

November 8, 2021

Mr. Rick Dever
Crestline Sanitation District
24516 Lake Dr
Crestline, CA 92325

Subject: Proposal for Construction Management for the Huston Creek WWTP Dewatering Building and Primary Clarifier Project

Dear Mr. Dever:

We appreciate the opportunity to submit our construction management and inspection proposal to the Crestline Sanitation District (District) for the subject project and look forward to working to complete this project under budget and within schedule. We will work proactively with the project team to stay on top of issues and quickly resolve them to keep the project on-track and avoid costly delays. Having completed similar projects in the past, we understand the potential project issues that may arise and will use our past experiences to manage and resolve them quickly and efficiently. Attached please find an overview of our construction management teams, relevant project experience, our anticipated scope of work, and estimated fee for our services.

Personnel

The personnel proposed for this project have a proven track record of successfully managing similar projects, with the primary individuals currently completing wastewater treatment plant projects. Mr. Ryan Ruiz, P.E. will be the construction manager, responsible for managing the construction process. He will be supported, as required, by Mr. George Litzinger who manages Dudek's Construction Management Division. Mr. Tom Ramirez will be Dudek's inspector and will be on-site full time for the duration of construction. He will be responsible for inspecting the contractor's work, ensuring compliance with the contract documents, and will be providing daily inspection reports.

We have also included two subconsultants on our team. Rockwell Construction Services (RCS) will be providing electrical/instrumentation inspection, and Ninyo & Moore will be providing geotechnical, materials testing, and special inspection services. We will coordinate with our subcontractors early and often and will conduct thorough interdisciplinary reviews of subcontractor deliverables before submission to the District.

Similar Project Experience

Dudek has recently provided successful construction management and inspection services on a number of similar wastewater treatment projects, including:

- Regional Wastewater Treatment Plant - SOCWA, Orange County – \$15.0 million
- Railroad Canyon Wastewater Treatment Plant, Elsinore Valley Municipal Water District – \$3.0 million
- Goleta Wastewater Treatment Plant Expansion, Goleta Sanitary District – \$30.0 million
- Anaheim Wastewater Treatment Plant, City of Anaheim – \$15.0 million

Scope of Work

We have included a copy of our proposed scope of work we plan on for implementing for this project. The scope can be tailored to meet the District's goals as required.

Estimated Budget

We have based our budget on a 16-month construction schedule, which is still being developed. If the construction duration changes, we will modify our budget accordingly.

Our team is highly qualified and possesses specialized experience to manage this project within budget and on time, completing it without litigation or claims. We view ourselves as an extension of the District's staff and will work together with all parties, particularly with the plant operators, throughout the project. Our proactive management style will address issues head-on and get answers so the project is not delayed.

We look forward to working with the project team. Please call give us a call if you have any questions.

Sincerely,



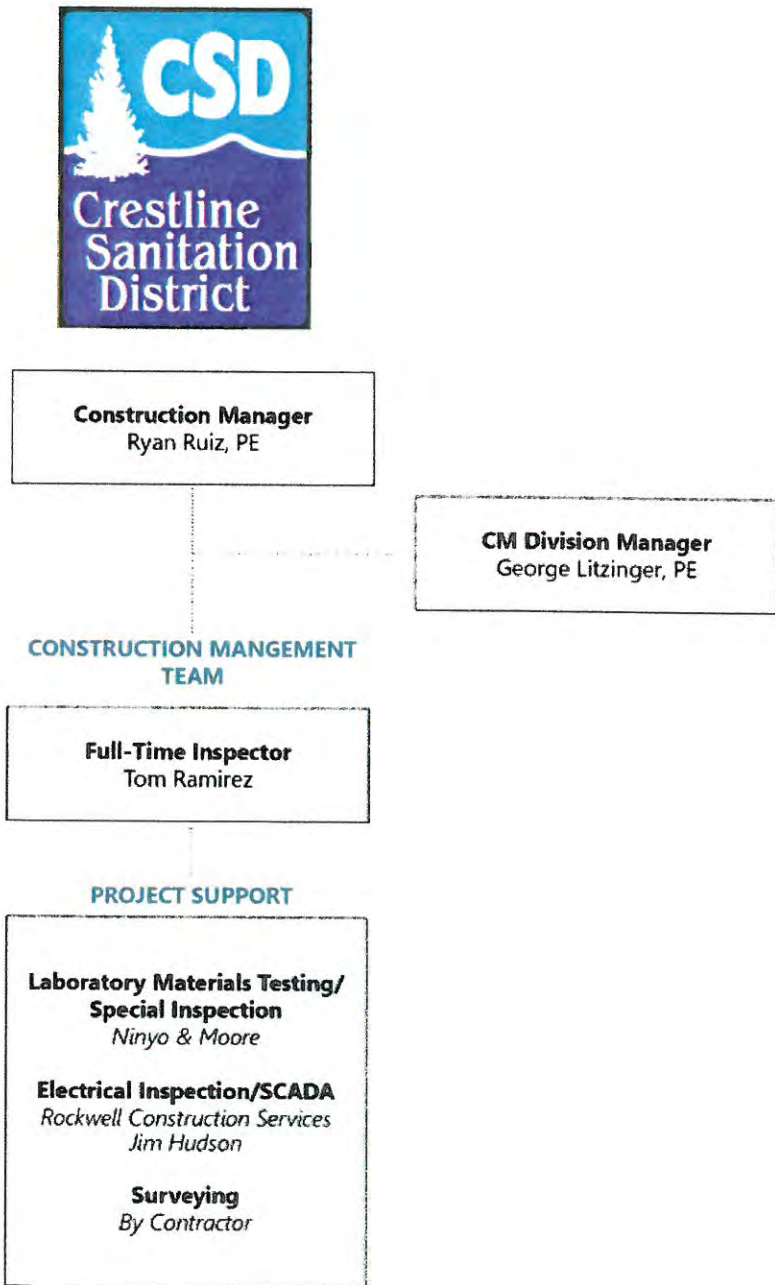
George Litzinger, P.E.
Project Principal

Att.: Fee Estimate

1 Proposed Team and Organization

The Dudek team is highlighted in Figure 1. Short bios for project management staff follow the organizational chart. Full resumes for all team members are provided in Attachment A.

Figure 1. Organizational Chart



Key Team Member Bios

Construction Management Division Manager

George Litzinger, PE

George Litzinger has more than 35 years' experience, leadership, and supervision in engineering and construction. As the Construction Management Division Manager, he is responsible for all of Dudek's construction projects and programs covering both large and small projects up to \$100 million. His duties typically include: management of construction staff and providing support in contract administration, management and cost control, scheduling, contract bidding/award, constructability reviews, field engineering, project coordination, claims management, and estimating. Mr. Litzinger has managed a variety of projects for both the private and public sectors including water/sewage treatment plants, reservoirs, pump stations, pipelines, parks and golf courses, small dams, subdivisions, streets and roads, drainage projects, fire stations and a variety of public buildings.

Construction Manager

Ryan Ruiz, PE

Ryan Ruiz has experience as a construction manager, inspector, office engineer and field engineer. Projects have included wastewater treatment facilities, pump stations, tanks, large and small diameter sewer and water pipelines, and roadwork. Mr. Ruiz's duties typically include reviewing contractor's schedules, progress payment applications, RFI's and submittals, negotiations on change orders, design revisions, safety, meeting agendas and minutes, and inspection of project work. Ryan is currently completing a similar project for the EVMWD.

Full-Time Inspector

Tom Ramirez

Mr. Ramirez has over 35 years of experience in construction providing construction management and field inspection services on both public works and private development projects. Experience includes water, sewer, storm drain, and pipeline construction; wastewater treatment plants; roadway construction; bridge retrofits; and new construction, repairs and remodels of public buildings and residential developments. Experience includes preconstruction, constructability and plan reviews; survey staking; SWPPP; and traffic control.

Subconsultants

Our CM team is supported by our subconsultant team which we routinely partner with for Construction Management projects. Our subconsultant team shares the same geotechnical subconsultant and staff as the design for familiarity and consistency to make sure that submittal reviews, responses to contract questions, and review of change order requests are completed in a timely and responsible manner. Our CM subconsultant team consists of:

- Jim Hudson, Rockwell Construction Services (Electrical Inspection & SCADA)
- Michael Putt, Ninyo & Moore (Materials Testing)

2 Similar Project Construction Management Experience

Railroad Canyon Water Reclamation Facility Yard Piping Modifications Project CM and Observation

Client: Elsinore Valley Municipal Water District
Client Reference: Jessie Arellano, 951.674.3146, ext. 8310
Project Budget: \$2 million

Dudek provided construction management, inspection, special inspection, and survey services for this project that consisted of upgrades to the District's existing wastewater treatment plant facilities and treatment systems. The Railroad Canyon Water Reclamation Facility is a wastewater reclamation facility designed to treat 1.3 mgd average daily flow. The treatment processes consist of screening, secondary biological treatment (extended aeration process) with nitrogen removal, secondary clarification followed by filtration and disinfection using sodium hypochlorite. The chlorinated tertiary effluent is stored in a lined effluent storage pond from where it is pumped to customers to be used as recycled water for landscape irrigation. The Plant has the ability to bypass raw sewage or treated effluent into the sewer to be conveyed to the District's downstream Regional Water Reclamation Facility (RWRf).



The yard piping project consisted of lining of two existing storage ponds, installing new recycled water piping, installing baffle curtains in existing aeration basins, modifying aeration piping and return sludge piping in existing aeration basins, and installing new mixers in existing aeration basins.

Goleta Sanitary District Wastewater Treatment Plant Upgrade

Client: Goleta Sanitary District
Client Reference: Robert Hildago, 805.967.4519, rhidalgo@goletasanitary.org
Project Budget: \$30 million

Dudek provided construction management and inspection services for a \$30 million upgrade to the District's wastewater treatment plant that services the cities of Goleta and Santa Barbara. It was the first major upgrade of the plant since 1985. Dudek provided a constructability review of the project's plans and specifications and evaluated the project for value engineering opportunities. Project improvements included a new biofilter and secondary clarifiers, new sludge tanks and flow equalization tank, and upgraded employee facilities.



Project Features

- Convert existing solids stabilization basin No. 1 into a primary effluent flow equalization basin
- New equalization basin pump station
- New biofilter pumping station for new biofilter No. 2
- Ungraded biofilter pumping station for biofilter No. 1
- Three new activated sludge tanks
- Two secondary sedimentation tanks
- Blower building
- Upgraded Return Activated Sludge (RAS) pumping station No. 1 (Waste Activated Sludge (WAS) pumping station added)
- New WAS/RAS pumping station No. 2
- Upgraded secondary effluent pumping station
- Two WAS mechanical thickeners (in the solids handling building)
- Solids handling building
- Sludge holding tank
- New odor control facilities

Avenue 48 WWTP Expansion and Entertainment District Pump Station

Client: City of Coachella

Client Reference: Mr. Jerry Santillan, 760.482.4290

Project Budget: \$25 million

Avenue 48 WWTP Expansion

Dudek provided construction management and inspection of this 18-month, \$25 million treatment plant expansion, which was funded by the State of California Revolving Fund Program. Dudek designed and performed a constructability review for this project and managed the bid process on behalf of the City. Dudek's CQA coordinated every aspect of the construction process with the contractor and provided inspection of all civil, structural, mechanical, and electrical/ instrumentation work. The project was very successful as the change orders amount was less than \$150,000, which is less than 1% of the construction bid amount. The low change order amount was directly attributable to a solid design and a clear concise set of contract documents provided by a constructability review team that understands minimizing change orders.



Project Features:

- 2 new oxidation ditches
- 2 new clarifiers

- New chlorine contact basin
- 12 new sludge beds
- New headworks pump station structure
- New administration building 2 new oxidation ditches
- Odor control facilities

Water Recycling Demonstration Project

Client: City of Anaheim

Client Reference: Bill Moorhead, 714.765.4165

Project Budget: \$11 million

Dudek provided construction management and inspection services for the Water Recycling Demonstration Project, which will serve as a demonstration project showcasing the viability of recycled water and the value of conserving limited potable water supplies. The project consists of a 100,000 gallon per day (gpd) capacity water reclamation facility (WRF) at the north side of City Hall. The project will be designed and constructed in phases to reduce the initial cost. The first phase of the project consisted of a 50,000 gpd water recycling facility that could be expanded to 100,000 gpd in the future.



The first phase will provide recycled water for toilet and urinal flushing in Anaheim West Tower and landscape irrigation around City Hall. In subsequent phases, the project could be expanded to serve Pearson Park, George Washington Park, Colony Square, Anaheim High School, and some of the existing or future developments. At build out, the water recycling plant will produce a new drought-proof water supply of 110-acre-feet or 35 million gallons per year. The raw wastewater will be conveyed through a force main from the Lemon Street trunk sewer at the intersection with Oak Street.



The building footprint is approximately 32 ft. by 68 ft., with a building height of about 19 feet above ground. The facility will also include a buried storage tank with a capacity of approximately 27,000 gallons. Additional offsite storage tanks would be required for future phases.

3 Scope of Work

Construction Management

3.1 Construction Management and Inspection Services

Dudek's construction management professionals specialize in public infrastructure projects and developer inspection services. Our project managers, inspectors, and resident engineers blend technical knowledge with a commitment to implementing timely solutions. Our team has managed hundreds of complex construction projects, coordinating with regulatory agencies, contractors, consulting firms, and municipalities. We focus on communication and attention to detail, leading to well-built construction efforts.

Our construction managers focus on continuous communication among all parties, and keep stakeholders apprised of project status. We understand that information exchange, construction documentation, and immediate dispute resolution are important factors in efficient project management. Our construction management and inspection team interpret each project's plans, specifications, and permits to facilitate compliance, and work to build a collaborative, trusting relationship. We quickly and proactively find solutions to construction challenges to avoid project delays.

Our construction managers are responsible for overall quality assurance (QA) and project coordination. Construction managers work closely with the client, contractor, and inspectors to resolve day-to-day construction issues. We facilitate contractor efforts by anticipating issues that might affect work progress, and our inspectors are on site daily during and outside working hours, as necessary. Dudek's Construction Management Division staff includes:

- Licensed Professional Civil Engineers
- DSA inspectors
- NASSCO-certified inspectors
- ACI-certified inspectors
- ICBO inspectors
- CMAA-certified construction managers

3.2 Project Approach

Construction Management

Approach to Resolving Key Issues

Our staff have provided project management, construction management, and inspection services on all types of projects throughout southern California, as outlined in our project experience summary. Based on our experience, there are four essential issues that must be addressed and are the foundation of all successful projects. As a firm, we train and expect our CMs, resident engineers, and inspectors to identify and proactively address these issues throughout the project.

Establish the CM or Inspector as the single point of contact between the owner and the contractor. One person must be in charge of the project and responsible for overall project coordination. Establishing the CM/inspector as point of contact at project start allows them to effectively administer the contract, maintain proactive communication with all stakeholders, promptly resolve issues when they arise, properly document the project, conserve the project budget and contingency, and deal resolutely with the contractor. All correspondence between the owner, agency, and/or contractor must go first through the CM/inspector, helping to avoid misunderstandings and misdirection.

Maintain strict adherence to the contract documents. We have found most unnecessary disputes/claims are ultimately the result of allowing the contractor to stray from the contract requirements during the course of the project. Once this has occurred, it is nearly impossible to regain control of the contractor, so it is critical that the inspector maintains strict adherence to the contract documents in handling all issues with the contractor. The inspector must be firm and fair in all dealings with the contractor throughout the project.

Respond to issues in a timely manner. The key to avoiding controllable schedule delays is timely response to submittals, requests for information, and other contractor inquiries. It is essential to deal with these issues expeditiously, which requires the CM to pre-review all submittal/requests for information/change orders for the design engineer or owner, and encourage their prompt review of these items as well. Coordination meetings and conference calls will be scheduled to discuss and resolve all issues as quickly as possible, rather than waiting to resolve these items at a later date.

Produce high quality deliverables. The most important role we perform on the project is quality assurance of the work during construction. We aim to avoid leaving any lingering long-term maintenance issues for the owner due to lack of or improper inspection. Future costs can result when a project is not constructed and inspected properly, so it is essential the right personnel be assigned to the project. Dudek will provide the proper, qualified personnel who have a long record of successfully inspecting the particular work types built on each project. We have an exceptional mix of CMs, resident engineers, and inspectors with specialties in civil, mechanical, structural, and electrical disciplines on treatment plants, sewer lift stations, water lines, parks, and roadway rehabilitation projects. Our proposed staff have a history of successfully completing high quality projects in southern California. Our staff will be responsible for documenting, testing, and coordinating material testing/special inspection to verify all work is constructed in accordance with the contract documents; if work does not meet these standards it will be rejected and reworked until it is acceptable.

Allocation of Resources and Budget

The Dudek team is composed of a wide range of experienced, local talent who can meet any of the District's needs. George Litzinger, a firm principal who leads Dudek's construction management practice, will be supporting the team as required. Mr. Litzinger will support the CM, inspectors, special inspectors, and administrative staff. Mr. Litzinger will maintain open and effective lines of communication with the team regarding the project's status.

Quality Assurance Plan

QA is the process by which the construction manager and inspector deliver the end product, using plan specifications, the contract, conditions of approval, and permits. The process starts well before construction and includes reviews of the plans and specifications for bidding and constructability.

Our team develops a clear understanding of the project and issues that will be encountered during construction. Dudek's construction management role involves understanding and interpreting each project's plans, specifications, and permits to ensure compliance. We anticipate and have knowledge of the challenges the contractor will face, and we use a QC approach to keep project deliverables on time and error-free by taking the following measures:

- Assigning a P.E. to lead the team to provide the District an experienced construction manager
- Assigning personnel with relevant experience and training related to the project
- Using senior-level staff for QA/QC of work products before they are delivered to the District
- Maintaining effective lines of communication with the District and team regarding project status
- Develop a project plan based on team, budget, schedule, and communication prior to initiating construction management services in support of this project.

Inspectors will provide technical inspection at the project site where the contractor is performing work to ensure compliance with the contract documents. They will coordinate material deliveries, inspect materials as they arrive on site, and verify that all materials and equipment are properly stored. Inspectors will prepare daily reports, as required, by the project scope of work and the District's standards.

3.3 Construction Services Technical Approach

The Dudek team approach is to provide the District and team with construction management and inspection services to facilitate a project that is completed per code, on time, within budget, and to the District's standards. We will listen to the team closely to develop a complete understanding of the goals and needs by attending all pre-construction meetings from the outset.

We believe to develop a team that works together seamlessly, roles and task assignments must be clearly defined. Although not all inclusive, responsibilities for the CM and inspectors are detailed as follows:

Construction Manager Responsibilities

The CM will be responsible for overall QA and coordination of the project and will work closely with the District, contractor, inspectors, and engineers to resolve day-to-day construction issues. The CM will also ensure project issues are identified and resolved quickly. Project issues will be organized on a critical action item report, which will detail administrative, design, construction, environmental, and coordination issues that arise. Each action item will be assigned to project personnel with a target date to complete or resolve. The report will be updated at the weekly construction management staff and contractor progress meetings and will be included in the monthly progress report.

The CM will be responsible for tracking change orders and reviewing submittals and RFIs. He will also be responsible for directly managing the inspection and testing on the project.

The CM will also review the plan for the upcoming work on what may affect the public or traffic. He will also be available to meet with community groups to develop methods to inform the public, agencies, community groups, and contractors in the area regarding the work schedule. There are a number of issues that the community will be

watching closely on construction projects: work hours, storm water control, noise control, dust control, and environmental measures, to name a few.

The CM will coordinate with the District all tie-ins and schedule a final walk through. We will make sure the project is complete and acceptable prior to scheduling a final punch list walkthrough with the District. The CM will review and recommend final payment and release retention once all outstanding items are completed to the satisfaction of the District. At the completion of the project, we will review and certify the as-builts, draft final change orders, and prepare a final construction summary report for the project.

Inspector Responsibilities

The inspectors assigned to the project will be on site daily during working hours and whenever work is performed outside of normal working hours. They will be available by cell phone whenever not at the site to answer any questions and resolve issues. The inspector will be the key point of contact for the contractor's project manager and superintendent during the course of the work. The inspector will not direct the contractor's work but will facilitate the contractor's efforts by anticipating issues that might affect the progress of the work.

Dudek employs a state-of-the-art photo documentation system using commercial-standard photo management software. Upon beginning each day's fieldwork, our personnel will download the day's images from each digital camera to the computer network located in the field office. Using these images, the construction inspector will review completed work with the District's plans and specifications.

The inspector will examine the site daily, manage subconsultants, and will participate in the weekly progress meetings with the contractor. One of the key activities is the weekly progress meeting with the contractor. This is where old and new business issues are discussed, such as action items developed, progress to date is reviewed in detail, a contractor's three week look-ahead schedule is developed, and items from the District or other consultants discussed. If work is non-conforming per the specifications, the inspector will issue a written Notice of Non-Compliance report for any work installed by the contractor that does not comply with the project plans and specifications. This will require a written response from the contractor and the issue will be tracked weekly until it is resolved to our satisfaction. The inspector will also prepare a list of items for correction and redline as-built plans as needed.

The inspector will assist with a submittal review meeting and with expediting the submittal turnaround process. He will conduct a submittal review meeting with the contractor for designated critical submittals to insure they are returned for prompt material procurement.

Inspection Forms / Checklist

Documentation is critically important in construction and all communication will be provided to effected personnel in writing. Our inspectors maintain daily logs, complete incident reports, and photograph elements of a project. We assist the District with progress pay estimates, contract change orders, labor and equipment records, personnel records, and other general correspondence that will ensure the effectiveness of the projects.

Storm Water (WPCP) Inspection and Compliance

The inspector will inspect the contractor's Water Pollution Control Plan (WPCP) installation, erosion, tracking, potential discharges every day for compliance with the permits and approved project WPCP plan. The contractor will be notified immediately in writing of any corrections that need to be made. The inspector will stay up to date on all required reports and inspect the contractor's WPCP reports to ensure they are up to date and accurate.

Project Management and QA/QC

The construction management team will establish and implement a QA/QC Plan organized as follows:

- Organization and Responsibility
- Execution and Schedule
- Procedural Requirements
- Requirements for Subconsultants
- Project Quality Management Audits.

The CM is committed to supporting construction of your projects on behalf of the District. Regular meetings with the contractor and the use of a three-week schedule for field work should prevent any delays due to inspection needs. Dudek's approach to quality assurance and quality control is directed toward ensuring the quality of the final product meets the design drawings and specifications while increasing management's awareness and confidence in the details of the entire fabrication and construction process.

Dudek will employ proven methods for the project-specific quality assurance and quality control program for the District's project. This program will largely consist of existing corporate procedures and standards from the company's Total Quality Program, tailored to match the unique requirements as indicated in the District's overall QA/QC Plan. Our approach includes a mixture of senior staff review, constructability evaluation and operability/maintainability evaluations throughout the process. The focus on achieving a consistent high-quality product is carried through the review of contractor's procedures, submittal review, shop and field inspections, as well as field and laboratory testing to ensure that quality materials and equipment are delivered and constructed to the project specifications and drawings.

Quality Assurance Inspection Services

Inspectors will provide technical inspection at each job site where the contractor is performing work to ensure compliance with the contract documents. They will coordinate material deliveries, inspect materials as they arrive on site, and verify that all materials and equipment are properly stored. Inspectors will prepare daily reports as required by the project scope of work and the District's standards. Inspection staff will note and document deviations in the work. The District's project manager and the contractor will be notified when deviations are observed.

Project Management

Key elements of our project management approach to keep project deliverables on time and error-free are:

- Assigning Principal-in-Charge George Litzinger, PE, who has over 30 years' project experience
- Assigning personnel with directly relevant experience and training related to each task assignment
- Using senior-level staff for quality assurance/quality control of work products before they are delivered to the District
- Maintaining open and effective lines of communication with the District regarding a project's status
- Early involvement in development, planning, staffing, and implementation of project work.

5 Estimated Budget

The estimated budget and fee for Construction Management is included in Attachment B. The estimate of services assumes a 16-month (350 working days) construction schedule. Time will be billed time-and-materials based on actual time spent on the project.

Attachment A

Resumes



George Litzinger, PE

Principal/Project Manager

George Litzinger has more than 35 years' experience, leadership, and supervision in engineering and construction. As the Construction Management Division Manager, he is responsible for all of Dudek's construction projects and programs covering both large and small projects up to \$100 million. His duties typically include: management of construction staff and providing support in contract administration, management and cost control, scheduling, contract bidding/award, constructability reviews, field engineering, project coordination, claims management, and estimating. Mr. Litzinger has managed a variety of projects for both the private and public sectors including water/sewage treatment plants, reservoirs, pump stations, pipelines, parks and golf courses, small dams, subdivisions, streets and roads, drainage projects, fire stations and a variety of public buildings.

Project Experience

Water/Wastewater

Goleta Sanitary District (District) WWTP Expansion. Mr. Litzinger and the Dudek CM Team provided construction management and inspection services for a \$50 million upgrade to the District's wastewater treatment plant that services the cities of Goleta and Santa Barbara. Dudek also provided closeout phase services on this project.

Avenue 48 Wastewater Treatment Plant Expansion, City of Coachella. Dudek provided construction management and inspection of this 18-month, \$30-million treatment plant expansion, which was funded by the State of California's Revolving Fund Program. Mr. Litzinger and his construction management team performed a constructability review for this project as well as managed the bid process on behalf of the City. Dudek's construction QA (CQA) experts coordinated every aspect of the construction process with the contractor and provided inspection of all civil, structural, mechanical, and electrical/instrumentation work.

Railroad Canyon WRF Yard Piping Modifications Project, Elsinore Valley Municipal Water District, Lake Elsinore, California. Mr. Litzinger was the project manager for Dudek on this project that involved construction and modification of the Railroad Canyon Water Reclamation Facility's (RRCWRF) aeration basins. The RRCWRF is a wastewater reclamation facility designed to treat 1.3 mgd average daily flow. The basins were modified with new piping, pumps, electrical and baffles to retain the sewage for the purpose of creating an "Anoxic Zone" to denitrify the sewage prior to reuse.

Recycled Water Pipeline CM and Inspection, San Elijo Joint Powers Authority. Mr. Litzinger was project principal overseeing the construction management and inspection of this recycled water pipeline within the City of Solana Beach. The project was part of a larger Sewer, Water, Arterial, Paving (SWAP) Project, which had a tight schedule requiring completion of all construction in less than six (6) months and involved various stakeholders: City of Del Mar, San Diego Fairgrounds, SEJPA, City of Solana Beach, and Santa Fe Irrigation District.

Education

*United States International University, San Diego
BS, Civil Engineering, 1985*

Certifications

Professional Civil Engineer CA No. 47544

California Contractor Engineering Class "A" License No. 731744

Landscape License C-27

Professional Affiliations

Construction Management Association of America

American Society of Civil Engineers

Building Industry Association

Construction Industry Federation

Water Recycling Demonstration Project, City of Anaheim, Anaheim, California. Mr. Litzinger was the project principal for Dudek on this project. Dudek provided construction management, inspection and initial operation services on this project. The project consisted of constructing a new state of the art 50,000 gpd treatment facility within 2,000 SF building constructed adjacent to City Hall that incorporated several treatment methods: membrane bioreactor, ozone and UV disinfection to treat raw sewage into title 22 recycled water for toilet and irrigation use throughout the City. The project also included the construction of new lift station and force main.

Imperial Water Treatment Plant Expansion, City of Imperial. Mr. Litzinger was project manager for the City of Imperial's \$15 million water treatment plant upgrade and expansion. The project doubled the City's treatment capacity to 7 mgd and was constructed by a design build construction team. The project was one of the first of its kind using an Engineer, Procure, Construct (EPC) contract with a guaranteed maximum price. The project was completed on time, within budget, and free of litigation. Constructed facilities included:

- Seven mgd water treatment plant and associated appurtenances
- One 50 hp pump station
- Rehabilitation of two steel water storage tanks
- 24-inch PVC pipeline
- SCADA system upgrade.

CM for Potable Water Storage Reservoir(s) at Calipatria State Prison, California Department of Corrections and Rehabilitation, Calipatria, California. Mr. Litzinger was the project principal on this project, providing construction management services for the construction of various potable water storage reservoirs at the Calipatria State Prison. The project also included additional storage facilities on site that were cathodically protected and tied into existing prison facilities. The project involved the following facilities:

- New 1.25 MG potable water storage reservoir
- Renovation of the existing 2.06 MG potable water storage reservoir
- Disinfection facilities
- Tie-in to existing suction lines and booster pump station with various isolation valves
- New 12' wide road

Olivenhain Pipelines Phase II (\$25 Million), San Diego County Water Authority. Mr. Litzinger was the project manager for the San Diego County Water Authority's Olivenhain Pipelines Phase II project. This pipeline project included 11,288 feet of 78-inch buried welded-steel pipe and 11,500 feet of 48-inch buried welded-steel pipe. Specifications consisted of:

- Isolation valve and blowoff pipeline appurtenances
- Graded and improved access roads
- Aqueduct connections to Pipelines 4 and 5
- Construction of three tunnels under the existing aqueducts
- Removal and reconstruction of an existing 30-inch outfall sewer
- Environmental mitigation requirements and protection of sensitive biological habitat.

Poway and Olive Street Pump Stations, Ramona Municipal Water District. Mr. Litzinger was responsible for construction management services for the Poway Pump Station and Olive Street Pump Station for the Ramona Municipal Water District. Construction management and inspection were provided for all aspects of construction, including grading, concrete, masonry, electrical, and instrumentation work. The Olive Street Pump Station is a new station that provides system pressure throughout the Ramona community. The station contains two new 40 hp and two new 20 hp vertical-turbine pumps. The Poway Pump Station is a high-pressure water booster station. This station included the installation of two new 900 hp vertical-turbine pumps into a building that was retrofitted to accept the new pumps. The pump station transfers water up a 400-foot grade to an open reservoir that serves the town of Ramona, California.

Ryan Ruiz, PE

Construction Manager

Mr. Ruiz has experience as a construction manager, inspector, office engineer and field engineer. Projects have included wastewater treatment facilities, above ground tank reservoirs, pump stations, police stations, wetlands, and park and street improvements. Mr. Ruiz's duties typically include reviewing contractor's schedules, progress payment applications, RFI's and submittals, design revisions, negotiating change orders, project safety, managing meeting agendas and minutes, and inspection of overall project work.

Project Experience

Regional Treatment Plant Miscellaneous Improvement Project, South Orange County Water Authority (SOCWA) (\$4.1M). Mr. Ruiz is currently working as the Construction Manager for this project. Responsible for project meetings regarding safety, weekly progress, schedule, RFI's, submittals, change orders, progress payments and quality assurance. Responsible for payment application review and progress payment procedure for SOCWA, properly documenting and filing all project files on Procore server, inspecting Contractor and Subcontractor's work complies with approved plans and specifications. Responsible for reviewing and negotiating change orders, recommending solutions for construction and design deficiencies and assist the SOCWA project manager with any requested engineering tasks.

The project consists of upgrading and renovating the Energy Building, Administration Building, Primary Gallery and Fan Room, Digester Pump Room, Headworks Building, Primary Sedimentation Basins, Secondary Sedimentation Basins, Mixed Liquor Distribution Channel, Polymer Room and roadways. Implement various electrical improvements, install VFD panels, and install and program polymer PLC system. Implement mechanical improvements to the DAF Recirculation system and upgrade the existing HVAC system.

Wastewater Treatment Plant Upgrade, Goleta Sanitary District (\$30M). Mr. Ruiz worked as a Field and Office Engineer on the City of Goleta's new wastewater treatment plant upgrade. Mr. Ruiz performs daily field surveillance of field construction operations to assure compliance with contract documents. Responsible for a daily engineer's report that documents daily observations of field operations. Assure labor wage compliance with state and federal regulations of all contractor and subcontractor workers. Responsible for response to contractor request for information, reviewing submittals, reviewing change orders for merit, preparing construction cost estimates, negotiating change order proposals, preparing change orders for the construction manager, verifying dimensions in the field, recommending solutions for construction and design deficiencies and assist the construction manager in various engineering tasks.

Water Reclamation Plant No. 4 and No. 7 Headworks Improvements Project, Coachella Valley Water District (\$24M). Mr. Ruiz was the project inspector for the construction of a new Pump Station, Screen Building, Grit Building, and various pumps and vaults as well as monitoring proper BMP's, and backfill and compaction

Education

*University of California, San Diego
BS, Structural Engineering*

Certifications

*Professional Civil Engineer No.
C86394*

*Certified Erosion, Sediment and
Storm Water Inspector (CESSWI)*

*Certificate of Completion for
Approved Training for Qualified
SWPPP Practitioner (QSP)*

NASSCO Certifications

*Cured-in-Place Pipe (ITCP) Inspection
Certification Program*

*Pipeline Assessment Certification
Program (PACP)*

*Manhole Assessment and
Certification Program (MACP)*

operations at the WRP 4 site in Thermal, CA. Mr. Ruiz as responsible for daily inspection reports and documenting photos of the various activities ongoing on site. Mr. Ruiz inspected all work by the contractor and subcontractors to ensure work was completed per approved plans and specifications.

Potable Water Reservoir Project, California Department of Corrections and Rehabilitation (\$4.1M). Mr. Ruiz worked as the Construction Manager for this project. This project was to construct an above ground potable water reservoir providing up to 1.25 million gallons of storage capacity. The new reservoir provides emergency water supplies to the State Prison Institution. Both new and existing reservoirs were fitted with a water circulation device to reduce stagnant water and be protected from corrosion. The new reservoir is mechanically and digitally monitored by the existing pump house, equipped with ladders and accessed by a new asphalt road. The existing 2.06 million gallon above ground potable water reservoir is constructed of steel and was restored due to corrosion. The reservoir was repaired and fitted with cathodic protection and a water circulation device.

Thermal Headwork Station Project, Coachella Valley Water District (\$24M). Mr. Ruiz inspected work including restoration of existing Wet Well, construction of a new Pump Station, Screen Building, Grit Building, and various pumps and vaults as well as monitoring proper BMP's, and backfill and compaction operations. Mr. Ruiz was responsible for daily inspection reports and documenting photos of the various activities ongoing on site. Mr. Ruiz inspected all work by the contractor and subcontractors to ensure work was completed per approved plans and specifications.

City of Fontana, Sanitary Sewer Pump Station Replacement Project (\$1M). Mr. Ruiz was the project inspector for this project which includes demolishing and constructing three different lift stations for the city of Fontana. Responsibilities include all inspections and assurance of work to be done per plan and specification, including the MCC room, pump room, generator and equipment pads, wet wells, AC pavement installation, sewer system, manholes, and all control diagrams pertaining to the lift station operations. Coordinate with contractor and city representatives to ensure proper work and safety procedures.

City of Compton, Alhondra Sewer Main Rehabilitation Project (\$2.5M). Mr. Ruiz provided inspection for 40,000 LF of CIPP for Compton's sewer main relining project. Mr. Ruiz's duties included quality assurance inspection of the pre and post CCTV, lining installation inspection, SWPPP implementation, manhole rehabilitation and installation, traffic control inspection and open trench point repairs.

City of Culver City, Sewer Main Rehabilitation Project (Phase 2) (\$4M). Mr. Ruiz provided inspections for 90,000 linear feet of cured in place pipe (CIPP) for the City-wide sewer main relining project. Mr. Ruiz's duties included quality assurance inspection of the pre and post CCTV, lining installation inspection; SWPPP and traffic control inspection and open trench point repairs.

Casmalia Water Tank Replacement Project (\$0.5M). Mr. Ruiz worked as the Field and Office Engineer for the Casmalia Community Service District's galvanized welded steel tank replacement project. Dudek was contracted by the Casmalia Community Services District (CCSD) to provide engineering services for the replacement of a 190,000-gallon water storage tank, which was originally part of contracted work with the County of Santa Barbara.

Carlsbad Desalination Pipeline Project (\$1B). Mr. Ruiz worked as a Field Engineer and Consultant City Inspector for the City of San Marcos. Mr. Ruiz inspected all work by the contractor within the city to ensure plan and specifications were correctly met. Responsible for ensuring quality assurance and safety was implemented during over 2,640 feet of 55" water pipeline installation throughout the city of San Marcos. Responsibilities included project restoration of ADA sidewalks and ramp ways, catch basins and curbs, property damage, dealing with resident inquiries as needed, and proper traffic control operations. Responsible for a daily engineer's report that documents daily observations of field operations.

Tom Ramirez

Construction Project Manager/Inspector

Mr. Ramirez has over 35 years of experience in construction providing construction management and field inspection services on public works and private development projects. Experience includes water, sewer, storm drain, and pipeline construction; wastewater treatment plants; roadway construction; bridge retrofits; and new construction, repairs and remodels of public buildings and residential developments. Experience includes preconstruction, constructability and plan reviews; survey staking; SWPPP; and traffic control, including:

Supervision

- Responsible for grading, pipeline and concrete crews.

Construction management and field inspection

- State and local highways: drainage and structural section, general infrastructure improvements and bridge seismic retrofit.
- Public Works: street structural sections, signals, sewer, storm drains, waterlines. Facility improvements pump stations, waste water treatment plants, onsite surface and subsurface improvements. Traffic control and SWPPP monitoring. Preconstruction, constructability and plan reviews.

Project Experience

Railroad Canyon Water Reclamation Facility Yard Piping Modifications Project, Elsinore Valley Municipal Water District, California. Mr. Ramirez served as project manager/lead inspector for the District on this project that included the remodel of two (2) aeration basins with HDPE Baffle curtains, concrete support structures, and submersible mixer pumps. Yard piping included 2,750 LF of 12" RW pipe C-900 pipe with appurtenances, 150 LF 14" DR piping, HDPE liner and concrete stairs for two (2) RW holding ponds, 3 outlet structures, 1,440 LF of 4" W3 wash down piping with wharf hydrants, wire perimeter fence with gates around the RW ponds, and control room upgrades. Approx. \$3 mil.

Lead Inspector, Valley Sanitary District, Indio, California. Mr. Ramirez served as lead inspector for several project for the District, including:

- *Shadow Hills Service Area Phase 1* – included: 1,400LF Horizontal Directional Drill of 54" HDPE carrier pipe of 4 HDPE service pipes, 36" RCP, 21" RCP, 60" MH's, 16" HDPE reclaim water, 2-HDPE manholes, surface repairs of Curb and gutter, asphalt concrete, sidewalk and ribbon gutter. Approx. \$6.2 Mil
- *Permit "as needed" inspection for development improvements.*
- *Shadow Hills Service Area Phase Two and Three* – included: 36" PVC, 27" PVC, Precast Manholes, surface repairs of curb and gutter, asphalt concrete, sidewalk and street reconstruction. Approx. \$6.0 mil
- *Avenue 48 Sewer Reconstruction and Water Line Reconstruction* – This work was in partnership with the City of Indio which included: street reconstruction and widening, 18" PVC sewer, 27" sewer, manholes and laterals, 18" DIP water line connections and appurtenances. Approx. \$5.5 mil.
- *Pavement reconstruction project, Monroe Street. Avenue 49 to Interstate 10 and Monroe Street Interceptor Sewer* – Responsibilities included: Installation of 24" C905-DR25 PVC (60 LF), 18" C905-DR25 PVC (2014 LF), 18" SDR35 PVC (2734 LF), 8" SDR35 PVC (440 LF), laterals, manhole tie-ins, manhole frame and covers, surface restoration. Approx. \$6.8 mil.

Lead Inspector, Coachella Sanitary District, California. Mr. Ramirez served as lead inspector for several project for the District, including:

- *Entertainment District Ave 52 Sewage Pump Station* – included: 16" sewage force main, 12" DIP water line, 36" gravity sewer, manholes and sewage pump station. Approx. \$5.72 mil.
- *Entertainment District, Ave 54 Waste Water Treatment Plant Expansion Project* – Improvements included: headwork's and influent pump station, oxidation ditches, chlorine contact basins for oxidation ditches, clarifiers, sludge drying beds, bio solids stockpile area, raw affluent sewage and waste affluent sewage (RAS/WAS), ductile iron and PVC pipelines and pump room, generator building, electrical building, administration building, landscaping, parking lot and misc. surface improvements. Approx. Cost. \$20 mil.

Lead Inspector, City of San Marcos, California. Mr. Ramirez was lead inspector on various City CIP projects including: street widening, signals, storm drains, utilities and surface improvements. The Creekside Marketplace project included grading and parking lot improvements, utilities, storm drains, curbs, sidewalks, planters, 25' BTH palm trees, asphalt and striping. Approx. \$6.5 Mil

Pavement Reconstruction Project, La Paz Drive, Tamarisk Road Realignment and Paving, and AFG Plant Storm Drain Improvements, City of Victorville, California. Mr. Ramirez was lead inspector for this project that included removal and replacement of a 14' x 23' elliptical RCP storm drain, full street section reconstruction, 2x5x60 box culvert, vertical realignment and paving of existing street, striping, and parkway grading. Approx. \$1.7 mil.

Street Rehabilitation Programs, Phases 2 and 3, City of Coachella, California. Mr. Ramirez was lead inspector. The project included: removal and replacement of damaged curb and gutter, sidewalk, driveways, cross gutters, spandrels and street grinding, replacement of asphalt concrete with AR4000 base course and AHRM Surface course. Approx. \$6 mil.

Lead Inspector, City of Poway, California. Mr. Ramirez provided as-needed inspection services to the City's Development Services Dept. Projects included: New development and residential, grading, blasting, rock retaining walls, utilities, water, street structural section, storm drain facilities, water retention systems, parking lots, SWPPP monitoring, directional boring for AT&T conduits in residential streets, traffic control monitoring, and installation of monitoring wells.

Assistant Resident Engineer for Bridge Retrofit Projects, District #8 Caltrans. Bridge retrofit projects in San Bernardino County. Included: infill walls, abutment extensions, cable restrainers, column casings, traffic control and surface improvements.

- City Creek, two bridges
- Cajon pass I-15/215 interchange, five bridges
- Lytle Creek, one bridge
- Hwy 18, viaduct retrofit
- Hwy 38, two bridges
- Hwy 138, railroad over crossing



Subject: Qualifications, Key team members, Related Experience and References for Rockwell Construction Services

Qualifications, Related Experience and References

Rockwell Construction Services, LLC (RCS) was founded in September of 2006. The firm was created to offer Electrical, Instrumentation & Controls (I&C) and Systems Integration, project review, inspection, startup and testing assistance as well as general construction management services specializing in the Water/Wastewater industry.

The founders of the firm, Jim Hudson and Rock Swanson offer over 70 years of experience in the industry as Electrical Contractors. Rock Swanson, the founder of Rockwell Electric Inc., and Jim Hudson the VP/General Manager, bring the unique perspective of an electrical contractor/system integrator to the specialty construction management profession. With over 30 years of experience, Thomas Klein, a veteran of Rockwell Electric, Inc. as the Engineering Manager, contributes his complementary expertise in I&C and SCADA to the Rockwell Construction Services team.

Our 35 years of experience as Electrical Contractors and 14 years as consultants provides us with a proficiency that greatly benefits our clients. Through the years, we have focused on providing the highest level of services and we are immensely proud of our reputation in the industry. Our attention to details and quality has always been recognized as the key to our success. These principles and practices were established many years ago and continue to serve us well to this day.

We strive to identify and correct problems before they impact the project by working closely with the entire construction team, from review of the contract documents prior to bid through final Operations & Maintenance manuals and As-built drawings at the conclusion. By implementing this approach, we minimize negative impact on both the project budget and schedule.

What can RCS bring to your projects? We specialize in constructability review of plans and specifications prior to release for bid and/or after award of bid, Electrical and I&C budget preparation, project schedule review and coordination, submittal review, Electrical and I&C project inspection and quality assurance, change order evaluation, startup and testing assistance, electrical utility coordination, existing site investigation and evaluation. We also provide expertise in HMI and PLC/RTU programming, communications, networking, and SCADA.

RCS has a proven history of duly managing the Electrical and I&C components of a project as the client's liaison while producing benefits to the project schedule and substantial reduction of risk and cost.

RCS is a Limited Liability Corporation. RCS is a qualified Small Local Business Enterprise/Emerging Local Business Enterprise in the City of San Diego. (Certification No. 14RC1321). The main workforce for RCS is currently comprised of 2 principles and 4 employees.

RCS does not maintain a formal office, instead individual home (residence) offices are utilized as needed. The Main office address is 31480 Justin Place, Valley Center CA, 92082.

RCS has a solid history of positive financial conditions. There are no past or current negative financial or legal conditions that may impede our ability to complete any project.

Key Personnel, Experience and Related Projects

Jim Hudson, President

Experience

See Above

Related Projects

Goleta Sanitary District – Wastewater Treatment Plant Upgrade (Goleta, CA).

RCS provided Construction Management and inspection services on what is one of the most challenging electrical and instrumentation & control projects we have encountered. The Goleta sewage treatment facility is an existing plant. This project includes not only major new construction of expanded process capabilities, but also a complete change-out of all the plant Electrical Switchgear and Motor Control Centers (MCCs). Detailed planning and coordination are of the utmost importance during phased cutover of process areas while maintaining a fully operational plant.

Olivenhain Municipal Water District – David C. McCollom Water Treatment Plant LT2 Upgrades (Olivenhain, CA)

Performed construction management and engineering assistance on this major upgrade project. The \$16 million project upgrades the facility to comply with the EPA's Long Term 2 (LT2) Enhanced Surface Water Treatment Rule. The project includes a new energy recovery facility including two new energy recovery turbines, new raw water eq. tanks, modifications to 13 membranes, new raw water eq. tanks, new backwash eq. basin and pump station, new strainers. Involvement with the instrumentation and controls design and participation in the startup and commissioning, as-built reviews, and punch-list development/resolution.

City of Escondido – Escondido-Vista Water Treatment Plant Disinfection and Electrical System Upgrades (Escondido, CA).

The project included installation of a new on-site sodium hypochlorite generation (OSG) system to replace the existing gaseous chlorine system for disinfection, installation of a new chlorine dioxide generation system to replace the existing system, and upgrades to the plant electrical systems including main switchgear, standby engine generators, and MCC's for new equipment. Involvement includes startup planning and schedule coordination, controls clarifications, SCADA coordination, and startup & commissioning services.

Thomas Klein, Vice President

Experience

Over 37 years of experience in Electrical, Instrumentation and Controls & SCADA system design, development and implementation and project/construction management. Projects primarily

focused on Water / Wastewater industry. Mr. Klein has been involved in all aspects of control system development including feasibility studies, design, construction management, and field assistance including startup & commissioning, punch list resolution and final project acceptance, as well as post-acceptance support. Mr. Klein's experience includes over 23 years in the electrical, controls and systems integration industry and over 14 years in the I&C and SCADA engineering consulting field

Related Projects

City of Corona – Ion Exchange Treatment Plant (Corona, CA).

This project consisted of a new water treatment plant building, including cartridge filters, perchlorate removal system, nitrate removal system, brine system, air compressors, and ammonia and sodium hypochlorite injection system. Involvement included development of loop drawings, development of system startup and closeout plan, schedule coordination, controls clarifications, local network communications integration coordination, SCADA coordination, and startup & commissioning services.

Orange County Sanitation District – Sludge Dewatering and Odor Control at Plant 1 (Fountain Valley, CA).

Currently providing services to WM Lyles Company for pre-commissioning and commissioning tasks. The project consists of the construction of the Sludge Dewatering and Odor Control at Plant No. 1, including but not limited to a new Thickening and Dewatering Centrifuge Facility, modifications to the Solids Storage and Loading Facility, new Odor Control Facility, and modifications to existing Bleach Facility.

City of Carlsbad – SCADA Master Plan (Carlsbad, CA).

This ongoing project consists of providing technical guidance services to the Carlsbad Municipal Water District related to their SCADA Master Planning efforts. Involvement includes participating

Company References:

1. Mr. Andrew Ferrigno P.E., City of Huntington Beach, Senior Engineer (714) 475-8414, AFerrigno@surfcity-hb.org
2. Mr. Randy Manns, City of Escondido, Construction Manager, (760) 839-7031, rmanns@escondido.org
3. Mr. Michael Hindle, P.E., Padre Municipal Water District, (619) 258-4632, mhindle@padre.org
4. Mr. Vernon Weisman, P.E., District Engineer, City of Corona Department of Water and Power, (951) 739-4912, vernon.weisman@CoronaCA.gov
5. Ms. Shawnele Morelos, P.E., QSD/P., Principle Engineer – Capital Improvement Projects, Elsinore Valley Municipal Water District, (760) 522-9927, smorelos@evmwd.net

Michael Putt, PG, CEG

Principal Geologist



EDUCATION

B.S., Geology, 1997, California State University, Fullerton

Applied Rock Slope Engineering Short Course, 2006, Association of Engineering Geologists, California

REGISTRATIONS

PG 7581 (California)

CEG 2341 (California)

Radiological Safety and Gauge Use Certification, 1997

PROFESSIONAL AFFILIATIONS

South Coast Geological Society

Mr. Putt is a Principal Geologist with Ninyo & Moore and has extensive experience in providing engineering geology consultation in Southern California. Mr. Putt has extensive experience on a variety of project types, including highways, bridges, bore and jack tunneled undercrossings, hillside and flat-land mass grading projects for residential, commercial, and industrial developments, pipelines, and forensic investigations. Mr. Putt performs project administration and management, prepares and reviews geologic and geotechnical reports and provides third party review services for geotechnical reports. He conducts geologic and geotechnical field evaluations, including detailed logging of large- and small-diameter borings and trenches, and geologic evaluation/mapping. Projects have included fault hazard evaluations, landslide studies, slope stability analysis, seismic refraction studies, geologic reconnaissance studies, forensic evaluations, and construction and inspection services.

EXPERIENCE

Orange County Sanitation District/Plant No. 1, Job P1-105, Headworks Rehabilitation and Expansion: Project Manager for the on-going Headworks Rehabilitation and Expansion project at Plant 1 involving demolition, rehabilitation, and construction of the drainage lift station, screening handling building, grit pump station, primary influent metering drain box and structure, headworks odor control facility, hydrogen peroxide facility, ferric chloride facility, power building 3, and headworks standby power building and electrical room. Mr. Putt is responsible for project management, coordination with the design team, supervision of staff, geologic interpretations, development of earthwork recommendations and technical report preparation.

Orange County Sanitation District/Plant No. 2, Job P2-105, Digester Ferric Chloride System Rehabilitation: Served as Project Geologist providing a geotechnical evaluation report for final design. Services included review of historical background documents, exploratory borings, laboratory testing, and geotechnical engineering. The geotechnical report addressed geologic conditions and seismic hazards, groundwater, seismic design parameters, site earthwork and foundations. Recommendations were presented for structure pad earthwork, mat foundation designs, trenching and shoring, lateral earth pressures, and construction dewatering.

Orange County Sanitation District/J-110 Final Effluent Sampler and Building Area Upgrades: Served as Project Manager providing geotechnical consulting services for the design and construction of the Final Effluent Sampler and Building Area Upgrade project (Project J-110) at Orange County Sanitation District Plant No. 2. Design services included preparing a technical memorandum summarizing the existing geotechnical data during the preliminary design phase and performing a geotechnical evaluation for the design and construction of a new building to replace the effluent sampler trailer, equipment storage building, and ocean monitoring trailer.

Orange County Sanitation District/Magnolia Trunk Sewer Rehabilitation: Served as Project Geologist for a design-build project to rehabilitate the trunk sewer line utilizing the slip lining technique. The slip lining technique involves the excavation

Michael Putt

Principal Geologist

of access pits through relatively soft alluvial soil below groundwater to expose the top of the sewer pipeline for installation of the liner. Services included geotechnical and environmental consulting services during the design phase that included preparation of geotechnical evaluation reports, environmental screening for soil and groundwater contamination including aurally deposited lead, performance of pre-construction site condition surveys, and preparation of a vibration monitoring plan.

Inland Empire Utility Agency – Recycled Water Pipeline, Rancho Cucamonga, California: Coordinated geotechnical investigation and base line report preparation for a 2.5 mile segment of a large diameter recycled water pipeline project. Field exploration included logging of 17 small diameter borings and 7 backhoe test pits. Project construction involved open cut and two tunneled crossings.

Orange County Sanitation District/ Santa Ana Trunk Sewer Flow Diversion Structure: Served as Project Manager performing geotechnical consulting services for the Orange County Sanitation District (OCSD) Santa Ana Trunk Sewer (SATS) flow diversion structure in Costa Mesa, California. The geotechnical services for design included evaluation of the subsurface soil, geologic, and groundwater conditions at the site, which involved excavations of up to approximately 23 feet deep to construct two cast-in-place box structures that are connected by a new sewer pipeline, and geotechnical recommendations for the design and construction of the planned improvements.

Los Angeles Bureau of Engineering Aliso Creek Limekiln Creek Restoration, Los Angeles, California: Principal Geologist provided geotechnical consulting services for the Aliso-Limekiln Creek Restoration project in Los Angeles California. The purpose of the project was to improve the water quality of the impaired Los Angeles River by reducing the amount of trash and pollutants introduced upstream from onsite and off-site storm water runoff into the Aliso and Limekiln creeks. Services included subsurface evaluation included drilling, sampling, and logging ten small-diameter borings to depth ranging from 10 to 511/2 feet. Soil samples were obtained from borings for geotechnical and environmental laboratory testing. Geotechnical testing included in-place moisture and density, gradation, Atterberg limits, direct shear strength, hydro-collapse potential and expansion index. Environmental tests were performed in accordance with the United States Environmental Protection Agency (EPA) Test Methods to evaluate chemical concentration of potential concern (COPCs).

Olympiad Booster Station, Los Angeles, California: Principal Geologist retained during geotechnical observation and materials testing services during construction of the Olympiad Booster Station project located in Los Angeles, California. The project consisted of constructing a new approximately 1,500-square-foot pump station building. The new building consisted of a reinforced concrete foundation and slab-on-grade, reinforced masonry walls, and wood timber and structural steel framing supporting the roof. The site improvements also included a reinforced masonry retaining wall and site wall, new underground pipelines, as well as a new access road. The earthwork for the building pad preparation included over-excavating to a depth of approximately 5 feet below existing grade. Site earthwork also included excavation for foundations, structural backfill, trench backfill, subgrade preparation and aggregate base placement. Our services also included concrete sampling and deputy inspection for concrete, masonry and welding. Our laboratory services included maximum density/optimum moisture and masonry grout and mortar, and concrete compressive strength testing.

Attachment B

Fee Estimate

