

**CITY OF SANTA ANA
CONTRACTOR AGREEMENT FOR
ON-CALL ENGINEERING SERVICES WITH
KIMLEY-HORN AND ASSOCIATES, INC.**

THIS AGREEMENT is made and entered into on this 16th day of August 2022 by and between Kimley-Horn and Associates, Inc. (“Contractor”), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California (“City”).

RECITALS

- A. The City desires to retain a Contractor having special skill and knowledge in the field of on-call water resources engineering services pursuant to RFP 22-002.
- B. Contractor represents that Contractor is able and willing to provide such services to the City.
- C. On April 21, 2020, City Council approved agreements with Tetra Tech, Inc., Michael Baker International, Inc., Psomas, Stantec Consulting Services, Inc., NV5, Inc., Huitt-Zollars, Inc., Kimley-Horn and Associates, Inc., and TAIT & Associates, Inc. (“2020 Agreements”) to provide on-call engineering services for the Public Works Agency, Water Resources Division.
- D. On March 16, 2021, the City amended the 2020 Agreements to increase the funding amount by \$950,000 for the remainder of the term to allow these services to be utilized for additional civil works projects included in the current and future fiscal years’ Capital Improvement Programs (CIPs). These agreements remain in full force and effect.
- E. The City finds that new agreements under RFP 22-002 are required for additional services for new civil works projects as the funding capacity has been reached under the 2020 Agreements.
- F. In undertaking the performance of this Agreement, Contractor represents that it is knowledgeable in its field and that any services performed by Contractor under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional consulting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

Contractor shall perform during the term of this agreement, the services described in the scope of work that was included in RFP No. 22-002 and that is attached as **Exhibit A**, and as further delineated in Contractor’s proposal, which is attached as **Exhibit B** and incorporated in full. The Scope of Work under this Agreement is not intended to cover any civil works projects

assigned to the 2020 Agreements.

2. COMPENSATION

- a. Contractor under this Agreement. Contractor shall be paid only for services performed under the Agreement at the rates and charges identified in **Exhibit C**. Contractor is one of six Contractors selected to provide on-call engineering services. The total aggregate amount, among the six contractors, shall not exceed the shared aggregate amount of \$2,000,000 during the term of this agreement, including any extension periods. All reimbursable expenses must be approved in writing by the City before they are incurred by Contractor. City shall not be responsible for any reimbursable costs incurred by Contractor without the advance written approval of City.
- b. Payment by City shall be made within (forty-five) days (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. City shall not be assessed any late fees for payments rendered after forty-five (45) days. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above for a three (3) year term with the option for the City to grant up to two (2) one (1) year renewals, exercisable by a writing by the City Manager and the City Attorney, unless terminated earlier in accordance with Section 16, below.

4. PREVAILING WAGES

Contractor is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is \$1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. Contractor shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Contractor shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Contractor performs the services which are the subject matter of this Agreement; however, the services to be provided by Contractor shall be provided in a manner consistent with all applicable standards and

regulations governing such services. Contractor shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Contractor under this Agreement ("Documents & Data"). Contractor shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Contractor represents and warrants that Contractor has the legal right to license any and all Documents & Data. Contractor makes no such representation and warranty in regard to Documents & Data which were provided to Contractor by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **\$1,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.
4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the Consultant's profession, with limit no less than **\$1,000,000** per occurrence or claim.

If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the Entity requires and shall be entitled to the broader coverage and/or the higher limits maintained by the contractor. Any available

insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Entity.

Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status

The Entity, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

Primary Coverage

For any claims related to this contract, the **Consultant's insurance coverage shall be primary** insurance primary coverage at least as broad as ISO CG 20 01 04 13 as respects the Entity, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Entity, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

Notice of Cancellation

Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the Entity.**

Waiver of Subrogation

Consultant hereby grants to Entity a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Entity by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Entity has received a waiver of subrogation endorsement from the insurer.

Self-Insured Retentions

Self-insured retentions must be declared to and approved by the Entity. The Entity may require the Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or Entity.

Acceptability of Insurers

Insurance is to be placed with insurers authorized to conduct business in the state with a

current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the Entity.

Claims Made Policies

If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***
3. If coverage is canceled or non-renewed, and not ***replaced with another claims-made policyform with a Retroactive Date*** prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of ***five (5) years*** after completion of contract work.

Verification of Coverage

Consultant shall furnish the Entity with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to Entity before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The Entity reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Subcontractors

Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Entity is an additional insured on insurance required from subcontractors.

Special Risks or Circumstances

Entity reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

8. INDEMNIFICATION

Contractor agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Contractor, its subcontractors, agents, employees, or other persons acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and

hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Contractor further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Contractor's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Contractor.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Contractor shall defend and indemnify the City, its officers, agents, representatives, and employees against any and all liability, including costs, for infringement of any United States' letters patent, trademark, or copyright infringement, including costs, contained in the work product or documents provided by Contractor to the City pursuant to this Agreement.

10. RECORDS

Contractor shall keep records and invoices in connection with the work to be performed under this Agreement. Contractor shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Contractor under this Agreement. All such records and invoices shall be clearly identifiable. Contractor shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Contractor shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Contractor under this Agreement.

11. CONFIDENTIALITY

If Contractor receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Contractor agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Contractor disclosed in a publicly available source; (c) is in rightful possession of the Contractor

without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Contractor without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Contractor covenants that it presently has no interests and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. DISCRIMINATION

Contractor shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities. Contractor affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Contractor, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Contractor. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Contractor or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Contractor, Contractor may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other contractors retained by City.

16. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Contractor shall be entitled to receive and the City shall pay Contractor compensation for all services performed by Contractor prior to receipt of such notice of termination, subject to the following conditions:

- a. As a condition of such payment, the Executive Director may require Contractor to deliver to the City all work product(s) completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Contractor consents to the City's use thereof for such purposes as the City deems appropriate.
- b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

17. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

18. JURISDICTION - VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

19. PROFESSIONAL LICENSES

Contractor shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Contractor shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

20. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City:

Clerk of the City Council
City of Santa Ana

20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax: 714- 647-6956

With courtesy copies to:

Executive Director, Public Works Agency City of Santa Ana 20 Civic Center Plaza (M-21) P.O. Box 1988 Santa Ana, California 92702 Fax: 714- 647-5635	
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To Contractor:

Kimley-Horn and Associates, Inc.
Darren Adrian, P.E.
Contract Manager/Vice President
1100 Town and Country Rd, Suite 700
Orange, CA 92868

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these time frames, weekends, federal, state, County or City holidays shall be excluded.

21. MISCELLANEOUS PROVISIONS

- a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.
- b. All Exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

[Signatures on the following page]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first above written.

ATTEST:


CITY OF SANTA ANA

Daisy Gomez
Clerk of the Council

Kristine Ridge
City Manager


APPROVED AS TO FORM:

SONIA R. CARVALHO
City Attorney

By: 

Jose Montoya
Assistant City Attorney

CONTRACTOR:



Name: Darren Adrian, P.E.
Title: Senior Vice President

Digitally signed by Darren
Adrian P.E. (CA PE No 53031)
Date: 2022.07.29 08:29:32
-07'00'

RECOMMENDED FOR APPROVAL:



Nabil Saba, P.E.
Executive Director
Public Works Agency

EXHIBIT A

CITY OF SANTA ANA
REQUEST FOR PROPOSALS
FOR
ON-CALL WATER RESOURCES ENGINEERING SERVICES
RFP NO. 22-002

INTRODUCTION/BACKGROUND

The City of Santa Ana intends (City) to select several qualified firms to provide professional services for a variety of projects and programs on an as-needed or “on-call” basis. Each firm selected will enter into a Professional Services Agreement to provide such services. Throughout the term of the Professional Services Agreement, the City may request task order proposals for individual projects and/or programs as the need for such services arises. The task order proposal fee shall be based on the hourly rates provided by the firm in response to this RFP.

If a task order proposal is selected, a Notice-to-Proceed will be issued based on an agreed-upon specific scope of services and fee for that task order. The firm may utilize in-house staff and/or sub-consultants to complete each task order. **For specialized work for which the prime consultant shall require a sub-consultant, the prime consultant shall serve as an administrative liaison between the City and the sub-consultant, and include these administrative costs in their proposed project management fees.**

Prime consultant mark-ups for sub-consultant work will not be allowed.

SCOPE OF SERVICES

Provide professional engineering services for planning, design, and construction support for domestic water, recycled water, sanitary sewer, storm sewer, and related facility projects.

In general, each task order shall include, at minimum, the following project management services:

- Project Schedule

Create schedules with the critical milestones for the major tasks involved in a project. Update the schedule monthly, or more often, as required by the City. Schedules shall be submitted in PDF format unless other format is requested by the City.

- Meetings

Attend meetings and/or job walks, as requested by the City. Prepare meeting agendas and meeting minutes.

- Monthly Project Status Report

Prepare Monthly Project Status Reports that show an accurate accountability of work effort rendered and a continuous appraising and monitoring of both work progress and financial conditions on a project.

The fee for project management services, including time and related expenses, shall be included in each task order proposal.

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Firms may propose on any category listed below (1-5). The services to be performed may include, but shall not be limited to, the following:

1. PLANNING, RESOURCES, AND DESIGN

Provide water engineering services to conduct water capital improvement projects, which may involve one or multiple disciplines, including planning studies, hydraulic modeling, feasibility studies, design of pipelines, wells, pump stations, pressure regulating stations, reservoirs, water quality and water treatment, waste and recycled water quality and treatment, hydrogeology, engineering support during construction, and encompassing associated services such as Architecture, Structural, Civil, Mechanical, HVAC, Landscape Architecture, Geotechnical, Environmental, Electrical, Instrumentation, and Control.

a. Planning Studies and Feasibility Studies

Provide engineering, financial, and planning services to perform pipeline alignment and facility siting studies, water system planning studies, recycled water system planning and feasibility studies, water demand and supply studies, rate studies, asset management, and other studies that may be required in water system planning. Provide consulting services related to water resources and conservation. Studies may include water supply assessments, water supply verifications, urban water management plans, water use surveys and others studies that may be required for water resources and conservation programs

b. Hydraulic Modeling

Perform Water System Master Planning including Comprehensive Studies, Hydraulic Analysis, Transient Analysis, Fire Flow Analysis, and Flow Optimization.

c. Condition Assessment

Provide comprehensive condition assessment of the City's water system, including seismic, structural, security and vulnerability. Assessment of the structural integrity of the pipe shall include identifying leaks, pipe damage, pipe defect, loss of pipe wall thickness due to corrosion or erosion, etc., along the length of the pipe. Provide reports and memorandums with maps and exhibits as required to detail results of the study including likelihood of failure, risk and consequence of failure. Reports and/or technical memorandums shall also include detailed explanation of data collected and used for the study, any assumptions made as well as recommendations for short-term and long-term risk mitigation strategies.

d. Design Services

Provide consulting services for the design of water facilities, including water wells, pump stations, pressure regulating stations, reservoirs, water quality and treatment, water mains,

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recycled water supply and distribution facilities, associated appurtenances, as well as other related components of the facilities such as buildings, landscape, grading, drainage, etc. for a complete and operative project.

e. Other Related Services

Provide other related services including, but not limited to, the following:

i. Architecture

Provide consulting services for architectural design, architectural renderings, line-of-sight analyses, building sections, code interpretation issues and other architectural related issue.

ii. Structural

Provide consulting services for structural investigations of the City's existing facilities, seismic analysis, miscellaneous structural calculations, and design on the City's existing and proposed systems and structures.

iii. Civil

Provide consulting services for general engineering services as required for the project. Scope of work may include but is not limited to site design, street improvements, grading, drainage, preparation of Water Quality Management, Erosion Control, and Stormwater Pollution Prevention Plans, and related calculations and reports as necessary.

iv. Mechanical, HVAC

Provide consultation, engineering, and design services on modification, upgrade, and replacement of existing mechanical and HVAC systems, including piping, plumbing, support systems, controls, code interpretation, and related calculations as necessary.

v. Landscape Architecture

Provide consulting services for landscape architecture design, including landscape planting plans, renderings and views of proposed landscape plantings, and landscape installation inspection services. Provide consultation for irrigation system design and inspection.

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vi. Geotechnical Engineering Services

Conduct geotechnical investigations, including field explorations and tests, laboratory tests, and seismic investigations, to assess the general conditions of a project site area and prepare geotechnical reports of final design and construction recommendations. Field explorations may require drilling plans and classification of underlying soils and must be done under the supervision of a licensed geotechnical engineer or registered geologist. Investigations may include slope stability analysis of reservoir embankments, foundations, retaining walls, and dams and earthen dam monitoring and inspection to comply with California Department of Water Resources, Division of Safety of Dams (DSOD) and other City requirements. Provide seismic hazard analyses and site-specific seismic criteria, as needed, for project design.

vii. Hydrogeology

Provide consulting services on groundwater issues related to and including rehabilitation of existing potable water production wells, siting and design of new potable water production wells, destruction of inactive wells, evaluation of contamination plumes, and groundwater modeling. Evaluate the hydrogeology of proposed potable water production well sites and investigate proposed wells. Determine design parameters and requirements necessary to drill, operate, and maintain proposed wells; proposed well construction (casing diameter, locations of perforated intervals); and proposed operation of wells. Prepare Drinking Water Source Assessment and Protection (DWSAP) plans for proposed potable water production wells.

Provide inspection, hydrogeologic analysis and recommendations during new potable water production well drilling and existing well destruction activities, including, but not limited to, on site consulting geologists, geological sampling and formation analysis, geophysical logging and interpretation, sieve analyses, final well construction recommendations, and quality assurance and assistance in achieving conformance with the construction specifications and applicable codes and standards.

viii. Environmental Compliance Services

Provide consulting services for the preparation of environmental documents and support studies to comply with California Environmental Quality Act (CEQA), which may include an Initial Study, Negative Declaration, Mitigated Negative Declaration, Addendum, or Environmental Impact Report, or Supplement or Subsequent EIR, National Environmental Policy Act (NEPA) when complying

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with federal grants, permit applications with support studies, aesthetic simulations, and other environmental compliance tasks that may be needed.

ix. Recycled Water Compliance

Provide assistance with compliance requirements for recycled water treatment and distribution system monitoring and reporting.

x. Electrical, Instrumentation & Control Services

Provide consultation, engineering, and design services on modification, upgrade, troubleshooting, restarting, adjusting control settings, and replacement of existing electrical systems, including motor control centers, motor starters, electrical panels, and instrumentation and control systems, including SCADA systems.

xi. Engineering Support During Bidding and Construction

Review and respond to RFI's and review and approve shop drawings submitted by contractor for conformance with the contract documents. Review progress reports and payments as required. Prepare supplementary sketches and details, as required, to resolve field construction problems that may be encountered. Provide project inspection as needed. Provide assistance in ensuring regulatory compliance, as needed. Prepare the "as constructed" corrections to the original drawings and specifications. Attend meetings on behalf of the City and assist in Public Relations, as needed.

xii. Plan Check Services

Provide consulting services for plan checking improvement plans to determine compliance with applicable standards, guidelines, policies, rules, ordinances, and codes.

2. CONSTRUCTION MANAGEMENT

Provide construction management and inspection services during construction. The tasks of construction management and inspection shall include, but not be limited to:

a. Construction Management and Coordination with Contractor

Provide construction management and coordinate as needed for the project. Review and coordinate construction schedule and activities; conduct and attend meetings on behalf of the City. Provide permit compliance documentation, follow up, and support for all permits and clearances required on a project. The construction management team may also be asked to attend meetings and assist in maintaining public relations as needed.

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b. Project Administration

Provide review of, recommend, and prepare change order(s) and/or extra work order(s) as needed on construction project. Coordinate and process RFI's and shop drawings submittals, and ensure construction conformance with the contract documents. Review and adjust progress pay estimates prepared and submitted by the contractor for conformance with the contract documents.

c. Construction Inspection

Provide construction inspection by qualified inspectors and maintain daily inspection reports, construction progress reports, and project logs, etc., of the progress of the construction work. Secure record drawing information from the construction contractor. Provide start-up support for a Project, including final acceptance testing, support, and final completion sign off. Prepare the Final Construction Report.

3. PIPELINE DESIGN

Provide consulting services for the design of water mains, transmission mains, siphons and associated appurtenances. Provide preliminary and final design services including the preparation of plans, specifications, and cost estimates. Provide bidding assistance, construction support, and final as-builts as needed for projects.

4. ELECTRICAL, INSTRUMENTATION & CONTROL SERVICES

Provide consultation, engineering, and design services on modification, upgrade, troubleshooting, restarting, adjusting control settings, and replacement of existing electrical systems, including motor control centers, motor starters, electrical panels, and instrumentation and control systems, including SCADA systems components, instrumentation, communication system components, security cameras, door/gate access controls, information technology for SCADA system and cybersecurity support for PLC/HMI/OIT software and custom applications for the City Water System.

5. GEOTECHNICAL ENGINEERING SERVICES

Conduct geotechnical investigations, including field explorations and tests, laboratory tests, and seismic investigations, to assess the general conditions of a project site area and prepare geotechnical reports of final design and construction recommendations. Field explorations may require drilling plans and classification of underlying soils and must be done under the supervision of a licensed geotechnical engineer or registered geologist. Investigations may include slope stability analysis of reservoir embankments, foundations, retaining walls, and dams and earthen dam monitoring and inspection to comply with California Department of Water Resources, Division of Safety of Dams (DSOD) and other City requirements. Provide seismic hazard analyses and site-specific seismic criteria, as needed, for project design.

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Proposals shall explicitly state which category listed above (1-5) is being proposing on. If there are any exceptions to the core of requested services above, proposers shall list said exceptions in their proposal (matrix form).

GENERAL REQUIREMENTS AND PROJECT DELIVERABLES

The Consultant's services for plans specifications and estimates (PS&E) for engineering projects and special studies/investigations shall be in conformance, if applicable, with the following: Title 24 of the California Code of Regulations (California Building Standards Code), American Water Works Association, California Department of Transportation, Americans with Disabilities Act, City of Santa Ana Municipal Code (SAMC), professional Standards established by the City, and any other federal, state, or local guidelines required in the project.

As part of the PS&E package, the Consultant shall prepare the special provisions pertaining to the items of work included in the plans that are not addressed on the latest editions of the applicable standards.

The Consultant shall have complete responsibility for the accuracy and completeness of all documents and plans prepared. The plans will be reviewed by the City of Santa Ana for conformity with the requirements of the Agreement. Reviews by the City of Santa Ana DO NOT include detailed review or checking of design for the accuracy with which such designs are depicted in the documents and the plans. The documents and plans furnished under the Agreement shall be of a quality acceptable to the City of Santa Ana. The criteria for acceptance shall be a product of neat appearance, well organized, technically and grammatically correct, checked and dated, and having the maker and checker identified.

The Consultant shall have project management control procedures in effect during the entire time work is being performed under the Agreement. This task shall include the following:

- Project Management Plan- the consultant shall provide a detail management plan including information and coordination with other agencies to ensure compliance and completion of the (PS&E) packages. This plan shall include all milestones and task breakdown for each of the tasks and subtasks included therein. The project management shall be submitted to the Project Manager for review and within 15 calendar days of the issued Notice to Proceed
- Deliverables
- Quality Control/Quality Assurance (QA/QC) Plan
- Project Schedule/Invoicing
- Project Correspondence

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In case of conflict, ambiguities, discrepancies, errors, or omissions, the consultant shall submit the matter to the City for clarification.

CITY RESPONSIBILITIES

The City will provide information in its possession relevant to the preparation of the required information in the RFP. The City will provide only the staff assistance and the documentation specifically in referred to herein.

- Furnish scope of work and provide general direction as needed for the assigned project
- All plan check coordination within the City
- Advertise, award, and administer of construction contract
- Electronic files (sample plans & specifications, City of Santa Ana's CADD Standards)
- Electronic files for title sheets and sheet borders
- Facilitate meeting space and coordination and City facilities

FEE PROPOSAL

In addition to Section III.B.3 (Submittal Requirements: Fee Proposal) fee schedule shall be structured as follows:

The fee proposal shall include the firm's standard hourly fee schedule, and/or project fee schedule where applicable and as outlined in this document. A list of all positions and hourly rates required to perform the services described herein.

A more detailed scope of work will be provided when/if a Task Order proposal is requested of a consultant. All tasks orders shall include the staff title, hours, hourly rate and totals as related to the project.

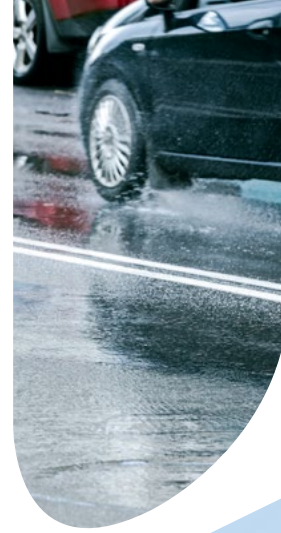
OTHER TERMS AND CONDITIONS

1. The project will be implemented in compliance with the City of Santa Ana's policies, as well as Prevailing Wages and State/Federal Requirements.
2. The City regards the inclusion of California based designs, engineering, and construction professionals, facilities, and services as part of the Team to be highly desirable, but not mandatory.

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3. The City reserves the right to amend this Request for Proposal by addendum prior to the final dates of submission.
4. All reports, proposals, or other data or materials which are submitted shall become the sole property of the City of Santa Ana with the exception of the confidential Financial Capacity information and fee proposals.
5. All products used or developed in the execution of any contract resulting from this request will remain in the public domain at the completion of this project.
6. The City has an affirmative action program. The purpose of the affirmative action program is to encourage certified minority business enterprises and women business enterprises. All submitting firms must have established affirmative action programs approvable by the City. During the RFP stage, all firms will need to complete a “Certification of Non-Discrimination by Contractors” for each firm on their team.

EXHIBIT B



PROPOSAL FOR
**On-Call Water Resources
Engineering Services**
RFP NO. 22-002

Prepared by
Kimley»Horn





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**Please note, our proposal is set up to be printed on 10 double-sided pages, as requested by the City’s RFP.*





1. Statement of Qualifications

a. Cover Letter

May 24, 2022

Robert Aguirre, P.E.
Project Manager
City of Santa Ana
220 South Daisy Avenue, M-85
Santa Ana, CA 92703

» 1100 W Town & Country Road
Suite 700
Orange, CA
92868
TEL 714.705.1304

Re: Proposal for On-Call Water Resources Engineering Services (RFP No. 22-002)

Dear Mr. Aguirre and Members of the Selection Committee:

Kimley-Horn is very excited about the opportunity to continue to support the **City of Santa Ana** (City) in its endeavor to enhance and improve the community. Our team has the experience and passion to provide outstanding supplemental civil engineering consulting services to the City's surface and utility water systems design, facility capital and rehabilitation improvements, storm drain improvements, and other related projects to address the evolving needs of the City. Our long history of partnership with the City has proven that you can expect unmatched technical expertise in the service areas requested, responsiveness, valuable local knowledge, and the following benefits:

Local Knowledge. We have worked with the City on various tasks as part of our previous on-call contracts and other City solicitations. This experience has allowed us to become familiar with City standards, goals, and challenges related to existing infrastructure. Not only have we worked closely with City staff on roadway design, traffic, water quality, and utility relocations, but most recently, we've completed the Santa Ana Boulevard and 5th Street Protected Bike Lane PS&E contract, Main Street Corridor Improvements, Main Street Water Line Improvements, Main Street Sewer Line Improvements, and are currently providing construction support for these projects. We are also working on the Warner Avenue Street Improvement project. Our depth of local expertise and understanding will help to streamline production efforts for the City.

Seasoned Leadership with Talented Technical Staff to Serve You. You are already familiar with our contract manager and main point of contact **Darren Adrian, P.E.**; project managers Kameron Qureshi, P.E. and Othman Elmezain, P.E.; Sam McWhorter, P.E. who provides senior oversight on utility projects; and many members of our project team from their work in the City. Our team understands your needs, has the experience and resources to complete your water resources projects, and most importantly, has demonstrated commitment to help the City achieve its goals. Darren is confident that our assigned project team will be able to exceed the City's expectations and deliver the set milestones on time and within the allocated resources.

History of Successful On-Call Project Delivery. Kimley-Horn has a long, successful history of working on similar on-call projects, and this experience has helped create a solid team that will allow us to effortlessly integrate with City staff, while delivering your projects with uncompromising quality. With over 600 personnel in California, one of Kimley-Horn's strengths is our ability to assemble in-house specialists for almost all civil engineering services, giving you seamless coordination. Our project management methods and lines of communication focus on being responsive to your needs and meeting deadlines in a timely and reliable manner. We care about the communities that we serve and welcome every opportunity to improve the areas where we choose to live, work, and raise our families.



Commitment to the City of Santa Ana. The Kimley-Horn team is dedicated to providing exceptional client service and quality deliverables. Our local team is committed to assisting the City with successful projects from inception through final design. We assure you that we will be responsive and available to you when you need us. Our goal is to provide proactive support and communication to the City, so together we can complete your task orders successfully. Darren will be personally available to the City staff for this on-call program throughout the contract duration.

If you have any questions, please contact Darren at darren.adrian@kimley-horn.com or 714.705.1304. Thank you for your consideration of our qualifications. We are very excited for this opportunity and look forward to continuing to serve as your on-call civil engineering consultant.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Darren Adrian, P.E.*
Contract Manager/Vice President

**As a Vice President of the firm, Darren is authorized by Kimley-Horn to make legally binding commitments for the firm.*

b. Contract Agreement Statement

The Standard Agreement terms are acceptable and Kimley-Horn has no exceptions.

c. Firm and Team Experience

Kimley-Horn is a full-service engineering, planning, and consulting corporation providing services to both public and private sector clients nationwide. Founded in 1967, Kimley-Horn has grown from a small group of traffic engineers and transportation planners to a firm of more than 5,600 employees with 103 offices nationwide, including 11 in California. Our well-established Orange, San Diego, and Riverside locations staffed with engineers, planners, designers, and technicians have worked with public agencies throughout the region, thus giving them broad local project experience. Kimley-Horn's growth over the last 55 years is the result of our commitment to integrity and our dedication to providing quality services. We offer clients the local knowledge and responsiveness of a small organization, backed by the depth of resources only a national firm can offer.

Kimley-Horn's project managers are backed by the resources and talents of a nationally ranked organization comprised of creative and results oriented landscape architects, engineers, planners, economists, environmental specialists, and technicians. With offices located throughout the nation, our staff utilizes the latest technology and information to achieve successful results for our clients. Our project managers serve as the primary liaison to clients, and with the support of our technical and administrative staff, meet the needs and expectations of the client.

On-Call Engineering Services Experience

The City needs a consultant with the experience and commitment to deliver highly responsive service—Kimley-Horn has been doing just that for our on-call clients since the firm was founded. We understand what it means to be on-call for a local city. Our on-call clients are a top priority and our

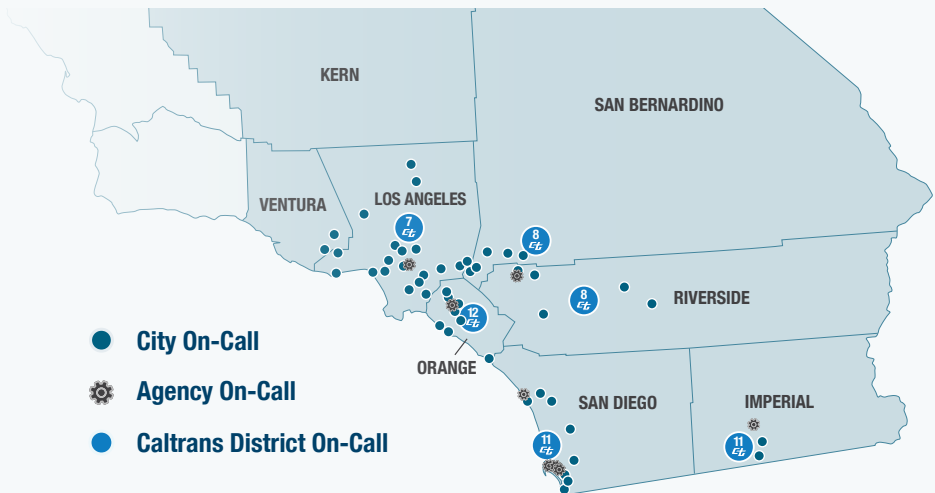


approach is to be an extension of City staff. Kimley-Horn has the available resources to provide the City with the quality and dependable level of service required for this contract. The proposed team members are committed to assisting the City and have the flexibility to adjust their other commitments to accommodate these efforts. We have successfully provided on-call services to a number of Southern California municipalities, some of which are highlighted in the map below.

Southern California On-Call Contracts

Caltrans (includes District 7 • District 8 • District 11 • District 12) • City of Agoura Hills • City of Anaheim • City of Artesia • City of Burbank • City of Calexico • City of Carlsbad • City of Chino • City of Chino Hills • City of Chula Vista • City of Colton • City of Compton • City of Culver City • City of Diamond Bar • City of Downey • City of El Centro • City of Fontana • City of Fullerton • City of Glendale • City of Huntington Beach • City of Imperial Beach • City of Indian Wells • City of Industry • City of Irvine • City of La Mesa • City of Lancaster • City of Los Angeles • City of Malibu • City of Menifee • City of Moreno Valley • City of National City • City of Newport Beach • City of Palmdale • City of Palm Springs • City of Pasadena • City of Pico Rivera • City of Pomona • City of Poway • City of Rancho Cucamonga • City of Riverside • City of San Clemente •

City of San Marcos • City of Santa Ana • City of Santa Clarita • City of Santa Monica • City of Simi Valley • City of Thousand Oaks • City of Vista • City of West Hollywood • County of Imperial • County of Kern • County of Los Angeles • City of Orange • County of Riverside • County of San Diego • County of Ventura • Los Angeles County Metropolitan Transportation Authority • Metropolitan Transportation System (MTS) • North County Transit District (NCTD) • Orange County Transportation Authority (OCTA) • San Diego Association of Governments (SANDAG) • San Diego Unified Port District • Western Riverside Council of Governments (WRCOG)



Organizational Chart

Kimley-Horn's team organizational chart identifying roles and responsibilities of the project team and subconsultants is provided on the following page. Our team of experienced professionals are ready and enthusiastic to serve the City's project. Contract manager **Darren Adrian, P.E.** will serve as the primary point of contact and will assign Kameron Qureshi, P.E. should he be unavailable. Resumes of our proposed key personnel are provided on pages R1-R17.

Time Availability

Team Member	Availability %	Team Member	Availability %
Darren Adrian, P.E.	50%	Dave Barquist, AICP	35%
Frank Hoffmann, P.E.	20%	Michael Madsen, PLA, CLIA, ASLA	40%
Jean Fares, P.E.	15%	Andrew Sanford, P.E.	40%
Kevin Thomas, CEP, ENV SP	15%	Mike Colombo, P.E.	40%
Othman Elmezain, P.E.	60%	Tammie Moreno, P.E., QSD/P	35%
Kameron Qureshi, P.E.	60%	Joseph Bradshaw, P.E.	45%
Rich Lucera, P.E., QSD/P, CFM	50%	Amir Ghavibazoo, Ph.D.	30%
Jason Melchor, P.E.	50%	Anthony Smith, P.E., PLS	35%
Sam McWhorter, P.E.	55%		



QC/QA

Frank Hoffmann, P.E.*
Jean Fares, P.E.*
Kevin Thomas, CEP, ENV SP*

Contract Manager

Darren Adrian, P.E.*

Civil Engineering Othman Elmezain, P.E.* Kameron Qureshi, P.E.* Alan Huynh, P.E. Nicole Dias, P.E.	Hydraulics & Hydrology Rich Lucera, P.E., QSD/P, CFM* Juliana Richards, P.E. Michael Choi, P.E., LEED AP Lupita Astorga Contreras, EIT	Traffic Engineering Jason Melchor, P.E.* Tim Chan, P.E. Trevor Briggs, P.E.	Potable & Reclaimed Water Sam McWhorter, P.E.* Taylor Thorig, P.E. Renee Chuang, P.E. Sarp Sekeroglu, P.E. Melany Vina
Environmental & Planning Dave Barquist, AICP* Dana Privitt, AICP Karina Fidler, AICP, CPESC Rita Garcia Kari Cano	Landscape & Irrigation Michael Madsen, PLA, CLIA, ASLA* Michael Ledbetter, PLA Matt Durham, PLA, ASLA	Structural Andrew Sanford, P.E.* Conner Doolan, P.E., S.E. Jose Ramirez, P.E.	Instrumentation & Control Systems Mike Colombo, P.E.* Erkan Gungor, P.E.
Geotechnical Engineering Amir Ghavibazoo, Ph.D.* ² Paul Soltis, P.E., G.E. ² Sammy Daghighi, P.E. ²	Surveying Anthony Smith, P.E., PLS* ¹ Mike Knapton, PLS Victor Ona ¹ Leonard Sanchez ¹	Electrical & Mechanical Joseph Bradshaw, P.E.* Dustin Colwell, P.E. Eric Lovejoy, P.E. Dan Berger	Erosion Control & SWPPP Tammie Moreno, P.E., QSD/P* Shea Anti, P.E., QSD/P Jennifer Steen, AICP

* = Key Staff

Subconsultants

1. OnPoint Land Surveying, Inc.
2. Twining, Inc.



Subconsultants

We have included the following subconsultants on our team specifically for this project. These firms are known as specialists in their field, and we have a history of successful past projects working together.



On Point Land Surveying, Inc. (Surveying)

On Point Land Surveying, Inc. (On Point) offers clients highly experienced staff that can manage any level of project. They handle projects from small residential lots to multimillion-dollar construction projects. They aim to consistently exceed client's expectations by offering the highest degree of coordination, communication, and client contact while maintaining very competitive pricing.



Twining, Inc. (Geotechnical Engineering)

Twining, Inc. (Twining), a full-service engineering and quality control company established in 1898, has laboratories throughout California and more than 150 inspectors. One of California's largest service providers of geotechnical, materials testing, and construction inspection services, Twining has been a central part of some of California's most regionally significant construction projects. Twining is highly regarded by state and local agencies, developers, contractors, consultants, and industry for providing high-quality services that are reliable, timely, and compliant.



Proposal For
On-Call Water Resources Engineering Services



Darren Adrian, P.E.
Contract Manager

Darren brings over 30 years of experience civil engineering related to planning, design, management and construction of transportation, commercial, industrial, institutional, and municipal facilities. He has been involved in the design of multiple sewer and water facilities. He specializes in roadway planning and final design for streets and highways, including interchanges, at-grade intersections, widening, and rehabilitation. Darren is well-versed in local, state, and federal regulations.

**Professional
Credentials**

- Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
- Professional Engineer in California #53031 and Utah #318105-2202

Relevant Experience

- City of Santa Ana, On-Call Water Resources Services, Santa Ana, CA – Contract Manager
- City of Santa Ana, Master On-Call Services, San Diego, CA – Contract Manager
- OCTA, 17th Street Grade Separation Project PA/ED, Santa Ana, CA – Project Manager
- City of Santa Ana, Plaza of the Flag, Santa Ana, CA – Project Manager
- City of Santa Ana, OC Streetcar Review, Santa Ana, CA – Project Manager
- City of Santa Ana, Main Street Wastewater Project, Santa Ana, CA – Project Manager
- City of Buena Park, SR-91/Beach Boulevard Eastbound Entrance Ramp Modifications PA/ED and PS&E, Buena Park, CA – Project Manager
- City of Buena Park, SR-91/Beach Boulevard Westbound Exit Ramp Modifications PA/ED and PS&E, Buena Park, CA – Project Manager
- City of Buena Park, Right of Way Engineering and PD-26 Coordination, Buena Park, CA – Project Manager
- SGVCOG, SR-60/Fullerton Road Interchange Modifications PA/ED and PS&E, City of Industry, CA – Project Manager
- City of Corona, SR-91/McKinley St. Interchange Improvements PA/ED and PS&E, Corona, CA – Project Manager
- LA Metro/Caltrans District 7, SR 138 PA/ED, North Los Angeles County, CA – Project Engineer
- County of Riverside, I-10 Banning Bypass PA/ED, Riverside County, CA – Project Manager
- County of Riverside, I-10/Pennsylvania Avenue Interchange PA/ED and PS&E, Beaumont, CA – Project Manager
- City of Moreno Valley, Interchange Improvements for I-215 at Cactus Avenue PSR, Moreno Valley, CA – Project Manager
- County of Riverside, Mission Boulevard Bridge Replacement, Riverside, CA – Kimley-Horn Project Manager
- City of Moreno Valley, I-215/Van Buren Boulevard PA/ED and PS&E, Riverside County, CA – Project Engineer
- SANDAG, SR 76 Widening from Melrose Drive to South Mission Road PS&E, San Diego, CA – Project Engineer



Frank Hoffmann, P.E.
QC/QA Manager

**Professional
Credentials**

- Bachelor of Science, Civil Engineering, Fachhochschule Rheinland-Pfalz
- Professional Engineer in California #61839

Frank has over 35 years of diverse experience in civil design and construction management. He has worked on projects involving roadway design and improvement, active transportation, Bus Rapid Transit (BRT), Light Rail Transit (LRT), transit support facilities, utility design, water resources, drainage design, and airport construction at the local, state, and federal levels. His responsibilities have included project management, work plan preparation, cost estimating, contractor selection, scheduling and oversight, design specification development, resource allocation, technical and final report preparation and review, quality control (QC/QA), troubleshooting, negotiation/approval of field changes, and client relations.

Relevant Experience

- **Coachella Valley Water District, Thousand Palms Channel Rehabilitation, Coachella Valley, CA** – Roadway Task Lead
- **Lewis Management Corporation, Ontario Ranch Road Bridge, Ontario, CA** – Project Manager
- **City of Indian Wells, Miles Avenue Bridge Repair Project, Indian Wells, CA** – Project Manager
- **Richland Communities, Ethanac Bridge, Perris, CA** – Project Manager
- **Riverside County Transportation Department, I-10 Bypass, Riverside County, CA** – Project Manager
- **City of Corona, McKinley Street Grade Separation, Corona, CA** – Project Manager
- **City of Palm Desert, Traffic Operations and Capacity Improvements, Palm Desert, CA** – Project Engineer
- **City of Palm Desert, Haystack Road and Highway 74 Intersection Modification, Palm Desert, CA** – Project Engineer
- **City of Palm Springs, Citywide Engineering and Traffic Survey, Palm Springs, CA** – Project Engineer
- **City of Palm Springs, On-Call Civil Engineering Services, Palm Springs, CA** – Project Manager
- **City of Indian Wells, On-Call Design Engineering Services, Indian Wells, CA** – Project Manager
- **City of Cathedral City, Date Palm Drive and Varner Road HSIP Safety Improvements, Cathedral City, CA** – Project Manager
- **City of Desert Hot Springs, Hacienda Avenue Widening, Desert Hot Springs, CA** – Project Manager
- **LA Metro, Expo Metro Line LRT Phase 2 Bike Path, Los Angeles, CA** – Project Manager
- **City of San Diego, Market and Euclid Complete Streets, San Diego, CA** – Senior Roadway Engineer
- **City of Agoura Hills, Agoura Road Widening Project (Complete Streets), Agoura Hills, CA** – Lead Roadway Engineer
- **WRCOG, On-Call Services, Riverside, CA** – Project Engineer
- **County of Riverside, I-10 Bypass PA&ED, Riverside County, CA** – QC/QA Manager
- **City of San Bernardino, 224 Traffic Signal Improvements HSIP Project, San Bernardino, CA** – Project Engineer



Jean Fares, P.E.
QC/QA Manager

Jean has more than 30 years of traffic and transportation engineering experience, including traffic signal design (over 2,000 locations) and signal system design (over 1,500 locations), traffic signal timing (over 2,500 locations), traffic operations, signing and marking plans preparation, and traffic control plans. In addition to signal design and corridor signal operations, he has managed Kimley-Horn's contracts to provide on-call traffic engineering services to the Cities of Palm Springs, Burbank, Glendale, Santa Clarita, Downey, Chino, Long Beach, Lancaster, Palmdale, Poway; and the Counties of Los Angeles and Riverside.

**Professional
Credentials**

- Bachelor of Science, California State Polytechnic University, Pomona
- Professional Engineer in California #TR2097

Relevant Experience

- **City of Anaheim, On-Call Traffic Engineering Services, Anaheim, CA** – QC/QA Manager
- **City of Newport Beach, On-Call Professional Traffic Engineering Services, Newport Beach, CA** – QC/QA Manager
- **City of Long Beach, On-Call Traffic Engineering Services, Long Beach, CA** – Project Manager
- **City of Palm Springs, On-Call Traffic Engineering Services, Palm Springs, CA** – Project Manager
- **County of Riverside, On-Call Professional Traffic Engineering and Transportation Planning Services, Riverside County, CA** – Project Director
- **City of Glendale, On-Call Traffic Engineering Services, Glendale, CA** – Project Manager
- **County of San Bernardino, On-Call Civil Engineering Professional Services, San Bernardino County, CA** – Principal-in-Charge
- **City of Glendale, On-Call Traffic and Parking Impact Studies, Glendale, CA** – Project Manager
- **City of Downey, On-Call Traffic Engineering Services, Downey, CA** – Project Manager
- **City of Malibu, On-Call Traffic Engineering Services, Malibu, CA** – Project Director
- **City of Agoura Hills, On-Call Traffic Engineering Services, Agoura Hills, CA** – Project Director
- **County of San Bernardino, On-Call Professional Engineering Services, San Bernardino County, CA** – QC/QA Manager
- **City of Industry, On-Call Traffic and Civil Engineering Services, Industry, CA** – QC/QA Manager
- **City of Santa Clarita, On-Call Traffic Engineering Services, Santa Clarita, CA** – Project Manager
- **County of Los Angeles, As-Needed Traffic Design Services, Los Angeles County, CA** – Project Manager



Kevin Thomas, CEP, ENV SP
QC/QA Manager

Kevin has over 36 years of experience in the environmental compliance and permitting of major capital improvement projects, specializing in the strategic guidance, preparation, and peer review of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents and regulatory permitting programs. Kevin has managed the regulatory permitting program for several major water/wastewater projects, including modifications to existing wastewater treatment plants. Through active involvement in the industry and a keen understanding of regulatory agency issues and technical requirements, Kevin provides strategic guidance and implements regulatory permitting programs that achieve win-win solutions for stakeholders. Kevin has unique insight into the water/wastewater industry and CEQA/NEPA practice through taking an active leadership involvement in the professional organizations noted in the sidebar. On behalf of clients and through industry involvement, Kevin has provided input, strategic guidance, peer review, and policy recommendations on such key industry topics as the Ocean Protection Council's previously proposed Once-through Cooling Resolution, proposed amendments to the Marine Life Protection Act, various Ocean Plan amendment provisions, California Coastal Act compliance, desalination sections for the California Water Plan, and regulatory efforts such as current federal legislation to amend the Clean Water Act and Clean Air Act.

Professional Credentials

- Bachelor of Arts, Environmental Engineering, University of California, Los Angeles
- Certified Environmental Professional #99040383
- Envision Sustainability Professional #9362

Relevant Experience

- **City of Menifee, Contract Planning Services, Menifee, CA** – Principal-in-Charge
- **Fontana Water Company and City of Fontana, Plant F20 Water Tanks IS/MND, Fontana, CA** – CEQA Principal-in-Charge
- **Western Municipal Water District, Murrieta Master Plans of Water and Sewer IS/MND, Murrieta, CA** – Project Manager
- **Western Municipal Water District, Murrieta North Well Categorical Exemption, Murrieta, CA** – Project Manager
- **South Coast Water District, Doheny Ocean Desalination Project Program EIR and Regulatory Permitting, Laguna Beach, CA** – CEQA and Permitting Task Manager
- **City of Fort Bragg, Fort Bragg Desalination Facility Feasibility Study, Fort Bragg, CA** – CEQA/Permitting Task Manager
- **United Water, Extraction Barrier and Brackish Water Treatment Project (EBB Water Project), Statewide, CA** – CEQA/Permitting Support to GEI
- **South Orange County Wastewater Authority, San Juan Creek Ocean Outfall State Lands Commission Lease Permitting, Dana Point, CA** – Permitting Principal-in-Charge
- **South Orange County Wastewater Authority, Coastal Treatment Plant Expansion Categorical Exemption, Dana Point, CA** – CEQA Task Manager
- **Mesa Water District, Well Rehabilitation and Automation Project Categorical Exclusions, Costa Mesa, CA** – CEQA Task Manager



Othman Elmezain, P.E.
Civil Engineering

Othman has nearly 10 years of civil engineering experience designing and managing transportation and public works projects related to municipal and public facilities. His range of experience includes engineering work in planning, design, bidding, and construction of municipal infrastructures such as roadway, storm drains, utilities, and transportation projects in Southern California. Othman's experience with multidisciplinary public works projects includes major corridor redevelopment, roadway widenings, intersection road diets, traffic calming, green streets improvements, ADA design, utility design, traffic signal improvements, at-grade crossings, and grading and drainage.

**Professional
Credentials**

- Bachelor of Science, Civil Engineering and Minor in Economics, San Diego State University
- Professional Engineer in California #90328

Relevant Experience

- **City of Santa Ana, South Main Street Sewer Improvements, Santa Ana, CA** – Project Manager
- **City of Santa Ana, Warner Ave Street Phase 2, Santa Ana, CA** – Project Manager
- **City of Yorba Linda, On-Call Professional Engineering Services, Yorba Linda, CA** – Project Manager
- **City of Cerritos, Del Amo Bridge Replacement and Signal Installation, Cerritos, CA** – Project Manager
- **City of Corona, McKinley Street Grade Separation, Corona, CA** – Project Engineer
- **City of Jurupa Valley, Traffic Signal Installation at Pedley Road and Jurupa Road, Jurupa Valley, CA** – Project Engineer
- **City of Whittier, Whittier Boulevard and Colima Road Intersection Improvements, Whittier, CA** – Project Engineer
- **City of El Monte, Ramona Boulevard Street Resurfacing Project, El Monte, CA** – Project Manager
- **City of Santa Monica, Lincoln Neighborhood Streetscape Project, Santa Monica, CA** – Project Engineer
- **Orbis Real Estate, Vine South Street Improvements, Ontario, CA** – Project Engineer
- **City of La Mesa, North Spring Street Pedestrian and Bicycle Improvements Phases I and II, La Mesa, CA** – Project Engineer
- **SANDAG, North Park, Mid-City Bike Corridors, Phase I Final Design, San Diego, CA** – Project Engineer
- **SANDAG, Imperial Avenue Bikeway Final Design, San Diego, CA** – Project Engineer
- **City of Escondido, Escondido Active Transportation Project, Escondido, CA** – Project Engineer
- **Jamul Indian Village, Campo Road (SR 94) Improvements, Jamul Indian Village, CA** – Project Engineer
- **City of National City, 18th Street Pedestrian and Bicycle Improvements, National City, CA** – Project Engineer
- **City of National City, Euclid Avenue Pedestrian and Bicycle Improvements, National City, CA** – Project Engineer



Kameron Qureshi, P.E.
Civil Engineering

Kameron has seven years of civil engineering experience designing and managing transportation and public works projects related to municipal and public facilities. Kameron's experience includes engineering work in water design, sewer design, roadway widenings, utility design and coordination, ADA design, intersection improvements, grade separations, bike improvements, traffic signal improvements, and drainage design projects in Southern California. Kameron also has experience with completing hydrology studies, developing traffic control plans, and opinion of probable construction costs for public road projects.

**Professional
Credentials**

- Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona,
- Professional Engineer in California #92631

Relevant Experience

- **City of Santa Ana, Santa Ana Boulevard & 5th Street Protected Bike Lane PS&E, Santa Ana, CA** – Assistant Project Engineer
- **City of Santa Ana, South Main Street Corridor Improvements, Santa Ana, CA** – Project Engineer
- **City of Anaheim, Gene Autry Way Improvements (I-5 to State College Boulevard) and State College Boulevard Improvements (West Side), Anaheim, CA** – Project Engineer
- **County of Riverside, Mission Boulevard Bridge Replacement, Riverside, CA** – Project Manager
- **City of Palmdale, Rancho Vista Intersection Improvements, Palmdale, CA** – Project Manager
- **City of Palmdale, Palmdale Resurfacing Improvements, Palmdale, CA** – Project Manager
- **City of Corona, McKinley Street Grade Separation, Corona, CA** – Project Engineer
- **Ramona Boulevard at Valley Boulevard Intersection Improvement Project, El Monte, CA** – Project Engineer
- **Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA** – Assistant Project Engineer
- **County of Riverside, I-10/Pennsylvania Avenue Interchange PA/ED and PS&E, Beaumont, CA** – Project Engineer
- **City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA** – Assistant Project Engineer
- **City of Marina, Imjin Parkway Widening Project, Marina, CA** – Assistant Project Engineer
- **County of Riverside, I-10 Bypass PA&ED, Riverside County, CA** – Assistant Project Engineer
- **OCTA, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA** – Assistant Project Engineer
- **SANDAG, Bus on Shoulder (BOS) Bus Rapid Transit (BRT) Demonstration, San Diego, CA** – Assistant Project Engineer



Rich Lucera, P.E.M QSD/P, CFM
Hydraulics & Hydrology

Rich is a recognized industry leader with more than 30 years of experience in the fields of civil engineering, stormwater design, and water quality analysis. He brings specialized experience with hydrology/hydraulics, BMP design and construction, drainage infrastructure, stormwater permit compliance, feasibility studies, plan checking, and third-party review gained from successful projects completed for numerous California municipalities, counties, schools, Caltrans, private developers, and the U.S. Navy.

Relevant Experience

- **City of Indian Wells, Miles Avenue Bridge Repair, Indian Wells, CA** – Project Engineer
- **City of San Clemente, Marblehead Coastal Development, San Clemente, CA** – Project Manager
- **City of San Clemente, East Avenida Cordoba Drainage Study, San Clemente, CA** – Project Manager
- **City of Corona, McKinley Grade Separation Drainage Improvements, Corona, CA** – Project Engineer
- **City of San Marcos, Mulberry Street Drainage Improvements, San Marcos, CA** – Project Manager
- **San Bernardino Department of Airports, Kimball Avenue Box Culvert and Regional Flood Control Basin, Chino, CA** – Project Manager
- **City of Santa Monica, Citywide Drainage Improvements, Santa Monica, CA** – Project Manager
- **Chambers Group, Inc., Keys Canyon Floodplain Technical Support, San Diego County, CA** – Project Manager
- **City of Oceanside, Rancho Del Oro Basin and Levee Improvements, Oceanside, CA** – Engineer-in-Charge*
- **Caltrans, I-8 Pavement Rehabilitation and Drainage, San Diego, CA** – Project Manager
- **Brookfield California Land Holdings LLC, Shoppes at Carlsbad, Carlsbad, CA** – Project Engineer
- **City of San Diego, Pacific Highway and Laurel Drainage Design, San Diego, CA** – Project Manager*
- **City of Carlsbad, Tamarack, Park, and Monroe Storm Drain Improvements, Carlsbad, CA** – Project Manager*
- **City of Carlsbad, Madison Street Storm Drain Improvements, Carlsbad, CA** – Project Manager*
- **Carlsbad Municipal Water District, Grand Avenue Storm Drain Improvements, Carlsbad, CA** – Project Manager*
- **OCTA, SR 57 Northbound Widening Final PS&E, Orangethorpe Avenue to Yorba Linda Boulevard, Orange County, CA** – Discipline Lead*

*Prior to Kimley-Horn

Professional Credentials

- Master of Engineering, Environmental Engineering, Pennsylvania State University
- Bachelor of Science, Civil Engineering, University of Delaware
- Professional Engineer in California #58089
- Qualified Stormwater Pollution Prevention Plan Developer/Practitioner #00043
- Certified Floodplain Manager



Jason Melchor, P.E.
Traffic Engineering

**Professional
Credentials**

- Bachelor of Science, Civil Engineering, University of California, Irvine
- Professional Engineer in California #65218

Jason has over 25 years of experience in the management, design, and review of traffic engineering projects, and has worked with clients in Orange, Los Angeles, Riverside, and San Diego counties on a multitude of traffic engineering projects. He has served as project manager on several similar on-call contracts, including leading projects for the Cities of Santa Ana, Orange, Anaheim, Newport Beach, and Industry. His traffic engineering experience includes traffic signal design, signing and striping, traffic control, street lighting, and signal interconnect and ITS design plans, and he has served as a key staff member on many transportation studies, traffic and civil engineering design and active transportation projects. He has also acted as in-house staff for the Cities of Irvine and Huntington Beach to review development studies and design plans. In that role, he worked directly with developers and City staff to provide comments on plan and document submittals. His recent Santa Ana experience includes the Santa Ana Boulevard/5th Street Protected Bike Lanes project, off-site improvements for the Main Place Mall, and South Main Street Corridor Improvements.

Relevant Experience

- **City of Santa Ana, On-Call Engineering Services, Santa Ana, CA** – Traffic Design Lead Engineer
- **City of Santa Ana, Santa Ana Blvd/5th Street Protected Bike Lanes, Santa Ana, CA** – Traffic Design Lead Engineer
- **City of Santa Ana, South Main Street Corridor Improvements, Santa Ana, CA** – Traffic Design Lead Engineer
- **City Santa Ana, 17th Street Grade Separation Project, Santa Ana, CA** – Traffic Design Lead Engineer
- **City of Santa Ana, Warner Ave Street Improvements (Oak Street to Wright Street), Santa Ana, CA** – Project Engineer
- **City of Orange, On-Call Traffic Engineering, Services, Orange, CA** – Project Manager
- **City of Anaheim, On-Call Traffic Engineering Services, Anaheim, CA** – Project Manager
- **City of Anaheim, On-Call Traffic Plan Check Services, Anaheim, CA** – Project Manager
- **City of Newport Beach, On-Call Professional Engineering Services for Traffic/Transportation Engineering, Newport Beach, CA** – Project Manager
- **City of El Monte, On-Call Traffic Engineering Services, El Monte, CA** – Project Manager
- **City of Industry, On-Call Traffic and Civil Engineering Services, City of Industry, CA** – Project Manager
- **City of Moreno Valley, On-Call Traffic and Transportation Plan Review Services, Moreno Valley, CA** – Project Engineer
- **Orange County Transportation Authority (OCTA), On-Call Traffic Engineering Services, Orange County, CA** – Project Engineer
- **City of Downey, On-Call Traffic Engineering Services, Downey, CA** – Project Engineer
- **City of Glendale, On-Call Traffic and Parking Impact Studies, Glendale, CA** – Project Engineer



Sam McWhorter, P.E.
Potable & Reclaimed Water

Sam has more than 24 years of experience working on a variety of complex civil engineering, utility, and drainage projects. His project experience includes storm drain systems; complex, large watershed hydrologic analyses; river hydraulic modeling; detention basin design; water quality BMP design; scour analysis; sedimentation; and master planning. He has worked on a variety of public works and private development projects and has a strong base knowledge of permitting requirements. He can assist with anything from conceptual project planning to detailed design and project implementation.

**Professional
Credentials**

- Master of Science, Civil Engineering, Water Resources, San Diego State University
- Bachelor of Science, Civil Engineering, San Diego State University
- Professional Engineer in California #61788

Relevant Experience

- **Meridian Drainage Channel and Detention Basin, Riverside, CA** – Project Engineer
- **County of Riverside, Van Buren Boulevard Box Culvert, Riverside, CA** – Project Engineer
- **City of Temecula, Main Street Bridge Replacement and Channel Hydraulics, Temecula, CA** – Project Manager
- **City of National City, Paradise Creek Channel Restoration, National City, CA** – Project Engineer
- **Los Penasquitos Lagoon Foundation, Sediment Basin, San Diego, CA** – Project Manager
- **City of Palm Desert, Frank Sinatra Drive and Portola Pipeline Improvements, Palm Desert, CA** – Project Engineer
- **City of Palm Desert, Monterey Avenue Drainage and Pipeline Improvements, Palm Desert, CA** – Project Engineer
- **RCTD, I-10 Bypass, Riverside County, CA** – Task Manager
- **Burrtec, Water System Improvements, Indio, CA** – Project Manager
- **City of Rialto, Zone 1-A Booster Pump Station, Rialto, CA** – Project Manager
- **City of Rialto, Frisbie Park Sewer Lift Station Design, Rialto, CA** – Project Manager
- **County of San Bernardino, Lytle Creek Wastewater Treatment Plant Mechanical Dewatering, San Bernardino County, CA** – Project Engineer
- **County of San Bernardino, Sanitary Sewer Master Planning, San Bernardino, CA** – Project Manager
- **County of San Bernardino, Oro Grande Tank Replacement, San Bernardino County, CA** – Project Manager
- **City of Beaumont, Beaumont Sewer Lift Station, Beaumont, CA** – Project Manager
- **SEJPA, San Elijo Lagoon Sewer Siphon Utility Relocation/Replacements, San Diego, CA** – Project Engineer
- **City of Oceanside, Oceanside Downtown Water and Sewer Replacement Phase 2, Oceanside, CA** – Project Manager
- **City of San Diego, Sewer and Water System Group Job Pipeline Replacements, San Diego, CA** – Project Manager
- **City of San Diego, I-5/Genesee Avenue Interchange 24-Inch Potable and Recycled Water Pipeline Replacement, San Diego, CA** – Project Engineer



Dave Barquist, AICP
Environmental & Planning

Dave brings more than 26 years of public and private sector planning experience to the team. He has a diverse range of skills, including policy analysis, policy development, and urban design. His experience includes projects involving comprehensive planning, local government policy, land use, parks and recreation planning, and grant writing. Dave is also accomplished in providing community engagement to guide in the development of public policy. He has been an instructor for California State University, Fullerton's Leadership Program for Public Agencies, teaching public agency staff on principals of communication and group facilitation. He has led hundreds of public meetings and is well-versed in finding locally-specific techniques and tools to engage the community in the planning process.

Professional Credentials

- Bachelor of Science, Urban and Regional Planning, California State Polytechnic University, Pomona
- American Institute of Certified Planners #136746
- American Planning Association (APA), Member
- American Institute of Certified Planners (AICP), Member

Relevant Experience

- **Western Riverside County Council of Governments (WRCOG), 2016 On-Call, Riverside, CA – Project Planner**
- **City of Palmdale, Active Transportation Program (ATP), Palmdale, CA – Project Manager**
- **City of Downey, Rancho Los Amigos South Campus Specific Plan, Downey, CA – Project Manager**
- **City of Solana Beach, Housing and Safety Element Update and Environmental Assessment, Solana Beach, CA – Project Manager**
- **City of Del Mar, Sixth Cycle Housing Element Update, Del Mar, CA – Project Manager**
- **City of Encinitas, Housing Element Update, 5th Cycle and Court-Mandated, Encinitas, CA – Project Manager**
- **County of Orange, Housing Element Consultant Services, Santa Ana, CA – Project Manager**
- **City of El Monte, Ramona Boulevard at Valley Boulevard Intersection Improvement Project, El Monte, CA – Project Planner**
- **Riverside County, Community Planning and Design Services (Community Planning for Cabazon, Highway 74, Winchester and Thousand Palms), Winchester, CA – Project Manager**
- **City of Valdez, Comprehensive Community Visioning - Redevelopment Program, Valdez, AK – Project Manager**
- **City of Dublin, 2022-2030 Housing Element Update, Dublin, CA – Project Planner**
- **City of Scotts Valley General Plan, EIR, and Climate Action Plan, Scotts Valley, CA – Project Planner**
- **City of Tustin, Red Hill Corridor Specific Plan and EIR, Tustin, CA – Project Planner**
- **City of Rialto, Housing Element Update 5th Cycle, Rialto, CA – Project Manager**
- **City of Indio, Downtown/Old Town Indio Specific Plan Update and Community Outreach, Indio, CA – Project Manager**



Michael Madsen, PLA, CLIA, ASLA
Landscape & Irrigation

Michael has 18 years of landscape architectural experience in master planning, streetscapes, site design, amenity areas, planting and irrigation design, and the preparation of tree mitigation plans. His background includes coordinating multidisciplinary design projects involving landscape architecture, urban planning, architecture, civil engineering, roadway design, and transportation design. He strives to use plant palettes that combine aesthetics with a sensitivity towards efficient water use by pulling in native and adaptive species. Much of his project experience has had a focus on retail, restaurants, healthcare, and multi-family housing developments. He also has a significant resume of parks, streets and pedestrian thoroughfares, and transportation corridors within the public realm.

Relevant Experience

- **Palm Springs Unified School District, Palm Springs High School Renovations, Palm Springs, CA** – Landscape Architect
- **City of Brawley, Alyce Gereaux Park Renovations, Brawley, CA** – Landscape Architect
- **City of El Centro, El Centro Aquatic Center, El Centro, CA** – Landscape Architect
- **City of El Centro, Engineering Design and Architectural Design Services for Plank Park, El Centro, CA** – Landscape Architect
- **City of El Centro, Martin Luther King Community-Oriented Skate Park, El Centro, CA** – Landscape Architect
- **City of San Diego, EMTS Boat Dock Esplanade, San Diego, CA** – Landscape Architect
- **City of San Diego, SANDAG, Mid-Coast - 100% Final Design Phase, San Diego, CA** – Landscape Architect
- **City of San Diego, SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA** – Landscape Architect
- **City of National City, Paradise Creek Educational Park, National City, CA** – Landscape Architect
- **City of National City, D Avenue and 12th Street Roundabout, National City, CA** – Landscape Architect
- **City of National City, A Avenue Green Street (through Kimball Park), National City, CA** – Landscape Architect
- **City of National City, Coolidge Avenue Safe Routes to School, National City, CA** – Landscape Architect
- **Meridian Development, Millenia Park, Chula Vista, CA** – Landscape Architect

Professional Credentials

- Master of Landscape Architecture, Landscape Architecture, University of Florida
- Bachelor of Science, Business Administration, Florida State University
- Professional Landscape Architect (PLA) in California #5798, Washington #1477, Florida #LA6666994, and British Columbia #534
- Certified Landscape Irrigation Auditor (CLIA) #92638
- Council of Landscape Architectural Registration Boards (CLARB) #21623
- American Society of Landscape Architects (ASLA), Full Member



Andrew Sanford, P.E.
Structural

**Professional
Credentials**

- Bachelor of Science, Civil Engineering, California State University, Chico
- Professional Engineer in California #49671

Andrew has a strong background in structural design and project management, leading the design of over 75 bridge projects, representing well over 100 individual bridges, including PS&E and APS for both PSR and PR/ED documents. Andrew has served as a structural design manager on dozens of projects, including heading up the structural design team for some of Kimley-Horn's most structurally focused projects (I-5/Genesee Interchange, I-215/Van Buren Interchange Bridge, I-10/Sunset Avenue Interchange Grade Separation, I-805/Palm Avenue Overhead). With 33 years of structural engineering experience, including six years as a Caltrans employee, his depth of experience runs the gamut from bridge widenings, seismic retrofits, and bridge repairs, to multi-structure interchanges and long aerial viaducts. In addition, he has led the design of numerous grade separations, underpasses, and overcrossings and is very familiar with coordinating with federal, state, and local agencies, including various Caltrans Districts.

Relevant Experience

- City of Santa Ana, Fairview Street Bridge, Santa Ana, CA – Project Manager
- Amazon.com LLC, Project Bruin Pumpstation, Oxnard, CA – Project Engineer
- SBCTA, I-10/Mt. Vernon Avenue Interchange, San Bernardino County, CA – Project Engineer
- City of Los Angeles, Soto Street Bridge Widening, Los Angeles, CA – Project Manager
- SCRRRA, SCORE Program Phase 1, Statewide, CA – Structural Engineer
- City of Ontario, Ontario Ranch Road Bridge, Ontario, CA – Task Lead
- City of Barstow, North First Avenue Bridge Replacement, Barstow, CA – Project Manager
- City of Barstow, First Avenue Bridge over Mojave River, Barstow, CA – Project Manager
- City of Barstow, Yucca Avenue Overhead Retrofit, Barstow, CA – Project Engineer
- County of Riverside, I-215/Van Buren Interchange Reconstruction, Moreno Valley, CA – Structural Task Manager
- City of San Diego, I-5/Genesee Avenue Interchange, San Diego, CA – Project Engineer
- City of San Diego, I-805/Palm Avenue Interchange and Bridge Widening, San Diego, CA – Project Manager
- SANDAG, Nordahl Road/SR 78 Bridge Replacement and Interchange Improvements, Escondido, CA – Project Manager
- Caltrans District 11, Voigt Drive/I-5 North Coast Corridor Improvements, San Diego, CA – Task Manager
- County of San Diego, 13th Street Bridge over Santa Maria Creek, San Diego, CA – Project Manager
- County of Riverside, I-10/Sunset Avenue Interchange and Railroad Grade Separation Bridge, Banning, CA – Lead Bridge Engineer
- UDOT, Structures Program Support and Technical Assistance, Salt Lake City, UT – Project Engineer



Mike Colombo, P.E.
Instrumentation & Control Systems

Mike is a professional electrical engineer with 18 years of experience specializing in electrical and instrumentation and control of water and wastewater facilities, including treatment facilities, pump stations, lift stations, and well sites. He also has been responsible for electrical power distribution, SCADA systems, lighting, generator sizing, automatic transfer switch design, VFDs, soft starts, uninterruptible power supplies (UPS), electrical load calculations, voltage drop calculations, short circuit analysis, conduit and conductor infrastructure, and specification writing. Mike has construction phase services experience so that projects are built in accordance with plans and specifications. Through his work on water and wastewater projects, Mike has extensive experience in facilitating design workshops, developing guidelines and standards, evaluating existing facilities, and working with multiple stakeholders.

Professional Credentials

- Bachelor of Science, Electrical Engineering, Arizona State University
- Professional Engineer in California #19280 and Arizona #50368

Relevant Experience

- **County of San Bernardino, Lytle Creek Water Recycling Facility Updates, San Bernardino County, CA** – Electrical Engineer
- **City of Chula Vista, Parkside Lift Station Improvements, Chula Vista, CA** – Electrical Engineer
- **San Diego Zoo Safari Park, Wastewater Treatment Plant Expansion, Escondido, CA** – Electrical Engineer
- **City of Rialto, Ayala Booster Pump Station, Rialto, CA** – Electrical Engineer
- **City of Beaumont, Beaumont Lift Station, Beaumont, CA** – Electrical Engineer
- **City of Aurora, Electrical Lighting Code Review, Aurora, AZ** – Electrical Engineer
- **City of Phoenix, Northwest Valley Transportation Engineering Services, Phoenix, AZ** – Electrical Engineer
- **City of Phoenix, Lift Station 50 Electrical Upgrades, Phoenix, AZ** – Project Manager
- **City of Phoenix, Lift Station 55 Electrical Upgrades, Phoenix, AZ** – Project Manager
- **City of Phoenix, Lift Station 64 Electrical Upgrades, Phoenix, AZ** – Project Manager
- **FMTUA Municipal Center Domestic/Fire Booster Pump Station and Storage Tank, Mohave Valley, AZ** – Electrical Engineer
- **City of Buckeye, Emergency Generators, Buckeye, AZ** – Electrical Engineer
- **City of Peoria, New River Well Site No. 3, 4 and 6 Upgrades, Peoria, AZ** – Electrical Engineer
- **City of Chandler, Alma School Road/Chandler Boulevard Water and Wastewater Improvements, Chandler, AZ** – Electrical Engineer
- **City of Cottonwood, Oak Creek School District Site Improvement, Cottonwood, AZ** – Electrical Engineer
- **City of Cottonwood, Ultraviolet (UV) Wastewater Disinfectant System Installation Design-Build, Cottonwood, AZ** – Electrical Engineer
- **County of Pima, Regional Wastewater Reclamation District Security Improvement Projects, Tucson, AZ** – Electrical Engineer
- **City of Phoenix, 24th Street Water Treatment Plant Generator and Distributed UPS Locations, Phoenix, AZ** – Electrical Engineer



Joseph Bradshaw, P.E.
Electrical & Mechanical

Joe has 17 years of engineering experience in engineering with emphasis on electrical analysis and design for lighting improvements. His specialty includes roadway, pedestrian, pathway, and airfield electrical lighting. His design experience also includes electrical infrastructure, power and communication distribution, utility coordination, intelligent transportation systems (ITS) electrical and communication, site lighting, high mast lighting, garage and tunnel lighting, backup and utility generators, pump infrastructure design, electrical vehicle charging stations, transformers, voltage drop and short-circuit calculations, conduit fill calculations, and panel/switchgear installations. Joe has provided electrical design, electrical project management, and construction phase services for many projects including electrical construction administration and inspection.

Professional Credentials

- Bachelor of Science, Electrical Engineering, University of Nevada
- Professional Engineer in California #E21202, Colorado #0059518, Nevada #023686, Arizona #63843, Idaho #P-17965, Oregon #95102PE, Hawaii #PE-19291, Montana #PEL-PE-LIC-73362, and Washington #21025139

Relevant Experience

- **Washoe County Effluent Fill Station Electrical Upgrades, Reno, NV** – Electrical Engineer
- **Electrify America, Cycle II EV upgrades, Multi-state program** – Electrical Engineer
- **Target (Drive Up Expansions and Canopy Modifications), Multi-state program** – Electrical Engineer
- **Mobile-Mini, New Service Upgrades, Rialto, CA** – Electrical Engineer
- **Telluride Regional Airport, New Leech Field and Pumping System Installation, Telluride, CO** – Electrical Engineer
- **UNLV Shadow Lane Campus, Electrical and Security Upgrades, Las Vegas, NV** – Electrical Engineer
- **Lompoc Airport, Airfield Lighting Upgrade and Runway Rehabilitation, Lompoc, CA** – Electrical Engineer
- **Fed Ex, Parking lot expansion, Henderson, NV** – Electrical Engineer
- **Fresno Yosemite International Airport, Fresno West Ramp Rehabilitation, Fresno, CA** – Electrical Engineer
- **Fresno Yosemite International Airport, Fresno East Ramp Lighting Retrofit, Fresno, CA** – Project Manager
- **Clark County Water Reclamation District, Power monitoring upgrades, Las Vegas, NV** – Electrical Analyst
- **Salinas Municipal Airport, Emergency Generator Replacement, Salinas, CA** – Electrical Engineer
- **Mesa Del Rey Airport, Airfield Lighting and Vault Upgrades, King City, CA** – Electrical Engineer



Tammie Moreno, P.E., QSD/P
Erosion Control & SWPPP

Tammie has more than 15 years of experience in project management and civil design. Tammie performs client contract administration, directs civil design, coordinates project deliverables, serves as the client liaison to federal, state, and local regulatory agencies, oversees subconsultants, develops project cost estimates, and provides construction administration. Tammie's experience encompasses a multitude of projects which includes civil site design for redevelopments, multifamily housing, affordable housing, commercial and industrial developments; grant writing; green street design; and roadway design. Her specialty includes hydraulic design, hydrologic analysis, and utility design. She specializes in stormwater quality including Low Impact Development (LID) design, hydromodification analysis, and erosion control.

Relevant Experience

- **Avalonbay Communities, AVA Pacific Beach Multifamily Housing, San Diego, CA** – Project Manager
- **San Diego Housing, Grant Heights II Multifamily Housing, San Diego, CA** – Project Engineer
- **Related California, Inc., Southwest Village Multifamily Housing, San Diego, CA** – Project Manager
- **Affirmed Housing Group, Zephyr Affordable Housing, San Diego, CA** – Project Engineer
- **MAAC, Bayview Heights Affordable Housing, San Diego, CA** – Project Manager
- **Reis Group, Inc., 62088 Twentynine Palms Highway, Joshua Tree, CA** – Project Manager
- **Seritage Growth Properties, Iowa Mixed-Use, Riverside, CA** – Project Manager
- **Seritage Growth Properties, Chula Vista Center Mixed-Use, Chula Vista, CA** – Project Manager
- **Brookfield Properties, Shoppes at Carlsbad Master Plan, Carlsbad, CA** – Project Manager
- **In His Steps, Ramona Group Home, Ramona, CA** – Project Manager
- **Caltrans District 11, Voigt Drive I-5 North Coast Corridor Improvements, San Diego, CA** – Project Engineer
- **Domus Development, Tyler and Ramona Mixed-Use, El Monte, CA** – Project Manager
- **I-805 Managed Lanes South PA&ED, San Diego, CA** – Project Engineer
- **City of La Mesa, North Spring Street Improvements, La Mesa, CA** – Project Engineer
- **City of Palm Desert, Fred Waring Drive and Monterey Avenue Roadway Improvements, Palm Desert, CA** – Project Engineer
- **City of San Diego, Woodman Street, San Diego, CA** – Project Engineer
- **Pala Band of Mission Indians, Tribal Climate Adaptation, San Diego, CA** – Project Manager
- **Vulcan, Vulcan Irwindale, Irwindale, CA** – Project Manager
- **City of San Diego, El Cerrito and Rolando Park Green Street Improvements, San Diego, CA** – Project Manager

Professional Credentials

- Master of Science, Civil and Environmental Engineering, California Polytechnic State University, San Luis Obispo
- Bachelor of Science, Civil Engineering, California State University, San Luis Obispo
- Professional Engineer in California #74417
- Qualified SWPPP Developer/Practitioner in California #00344



Anthony Smith, P.E., PLS
Surveying

Anthony is an accomplished survey manager and principal with over 20 years broad-spectrum experience in all phases of land surveying and civil engineering, including project management, fundamental engineering, and construction services for projects valued over \$100 million. He has extensive work experience with civil, architectural, and geotechnical industries developing skills in multiple facets. He is an accomplished problem solver and consensus builder and can relate to diverse populations from the general public, colleagues, and staff. He is technology proficient and can use computer skills to improve operational efficiency and productivity.

**Professional
Credentials**

- Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
- Professional Engineer in California #80387
- Professional Land Surveyor in California #8133

Relevant Experience

- **City of Baldwin Park, Baldwin Park Bike Path, Baldwin Park, CA** – Land Surveyor
- **City of South Pasadena, Monterey Road Street Improvement Project, Pasadena, CA** – Land Surveyor
- **City of West Covina, Galster Way Project, West Covina, CA** – Land Surveyor
- **Val Verde Unified School District, Val Verde Elementary School Design Project, Moreno Valley, CA** – Land Surveyor
- **City of Big Bear DWP, Pipeline Repair Project, Big Bear, CA** – Land Surveyor



Amir Ghavibazoo
Geotechnical Engineering

Amir is Twining's Director of Asphalt Engineering and Pavement Design. He directs and works on pavement design, highway design, engineering specifications, and consulting services. He has extensive experience with advanced performance testing of asphalt binder including Dynamic Shear Rheometer (DSR), Bending Beam Rheometer (BBR), and other asphalt binder quality control tests. He works closely with cities and government agencies to develop unique and specialized mix designs, pavement inspections, and pavement design solutions. Amir also serves on several technical committees in California helping to develop new specifications and update existing ones.

Relevant Experience

- **City of Long Beach, Studebaker Road Pavement Evaluation, Long Beach, CA** – Pavement Engineer
- **City of Huntington Beach, Arterial Rehabilitation, Huntington Beach, CA** – Senior Pavement Engineer
- **City of El Monte, Ramona Boulevard Resurfacing Pavement Evaluation, El Monte** – Pavement Engineer
- **Long Beach Water District, Geotechnical Engineering On-Call, Long Beach, CA** – Project Engineer
- **Los Angeles County Department of Public Works, Compton Woodley Airport Runway 7R/25L Pavement Reconstruction** – Project Manager
- **City of San Diego, As-Needed Geotechnical Services, San Diego, CA** – Project Engineer
- **City of Carlsbad, Agua Hedionda Sewer Lift Station, Carlsbad, CA** – Project Engineer
- **City of Montclair, On-Call Geotechnical Testing and Inspection Services, Montclair, CA** – Project Engineer
- **City of Long Beach, Municipal Urban Stormwater Treatment (MUST) Plant, Long Beach, CA** – Project Engineer

Professional Credentials

- PhD, Civil and Environmental Engineering, North Dakota State University
- Master of Science, Railways Engineering, Iran University of Science and Technology, Tehran, Iran
- Bachelor of Science, Industrial Engineering, University of Technology, Tehran, Iran



d. Understanding of Need

Our capabilities within the Scope of Services for which our team is qualified to perform include the following:

Planning Resources and Design



Civil Engineering

Kimley-Horn can meet all your civil engineering and roadway design needs. Since 1967, Kimley-Horn engineers have designed more than 4,000 miles of roadway, including highways, highway interchanges, urban arterials, and neighborhood streets. These projects—performed for state departments of transportation, cities, and counties—have included route/corridor studies, schematic design, maintenance of traffic plans, construction sequencing, and final plans, specifications, and estimates (PS&E). Our in-house staff is equipped to address all aspects of roadway design projects, including pavement rehabilitation, roadway realignment and widening, intersection geometrics, utility relocations, drainage, stormwater pollution prevention plans, and erosion control. Also, Kimley-Horn's team has provided municipal agencies with design services for their public facilities such as parks, parking lots, parking structures, libraries, senior and community centers. We have gained extensive experience in dealing with local regulatory and other agencies to secure the permits and approvals necessary for the building and upgrading of municipal facilities.



Design Services

Water Improvement Design and Coordination. Our water resources engineering team has successfully completed water infrastructure projects for various agencies in Southern California. These projects consist of water main replacement, realignment, upsizing and capacity increase, master planning, siphon design, existing system evaluation and maintenance and operational support.

- **Drinking Water.** Kimley-Horn has provided advanced water treatment systems for safe drinking water supply. Services include reverse osmosis, membrane softening systems, wellfield development, permitting of membrane concentrate waste disposal, master pumping stations, metering stations, and water storage facilities.
- **Reclaimed Water.** Effluent disposal and reuse is perhaps the biggest challenge facing municipalities today. Kimley-Horn has helped local water agencies navigate the planning, design, and construction of an entire reclamation system. With increasingly stringent regulations on effluent quality and the increased pressure on our water supply, effluent disposal and reuse is an issue that has become central to our efforts in serving wastewater utilities. Our team is well acquainted with the issues of effluent disposal and reuse and the necessary reclaimed water systems to provide these functions.
- **Well Rehabilitation Design.** A combination of three factors can cause water production decline. The first factor is regional decline in water elevations that shift the “static” water level down. The second factor is water level decline in a local aquifer caused by continuous pumping. The third factor is a decline in specific capacity caused by a plugged filter pack or well screen. The regional decline in water levels is not controllable and groundwater levels will recover through natural recharge. The reduction in specific capacity requires corrective action in the form of root cause evaluation, well redevelopment, and possibly modification to pump location and flow rate. The decline in specific capacity could be a result of a reduction of permeability near the well screen. This type of permeability reduction is often the result of biological fouling, cementation, or the intrusion of fine-grained aquifer sand into the gravel pack surrounding the well casing. Well videos could confirm this. Migration of fine-grained aquifer sand is a possible root cause of the rapid decline in specific



capacity. The result of this is that water velocity during pumping is much higher in the sections of screen that produce the most water. During pumping, small sand particles mobilize and migrate through the well filter pack and wedge into the pore space, reducing permeability in the filter pack. Mitigation of this issue would include careful well development to remove the sand and resettle the filter pack and modification of pumping operations to reduce sharp changes in water velocity that mobilize fine-grained aquifer sand. Prior to redevelopment, it is recommended to review the factors that can cause this reduction in specific capacity. The review would include assessment of biological and cementation plugging and review the original, well construction documents including the sieve analysis performed to size the filter pack and the daily construction (if available). As part of developing a mitigation approach, spinner logs may be recommended to verify production zones.

Storm Drain Design and Drainage Analysis. The firm's drainage engineering services include the design of canals, culvert crossings, water control structures, roads, levees, bridges, and pump station structures as well as stormwater treatment services, such as bioretention, filters, rainwater capture and reuse, and large flood control projects. Representative project areas range in size from one to more than 130,000 acres, and our engineers have been called upon by numerous public agencies and major agricultural, industrial, and residential developers. Our staff has the experience to conduct preliminary studies and drainage consultation, prepare stormwater management plans, conduct bridge scour analyses, prepare FEMA map revisions, perform floodplain analyses, and coordinate permit applications on behalf of our clients. Kimley-Horn's engineering professionals are well-versed in stormwater regulations throughout the state of California to help clients understand the permitting process and guide them through difficult development decisions.

Sewer Design and Wastewater Services. Kimley-Horn is committed to providing clients with cost-effective and state-of-the-art design solutions. We bring a unique understanding of water/wastewater and recycled water system operations, end-user requirements, and design capabilities that enable Kimley-Horn to produce plans that are constructible, meet the needs of our clients, and minimize construction costs. We bring a complete understanding of water, wastewater, recycled, and reclaimed water systems from the initial needs analysis and master planning to detailed design and construction phase services. Kimley-Horn has extensive experience in design and construction of a wide variety of projects, including planning and design of transmission and distribution pipelines; trenchless technology designs; right-of-way and easement coordination; utility coordination; pipeline rehabilitation; water treatment facilities design; tanks and booster pump station design; and permitting. Many of Kimley-Horn's professionals are locally and nationally recognized in their respective fields.

Utility Design Coordination. Every project is unique and presents its own special design challenges; however, the most frequent challenge we face in local municipal projects is related to existing utilities. Most of the projects under this category are in developed areas where utility facilities are currently within the proposed project area and any improvement will generally affect or be affected by the location of the utility facilities. Kimley-Horn believes in drawing the utility lines and features to their true size in our plans to aid in identifying conflicts early in the design phase; potholing potential conflict locations when budgets allow, which gives a better understanding of the locations of the existing utilities; and extensive coordination with the various utility companies. We also use three-dimensional (3D) modeling of utilities to identify potential conflicts in the early stages of design. This method has helped us to avoid discrepancies between construction documents and actual field conditions that have resulted in cost-effective and timely execution of projects.

Our utility design team has successfully completed sewer and water infrastructure projects for various agencies in Southern California. These projects consist of sewer and water main replacement,

realignment, upsizing and capacity increase, master planning, existing system evaluation, hydraulic models and maintenance, and operational support.



Hydraulic Modeling

Our technical expertise includes water system master plan modeling, hydraulic deficiency studies, transient/surge analysis, fire flow analysis, flow optimization and water quality modeling. We have experience using a wide range of hydraulic modeling programs, including Innovyze® GIS-based InfoWater® and InfoSewer®. We also have customized post-processing software developed in-house. We work with our clients to select the methods that best meet their current and future needs, and we plan to work with the City the same way—selecting the most appropriate model for conditions in the City's service area.



Water Quality and NPDES

Our approach to designing the public works project components is to preserve or improve water quality by utilizing the latest technology available for Low Impact Development (LID) projects. In addition, our comprehensive green street knowledge and experience will influence our stormwater design. Our proven green street and LID installations will inspire our design and help us deliver a practical and sustainable stormwater management system to the City.



Erosion Control and SWPPP

Kimley-Horn's professionals have extensive experience in the design of erosion control and water pollution control projects in Southern California and across the country. Our key staff have been responsible for planning and designing erosion control features, scour mitigation measures, flood control channels, and flood proofing of existing structures. Supported by strong technical investigations, the Kimley-Horn team provides design of erosion control features using a wide range of systems and approaches for levees, channels, embankments, and bridge abutments. As part of the engineering plan review or individual environmental documents review, Kimley-Horn's certified Qualified SWPPP Developer (QSD) engineers will provide the support to review the project's environmental documents including the Water Quality Management Plan (WQMP), Storm Water Pollution Prevention (SWPPP) and Water Pollution Control Plan (WPCP).



Structural Analysis

Kimley-Horn's structural engineering team is capable of providing structural design and analysis for both existing and proposed facilities including a range of major retaining structures, parking structures, roadway bridges, pedestrian bridges, to minor footings and foundations for traffic signals, roadway signs, and storm drain structures. Our structural engineers have extensive experience working with public agencies and are familiar with Cities' routine plan check process.



Traffic Engineering

Kimley-Horn has been an industry leader in traffic engineering for past 55+ years and offers complete in-house traffic engineering services in the areas of traffic signal communication and system integration design, intersection lanes configuration design, signing and striping, traffic control plans, construction phasing plans, preparation of traffic impact studies, traffic calming studies, speed zoning studies, safety and operations studies, safe routes to school programs, accident analysis, pedestrian safety programs, parking studies, site access, and general consultation studies in traffic engineering. Our traffic engineering team consists of specialists in each discipline of traffic studies, traffic signal design and traffic planning and is equipped with the latest software and hardware to meet your project's goals.



Landscape Architecture

From the revitalization of a popular community park to the design and implementation of a downtown streetscape, Kimley-Horn has successfully planned and implemented scores of landscape architecture projects including landscape planting plans, landscape renderings and irrigation system design. We have successfully completed dozens of parks and master plan projects for federal, state, regional, and local government. As metropolitan urban areas continue to grow, urban design, streetscape design, and landscape architecture have become integral components of roadway and transportation system designs and infrastructure improvements in general. Revitalizing commercial districts and providing recreational areas and pedestrian and bicycle facilities in increasingly congested areas are some of the solutions designed by our landscape architects and planners. For our public works projects, we consider drought resistant landscape features and low water usage irrigation systems to help our Clients become more successful in meeting their water conservation goals.



Environmental Compliance

Kimley-Horn's environmental services team provides complete environmental compliance services for public works projects, including roadway, pedestrian and bicycle trail, traffic, parks, transit, and site development projects. Our environmental specialists are well-versed in all aspects of the environmental process, from Phase I Environmental Site Assessments to California Environmental Quality Act (CEQA), Environmental Impact Report (EIR), and National Environmental Policy Act (NEPA) documentation and resource agency permitting. We are experienced in taking a project from concept to construction and are the ideal partners to provide environmental compliance services in support of design and construction engineering. Kimley-Horn produces environmental documents that are sensitive to the public's concern for resource protection and community impacts as well as to the real-world issues associated with the cost and feasibility of implementing mitigation programs. Our team draws upon years of experience with public improvement projects to develop understandable documents and to assess project designs that minimize impacts to the natural environment and community.



Bidding and Construction Support

As an extension of our design projects by Kimley-Horn, our team is equipped with the latest construction management systems and applications available in the industry including responding to RFI's, reviewing shop drawings, and reviewing progress reports. These tools are scalable and customized to best fit the City's project needs and budget, and to integrate with the City's way of doing business. From simple, time-tested forms and procedures to the state-of-the-art in construction management and web-based systems, our team will deliver small and large projects on-time and under budget while keeping the City up to date on a "real-time" basis. In addition to receiving the benefit of our design team's experience, our construction phase personnel can attend pre-construction conferences and regular project meetings, provide review and approval of submittals, and participate in all other activities required to achieve well-coordinated construction of proposed improvements.



Plan Check Services

Our team has provided plan checking, peer review, and consultant services for various public agencies to assist them with their plan check needs. Kimley-Horn will utilize the City's in-house plan checklist and plan check documents if available. We will also supplement the City's checklist with our checklist as each project requires. Kimley-Horn has developed a step-by-step plan review criterion so that every improvement plan is reviewed with a consistent checking process. Each development application is thoroughly reviewed, and the required engineering conditions of approval

are prepared to comply with generally sound engineering and construction practice, and applicable city, county, state, and federal standards, building codes, municipal code, ordinances, grading, and drainage requirements.



Pipeline Design

Our water resources engineering team has successfully completed water infrastructure projects for various agencies in Southern California. These projects consist of water main replacement, transmission main replacement, realignment, upsizing and capacity increase, master planning, siphon design, existing system evaluation and maintenance and operational support.



Electrical, Instrumentation, and Control Services

Kimley-Horn is a leading consultant in the electrical planning and design of power, motor control centers, motor starters, electrical panels, instrumentation and control systems, lighting design, and communication systems. Our team is thoroughly experienced in all the electrical engineering considerations that may be included in your project(s). Our vast experience allows our team to tackle projects efficiently and precisely in all capacities, ranging from leading large electrical-only projects to small support roles for multidiscipline projects.

Kimley-Horn understands that electrical engineering is often a critical component of designing a project. Electrical issues such as utility company coordination, power source access, conduit routing, and existing system integration must be coordinated with all other design disciplines prior to the construction phase so that the project schedule is on-track. We base all our designs on the current edition of the National Electrical Code (NEC) and other local standards in order for the requirements to be met and incorporated. Our staff is thoroughly experienced in all aspects of electrical engineering, including light-emitting diode (LED) conversations, developing standards and specifications, and SCADA. The electrical engineering practice utilizes computer-aided design (CAD) and building information modeling (BIM) designs and implementation for seamless coordination between disciplines.

Our team can provide the following services:

- Power Distribution
- Feasibility Studies
- Lighting Systems
- Coordination Studies
- Instrumentation Controls
- Generator Design
- Life Cycle Evaluations



Geotechnical Engineering Services

Kimley-Horn understands that the assignments for geotechnical and geological services may vary on a case-by-case basis depending upon specific needs of the City. Kimley-Horn and our subconsultant **Twining, Inc.** recognize that these services will be provided as requested by the City. Geotechnical and geology services may include tasks such as: pavement evaluation, slope stability and analysis, shoring design, percolation test and infiltration rate analysis, geotechnical and geology reports review, and geotechnical and geology reports for special public projects. The geotechnical and geological items may include soil stability analysis, foundations, retaining walls, soil composition, segmental retaining walls, liquefaction, compaction, checking calculations, reviewing test results, and more. Our approach to this, and any assignment, will be to provide appropriate task leaders and staff, establish work plans, provide compliance with schedule and budget, maintain continuous communication with the City, and provide QC/QA deliverables.



Proven Approach to On-Call Contracts

Kimley-Horn provides on-call services to public agencies statewide and our staff is organized to address the needs of a wide range of projects. We know that being on-call means being available to promptly address City requests as they arise.

Our approach to on-call contracts is based on developing a team-oriented answer to the project review process. Key characteristics that distinguish Kimley-Horn include:

Rapid mobilization of staff for each agency request, including immediate identification of the key personnel and subconsultants needed for each project. The availability of a wide range of in-house staff provides efficiency and consistent quality of the technical analyses.

Ongoing communication and consultation to address issues that arise during the project review process. The collaborative process maintains project progress and results in user-friendly documents.

Commitment of senior level management to the project to provide close coordination with the City, to confirm technical accuracy, and to carefully monitor budget and schedule compliance.

Responsiveness to any significant issues of concern raised by responsible and regulatory agencies and the public.

Flexibility to tailor our approach to meet the specific needs of each project and client.

We tailor each on-call task assignment's scope of services specifically to the needs of the individual project and the City. Our familiarity with local standards helps us determine what will be necessary to assist the City with each task order. We will approach each project in the same diligent and comprehensive manner including:

- Scope of work review and understanding
- Data collection and review
- Kick-off meeting
- Site visit with City staff
- Evaluation of existing conditions
- Project evaluation and innovation
- Concept layouts and reports
- Interim site walk and review concept layout of study findings
- Response to comments
- Innovative project designs
- Final design and report
- Public outreach or City council presentations (if required)
- Invoicing and budget management
- Schedule management
- Quality Control/Quality Assurance (QC/QA)
- Meeting agendas, minutes, and monthly status reports
- Closure

Upon notice to proceed, the appropriate staff will be assigned by contract manager

Darren Adrian, P.E. to accomplish the task within the agreed upon timeframe. One of the advantages that our team provides is the ability to assign the right staff to each task. Our team can draw from a multitude of disciplines and resources to complete each assignment—whether the task is relatively minor, requiring only a few people in a single discipline, or a complicated task requiring numerous people and multiple disciplines. A task manager will be assigned to each task, and he/she will work closely with the project manager to get the project completed on time and on schedule.

Our team understands how to work effectively and efficiently on smaller projects with limited scope and budget, and we can quickly compile an in-house team to meet the needs of any project.



Effective Communication

Communication between our design team and the City is critical to thoroughly understanding your vision and implementing the innovative and cost-effective solutions that our team is known for. Effective communication begins with listening to the City's ideas, concerns, and goals for its projects. Making certain that our team and your staff are on the same page throughout the course of each project will help avoid or mitigate potential problems or issues that may arise. In our experience, successful techniques include monthly progress development team meetings (PDT) and biweekly progress reports, regular conference calls to keep you abreast of critical issues, and ongoing electronic communications among all members of the project team, including e-mail and an internet ftp site dedicated to the project.

Team Organization

Our team organization chart on page 4 illustrates our team members' roles and responsibilities. Our firm's culture has established open and clear lines of communication between our staff. Kimley-Horn principals and management committee members take an active, hands-on role in the firm's day-to-day operations so that our corporate commitments meet our clients' satisfaction. Because we strive to give clients a better experience, we don't get bogged down in internal processes like other firms. We know that problem/task resolution is a critical element of management. Our approach is to "deal with it now" by making good basic decisions and seeking advice, as necessary, without allowing a problem to get out-of-hand due to indecision. Problems require immediate, and often senior staff level attention, in order to be effectively addressed—there is no more effective or efficient way of doing so. Our firm also takes a proactive leadership role, where possible. A concerted effort is made to anticipate potential problems or negative impacts to operations and project development before these situations occur. These efforts allow us to make decisions which can preempt difficulties that hinder project development.

Community Engagement

Community engagement at various points during the project allow stakeholders/contributors to participate in the preliminary and final design process. The Kimley-Horn team believes outreach materials including PowerPoint presentations, graphics, exhibits, fact sheets, and all materials required for community engagement activities must be created in a meaningful and strategic way. Upon the City's request, all community engagement activities will be turn-key (set-up/breakdown, materials/supplies, easels, refreshments, presentation materials, etc.), allowing City staff to focus on the issues, not meeting logistics. Kimley-Horn will provide outreach collateral (flyers, press releases) prior to community engagement activities and coordinate with City's public information officer. In order to optimally engage public stakeholders, the Kimley-Horn team will provide translation headsets and Spanish-speaking engineers at each public informational meeting. Kimley-Horn staff members engaged the public effectively and successfully during the development of many projects in surrounding cities and we will apply the best elements of that successful outreach approach to the project at hand.

Resource Availability

Our unique culture allows us to operate with the soul of a small firm. This benefits our clients such that we can truly customize our services to be tailored to your specific needs, but with the resources of a large firm, should they be needed. We have the resources, both in staffing depth and in financial stability to be thoroughly responsive to your needs while keeping projects under budget and on schedule. To use reasonable professional effort to be responsive to the City's needs, Kimley-Horn uses a workload forecasting technique to determine staff availability, known as our cast-ahead process, to



determine resource requirements by division, office, and region. Our division and regional managers then shift resources and workloads as needed to meet all demand-supply needs. This cast-ahead process enables us to assign the staff and technical resources needed to complete each project on time and to our clients' satisfaction.

Responsiveness and Cost-Effective Solutions

Responsiveness is much more than proximity or distance from your office to the client's office. Responsiveness is providing the client with information on short notice. It's promptly returning phone calls. It's meeting the client's needs. And it's where Kimley-Horn excels. We put our client's needs first. When you call, we will be there. Our senior regional leaders are aware of the City's needs and have made a commitment to programming our firm's resources to give your projects a high priority. We strongly believe that Kimley-Horn's continuing success rests on the strengths of its day-to-day management, vision for the firm, emphasis on quality, and responsiveness to you, our client. We have worked with multiple public agencies on their on-call programs, so we understand importance of providing cost effective solutions in the early stages of design for the City's future projects. Over the last 55 years, the Kimley-Horn team has a proven record of performing on time and within budget. The key to our success in this area is managing the right resources at the right time. We emphasize project management using bi-monthly effort reports that give our project managers up-to-date staffing and expense information related to their projects. This information enables them to continuously monitor the status of project cost, cost control effectiveness, and schedule.

Project Cost and Schedule Control

Kimley-Horn has an excellent track record of completing projects within or very close to established budgets. The ability to control project costs and schedules throughout the progress of work is the result of a strong commitment to do so, a thorough understanding of the project, and incorporation of this understanding into project design drawings. The ability to control costs and schedules requires many of the same actions and attitudes. Strong communications and use of experienced personnel are two effective cost control mechanisms. Other critical elements play a key role in controlling costs and schedules:

- It is essential to develop a clear understanding of the project scope early in the process. A project budget is only as good as the clarity of the underlying scope. Be realistic from day one.
- The project team must be well-organized and exhibit good teamwork. Good communication is essential. A breakdown in communication can easily result in a failure in project control.

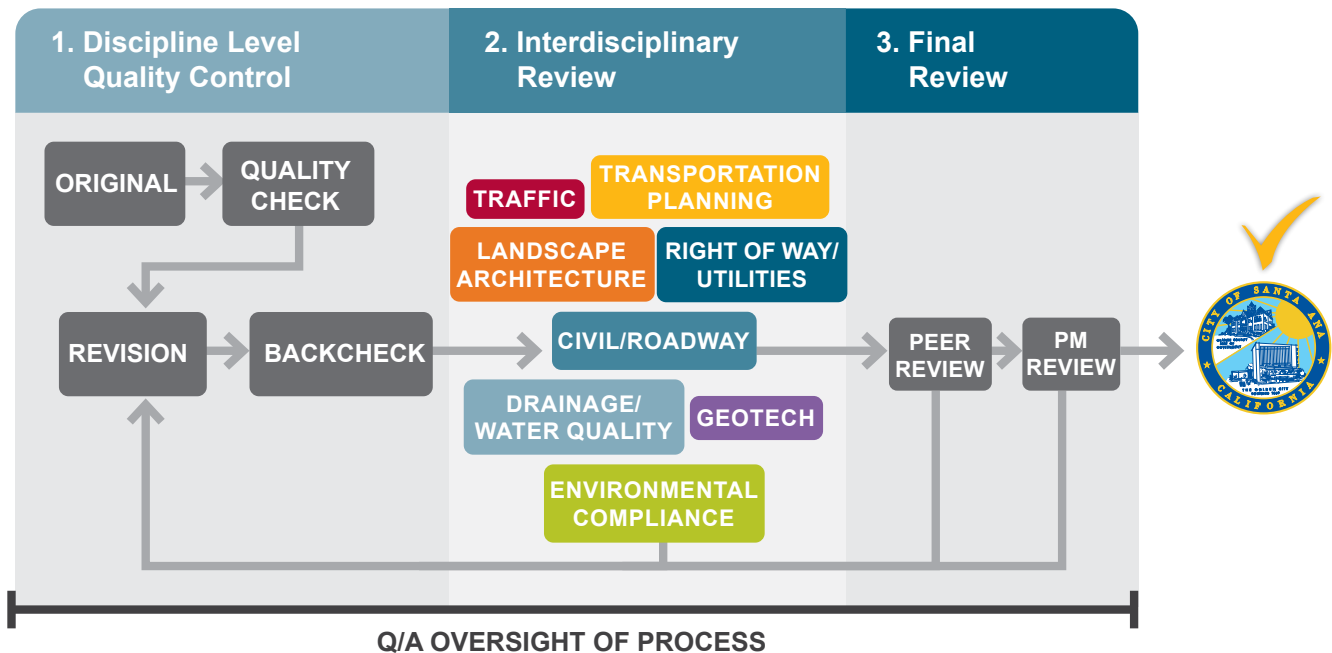
These fundamental principles apply to the entire project team and the design teams' internal work effort. The strongest proof of Kimley-Horn's ability to meet schedules and manage project costs and controlling schedules is our high percentage of repeat clients, approximately 90%.

Our Commitment to Quality

At Kimley-Horn, quality is essential to all phases of a project lifecycle, including inception, planning, design, construction, and operations. Kimley-Horn measures the success of our quality by the following metrics:

- Client satisfaction
- Limited construction change orders
- Construction costs near our engineers' opinion of costs
- Project delivery within schedule and budget

To achieve the above metrics, we actively implement our firmwide quality control and quality assurance (QC/QA) policies and procedures on all of our projects.



Quality of Scope and Schedule. Quality starts with a mutual understanding of project goals and deliverables. Each task order will include a QC/QA manager a technical specialist, who provides senior-level review of the scope of work, budget, and schedule before they are presented to the client.

Quality of Planning and Preliminary Engineering. We listen and tailor our projects to the requirements of the end user. Where applicable, we coordinate closely with the ultimate user throughout the life of the project. Our teams emphasize consensus building with the key project stakeholders early, to aid in development of the basis of the design. We utilize proven tools to help communicate and visually represent the end product, such as visual simulations, operational modeling software, material boards, and architectural renderings.

Design Quality. The true test of the quality of a design occurs during construction of the project. Anything missing from the design or ambiguity on the plans or in the specifications is found by the contractor. Our goal is to minimize construction changes through a thorough and complete QC/QA process prior, to, and during the design. Kimley-Horn's quality control starts with experienced, proficient professionals who know how to implement innovative, cost-saving ideas and employ project management practices that have proven to be successful. Key parts of quality control during the design process are field visits and site knowledge, understanding of regulatory and funding requirements, and technical knowledge.

Project Construction Bids. Kimley-Horn's quality control measures focus closely on construction estimates. Our team has extensive resources and recent experience that we combine with unit prices taken from recent similar projects to create our engineer's opinion of probable construction cost. The quality and accuracy of our estimates is the result of our early efforts to define basis of design assumptions and identify technical methods. Reviews by senior technical staff help confirm the quality of the estimate.



QC/QA Implementation. The QC/QA plan that Kimley-Horn and its team members will follow in the execution of services prepared under this contract is currently being utilized successfully on our other local public contracts and includes the following six key elements:

- **Structure.** Each QC/QA plan includes a project manager (responsible for the overall quality of the project), technical managers (engineers responsible for discipline design development), and a QC/QA manager (responsible for verifying that the QC/QA plan is being implemented and followed).
- **Procedures.** Intra-disciplinary checking of documents will be performed by a competent individual within each discipline other than the designer.
- **Inter-Disciplinary Reviews.** Inter-disciplinary reviews and coordination are performed throughout the project and prior to key submittals, when senior staff from the various discipline groups are brought together to discuss and comments on the interaction of the overall project elements.
- **Quality Assurance Audit.** The QC/QA manager will be responsible for conducting a quality assurance audit after completion of the checking and review process and prior to the submittal of any document or deliverable.
- **Deliverables and Document Control.** The project manager will manage the submission of design documents after the QC/QA audit is complete and at milestone completion dates.
- **Corrective Action Measures.** Corrective action measures will be taken if incorrect or nonconforming work is discovered in deliverable items that have already completed the QC/QA process.

e. Relevant Project Experience

Kimley-Horn has enjoyed collaborating with the City on various civil, traffic, and transportation projects in the past. From the Main Street Corridor Improvement, Warner Avenue Street Improvement, 17th Street Grade Separation and Bristol Street SCE Corridor and OC Streetcar design review to the 5th Street and Santa Boulevard Bike Lane, and Fisher Park Neighborhood Water Main Improvement projects, Kimley-Horn has partnered with the City to provide exceptional service for critical projects. We also currently provide construction support for the Main Street Corridor Improvement Project. Our experience and lessons learned from these projects mean the City can expect the right balance of technical expertise, responsiveness, and local knowledge to successfully complete your task order assignments. Below, we have highlighted our other relevant project experience.

On-Call Road, Bridge, and Traffic Engineering Services, Orange County, CA

For more than a decade, Kimley-Horn has been providing the County of Orange Public Works Department with civil and traffic engineering design services. From roadway improvements and highway design to bicycle/pedestrian facilities and complete streets projects, Kimley-Horn has provided the county with project management, design and planning services. The Kimley-Horn team has worked directly with the County's in-house staff to provide outstanding as-needed civil engineering support for these projects. Our team recently was selected for another term of the County's on-call program.

Year Completed: Ongoing

Client Name: County of Orange Public Works

Contact Information: Edward Frondoso, Construction Deputy Director, 714.245.4596

Kimley-Horn Project Manager: Darren Adrian, P.E.

On-Call Planning and Engineering Services, Anaheim, CA

Kimley-Horn provided transportation planning and traffic engineering on-call services to the City on dozens of projects under multi-year contracts with the City's Planning and Engineering Departments. Services provided include the preparation of parking studies and traffic studies for private development projects as well as third-party review of parking and traffic studies prepared by others.

Year Completed: Ongoing

Client Name: City of Anaheim

Contact Information: Rudy Emami, Public Works Director, 714.765.5176

Kimley-Horn Project Manager: Jason Melchor, P.E.

Santa Ana Boulevard & 5th Street Protected Bike Lane PS&E, Santa Ana, CA

Kimley-Horn has completed engineering design services for the Santa Ana Boulevard and 5th Street protected bike lane project for the City of Santa Ana. The project included two and half miles of protected bike lane facilities along various streets in the City's downtown area. This project was one of the first protected bike lane projects of this magnitude in Orange County. The project consisted of bike signals, pedestrian walkway improvements, traffic calming features, ADA improvements, signing and striping, and landscape and irrigation design. The project has involved extensive coordination during the design phase with all stakeholders including the Orange County Transportation Authority for the OC Streetcar project within the same area.

The Kimley-Horn team provided the City with alternatives for the design of the bike lanes to provide more protection for all modes of transportation including vehicular, pedestrian, and public transit.

Year Completed: 2020

Client Name: City of Santa Ana

Contact Information: Sean Thomas, Senior Civil Engineer, 714.647.5655

Kimley-Horn Project Manager:
Darren Adrian, P.E.



South Main Street Corridor Improvements, Santa Ana, CA

Kimley-Horn is assisting the City of Santa Ana in transforming their existing South Main Street into a revitalized corridor. The project involves creating solutions for street beautification, traffic safety, walkability, bike circulation, environmental sustainability, security, and neighborhood amenities. The project also includes the design to replace over 1.5 miles of water and sewer lines including over 200 laterals while working around the utility constraints in the area. The project's specific goals include re-branding the South Main Street Business District with a consistent theme to promote the neighborhood for future developments;





enhancing streetscape aesthetics with landscape and hardscape features to create a more inviting and pleasant urban area; improving street walkable paths with pedestrian safety, curb ramps, crosswalks, and other ADA features; encouraging the use of alternative transportation such as walking, biking, and public transit; improving accessibility to local businesses by providing on street parking; creating a low impact and sustainable design for improvements while considering environmental issues; and enhancing corridor safety and security by adding high visibility crosswalks and pedestrian level street lights.

Year Completed: Ongoing

Client Name: City of Santa Ana

Contact Information: Suzi Furjanic, Associate Planner, 714.571.4241

Kimley-Horn Project Manager: Darren Adrian, P.E.

Fisher Park Neighborhood Water Main Improvements, Santa Ana, CA

Kimley-Horn provided PS&E services for Fisher Park Neighborhood Water Main Improvements that included improving and upgrading approximately 9500 feet of water main and over 200 laterals.

Year Completed: 2021

Client Name: City of Santa Ana

Contact Information: Suzi Furjanic, Associate Planner, 714.571.4241

Kimley-Horn Project Manager: Darren Adrian, P.E.

Warner Avenue Street Improvements, Santa Ana, CA

Kimley-Horn is providing PS&E services for Warner Avenue between Wright Street and Oak Street to expand the roadway from two lanes in each direction to three in each direction. Part of this work includes improving and upgrading the surrounding storm drain infrastructure, including a new 60-inch storm drain within Warner Avenue. This involves coordination with multiple stakeholders, including utilities for overhead power lines; industrial, commercial, residential, and City fire and schools directly affected by the widening; and OCTA who uses both Grand Avenue (a major cross street) and Warner Avenue as transit routes.

Year Completed: Ongoing

Client Name: City of Santa Ana

Contact Information: Suzi Furjanic, Associate Planner, 714.571.4241

Kimley-Horn Project Manager: Darren Adrian, P.E.

OC Streetcar Peer Review, Orange County, CA

Kimley-Horn provided peer review of the streetcar design for various technical areas such as track alignment, grade crossings, stations, signalization, OCS, TPSS, constructability, basic operations, and overall coordination of the proposed corridor with bicycles, pedestrians, buses and other vehicles. The OC Streetcar will increase transportation options and provide greater access to a 4.15-mile route along Santa Ana Boulevard, 4th Street, and the Pacific Electric right-of-way to Harbor Boulevard in Garden Grove.

Year Completed: 2019

Client Name: City of Santa Ana

Contact Information: Jason Gabriel, Principal Civil Engineer, 714.647.5664

Kimley-Horn Project Manager: Darren Adrian, P.E.



On-Call Traffic and Civil Engineering Services, City of Industry, CA

Kimley-Horn has provided on-call traffic and civil engineering services to the City of Industry since 2005. Since initiation, we have been issued more than 50 tasks, focused primarily on improving the transportation system within the City. Tasks entailed developing geometric alternatives for major intersection modifications; evaluating access points and presenting various alternatives for modifications at the Puente Hills Mall; attending project meetings on behalf of the City; intersection capacity analysis using Synchro software; and traffic impact analysis, sight distance evaluation, traffic handling design, traffic signal design, signing and striping design, street lighting analysis and design, speed surveys, and peer and plan check reviews.

Year Completed: 2019

Client Name: City of Industry

Contact Information: Joshua Nelson, Regional Vice President, 626.956.8288

Kimley-Horn Project Manager: Jason Melchor, P.E.

On-Call General Engineering Services, Malibu, CA

Kimley-Horn was selected to provide on-call traffic engineering services to the City of Malibu in 2012. The contract was later extended to include civil engineering services, due to high quality service from Kimley-Horn. As extension to the City staff, Kimley-Horn performs the following on a regular basis:

- Review development project reports, grading, utility, and construction plans
- Conduct engineering and traffic surveys
- Feasibility/conceptual studies and reports and recommendations for preliminary, final and construction design studies
- Applicable subconsultant and engineering disciplines
- Preparation of construction plans, specifications, and estimates
- Research of utilities and other records
- Collecting and analyzing traffic data
- Participation in meetings with City staff associated with various development and improvement projects

Year Completed: Ongoing

Client Name: City of Malibu

Contact Information: Rob Duboux, Assistant Public Works Director, 310.456.2489 ext. 339

Kimley-Horn Project Manager: Sri Chakravarthy, P.E., T.E.

Downtown Water and Sewer Pipeline Replacement, Phase 2, Oceanside, CA

Kimley-Horn is currently preparing the final design PS&E for the replacement of 3.5 miles of water and 2.5 miles of sewer throughout the downtown area of the City of Oceanside. The replacements are being performed to upgrade the city's aging infrastructure, some of which was constructed in the 1930's. New water and sewer pipes along with new valves, appurtenances, and meters will be installed. The project also includes the replacement of a 10-inch sewer under the NCTD railroad tracks by trenchless methods. The project's challenges include working directly adjacent to the beach, high groundwater/ tidal influence, utility crossings, relocating sewers that currently run under private buildings, and rehabilitating existing sewer manholes. The project also includes the extension/ connection of a recycled water network to serve potential recycled water customers throughout the downtown area.

Year Completed: Ongoing

Client Name: City of Oceanside

Contact Information: Phillip Tunnel, Water Utilities, 760.435.5848

Kimley-Horn Project Manager: Sam McWhorter, P.E.



f. References

1. On-Call Civil Engineering Design Consulting Services and Preparation of Temporary Traffic Control Plans, Santa Monica, CA

Client: City of Santa Monica

Contact Information: Curtis Castle, Principal Civil Engineer, 310.458.8234

2. Downtown Water and Sewer Phase 2 Replacement, Oceanside, CA

Client: City of Oceanside

Contact Information: Philip Tunnel, 760.435.5848

3. Frisbie Park Sewer Lift Station and Ayala Zone 1A Booster Pump Station, Rialto, CA

Client: City of Rialto

Contact Information: Tom Crowley, Utilities Manager, 909.820.8056

2. Scope of Services and Schedule

Scope of Services

The tasks below are intended to provide a sample of scope of services of a typical task order as part of this on-call program. Actual tasks will vary based on each individual's project's needs and scope.

- Project Management and Coordination
- Record Research and Utility Coordination
- Geotechnical Investigation and Pavement Evaluation
- Surveying and Mapping
- Hydraulic and Hydrology Analysis
- Water Quality management Report
- Environmental Studies
- Water Main Replacement Plans
- Well Rehabilitation Plans
- Street Improvement Plans
- Well System Modeling and Design
- Pump Station Building Design (Structural, Architectural, MEP)
- Permitting and Agency Coordination
- Structural Analysis
- Storm Drain plans
- Landscaping and Irrigation Plans
- Signing and Striping Plans
- Traffic Signal and Traffic Handling Plans
- Specifications
- Opinion of Probable Construction Cost
- Potholing
- Bid and Construction Phase Support

Schedule

Per the City's Q&A, no schedule is required. For information regarding how we control our project schedules, please refer to Section 1.d.

3. Fee Proposal

We have submitted our Fee Proposal as a separate file attachment, as instructed by the City's RFP.

4. Certifications

We have provided the forms listed below on the following pages:

- Attachment 3-1: Non-Collusion Affidavit
- Attachment 3-2: Non-Lobbying Certification
- Attachment 3-3: Non-Discrimination Certification

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

Darren J. Adrian, P.E., Sr. VP

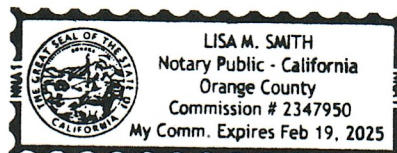
State of California

County of Orange

Subscribed and sworn to (or affirmed) before me on this 19th day of May, 2022 by Darren Adrian, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.


Notary Public Signature

Notary Public Seal



NON-LOBBYING CERTIFICATION

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Kimley-Horn and Associates, Inc.

Signed and Printed Name:  Darren J. Adrian, P.E.

Title Senior Vice President

Date May 24, 2022

NON-LOBBYING CERTIFICATION

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

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The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm On Point Land Surveying, Inc.
Signed and Printed Name: Shari Todd Shari Todd
Title Operations Manager
Date 05/17/2022

NON-LOBBYING CERTIFICATION


The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
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The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Twining, Inc.

Signed and Printed Name:  Amir Ghavibazoo

Title Director of Asphalt Engineering & Pavement Design

Date May 19, 2022

NON-DISCRIMINATION CERTIFICATION


The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed:  Darren J. Adrian, P.E.
Title: Senior Vice President
Firm: Kimley-Horn and Associates, Inc.
Date: May 24, 2022

NON-DISCRIMINATION CERTIFICATION

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.
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Signed:

Shawn J. Jell

Title:

Operations Manager

Firm:

On Point Land Surveying, Inc.

Date:

05/17/2022

NON-DISCRIMINATION CERTIFICATION

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

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3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
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6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.
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Signed: _____

Title: _____

Firm: _____

Date: _____



CONTACT

Darren Adrian, P.E.
714.705.1304
darren.adrian@kimley-horn.com

Kimley»Horn

1100 W Town & Country Road
Suite 700
Orange, CA 92868

www.Kimley-Horn.com



EXHIBIT C



Kimley-Horn and Associates, Inc.

Hourly Labor Rate Schedule

Classification	<i>Rate</i>
Analyst I	\$115 - \$145
Analyst II	\$145 - \$180
Professional	\$180 - \$225
Senior Professional I	\$225 - \$295
Senior Professional II	\$300 - \$380
Senior Technical Support	\$100 - \$230
Technical Support	\$95 - \$145
Project Support	\$80 - \$130

Effective through June 30, 2023

Subject to annual adjustment thereafter

External Reimbursable Expenses will be charged at 10% mark-up, or per the Contract

Sub-Consultants will be billed per the Contract



1906 Orange Tree Lane, Suite 240 • Redlands, California 92373
(909) 792-2221 • (909) 784-1836 fax
office@onpointlandsurveying.com • www.onpointlandsurveying.com

RATES EFFECTIVE September, 2021

HOURLY RATE SCHEDULE (NON-PREVAILING WAGE)

OFFICE:

Research of Records/Drafting/Mapping	\$120
Survey Calculations and Document Preparation	\$120
Land Surveyor Review/Professional Services	\$180

FIELD:

Survey Crew (4 hour Minimum)	\$225
Survey Crew (Outside of normal hours of operation)	\$290
Travel Time	\$115

HOURLY RATE SCHEDULE (PREVAILING WAGE)

OFFICE:

Research of Records/Drafting/Mapping	\$120
Survey Calculations and Document Preparation	\$120
Land Surveyor Review/Professional Services	\$180

FIELD:

Survey Crew (4 hour Minimum)	\$240
Survey Crew (Outside of normal hours of operation)	\$360
Travel Time	\$120

Global Positioning Systems (GPS) Surveys	Estimates upon Request
GPS Receiver/Data Collector	\$100/per Receiver per Day
RTK GPS System	\$300 per Day
Utility Location Services	Estimates upon Request
Expert Witness/Testimony (Portal to Portal)	\$300 per hour



Schedule of Fees 2021 - 2022

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

Personnel Rates: Per Hour Unless Otherwise Noted

Task Code	Engineering and Consulting Personnel	Rate
10026	Senior Principal Advisor/Consultant	\$ 357.00
10001	Principal Engineer/Geologist	\$ 252.00
10017	Metallurgical Engineer	\$ 367.50
70000	Registered Geotechnical Engineer	\$ 246.75
10010	Technical Advisor	\$ 241.50
10011	Material Scientist, Welding/NDT Consultant	\$ 252.00
70003	Registered Geologist/Certified Engineering Geologist	\$ 246.75
10003	Senior Engineer/Geologist	\$ 220.50
10009	Registered Civil Engineer	\$ 215.25
60003	Roofing/Waterproofing Consultant	\$ 241.50
10013	Project Engineer/Manager	\$ 210.00
30000	Quality Control Manager	\$ 199.50
10005	Senior Staff Engineer/Geologist	\$ 194.25
10007	Staff Engineer/Geologist	\$ 189.00
10015	Quality Control Administrator	\$ 178.50
10019	Metallurgical Technician	\$ 152.25
90001	CADD Operator/Draftsperson	\$ 138.60
95103	Office Support/Clerical	\$ 99.75
70107	Field Supervisor	\$ 173.25
91030	Safety Supervisor	\$ 173.25
20000	Laboratory Manager	\$ 157.50
98000	Laboratory Technician	\$ 131.25
90005	Expert Witness Testimony	\$ 609.00
91010	Qualified SWPPP Developer	\$ 194.25
91000	Qualified SWPPP Practitioner	\$ 178.50
30001	Vibration Engineer	\$ 220.50

Task Code	Field Inspection Personnel	Rate
10101	Concrete/Reinforced Steel Inspector	\$ 131.25
10103	Prestressed/Post Tensioned Inspector	\$ 131.25
10105	Concrete ICC Inspector	\$ 131.25
10109	Drilled-In-Anchors Inspector	\$ 131.25
10111	Gunite/Shotcrete Inspector	\$ 131.25
10113	Masonry Inspector	\$ 131.25
10201	Structural Steel/Welding Inspector	\$ 131.25
10203	AWS Certified Welding Inspector	\$ 131.25
10207	Fireproofing Inspector	\$ 131.25
10501	Lead Inspector	\$ 134.40
10115	Firestop Special Inspector - IFC Premier	\$ 149.10
10117	Firestop Special Inspector - IQP	\$ 196.35
70109	L.A. Deputy Grading Inspector	\$ 136.50
75001	Asphalt Field and Plant Inspector/Technician	\$ 131.25
70103	Pile Driving Inspector	\$ 131.25
70101	Soils Technician	\$ 131.25
10107	Concrete Quality Control (ACI/Caltrans Technician)	\$ 131.25
10122	Wood Framing Inspector	\$ 131.25
60001	Roofing/Waterproofing Inspector	\$ 138.60
10500	Public Works Inspector	\$ 149.10
10515	Mechanical Inspector	\$ 157.50
10519	Electrical Inspector	\$ 157.50
10521	Plumbing Inspector	\$ 157.50
10523	Building Inspector	\$ 157.50
30002	Vibration Monitoring Technician	\$ 152.25
50003	Field Engineering Technician	\$ 131.25

Task Code	Shop Inspection Personnel	Rate
10301	Structural Steel Fabrication Inspector	\$ 131.25
10309	Batch Plant Quality Control Technician/Inspector	\$ 131.25
10325	Glue-Laminated Fabrication Inspector	Quotation
10328	Pre-Cast Concrete/Pipe Fabrication Inspector	\$ 125.00

Task Code	Nondestructive Testing Personnel	Rate
10401	NDE Ultrasonic Testing Technician	\$ 136.50
10403	NDE Magnetic Particle Testing Technician	\$ 136.50
10405	NDE Dye Penetrant Testing Technician	\$ 136.50
10305	Combination NDE Technician/Welding Inspector	\$ 136.50
10409	Radiographic Testing (crew of 2)	\$ 367.50
10020	NDE Engineer	\$ 231.00

Task Code	Equipment Usage (Daily Unless Otherwise Noted)	Rate
95318	Skidmore	\$ 42.00
95309	Torque Wrench, Small	\$ 15.75
95312	Torque Wrench, Large	\$ 26.25
95315	Torque Multiplier	\$ 42.00
95321	Air Meter	\$ 21.00
95322	Unit Weight Bucket	\$ 31.50
95323	Field Concrete Scale	\$ 31.50
95324	Brass Mold	\$ 21.00
95343	Nuclear Gauge (Per Hour)	\$ 10.50
95319	Sand Cone Density Test Equipment	\$ 52.50
95333	Pull Test Equipment	\$ 63.00
95348	Concrete/Asphalt Coring Equipment	\$ 630.00
95327	Pachometer	\$ 57.75
95336	Floor Flatness (Dipstick)	\$ 52.50
95330	Schmidt Hammer	\$ 31.50
95341	Vapor Emission Test Kits	\$ 31.50
95342	Relative Humidity Probe	\$ 63.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	\$ 367.50
95351	Fireproofing Adhesion/Cohesion (Per Test)	\$ 36.75
95300	A Scan Ultrasonic Equipment and Consumables	\$ 78.75
95303	Magnetic Particle Equipment and Consumables	\$ 42.00
95306	Liquid Penetrant Consumables	\$ 36.75
95307	Phased Array Ultrasonic Equipment (Per Hour)	\$ 63.00
95347	Ground Penetrating Radar	\$ 315.00
95345	Impact Echo	\$ 367.50
95362	Ultrasonic Tomography	\$ 472.50
95349	Inertial Profiler (Per Hour)	Quotation
95357	Project Dedicated Vehicle	\$ 126.00
95364	Roller Compacted Concrete Vibrating Hammer/Tamping Plate	\$ 73.50
95367	Half-cell Potential Equipment Set	\$ 367.50
95368	Concrete Electrical Resistivity Meter	\$ 168.00
95369	Field Hardness (Steel)	\$ 105.00
95370	Coating Thickness Gauge	\$ 105.00
95373	Wood Curing Box (One-Time Fee/Per Box)	\$ 630.00
95371	Temperature Control Curing Box (Per Month)	\$ 472.50
95372	Temperature Matching Curing Box (Per Month)	\$ 546.00

Task Code	Specimen Pick-Up	Rate
20102	Standard Sample: Concrete Cylinders (Each)	\$ 29.40
20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	\$ -
20103/	Over-size Sample: Masonry Prisms, Shotcrete Panels, Flexural Beams (Each)	\$ -
20104	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	\$ 110.25
20109	Technician for Specimen Pick-Up Before 5:00 a.m. or After 5:00 p.m. Monday thru Friday, or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	\$ 147.00

Task Code	Jobsite Trailer, Mobile or On-site Laboratory	Rate
95360	Mobile laboratory for rapid strength concrete (per shift not exceeding 12 hours) All others by quotation	\$ 577.50

Task Code	Concrete Tests (Field Made Specimens)	Rate
20201	6" x 12" Cylinder: Compression Strength (ASTM C39)	\$ 42.00
20202	4" x 8" Cylinder: Compression Strength (ASTM C39)	\$ 36.75
20203	Density of Structural Lightweight Concrete Equilibrium or Oven Dry Method (ASTM C567)	\$ 89.25
20205	Core Compression including Trimming (ASTM C42)	\$ 78.75
20207	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523)	\$ 105.00
20209	Splitting Tensile Strength (ASTM C496)	\$ 99.75
20211	Modulus of Elasticity Test (ASTM C469)	\$ 288.75
80003	Rapid Chloride Permeability Test: Cylinders or Cores (ASTM C1202)	\$ 546.00
80006	Density, Absorption, and Voids in Hardened Concrete (ASTM C642)	\$ 546.00



Task Code	Concrete Tests (Field Made Specimens), Continued	Rate
40005	Flexural Toughness (ASTM C1609, Formerly ASTM C1018)	\$ 840.00
40007	Flexural Toughness (ASTM C1550)	\$ 525.00
40006	Double Punch Strength of Fiber Reinforced Concrete	\$ 525.00
40009	Coefficient of Thermal Expansion of Concrete (CRD 39, AASHTO T336)	\$ 630.00
40012	Bulk Electrical Resistivity (ASTM C1876)	\$ 126.00

Task Code	Concrete Specimen Preparation	Rate
20151	Sawing of Specimens (Each)	\$ 42.00
20157	Coring of Specimens in Lab (Each)	\$ 42.00
20159	Grinding of Concrete Below 6000 psi Strength (Each)	\$ 63.00
20160	Grinding of Concrete 6000 psi Strength and Above (Each)	\$ 94.50

Task Code	Laboratory Trial Batch: Concrete, Cement and Mortar	Rate
30216	Compression Test 4"x8" Cylinders Made and Tested in Laboratory (ASTM C192, C35)	\$ 52.50
30217	Compression Test 6"x12" Cylinders Made and Tested in Laboratory (ASTM C192, C35)	\$ 63.00
30219	6" x 6" x 18" Flexural Beams Made and Tested in Laboratory (ASTM C192, C78)	\$ 105.00
30223	Splitting Tensile Strength Cylinders Made and Tested in Laboratory (ASTM C192, C496)	\$ 120.75
30225	Modulus of Elasticity Test Cylinders Made and Tested in Laboratory (ASTM C192, C469)	\$ 299.25
30227	Density of Structural Lightweight Concrete Made in the Laboratory, Equilibrium or Oven Dry Method (ASTM C567)	\$ 110.25
30237	Bulk Electrical Resistivity (ASTM C1876)	\$ 147.00
30201	Laboratory Trial Batch (ASTM C192/Lab Procedure Performance)	\$ 551.25
30203	Concrete Mixture Design for Preconstruction Evaluation and Backup Data Development	\$ 262.50
30205	Drying Shrinkage Up to 28 Days: Three 3" x 3" or 4" x 4" Bars, Five Readings up to 28 Dry Days (ASTM C157)	\$ 525.00
30230	Additional Reading, Per Set of Three Bars	\$ 47.25
30231	Storage over Ninety (90) Days, Per Set of Three Bars, Per Month	\$ 31.50
30207	Setting Time Up to 7 Hours (ASTM C403)	\$ 189.00
30209	Bleeding (ASTM C232)	\$ 157.50
30229	Concrete Restrained Expansion (ASTM C878)	\$ 630.00
30211	Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C878)	\$ 577.50
20263	Non-Shrink Grout: Height Change after Final Set (ASTM C1090)	\$ 577.50
20265	Non-Shrink Grout: Height Change at Early Age (ASTM C827)	\$ 840.00
30232	Cracking Resistance, Set of Three Rings, Laboratory Trial Batching, Test Until Cracking or up to 28 Days (ASTM 1581)	\$ 5,775.00
30233	Evaluation of Pre-Packaged Masonry Mortars (ASTM C270)	\$ 1,207.50
30234	Creep (ASTM C512) (One Age of Loading, 12 Months Duration of Testing)	\$ 8,400.00

Task Code	Chemical Analysis and Petrographic Examination of Concrete	Rate
80123	Chemical Analysis for Acid Soluble Chlorides (ASTM C1152) (includes sample prep)	\$ 152.25
80126	Chemical Analysis for Water Soluble Chlorides (ASTM C1218) (includes sample prep)	\$ 178.50
80193	Chloride Diffusion Coefficient of Cementitious Mixtures by Bulk Diffusion (ASTM C1556)	\$ 2,730.00
80129	Petrographic Examination of Hardened Concrete, Level II (ASTM 856) (Comprehensive)	
	Each, One Sample	\$ 2,520.00
	Each, Two or More Samples	\$ 2,205.00

Task Code	Physical and Chemical Analysis of Cement	Rate
80195	Physical Testing and Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 1,365.00
80100	Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 708.75
80103	Physical Testing of Portland Cement per Standard Requirements (ASTM C150)	\$ 708.75

Task Code	Physical and Chemical Analysis of Cement, Continued	Rate
80194	Physical Testing of Type K Cement, Mortar Expansion (ASTM C806)	\$ 708.75
80106	Partial Analysis or Specific Physical Tests	Quotation
80110	Sulfates Resistance of Hydraulic Cement (ASTM C1012), 6 months	\$ 2,835.00
80111	Sulfates Resistance of Hydraulic Cement (ASTM C1012), 12 months	\$ 3,150.00

Task Code	Physical and Chemical Analysis of Fly Ash	Rate
80140	Chemical Analysis of Fly Ash per Standard Requirements (ASTM C618)	\$ 708.75
80143	Physical Testing of Fly Ash per Standard Requirements (ASTM C618)	\$ 708.75
80146	Partial Analysis or Specific Physical Tests	Quotation
80147	Chemical Analysis and Physical Testing of Fly Ash per Standard Requirements (ASTM C1618)	\$ 1,365.00

Task Code	Physical Testing of Chemical Admixtures for Concrete	Rate
80196	Qualification of Admixture per ASTM C494	Quotation

Task Code	Soils and Aggregate Tests	Rate
30503	Abrasion: LA Rattler (ASTM C131)	\$ 210.00
30505	Abrasion: LA Rattler (ASTM C535)	\$ 220.50
70301	Atterberg Limits/Plasticity Index (ASTM D4318, CTM 204)	\$ 168.00
70303	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Soil	\$ 577.50
70304	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Cement-Treated Soil	\$ 682.50
70344	Cement-Treated Soil/Base Mix Design: includes three trial cement contents with three unconfined compressive strength specimens per cement content	\$ 3,675.00
70305	Chloride and Sulfate Content (CTM 417, CTM 422)	\$ 183.75
30403	Clay Lumps and Friable Particles (ASTM C142)	\$ 210.00
30321	Cleanliness Value: 1" x #4 (CTM 227)	\$ 183.75
30322	Cleanliness Value: 1.5" x .75" (CTM 227)	\$ 288.75
70393	Collapse Potential/Index (ASTM D5333)	\$ 236.25
70396	Compressive Strength of Molded Soil-Cement Cylinders (ASTM D1633)	\$ 110.25
70309	Consolidation Test: Full Cycle (ASTM 2435, CTM 219)	\$ 204.75
70311	Consolidation Test: Time Rate per Load Increment (ASTM D2435, CTM 219)	\$ 47.25
70313	Corrosivity Series: Sulfate, Cl, pH, Resistivity (CTM 643, 417, and 422)	\$ 257.25
70315	Crushed/Fractured Particles (ASTM D5821, CTM 205)	\$ 183.75
70317	Direct Shear Test: Remolded and/or Residual (ASTM D3080)	\$ 257.25
70319	Direct Shear Test: Undisturbed - Slow [CD] (ASTM D3080)	\$ 236.25
70321	Direct Shear Test: Undisturbed - Fast [CU] (ASTM D3080)	\$ 204.75
70378	Durability Index: Per Method - A,B,C, or D (ASTM D3744, CTM 229)	\$ 220.50
70325	Expansion Index (ASTM D4829, UBC 18-2)	\$ 178.50
75004	Fine Aggregate Angularity (ASTM C1252, CTM 234, AASHTO T304)	\$ 199.50
30507	Flat and Elongated Particle (ASTM D4791)	\$ 252.00
30508	Flat or Elongated Particle (ASTM D4791)	\$ 220.50
70331	Maximum Density: Methods A/B/C (ASTM D1557, D698, CTM 216)	\$ 199.50
70333	Maximum Density: Check Point (ASTM D1557, D698)	\$ 68.25
70335	Maximum Density: AASHTO C [Modified] (AASHTO T-180)	\$ 204.75
70336	Maximum Index Density: Vibratory Table (ASTM D4253)	\$ 362.25
70337	Moisture Content (ASTM D2216, CTM 226)	\$ 26.25
70339	Moisture and Density: Ring Sample (ASTM D2937)	\$ 31.50
70341	Moisture and Density: Shelby Tube Sample (ASTM D2937)	\$ 42.00
70340	Moisture-Density Relations of Soil-Cement Mixtures Premixed in the Field (ASTM D558)	\$ 288.75
70342	Moisture-Density Relations of Soil-Cement Mixtures Mixed in the Lab (ASTM D558)	\$ 367.50
30401	Organic Impurities (ASTM C40, CTM 213)	\$ 94.50
70343	Permeability (ASTM D5084)	Quotation
80001	Potential Reactivity: Chemical Method (ASTM C289 - Discontinued Method)	\$ 656.25
70394	Potential Reactivity: Mortar Bar Expansion Method, 14-Day Exposure (ASTM C1260)	\$ 892.50



Task Code	Soils and Aggregate Tests, Continued	Rate
70391	Potential Reactivity: Mortar Bar Expansion Method, 28-Day Exposure (ASTM C1260)	\$ 945.00
70398	Potential Reactivity: Concrete Bar Expansion Method (ASTM C1293), 12 month	\$ 2,835.00
70399	Potential Reactivity: Concrete Bar Expansion Method (ASTM C1293), 24 month	\$ 3,045.00
70397	Potential Reactivity of Aggregate Combination, non-standard method; 14-Day Exposure, Mortar (after ASTM C1567)	\$ 1,050.00
70392	Potential Reactivity of Aggregate Combination, non-standard method; 28-Day Exposure, Mortar (after ASTM C1567)	\$ 1,102.50
70345	R-Value: Soil (ASTM 2844, CTM 301)	\$ 462.00
70347	R-Value: Aggregate Base (ASTM D2844, CTM 301)	\$ 514.50
70349	Sand Equivalent (ASTM D2419, CTM 217)	\$ 131.25
70351	Sieve #200 Wash Only (ASTM D1140, CTM 202)	\$ 94.50
70353	Sieve with Hydrometer: 3/4" Gravel to Clay (ASTM D422, D7928, CTM 203)	\$ 262.50
70355	Sieve with Hydrometer: Sand to Clay (ASTM D422, D7928, CTM 203)	\$ 252.00
70357	Sieve Analysis Including Wash (ASTM C136, CTM 202)	\$ 157.50
70359	Sieve Analysis Without Wash (ASTM C136, CTM 202)	\$ 126.00
70360	Sieve Analysis: Split Sieve (ASTM C136, CTM 202)	\$ 252.00
70361	Sieve Analysis Without Wash: With Cobbles (ASTM C136, CTM 202)	\$ 246.75
70363	Soundness: Sodium or Magnesium Sulfate, 5 Cycles (ASTM C88)	\$ 472.50
70365	Specific Gravity and Absorption: Coarse (ASTM C127, CTM 206)	\$ 105.00
70367	Specific Gravity and Absorption: Fine (ASTM C128, CTM 207)	\$ 173.25
70369	Swell/Settlement Potential: One Dimensional (ASTM D4546)	\$ 157.50
70371	Triaxial	Quotation
70373	Unconfined Compression (ASTM D2166, CTM 221)	\$ 199.50
30317	Unit Weight Per Cubic Foot (ASTM C29, CTM 212)	\$ 131.25
30319	Void in Aggregate with Known Specific Gravity (ASTM C29, CTM 212)	\$ 131.25
30411	Lightweight Particles: Coarse, with Two Solutions (ASTM C123)	\$ 430.50
30412	Lightweight Particles: Fine, with One Solution (ASTM C123)	\$ 215.25

Task Code	Asphalt Concrete Tests	Rate
75031	HMA Mixing and Preparation	\$ 131.25
75032	HMA Mixing and Preparation with Aggregate Treatment	\$ 183.75
75033	Bulk Specific Gravity of Compacted Sample or Core: SSD (ASTM D2726, CTM 308C)	\$ 57.75
75036	Bulk Specific Gravity of Compacted Sample or Core: Paraffin Coated (ASTM D1188 and CTM 308A)	\$ 84.00
75040	Emulsion Residue, Evaporation (ASTM D244)	\$ 168.00
75024	Extraction: % Bitumen (ASTM D6307, CTM 382)	\$ 168.00
75027	Extraction: % Bitumen and Gradation (ASTM D5444, D6307, CTM 202, 382)	\$ 225.75
75028	Extraction: % Bitumen, Correction Factor (ASTM D6307, CTM 382)	\$ 367.50
75030	Chemical Extraction: % Bitumen and Sieve Analysis (ASTM D2172 Method A or B, ASTM D5444)	\$ 257.25
75042	Lab Tested Maximum Density: Hveem, 3 briquettes (ASTM D1561, D1188, CTM 304, 308)	\$ 225.75
75057	Hveem Stabilometer Test, Premixed, 3 briquettes (ASTM D1560, D1561, CTM 304, 366)	\$ 225.75
75048	Lab Tested Maximum Density: Marshall, 3 briquettes (ASTM D6926, D2726)	\$ 220.50
75049	Lab Tested Maximum Density: Marshall 6" Specimen, 3 briquettes (ASTM D5581, D2726)	\$ 225.75
75050	Lab Tested Maximum Density: Superpave Gyrotory Compacted Briquette, SSD, 1 briquette (ASTM D6925, D2726)	\$ 84.00
75052	Lab Tested Maximum Density: Superpave Gyrotory Compacted Briquette, Paraffin, 1 briquette (ASTM D1188, D6925)	\$ 94.50
75051	Maximum Theoretical Specific Gravity [RICE] (ASTM D2041, CTM 309)	\$ 168.00
75066	Marshall Stability and Flow, Cored Sample, each (ASTM D6927)	\$ 84.00
75069	Marshall Stability and Flow, Premixed, 3 briquettes (ASTM D6926, D6927)	\$ 241.50
75106	Marshall Stability and Flow, Gyrotory Compacted Specimen Pre-Mixed, 3 briquettes (ASTM D5581, D6925)	\$ 241.50

Task Code	Asphalt Concrete Tests, Continued	Rate
75107	Marshall Stability and Flow 6" Specimen, Premixed, 3 briquettes (ASTM D5581)	\$ 241.50
75063	Moisture Content (CTM 370)	\$ 89.25
75005	Wet Track Abrasion Test (ASTM D3910)	\$ 173.25
75093	Hveem Mix Design (Excluding Aggregate Quality Tests)	\$ 5,460.00
75096	Hveem Mix Design, with RAP (Excluding Aggregate Quality Tests, RAP Qualification)	\$ 5,645.00
75099	Hveem Mix Design, with Lime (Excluding Aggregate Quality Tests)	\$ 6,300.00
75094	Hveem Mix Design Caltrans Untreated Mix (Including Aggregate Quality Tests)	\$ 6,510.00
75095	Hveem Mix Design Caltrans Lime Treated Mix (Including Aggregate Quality Tests)	\$ 7,560.00
75084	Marshall Mix Design (Excluding Aggregate Quality Tests)	\$ 5,460.00
75087	Marshall Mix Design with RAP (Excluding Aggregate Quality Tests)	\$ 5,927.25
75090	Marshall Mix Design with Lime (Excluding Aggregate Quality Tests)	\$ 6,510.00
75083	Open Grade Asphalt Concrete Mix Design (ASTM D7064, CTM 368)	\$ 3,150.00
75109	Superpave Mix Design (Excluding Aggregate Quality Tests)	\$ 11,130.00
75113	Superpave Mix Design, with RAP (Excluding Aggregate Quality Tests)	\$ 11,760.00
75114	Superpave Mix Design, with Rubber (Excluding Aggregate Quality Tests)	\$ 11,760.00
75115	Superpave Mix Design, with Additives (Excluding Aggregate Quality Tests)	\$ 12,075.00
75075	Effect of Moisture on Asphalt Paving Mixtures, Pre-Mixed (ASTM D4867, AASHTO T283)	\$ 1,050.00
75111	Hamburg Wheel Track Test, 20,000 passes, 4 briquettes (AASHTO T324)	\$ 1,155.00
75039	Raveling Test of Cold Mixed Emulsified Asphalt (ASTM D7196)	\$ 210.00
75067	Marshall Stability, wet set, 3 replicates (AASHTO T245)	\$ 367.50
75068	Marshall Stability, dry set, 3 replicates (AASHTO T245)	\$ 315.00
75070	Cold Recycled Asphalt Mix Design: 2 gradings each, 3 emulsion content (Caltrans LP-8)	\$ 11,025.00

Task Code	Brick Masonry Tests, ASTM C67	Rate
20301	Modulus of Rupture: Flexural	\$ 99.75
20303	Compression Strength	\$ 63.00
20305	Absorption: 5 Hour or 24 Hour	\$ 68.25
20307	Absorption (Boil): 1, 2 or 5 Hours	\$ 99.75
20309	Initial Rate of Absorption	\$ 57.75
20311	Efflorescence	\$ 78.75
20313	Cores: Compression	\$ 73.50
20315	Shear Test on Brick Cores: 2 Faces	\$ 99.75

Task Code	Concrete Block, ASTM C140	Rate
20321	Compression	-
20323	Absorption/Moisture Content/Oven Dry Density	\$ 94.50
20327	Linear Shrinkage (ASTM C426)	\$ 262.50
20335	Web and Face Shell Measurements	\$ 52.50
20329	Tension Test	\$ 168.00
20331	Core Compression	\$ 73.50
20333	Shear Test of Masonry Cores: 2 Faces	\$ 99.75
20339	Efflorescence Tests	\$ 78.75

Task Code	Masonry Prisms, ASTM C1314	Rate
20341	Compression Test: Composite Masonry Prisms Up To 8" x 16"	\$ 199.50
20343	Compression Test: Composite Masonry Prisms Larger Than 8" x 16"	\$ 262.50
20346	Prism Cord Modulus of Elasticity	\$ 567.00
20347	Prism Cord Modulus of Elasticity with Transverse Strain (for double-wythe specimen)	\$ 698.25

Task Code	Mortar and Grout	Rate
20351	Compression: 2" x 4" Mortar Cylinders (ASTM C780)	\$ 57.75
20353	Compression: 3" x 3" x 6" Grout Prisms, Includes Trimming (ASTM C1019)	\$ 42.00
20355	Compression: 2" Cubes (ASTM C109)	\$ 57.75
20357	Compression: Cores Includes Trimming (ASTM C42)	\$ 78.75



Task Code	Masonry Specimen Preparation	Rate
20155	Cutting of Cubes or Prisms	\$ 75.00

Task Code	Fireproofing Tests	Rate
20401	Oven Dry Density (ASTM E605)	\$ 70.00

Task Code	Guniting and Shotcrete Tests	Rate
20361	Core Compression Including Trimming (ASTM C42)	\$ 75.00
20365	Compression: Cubes (Includes Saw Cutting)	\$ 95.00

Task Code	Concrete Roof Fill: Gypsum, Vermiculite, Perlite, Lightweight Insulating Concrete, Etc.	Rate
20371	Compression Test (ASTM C495 and C472)	\$ 65.00
20373	Air Dry Density (ASTM C472)	\$ 50.00
20379	Oven Dry Density (ASTM C495)	\$ 75.00

Task Code	Reinforcing Steel, ASTM A615, A706	Rate
20501	Tensile Test: # 11 or Smaller	\$ 65.00
20503	Bend Test: # 11 or Smaller	\$ 60.00
20504	Bend Test #14 or #18	\$ 375.00
20505	Tensile Test: # 14	\$ 260.00
20507	Tensile Test: # 18	\$ 360.00

Task Code	Reinforcing Steel - Welded or Coupled Specimens	Rate
20521	Tensile Test: Welded/Coupled #11 and Smaller	\$ 75.00
20523	Tensile Test: Welded/Coupled #14	\$ 270.00
20525	Tensile Test: Welded/Coupled #18	\$ 395.00
20529	Weld: Macroetch	\$ 90.00
20531	Slippage Test - Caltrans (CTM 670)	\$ 200.00
20532	Tensile Test: Welded Hoops #11 and Smaller	\$ 150.00

Task Code	Metal and Steel Testing	Rate
20601	Tensile Strength: Up to 100K Pounds (Each)	\$ 70.00
20603	Tensile Strength: Up to 200K Pounds (Each)	\$ 80.00
20605	Tensile Strength: Up to 300K Pounds (Each)	\$ 100.00
20607	Tensile Strength: Up to 400K Pounds (Each)	\$ 150.00
20609	Tensile Strength: 400K to 600K Pounds (Each)	\$ 360.00
20611	Tensile Strength: Stress-Strain Percent Offset	\$ 200.00
20545	Weld: Macroetch	\$ 90.00
20547	Weld: Fracture	\$ 45.00
20615	Bend Test	\$ 70.00
20617	Flattening Test	\$ 70.00
20619	Hardness Test (ASTM E18)	\$ 80.00
20630	Bolt: Axial Tensile Test (Up to 7/8" diameter)	\$ 55.00
20631	Bolt: Wedge Tensile Test (Up to 7/8" diameter)	\$ 70.00
20632	Bolt: Axial Tensile Test (Greater than 7/8" up to 1" diameter)	\$ 75.00
20633	Bolt: Wedge Tensile Test (Greater than 7/8" up to 1" diameter)	\$ 95.00
20634	Bolt: Axial Tensile Test (Greater than 1" diameter)	Quotation
20635	Bolt: Wedge Tensile Test (Greater than 1" diameter)	Quotation
20636	Bolt: Proof Load Test (Up to 7/8")	\$ 80.00
20637	Bolt: Proof Load Test (Greater than 7/8" up to 1" diameter)	\$ 100.00
20638	Bolt: Proof Load Test (Greater than 1")	Quotation
20639	Nut: Proof Load Test (Up to 7/8")	\$ 60.00
20640	Nut: Proof Load Test (Greater than 7/8" up to 1" diameter)	\$ 80.00
20641	Nut: Proof Load Test (Greater than 1")	Quotation

Task Code	Chemical Testing of Metal and Steel	Rate
80170	Steel Chemical Analysis	\$ 175.00
80173	Weight of Galvanized Coating (ASTM A90)	\$ 80.00
80176	Epoxy Coating Thickness	\$ 90.00

Task Code	Machining and Preparation of Tensile and Bend Sample: Carbon Steel	Rate
20751	Machinist: Initial Preparation from Mock-up, Etc. (Per Hour)	\$ 110.25
20753	Sawcut to Overall Width (Per 0.5" Thickness or Fraction Thereof)	\$ 57.75
20755	Machine to Test Configuration: Milled Specimens	\$ 78.75
20757	Machine to Test Configuration: Turned Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 152.25
20759	Prepare Subsize Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 99.75

Task Code	Charpy Impact	Rate
20621	Charpy Impact Ambient Temperature	\$ 95.00
20623	Charpy Impact Reduced Temperature	\$ 125.00

Task Code	Machining of Charpy Samples: Carbon Steel	Rate
20780	Cutting and Milling (Per 0.5" or Fraction Thereof)	\$ 85.00
20783	Final Machining to Sample Configuration	\$ 95.00

Task Code	Prestressing Wires and Tendons, (ASTM A416)	Rate
20701	Stress-Strain Analysis: Wire or Strands (Including Chart and Percent Offset)	\$ 200.00
20703	Tensile Test Only	\$ 145.00
20705	Tendons	Quotation

Task Code	Polymer Matrix Composite Materials (Fiberwrap)	Rate
20706	Tensile Strength - Set of 5 Specimens/batch/ direction (ASTM D3039)	\$ 1,350.00
20707	Tensile Strength - Additional Specimens (ASTM D3039)	\$ 250.00
20708	Heating Chamber Time - Per 24 hr period	\$ 95.00

Task Code	Calibration Services and Universal Machine Usage	Rate
20801	Calibration/Verification Services	Quotation
20803	Universal Test Machine Usage (Per Hour)	\$ 400.00

Task Code	Ceramic Tile Testing Division	Rate
	The Ceramic Tile Institute of America (CTIOA) and Twining worked together to advance and develop technology designed to enhance the quality of materials and workmanship in the ceramic tile industry. A separate schedule of fees for these services is available upon request.	

Cyclic and Fatigue Testing Programs on Special Products/Parts	Quotation
Engineering and Technical supports/Design of Prototypes and Special Test Set-Up	Quotation
Fastener/Coupling Full Testing Program Per New Regulations: Tension, Tension/Bend, Shear, Double Shear, 8 Compressions	Quotation
Fiberglass/Composite Materials Field Testing Program (ASTM D1143 D1242, D2584, D4065, D4476, D4923, D7901, D7921, and D732)	Quotation
Field Testing of Structures and Structural Elements	Quotation
In-Place Shear Testing	Quotation
Materials and/or Product Evaluation Per Specifications	Quotation
Structural Dynamic Testing and Durability Analysis	Quotation



General Conditions

NOTE: Field inspection work conditions are established by contract with Operating Engineers, Local 12.

NOTE: A minimum of 24 hours notice is required for testing and inspection services.

NOTE: For projects subject to a Project Labor Agreement (PLA), if terms/conditions of the PLA are more restrictive those terms/conditions will apply.

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

Administrative Fees

All administrative costs including report distribution and Twining ConstructionHive system are billed at the following percentage of the monthly invoice total: 4%

Note that hard copies of reports will be sent only to governing jurisdictions that mandate them. All other parties will receive reports electronically. The administrative fee above will receive reports electronically. The administrative fee above will be increased by 1% if additional hard copies of reports are requested.

Minimum Charges (Inspection and Technician Personnel Only - Other Personnel Charged on Portal to Portal Basis)

2-Hour Minimum: Inspector arrives at jobsite, no work to perform.

4-Hour Minimum: 1 to 4 hours of inspection

8-Hour Minimum: Over 4 to 8 hours of inspection

Regular Time (All Types of Inspection and also All Non-Exempt Employees)

The first 8 hours worked Monday through Friday between 5:00 a.m. and 5:00 p.m. except as noted otherwise below.

Time and One-Half (All Types of Inspection and also All Non-Exempt Employees)

All shifts will be billed based on the time and date of their start. Any increment past 8 hours through 12 hours worked Monday through Friday and the first 12 hours on Saturday.

Time and one-half will also be charged for the first four hours before 5:00 a.m. and after 5:00 p.m.

Double Time (All Types of Inspection and also All Non-Exempt Employees)

All shifts will be billed based on the time and date of their start. After the first 12 hours worked Monday through Saturday, all day Sunday, holidays. After the first four hours worked before 5:00 a.m. and after 5:00 p.m. Holidays are New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving, the day after Thanksgiving and Christmas Day.

Meal Period

When personnel are required by their duties to work more than five consecutive hours without a one-half hour uninterrupted meal period, one half hour at double time rate will be charged in addition to any applicable overtime for actual hours worked.

Shift Differential (Applies to Regularly Scheduled Shifts Only)

A \$1.00 per hour shift differential premium will be charged for all inspection hours that fall outside of the 5:00 a.m. to 5:00 p.m. time period. Twining will require 48-hour notice along with the General Contractors approved shift letter prior to beginning a shift that will include hours falling outside this time period. Should this notice not be provided, all work performed on that shift will be billed at the applicable overtime or double time rate.

If three shifts per day are required, the first shift will be billed at the standard rate. The second shift shall be billed in accordance with the previous paragraph.

The third shift shall be billed at 8 hours for the first 6 1/2 hours worked and appropriate overtime or double time for all hours thereafter.

Travel Time and Mileage

For projects outside a 50-mile radius from the nearest Twining facility, \$0.70 per excess mile to and from the project will be charged for inspectors and technicians.

Other than small tools, whenever project related equipment is required to be transported to and from the project site, time and mileage for inspectors and field technicians will be billed on a portal to portal basis. For all projects, \$0.70 per mile rate and applicable travel time will be charged portal to portal for engineers, consultants, supervisors, and laboratory technicians from the laboratory to the project site and return.

For work locations located 100 miles or more from Twining, travel time will be charged at the relevant rate for inspectors and technicians in addition to a subsistence allowance.

Weekend Sample Pick-Ups

In order to be in strict conformance with testing standards, it may be required that weekend pick-ups be performed (e.g. concrete specimens cast on Friday must be picked up on weekend in order to be in conformance with ASTM C31 requiring specimens to be moved to their final curing location within 48 hours of casting.) Applicable charges for weekend work will apply when this is required. Should these charges not be authorized, Twining will not be liable for any negative consequences.

Reimbursable Expenses

Parking, air fare, car rental, food, lodging and project specific software/applications (e.g. PlanGrid, Procore, etc.) will be charged at cost plus 20% per processed invoice, unless provided by client.

Project Specific Documents

Costs presented assume that client will provide project specific documents (plans, specifications, submittals, RFIs, etc.) for all inspection personnel. Should project specific documents be provided electronically through a "for fee" service, the client will be responsible for providing access and paying any fees for the service.

Project Site Facilities

Prices quoted assume that initial curing facilities for test samples that comply with relevant test standards and project requirements are provided by others. In addition, prices quoted assume that work/desk space for inspection staff are provided by others. Additional costs will apply should Twining be required to provide such facilities.

Subsistence

Subsistence on remote jobs will be charged per quotation.

Laboratory Testing Hours and Expedited Testing

Please note that laboratory testing will be billed on an hourly basis for non-standard tests. If testing is required to be performed on Saturdays, Sundays, holidays, or before 5:30 a.m. or after 4:00 p.m. on weekdays, an additional hourly charge, at the applicable regular, overtime or doubletime rate, with a minimum of one hour will be applied for the laboratory technician. For rush testing a 50% surcharge in addition to the regular test rate will apply.

Charges for Subcontracted Services

Material sent to outside laboratory for testing:	Cost plus 20%
Material sent to outside fabricator or machine shop:	Cost plus 20%
Glu-Lam beam inspection:	Cost plus 20%
Other subcontractors:	Cost plus 20%
Project exclusive equipment purchase:	Cost plus 20%



General Conditions, Continued

Limit of Liability

Client agrees to limit Twining's aggregate liability to all entities for alleged or actual errors and omissions in the performance of its professional services under this agreement to \$50,000.00 or the fees actually paid to Twining, whichever amount is greater. Higher limits may be available by quotation.

Certified Payroll

Certified payroll will be provided, upon request, at an additional charge of \$150.00/month. Fee applies to every month that certified payroll must be submitted regardless of whether or not services were provided for any given month.

Final Reports Required by Jurisdiction

If a final report or affidavit is required, we must first review all inspection and testing reports and clear up any unresolved issues on these reports. These issues will typically require approval by the engineer or architect of record. This process can take several weeks or just a day, depending on the number and complexity of the issues. Cost for final reports will be billed hourly.

Terms of Payment

Fees charged are for professional and technical services and are due upon presentation. If not paid within 30 days from date of invoice, they are considered past due and the maximum legal finance charge will be added to the unpaid balance.

In addition, should the client require that invoices be submitted through a web based or electronic system, the client will be responsible for all costs associated with the use of the system.

A 3% fee will be applied for payments processed by credit card.

All invoice errors or necessary corrections shall be brought to the attention of Twining within 15 days of receipt of invoice. Thereafter, customer acknowledges invoices are correct and valid. Twining reserves the right to terminate its services to a customer without notice if all invoices are not current. Upon such termination of services, the entire amount accrued for all services performed shall immediately become due and payable. Customer waives any and all claims against Twining, its subsidiaries, affiliates, servants and agents for termination of work on account of these terms.

In the event of any litigation arising from or related to any agreement to provide services whether verbal or written, the prevailing party shall be entitled to recover from the non-prevailing party all reasonable costs incurred, including staff time, court costs, attorney's fees and all other related expenses in such litigation. Additionally, in the event of a non-adjudicative settlement of litigation between the parties or a resolution of dispute by arbitration, that same process shall determine the prevailing party.

Hold Specimens

All "hold" specimens are charged at the applicable test rate whether tested or not.

Specimen Sampling and Disposal

Twining samples materials used in construction in accordance with standard practices, methods, codes and relevant project requirements. Representativeness of sampling and same accuracy of testing are subject to the same probabilistic and precision limitations as governing standards, codes and project technical provisions.

Should samples be provided by others Twining cannot warrant or guarantee that material is representative of material that is or will be used in actual construction of the project.

Specimens will be discarded after testing unless Twining has been notified prior to testing that the customer wishes to retrieve the specimens or storage arrangements are made.

Oversize Specimens

An extra charge will be made when test specimens require more than one person to handle because of size or weight.

Elevated Work Platforms

In the event an elevated work platform is required to safely complete our inspections, the client must provide safe access, including a trained and certified operator, to Twining inspection and testing personnel. Should Twining be required to supply an elevated work platform, we will contract with a qualified vendor and the markups shown above will apply.