COLEMAN ENGINEERING

City of Fort Bragg, CA

Design and Preparation of Construction Documents for the Pudding Creek Water Main Relocation Project

PROPOSAL

MARCH 31, 2020

COLEMAN
ENGINEERING

March 31, 2020

City of Fort Bragg
Attn: June Lemos, CMC, City Clerk
416 North Franklin Street
Fort Bragg, CA 95437

Re: Request for Proposals for Design and Preparation of Construction Documents for the Pudding Creek Water Main Relocation Project

Dear Ms. Lemos,

The Coleman Engineering team welcomes the opportunity to provide engineering design services and prepare construction documents for the City of Fort Bragg's Pudding Creek Water Main Relocation Project.

Coleman Engineering is currently working with the City on the Raw Water Line Replacement Project and is thus very familiar with the City's engineering and operations teams and their expectations. We are proposing the same management team of Chad Coleman and Simon Gray to continue to exceed those expectations. We have also teamed with very capable partners to assemble an experienced, specialized team of professional engineers, surveyors, and scientists. A review of Proposal Sections B and C will clearly demonstrate the high level of directly applicable experience that this team offers to the City. We also ask you to consult with our references listed in Section D to validate our ability to deliver on quality, schedule and budget.

- VE Solutions, Inc's Brad Friedrichs is our structural engineer. He will be responsible for pipe hanger / support options analyses, and subsequent seismic and thermal movement design of the pipeline on the widened Highway 1 bridge. We have worked with and continue to work with Brad on multiple water and wastewater projects.
- Cinquini and Passarino is our local surveyor from Santa Rosa who has excellent experience providing professional surveying services in Mendocino County. They are our surveyors for the City's Raw Water Line Replacement Project.
- Doug Brewer of Dewberry will provide any additional environmental review and support services needed beyond the environmental permitting prepared by Caltrans. Doug is currently working on the Raw Water Line Replacement Project for the City.

Proposal Section E details our proposed scope of services in response to the tasks described in the RFP. This scope demonstrates a project approach that consists of a logical, sequential series of tasks that will complete design to meet Caltrans' proposed construction schedule

starting in 2021. It provides for a series of deliverables that allows regular City review and input, as well as for the requisite consultation with primary stakeholders Caltrans and Georgia Pacific.

We trust that the level of detail shown in our proposal demonstrates our enthusiasm for the project, and the level of planning, preparation, and attention to detail that Coleman Engineering will bring throughout the project.

The following page includes our signed acknowledgement of our receipt and review of Addendum No. 1, which was issued by the City on March 20, 2020.

We look forward to serving the City of Fort Bragg by preparing the design and construction documents for the Pudding Creek Water Main Replacement Project.

Sincerely,

Chad R. Coleman, P.E.
Principal in Charge

Simon N. Gray, P.E.
Project Manager

ADDENDUM NO. 1

TO REQUEST FOR PROPOSALS FOR

PUDDING CREEK WATER MAIN RELOCATION PROJECT DESIGN

DATE:	March 20, 2020
TO:	Request for Proposals (RFP) Recipients
SUBJECT:	**RFP Due Date Change; Digital Proposals Only**
REVISED DUE DATE:	**Tuesday, March 31, 2020 at 2:00pm**

This Addendum No. 1 forms a part of the Request for Proposals documents as described below:

The following revisions shall be made to Page 5 of the RFP issued on February 25, 2020:

1. The Proposal Due Date is hereby changed from March 24, 2020 to **2:00 p.m. on March 31, 2020.**

2. Proposers may submit a complete digital proposal in one PDF document only; printed copies are not required. Submit digital proposals to June Lemos, CMC, City Clerk, via email at jlemos@fortbragg.com.

All other conditions and specifications are as originally described.

Please sign this addendum in the space provided and include the signed copy of the addendum with your proposal.

June Lemos

June Lemos, CMC, City Clerk March 20, 2020

The undersigned has received and read this addendum.

Coleman Engineering, Inc. Chad R. Coleman

Consultant Signature

Name (Printed) Chad Coleman Date 03/30/2020

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A

FIRM DESCRIPTION

A. FIRM DESCRIPTION

Firm History

Coleman Engineering, Inc. is a private consulting engineering firm that is focused entirely on water and wastewater engineering. The firm was established in 2010 and is incorporated as a California Corporation. Coleman Engineering is located at 1358 Blue Oaks Boulevard, Suite 200, Roseville, CA 95678. We currently have nine full-time staff. Three of our professionals are licensed Professional Engineers in California, with additional registrations in the states of Nevada, Utah, Washington and Idaho. Details of personal licenses and our team organization are given in Section C. Our company President and Principal Engineer, Chad Coleman P.E., is also a Certified Grade 3 Water Treatment Plant Operator in California.

Coleman Engineering is currently working with the City of Fort Bragg on the Raw Water Line Replacement Project. This important project will improve the security of the City's raw water supply through the replacement of existing pipeline sections that convey raw water from Waterfall and Newman Gulches to the City's water treatment plant. The project is now in its preliminary design stage after completion of route alternative analyses and initial environmental studies.

In 2017 and 2018 we worked on the City's Brackish Water Desalination Feasibility Study that examined the potential for supplementing the City's water supply through brackish water reverse osmosis treatment. Locally we are also working for the State of California Department of Parks and Recreation on improvements to the existing drinking water system for the MacKerricher State Park north of Fort Bragg. This project includes the design of a replacement water treatment plant and design of two raw water intake systems at Lake Cleone and Mill Creek.

Our Project Manager, Simon Gray, known to you as the Project Manager for the Raw Water Line Replacement Project, held a similar position for the design of the City of Ukiah's $23 million Recycled Water Project, Phases 1 – 3.

Services We Provide

Planning Studies:

Master planning for water, sewer, and recycled water systems. Development of Capital Improvement Plans and Specific Plans for developments. Water and wastewater facility condition and vulnerability assessments. Reviews of operation and maintenance procedures.

Modeling:

Hydraulic models of pressurized and gravity conveyance systems and hydraulic transient modeling of large hydroelectric penstocks.

Funding Support:

Engineering and managerial support to obtain and manage state and federal funding from a variety of loan and grant sources. Engineering and managerial support of bridge loans to fund planning, environmental and design activities.

Design:

Feasibility and pre-design studies and reports, including detailed alternatives evaluations and project selection. Preliminary and final design of water, wastewater, and recycled water treatment and pipeline conveyance projects, including plans, technical specifications, and contract documents for bidding. Capital and life-cycle cost estimating. Schedule preparation and constructability review.

Bidding and Construction Services:

Bid support, including responses to Requests for Information (RFIs), pre-bid meetings and site walks, bid addenda, bid evaluation, and contract award recommendation. Engineering Services During Construction, including site meetings, submittal reviews, responses to RFIs, claims support and evaluation, pay request reviews, and construction observation. Contractor schedule review and analysis. Funding agency contract conditions compliance monitoring. Full construction management and inspection. Record drawings and operations and maintenance manuals.

Operations:

Water and wastewater system operations. Consulting services. Contract operator services. Measurement and documentation of conformance with regulatory requirements. Coordination and negotiation with regulators.

B

RELEVANT EXPERIENCE

B. RELEVANT EXPERIENCE

This section details five relevant projects that show our experience in preparing water main capital improvement project designs that included work within and across the Caltrans Right-of Way, and where water mains have been incorporated into or attached to bridge decks, beams and abutments. In addition, we have included details where we have designed for construction in environmentally sensitive areas. The City also has direct experience working with us in environmentally sensitive areas on the current Raw Water Line Replacement Project. In addition to the project information provided below, both Chad Coleman and Simon Gray have considerable experience in the planning, design and construction of water main projects. This experience is detailed in their resumes included with this proposal.

We have provided project information including location, size and extent of the facilities, client contacts, and details of the roles of team members, including those proposed for this project.

We encourage reviewers of this Proposal to call any of our clients listed below to discuss how they were served by our professional team.

Well No. 5 and Consolidation Pipelines Project | Los Molinos CSD, Los Molinos, CA

Project Summary:

Los Molinos is a small community on Highway 99 approximately 110 miles north of Sacramento. The Los Molinos Community Services District has an existing well that produces water that exceeds the limit for arsenic. After considering wellhead treatment, a new well was designed to avoid much of the arsenic in the groundwater. A 1,900-foot long, 10-inch dia., C900 PVC pipeline aligned along the Highway 99 Caltrans Right-of Way was also included in the final project to connect two adjacent small systems whose sources-of-supply also exceeded arsenic standards. The water main project includes a jack-and-bore crossing of Los Molinos Creek while running parallel to and within the Caltrans Right-of-Way, two 10-inch dia. restrained DI pipeline jack-and-bore crossings in 20-inch dia. casings perpendicular to the Highway, and two 4-inch dia. and 6-inch dia. water service connections. Coleman Engineering worked with the local Caltrans office to gain plan approval and an Encroachment Permit for construction. The project included design in sensitive habitat with endangered species: the Coleman team worked directly with the environmental team preparing CEQA documentation to align the pipeline route to avoid sensitive receptors and riparian environments. Coleman Engineering also assisted in obtaining and administering Proposition 84 SRF funding for the project totaling $1,600,000.

Timeline:

A State funding application was started in 2013. Construction will be completed in 2020.

Project Team members:

Chad Coleman, Principal-in-Charge; Simon Gray, Project Manager, Cody Tom, Staff Engineer, Doug Brewer, Environmental Consultant.

Locke Water Intertie Project | Locke Water Works Company, Locke, CA

Project Summary:

The Locke Water Company initially retained Coleman Engineering to investigate alternatives to bring the Locke water system into compliance with drinking water standards, and subsequently the firm was engaged to design a wellhead treatment plant. After further consideration of capital and long-term operation and maintenance costs, the Company decided instead to connect its water system via pipeline to the neighboring water system in Walnut Grove, CA. Coleman Engineering subsequently prepared design plans for a 4,300 long, 4-inch dia. HDPE intertie pipeline with Sacramento County Water Agency, and will complete the design once additional state funding is made available. The pipeline will cross the 180 feet-wide Delta Cross Channel. An existing, now-unused 10-inch dia. sewer force main currently attached to the side of a USBR bridge and flood control structure (that crosses the Channel) will be removed, and existing supports and ring hangers will be used to support a new 4-inch dia. DI pipe as part of the intertie.

Timeline:

2012 (funding assistance application) to present.

Project Team members:

Chad Coleman, Principal-in-Charge; Simon Gray, Project Manager; Cody Tom, Staff Engineer, Doug Brewer, Environmental Consultant.

Ebbetts Pass Techite Pipeline Replacement Project | Calaveras County Water District, Ebbetts Pass, CA

Project Summary:

Coleman Engineering prepared preliminary and final designs, bid documents and cost estimates for approximately 8,100-feet of 10-inch dia. ductile iron water supply pipeline in a high elevation Sierra community. The project replaced an existing 14-inch dia. Techite pipe that had reached the end of its useful life. Due to the terrain, rock, and space constraints, the existing main had to be replaced along the same alignment. A detailed construction sequencing and bypassing plan was prepared for the project to facilitate construction while maintaining service to residents. The project included the design of a jack-and bore crossing under Highway 4, and negotiation with Caltrans concerning technical requirements and an Encroachment Permit.

Timeline:

2014 to 2019.

Project Team members:

Chad Coleman, Principal-in-Charge; Simon Gray, Project Manager, Doug Brewer, Environmental Consultant.

Gravity Supply Line Project | Amador Water Agency, Pioneer, CA

Project Summary:

Chad Coleman was the Principal-in-Charge leading the detailed pre-design of a 20-inch dia. 3-mile long pipeline to deliver raw water from a PG&E forebay, across the Mokelumne River, to the Agency's Buckhorn Water Treatment Plant. The project included a jack-and-bore crossing under Highway 88 and the Caltrans Right-of-Way. Coleman Engineering performed initial negotiations with Caltrans concerning technical requirements and encroachment permitting for the project.

Timeline:

2005

Project Team members:

Chad Coleman, Principal-in-Charge.

North Auburn Transmission Main Construction Management | Nevada Irrigation District, Grass Valley, CA

Project Summary:

Chad Coleman was the Principal-in-Charge responsible for inspection and resident engineering services to Nevada Irrigation District for the installation of a new 20-inch transmission pipeline in north Auburn. The pipeline crosses a natural waterway and State Highway 49. Both conventional excavation methods and trenchless pipe installation methods were used on the project. The Coleman Team worked with Caltrans personnel during construction of the Highway 49 crossing.

Timeline:

2012

Project Team members:

Chad Coleman, Principal-in-Charge.

C

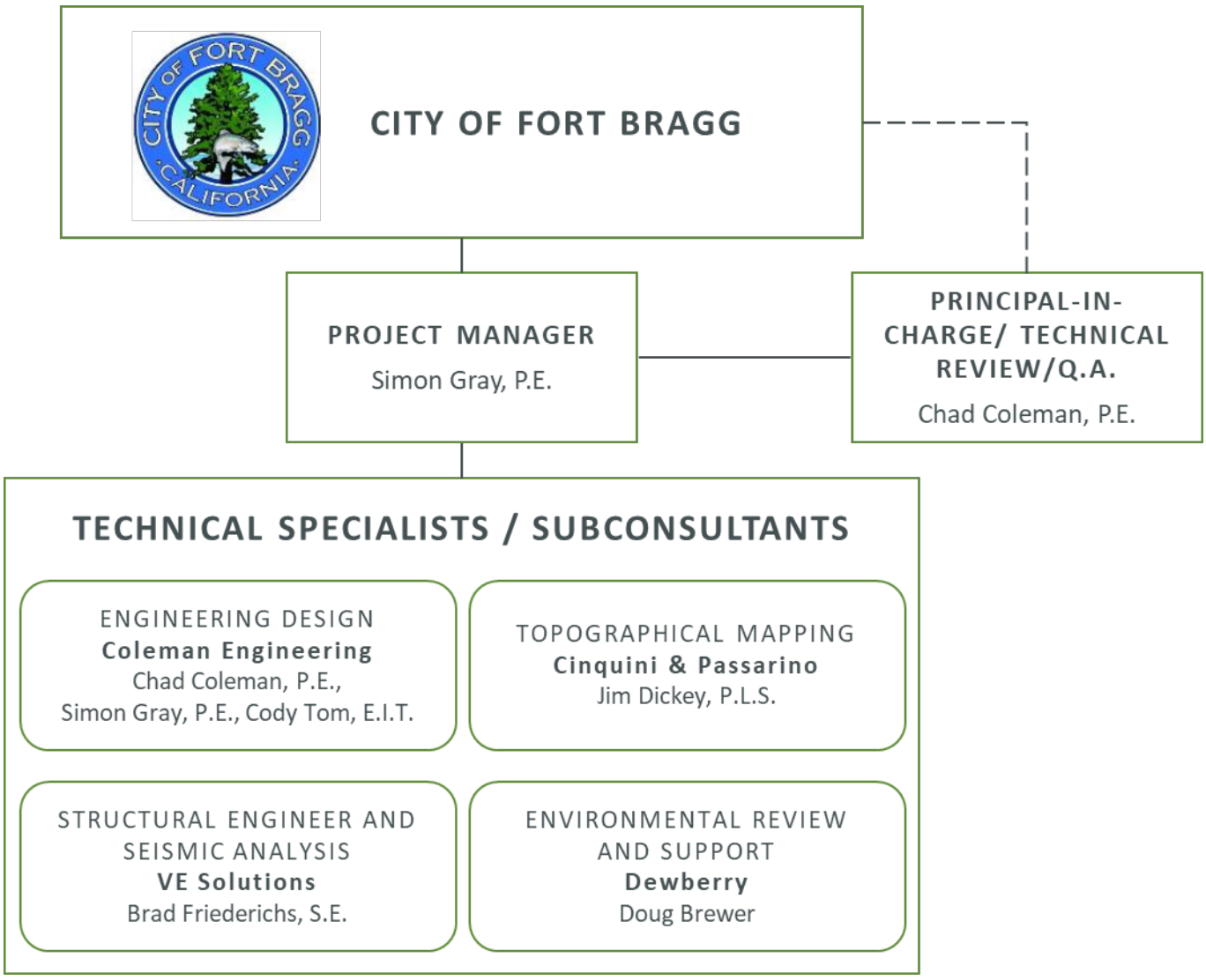
KEY PERSONNEL QUALIFICATIONS

C. KEY PERSONNEL QUALIFICATIONS

The following individuals and firms will work together to provide quality professional engineering services to the City for the project. Both Chad Coleman and Simon Gray are known to the City from the current Raw Water Line Replacement Project: Chad also worked for the City on the recent Brackish Water Desalination Feasibility Study. Our professionals have very relevant experience working together and have delivered many successful projects for our clients.

Organization Chart

Our proposed team organization is shown below.



Summary of the Coleman Engineering Team

Chad Coleman, P.E. | Principal-in-Charge / Technical Reviewer / Quality Assurance Manager

Role and Applicable Experience: Chad has been the Principal-in-Charge or Project Manager for all planning, pre-design, preliminary and final design, and construction phase projects detailed in the previous section. He will bring his extensive and very valuable experience to the City's project, providing the technical review and quality assurance expertise necessary for successful implementation. Chad has over twenty-five years of experience planning, designing, and managing construction of water and wastewater infrastructure and facilities. He is experienced with the planning, design, and construction management of water transmission mains and distribution piping, municipal wells, water treatment plants, water storage tanks, and pump stations.

Chad has state licensing and hands-on experience as both an engineer and a water treatment plant operator. He has also served as District and City Engineer to many public agencies, including four years for the Tuolumne City Sanitary District.

Qualifications:

- M.S., & B.S., Civil Engineering, Brigham Young University, Utah
- Professional Civil Engineer | CA #56490 | ID # 8964 | NV # 16990 | UT # 188915
- Water Treatment Plant Operator, Grade 3, CA # 31314

Simon Gray, P.E. | Project Manager

Role and Applicable Experience: Simon will lead and manage the preliminary and final design efforts required to implement the project. In addition, Simon will coordinate and integrate the deliverables from our sub-consultants to facilitate timely completion of the project.

Well known to the City through the current Raw Water Line Replacement Project, Simon has over 35 years of varied technical and managerial experience covering all aspects of project implementation. His career includes planning studies, condition assessment, design, contracting, project and construction management in the United States and abroad. Simon has worked on major programs as well as on small-scale projects for rural communities. He also has heavy civil engineering experience beyond water engineering that includes roads, bridges, power stations, buildings, and airports. In addition to his current project management role for the City, he is (or has been) project manager for several of the projects listed in the previous section.

Simon has worked on several other projects in his career that included work within Caltrans Right-of-Way and involved coordination with Caltrans for technical and plan approvals, and for issue of Encroachment Permits:

- City of Ukiah Recycled Water Project, Phases 1-3, Ukiah, CA. This $23 million project comprised a 66-MG lined open storage reservoir, a 3000-gpm vertical turbine pump station, over 30,000 feet of 16- and 12-inch diameter PVC pipelines, and jack-and-bore crossings of creeks, roads, and railroads. One of the jack-and bore road crossings was beneath a state highway under Caltrans' jurisdiction.

- Placer Nevada Wastewater Authority Regional Pipeline, Auburn / Lincoln, CA: Simon was responsible as the project manager for routing studies for 18 miles of 36-inch dia. trunk sewer and lift stations. Part of the project included a routing study for a pipeline to connect the Applegate WWTP to the Regional Pipeline. The route included an overcrossing of I-80**:** the pipeline was hung from an existing bridge deck after approval from Caltrans.
- Reclaimed Water System Extension Project, City of Livermore, CA: This 4,000 long, 24-inch dia. extension to the City of Livermore's recycled water system project included a 300-feet long, 48-inch dia. jack and bore casing under I-580. There was extensive coordination and permitting with Caltrans, including implementation of corrosion protection measures for the casing.

Qualifications:

- BSc (Eng.) (Hons), Civil Engineering, Imperial College of Science and Technology, London, United Kingdom
- Professional Civil Engineer | CA # 60311 | WA # 51959
- Chartered Engineer, United Kingdom: # 45101217

Cody Tom, E.I.T. | Staff Engineer

Role and Applicable Experience: Cody has experience with hydraulic modeling, water system design and calculations, water pump station design and construction, treatment systems, field sampling, and maintaining and designing water supply systems. He is currently working on the Los Molinos CSD pipeline project with our project manager, Simon Gray. Cody is also assisting in review of construction-phase project submittals and responding to contractor's requests for information for several water supply projects. Cody will perform the hydraulic modeling required for the project and assist in the preparation of improvement plans and technical specifications.

Qualifications:

- M.S., Civil and Environmental Engineering, University of California, Berkeley
- B.S. Civil and Environmental Engineering, Brigham Young University
- EIT Certification | CA # 164683

Summary of the Subcontractor Team

Jim Dickey, P.L.S.| Cinquini & Passarino | Topographical Mapping and Boundary Survey

Established in 1954, Cinquini & Passarino, Inc. provides municipal and private clients with reliable surveying services ranging from topographic surveys, railroad surveys, boundary surveys, right-of-way surveys, terrestrial laser scanning, aerial drone surveys, GPS surveys, GIS data collection and construction surveys. With offices in Santa Rosa, Healdsburg, Napa and Oakland, Cinquini & Passarino uses unmanned aerial systems (drones), total stations, electronic field books, laser scanners, railroad trolleys, global positioning technology, and CAD/computer aided drafting equipment. Cinquini & Passarino is currently working for the

City as part of the Coleman Engineering team for the Raw Water Line Replacement Project. They will provide topographical mapping and utility surface mapping of the project area to design and build the project.

Brad Friederichs, PE., S.E. | VE Solutions, Inc | Structural Engineer and Seismic Analysis

Brad Friederichs has 40 years' experience as a structural engineer for wastewater, water treatment, commercial, industrial, agricultural, retail and residential structures. His expertise is in cast-in-place concrete, prestressed concrete, steel, wood and masonry construction. His specialty is in producing completely detailed, contractor-friendly, value-oriented construction documents resulting in projects that bid well with few change orders. Brad works extensively on Coleman Engineering projects as our structural engineer during both the design and construction phases of a project. He is highly experienced in seismic analyses and design to California and US standards. Brad will prepare the required seismic analysis to determine optimum pipeline support locations and the necessary fittings to withstand design earthquake loading. He will also advise on features to allow for normal thermal movement.

Doug Brewer | Dewberry | Environmental Review and Support

Doug Brewer graduated from Humboldt State and then spent the next 30 years providing CEQA/NEPA/ESA/CWA compliance and regulatory permitting services support for a variety of water and wastewater projects. He has direct experience in preparing environmental clearance documents to meet CEQA and NEPA requirements, and in successfully completing environmental compliance documentation for federal, state and local projects. Doug is currently working with the City and Coleman Engineering on the City's Raw Water Line Replacement Project. We anticipate that Doug's input will be limited since the project will take advantage of environmental review and permitting being undertaken by Caltrans for the widening of the Highway 1 bridge over Pudding Creek.

D

REFERENCES

D. REFERENCES

1. Well No. 5 and Consolidation Pipelines Project | Los Molinos CSD, Los Molinos, CA
   Jim Lowden, General Manager: 530-384-2737 | jlowden54@gmail.com

2. Locke Water Intertie Project | Locke Water Works Company, Locke, CA
   Clarence Chu, Board President: 916-776-1661

3. Ebbetts Pass Techite Pipeline Replacement Project | Calaveras County Water District, Ebbetts Pass, CA
   Charles Palmer, P.E., District Engineer: 209-754-3543 | charlesp@ccwd.org

E

SCOPE OF WORK

E. SCOPE OF WORK

Section E details the design tasks that are needed to implement the project. The tasks included here are used as the basis for the project schedule and fee for consistency. We have presented the Scope of Services in a format below, so it can be easily incorporated as an "Exhibit A" to the City's Professional Services Agreement for the project.

SCOPE OF SERVICES	
Client:	City of Fort Bragg
Project:	Pudding Creek Water Main Relocation Project
Project Location:	Fort Bragg, CA
Summary of Services:	Design Engineering Services
Utility System:	Drinking Water

Background

This project will relocate approximately 1,000 feet of the City of Fort Bragg's 10-inch dia. water main from the top of the Pudding Creek Dam to the Highway 1 bridge approximately 600 feet down stream on Pudding Creek. In December 2016, the Pudding Creek dam overtopped during a storm, damaging the dam and compromising the water main's supports. Three of the water main's support piers were damaged and exposed: one at the north end of the dam and the other two to the south. Temporary measures to protect the dam and the water main were initiated by the City and the dam's owner, Georgia Pacific, after the storm.

The State of California Department of Transportation (Caltrans) is planning to widen the Highway 1 bridge over Pudding Creek, with construction due to start in 2021. The City has reached an agreement with Caltrans to include a sleeve or hangers on the east side of the bridge so the water main can be relocated from the dam to the bridge. The water main relocation project can take advantage of the bridge's ongoing environmental review and approval process: the Coastal Zone limit appears to pass down the centerline of Highway 1 at the bridge. The support system on the bridge will consider design seismic loading and thermal movement. In addition, there will be short water main connections from each end of the bridge to the existing water supply network, including 200 feet of new main on Manzanita Street.

This Scope of Services describes design engineering and associated services to prepare design plans, technical specifications, cost estimates and bid-ready documents for the project. Key tasks include:

- Engineering evaluation of existing conditions and constraints on the pipeline relocation, including hydraulic modeling and pipe support seismic analyses.
- Topographical mapping and mapping of utility surface features for design and construction of the project.

- Collection and review of utility information from the City, utility companies and other agencies.
- Review and consideration of design features incorporated into the Caltrans design of the new bridge.
- Preparation of bid-ready design plans, technical specifications, and cost estimates, with intermediate design submittals at 50%, 90%, and 100% for City review and comment.

Coleman Engineering, Inc (Consultant), supported by our specialist sub consultants, will perform the services described in this Scope under four tasks as follows:

- Task 1 – Project Management
- Task 2 – Preliminary Design (50% Design Submittal)
- Task 3 – Final Design (90%, 100 % and Final (Bid-ready) Submittals)
- Task 4 – Bid Phase Services

Scope of Services

Georgia Pacific's Dam

Task 1 – Project Management

1.1 Project Administration.

Coleman Engineering will administer the project and maintain project schedule and budget. Project progress, updated schedule, and budget status will be included in monthly progress reports that will be attached to billing invoices.

1.2 Project Meetings.

Coleman Engineering will meet with the City through project meetings and conference calls. Coleman Engineering will prepare an agenda and brief meeting summaries for each of the meetings and will prepare and update Action and Decision Logs. Seven meetings have been budgeted for, as identified below:

- Project Kick-off Meeting (City offices). At this meeting, the Consultant and the City will review and refine a work plan and schedule, including critical milestones, that form part of an overall Project Management Plan (PMP). The PMP will also include the Quality Management Plan. Prior to the meeting, the Consultant will have presented the City with a data and information request and it is assumed that the City will provide the requested data and information at the meeting. This will include, but not be limited to details of easements and right-of-way, previous hydraulic modeling and design documents, previous topographical mapping and survey, record drawings, operations and maintenance records, any previous condition assessment studies, and details of any pipeline rehabilitation work.
- Project Meetings (up to 6) (3 in-person meetings at City offices and 3 conference calls). These meetings are to review progress and to resolve any design questions requiring City input.

Workshops (up to 3) to review City comments on the 50%, 90% and 100% design level of completion submittals are budgeted under separate tasks below.

Quality Management.

Quality control will be monitored throughout the entirety of the project. Coleman Engineering will peer-review deliverables internally prior to delivery to the City in accordance with its quality assurance / quality control program and the procedures described in the project-specific Quality Management Plan.

Task 1 Deliverables

- Monthly invoices with progress reports;
- Meeting agendas and notes, Action and Decision Logs.
- Project Management Plan and Quality Management Plan.

Task 1 Assumptions

- The City will identify all Funding Agencies at the kick-off meeting so that Coleman Engineering can make the design documents compliant with applicable requirements.

Eastern side of the Highway 1 Bridge and location for the relocated water main.

Task 2 – Preliminary Design (50% Design Submittal)

Task 2 details project preliminary design tasks up to a 50% design level of completion submittal to the City, including a review of available data and information (including Caltrans bridge design plans and documentation), engineering evaluation of existing conditions and constraints, hydraulic modeling, environmental review, topographical mapping and survey, evaluation of potential pipeline bridge support systems, and preparation of plans, technical specifications and cost estimates for the 50% submittal.

2.1 Data Collection and Review.

The City will provide Coleman Engineering with relevant available data and information relating to the project at the project kick-off meeting (See Task 1). It is assumed that the City will initially provide Coleman Engineering with the latest available Caltrans bridge plans at this meeting, though Coleman Engineering will coordinate directly on data requests with Caltrans after this point. Coleman Engineering will review this data and information under this task for subsequent use in future tasks. Coleman Engineering, after completing this review, may request further data and information from the City. Coleman Engineering will also obtain and review utility records, maps, and information as part of this task.

2.2 Engineering Evaluation of Existing Conditions and Constraints.

Following review of received data and information, Coleman Engineering will perform an engineering evaluation of existing conditions and constraints on the pipeline under this task. This will include a hydraulic analysis of the proposed replacement / relocation of the pipeline inputting the pipeline material, size (10-inch dia.) after review of previous analyses provided by the City. As part of this task, a seismic analysis will be prepared by our structural engineering subconsultant, Brad Friederichs, to determine the preferred pipeline

hanger / support system that will accommodate the design earthquake loading and thermal movement. Results of the evaluation, hydraulic modeling and seismic analyses will be presented in a technical memorandum (TM).

2.3 Topographical Mapping and Survey.

In this task, Cinquini and Passarino will perform topographical mapping and survey of the project area to the following mapping limits:

- For E. Manzanita Street from Howland Court to Highway 1, mapping will extend from the back of sidewalk on the south to 10 feet north of the north edge of pavement.
- For Highway 1 from E. Manzanita Street to the tie- in location approximately 200 feet south of Pudding Creek Road, mapping along Highway 1 will extend from 30 feet east of the easterly edge of pavement to the centerline of Highway 1.

Topographic survey will include all necessary work to produce a topographic map, including features such as building corners and elevations, curb lines, water meters, sewer cleanouts, valves, manholes (including rim, invert and pipe information), utility markings on the pavement, utility poles, driveway and doorway locations, sidewalks, trees four (4) inches and larger, retaining wall or decorative walls, and any other pertinent information that may apply to the project during design.

Topographic survey will be provided on NAVD 1988 Vertical Datum and California Coordinate System of 1983, Zone 2. The Right of Way lines for Highway 1 will be plotted on the topographic mapping. The topographical mapping and survey will be used to develop plans and detail drawings in AutoCAD format for use in subsequent design tasks.

2.4 Utility Potholing Investigation.

Following the completion of the topographic mapping, the need for additional utility field investigation will be determined. For the purposes of this scope it is assumed that potholing will be required for up to five buried utility locations. A potholing plan will be prepared. It is also assumed that the City or its contractor will perform the potholing and record location and utility depth.

2.5 Right-of-Way Acquisition Review.

Per the RFP, it is anticipated that right-of-way acquisition will not be required. Under this task a review will be performed to confirm this assumption.

2.6 Environmental Review and Support.

Under this task, our environmental subconsultant Doug Brewer will provide limited environmental review and support. It is assumed that all environmental permits will have been prepared by Caltrans as part of the bridge project.

2.7 Prepare 50% Design Submittal.

Using the results of previous tasks, Coleman Engineering will prepare 50% design level plans, technical specifications table of contents, and an opinion of probable construction cost with a contingency allowance appropriate to the level of design completion. The 50%

Design Submittal will be sent to the City and Caltrans for review and comment. The 50% plans will include plan and profile drawings for the pipeline (plan view only), and preliminary structural plans and details.

2.8 Workshop No. 1.

Workshop No. 1 will be held to review the City's and Caltrans' comments on the 50% Design Submittal and to agree on changes to be incorporated into the 90% Submittal. Review comments and responses to comments will be documented in a comment log as part of the workshop minutes. The 50% Design Submittal will not be finalized.

Task 2 Deliverables

- Engineering Evaluation of Existing Conditions and Constraints TM, including hydraulic modeling and seismic analyses.
- Topographical mapping and survey for use in subsequent design tasks.
- Potholing plan.
- 50% Design Plans and Technical Specifications (Table of Contents) (electronic copy in pdf format).
- Workshop No. 1 agenda and minutes, comments logs.

Task 2 Assumptions

- The topographical mapping does not include a boundary survey: this can be added as an additional task once the status of Caltrans' survey work for the bridge is known and a determination made that a boundary survey is needed.
- The City or its contractor will perform any utility potholing.
- Any rights-of-entry needed for topographical mapping, survey, potholing and site inspections will be provided by the City.
- The City will provide front-end documents for bid purposes (General Provisions, Bid Form sections).
- The technical specifications will be submitted in Word and in CSI Master Spec 2004 format, and not be based on the Caltrans Standard Specifications formatting. They will meet City standards, Caltrans technical requirements, and Mendocino County regulations.
- Mitigations identified by the City, environmental documents, or permitting agencies will be referenced and / or included in the deliverables.
- The project design is located outside of the Coastal Zone and thus is not subject to Coastal Commission environmental review / approval.
- All environmental permitting has been, or will be, prepared and completed by Caltrans.
- City or County building permit reviews are not required.
- Construction contract documents will be prepared to be compliant with the requirements of the funding source(s) identified at the kick-off meeting.

Existing water main route at Manzanita Street and Highway 1.

Task 3 – Final Design (90%, 100% and Final (Bid-Ready) Submittals)

Task 3 develops the 50% design from Task 2 into final design. Final design documents will include plans, technical specifications and cost estimates, and submittals will be made at 90% and 100% design levels of completion for City review and comment. Workshops 2 and 3 will be held after each submittal to discuss the City's comments and to agree on changes to be incorporated into the design. Final bid-ready documents will be completed after Workshop No. 3. An Operations and Maintenance Manual for the relocated water main will also be prepared as part of this task.

3.1 Prepare 90% Design Submittal.

Incorporating agreed review comments from Workshop No. 1, 90% design level plans, technical specifications and an opinion of probable construction cost with a contingency allowance appropriate to the level of design completion will be prepared. A list of construction submittals will be prepared for inclusion in the construction documents and for use during construction. This will include Buy American Certification. The 90% Design Submittal will be sent to the City and Caltrans for review and comment.

3.2 Workshop No. 2

Workshop No. 2 will be held to review the City's and Caltrans' comments on the 90% Design Submittal and to agree changes to be incorporated in the 100% design. Review comments and responses to comments will be documented in a comment log as part of the workshop minutes.

3.3 Prepare 100% Design Submittal.

Incorporating agreed review comments from Workshop No. 2, 100% design level plans, technical specifications and an opinion of probable construction cost with a contingency

allowance appropriate to the level of design completion will be prepared. The 100% Design Submittal will be sent to the City and Caltrans for review and comment.

3.4 Workshop No. 3.

Workshop No. 3 will be held to review the City's and Caltrans' comments on the 100% Design Submittal and to agree final changes to be incorporated in the final bid-ready documents. Review comments and responses to comments will be documented in a comment log as part of the workshop minutes.

3.5 Prepare Final Bid Documents

Agreed comments received from the City at Workshop No. 3 will be incorporated into the plans and specifications to develop sets of final bid-ready documents. The cost estimate will be updated and submitted as a final Opinion of Probable Construction Cost.

3.6 Prepare Operations and Maintenance Manual

Under this sub-task an Operations and Maintenance Manual for the water main will be prepared in both draft and final versions. Finalization will take place after City review.

Task 3 Deliverables

- 90% Plans, Specifications, and Cost Estimate (in electronic pdf format, with plans at 11 x 17 half size).
- 100% Plans, Specifications, and Cost Estimate (in electronic pdf format, with plans at 11 x 17 half size).
- Electronic (pdf format) set of the final bid-ready documents for the City to distribute to interested contractors.
- Workshop Nos. 2 and 3 agenda and minutes, comments logs.
- Operations and Maintenance Manual (draft and final versions) (Word and pdf electronic formats)

Task 3 Assumptions

- Applicable Task 2 assumptions also apply in Task 3.
- Traffic control plans are not included and will be prepared by the construction contractor if needed.

Highway 1 Bridge looking north.

Task 4 – Bid Phase Services

During bidding, Coleman Engineering will assist the City by participating in a pre-bid meeting and site walk; responding to bidders' inquiries; evaluating bids; and in preparing conformed bid documents for use in construction.

4.1 Participate in the Pre-Bid Meeting and Site Walk.

Coleman Engineering will attend the pre-bid meeting and site walk to be held in the offices of the City. This meeting will include a review of the project and requirements regarding permits and local ordinances. The pre-bid meeting will include a field tour of the project area. It is assumed that an attendee list from the pre-bid conference will be prepared and distributed to the bidders by the City.

4.2 Respond to Bid Inquiries.

Coleman Engineering will assist the City during bidding; in answering questions from contractors and assisting in preparation of up to two addenda during the bid phase. The City will reproduce and distribute the addenda.

4.3 Bid Evaluation.

Coleman Engineering will assist by evaluating bids and will perform a review of bid items for conformance to the Contract Document Proposal Forms. This work will be performed in parallel to City bid review efforts.

4.4 Prepare Conformed Documents.

Coleman Engineering will prepare conformed Contract Documents incorporating addenda issued during bidding, and other required documentation.

Task 4 Deliverables

- Up to two (2) bid addenda in electronic format to be distributed to the bidders by the City.
- Bid evaluation memorandum (in electronic pdf format)
- Conformed Contract Documents (electronic copy of plans and documents in Word and pdf format).

Western side of the Highway 1 Bridge over Pudding Creek.

Tasks Not Included in this Scope of Services

This Scope of Services is intended to outline the services offered to the City by Coleman Engineering. The list below is offered as a clarification of the services that are not included, not anticipated, or that will be completed by others.

1. Neighborhood meetings and public relations activities are not included in the scope of services.
2. SWPPP preparation and traffic control design are assumed to be included as part of Caltrans' project.
3. Boundary survey.
4. Obtaining any required construction permits.
5. Full time construction inspection (may be offered under a separate contract).
6. Legal review of bidding documents.
7. Hazardous materials permits or approvals.
8. Reviewing agencies are limited to the City and Caltrans.

F

BUDGET AND SCHEDULE OF CHARGES

F. BUDGET AND SCHEDULE OF CHARGES

Budget

Coleman Engineering will provide the services outlined above on a Time & Materials basis according to the terms of payment outlined in the Agreement. Coleman Engineering reserves the right to transfer budgets between tasks while maintaining the total budget of the project.

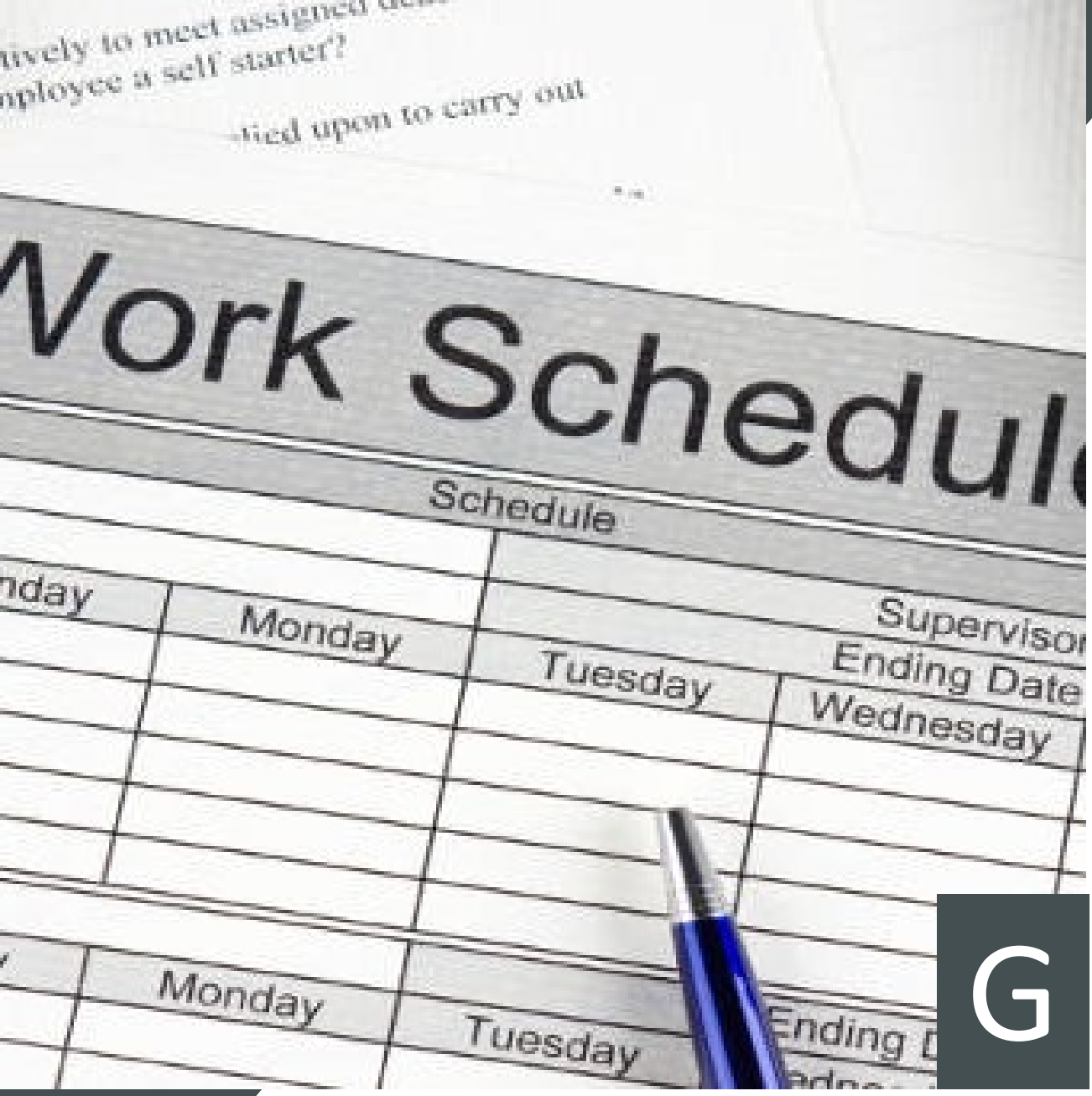
Task	Scope Item	Budgets
1	Project Management	$24,071
2	Preliminary Design (50% Design Submittal)	$63,818
3	Final Design (90%, 100% and Final (Bid-ready) Submittals)	$60,483
4	Bid Phase Services	$17,178
	TOTAL ENGINEERING BUDGET =	**$165,550**

Schedule of Charges

Coleman Engineering's 2020 Fee Schedule is given below:

Classification	Billing Rate
Principal-in-Charge	$210
Project Manager	$196
Project Engineer	$165
Staff Engineer	$145
Engineering Intern	$86
CAD Drafter / Designer	$122
Project Technician	$111
Project Assistant	$89

- Billing rates and expense charges are subject to annual update.
- Hourly rates include Indirect Costs such as general computers, telephone, fax, routine in-house reproductions, first class letter postage, miscellaneous supplies, and other incidental general expenses.
- Direct Costs of services and materials such as vendor reproductions/prints, shipping, major in-house Coleman Engineering reproduction efforts, travel expenses, special engineering supplies, etc. will be billed at actual cost plus 10%.
- Sub-Consultants will be billed at actual cost plus 10%.
- Mileage will be billed at the current Federal Rate ($0.575/mile as of Jan. 1, 2020).
- Expert Witness Services will be billed at standard rates plus a 25% premium.
- Computer charges are included in the Standard Hourly Rates for those employees and contract personnel assigned to use such specialty hardware and software. Billing rates apply to all computers and equipment, whether owned or rented by Coleman Engineering, and to all employment categories including regular full-time, part-time, limited term and contract personnel, etc.
- A finance charge of 1.5% per month (an annual rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.



G

WORK SCHEDULE

G. WORK SCHEDULE

The Work Schedule below details our proposed design schedule for the project. It shows in sequence all the tasks detailed in the Scope of Work section with their individual durations. The following key milestones have been identified:

- Kick-off Meeting and Notice-to-Proceed: April 21, 2020
- 50% Design Submittal: July 31, 2020
- 90% Design Submittal: September 30, 2020
- 100% Design Submittal: November 13, 2020
- Issue of Bid Documents and Start of Bid Period: January 15, 2021
- Receipt of Bids: Mid-February 2021
- Construction Contract Award: End-February 2021
- Construction Notice to Proceed: Mid-March 2021

We believe that this schedule is realistic and is likely to correlate well with the anticipated Caltrans bridge widening work due to start in 2021. However, there is some potential to accelerate the design schedule and bidding process if desired by the City or Caltrans: this can be determined closer to the start of design.

City of Fort Bragg
Pudding Creek Water Main Relocation Project
Design Schedule

2020												2021		
Month	A	M	J	J	A	S	O	N	D			J	F	M
Week	1–2	3–6	7–10	11–15	16–19	20–23	24–28	29–32	33–37			38–41	42–45	46–50

Task No.	Task Description
	Kick-off Meeting and Notice-To-Proceed (Assumed April 21, 2020)
1	PROJECT MANAGEMENT
	1.1 Project Administration
	1.2 Project Meetings
	1.3 Quality Management
2	PRELIMINARY DESIGN (50% DESIGN SUBMITTAL)
	2.1 Data Collection and Review
	2.2 Engineering Evaluation of Existing Conditions and Constraints
	Hydraulic Modelling
	Seismic Analysis of Pipeline Support Systems
	Technical Memorandum
	CITY REVIEW
	2.3 Topographical Mapping and Survey
	2.4 Utility Potholing
	2.5 Right-of-Way Acquisition Review
	2.6 Environmental Review and Support
	2.7 Prepare 50% Design Submittal
	CITY REVIEW
	2.8 Workshop No.1
3	FINAL DESIGN (90%, 100% and FINAL DESIGN SUBMITTALS)
	3.1 Prepare 90% Design Submittal
	CITY REVIEW
	3.2 Workshop No.2
	3.3 Prepare 100% Design Submittal
	CITY REVIEW
	3.4 Workshop No.3
	3.5 Prepare Final Bid Documents
	3.6 Prepare Operations and Maintenance Manual
4	BID PHASE SERVICES
	BID PERIOD
	4.1 Participate in the Pre-bid meeting and Site Walk
	4.2 Respond to Bid Inquiries
	4.3 Bid Evaluation
	CONTRACT AWARD
	4.4 Prepare Conformed Documents
	CONSTRUCTION NOTICE-TO-PROCEED


money
liability
corporate
business
strategy
protection
legal
policy
risk
security
safety
contract
claim
finance
insurance
corporate

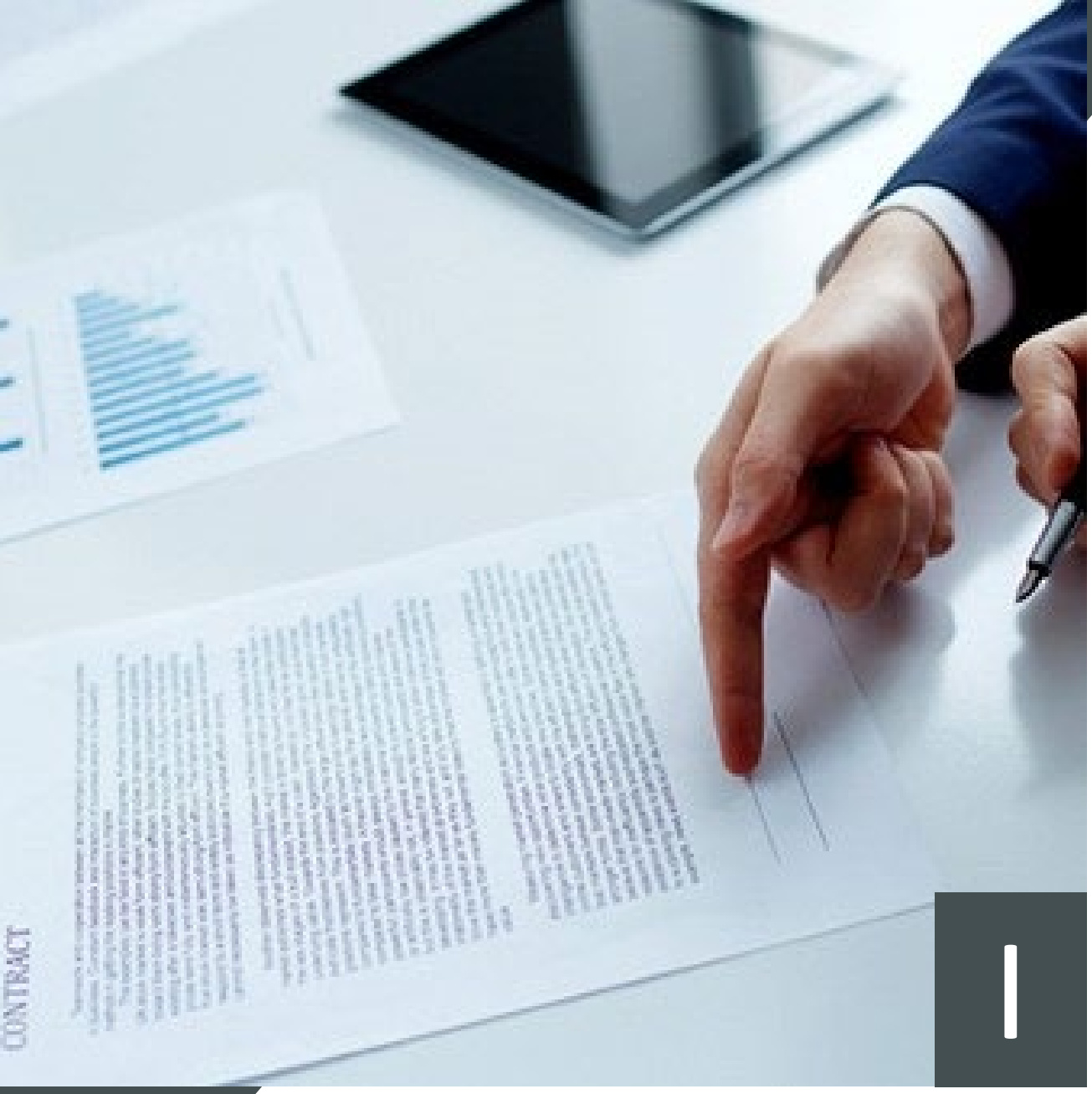
H

INSURANCE

H. INSURANCE

Coleman Engineering commits to procure and maintain for the duration of the contract insurance to protect the City against judgements to the extent resulting from Negligence in the services by the Consultant and our team members as set forth in the City's Standard Professional Services Agreement. In fact, Coleman Engineering already carries all of the required insurance policies and the specified limits. The cost of all required insurance has been included in our proposal.

Copies of our insurance certificates can be found in Appendix 1.



I

CONSULTANT AGREEMENT

I. CONSULTANT AGREEMENT

Coleman Engineering appreciates the opportunity to review the City's Standard Professional Services Agreement. We look forward to the opportunity to review the entire agreement with the City to be certain that the City maintains the full benefit of the insurance which Coleman Engineering provides to our clients.

Coleman Engineering has signed two Professional Service Agreements with the City recently. We are currently working under the Raw Water Line Replacement Project Agreement and suggest it will be easiest to simply use this same agreement again for this project.

If the City requires the use of the Standard Professional Services Agreement attached to the RFP, we will respectfully request review of the following sections: 1.1, 1.2, 1.3, 1.4, 2.2, 2.5, 3.1, 4.2, 4.3, 4.4, 5.5, 6.8, 6.12, 6.14, 6.15 and 6.17.

ATTACHMENT 1
INSURANCE CERTIFICATES

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 03/24/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Randy Gardner
Gardner Insurance & Financial Services 8035 Madison Ave #D2 Citrus Heights CA 95610	PHONE (A/C, No, Ext): 916-965-4690 FAX (A/C, No): 916.965.5068 E-MAIL ADDRESS: rgardner@farmersagent.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Truck Insurance Exchange	21709
INSURER B : Farmers Insurance Exchange	21652
INSURER C : Mid Century Insurance Company	21687
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

COLEMAN ENGINEERING INC
1358 BLUE OAKS BLVD, STE 200
ROSEVILLE CA 95678

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	**GENERAL LIABILITY** [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC	X	X	604791716	01/18/2020	01/18/2021	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 75,000 $ 5,000 $ 2,000,000 $ 4,000,000 $ 2,000,000
B	**AUTOMOBILE LIABILITY** [ ] ANY AUTO [ ] ALL OWNED AUTOS [X] SCHEDULED AUTOS [ ] HIRED AUTOS [X] NON-OWNED AUTOS	X	X	604791716	01/18/2020	01/18/2021	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 2,000,000 $ $ $
A	[X] **UMBRELLA LIAB** [X] OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $			605122863	01/18/2020	01/18/2021	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $
B	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N: Y **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	X	A09327740	07/01/2019	07/01/2020	[X] WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

City of Fort Bragg
its officials, officers, employees, agents, and vc
416 N. Franklin Street
Fort Bragg CA 95437

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Randy Gardner

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

BUSINESSOWNERS POLICY

SCHEDULE*

Name Of Person Or Organization: CITY OF FORT BRAGG ITS OFFICIALS, OFFICERS, EMPLOYEES

***** Information required to complete this Schedule, if not shown on this endorsement, will be shown in the Declarations.

The following is added to Paragraph **C. Who Is An Insured** in the Businessowners Liability Coverage Form:

4. Any person or organization shown in the Schedule is also an insured, but only with respect to liability arising out of your ongoing operations or premises owned by or rented to you.

FARMERS INSURANCE

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY

E3306
1st Edition

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

01/18/18
Effective Date

60479-17-16
Policy Number

This endorsement modifies insurance provided under the following:

BUSINESSOWNERS COMMON POLICY CONDITIONS - BP 00 09

SCHEDULE

Name of Person or Organization:
CITY OF FORT BRAGG ITS OFFICER OFFICIALS EMPLOYEES VOLUNTEERS

(If no entry appears above, information required to complete this Endorsement must be shown in the Declarations as applicable to this endorsement.)

The provisions of the Businessowners Common Policy Conditions are modified by this endorsement as follows:

Condition **K. Transfer Of Rights Of Recovery Against Others To Us** in the Businessowners Common Policy Conditions is amended by the addition of the following:

3. We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard." This waiver applies only to the person or organization shown in the Schedule above.

This endorsement is part of your policy. It supersedes and controls anything to the contrary. It is otherwise subject to all the terms of the policy.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS

This endorsement modifies insurance provided under the following:

BUSINESSOWNERS POLICY

SCHEDULE*

Name Of Person Or Organization:
CITY OF FORT BRAGG ITS OFFICER OFFICIALS EMPLOYEES VOLUNTEERS

* Information required to complete this Schedule, if not shown on this endorsement, will be shown in the Declarations.

The following is added to Paragraph **C. Who Is An Insured** in the Businessowners Liability Coverage Form:

4. Any person or organization shown in the Schedule is also an insured, but only with respect to liability arising out of your ongoing operations performed for that insured.

   ☐

Client#: 42909 COLEENGI

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/17/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Nicole Larsen	
Greyling Ins. Brokerage/EPIC 3780 Mansell Rd. Suite 370 Alpharetta, GA 30022	PHONE (A/C, No, Ext): 770-552-4225	FAX (A/C, No): 866-550-4082
	E-MAIL ADDRESS: Nicole.Larsen@greyling.com	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : RLI Insurance Company	13056
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Coleman Engineering, Inc
1358 Blue Oaks Blvd., Ste 200
Roseville, CA 95678

COVERAGES **CERTIFICATE NUMBER: 20-21** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ PER STATUTE ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐	N / A					E.L. EACH ACCIDENT	$
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$
A	Professional Liability			RDP0038404	01/18/2020	01/18/2021	Per Claim $2,000,000 Aggregate $2,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

City of Fort Bragg
its officials, officers, employees, agents
& volunteers
416 N. Franklin Street
Fort Bragg, CA 95437

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ATTACHMENT 2
RESUMES

Chad R. Coleman, P.E.

Principal Engineer

Education

M.S., Civil Engineering
Brigham Young University

B.S., Civil Engineering
Brigham Young University

Registrations

Professional Engineer # 56490, CA

Professional Engineer # 8964, ID

Professional Engineer # 188915, UT

Professional Engineer # 16990, NV

Water Treatment Plant Operator, CA, Grade 3

Professional Affiliations

American Public Works Association

American Water Works Association

Water Environment Federation

Sacramento Area Water Works Association

Mountain Counties Water Resources Association

California Water Environment Association

Special Certifications

Completed Risk Assessment Methodology for Water Utilities (RAM-W™) Training Course sponsored by AWWA

Certified Grant Administrator, Idaho

Chad has over twenty-five years of experience planning, designing, and managing construction of water and wastewater infrastructure and facilities. He is experienced with the planning, design, and construction management of municipal wells, water treatment plants, water storage tanks, transmission and distribution piping, and pumping stations; as well as wastewater collection system rehabilitation and design, wastewater lift stations and wastewater treatment plants.

Selected Pipeline Project Experience

City of Fort Bragg Raw Water Line Replacement Project, Fort Bragg, CA: Principal-in-Charge for route alternatives analyses and selection, preliminary and final design and CEQA environmental document preparation for a four-phase replacement of approximately 11,000 LF of the City's raw water pipeline from Waterfall and Newman Gulches to the City's water treatment plant. The pipeline is nearing the end of its service life and crosses sections of steep, heavily wooded terrain and landslip-prone gorges. There is also sensitive riparian environment within the Coastal Zone to be crossed.

Sacramento VAMC – Correct Campus Water System, Mather, CA: Principal-in-Charge. The water facility upgrade and expansion required a tightly sequenced and phased installation of a new 8" water loop across the VA Medical Campus along with new 565,000 gallon potable water reservoir, CMU Booster Pump Station, Emergency Generator station, 40,000 gallon elevated water tank, and residual chlorine management system. The new water utilities supplement the existing 6" Potable/Fire water system serving the campus and require tie-in to each of the buildings including provisions for future utilities.

Calaveras County Water Agency, Techite Pipe Replacement: Principal in Charge of the preliminary design of approximately 8100-fee of 10-inch PVC pipeline. The purpose of the project was to replace Techite pipe that had reached the end of its useful life. Because the project site included many differing terrains and challenges, the design effort included evaluation and recommendation of numerous construction methods, including parallel open cut, remove and replace open cut, bore and jack, and sliplining the old pipe. The preliminary design effort was successful in helping the Water Agency to

make budget decisions and to prepare for funding applications.

Well #5 and Consolidation Pipeline Los Molinos Community Services District, Los Molinos, CA: Principal in Charge. Project included design of a well, pipeline, treatment, storage, fire protection, and distribution facilities; structural design for control buildings, supports, and site improvements; preparation of funding application; project planning and management; resident inspection; construction management; and O&M training. The pipeline includes several jack-and bore crossings of Highway 99.

Intertie Project, Locke Water Works Company, Locke CA: Principal in Charge responsible for design of a pipeline to the neighboring water system in Walnut Grove, CA. Coleman Engineering prepared 60% design plans for a 4,300 long, 4-inch dia. HDPE intertie pipeline with Sacramento County Water Agency, and will complete the design once additional state funding is made available. The pipeline will cross the 180 feet-wide Delta Cross Channel. An existing, now-unused 10-inch dia. sewer force main currently attached to the side of a USBR bridge and flood control structure (that crosses the Channel) will be removed, and existing supports and ring hangers will be used to support a new 4-inch dia. DI pipe as part of the intertie.

Water System Intertie Project, Sacramento Suburban Water District, Sacramento, CA: Project Manager for the coordination and design of upgrades to seven existing interties between SSWD and their neighboring water purveyors. The purpose of the upgrades was to add a SCADA monitoring of intertie flow, pressure and intrusion in an effort to enhance the security of the water system. Coleman Engineering developed construction plans and specifications.

North Auburn Transmission Main Construction Management, Nevada Irrigation District, Grass Valley, CA: Project Manager responsible for inspection and Resident Engineering services to NID for the installation of a new 20-inch transmission pipeline in north Auburn. The pipeline crosses a natural waterway and Highway 49, a state highway. Both conventional excavation methods and trenchless pipe installation methods are to be used on the project.

Broadview Terrace Mutual Water Company, Water System Upgrades 2011, Oakhurst, CA: Chad filled the role as Project Manager to help this small private water company to improve their system. The project included a new supply connection to a neighboring water system, and distribution system improvements. The significance of the new connection was to design a way to automate the operations using a pressure reducing valve plumbed as an altitude valve with a delay so that it would keep an elevated tank full and turned over sufficiently. The project was designed on a very small budget to fit

within funding and budget limits.

Quail Valley Ranch Raw Water Supply Pipeline, Yuba County, CA: Project Manager responsible for design of a new 5-mile pipeline to supply water from the South Feather Water and Power treatment plant in Bangor to a new development in Yuba County.

Secret Town Pipeline Replacement, PCWA: Project Manager responsible for design and all quality control for a 1,500-foot, 36-inch pipeline replacement project on the Boardman Canal system of the Placer County Water Agency.

Baker Siphon Pipeline Replacement, PCWA: Project Manager responsible for design and all quality control for an 800-foot, 42-inch raw water pipeline replacement project on the Boardman Canal system of the Placer County Water Agency.

Multiple Water Main Replacement Projects, Sacramento Suburban Water District, Sacramento, CA: Project Manager responsible for preparation of design, plans and specifications for replacement of nearly 50,000 feet of new water distribution piping and 827 residential service connections. The project location was in established neighborhoods in Sacramento where old water mains were located in back yards and were leaking regularly. New mains were replaced in streets with new service lines installed by directional drilling into the back yards.

Drayton Heights Water Main Replacements, Sacramento Suburban Water District, Sacramento, CA: Project Manager responsible for preparation of design, plans and specifications for replacement of 11,200 feet of new water distribution piping and 202 residential service connections.

Central Amador Water Project, Gravity Supply Line – Amador Water Agency, CA: Project Manager responsible for the detailed pre- design of a 20-inch, 3-mile long pipeline to deliver raw water from a PG&E forebay, across the Mokelumne River, to the Agency's Buckhorn Water Treatment Plant.

Broadmoor Estates Water Main Replacements, Sacramento Suburban Water District, Sacramento, CA: Project Manager responsible for preparation of design, plans and specifications for replacement of 6,500 feet of new water distribution piping and 95 residential service connections.

Latrobe Road Utilities Relocation, El Dorado Irrigation District, CA: Project Manager responsible for design and plan preparation for construction of approximately 4,000 feet of 18-inch water line and abandonment of a like footage of 12-inch water line.

East Area Raw Water System, City of Folsom, CA: Project Engineer responsible for feasibility planning and design of a raw water system to provide untreated irrigation water to the East Area of Folsom. Design included a 2,000-gpm submersible pump station with appurtenances to accommodate widely varying irrigation flow rates and pressure surges and two miles of 12-inch transmission pipeline. The project was constructed entirely without ceasing operations or service to existing customers through the use of extensive and detailed construction phasing planning during design.

South Stockton Water Transmission Mains, City of Stockton, CA: Project Engineer responsible to create contract documents for design-build teams to use in bidding. The project included construction of 8,000-feet of 16-inch transmission pipe and 4,800-feet of 24-inch transmission pipe.

Broadway Water Line Relocation, Sacramento, CA: Project Engineer responsible for design 2,000 feet of 8-inch water distribution main that was to be relocated as part of a larger reconstruction of Broadway Avenue.

Water Line Replacements, Arcade Water District, Sacramento, CA: Project Engineer responsible for design management and construction support for 30,000 feet of 8-inch and16-inch water line replacements for approximately 530 customer service connections.

Dumbarton Force Main Pipeline, City of Newark: Principal in Charge responsible for the planning, and pre-design of a twin 33-inch sewer force main pipeline facility. The pipeline was to be relocated to accommodate new development. The project required design of approximately 10,000-feet pipeline across very poor soils with provisions for manned and unmanned access.

Vineyards NPW Pipeline, City of Brentwood, CA: Project Manager leading conceptual level investigations of the conversion of a 24-inch steel PG&E gas pipeline for use as a non-potable water pipeline. The first phase of the project will connect the Roddy Ranch Pump Station site to the Vineyards development. The project has included modeling to size the required pipeline as well as the investigation of multiple construction methods for the most efficient utilization of the steel pipeline as well as other facilities already constructed and in place. This is a current conceptual investigation project that will develop into design of the new NPW pipeline as soon as pipeline ownership and right-of-way issues are resolved.

Simon N. Gray, P.E.

Project Manager

Education

BSc (Eng.) (Hons), Civil Engineering, Imperial College of Science and Technology, University of London, United Kingdom

Certificate in Business Administration, Hong Kong Management Association / Wolsey Hall, Oxford, United Kingdom,

Leadership Course, Ashridge Business School, Ashridge, United Kingdom

Registrations

Professional Engineer # 60311, CA

Professional Engineer # 51959, WA

Chartered Engineer # 45101217, United Kingdom

Fellow, Institution of Civil Engineers, United Kingdom

Professional Affiliations

American Water Works Association

Water Environment Federation

Sacramento Area Water Works Association

Mountain Counties Water Resources Association

California Water Environment Association

American Public Works Association

Simon has 35 years of varied and broad-based technical and managerial experience covering all aspects of project implementation. His career is well balanced, and includes planning studies, condition assessment, design, contracting, project and construction management in the United States, United Kingdom, Hong Kong, Singapore, Indonesia, Malaysia and Trinidad and Tobago. This extensive experience also includes successful management of multi-discipline 'fast-track' design build projects with particular emphasis on constructability and design–construction coordination. Simon has also been responsible for successful public outreach on many potentially- contentious projects and has particular skills in communicating technical concepts to a lay audience, and in consensus-building.

Simon has worked on multi-million-dollar programs as well as on small-scale projects for municipalities and rural communities. He also has heavy civil engineering experience beyond water engineering that includes roads, bridges, power stations, buildings, and airports.

Selected Pipeline Project Experience

City of Fort Bragg Raw Water Line Replacement Project, Fort Bragg, CA: Project Manager for route alternatives analyses and selection, preliminary and final design and CEQA environmental document preparation for a four-phase replacement of approximately 11,000 LF of the City's raw water pipeline from Waterfall and Newman Gulches to the City's water treatment plant. The pipeline is nearing the end of its service life and crosses sections of steep, heavily wooded terrain and landslip-prone gorges. There is also sensitive riparian environment within the Coastal Zone to be crossed.

Sacramento VAMC – Correct Campus Water System, Mather, CA: The water facility upgrade and expansion required a tightly sequenced and phased installation of a new 8" water loop across the VA Medical Campus along with new 565,000 gallon potable water reservoir, CMU Booster Pump Station, Emergency Generator station, 40,000 gallon elevated water tank, and residual chlorine management system. The new water utilities supplement the existing 6" Potable/Fire

water system serving the campus and require tie-in to each of the buildings including provisions for future utilities.

Well #5 and Consolidation Pipeline Los Molinos Community Services District, Los Molinos, CA: Project Manager for design of a well, pipeline, treatment, storage, fire protection, and distribution facilities; structural design for control buildings, supports, and site improvements; preparation of funding application; project planning and management; resident inspection; construction management; and O&M training. The pipeline includes several jack-and bore crossings of Highway 99.

Intertie Project, Locke Water Works Company, Locke CA: Project Manager for design of a pipeline to the neighboring water system in Walnut Grove, CA. Coleman Engineering prepared 60% design plans for a 4,300 long, 4-inch dia. HDPE intertie pipeline with Sacramento County Water Agency, and will complete the design once additional state funding is made available. The pipeline will cross the 180 feet-wide Delta Cross Channel. An existing, now-unused 10-inch dia. sewer force main currently attached to the side of a USBR bridge and flood control structure (that crosses the Channel) will be removed, and existing supports and ring hangers will be used to support a new 4-inch dia. DI pipe as part of the intertie.

City of Ukiah Recycled Water Project, Phases 1-3, Ukiah, CA: Project Manager. Responsible for fast-track final design of this $22 million project comprising a 66-MG lined open storage reservoir, 3000-gpm vertical turbine pump station, over 30,000 feet of 16- and 12-inch diameter PVC pipelines, and jack-and-bore crossings of creeks, roads, and railroads. Also performed technical review and supervised geotechnical investigation, topographical mapping, permitting, and right-of-way acquisition activities. Assisted in completing State Revolving Fund funding and regulatory agency approvals. Responsible for an associated water balance/zero liquid discharge modeling study to confirm storage requirements and a nitrogen balance study. As an extension to the project, Simon was also responsible for preliminary and final design of replacement chlorine contact basins at the City's wastewater treatment plant.

Banner Cascade Pipeline Project, Nevada Irrigation District, Grass Valley, CA: Project Manager. The $26 million project involved the replacement of the Lower Cascade Canal with seven miles of 36, 48 and 54-inch diameter raw water transmission pipeline in rural Nevada County. The initial phase included the preparation of a full Environmental Impact Report in accordance with CEQA. Simon was responsible as project manager and for engineering components, technical review, sub-consultant management and cost estimating in this phase. During the public review period for the Draft EIR, he also participated in public forums and in detailed "question and answer sessions" with the public and the District Board. For subsequent

design, Simon was the program manager and had overall responsibility for management of four teams covering pipeline and hydropower plant design; right-of-way acquisition, environmental permitting, topographical survey, public consultation; project controls; cost estimating, and the ISO 9000 quality assurance / technical review team.

Reclaimed Water System Extension Project, City of Livermore, CA: Project Manager. This 4,000 linear feet, 24-inch diameter extension to the City of Livermore's recycled water system project included a 300 feet jack and bore tunnel under Interstate 580, as well as extensive coordination with Caltrans; the California Department of Fish and Game and other state departments; power, telephone, cable TV utility agencies; sub-division developers; the Federal Aviation Administration and other agencies. Simon was responsible for project management and technical review.

Upper Mountain View Pressure Zone Improvements Project, City of Shelton, WA: Project Manager. Simon was the design and construction phase project manager for this fast-track project that includes construction of a 400,000-gallon elevated water storage tank, yard piping reconfigurations, well and well pump evaluations and upgrades, a 1-million-gallon welded steel ground level reservoir, a booster pump station, over 10,000 linear feet of 12-inch and 16-inch diameter transmission mains, and pressure reducing valve stations. The project included local agency permitting, environmental mitigation, constraints from FAA-controlled air space and compliance with funding agency procedures and requirements. Four jack and bore connections were also required for road and stream crossings.

Lakeside Drive Water Main Replacement Project, Valley of the Moon Water District, Sonoma, CA: Project Manager. A small private residential development required an extension and upgrade of its existing water mains in order to comply with fire flow capacity regulations, and to remove inaccessible 'back lot' connections. Simon was the project manager for the investigation and detailed design phases of the project that included the preparation of bid plans and specifications.

Placer Nevada Wastewater Authority Regional Pipeline, Auburn / Lincoln, CA: Project Manager. Simon was responsible as the project manager for routing studies for 18 miles of 36-inch diameter trunk sewer. Seven existing wastewater treatment plants (WWTP) are to be closed to eliminate treated effluent discharges to local creeks. The new pipelines will connect these existing facilities and convey raw wastewater to the City of Lincoln's new WWTP for treatment. The project also includes wastewater pump stations and force mains, storage, and flow equalization facilities. Simon was also responsible for a routing study for a pipeline to connect the Applegate WWTP to the Regional Pipeline, and for technical input to environmental documents

prepared in accordance with the California Environmental Quality Act (CEQA) and the Federal NEPA.

Lower Northwest Interceptor Planning and Preliminary Design, Sacramento Regional County Sanitation District, Sacramento, CA: Deputy Program Manager and Design Manager. The $600 million LNWI is a 15-mile long, part force main, and part gravity interceptor sewer. The conduit diameters vary from 84 to 120-inch with peak flows up to 220 mgd. These initial planning stages included route selection and feasibility studies. In addition to his duties as the Deputy Program Manager, Simon was responsible for system-wide preliminary hydraulic design as well as for sub-consultant coordination and management. This 'fast-track' project was notable for its use of decision criteria software and evaluation matrices.

West Shore Export Truckee River Crossing Rehabilitation Project, Tahoe City Public Utility District, Tahoe City, CA: Project Engineer. Condition assessment, rehabilitation alternatives analysis, and design to rehabilitate a 300- feet long, 36-inch diameter welded steel gravity trunk sewer crossing over the environmentally sensitive Truckee River. The condition assessment included ultrasonic testing techniques to confirm localized loss of pipe wall thickness from corrosion. The alternatives analysis included detailed cost estimating incorporating construction methodology. A segmented HDPE pipe liner insert and localized pipe section strengthening were recommended.

Bradshaw Interceptor Section 7A Construction Management, Sacramento Regional County Sanitation District, Sacramento, CA: Construction Manager. The Bradshaw 7A Interceptor contract included the construction of 13,700 linear feet of 84-inch to 96-inch diameter pipeline at a typical depth of about 35 feet along Happy Lane, Kiefer Boulevard and Bradshaw Road in Sacramento. Construction included both open-cut trenching and jack-and bore tunneling along, adjacent to, and under busy commuter routes. Simon was responsible for contract administration, construction supervision and management of the CM Team. Key issues for the project included traffic control and neighborhood public outreach.

Cody Tom, E.I.T.

Staff Engineer

Education

M.S., Civil and Environmental Engineering, University of California, Berkeley

B.S., Civil and Environmental Engineering, Brigham Young University

Registrations

EIT Certification #164683, CA

Cody has design and construction phase experience with water modeling, treatment systems, field sampling, system design and calculations, hydraulic modeling, well design and development, treated water pump stations, and design of water supply systems including transmission and distribution networks.

Project Experience

Well #5 and Consolidation Pipeline Los Molinos Community Services District, Los Molinos, CA: Staff Engineer for design of a well, pipeline, treatment, storage, fire protection, and distribution facilities; structural design for control buildings, supports, and site improvements; preparation of funding application; project planning and management; resident inspection; construction management; and O&M training. The pipeline includes several jack-and bore crossings of Highway 99.

Replacement Water Treatment System, California Department of Parks and Recreation, MacKerricher State Park, CA: Staff Engineer. Coleman Engineering will provide professional engineering services to the California Department of Parks and Recreation (DPR) in support of upgrades to the drinking water system for MacKerricher State Park. Previous engineering studies have been completed for the project that have resulted in preliminary plans. However, Parks staff is not comfortable with the viability of the proposed design. Responsibilities included: Lake Cleone intake and pump rehabilitation for conveyance raw water to a new proposed WTP design, Catwalk design for access to the intake structure, process valve design, concrete pad design, raw water line design, plan sheet drafting and site layout, Mill Creek intake and pump design for conveyance raw water to the new proposed WTP, traffic rated culvert design and CMP wet well rehabilitation. Challenges included: placement of catwalk high enough above the high-water mark of Lake Cleone but secluded where park attendees will not see, watershed flow calculations for culvert capacity design, and the retrieval of good water samples in an existing CMP wet well.

Arsenic Treatment, Funding, Planning and Design, Winship-Robbins Elementary School District: Staff Engineer for the design of a new 120 gpm water supply well to mitigate arsenic levels in an existing well. The well was designed to meet all state and local standards and features State Revolving Fund Contract Documents. A pilot well was drilled and zone-tested to verify the water quality prior to design. The well is designed to draw water only from select aquifers that meet drinking water standards. The final design includes controls, 500 -gallon hydropneumatic tank, and provisions to treat water as needed in the future. The site was designed for simplified maintenance and fully automatic functionality to accommodate the District. Responsibilities included: Consultation for filter pack, well screen and casing design, plan sheet drafting, specification writing, and equipment selection. Challenges included sizing a filter pack with unclear soil gradation layers.

Arsenic Treatment, Funding, Planning and Design, Locke Water Works Company: Staff Engineer. Coleman Engineering have been retained to provide planning, secure SRF funding, design, and manage construction of a wellhead arsenic treatment plant. Preliminary engineering included management of a pilot study that met the requirements of the State of California funding guidelines. Using pilot study results, Coleman Engineering will design a treatment system that will be as economical as possible to construct and to maintain. Responsibilities included: process valve design, potable pipe layout design, plan sheet drafting and figure drafting, and booster pump station design. Challenges included the limited pressure allowance from the county water system.

Well Source Capacity Compliance, Shaffer School, Litchfield, California: Staff Engineer. Coleman Engineering is responsible for existing well testing and well zone testing and site investigation to bring the Shaffer School drinking water system into compliance with drinking water standards. Project was Prop 1 funded and involved investigation of an existing on site well for possible development and a new well to determine water quality and total yield to meet peak hour and maximum day demands. Responsible for field oversight, hydraulic calculations, and groundwater data analysis. Responsibilities included: plan sheet drafting, equipment selection, sewer lift station design, force main design, potable water pipe design, gravity sewer pipe design, cross connection control, potable water well design, fitting and joint connection design, and process valve design. Challenges included completed design without the use of a detailed

survey. Outcome: 100% design plans that acquired funding in August 2019.

DeNova Homes, Gilbert Property, Storm Drain Pump Station, Lake and Well: Staff Engineer involved with the planning and design of a multiuse lake that is both aesthetic and stormwater storage. The facility also included a stormwater pump station with a firm capacity of 35 cfs. The facility includes a recirculation pump for maintaining water quality as well as an aeration system and an irrigation well. Responsibilities included: submittal reviews, responses to RFIs, technical memo writing for filter pack, well screen, casing sizing, and pump setting depth design, well hydraulics calculations, and delta revision drawings with design implications. Challenges included maintaining healthy relationships with clients, contractors and city agencies and keeping all parties satisfied with their scope of the work. Outcome: an irrigation well that does not produce sand in a location with high risk of sand pump production.

DeNova Homes, Gilbert Property, Sewer Lift Station: Staff Engineer involved with the planning, design, and construction engineering of a sewer lift station. The duplex lift station was sized to pump 0.35 MGD and included an emergency generator and connections to allow bypass pumping in the event of station failure. Responsibilities included: submittal reviews, responses to RFIs, wet well sizing calculations, and delta revision drawings with design implications. Challenges included coordinating with sub-contracted city engineers with little design experience during submittal review and RFI response process. Outcome: A fully functional accurately built sewer lift station despite the concerns of elevation inconsistencies during design and construction.

Potrero Power Plant Redevelopment, CBG, San Francisco, CA: Staff Engineer. Water modeling and writing report for a large redevelopment of the Potrero Power Plant. Responsibilities included coordinating with client, the City, and others to produce an accurate water model. Challenges included adjusting the model based on updates from the client and receipt of new information. Responsibilities included wet well sizing calculations and review of technical memo writing.

Warm Springs Irrigation Well, Lennar Homes, Fremont, CA: Staff Engineer for design of a new irrigation well to supply irrigation water to a park site and school site. Responsible for design of 100 gpm irrigation well including hydraulic calculations, associated piping and valves, pump sizing, equipment selection, and plan drafting. Construction is scheduled for 2018. Responsibilities included: submersible well pump sizing and setting depth design with supporting

calculations, automatic self-cleaning filter and sand separator design and equipment selection, delta revision plan drafting, submittal reviews, and responses to RFIs. Challenges included coordinating project schedule, critical lead times and priorities with contractors, engineers, and clients in order to insure a sound sand-free well design.

Phelan Gateway Project, Siegfried Engineering, Lathrop, CA: Staff Engineer for the construction of a wastewater lift station and force main pipeline system to convey wastewater to the City of Lathrop's Consolidated Treatment Facility (CTF). The lift station will be designed to serve Phases 1-3 wastewater flows in the short term as well as total project flows in the Buildout Condition. Coleman Engineering are providing preliminary engineering required to advance the design concepts of these facilities and to obtain concurrence from the City on proposed design concepts and criteria. Services will also include detailed civil, mechanical, structural, electrical, and instrumentation design necessary to develop constructible plans and specifications for the sewer lift station. Responsibilities included sizing a sewer lift station wet well and force main tie-in with an existing sewer lift station force main.

Tracy Hills At-Grade Tank and Pump Station, Ruggeri-Jensen-Azar Tracy, CA: Staff Engineer working on the project to provide onsite storage that includes operational and fire water storage as well as boosted water pressure to the drinking water distribution system. Responsibilities included: submittal reviews, responses to RFIs, technical memo writing, project coordination and management with contractors and city agencies, and booster pump station sizing, calculations and design. Challenges included getting familiar with a plan set that was not designed in-house for engineering services during construction

Allendale Booster Pump Station and Sewer Lift Station, DeNova Homes, Hollister, CA: Staff Engineer. Coleman Engineering was retained by the client for the design of a new booster pump station capable of delivering 232 gpm peak flow and 1500 gpm fire flow. Responsibilities included; hydraulic modeling, pump selection and verification of assumptions. Challenges included balancing the system over several elevation changes to mitigate the need for alternative measures for high pressure areas. System was sized to meet future build out conditions. Responsibilities included: submittal reviews, response to RFIs, site visits, start-up and commissioning procedures w/ consultation, deficiency list technical writing, final punch-list technical writing, and project management coordination. Challenges included: PLC programming inadequacies requiring post design manipulation, and

time sensitive project closeout to allow homeowners to occupy development.

MSA Engineering, Delta Shores Lift Station: Staff Engineer. Coleman Engineering are responsible for the planning, design, and construction engineering of a sewer lift station. The duplex lift station was sized to pump 0.48 MGD and included quick connects for an emergency generator and connections to allow bypass pumping in the event of station failure. Responsibilities included: sewer lift station sizing calculations, wet well sizing calculations, force main sizing and hydraulic calculations, and pump sizing calculations.

Brad Friederichs, S.E.

Professional Registration

California Structural Engineer, S2780

Education

B.S. Civil Engineering with honors, California State University, Sacramento, 1979

Professional Affiliations

President, Structural Engineers Association of Central California

American Society of Civil Engineers

American Concrete Institute

American Institute of Steel Construction

References

Mr. Jim Niehues, president, Yolo Machinery Company, Woodland, CA 530-661-1288 (numerous projects)

Mr. Gary Bechtel, Vice President, Gateway Pacific Contractors, Inc., West Sacramento, CA 916-665-4100

(West Sacramento Water Tank, Nevada Irrigation District Pump Station)

Mr. James Lindegaard, Facilities Engineer, Broadridge Company, El Dorado Hills, CA 916-221-8498

Time Commitment:
Design Phase—50%
Const Phase—20%

Brad Friederichs has 40 years' experience as a structural engineer for wastewater, water treatment, commercial, industrial, agricultural, retail and residential structures. His expertise is in cast-in-place concrete, prestressed concrete, steel, wood and masonry construction. His specialty is in producing completely detailed, contractor friendly, value-oriented construction documents resulting in projects that bid well with few change orders.

PROJECT EXPERIENCE related to Water/Wastewater/Stormwater Projects

EID On-Call Structural Engineer Project structural engineer for six sewer lift station rehabilitation projects consisting of a new concrete slab and a precast slab over existing FRP wet wells. Projects are Carson Creek, Waterford, Bridlewood, Southpointe, Carson Creek Ph II and Eastridge. Work in-progress.

EID El Dorado Hills WWTP Odor Control Project A cast-in-place concrete slab for new biofilter media and a catwalk for the foul air duct at the primary clarifier. Drawings completed in 2015.

EID El Dorado Hills WWTP Digester Lid Evaluation and Rehabilitation Investigate and repair rock pockets and voids due to pour consolidation in the newly constructed 60 ft diameter prestressed concrete digester lid. Prepare repair plans and inspect the construction for rehab of the lid in 2009.

Folsom Plan Area, Stormwater Structures and Retaining Walls Off-site and on-site improvements for hydropneumatic control structures, junction boxes, manholes and retaining walls. Cost: $5 million. Currently under construction.

Placer County Water Agency Gold Run Pipeline Pump Station Structural engineer for a 15 ft x 40 ft CMU building on a stepped concrete foundation in 2013. The foundation system has an integral wet well. Cost: $150,000

Placer County Water Agency I-80 Bluff Improvements Structural engineering for 75 lin. ft x 18 ft max. high tieback wall. The wall is constructed with steel piles, prestressed tiebacks and precast concrete infill panels in 2010. Cost: $1.5 million

Placer County Water Agency Monte Vista Intake Structure Structural engineer for cast-in-place concrete structures consisting of a canal intake, screen and tank foundation. The approximate plan dimensions are 30 ft x 30 ft x 10 ft high in 2010. Cost: $1 million

West Sacramento 2 MG Water Tank Foundation and Pump Station Structural engineer for an auger cast pile and concrete mat slab foundation for the steel tank. Structural design for a 30 ft x 80 ft CMU building also placed on auger cast piles. The piles reduce settlement due to liquefaction in 2015. Cost: $10 million. References: Gary Bechtel, Gateway Pacific General Contractor, Sacramento, CA 916-664-4100 ext 113

Lincoln New Wastewater Treatment Plant, Lincoln, CA Structural engineer for clarifiers, DAF, filter, influent junction structure, influent lift station, plant water pump station, RAS pump station, reaeration basin, solids holding basin, oxidation basin (75'x150'x20' deep). All structures are below grade and constructed of cast-in-place concrete in 2002. Cost: $80 million

Cal Am Water Lincoln Oaks 1.5 MG Tank Review and Pump Station Structural engineer for review of the tank and design for 26 ft x 35 ft CMU pump station with wet well in 2014. Cost: $5 million

Georgetown PUD Greenwood Reservoir 1.5 MG Tank Foundation and Pump Station Structural engineer for foundation design of the tank and for multiple cast-in-place concrete structures and a two-story, CMU building for office, shop and supplies in 2010. Cost: $5 million

Callamont Estates, Washoe County, NV 500,000 gallon Water Tank Structural design for a 72 ft dia. x 21 ft high cast-in-place concrete buried water tank in 2010. Cost: $1.5 million

CINQUINI & PASSARINO INC.
LAND SURVEYING

James M. Dickey, P.L.S.

1360 N. Dutton Ave., Suite 150, Santa Rosa, CA 95401
(707) 542-6268 Fax (707) 542-2106

TITLE
President

EXPERIENCE
20 Years

EDUCATION
Associates of Science Degree, Associates of Arts Degree in Civil Engineering & Land Surveying (1998)
Santa Rosa Junior College, Santa Rosa, California

LICENSES & CERTIFICATIONS
Professional Land Surveyor, California, PLS 7935

PROFESSIONAL MEMBERSHIPS
California Land Surveyors Association, Sonoma County Chapter Past President

American Council of Engineering Companies – California, North Coast Chapter

Caltrans District 4, Calmentor Program, Steering Committee Member

American Railway Engineering and Maintenance of Way Association

PROFESSIONAL PROFILE

Licensed Professional Land Surveyor with the State of California with twenty years of experience in land surveying and associated technologies. His land surveying experience responsibility for boundary surveys, aerial photo control surveys, topographic surveys, and construction surveys.

PROFESSIONAL EXPERIENCE

Nicasio Transmission Line, Marin County, CA. The Marin Municipal Water District needed to retrace their pipeline easement for approximately 6 miles through the Golden Gate National Recreation Area and Samuel P. Taylor State Park. Mr. Dickey was Principal in Charge for establishing a high quality control network that met or exceeded a 2 cm accuracy for intervisible points along the 6 mile project corridor and preparing a topographic map of the existing pathway.

Tiburon Pipeline Replacement Project, Tiburon, CA. Cinquini & Passarino provided topographic mapping of Paradise Drive and Trestle Glen Boulevard for MMWD's pipeline improvement project. As a part of this project we performed monument conservation to preserve the positions of existing monuments along the roadway right of way. This included research of recorded and unrecorded survey maps, deed research and field reconnaissance.

Sonoma Marin Area Rail Transit (SMART). Sonoma and Marin Counties, CA. Mr. Dickey was Principal in Charge and coordinated five field crews to prepare the GPS Surveyed primary control network for a future 72-mile rail transit line through Sonoma and Marin Counties. Additional surveys were performed for establishment of the right of way originally circa 1860 - 1877, topographic sites and additional information as needed. All information was researched and managed in an efficient manner to ensure that it is easy to retrace what was surveyed and how the surveys were completed. Mr. Dickey has also completed numerous right of way acquisition documents for the project which include appraisal maps, legal descriptions, plats and coordination with multiple project engineers. Mr. Dickey also serves is the project surveyor for the project to review any surveying performed by the DB contractor.

Dewberry

Douglas L. Brewer

ENVIRONMENTAL REVIEW AND SUPPORT

Mr. Brewer has over 30 years of experience assisting clients in the fields of environmental disclosure and permitting with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), state and federal Endangered Species Act (ESA) and Clean Water Act. He has served as Project Director on complex infrastructure projects and has managed large multidisciplinary teams of scientists and engineers. Mr. Brewer has served in key leadership positions for several national and international firms in the last 15 years and has strong skills in organizational management, business strategy development, marketing and budget management. He has managed the spectrum of projects from small to large multi-year complex projects with budgets ranging from $500-$1,000,000.

Mr. Brewer has worked with a variety of clients, including regulated utilities, cities and counties, government agencies, as well as private industries.

Mr. Brewer specializes in assisting clients in project planning and development through early planning to identify fatal-flaws and constraints and developing viable solutions. He assists clients in maintaining their environmental stewardship standards and ensuring long-term sustainability of project operations. Mr. Brewer has served as an instructor on Clean Water Act Water Quality Permitting and Total Maximum Daily Loads (TMDL) through University of California, Davis Extension. Mr. Brewer's career experience includes, but not limited to, the following projects.

Directed or managed over 150 environmental impact assessment analyses on a wide variety of water, wastewater, power and other major infrastructure projects in California. Project experience includes CEQA/NEPA/ESA/CWA compliance, regulatory permitting and compliance, environmental impact analysis for water and power projects, wastewater, ground water, water supply, flood control, habitat conservation, and energy-based projects.

SELECTED PROJECT EXPERIENCE

Coleman Engineering/City of Crescent City Public Works Department, Initial Study Mitigated Negative Declaration/USDA Documentation for Water Supply Project. 2016. Project Manager for preparation of CEQA ISMND and USDA environmental documentation for USDA funded water supply project involving two new water pipelines, storage tank maintenance and water meter installation.

Coleman Engineering, Los Molinos Community Services District, Initial Study Mitigated Negative Declaration/ SRF Documentation for the Arsenic Compliance and Water Supply Consolidation Project. Project Manager. 2015. Managed preparation of CEQA IS/MND for small water supply project which included new groundwater well and approximately 2,500 of new water pipeline to connect two small mobile home parks to LMCSD water system. Also prepared CEQA+ SWRCB State Revolving Fund (SRF) project documentation (Environmental Form, Endangered Species Act, Clean Air Act and NHPA Section 106 compliance).

NEXGEN Engineering/City of Colusa Public Works Department, Water Rights Petition Environmental Analysis. Project Manager. ENERCON prepared detailed water rights and environmental analysis for the potential reclamation of 400,000 gallons per day of treated wastewater for alfalfa production. Conducted evaluation of ceasing wastewater discharge to Powell Slough and effects on water quality and aquatic life. Water rights petition was approved with no restrictions by SWRCB in December 2015.

Foothill Raw Water Supply Supplemental EIR and Permit Acquisition, Newcastle, California, Placer County Water Agency. Principal-in-Charge. Managed major raw water supply project involving 60-inch diameter raw water pipeline and two finished water pipelines to serve Foothill WTP in Newcastle. Clean Water Act Section 404 NWP and CDFG permits successfully obtained

City of Williams, Wastewater Treatment Plant Upgrade project ISMND, California, City of Williams. Project Director. Prepared CEQA environmental document and SRF program documentation for new treatment plant. Assisted in plant siting to avoid wetlands and acquisition of funding.

City of Colusa Wastewater Treatment Plant Upgrade and Reclamation Project. Initial Study Mitigated Negative Declaration (IS/MND). Prepared environmental document for treatment plant nitrification/denitrification using Bio-Lac process, new 55' diameter clarifier and 2- mile long reclamation pipeline and collection system upgrades. Assisted City with State Revolving Fund (SRF) grant application requirements.

City of Jackson CA, Department of Public Works, Jackson Creek Beneficial Use Assessment Study. Mr. Brewer was the primary study design leader for evaluating the biological conditions in 6 mile segment of Jackson Creek in assessing management decisions regarding wastewater discharges to Jackson Creek and the need for wastewater treatment plant upgrades. The study used SWRCB Surface Water Ambient Monitoring Protocols and evaluated fisheries, water quality, wildlife to assist with predictions of impacts from eliminating the City's discharge to Jackson Creek.

Meadow Vista County Water District CEQA Initial Study/Mitigated Negative Declaration (IS/MND), California. Project Director. Directed SRF funded water supply reliability project involving increased storage and improved diversion from Bear River Canal. Worked closely with client to avoid wetland impacts. Managed ISMND and associated SRF reports.

City of Modesto, Modesto Water Treatment Plant Expansion, Modesto Irrigation District/City of Modesto. Principal-in-Charge. Managed major water treatment plant expansion from 30-60 MGD and associated pipelines and water storage facilities in City of Modesto. Project involved 67 TAF water rights transfer to MID to city and associated actions with SWRCB.

Placer County Water Agency, Foothill Raw Water Supply Supplemental EIR and Permit Acquisition, Newcastle, California, Placer County Water Agency. Principal-in-Charge. Managed major raw water supply project involving 60-inch diameter raw water pipeline and two finished water pipelines to serve Foothill WTP in Newcastle. Clean Water Act Section 404 NWP and CDFG permits successfully obtained.

Nevada Irrigation District (NID) Regional Water Supply Project, Lincoln, Nevada, City of Lincoln. Project Planning and Analysis Leader. Prepared constraints analysis and assisted with planning for biological, land use, and cultural resources chapters of EIR for a regional water supply project involving 20-mile pipeline and two storage reservoirs.

Wastewater Collection System IS/MND and SRF Funding Assistance, Jamestown, California. Project Director. Prepared environmental documentation and SRF program documentation for collection system upgrades.