101 619.533.7412
PFAS Treatment at Alameda County Water District's Groundwater Facilities	Alameda County Water District Kerri Smyth, PE, Project Manager 13991 Avenue 7 Madera, CA 93637 510.668.4486
Delta College Water Treatment System Manteca Farm Project San Joaquin Delta College Stockton, CA	San Joaquin Delta College Stacy Pinola, Director of Facilities Planning and Management 5151 Pacific Avenue Stockton, CA 95207 209.954.5835

Miramar Clearwells Chlorine Contact Chamber

"… The open lines of communication between the entire Kleinfelder project management team and the City, Contractor, and Construction Management teams, in response to design and operational issues, has been conducted professionally, in a timely manner and within the project budget. The challenges faced on the Miramar Clearwell Replacement Project, have been handled skillfully by the Kleinfelder project team, demonstrating their ability to accommodate numerous agency and client requests, while understanding the need to adhere to the City's procedural requirements."

Julie Adam, Project Manager, Miramar Clearwell Improvements Project, City of San Diego

PAST JOINT WORK BETWEEN KLEINFELDER AND TRUSSELL

Project / Role	Summary Responsibilities
North City Water Reclamation Plant Additional Filter Loading Rate Testing, San Diego, CA	
Kleinfelder: Prime Consultant	Lab Testing & Sampling, Mechanical, Civil, Electrical Instrumentation & Control, project management, QA/QC
Trussel: Subconsultant	Process Design, with full scale facility pilot testing and reporting, coordination with DDW
Advanced Water Treatment Certified Training Program for Operators, San Diego, CA	
Kleinfelder: Prime Consultant	Program Management, QA/QC, independent technical review, and program workshop coordination
Trussell: Subconsultant	Preparing training program and presenting training program segments
Miramar Residuals Redirection, San Diego, CA	
Kleinfelder: Prime Consultant	Mechanical, Structural, Civil, Electrical Instrumentation & Control Design, topographic survey, bidding support
Trussell: Subconsultant	Process design assistance and facility startup support
South Bay Water Reclamation Plant Reverse Osmosis, San Diego, CA	
Kleinfelder: Subconsultant	Mechanical, Structural, Civil Design
Trussell: Prime Consultant	Process Design

EXHIBIT B

CERTIFICATE OF COMPLIANCE WITH LABOR CODE § 3700
[Labor Code § 1861]

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this AGREEMENT.

CONSULTANTS

By: 

[Title]
Vice President

EXHIBIT C

Fee Schedule

COST PROPOSAL

City of Manteca - Professional Engineering Services Well 22 Treatment Facility

Kleinfelder, Inc.

Scope of Services	Total Fee
Task 1 - Project Management and Set-Up	
Task 1a - Project Management and Set-Up Part I	$ 21,502.50
Task 1b - Project Management and Set-Up Part II	$ 50,172.50
Task 2 - Water Quality Assessment and Evaluation of Treatment Options	
Task 2a - Water Quality Assessment and Evaluation of Treatment Options Part I	$ 50,019.50
Task 2b - PFAS and Arsenic RSSCT and Reporting	$ 128,478.00
Task 2c - Water Quality Assessment and Evaluation of Treatment Options Part II	$ 66,716.50
Task 3 - Design of Treatment System, Cost Estimation, and Budgeting	$ 101,125.00
Task 4 - Final Design & Deliverables	$ 308,872.00
NOT-TO-EXCEED TOTAL (INITIAL AWARD - TASKS 1A, 2A, and 2B)	**$ 200,000.00**
NOT-TO-EXCEED TOTAL (FUTURE AWARD - Tasks 2C, 3, and 4)	**$ 526,886.00**
Optional Task	
Task 5 - Engineering Support During Construction	$ 206,610.00
NOT-TO-EXCEED TOTAL (Including Optional Task 5)	**$ 933,496.00**
Additional Optional Tasks	
Task 6a - PFAS RSSCT and Reporting	included in Task 2
Task 6b - Arsenic RSSCT and Reporting	included in Task 2
Task 7 - Geotechnical Investigation and Report	Excluded

RATE TABLE

City of Manteca - Professional Engineering Services Well 22 Treatment Facility

Kleinfelder, Inc.

Classification/Title	Hourly Billing Rate
Professional*	$ 122.00
Staff Professional*	$ 153.00
Project Professional	$ 193.00
Senior Professional	$ 210.00
Principal Professional	$ 224.00
Senior Principal Professional	$ 317.00
Senior Technical Manager	$ 332.00
Project Manager	$ 193.00
Senior Project Manager	$ 278.00
Designer/Drafter	$ 112.00
Senior Designer/Drafter	$ 146.00
Project Controls Professional*	$ 138.00
Senior Project Controls Professional	$ 224.00
Administrator*	$ 102.00
Project Administrator*	$ 138.00
Technician	$ 93.00
Senior Technician	$ 127.00
Inspector	$ 123.00
Senior Inspector	$ 159.00
Construction Manager	$ 212.00
Masonry/Lead Inspector*^ (Group 1, NC 63-3-9-2025-1)	$ 237.00
Building/Const Inspector*^ (Group 2, NC 63-3-9-2025-1)	$ 231.00
Soils/Asphalt Tech*^ (Group 3, NC 63-3-9-2025-1)	$ 210.00
Concrete ACI Inspector*^ (Group 4, NC 63-3-9-2025-1)	$ 195.00

Notes:

1. Public works projects or projects receiving public funds may be subject to Prevailing Wage laws. The above rates marked ^ apply to NC 63-3-9-2025-1 prevailing wages. Second/Night shift rates (not shown) apply to any work starting after 2pm or before 4am and will incur a 12.5% surcharge on the base rate of the corresponding group rate in accordance with California DIR shift provisions.
2. Prevailing wage billing rates will increase on July 1st of each year beginning July 1st, 2026 according to the predetermined schedule included in determination NC 63-3-9-2025-1.
3. Travel time will be charged at the prevailing wage rate, as required per the determination and the Public Works Manual Section 4.1.5.
4. Prevailing wage rates will be charged, including retroactively, for the covered scope items if the DIR directs that this is covered work at any time during the life of this agreement, or thereafter.
5. Hourly rates assume that other direct costs will be billed and reimbursed by the client. Kleinfelder reserves the right to adjust the rate schedule on projects where other direct costs are not reimbursed
6. Subcontractor fees and Other Direct Costs to be reimbursed at cost plus 10%.
7. Travel related expenses to be reimbursed at cost. Mileage to be billed at current IRS rate.
8. Hourly rates shall be escalated annually on July 1 of each calendar year, starting 7/1/2026. Labor Escalation Rate to be 5%.

*OVERTIME RATES: Time worked in excess of 8 hours per day and weekend/holiday work will be charged at 1.5X the hourly rate shown above. Overtime applies to (*) rates only.