

PROFESSIONAL SERVICES CONTRACT BETWEEN
THE CITY OF HUNTINGTON BEACH AND
TWINING, INC.
FOR
ON CALL MATERIAL TESTING AND ENGINEERING SERVICES

THIS AGREEMENT ("Agreement") is made and entered into by and between the City of Huntington Beach, a municipal corporation of the State of California, hereinafter referred to as "CITY," and TWINING, INC., hereinafter referred to as "CONSULTANT."

WHEREAS, CITY desires to engage the services of a consultant to provide On-Call Material Testing and Engineering Services; and

Pursuant to documentation on file in the office of the City Clerk, the provisions of the Huntington Beach Municipal Code, Chapter 3.03, relating to procurement of professional service contracts have been complied with; and

CONSULTANT has been selected to perform these services,

NOW, THEREFORE, it is agreed by CITY and CONSULTANT as follows:

1. SCOPE OF SERVICES

CONSULTANT shall provide all services as described in **Exhibit "A,"** which is attached hereto and incorporated into this Agreement by this reference. These services shall sometimes hereinafter be referred to as the "PROJECT."

CONSULTANT hereby designates Edward M. Twining, Jr., who shall represent it and be its sole contact and agent in all consultations with CITY during the performance of this Agreement.

2. CITY STAFF ASSISTANCE

CITY shall assign a staff coordinator to work directly with CONSULTANT in the performance of this Agreement.

3. TERM; TIME OF PERFORMANCE

Time is of the essence of this Agreement. The services of CONSULTANT are to commence on _____, 20____ (the "Commencement Date"). This Agreement shall automatically terminate three (3) years from the Commencement Date, unless extended or sooner terminated as provided herein. All tasks specified in **Exhibit "A"** shall be completed no later than (3) three years from the Commencement Date. The time for performance of the tasks identified in **Exhibit "A"** are generally to be shown in **Exhibit "A."** This schedule may be amended to benefit the PROJECT if mutually agreed to in writing by CITY and CONSULTANT.

In the event the Commencement Date precedes the Effective Date, CONSULTANT shall be bound by all terms and conditions as provided herein.

4. COMPENSATION

In consideration of the performance of the services described herein, CITY agrees to pay CONSULTANT on a time and materials basis at the rates specified in **Exhibit "B,"** which is attached hereto and incorporated by reference into this Agreement, a fee, including all costs and expenses, not to exceed Six Hundred Thousand Dollars (\$600,000.00).

5. EXTRA WORK

In the event CITY requires additional services not included in **Exhibit "A"** or changes in the scope of services described in **Exhibit "A,"** CONSULTANT will undertake such work only after receiving written authorization from CITY. Additional compensation for such extra work shall be allowed only if the prior written approval of CITY is obtained.

6. METHOD OF PAYMENT

CONSULTANT shall be paid pursuant to the terms of **Exhibit "B."**

7. DISPOSITION OF PLANS, ESTIMATES AND OTHER DOCUMENTS

CONSULTANT agrees that title to all materials prepared hereunder, including, without limitation, all original drawings, designs, reports, both field and office notices, calculations, computer code, language, data or programs, maps, memoranda, letters and other documents, shall belong to CITY, and CONSULTANT shall turn these materials over to CITY upon expiration or termination of this Agreement or upon PROJECT completion, whichever shall occur first. These materials may be used by CITY as it sees fit.

8. HOLD HARMLESS

A. CONSULTANT hereby agrees to protect, defend, indemnify and hold harmless CITY, its officers, elected or appointed officials, employees, agents and volunteers from and against any and all claims, damages, losses, expenses, judgments, demands and defense costs (including, without limitation, costs and fees of litigation of every nature or liability of any kind or nature) arising out of or in connection with CONSULTANT's (or CONSULTANT's subcontractors, if any) negligent (or alleged negligent) performance of this Agreement or its failure to comply with any of its obligations contained in this Agreement by CONSULTANT, its officers, agents or employees except such loss or damage which was caused by the sole negligence or willful misconduct of CITY. CONSULTANT will conduct all defense at its sole cost and expense and CITY shall approve selection of CONSULTANT's counsel. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as limitation upon the amount of indemnification to be provided by CONSULTANT.

B. To the extent that CONSULTANT performs "Design Professional Services" within the meaning of Civil Code Section 2782.8, then the following Hold Harmless provision applies in place of subsection A above:

“CONSULTANT hereby agrees to protect, defend, indemnify and hold harmless CITY and its officers, elected or appointed officials, employees, agents and volunteers, from and against any and all claims, damages, losses, expenses, demands and defense costs (including, without limitation, costs and fees of litigation of every nature or liability of any kind or nature) to the extent that the claims against CONSULTANT arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of CONSULTANT. In no event shall the cost to defend charged to CONSULTANT exceed CONSULTANT’s proportionate percentage of fault. However, notwithstanding the previous sentence, in the event one or more other defendants to the claims and/or litigation is unable to pay its share of defense costs due to bankruptcy or dissolution of the business, CONSULTANT shall meet and confer with CITY and other defendants regarding unpaid defense costs. The duty to indemnify, including the duty and the cost to defend, is limited as provided in California Civil Code Section 2782.8.

C. Regardless of whether subparagraph A or B applies, CITY shall be reimbursed by CONSULTANT for all costs and attorney’s fees incurred by CITY in enforcing this obligation. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by CONSULTANT.

9. PROFESSIONAL LIABILITY INSURANCE

CONSULTANT shall obtain and furnish to CITY a professional liability insurance policy covering the work performed by it hereunder. This policy shall provide coverage for CONSULTANT’s professional liability in an amount not less than One Million Dollars (\$1,000,000.00) per occurrence and in the aggregate. The above-mentioned insurance shall not contain a self-insured retention without the express written consent of CITY; however an insurance

policy "deductible" of Ten Thousand Dollars (\$10,000.00) or less is permitted. A claims-made policy shall be acceptable if the policy further provides that:

- A. The policy retroactive date coincides with or precedes the initiation of the scope of work (including subsequent policies purchased as renewals or replacements).
- B. CONSULTANT shall notify CITY of circumstances or incidents that might give rise to future claims.

CONSULTANT will make every effort to maintain similar insurance during the required extended period of coverage following PROJECT completion. If insurance is terminated for any reason, CONSULTANT agrees to purchase an extended reporting provision of at least two (2) years to report claims arising from work performed in connection with this Agreement.

If CONSULTANT fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the CITY with required proof that insurance has been procured and is in force and paid for, the CITY shall have the right, at the CITY's election, to forthwith terminate this Agreement. Such termination shall not effect Consultant's right to be paid for its time and materials expended prior to notification of termination. CONSULTANT waives the right to receive compensation and agrees to indemnify the CITY for any work performed prior to approval of insurance by the CITY.

10. CERTIFICATE OF INSURANCE

Prior to commencing performance of the work hereunder, CONSULTANT shall furnish to CITY a certificate of insurance subject to approval of the City Attorney evidencing the foregoing insurance coverage as required by this Agreement; the certificate shall:

- A. provide the name and policy number of each carrier and policy;
- B. state that the policy is currently in force; and

- C. shall promise that such policy shall not be suspended, voided or canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice; however, ten (10) days' prior written notice in the event of cancellation for nonpayment of premium.

CONSULTANT shall maintain the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by CITY.

The requirement for carrying the foregoing insurance coverage shall not derogate from CONSULTANT's defense, hold harmless and indemnification obligations as set forth in this Agreement. CITY or its representative shall at all times have the right to demand the original or a copy of the policy of insurance. CONSULTANT shall pay, in a prompt and timely manner, the premiums on the insurance hereinabove required.

11. INDEPENDENT CONTRACTOR

CONSULTANT is, and shall be, acting at all times in the performance of this Agreement as an independent contractor herein and not as an employee of CITY. CONSULTANT shall secure at its own cost and expense, and be responsible for any and all payment of all taxes, social security, state disability insurance compensation, unemployment compensation and other payroll deductions for CONSULTANT and its officers, agents and employees and all business licenses, if any, in connection with the PROJECT and/or the services to be performed hereunder.

12. TERMINATION OF AGREEMENT

All work required hereunder shall be performed in a good and workmanlike manner. CITY may terminate CONSULTANT's services hereunder at any time with or without cause, and whether or not the PROJECT is fully complete. Any termination of this Agreement by CITY shall be made in writing, notice of which shall be delivered to CONSULTANT as provided herein. In the

event of termination, all finished and unfinished documents, exhibits, report, and evidence shall, at the option of CITY, become its property and shall be promptly delivered to it by CONSULTANT.

13. ASSIGNMENT AND DELEGATION

This Agreement is a personal service contract and the work hereunder shall not be assigned, delegated or subcontracted by CONSULTANT to any other person or entity without the prior express written consent of CITY. If an assignment, delegation or subcontract is approved, all approved assignees, delegates and subconsultants must satisfy the insurance requirements as set forth in Sections 9 and 10 hereinabove.

14. COPYRIGHTS/PATENTS

CITY shall own all rights to any patent or copyright on any work, item or material produced as a result of this Agreement.

15. CITY EMPLOYEES AND OFFICIALS

CONSULTANT shall employ no CITY official nor any regular CITY employee in the work performed pursuant to this Agreement. No officer or employee of CITY shall have any financial interest in this Agreement in violation of the applicable provisions of the California Government Code.

16. NOTICES

Any notices, certificates, or other communications hereunder shall be given either by personal delivery to CONSULTANT's agent (as designated in Section 1 hereinabove) or to CITY as the situation shall warrant, or by enclosing the same in a sealed envelope, postage prepaid, and depositing the same in the United States Postal Service, to the addresses specified below. CITY and CONSULTANT may designate different addresses to which subsequent notices, certificates or other communications will be sent by notifying the other party via personal delivery, a reputable overnight carrier or U. S. certified mail-return receipt requested:

TO CITY:

City of Huntington Beach
ATTN: Joseph Dale
2000 Main Street
Huntington Beach, CA 92648

TO CONSULTANT:

Twining, Inc.
ATTN: Edward M. Twining, Jr.
2883 East Spring Street, Suite 300
Long Beach, CA 90806

17. CONSENT

When CITY's consent/approval is required under this Agreement, its consent/approval for one transaction or event shall not be deemed to be a consent/approval to any subsequent occurrence of the same or any other transaction or event.

18. MODIFICATION

No waiver or modification of any language in this Agreement shall be valid unless in writing and duly executed by both parties.

19. SECTION HEADINGS

The titles, captions, section, paragraph and subject headings, and descriptive phrases at the beginning of the various sections in this Agreement are merely descriptive and are included solely for convenience of reference only and are not representative of matters included or excluded from such provisions, and do not interpret, define, limit or describe, or construe the intent of the parties or affect the construction or interpretation of any provision of this Agreement.

20. INTERPRETATION OF THIS AGREEMENT

The language of all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against any of the parties. If any provision of this Agreement is held by an arbitrator or court of competent jurisdiction to be unenforceable, void, illegal or invalid, such holding shall not invalidate or affect the remaining covenants and provisions of this Agreement. No covenant or provision shall be deemed dependent upon any other unless so expressly provided here. As used in this Agreement, the masculine or

neuter gender and singular or plural number shall be deemed to include the other whenever the context so indicates or requires. Nothing contained herein shall be construed so as to require the commission of any act contrary to law, and wherever there is any conflict between any provision contained herein and any present or future statute, law, ordinance or regulation contrary to which the parties have no right to contract, then the latter shall prevail, and the provision of this Agreement which is hereby affected shall be curtailed and limited only to the extent necessary to bring it within the requirements of the law.

21. DUPLICATE ORIGINAL

The original of this Agreement and one or more copies hereto have been prepared and signed in counterparts as duplicate originals, each of which so executed shall, irrespective of the date of its execution and delivery, be deemed an original. Each duplicate original shall be deemed an original instrument as against any party who has signed it.

22. IMMIGRATION

CONSULTANT shall be responsible for full compliance with the immigration and naturalization laws of the United States and shall, in particular, comply with the provisions of the United States Code regarding employment verification.

23. LEGAL SERVICES SUBCONTRACTING PROHIBITED

CONSULTANT and CITY agree that CITY is not liable for payment of any subcontractor work involving legal services, and that such legal services are expressly outside the scope of services contemplated hereunder. CONSULTANT understands that pursuant to *Huntington Beach City Charter* Section 309, the City Attorney is the exclusive legal counsel for CITY; and CITY shall not be liable for payment of any legal services expenses incurred by CONSULTANT.

24. ATTORNEY'S FEES

In the event suit is brought by either party to construe, interpret and/or enforce the terms and/or provisions of this Agreement or to secure the performance hereof, each party shall bear its own attorney's fees, such that the prevailing party shall not be entitled to recover its attorney's fees from the nonprevailing party.

25. SURVIVAL

Terms and conditions of this Agreement, which by their sense and context survive the expiration or termination of this Agreement, shall so survive.

26. GOVERNING LAW

This Agreement shall be governed and construed in accordance with the laws of the State of California.

27. SIGNATORIES

Each undersigned represents and warrants that its signature hereinbelow has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify CITY fully 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.

28. ENTIRETY

The parties acknowledge and agree that they are entering into this Agreement freely and voluntarily following extensive arm's length negotiation, and that each has had the opportunity to consult with legal counsel prior to executing this Agreement. The parties also acknowledge and agree that no representations, inducements, promises, agreements or warranties, oral or otherwise, have been made by that party or anyone acting on that party's behalf, which are not embodied in this Agreement, and that that party has not executed this Agreement in reliance on any representation, inducement, promise, agreement, warranty, fact or circumstance not expressly set forth in this

Agreement. This Agreement, and the attached exhibits, contain the entire agreement between the parties respecting the subject matter of this Agreement, and supersede all prior understandings and agreements whether oral or in writing between the parties respecting the subject matter hereof.

29. EFFECTIVE DATE

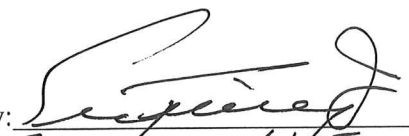
This Agreement shall be effective on the date of its approval by the City Council.

This Agreement shall expire when terminated as provided herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their authorized officers.

CONSULTANT,
TWINING, INC.

CITY OF HUNTINGTON BEACH, a
municipal corporation of the State of
California

By: 

EDWARD H. TWINING JR.
print name

ITS: (circle one) Chairman/President/Vice President

AND

By: 

Amy Owens
print name

ITS: (circle one) Secretary/Chief Financial Officer/Asst.
Secretary - Treasurer

Mayor

City Clerk

INITIATED AND APPROVED:



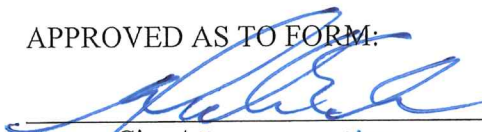
Director of Public Works

REVIEWED AND APPROVED:



City Manager

APPROVED AS TO FORM:



City Attorney MW

EXHIBIT "A"

A. STATEMENT OF WORK: (Narrative of work to be performed)

CONSULTANT shall provide consulting services on an "as-needed" basis for projects to be determined during the term of the agreement. During the term of the agreement, CITY may elect to solicit proposals from CONSULTANT. CITY shall issue task order for each project based upon the scope of services, work schedule, and fee proposal submitted to CITY for its review and approval.

B. CONSULTANT'S DUTIES AND RESPONSIBILITIES:

CONSULTANT'S duties and responsibilities shall be per CONSULTANT'S Statement of Qualification (Exhibit A), consistent with the City of Huntington Beach Request for Qualifications for On Call Materials Testing and Engineering Consulting Services. Upon award, and the contract period, the CONSULTANT can choose to assign different personnel to the project, CONSULTANT must submit the names and qualifications of these staff to CITY for approval before commencing work.

C. CITY'S DUTIES AND RESPONSIBILITIES:

1. Furnish scope of work request for each project.
2. Furnish construction plans and specifications to the CONSULTANT

D. WORK PROGRAM/PROJECT SCHEDULE:

A project schedule will be developed for each project assigned by CITY.



City of Huntington Beach
On-Call Construction Material Testing
and Inspection Services



TWINING
Engineering a Better Tomorrow

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2883 East Spring Street, Suite 300
Long Beach CA 90806

Tel 562.426.3355
Fax 562.426.6424

August 17, 2021
Proposal No. 21-1338
City of Huntington Beach
Department of Public Works
c/o City Clerks Office, 2nd Floor
Attn: Jennifer Anderson
2000 Main Street
Huntington Beach, CA 92648

Subject: On-Call Construction Materials Testing & Inspection Services

Dear Ms. Anderson:

Twining, Inc. (Twining) appreciates the opportunity to present our qualifications to the City of Huntington Beach (City) to provide the construction materials testing and inspection services outlined in your RFP, released on July 12, 2021.

Identification of Firm & Project Manager

Firm Name: Twining, Inc.

Project Manager: Amir Ghavibazoo, PhD

Mailing Address: 2883 East Spring Street, Suite 300, Long Beach, CA 90806

t: 562.426.3355 | f: 562.426.6424 | e: aghavibazoo@twininginc.com

Proposal Key Elements

- » In business for more than a century
- » Public works experts, serving the City for 11 years, as well as dozens of nearby agencies
- » Knowledge of servicing federally funded projects
- » 100% of services provided in house
- » Familiar project manager, Amir Ghavibazoo, has seven years of experience serving this contract
- » Credentialed engineers and technical experts providing more than just testing and reporting
- » Nearly 150 multi-certified inspectors and technicians

Twining has an extensive history of providing construction QA/QC services that dates back more than a century. Established in Fresno in 1898, Twining has evolved into what many jurisdictions and experts consider to be the leading provider of construction QA/QC services in the western United States. With eight laboratory facilities strategically located throughout the state, Twining's reach is extensive. While we plan on servicing the City's projects from our nearby headquarters in Long Beach, we note our statewide presence as a value-add in the case the need for off-site source inspections arises.

Twining's name has been synonymous with construction quality control in the Southern California region for over 100 years. Originally recognized for our expertise in vertical construction expertise, we have developed our public works flatwork portfolio over the past 20 years, and today we are recognized as the leader in both owner- and contractor-side testing and inspection for landmark infrastructure projects.

Led by Dr. Amir Ghavibazoo and Dr. Boris Stein, and supported by a team of registered civil and geotechnical engineers, Twining's team of experts will supplement your own forces in providing on-site quality assurance services for your upcoming projects. **We are more than a standard testing laboratory.** Our expertise extends into the forensic evaluation of materials, design and development of sustainable materials utilized in all types of structures, and subsurface evaluations, to name just a few of the value-added services we offer to our clients.

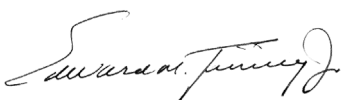
City staff who have worked with us over the past 11 years will attest to the fact that Twining is an excellent asset to the City, not only in terms of our expertise but also our response time to your requests. While we request a 24-hour turnaround time, we are usually able to accommodate requests within a smaller time frame and strive to do our part to keep your projects on track.

Speaking beyond our relationship with your City, Twining has on-call contracts with neighboring municipalities throughout California, including the Cities of Long Beach, Fullerton, La Mirada, and Santa Clarita, as well as the Counties of Los Angeles, San Diego, and Ventura. This non-exhaustive list speaks to our success serving on-call contracts with nearby agencies, and the level of service that we will bring to your upcoming projects.

Beyond providing technical services in a timely manner through our seasoned project manager, engineers and scientists, and field technicians/inspectors, we see our role in the industry as serving our clients with educational opportunities about the services we provide. Our experts regularly provide web-based or in-person custom technical seminars to agency staff on topics that range from full-depth reclamation sustainable pavements, to geotechnical and geological considerations relative to your location. We invite the City to bring up any topics which may be of interest so that we can share our knowledge and collaborate accordingly.

As a 55-year resident of Huntington Beach, I take great pride in our ability to staff and service your projects with our best personnel. On nearly every instance possible, I visit our projects regularly to ensure our services are being delivered as promised. We look forward to continuing our tenured relationship with the City on this new contract and thank you for this opportunity. Please do not hesitate to reach out to me directly if I can be of service to you. My contact information is below.

Best Regards,



Edward M. Twining, Jr.
Chairman of the Board
p: 562.426.3355 | m: 562.544.8270

(Authorized to bind Twining to contract)

REQUEST FOR PROPOSAL

VENDOR APPLICATION FORM

TYPE OF APPLICANT: ☐ NEW ☒ CURRENT VENDOR

Legal Contractual Name of Corporation: Twining, Inc.

Contact Person for Agreement: Edward M. Twining, Jr., Chairman

Corporate Mailing Address: 2883 East Spring Street, Suite 300

City, State and Zip Code: Long Beach, CA 90806

E-Mail Address: marketing@twininginc.com

Phone: 562.426.3355 Fax: 562.426.6424

Contact Person for Proposals: Edward M. Twining, Jr.

Title: Chairman E-Mail Address: marketing@twininginc.com

Business Telephone: 562.426.3355 Business Fax: 562.426.6424

Is your business: (check one)

☐ NON PROFIT CORPORATION ☒ FOR PROFIT CORPORATION

Is your business: (check one)

☒ CORPORATION ☐ LIMITED LIABILITY PARTNERSHIP
☐ INDIVIDUAL ☐ SOLE PROPRIETORSHIP
☐ PARTNERSHIP ☐ UNINCORPORATED ASSOCIATION

VENDOR APPLICATION FORM

Names & Titles of Corporate Board Members

(Also list Names & Titles of persons with written authorization/resolution to sign contracts)

Names	Title	Phone
Edward M. Twining, Jr.	Chairman	562.426.3355
Robert M. Ryan	President and CEO	562.426.3355
Linas Vitkus	Chief Operating Officer	562.426.3355
Amy Owens	VP of Human Resources, Secretary	562.426.3355
Bob Hathaway	Chief Financial Officer	562.426.3355
Paul Soltis	VP of Geotechnical Operations	562.426.3355
Steve Schiffer	VP of Client Services	562.426.3355
Boris Stein	Sr. VP of Applied Eng. & Research	562.426.3355
Federal Tax Identification Number:	952040084	

City of Huntington Beach Business License Number: A010324

(If none, you must obtain a Huntington Beach Business License upon award of contract.)

City of Huntington Beach Business License Expiration Date: July 31, 2022

PRE-QUALIFICATION FORM

ON-CALL MATERIAL TESTING & INSPECTION SERVICES

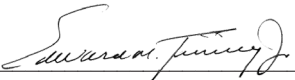
SERVICE CATEGORY	PROPOSING? Y/N (circle)
A. Material Testing & Inspection	<u>Yes</u> / No

GT (Initial) Consultant is willing to execute the Agreement as drafted (See **Appendix B**).

GT (Initial) Consultant is able to provide the insurance as required (See **Appendix C**).

Firm Name: Twining, Inc.

Firm Address: 2883 East Spring Street, Suite 300, Long Beach, CA 90806

Signature:  Date: August 17, 2021

SERVICE CATEGORY: FIRM QUALIFICATIONS



Twining's legacy dates back more than 120 years. What started as a family business in 1898 has evolved into one of California's largest service providers of geotechnical, materials testing, and construction inspection services. Highly regarded by state and local agencies, developers, contractors, consultants, and industry for providing high-quality services that are reliable, timely, and compliant, Twining has been a central part of some of California's most regionally significant construction projects. We employ some of the industry's most well-known construction experts who perform research as well as consult with regulatory agencies to shape the future of construction standard practices.

Twining is a full-service engineering and quality control company with unmatched technical expertise. As detailed below, our services span from QA/QC, materials testing, and inspection, to highly technical capabilities in applied engineering and integrated disciplines. With laboratories throughout California and over 150 inspectors, we are unequaled in our core competencies to work on vertical as well as horizontal construction projects:

- » Geotechnical engineering
- » Asphalt pavement quality assurance services
- » Asphalt pavement design and materials evaluations
- » Soils and materials testing and inspection
- » Specialty testing
- » Mobile laboratory services
- » Applied engineering and research
- » Forensic evaluation
- » Stormwater management
- » Geo-instrumentation monitoring and assessment

Twining has developed a strong reputation by providing sound engineering, testing, and inspection services on every project we undertake. We earned this reputation knowing that the true measure of our performance rests in the satisfaction of our clients. We approach each project with the understanding that we are evaluated on the safety and durability of the structures and pavements we test and inspect.

Twining has the unparalleled ability to service even the most complex projects from inception through completion. Starting with the initial subsurface investigation and continuing through the inspection and laboratory testing required during construction, we have the engineering staff, experienced inspectors, and state-of-the-art laboratory facilities to meet all of your project needs.

This experience, along with our proven project management system, results in a seamless flow of communication during the entire scope of your projects and provides you with a single point of contact to ensure that all of your project needs are met.

Laboratory Testing Capabilities All laboratory testing operations are overseen by a registered geotechnical engineer. With the large amount of construction-related, time-sensitive work that Twining performs, our laboratories understand the importance of and effectively accomplishes efficient turnaround times for testing. Please note that copies of our lab accreditations were not included in the proposal or appendix due to page restrictions, but are available upon request

Materials Testing Laboratory

Twining maintains a network of state of the art laboratories throughout California. In addition to our permanent laboratories, we own and operate a fleet of mobile laboratories that allow us to conveniently service projects throughout the state. Our fully accredited geotechnical engineering laboratories are equipped to perform the standard tests needed in geotechnical engineering evaluations, including but not limited to:

- » In-Situ Density and Moisture Content
- » Atterberg Limits
- » Sieve Analysis
- » Maximum Dry Density
- » Direct Shear
- » Consolidation
- » Expansion Index
- » Sand Equivalent
- » Cleanness Value
- » Soundness
- » R-Value

Materials Testing and Inspection Expertise

Twining has been at the forefront of construction inspection and testing for over a century. With our state-of-the-art equipment and conveniently located laboratories, we are able to perform the necessary testing on projects throughout California. We maintain a rigorous training program for our experienced staff of testing technicians, and are recognized by numerous agencies including Caltrans, Army Corps of Engineers, American Association of State Highway and Transportation Officials (AASHTO), Cement and Concrete Reference Laboratory (CCRL) and International Accreditation Service, Inc. (IAS), along with many cities and counties. Our expert professionals continue to work with Caltrans to define effective applications of construction materials for roadway projects and revise standard specifications for proportioning concrete for pavements and other elements of transportation infrastructure. Our clients depend on us to reliably deliver services that strictly follow Green Book and Caltrans and FHWA regulations. We are proud of our legacy of delivering high-quality services that subscribe to all applicable standards.

We have held multiple on-call contracts representing Caltrans providing materials testing services on behalf of the State.



Facilities Construction Expertise

Inspection Services

Twining's inspection staff consists of nearly 150 inspectors located throughout California. More than 80 percent of these inspectors hold multiple inspection certifications in disciplines including structural steel, high strength bolting, prestressed concrete, reinforced concrete, structural masonry, drilled in anchors, spray applied fireproofing, and more. These highly skilled men and women have been selected for their diversity of knowledge and ability to work with clients to achieve maximum performance at minimum cost. Twining has the resources to staff projects regardless of size and complexity with experienced and professional inspection personnel.

Field Engineering

Twining's ability to perform a variety of services in-house makes testing quicker, easier, and more responsive to our clients' needs. We perform standardized tests and services including:

- » Pull testing of building components
- » Testing of wedge and epoxied anchors
- » In-place shear testing of masonry walls
- » Flat-jack load testing of masonry walls
- » Fireproofing for adhesion and cohesion
- » Floor flatness and levelness testing

Materials Testing

Twining has been at the forefront of construction materials testing for over a century. Our network of state-of-the-art laboratories, complemented by our fleet of mobile laboratories, allows us to provide in-house testing for projects throughout the state.

Twining provides fast, reliable test results that our clients can count on. We subscribe to the most stringent inspection and certification requirements in the industry. We are recognized by agencies including Caltrans, Division of the State Architect (DSA), American Association of State Highway and Transportation Officials (AASHTO), United States Army Corps of Engineers (USACE), Cement and Concrete Reference Laboratory (CCRL), Federal Aviation Administration (FAA), and International Accreditation Service (IAS) along with numerous cities and counties as a certified geotechnical, paving, materials testing, and inspection laboratory.

Non-Destructive Examination

The field of non-destructive examination is undergoing rapid change, bringing technologies that had previously been the subject of research into the arena of practical application. Twining has been at the forefront of these applications; from participating in the post-Northridge SAC committees, to being the first firm to fully implement the requirements of FEMA 353 and now AWS D1.8, and to field implementation of the latest technologies such as Phased Array Ultrasonics and Time of Flight Diffraction. Twining is fully compliant with ASNT SNT-TC1A and also the stricter certification standards of CP-189.



Infrastructure Construction Expertise

With California's fiscal situation, aging infrastructure, and continued urban growth, our cities and counties are faced with unique challenges. Never has it been more critical to maximize the value of each public works dollar spent on capital improvement than today. The quality assurance programs that Twining has established for public agencies throughout the state emphasize the most cost-effective practices utilizing industry best practices. Whether it is a major water/wastewater project, bridge or roadway improvement, underground utility work, airport improvement, or goods movement project, Twining has the requisite expertise and capabilities to effectively establish and maintain a quality assurance program that is in strict compliance with the local assistance procedures manual (LAPM) as well as state and federal mandates.

Twining provides the following services for local agencies:

- » Initial engineering design and evaluation
- » Specification development and review
- » Materials review and verification for acceptance
- » Public works inspection
- » Source inspection
- » Acceptance laboratory testing and evaluation
- » Federal compliance
- » Final quality assurance report and project closeout

Twining's involvement with the most cutting edge materials technologies enables us to assist project teams with the evaluation of construction products and determining their suitability for use. Twining has assisted construction managers, structural design engineers, and owners in developing high-strength concrete mixes utilizing low carbon emission materials, recycled asphalt pavement structural designs, and various other cementitious, geotechnical, and asphalt pavement materials that are sustainable utilizing renewable materials.

Twining is uniquely positioned to provide quality assurance programs from start to finish. Through our partnerships with Caltrans and various universities, we have knowledge of proven technological advances in construction that we can pass on to our clients and incorporate into their projects as appropriate. We routinely contribute to the American Public Works Association by presenting technical sessions related to some of the newest technological advances. Whether it involves rapid strength concrete, warm mix asphalt, high volume fly ash mixes to reduce greenhouse gases, or 100 percent recycled materials, Twining can provide the proper solution for your project.



Geotechnical Investigation

Our staff includes licensed professional geotechnical engineers (GE), certified engineering geologists (CEG), and civil engineers (PE).

We have extensive experience meeting the special needs of stringent agencies, including the Division of the State Architect (DSA), Office of Statewide Health Planning and Development (OSHPD), and the City of San Diego. Additionally, our professionals have vast experience in completing subsurface investigations involving geotechnical analysis, and providing design recommendations to meet the needs across the full spectrum of project types, from high-rise developments and hospitals, to freeway retaining walls.

Typical field investigation methods include small- and large-diameter borings, cone penetration testing, down-hole logging, installation of monitoring wells, and trenching for geological/seismological hazards and fault investigations. Our vast construction experience allows us to incorporate time- and cost-effective recommendations that can be practically implemented, advanced analytical methods such as finite element analysis, and specialized software to help establish performance criteria for new projects.

Geotechnical Observation

When the need for geotechnical engineering construction support arises, Twining is well qualified to provide comprehensive services for all types of projects. We staff all geotechnical activities with a project engineer to review project plans and specifications to ensure proper execution of the project requirements.

Projects in this scope are staffed with experienced field technicians, well versed in applicable standards to ensure all work is done in accordance with guidelines. We provide comprehensive daily reports to our clients that outline discrepancies and project requirement non-conformance for quick identification and resolution.

Our registered engineers regularly review testing results during the project. They provide necessary information to the field technicians directly and follow up with "draft" results for review and approval. They also periodically visit the job site along with the field technician to ensure testing and observation requirements are being met and that the client is satisfied with Twining's performance. Finally, We also provide a final geotechnical report that summarizes the work done during construction, including all test results and a statement regarding compliance with the project geotechnical requirements and all applicable codes.



Paul Soltis, PE, GE

Project Executive/Principal Geotechnical Engineer

As Vice President of Geotechnical Engineering, Paul brings more than 29 years of industry experience. Paul works to understand the needs of each client and finds cost effective solutions that fit their projects. Paul works with each member of our geotechnical team, to ensure a consistent delivery for all projects we undertake. Paul will work very closely with our experienced project manager to ensure the City's expectations are met. He will also provide final report review, engineering oversight, and serve as an in-house advisor.



Amir Ghavibazoo, PhD

Project Manager/Pavement Engineer

Serving the City as Twining's project manager for the past four years, Amir Ghavibazoo is a PhD in Civil Engineering with more than seven years of industry experience. He has extensive research experience and in-depth understanding on many aspects of pavement materials, specifically rubberized asphalt. His experience includes characterization of rubberized asphalt binders and developing mix designs following Superpave specifications. As project manager, Amir will coordinate all services and communicate with the City regularly and serve as the primary point of contact for all project related matters.



Liangcai He, PhD, PE, GE

Chief Geotechnical Engineer

Specializing in earthquake engineering, soil-structure interaction, field investigations, and earthwork and foundation design, Liangcai utilizes his 29 years of experience to deliver projects that last. His professional experience includes project planning and management, proposals, cost estimates, field investigation, laboratory testing, engineering analyses, report preparation, plan review, and construction monitoring. Liangcai will provide engineering oversight and support.



Adrian Moreno, PE

Senior Project Engineer

Adrian is a senior project engineer with more than eight years' experience. He excels at the management of quality assurance testing and inspection programs during project construction phases, as well as the management of subsurface investigations, laboratory testing programs, and the preparation of geotechnical and foundation recommendation reports during the design phase. Adrian will provide engineering and project management support at the task order level.

City of Huntington Beach, On-Call Construction Material Testing and Inspection For more than a decade, Twining has provided on-call geotechnical engineering, materials testing, and inspection for public works projects for the City of Huntington Beach. Under a series of on-call contracts, our services have included geotechnical design recommendations, soils testing, concrete testing, microcracking inspection, nuclear gauge compaction testing, asphalt testing and inspection, rubberized asphalt cap testing, base course testing, and full depth reclamation inspection.

Primary Contact: James Wagner, Senior Civil Engineer, City of Huntington Beach, p: 714.536.5467, e: jwagner@surfcity-hb.org

Twining Project Manager: Amir Ghavibazoo, PhD | Project Duration: June 2018 - Present

City of Fullerton, On-Call Pavement Engineering and Testing Services Twining has provided testing, inspection, and engineering services to the City of Fullerton in support of the Public Works Department since 2013, and have held an as needed agreement since 2017. All testing provided under this on-call contract complies with Caltrans Standard Specifications and the Project Special Provisions, the City's approved Quality Assurance Program, and the Caltrans Construction Manual. Two projects we have recently completed are the Loma Alta Pavement Rehabilitation and the Water Facility at Las Palmas Drive.

Primary Contact: David Grantham, Civil Engineer, City of Fullerton, p: 714.738.6853, e: dgrantham@cityoffullerton.com

Twining Project Manager: Amir Ghavibazoo, PhD | Project Duration: November 2017 - Present

City of Long Beach, On-Call Materials Testing Services Twining provided certified testing and inspection services on an on-call basis for public works infrastructure and facility-related improvement projects. Our services consisted of material testing, including concrete, masonry, aggregates, asphalt, and asphalt plant inspection, soil, epoxies, metals, steel reinforcement and welds, diamond bit coring of asphalt, concrete or masonry, road rating and profilograph testing of street and other general laboratory materials testing. All testing was performed in accordance with the "Standard Specifications for Public Works Construction", 2010 edition, Caltrans and Federal Aviation Administration (FAA) current standards.

Primary Contact: Onofre Ramirez, PE, Civil Engineer, City of Long Beach, p: 714.730.2339, e: onofre.ramirez@longbeach.gov

Twining Project Manager: Amir Ghavibazoo, PhD | Project Duration: November 2017 - Present

Los Angeles County Public Works, As-Needed Materials Testing, Pavement Mix Design, and Inspection Services

Twining was selected to provide as-needed materials testing, pavement mix design and inspection services to support the County of Los Angeles Department of Public Works Geotechnical Engineering. Our services under this contract consist of furnishing qualified personnel for as-needed field and laboratory testing and inspection services at various locations in Los Angeles County and neighboring counties.

Primary Contact: Yonah Halpern, Civil Engineer, LA County Public Works, p: 626. 703.9596, e: yhalpern@dpw.lacounty.com

Twining Project Manager: Amir Ghavibazoo, PhD | Project Duration: January 2015 - Present

City of La Mirada, On-Call Consulting Services The City is in the process of implementing a substantial amount of infrastructure reconstruction, repair, and replacement work throughout the City. This work will be funded by a variety of sources, including local, state, and federal grants as well as funds from Measure I. Twining was selected to provide on-call consulting services for construction inspection and geotechnical engineering services. Projects completed in the last five years under our contract with the City have included Capital Improvements Phase 6, 2019 Slurry Seal, and Leffington Road Rehabilitation.

Primary Contact: Eric Villagrancia, Project Manager, City of La Mirada, p: 562.902.2373, e: evillagrancia@cityoflamirada.org

Twining Project Manager: Amir Ghavibazoo, PhD | Project Duration: September 2018 - Present

City of Santa Clarita, Overlay and Slurry Seal Projects Since 2011, Twining has provided construction materials testing and inspection services for the annual overlay and slurry seal program. Twining performs construction materials testing and inspection at various project sites and the batch plant. Our firm also performs mix design verification and laboratory testing. Our team coordinates with the construction team and the City public works inspector to resolve issues during construction, as needed. Our team inspects and verifies that all construction materials are in total compliance with applicable rules and regulations

Primary Contact: Ramiro Fuentes, Project Manager, City of Santa Clarita, p: 661.286.4134, e: rfuentes@santa-clarita.com

Twining Project Manager: Amir Ghavibazoo, PhD | Project Duration: July 2017 - Present



Proposal Synopsis

Twining specializes in providing materials testing, special inspection, and geotechnical engineering services to public agencies. A significant number of our public agency work comes from on-call contracts, giving us substantial knowledge and expertise in the staffing, budgeting, and managing of these types of contracts. Our local Long Beach office currently holds similar contracts with nearby agencies, and is able to handle the current workload while concurrently taking on task orders that fall under the City's contract.

Twining's proposed team represent our most experienced and talented staff. Our project manager, Dr. Amir Ghavibazoo, has provided project management services on these type of contracts for numerous clients over the past seven years, including the City of Huntington Beach, managing each task order by communicating regularly with the client and keeping them informed at every step of each project. The Twining team was hand selected for their experience, certifications and knowledge of public works projects.

Twining's relevant project experience highlights our capabilities as a firm, while showcasing our staff's strengths

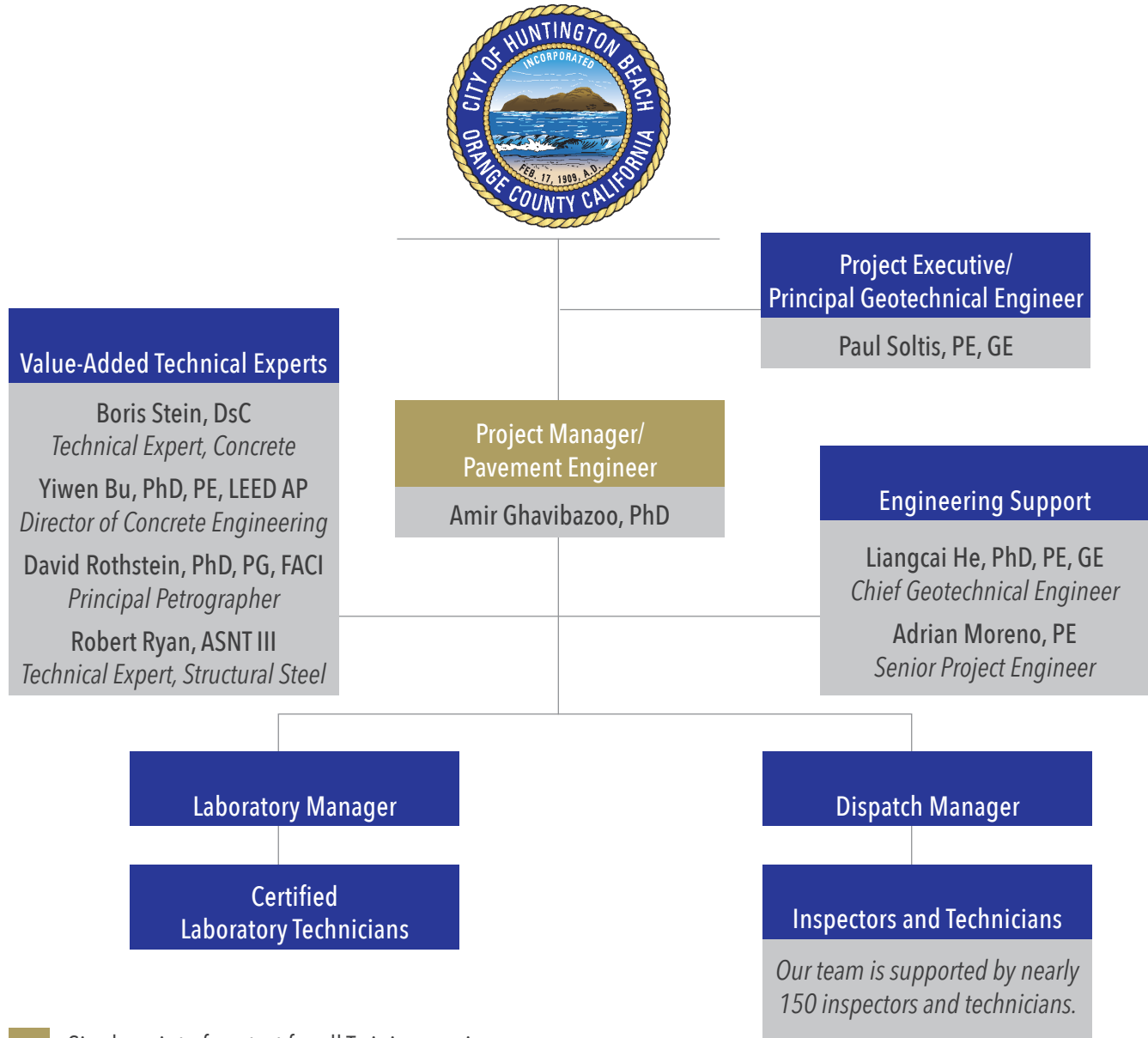
and their ability to work together for public agencies on on-call contracts. Our proposed team has worked together on numerous projects and they understand the level of effort required to successfully provide inspection and materials testing services, on schedule and on budget. Our team is well aware that budget is, more than ever, an incredibly important aspect of every project and we work to ensure that our client's budgets are met on every project.

We have included relevant examples of project experience that are similar to projects listed in the City's 2020/21 Capital Improvement Plan. These projects have been a collaboration between our proposed team members and are examples of our successful project management plan being utilized for the betterment of our public clients. We are confident that our references will share positive insight and experiences regarding their working relationships with Twining.

Our understanding of the City's requirements for this contract is explained in the Understanding and Methodology section. We also include a step-by-step explanation of our methodology for successfully completing various project types by communicating regularly with our client and our team, providing regular reports, maintaining accurate and detailed project documentation, and providing final reporting.

SERVICE CATEGORY: PREFERRED STAFFING

Please note that resumes and certifications have been included in the Appendix section of this proposal. We have dedicated the below individuals to service this contract. Should we need to make any alterations to this organization chart, we will do so by submitting the names and qualifications of proposed substitutes to the City for review prior to beginning work.



SERVICE CATEGORY: UNDERSTANDING AND METHODOLOGY

After reviewing the RFQ, we understand that you require on-call construction materials testing services for a wide variety of City funded capital improvement construction projects over the next three years. We understand that we are expected to provide the following services:

- » Perform all tests required by Caltrans Standard Specifications, and in accordance with the City's approved Quality Assurance Program (QAP), California Department of Transportation, Construction Manual, Chapters 3, "Control of Materials" and Chapter 6, "Sample Types and Frequencies." Our laboratory, located in Long Beach, is Caltrans Certified. All sampling and testing will be performed by technicians with the appropriate accreditation for the testing and sampling required by the project. If selected as the successful proposer, we will provide proof of accreditation for our laboratory, as well as all field and laboratory staff.
- » Provide initial "Samples and Tests" on materials proposed for use on each project. This includes "Acceptance Tests" on materials that will be incorporated into the work. We will perform sampling as soon as material is delivered or in place, and will continue to sample as work progresses.
- » Provide a qualified technician to conduct density tests, as required. The tests will be performed with a nuclear densometer or sand cone. Maximum density curves will be performed on various material types as they are encountered.
- » Provide ACI-certified technicians, as required, to make sets of concrete cylinders, and perform slump tests for minor concrete and bridge structure concrete.
- » Perform compression strength tests on concrete cylinders in accordance with ASTM C39 for bridge structure concrete. Dr. Boris Stein, our Technical Advisor of Concrete, will oversee all concrete tests performed for each project.
- » Keep records of all samples and tests in the project files as permanent job records. This includes materials incorporated into the project, represented by failing tests. Given our history working with the City, we understand the requirements of test documentation and reporting, and will ensure that all test results shall cite applicable contract requirements, test and/or analytical procedures used. We will provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. Test results shall be signed by a testing laboratory representative authorized to sign certified documentation and forward to the City.
- » Amir, our Project Manager, will work with our Laboratory Manager, to maintain a testing Plan and Log. Our Laboratory Manager will record the date the test was conducted, and the date the test results were forwarded to Amir. We will submit a copy of the updated Test Plan and Log with the Contract Quality Control Report each month.
- » Maintain a rework items list of work performed that does not comply with the Contract. The contractor will be responsible for including items needing rework, including those identified by our Engineer.
- » Perform maximum density tests at the job site, unless otherwise approved by the City Engineer.
- » Send materials certification memorandum to the Public Works Contract Administrator upon completion of each project. All non-conforming materials will be documented on the memorandum.

- » Paul Soltis, California Registered Civil and Geotechnical Engineer, PE 56140, GE 2606, shall sign the materials certification memorandum.
- » Report any Non-Compliance results to the City's Project Manager and City Project Inspector within twenty four (24) hours from the time of sampling.

We have broken down our approach to providing 'on-call' services, by the services we are expecting to provide, as well as our outline of the sequential activities that will be undertaken throughout this contract to complete the tasks required:

Approach to Construction Materials Testing and Special Inspection

- » Twining receives a formal request for services from your designated representative briefly describing the scope, size, and services required. A set of plans, specifications, will be made available for review prior to and during the course of the project.
- » Upon dispatch request from your representative, the appropriate Twining staff member with the required certifications is assigned to the project. The technicians and inspectors are available within 24 hours of the representative's request and often can be provided with even less prior notification.
- » The project technician/inspector performs appropriate testing or inspection and logs location of each test or item inspected. When required, samples are obtained from construction materials for further lab testing.

- » The technician/inspector logs his daily testing, inspection, and sampling and provides a copy of his daily report to the City representative for his signature. The daily report also contains a log of his hours covering the duties performed that day.
- » If a material type (e.g. ready-mixed concrete) requires plant inspection, both the plant and field technicians would communicate directly with your representative regarding batched quantities, time of shipment, total yards at the plant, plant break downs, and all pertinent daily activities.
- » Daily field and shop reports are reviewed by Amir, along with all laboratory test results and distributed weekly to the project team. A log of all tests and inspections is kept by Amir that also includes tracking and resolution of any non-compliant items.

Twining also provides all necessary closeout documents at project completion.

Construction-Related Geotechnical Engineering Services

When the need for geotechnical construction-related services arises during this contract, we will review the project plans and specifications and the project geotechnical report in detail to fully understand the anticipated services for each specific project. If the geotechnical report is prepared by others, we will review the report and provide a letter stating that Twining will assume the responsibility of geotechnical engineer of record for construction and accept responsibility for the recommendations provided in the report.

Our typical approach to a construction-related project for which we provide geotechnical services includes the involvement of Amir at the

beginning, middle and end of the project. This involvement has proven to be invaluable on most projects for the following reasons: (i) pre-grade meeting with the City and the grading contractor will bring to light any questions or ambiguities about the grading requirements prior to the start of grading so that delays related to geotechnical issues are mitigated; (ii) questions that arise during grading and foundation construction regarding changed conditions are addressed promptly and efficiently in the field by Amir; and (iii) periodic oversight by Amir consisting of review of daily field reports and site visits ensures accuracy of the work being done and expedites the final report process.

In general, Twining will provide the following services during construction as it relates to geotechnical engineering:

- » Amir will review project plans and specifications with an ACI field technician to ensure proper execution of the project requirements;
- » The field technician will perform continuous observation and testing of fill placement as required by the California Building Code and provide a daily report to the City that outlines the work done and any discrepancies or non-conformance with respect to project requirements so that they can be tracked and resolved efficiently;
- » The field technician will collect samples of soil being used or proposed for use as fill so that appropriate laboratory testing can be performed (maximum dry density/optimum moisture content relationships, expansion index, soil classification, sand

equivalent, R-value testing, CBR, etc.);

- » Amir will review laboratory testing results and provide necessary information to field technicians directly and follow up with "draft" results to the City for review and approval;
- » The field technician and Amir will periodically meet at the site to ensure testing and observation requirements are being met; and
- » Amir and support staff will prepare a final geotechnical report that summarizes the work done during construction, including all test results and a statement regarding compliance with the project geotechnical requirements and all applicable federal, state and county codes.

Approach to Pavement Testing and Special Inspection

The following is our approach and methodology for managing materials testing and special inspection on pavement related projects, in support of the City:

- » Twining receives a request for services from your representative. A set of plans and specifications would be sent to Twining for review.
- » Amir will review the plans and specifications. Twining may also provide a quality assurance program plan for each specific project outlining testing frequencies, testing programs, etc.
- » The appropriate Twining staff member is dispatched to the project. The technicians and inspectors will be available within 24 hours of request.
- » The project technician will perform appropriate testing or inspection and log each station location of each test. Samples would be obtained for construction materials that correlate with the tests.

- » The technician will log his daily testing and sampling and provide a copy of his daily report to the public works inspector for his signature. The daily report would also contain a log of his hours covering the duties performed that day.
- » The technician will test all materials within the project as required by the project specifications and your QAP. If a material type (i.e. hot mix asphalt) requires plant inspection, both the plant and field technicians would communicate directly with the public works inspector as to temperatures, time of shipment, total tons at the plant, intermediate plant test results, plant break downs, and all pertinent daily activities.
- » Daily reports will be reviewed by Amir along with all laboratory test results and compiled into one final construction quality assurance report to be submitted to the City at the end of each project.
- » Twining will also provide a Final Construction Quality Assurance report that displays all field inspection reports, batch plant inspection reports, laboratory testing reports, and a summary of the field density tests performed on the project. The final report will include the inspectors' names, certifications, laboratory certifications, and Twining's overall certification of the quality assurance program implemented on the project. The final report is intended for the City's use and can be presented upon an audit.

Capability of Developing Innovative or Advanced Techniques

Twining will follow the standard specification and special provision of each project for testing and inspection of the material. Additionally, Twining is capable of helping the city by developing

special testing procedures to test special materials in-place or test the proposed advance materials by the contractor. Also, Twining can help the City by identifying construction issues and abnormalities by utilizing our in-house collection of non-destructive testing equipment such as GPR and impact echo.


Familiarity with Standards, Procedures, and Regulations

The large volume of work we have completed with the City demonstrates our understanding of the City's standards, procedures and regulations. Additionally, we are currently working on many publicly funded projects for municipal agencies in Southern California. We maintain meticulous documentations of our Quality Assurance activities in support of our municipal clients. Our firm has developed a reputation for giving our clients peace of mind by following applicable regulations and maintaining accurate and audit-proof project documentation.

Project Controls Procedure & Financial Responsibility

Twining provides budget and schedule monitoring on all projects we undertake. This includes a monthly financial progress report, as well as specification review for code requirements vs the project specified scope items. We alert clients immediately if retests are necessary, or if there are any concerns that will affect the schedule or budget. We understand that invoice management is a critical internal process on which we place great importance. We value our communication with our clients and seek to deliver a seamless and accurate approach to invoicing and compensation management. We employ strict internal quality control measures to ensure our client's satisfaction.

In order to ensure the schedule and budget are comprehensive and



can be achieved, Amir and the lead inspector assigned to the project conduct an initial kick-off meeting in order to review the plans and specification and ensure that our team has a thorough understanding of the project requirements. In addition to this internal meeting, Twining will request to be included in the initial project site meeting with the entire project team to establish clear lines of communication and critical project protocols.

Amir and the inspector are in constant communication with the project team in order to accurately track the schedule and budget, and most importantly identify and communicate non-compliance issues, and ensure these issues are resolved and documented in a timely manner.

Twining has several internal processes in place to minimize and avoid unexpected cost overruns. We assign the same project manager to every project under an on-call contract. He reviews every field and testing report so that he is aware of all services Twining is providing.

The project manager will then review the project schedule, scope of work, and budget. We provide our clients with monthly invoicing to track the budget. One of the project manager's key responsibilities is to review the invoice prior to being sent out, to monitor for irregularities, and to make sure there are no "red flags" of which our clients need to be aware.

Demonstration of Technical Ability

Twining's team is vastly experienced with different construction methodologies and materials. We have been highly involved in utilizing different technologies in our recommendations to help

agencies to reduce construction cost, adapt sustainable construction methods, and apply green technologies in their projects. These alternatives include:

- » (Cement, Lime) Soil Stabilization and Reconstruction
- » Full Depth Reclamation (FDR)
- » Cold Central Plant Recycling of Asphalt
- » Cold In-place Recycling of Asphalt
- » Roller Compacted Concrete (RCC)

All of Twining's field inspectors have been trained on these alternative technologies and are fully capable of performing testing and inspection during the construction phase.

EXHIBIT "B"

Payment Schedule (Hourly Payment)

A. Hourly Rate

CONSULTANT'S fees for such services shall be based upon the following hourly rate and cost schedule:

SEE ATTACHED EXHIBIT B

B. Travel Charges for time during travel are not reimbursable.

C. Billing

1. All billing shall be done monthly in fifteen (15) minute increments and matched to an appropriate breakdown of the time that was taken to perform that work and who performed it.
2. Each month's bill should include a total to date. That total should provide, at a glance, the total fees and costs incurred to date for the project.
3. A copy of memoranda, letters, reports, calculations and other documentation prepared by CONSULTANT may be required to be submitted to CITY to demonstrate progress toward completion of tasks. In the event CITY rejects or has comments on any such product, CITY shall identify specific requirements for satisfactory completion.
4. CONSULTANT shall submit to CITY an invoice for each monthly payment due. Such invoice shall:
 - A) Reference this Agreement;
 - B) Describe the services performed;
 - C) Show the total amount of the payment due;
 - D) Include a certification by a principal member of CONSULTANT's firm that the work has been performed in accordance with the provisions of this Agreement; and
 - E) For all payments include an estimate of the percentage of work completed.

Upon submission of any such invoice, if CITY is satisfied that CONSULTANT is making satisfactory progress toward completion of tasks in accordance with this Agreement, CITY shall approve the invoice, in which event payment shall be made within thirty (30) days of receipt of the invoice by CITY. Such approval shall not be unreasonably withheld. If CITY does not approve an invoice, CITY shall notify CONSULTANT in writing of the reasons for non-approval and the schedule of performance set forth in **Exhibit "A"** may at the option of CITY be suspended until the parties agree that past performance by CONSULTANT is in, or has been brought into compliance, or until this Agreement has expired or is terminated as provided herein.

5. Any billings for extra work or additional services authorized in advance and in writing by CITY shall be invoiced separately to CITY. Such invoice shall contain all of the information required above, and in addition shall list the hours expended and hourly rate charged for such time. Such invoices shall be approved by CITY if the work performed is in accordance with the extra work or additional services requested, and if CITY is satisfied that the statement of hours worked and costs incurred is accurate. Such approval shall not be unreasonably withheld. Any dispute between the parties concerning payment of such an invoice shall be treated as separate and apart from the ongoing performance of the remainder of this Agreement.



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	\$ 320.00
10001	Principal Engineer/Geologist	\$ 220.00
10017	Metallurgical Engineer	\$ 330.00
70000	Registered Geotechnical Engineer	\$ 215.00
10010	Technical Advisor	\$ 210.00
10011	Material Scientist, Welding/NDT Consultant	\$ 220.00
70003	Registered Geologist/Certified Engineering Geologist	\$ 215.00
10003	Senior Engineer/Geologist	\$ 190.00
10009	Registered Civil Engineer	\$ 185.00
60003	Roofing/Waterproofing Consultant	\$ 210.00
10013	Project Engineer/Manager	\$ 180.00
30000	Quality Control Manager	\$ 170.00
10005	Senior Staff Engineer/Geologist	\$ 165.00
10007	Staff Engineer/Geologist	\$ 160.00
10015	Quality Control Administrator	\$ 150.00
10019	Metallurgical Technician	\$ 125.00
90001	CADD Operator/Draftsperson	\$ 112.00
95103	Office Support/Clerical	\$ 75.00
70107	Field Supervisor	\$ 145.00
91030	Safety Supervisor	\$ 145.00
20000	Laboratory Manager	\$ 130.00
98000	Laboratory Technician	\$ 105.00
90005	Expert Witness Testimony	\$ 560.00
91010	Qualified SWPPP Developer	\$ 165.00
91000	Qualified SWPPP Practitioner	\$ 150.00
30001	Vibration Engineer	\$ 190.00

Task Code	Field Inspection Personnel	Rate
10101	Concrete/Reinforced Steel Inspector	\$ 125.00
10103	Prestressed/Post Tensioned Inspector	\$ 125.00
10105	Concrete ICC Inspector	\$ 125.00
10109	Drilled-In-Anchor Inspector	\$ 125.00
10111	Gunite/Shotcrete Inspector	\$ 125.00
10113	Masonry Inspector	\$ 125.00
10201	Structural Steel/Welding Inspector	\$ 125.00
10203	AWS Certified Welding Inspector	\$ 125.00
10207	Fireproofing Inspector	\$ 125.00
10501	Lead Inspector	\$ 128.00
10115	Firestop Special Inspector - IFC Premier	\$ 142.00
10117	Firestop Special Inspector - IQP	\$ 187.00
70109	L.A. Deputy Grading Inspector	\$ 130.00
75001	Asphalt Field and Plant Inspector/Technician	\$ 125.00
70103	Pile Driving Inspector	\$ 125.00
70101	Soils Technician	\$ 125.00
10107	Concrete Quality Control (ACI/Caltrans Technician)	\$ 125.00
10122	Wood Framing Inspector	\$ 125.00
60001	Roofing/Waterproofing Inspector	\$ 132.00
10500	Public Works Inspector	\$ 142.00
10515	Mechanical Inspector	\$ 150.00
10519	Electrical Inspector	\$ 150.00
10521	Plumbing Inspector	\$ 150.00
10523	Building Inspector	\$ 150.00
30002	Vibration Monitoring Technician	\$ 145.00
50003	Field Engineering Technician	\$ 125.00

Task Code	Shop Inspection Personnel	Rate
10301	Structural Steel Fabrication Inspector	\$ 125.00
10309	Batch Plant Quality Control Technician/Inspector	\$ 125.00
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	\$ 130.00
10403	NDE Magnetic Particle Testing Technician	\$ 130.00
10405	NDE Dye Penetrant Testing Technician	\$ 130.00
10305	Combination NDE Technician/Welding Inspector	\$ 130.00
10409	Radiographic Testing (crew of 2)	\$ 350.00
10020	NDE Engineer	\$ 200.00

Task Code	Equipment Usage (Daily Unless Otherwise Noted)	Rate
95318	Skidmore	\$ 40.00
95309	Torque Wrench, Small	\$ 15.00
95312	Torque Wrench, Large	\$ 25.00
95315	Torque Multiplier	\$ 40.00
95321	Air Meter	\$ 20.00
95322	Unit Weight Bucket	\$ 30.00
95323	Field Concrete Scale	\$ 30.00
95324	Brass Mold	\$ 20.00
95343	Nuclear Gauge (Per Hour)	\$ 10.00
95319	Sand Cone Density Test Equipment	\$ 50.00
95333	Pull Test Equipment	\$ 60.00
95348	Concrete/Asphalt Coring Equipment	\$ 600.00
95327	Pachometer	\$ 55.00
95336	Floor Flatness (Dipstick)	\$ 50.00
95330	Schmidt Hammer	\$ 30.00
95341	Vapor Emission Test Kits	\$ 30.00
95342	Relative Humidity Probe	\$ 60.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	\$ 350.00
95351	Fireproofing Adhesion/Cohesion (Per Test)	\$ 35.00
95300	A Scan Ultrasonic Equipment and Consumables	\$ 75.00
95303	Magnetic Particle Equipment and Consumables	\$ 40.00
95306	Liquid Penetrant Consumables	\$ 35.00
95307	Phased Array Ultrasonic Equipment (Per Hour)	\$ 60.00
95347	Ground Penetrating Radar	\$ 300.00
95345	Impact Echo	\$ 350.00
95362	Ultrasonic Tomography	\$ 450.00
95349	Inertial Profiler (Per Hour)	Quotation
95357	Project Dedicated Vehicle	\$ 120.00
95364	Roller Compacted Concrete Vibrating Hammer/Tamplng Plate	\$ 70.00
95367	Half-cell Potential Equipment Set	\$ 350.00
95368	Concrete Electrical Resistivity Meter	\$ 160.00
95369	Field Hardness (Steel)	\$ 100.00
95370	Coating Thickness Gauge	\$ 100.00
95373	Wood Curing Box (One-Time Fee/Per Box)	\$ 600.00
95371	Temperature Control Curing Box (Per Month)	\$ 450.00
95372	Temperature Matching Curing Box (Per Month)	\$ 520.00

Task Code	Specimen Pick-Up	Rate
20102	Standard Sample: Concrete Cylinders (Each)	\$ 28.00
20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	\$ 28.00
20103/	Oversize Sample: Masonry Prisms, Shotcrete Panels,	\$ 75.00
20104	Flexural Beams (Each)	
20107	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	\$ 105.00
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)	\$ 140.00

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	\$ 550.00

Task Code	Concrete Tests (Field Made Specimens)	Rate
20201	6" x 12" Cylinder: Compression Strength (ASTM C39)	\$ 40.00
20202	4" x 8" Cylinder: Compression Strength (ASTM C39)	\$ 35.00
20203	Density of Structural Lightweight Concrete Equilibrium or Oven Dry Method (ASTM C567)	\$ 85.00
20205	Core Compression including Trimming (ASTM C42)	\$ 75.00
20207	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523)	\$ 100.00
20209	Splitting Tensile Strength (ASTM C496)	\$ 95.00
20211	Modulus of Elasticity Test (ASTM C469)	\$ 275.00
80003	Rapid Chloride Permeability Test: Cylinders or Cores (ASTM C1202)	\$ 520.00
80006	Density, Absorption, and Voids in Hardened Concrete (ASTM C642)	\$ 520.00



Task Code	Concrete Tests (Field Made Specimens), Continued	Rate
40005	Flexural Toughness (ASTM C1609, Formerly ASTM C1018)	\$ 800.00
40007	Flexural Toughness (ASTM C1550)	\$ 500.00
40006	Double Punch Strength of Fiber Reinforced Concrete	\$ 500.00
40009	Coefficient of Thermal Expansion of Concrete (CRD 39, AASHTO T336)	\$ 600.00
40012	Bulk Electrical Resistivity (ASTM C1876)	\$ 120.00

Task Code	Concrete Specimen Preparation	Rate
20151	Sawing of Specimens (Each)	\$ 40.00
20157	Coring of Specimens in Lab (Each)	\$ 40.00
20159	Grinding of Concrete Below 6000 psi Strength (Each)	\$ 60.00
20160	Grinding of Concrete 6000 psi Strength and Above (Each)	\$ 90.00

Task Code	Laboratory Trial Batch: Concrete, Cement and Mortar	Rate
30216	Compression Test 4"x8" Cylinders Made and Tested in Laboratory (ASTM C192, C35)	\$ 50.00
30217	Compression Test 6"x12" Cylinders Made and Tested in Laboratory (ASTM C192, C35)	\$ 60.00
30219	6" x 6" x 18" Flexural Beams Made and Tested in Laboratory (ASTM C192, C78)	\$ 100.00
30223	Splitting Tensile Strength Cylinders Made and Tested in Laboratory (ASTM C192, C496)	\$ 115.00
30225	Modulus of Elasticity Test Cylinders Made and Tested in Laboratory (ASTM C192, C469)	\$ 285.00
30227	Density of Structural Lightweight Concrete Made in the Laboratory, Equilibrium or Oven Dry Method (ASTM C567)	\$ 105.00
30237	Bulk Electrical Resistivity (ASTM C1876)	\$ 140.00
30201	Laboratory Trial Batch (ASTM C192)	\$ 525.00
30203	Laboratory Trial Batch: Packaged Dry Concrete Including Verification of Slump, Air Content, Plastic Unit Weight, Six Cylinders for Compressive Strength (ASTM C387 and C192)	\$ 950.00
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)	\$ 500.00
30230	Additional Reading, Per Set of Three Bars	\$ 45.00
30231	Storage over Ninety (90) Days, Per Set of Three Bars, Per Month	\$ 30.00
30207	Setting Time Up to 7 Hours (ASTM C403)	\$ 180.00
30209	Bleeding (ASTM C232)	\$ 150.00
30229	Concrete Restrained Expansion (ASTM C878)	\$ 600.00
30211	Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C878)	\$ 550.00
20263	Non-Shrink Grout: Height Change after Final Set (ASTM C1090)	\$ 550.00
20265	Non-Shrink Grout: Height Change at Early Age (ASTM C827)	\$ 800.00
30232	Cracking Resistance, Set of Three Rings, Laboratory Trial Batching, Test Until Cracking or up to 28 Days (ASTM 1581)	\$ 5,500.00
30233	Evaluation of Pre-Packaged Masonry Mortars (ASTM C270)	\$ 1,150.00
30234	Creep (ASTM C512) (One Age of Loading, 12 Months Duration of Testing)	\$ 8,000.00

Task Code	Chemical Analysis and Petrographic Examination of Concrete	Rate
80123	Chemical Analysis for Acid Soluble Chlorides (ASTM C1152) (includes sample prep)	\$ 145.00
80126	Chemical Analysis for Water Soluble Chlorides (ASTM C1218) (includes sample prep)	\$ 170.00
80193	Chloride Diffusion Coefficient of Cementitious Mixtures by Bulk Diffusion (ASTM C1556)	\$ 2,600.00
80129	Petrographic Examination of Hardened Concrete, Level II (ASTM 856) (Comprehensive)	
	Each, One Sample	\$ 2,400.00
	Each, Two or More Samples	\$ 2,100.00

Task Code	Physical and Chemical Analysis of Cement	Rate
80195	Physical Testing and Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 1,300.00
80100	Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 675.00
80103	Physical Testing of Portland Cement per Standard Requirements (ASTM C150)	\$ 675.00

Task Code	Physical and Chemical Analysis of Cement, Continued	Rate
80194	Physical Testing of Type K Cement, Mortar Expansion (ASTM C806)	\$ 675.00
80106	Partial Analysis or Specific Physical Tests	Quotation
80110	Sulfates Resistance of Hydraulic Cement (ASTM C1012), 6 months	\$ 2,700.00
80111	Sulfates Resistance of Hydraulic Cement (ASTM C1012), 12 months	\$ 3,000.00

Task Code	Physical and Chemical Analysis of Fly Ash	Rate
80140	Chemical Analysis of Fly Ash per Standard Requirements (ASTM C618)	\$ 675.00
80143	Physical Testing of Fly Ash per Standard Requirements (ASTM C618)	\$ 675.00
80146	Partial Analysis or Specific Physical Tests	Quotation
80147	Chemical Analysis and Physical Testing of Fly Ash per Standard Requirements (ASTM C1618)	\$ 1,300.00

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)	\$ 200.00
30505	Abrasion: LA Rattler (ASTM C535)	\$ 210.00
70301	Atterberg Limits/Plasticity Index (ASTM D4318, CTM 204)	\$ 160.00
70303	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Soil	\$ 550.00
70304	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Cement-Treated Soil	\$ 650.00
70344	Cement-Treated Soil/Base Mix Design: includes three trial cement contents with three unconfined compressive strength specimens per cement content	\$ 3,500.00
70305	Chloride and Sulfate Content (CTM 417, CTM 422)	\$ 175.00
30403	Clay Lumps and Friable Particles (ASTM C142)	\$ 200.00
30321	Cleaness Value: 1" x #4 (CTM 227)	\$ 175.00
30322	Cleaness Value: 1.5" x .75" (CTM 227)	\$ 275.00
70393	Collapse Potential/Index (ASTM D5333)	\$ 225.00
70396	Compressive Strength of Molded Soil-Cement Cylinders (ASTM D1633)	\$ 105.00
70309	Consolidation Test: Full Cycle (ASTM 2435, CTM 219)	\$ 195.00
70311	Consolidation Test: Time Rate per Load Increment (ASTM D2435, CTM 219)	\$ 45.00
70313	Corrosivity Series: Sulfate, Cl, pH, Resistivity (CTM 643, 417, and 422)	\$ 245.00
70315	Crushed/Fractured Particles (ASTM D5821, CTM 205)	\$ 175.00
70317	Direct Shear Test: Remolded and/or Residual (ASTM D3080)	\$ 245.00
70319	Direct Shear Test: Undisturbed - Slow [CD] (ASTM D3080)	\$ 225.00
70321	Direct Shear Test: Undisturbed - Fast [CU] (ASTM D3080)	\$ 195.00
70378	Durability Index: Per Method - A,B,C, or D (ASTM D3744, CTM 229)	\$ 210.00
70325	Expansion Index (ASTM D4829, UBC 18-2)	\$ 170.00
75004	Fine Aggregate Angularity (ASTM C1252, CTM 234, AASHTO T304)	\$ 190.00
30507	Flat and Elongated Particle (ASTM D4791)	\$ 240.00
30508	Flat or Elongated Particle (ASTM D4791)	\$ 210.00
70331	Maximum Density: Methods A/B/C (ASTM D1557, D698, CTM 216)	\$ 190.00
70333	Maximum Density: Check Point (ASTM D1557, D698)	\$ 65.00
70335	Maximum Density: AASHTO C [Modified] (AASHTO T-180)	\$ 195.00
70336	Maximum Index Density: Vibratory Table (ASTM D4253)	\$ 345.00
70337	Moisture Content (ASTM D2216, CTM 226)	\$ 25.00
70339	Moisture and Density: Ring Sample (ASTM D2937)	\$ 30.00
70341	Moisture and Density: Shelby Tube Sample (ASTM D2937)	\$ 40.00
70340	Moisture-Density Relations of Soil-Cement Mixtures Premixed in the Field (ASTM D558)	\$ 275.00
70342	Moisture-Density Relations of Soil-Cement Mixtures Mixed in the Lab (ASTM D558)	\$ 350.00
30401	Organic Impurities (ASTM C40, CTM 213)	\$ 90.00
70343	Permeability (ASTM D5084)	Quotation
80001	Potential Reactivity: Chemical Method (ASTM C289 - Discontinued Method)	\$ 625.00
70394	Potential Reactivity: Mortar Bar Expansion Method, 14-Day Exposure (ASTM C1260)	\$ 850.00



Task Code	Soils and Aggregate Tests, Continued	Rate
70391	Potential Reactivity: Mortar Bar Expansion Method, 28-Day Exposure (ASTM C1260)	\$ 900.00
70398	Potential Reactivity: Concrete Bar Expansion Method (ASTM C1293), 12 month	\$ 2,700.00
70399	Potential Reactivity: Concrete Bar Expansion Method (ASTM C1293), 24 month	\$ 2,900.00
70397	Potential Reactivity of Aggregate Combination, non-standard method; 14-Day Exposure, Mortar (after ASTM C1567)	\$ 1,000.00
70392	Potential Reactivity of Aggregate Combination, non-standard method; 28-Day Exposure, Mortar (after ASTM C1567)	\$ 1,050.00
70345	R-Value: Soil (ASTM 2844, CTM 301)	\$ 440.00
70347	R-Value: Aggregate Base (ASTM D2844, CTM 301)	\$ 490.00
70349	Sand Equivalent (ASTM D2419, CTM 217)	\$ 125.00
70351	Sieve #200 Wash Only (ASTM D1140, CTM 202)	\$ 90.00
70353	Sieve with Hydrometer: 3/4" Gravel to Clay (ASTM D422, D7928, CTM 203)	\$ 250.00
70355	Sieve with Hydrometer: Sand to Clay (ASTM D422, D7928, CTM 203)	\$ 240.00
70357	Sieve Analysis Including Wash (ASTM C136, CTM 202)	\$ 150.00
70359	Sieve Analysis Without Wash (ASTM C136, CTM 202)	\$ 120.00
70360	Sieve Analysis: Split Sieve (ASTM C136, CTM 202)	\$ 240.00
70361	Sieve Analysis Without Wash: With Cobbles (ASTM C136, CTM 202)	\$ 235.00
70363	Soundness: Sodium or Magnesium Sulfate, 5 Cycles (ASTM C88)	\$ 450.00
70365	Specific Gravity and Absorption: Coarse (ASTM C127, CTM 206)	\$ 100.00
70367	Specific Gravity and Absorption: Fine (ASTM C128, CTM 207)	\$ 165.00
70369	Swell/Settlement Potential: One Dimensional (ASTM D4546)	\$ 150.00
70371	Triaxial	Quotation
70373	Unconfined Compression (ASTM D2166, CTM 221)	\$ 190.00
30317	Unit Weight Per Cubic Foot (ASTM C29, CTM 212)	\$ 125.00
30319	Voids in Aggregate with Known Specific Gravity (ASTM C29, CTM 212)	\$ 125.00
30411	Lightweight Particles: Coarse, with Two Solutions (ASTM C123)	\$ 410.00
30412	Lightweight Particles: Fine, with One Solution (ASTM C123)	\$ 205.00

Task Code	Asphalt Concrete Tests	Rate
75031	HMA Mixing and Preparation	\$ 125.00
75032	HMA Mixing and Preparation with Aggregate Treatment	\$ 175.00
75033	Bulk Specific Gravity of Compacted Sample or Core: SSD (ASTM D2726, CTM 308C)	\$ 55.00
75036	Bulk Specific Gravity of Compacted Sample or Core: Parafin Coated (ASTM D1188 and CTM 308A)	\$ 80.00
75040	Emulsion Residue, Evaporation (ASTM D244)	\$ 160.00
75024	Extraction: % Bitumen (ASTM D6307, CTM 382)	\$ 160.00
75027	Extraction: % Bitumen and Gradation (ASTM D5444, D6307, CTM 202, 382)	\$ 215.00
75028	Extraction: % Bitumen, Correction Factor (ASTM D6307, CTM 382)	\$ 350.00
75030	Chemical Extraction: % Bitumen and Sieve Analysis (ASTM D2172 Method A or B, ASTM D5444)	\$ 245.00
75042	Lab Tested Maximum Density: Hveem, 3 briquettes (ASTM D1561, D1188, CTM 304, 308)	\$ 215.00
75057	Hveem Stabilometer Test, Premixed, 3 briquettes (ASTM D1560, D1561, CTM 304, 366)	\$ 215.00
75048	Lab Tested Maximum Density: Marshall, 3 briquettes (ASTM D6926, D2726)	\$ 210.00
75049	Lab Tested Maximum Density: Marshall 6" Specimen, 3 briquettes (ASTM D5581, D2726)	\$ 215.00
75050	Lab Tested Maximum Density: Superpave Gyratory Compacted Briquette, SSD, 1 briquette (ASTM D6925, D2726)	\$ 80.00
75052	Lab Tested Maximum Density: Superpave Gyratory Compacted Briquette, Parafin, 1 briquette (ASTM D1188, D6925)	\$ 90.00
75051	Maximum Theoretical Specific Gravity [RICE] (ASTM D2041, CTM 309)	\$ 160.00
75066	Marshall Stability and Flow, Cored Sample, each (ASTM D6927)	\$ 80.00
75069	Marshall Stability and Flow, Premixed, 3 briquettes (ASTM D6926, D6927)	\$ 230.00
75106	Marshall Stability and Flow, Gyratory Compacted Specimen Pre-Mixed, 3 briquettes (ASTM D5581, D6925)	\$ 230.00

Task Code	Asphalt Concrete Tests, Continued	Rate
75107	Marshall Stability and Flow 6" Specimen, Premixed, 3 briquettes (ASTM D5581)	\$ 230.00
75063	Moisture Content (CTM 370)	\$ 85.00
75005	Wet Track Abrasion Test (ASTM D3910)	\$ 165.00
75093	Hveem Mix Design (Excluding Aggregate Quality Tests)	\$ 5,200.00
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)	\$ 6,000.00
75094	Hveem Mix Design Caltrans Untreated Mix (Including Aggregate Quality Tests)	\$ 6,200.00
75095	Hveem Mix Design Caltrans Lime Treated Mix (Including Aggregate Quality Tests)	\$ 7,200.00
75084	Marshall Mix Design (Excluding Aggregate Quality Tests)	\$ 5,200.00
75087	Marshall Mix Design with RAP (Excluding Aggregate Quality Tests)	\$ 5,645.00
75090	Marshall Mix Design with Lime (Excluding Aggregate Quality Tests)	\$ 6,200.00
75083	Open Grade Asphalt Concrete Mix Design (ASTM D7064, CTM 368)	\$ 3,000.00
75109	Superpave Mix Design (Excluding Aggregate Quality Tests)	\$ 10,600.00
75113	Superpave Mix Design, with RAP (Excluding Aggregate Quality Tests)	\$ 11,200.00
75114	Superpave Mix Design, with Rubber (Excluding Aggregate Quality Tests)	\$ 11,200.00
75115	Superpave Mix Design, with Additives (Excluding Aggregate Quality Tests)	\$ 11,500.00
75075	Effect of Moisture on Asphalt Paving Mixtures, Pre-Mixed (ASTM D4867, AASHTO T283)	\$ 1,000.00
75111	Hamburg Wheel Track Test, 20,000 passes, 4 briquettes (AASHTO T324)	\$ 1,100.00
75039	Raveling Test of Cold Mixed Emulsified Asphalt (ASTM D7196)	\$ 200.00
75067	Marshall Stability, wet set, 3 replicates (AASHTO T245)	\$ 350.00
75068	Marshall Stability, dry set, 3 replicates (AASHTO T245)	\$ 300.00
75070	Cold Recycled Asphalt Mix Design: 2 gradings each, 3 emulsion content (Caltrans LP-8)	\$ 10,500.00

Task Code	Brick Masonry Tests, ASTM C67	Rate
20301	Modulus of Rupture: Flexural	\$ 95.00
20303	Compression Strength	\$ 60.00
20305	Absorption: 5 Hour or 24 Hour	\$ 65.00
20307	Absorption (Boil): 1, 2 or 5 Hours	\$ 95.00
20309	Initial Rate of Absorption	\$ 55.00
20311	Efflorescence	\$ 75.00
20313	Cores: Compression	\$ 70.00
20315	Shear Test on Brick Cores: 2 Faces	\$ 95.00

Task Code	Concrete Block, ASTM C140	Rate
20321	Compression	\$ 90.00
20323	Absorption/Moisture Content/Oven Dry Density	\$ 90.00
20327	Linear Shrinkage (ASTM C426)	\$ 250.00
20335	Web and Face Shell Measurements	\$ 50.00
20329	Tension Test	\$ 160.00
20331	Core Compression	\$ 70.00
20333	Shear Test of Masonry Cores: 2 Faces	\$ 95.00
20339	Efflorescence Tests	\$ 75.00

Task Code	Masonry Prisms, ASTM C1314	Rate
20341	Compression Test: Composite Masonry Prisms Up To 8" x 16"	\$ 190.00
20343	Compression Test: Composite Masonry Prisms Larger Than 8" x 16"	\$ 250.00
20346	Prism Cord Modulus of Elasticity	\$ 540.00
20347	Prism Cord Modulus of Elasticity with Transverse Strain (for double-wythe specimen)	\$ 665.00

Task Code	Mortar and Grout	Rate
20351	Compression: 2" x 4" Mortar Cylinders (ASTM C780)	\$ 55.00
20353	Compression: 3" x 3" x 6" Grout Prisms, Includes Trimming (ASTM C1019)	\$ 40.00
20355	Compression: 2" Cubes (ASTM C109)	\$ 55.00
20357	Compression: Cores Includes Trimming (ASTM C42)	\$ 75.00



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	Gunit 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)	\$ 105.00
20753	Sawcut to Overall Width (Per 0.5" Thickness or Fraction Thereof)	\$ 55.00
20755	Machine to Test Configuration: Milled Specimens	\$ 75.00
20757	Machine to Test Configuration: Turned Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 145.00
20759	Prepare Subsize Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 95.00

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

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.	

Cylic 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

The first 8 hours worked Monday through Friday between 5:00 a.m. and 5:00 p.m.

Time and One-Half (All Types of Inspection)

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)

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, and the first Saturday following the first Friday in June and December. 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 and lodging, 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 with a minimum of one hour will be applied for the laboratory technician. 1.5 x regular test rate will be charged for rush testing.

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.

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 Disposal

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.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
2/2/2021

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

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


PRODUCER Dealey, Renton & Associates DRA License 0020739 600 Anton Boulevard, Suite 100 Costa Mesa CA 92626	CONTACT NAME: Cheryl Boden	
	PHONE (A/C, No, Ext): 714-427-6810 FAX (A/C, No): 714-427-6818	
	E-MAIL ADDRESS: cboden@dealeyrenton.com	
INSURED Twining, Inc. PO BOX 47 Long Beach CA 90801	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: Great Midwest Insurance Company	18694
	INSURER B: Travelers Property Casualty Company of America	25674
	INSURER C: Starstone National Insurance Company	25496
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 605376538 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y	Y	6301E077052	2/1/2021	2/1/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y	Y	8104L111617	2/1/2021	2/1/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$	Y	Y	CUP0J750769	2/1/2021	2/1/2022	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	T10190480	2/1/2021	2/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Professional Liability Claims Made			AE-GM-0000068-01	2/1/2021	2/1/2022	\$2,000,000 \$2,000,000 Claims Made Annl. Aggr.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Umbrella policy is a follow-form to underlying General Liability/Auto Liability/Employers Liability.
Re: Project #17-2271 City of Huntington Beach, On-Call Construction Materials Testing Services.
The City of Huntington Beach, its officers, elected or appointed officials, employees are Additional Insured as respects to General & Auto Liability coverage as required by written contract. Coverage afforded the Additional Insured is Primary and Non-Contributory as respects to General Liability coverage.
Separation of Insureds - Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this Insurance applies:
a. As if each Named Insured were the only Named Insured; and
b. Separately to each Insured against whom claim is made or suit is brought.
Waiver of Subrogation included in Work Comp., General and Auto Liability coverage as required by written contract.

CERTIFICATE HOLDER City of Huntington Beach Risk Management Department Attn: Justin Wessels, ARM-P, AIC 2000 Main Street Huntington Beach CA 92648	CANCELLATION 30 Day Notice of Cancellation SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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