

AGREEMENT

35616

THIS AGREEMENT is made and entered, in duplicate, as of August 24, 2020, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on July 7, 2020, by and between TWINING, INC., a California corporation ("Consultant"), with a place of business at 2883 East Spring Street, Ste. 300, Long Beach, California 90806, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City requires specialized services requiring unique skills to be performed in connection with as-needed construction materials testing and inspection services for various development projects at the Long Beach Airport ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services; and

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services described in Request for Qualifications Number AP19-133, attached to this Agreement as Exhibit "A-1" and incorporated by this reference; and more particularly described in the Consultant's Proposal, attached to this Agreement as Exhibit "A-2" and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, in an amount not to exceed One Million Three Hundred Thousand Dollars (\$1,300,000), at the rates or charges

1 shown in Exhibit "B".

2 B. The City's obligation to pay the sum stated above for any one
3 fiscal year shall be contingent upon the City Council of the City appropriating the
4 necessary funds for such payment by the City in each fiscal year during the term of
5 this Agreement. For the purposes of this Section, a fiscal year commences on
6 October 1 of the year and continues through September 30 of the following year. In
7 the event that the City Council of the City fails to appropriate the necessary funds
8 for any fiscal year, then, and in that event, the Agreement will terminate at no
9 additional cost or obligation to the City.

10 C. Consultant may select the time and place of performance for
11 these services; provided, however, that access to City documents, records and the
12 like, if needed by Consultant, shall be available only during City's normal business
13 hours and provided that milestones for performance, if any, are met.

14 D. Consultant has requested to receive regular payments. City
15 shall pay Consultant in due course of payments following receipt from Consultant
16 and approval by City of invoices showing the services or task performed, the time
17 expended (if billing is hourly), and the name of the Project. Consultant shall certify
18 on the invoices that Consultant has performed the services in full conformance with
19 this Agreement and is entitled to receive payment. Each invoice shall be
20 accompanied by a progress report indicating the progress to date of services
21 performed and covered by the invoice, including a brief statement of any Project
22 problems and potential causes of delay in performance, and listing those services
23 that are projected for performance by Consultant during the next invoice cycle.
24 Where billing is done and payment is made on an hourly basis, the parties
25 acknowledge that this arrangement is either customary practice for Consultant's
26 profession, industry or business, or is necessary to satisfy audit and legal
27 requirements which may arise due to the fact that City is a municipality.

28 E. Consultant represents that Consultant has obtained all

1 necessary information on conditions and circumstances that may affect its
2 performance and has conducted site visits, if necessary.

3 F. CAUTION: Consultant shall not begin work until this
4 Agreement has been signed by both parties and until Consultant's evidence of
5 insurance has been delivered to and approved by City.

6 2. TERM. The term of this Agreement shall commence at midnight on
7 August 10, 2020, and shall terminate at 11:59 p.m. on August 9, 2022, unless sooner
8 terminated as provided in this Agreement, or unless the services or the Project is
9 completed sooner.

10 3. COORDINATION AND ORGANIZATION.

11 A. Consultant shall coordinate its performance with City's
12 representative, if any, named in Exhibit "C", attached to this Agreement and
13 incorporated by this reference. Consultant shall advise and inform City's
14 representative of the work in progress on the Project in sufficient detail so as to
15 assist City's representative in making presentations and in holding meetings on the
16 Project. City shall furnish to Consultant information or materials, if any, described
17 in Exhibit "D", attached to this Agreement and incorporated by this reference, and
18 shall perform any other tasks described in the Exhibit.

19 B. The parties acknowledge that a substantial inducement to City
20 for entering this Agreement was and is the reputation and skill of Consultant's key
21 employee, named in Exhibit "E" attached to this Agreement and incorporated by this
22 reference. City shall have the right to approve any person proposed by Consultant
23 to replace that key employee.

24 4. INDEPENDENT CONTRACTOR. In performing its services,
25 Consultant is and shall act as an independent contractor and not an employee,
26 representative or agent of City. Consultant shall have control of Consultant's work and the
27 manner in which it is performed. Consultant shall be free to contract for similar services to
28 be performed for others during this Agreement; provided, however, that Consultant acts in

1 accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges
2 and agrees that (a) City will not withhold taxes of any kind from Consultant's compensation;
3 (b) City will not secure workers' compensation or pay unemployment insurance to, for or
4 on Consultant's behalf; and (c) City will not provide and Consultant is not entitled to any of
5 the usual and customary rights, benefits or privileges of City employees. Consultant
6 expressly warrants that neither Consultant nor any of Consultant's employees or agents
7 shall represent themselves to be employees or agents of City.

8 5. INSURANCE.

9 A. As a condition precedent to the effectiveness of this
10 Agreement, Consultant shall procure and maintain, at Consultant's expense for the
11 duration of this Agreement, from insurance companies that are admitted to write
12 insurance in California and have ratings of or equivalent to A:V by A.M. Best
13 Company or from authorized non-admitted insurance companies subject to Section
14 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII
15 by A.M. Best Company, the following insurance:

16 i. Commercial general liability insurance (equivalent in
17 scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less
18 than One Million Dollars (\$1,000,000.00) per each occurrence and Two
19 Million Dollars (\$2,000,000.00) general aggregate. This coverage shall
20 include but not be limited to broad form contractual liability, cross liability,
21 independent contractors liability, and products and completed operations
22 liability. City, its boards and commissions, and their officials, employees and
23 agents shall be named as additional insureds by endorsement (on City's
24 endorsement form or on an endorsement equivalent in scope to ISO form CG
25 20 10 11 85 or CG 20 26 11 85 or both CG 20 10 07 04 and CG 20 37 07 04
26 or both CG 20 33 07 04 and CG 20 37 07 04), and this insurance shall contain
27 no special limitations on the scope of protection given to City, its boards and
28 commissions, and their officials, employees and agents. This policy shall be

1 endorsed to state that the insurer waives its right of subrogation against City,
2 its boards and commissions, and their officials, employees and agents.

3 ii. Workers' Compensation insurance as required by the
4 California Labor Code and employer's liability insurance in an amount not
5 less than One Million Dollars (\$1,000,000.00). This policy shall be endorsed
6 to state that the insurer waives its right of subrogation against City, its boards
7 and commissions, and their officials, employees and agents.

8 iii. Professional liability or errors and omissions insurance
9 in an amount not less than One Million Dollars (\$1,000,000.00) per claim.

10 iv. Commercial automobile liability insurance (equivalent in
11 scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in
12 an amount not less than Five Hundred Thousand Dollars (\$500,000.00)
13 combined single limit per accident.

14 B. Any self-insurance program, self-insured retention, or
15 deductible must be separately approved in writing by City's Risk Manager or
16 designee and shall protect City, its officials, employees and agents in the same
17 manner and to the same extent as they would have been protected had the policy
18 or policies not contained retention or deductible provisions.

19 C. Each insurance policy shall be endorsed to state that coverage
20 shall not be reduced, non-renewed or canceled except after thirty (30) days prior
21 written notice to City, shall be primary and not contributing to any other insurance
22 or self-insurance maintained by City, and shall be endorsed to state that coverage
23 maintained by City shall be excess to and shall not contribute to insurance or self-
24 insurance maintained by Consultant. Consultant shall notify City in writing within
25 five (5) days after any insurance has been voided by the insurer or cancelled by the
26 insured.

27 D. If this coverage is written on a "claims made" basis, it must
28 provide for an extended reporting period of not less than one hundred eighty (180)

1 days, commencing on the date this Agreement expires or is terminated, unless
2 Consultant guarantees that Consultant will provide to City evidence of uninterrupted,
3 continuing coverage for a period of not less than three (3) years, commencing on
4 the date this Agreement expires or is terminated.

5 E. Consultant shall require that all subconsultants or contractors
6 that Consultant uses in the performance of these services maintain insurance in
7 compliance with this Section unless otherwise agreed in writing by City's Risk
8 Manager or designee.

9 F. Prior to the start of performance, Consultant shall deliver to City
10 certificates of insurance and the endorsements for approval as to sufficiency and
11 form. In addition, Consultant shall, within thirty (30) days prior to expiration of the
12 insurance, furnish to City certificates of insurance and endorsements evidencing
13 renewal of the insurance. City reserves the right to require complete certified copies
14 of all policies of Consultant and Consultant's subconsultants and contractors, at any
15 time. Consultant shall make available to City's Risk Manager or designee all books,
16 records and other information relating to this insurance, during normal business
17 hours.

18 G. Any modification or waiver of these insurance requirements
19 shall only be made with the approval of City's Risk Manager or designee. Not more
20 frequently than once a year, City's Risk Manager or designee may require that
21 Consultant, Consultant's subconsultants and contractors change the amount, scope
22 or types of coverages required in this Section if, in his or her sole opinion, the
23 amount, scope or types of coverages are not adequate.

24 H. The procuring or existence of insurance shall not be construed
25 or deemed as a limitation on liability relating to Consultant's performance or as full
26 performance of or compliance with the indemnification provisions of this Agreement.

27 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement
28 contemplates the personal services of Consultant and Consultant's employees, and the

1 parties acknowledge that a substantial inducement to City for entering this Agreement was
2 and is the professional reputation and competence of Consultant and Consultant's
3 employees. Consultant shall not assign its rights or delegate its duties under this
4 Agreement, or any interest in this Agreement, or any portion of it, without the prior approval
5 of City, except that Consultant may with the prior approval of the City Manager of City,
6 assign any moneys due or to become due Consultant under this Agreement. Any
7 attempted assignment or delegation shall be void, and any assignee or delegate shall
8 acquire no right or interest by reason of an attempted assignment or delegation.
9 Furthermore, Consultant shall not subcontract any portion of its performance without the
10 prior approval of the City Manager or designee, or substitute an approved subconsultant
11 or contractor without approval prior to the substitution. Nothing stated in this Section shall
12 prevent Consultant from employing as many employees as Consultant deems necessary
13 for performance of this Agreement.

14 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement,
15 certifies that, at the time Consultant executes this Agreement and for its duration,
16 Consultant does not and will not perform services for any other client which would create
17 a conflict, whether monetary or otherwise, as between the interests of City and the interests
18 of that other client. Consultant further certifies that Consultant does not now have and shall
19 not acquire any interest, direct or indirect, in the area covered by this Agreement or any
20 other source of income, interest in real property or investment which would be affected in
21 any manner or degree by the performance of Consultant's services hereunder. And,
22 Consultant shall obtain similar certifications from Consultant's employees, subconsultants
23 and contractors.

24 8. MATERIALS. Consultant shall furnish all labor and supervision,
25 supplies, materials, tools, machinery, equipment, appliances, transportation and services
26 necessary to or used in the performance of Consultant's obligations under this Agreement,
27 except as stated in Exhibit "D".

28 9. OWNERSHIP OF DATA. All materials, information and data

1 prepared, developed or assembled by Consultant or furnished to Consultant in connection
2 with this Agreement, including but not limited to documents, estimates, calculations,
3 studies, maps, graphs, charts, computer disks, computer source documentation, samples,
4 models, reports, summaries, drawings, designs, notes, plans, information, material and
5 memorandum ("Data") shall be the exclusive property of City. Data shall be given to City,
6 in a format identified by City, and City shall have the unrestricted right to use and disclose
7 the Data in any manner and for any purpose without payment of further compensation to
8 Consultant. Copies of Data may be retained by Consultant but Consultant warrants that
9 Data shall not be made available to any person or entity for use without the prior approval
10 of City. This warranty shall survive termination of this Agreement for five (5) years.

11 10. TERMINATION. Either party shall have the right to terminate this
12 Agreement for any reason or no reason at any time by giving fifteen (15) calendar days
13 prior written notice to the other party. In the event of termination under this Section, City
14 shall pay Consultant for services satisfactorily performed and costs incurred up to the
15 effective date of termination for which Consultant has not been previously paid. The
16 procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective
17 date of termination, Consultant shall deliver to City all Data developed or accumulated in
18 the performance of this Agreement, whether in draft or final form, or in process. And,
19 Consultant acknowledges and agrees that City's obligation to make final payment is
20 conditioned on Consultant's delivery of the Data to City.

21 11. CONFIDENTIALITY. Consultant shall keep all Data confidential and
22 shall not disclose the Data or use the Data directly or indirectly, other than in the course of
23 performing its services, during the term of this Agreement and for five (5) years following
24 expiration or termination of this Agreement. In addition, Consultant shall keep confidential
25 all information, whether written, oral or visual, obtained by any means whatsoever in the
26 course of performing its services for the same period of time. Consultant shall not disclose
27 any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit
28 of others except for the purpose of this Agreement.

12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for a breach of confidentiality with respect to Data that: (a) Consultant demonstrates Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available without breach of this Agreement by Consultant; or (c) a third party who has a right to disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

A. Any costs incurred by City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.

B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.

14. AMENDMENT. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.

15. LAW. This Agreement shall be construed in accordance with the laws of the State of California, and the venue for any legal actions brought by any party with respect to this Agreement shall be the County of Los Angeles, State of California for state

actions and the Central District of California for any federal actions. Consultant shall cause all work performed in connection with construction of the Project to be performed in compliance with (1) all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770 *et seq.* of the California Labor Code); and (2) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction.

16. PREVAILING WAGES.

A. Consultant agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code sections 1770 *et seq.* City makes no representation or statement that the Project, or any portion thereof, is or is not a "public work" as defined in California Labor Code section 1720.

B. In all bid specifications, contracts and subcontracts for any such Public Work, Consultant shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the contractor to pay not less than the said prevailing rate of wages to all workers employed by the contractor in the execution of this contract. The contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1775 and the payroll record keeping requirements of California Labor Code section 1771."

17. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire understanding between the parties and supersedes all other

1 agreements, oral or written, with respect to the subject matter in this Agreement.

2 18. INDEMNITY.

3 A. Consultant shall indemnify, protect and hold harmless City, its
4 Boards, Commissions, and their officials, employees and agents ("Indemnified
5 Parties"), from and against any and all liability, claims, demands, damage, loss,
6 obligations, causes of action, proceedings, awards, fines, judgments, penalties,
7 costs and expenses, arising or alleged to have arisen, in whole or in part, out of or
8 in connection with (1) Consultant's breach or failure to comply with any of its
9 obligations contained in this Agreement, including any obligations arising from the
10 Project's compliance with or failure to comply with applicable laws, including all
11 applicable federal and state labor requirements including, without limitation, the
12 requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful
13 acts, errors, omissions or misrepresentations committed by Consultant, its officers,
14 employees, agents, subcontractors, or anyone under Consultant's control, in the
15 performance of work or services under this Agreement (collectively "Claims" or
16 individually "Claim").

17 B. In addition to Consultant's duty to indemnify, Consultant shall
18 have a separate and wholly independent duty to defend Indemnified Parties at
19 Consultant's expense by legal counsel approved by City, from and against all
20 Claims, and shall continue this defense until the Claims are resolved, whether by
21 settlement, judgment or otherwise. No finding or judgment of negligence, fault,
22 breach, or the like on the part of Consultant shall be required for the duty to defend
23 to arise. City shall notify Consultant of any Claim, shall tender the defense of the
24 Claim to Consultant, and shall assist Consultant, as may be reasonably requested,
25 in the defense.

26 C. If a court of competent jurisdiction determines that a Claim was
27 caused by the sole negligence or willful misconduct of Indemnified Parties,
28 Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the

1 court determines sole negligence by the Indemnified Parties, or (2) reduced by the
2 percentage of willful misconduct attributed by the court to the Indemnified Parties.

3 D. The provisions of this Section shall survive the expiration or
4 termination of this Agreement.

5 19. AMBIGUITY. In the event of any conflict or ambiguity between this
6 Agreement and any Exhibit, the provisions of this Agreement shall govern.

7 20. FORCE MAJEURE. If any party fails to perform its obligations
8 because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain
9 labor or materials or reasonable substitutes for labor materials, governmental restrictions,
10 governmental regulations, governmental controls, judicial orders, enemy or hostile
11 governmental action, pandemic, civil commotion, fire or other casualty, or other causes
12 beyond the reasonable control of the party obligated to perform, then that party's
13 performance will be excused for a period equal to the period of such cause for failure to
14 perform.

15 21. NONDISCRIMINATION.

16 A. In connection with performance of this Agreement and subject
17 to applicable rules and regulations, Consultant shall not discriminate against any
18 employee or applicant for employment because of race, religion, national origin,
19 color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or
20 disability. Consultant shall ensure that applicants are employed, and that
21 employees are treated during their employment, without regard to these bases.
22 These actions shall include, but not be limited to, the following: employment,
23 upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or
24 termination; rates of pay or other forms of compensation; and selection for training,
25 including apprenticeship.

26 B. It is the policy of City to encourage the participation of
27 Disadvantaged, Minority and Women-Owned Business Enterprises in City's
28 procurement process, and Consultant agrees to use its best efforts to carry out this

1 policy in its use of subconsultants and contractors to the fullest extent consistent
2 with the efficient performance of this Agreement. Consultant may rely on written
3 representations by subconsultants and contractors regarding their status.
4 Consultant shall report to City in May and in December or, in the case of short-term
5 agreements, prior to invoicing for final payment, the names of all subconsultants
6 and contractors hired by Consultant for this Project and information on whether or
7 not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as
8 defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

9 22. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in
10 accordance with the provisions of the Ordinance, this Agreement is subject to the
11 applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the
12 Long Beach Municipal Code, as amended from time to time.

13 A. During the performance of this Agreement, the Consultant
14 certifies and represents that the Consultant will comply with the EBO. The
15 Consultant agrees to post the following statement in conspicuous places at its place
16 of business available to employees and applicants for employment:

17 "During the performance of a contract with the City of Long Beach, the
18 Consultant will provide equal benefits to employees with spouses and its
19 employees with domestic partners. Additional information about the City of
20 Long Beach's Equal Benefits Ordinance may be obtained from the City of
21 Long Beach Business Services Division at 562-570-6200."

22 B. The failure of the Consultant to comply with the EBO will be
23 deemed to be a material breach of the Agreement by the City.

24 C. If the Consultant fails to comply with the EBO, the City may
25 cancel, terminate or suspend the Agreement, in whole or in part, and monies due or
26 to become due under the Agreement may be retained by the City. The City may
27 also pursue any and all other remedies at law or in equity for any breach.

28 D. Failure to comply with the EBO may be used as evidence

1 against the Consultant in actions taken pursuant to the provisions of Long Beach
2 Municipal Code 2.93 et seq., Contractor Responsibility.

3 E. If the City determines that the Consultant has set up or used its
4 contracting entity for the purpose of evading the intent of the EBO, the City may
5 terminate the Agreement on behalf of the City. Violation of this provision may be
6 used as evidence against the Consultant in actions taken pursuant to the provisions
7 of Long Beach Municipal Code Section 2.93 et seq., Contractor Responsibility.

8 23. NOTICES. Any notice or approval required by this Agreement shall
9 be in writing and personally delivered or deposited in the U.S. Postal Service, first class,
10 postage prepaid, addressed to Consultant at the address first stated above, and to City at
11 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a copy
12 to the City Engineer at the same address. Notice of change of address shall be given in
13 the same manner as stated for other notices. Notice shall be deemed given on the date
14 deposited in the mail or on the date personal delivery is made, whichever occurs first.

15 24. COPYRIGHTS AND PATENT RIGHTS.

16 A. Consultant shall place the following copyright protection on all
17 Data: © City of Long Beach, California ____, inserting the appropriate year.

18 B. City reserves the exclusive right to seek and obtain a patent or
19 copyright registration on any Data or other result arising from Consultant's
20 performance of this Agreement. By executing this Agreement, Consultant assigns
21 any ownership interest Consultant may have in the Data to City.

22 C. Consultant warrants that the Data does not violate or infringe
23 any patent, copyright, trade secret or other proprietary right of any other party.
24 Consultant agrees to and shall protect, defend, indemnify and hold City, its officials
25 and employees harmless from any and all claims, demands, damages, loss, liability,
26 causes of action, costs or expenses (including reasonable attorney's fees) whether
27 or not reduced to judgment, arising from any breach or alleged breach of this
28 warranty.

1 25. COVENANT AGAINST CONTINGENT FEES. Consultant warrants
2 that Consultant has not employed or retained any entity or person to solicit or obtain this
3 Agreement and that Consultant has not paid or agreed to pay any entity or person any fee,
4 commission or other monies based on or from the award of this Agreement. If Consultant
5 breaches this warranty, City shall have the right to terminate this Agreement immediately
6 notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments
7 due under this Agreement or otherwise recover the full amount of the fee, commission or
8 other monies.

9 26. WAIVER. The acceptance of any services or the payment of any
10 money by City shall not operate as a waiver of any provision of this Agreement or of any
11 right to damages or indemnity stated in this Agreement. The waiver of any breach of this
12 Agreement shall not constitute a waiver of any other or subsequent breach of this
13 Agreement.

14 27. CONTINUATION. Termination or expiration of this Agreement shall
15 not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11,
16 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

17 28. TAX REPORTING. As required by federal and state law, City is
18 obligated to and will report the payment of compensation to Consultant on Form 1099-
19 Misc. Consultant shall be solely responsible for payment of all federal and state taxes
20 resulting from payments under this Agreement. Consultant shall submit Consultant's
21 Employer Identification Number (EIN), or Consultant's Social Security Number if
22 Consultant does not have an EIN, in writing to City's Accounts Payable, Department of
23 Financial Management. Consultant acknowledges and agrees that City has no obligation
24 to pay Consultant until Consultant provides one of these numbers.

25 29. ADVERTISING. Consultant shall not use the name of City, its officials
26 or employees in any advertising or solicitation for business or as a reference, without the
27 prior approval of the City Manager or designee.

28 30. AUDIT. City shall have the right at all reasonable times during the

term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from and copy all books, records, accounts and other documents of Consultant relating to this Agreement.

31. THIRD PARTY BENEFICIARY. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

TWINING, INC., a California corporation

September 2, 2020

By [Signature]
Name R. Ryan
Title CEO and President

September 2, 2020

By [Signature]
Name Edward M. Twining, Jr.
Title Chairman

"Consultant"

CITY OF LONG BEACH, a municipal corporation

September 14, 2020

By Linda J. Iatun
City Manager

"City"

EXECUTED PURSUANT
TO SECTION 301 OF
THE CITY CHARTER.

This Agreement is approved as to form on Sept. 9, 2020.

CHARLES PARKIN, City Attorney

By [Signature]
Deputy

EXHIBIT “A-1”

Request for Qualifications Number

AP19-133



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

City of Long Beach

Request For Qualifications Number AP19-133

For

Construction Materials Testing and Inspection Services for Various Development Projects at Long Beach Airport

| | |
|-------------------------------|------------|
| Release Date: | 10/03/2019 |
| Mandatory Pre-SOQ Conference: | 10/16/2019 |
| Questions Due to the City: | 10/28/2019 |
| Posting of the Q & A: | 11/25/2019 |
| Due Date: | 01/07/2020 |

City Contact: Sokunthea Kol Buyer II 562-570-6123

See Section 4 for instructions on submitting SOQ.

Company Name _____ Contact Person _____

Address _____ City _____ State _____ Zip _____

Telephone (____) _____ Fax (____) _____ Federal Tax ID No. _____

E-mail: _____

Prices contained in this SOQ are subject to acceptance within 180 calendar days.

I have read, understand, and agree to all terms and conditions herein. Date _____

Signed _____

Print Name & Title _____

Rev 2016 0919



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

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ATTACHMENTS

- A CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFQ
- B PRO-FORMA AGREEMENT
- C STATEMENT OF NON-COLLUSION
- D DEBARMENT, SUSPENSION, INELIGIBILITY CERTIFICATION
- E W-9 REQUEST FOR TAXPAYER IDENTIFICATION NUMBER AND CERTIFICATION AND
VENDOR APPLICATION FORM
- F SECRETARY OF STATE REGISTRATION PRINTOUT
- G EQUAL BENEFITS ORDINANCE (EBO) COMPLIANCE FORM
- H INSURANCE REQUIREMENTS
- I DBE INSTRUCTIONS AND FORMS

APPENDICES

- A PROJECT DESCRIPTIONS
- B FAA - DESIGN AND ENGINEERING STANDARDS
- C FAA - AIRPORT CONSTRUCTION STANDARDS
- D FAA - AIRPORT ENGINEERING BRIEFS
- E SCOPE OF SERVICES SAMPLES
- F CONSULTANT SERVICES FEE SAMPLE
- G FEDERAL PROVISIONS FOR PROFESSIONAL SERVICES (A/E) CONTRACTS
UNDER THE AIRPORT IMPROVEMENT PROGRAM



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1. OVERVIEW OF PROJECT

Project Overview

The City of Long Beach ("City"), sponsor for the Long Beach Airport ("Airport"), is soliciting Statements of Qualifications (SOQ) from qualified and experienced professional Consultants to provide Construction Materials Testing and Inspection services for airport development projects. The City encourages businesses of all sizes to participate in this RFQ process. The City desires to enter into multiple non-exclusive contracts for the Scope of Services and will issue task orders based on available funding and phasing.

This RFQ shall include, but is not limited to, the following projects:

- Taxiway D Rehabilitation
- Runway 16R-34L Conversion to Taxiway B
- Taxiway L Improvements
- Taxiway and Taxilane F Reconstruction, and
- Additional unforeseen and as-needed projects, that are not subject to federal grants

The Airport will issue a subsequent request for a general project proposal to a select number of Short-listed Consultants. Generally, the projects will focus on rehabilitating pavement to sustain a projected 20-year usable pavement life. The project will also include updating the runway and associated taxiways to the current FAA airport geometry and lighting standards while incorporating the decisions derived from the Airfield Geometry Study (AGS) Preferred Alternative 3A. The value of the requested scope of services is anticipated to be \$1.5M total.

Airport sponsors must use qualification-based selection procedures in the selection and engagement of consultants in the same manner as Federal contracts for architectural and engineering services negotiated under Title IX of the Federal Property and Administration Services Act of 1949, or equivalent State/sponsor qualifications based requirements. The guidelines included in Chapter 2 of Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5100-14E Change 1 are recommended to comply with Title 49 Code of Federal Regulations (CFR) § 18.36 when selecting consultants for airport projects funded under Federal grant programs and are hereby incorporated by reference into this RFQ. Should any conflict arise between this RFQ and FAA AC 150/5100-14E Change 1, the more stringent requirement shall take precedence.

Consultant(s) will be tentatively selected based on qualifications and subsequent task order costs will be negotiated prior to contract award. The contract will be for a set period of time as agreed upon by the Airport and the selected Consultant(s). The selected Consultant(s) will be assigned tasks for the project at the sole discretion of the Airport. If a fee cannot be agreed upon between the Airport and the selected Consultant(s), then negotiations will be terminated and the Airport will enter into negotiations with the firm ranked next.



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2. **ACRONYMS/DEFINITIONS**

For purposes of this RFQ, the following acronyms/definitions will be used:

| | |
|------------------------------|--|
| AC | Advisory Circular |
| ACIP | Airport Capital Improvement Plan |
| AGS | Airfield Geometry Study |
| ASTM | American Society for Testing and Materials |
| Awarded Consultant | The organization/individual that is awarded a contract with the City of Long Beach, California for the services identified in this RFQ. |
| City | The City of Long Beach and any department or agency identified herein. |
| Consultant | Organization/individual submitting qualifications in response to this RFQ. A firm, individual, partnership, corporation, or joint venture that performs architectural, engineering or planning services as defined in this RFQ, employed by the Airport to undertake work funded, wholly or in part, under the FAA airport grant assistance program. |
| Contractor | See "Consultant" |
| CSPP | Construction Safety and Phasing Plan |
| DBE | Disadvantaged Business Enterprise |
| Department / Division | City of Long Beach, Long Beach Airport, Engineering Division. |
| Engineer | The Airport Engineer of the City of Long Beach and designated representatives. |
| Engineering Services | Professional services of an engineering nature, required to be performed or approved by a person licensed, registered, or certified to provide such services associated with research, planning, development, design, construction, alteration, or repair of real property; and other professional or incidental services, which members of the engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, |



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conceptual design, plans and specifications, value engineering, construction phase services, soil engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services.

| | |
|--|--|
| Evaluation/Selection Committee | An independent committee comprised of representatives of the City and other qualified professionals established to review qualifications submitted in response to the RFQ, evaluate the SOQ, and select Consultant(s). |
| FAA | Federal Aviation Administration |
| FBO | Fixed Base Operator |
| Fee | Compensation paid to the Consultant for professional services rendered |
| Fixed Fee | A percentage rate applied to all estimated costs, including overhead, to determine payment for profit, willingness to serve, and assumption of responsibility |
| LGB | Long Beach Airport |
| May | Indicates something that is not mandatory but permissible. |
| PFC | Passenger Facility Charge. A passenger facility fee imposed by a public agency on passengers enplaned at a commercial service airport it controls for purposes of financing airport planning, land acquisition, development, or other approved projects. |
| Primary Engineer/Principal Consultant | A firm that is held responsible for the overall performance of the professional service including that which is accomplished by others under separate or special services subcontracts. |
| Proposer | See "Consultant" |
| RFQ | Request for Qualifications. |
| Shall / Must | Indicates a mandatory requirement. Failure to meet a mandatory requirement may result in the rejection of a SOQ as non-responsive. |
| Should | Indicates something that is recommended but not mandatory. If the Contractor fails to provide recommended information, the City may, at its sole option, ask the Contractor to provide the information or evaluate the SOQ without the information. |



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| | |
|---|---|
| SOQ | Statement of Qualifications submitted in response to this RFQ |
| Sponsor | A public agency or private owner of a public-use airport that submits to the FAA an application for financial assistance for the airport (49 USC § 47102(19)). The City of Long Beach – Airport Department is the Sponsor for the Long Beach Airport. |
| SRM | Safety Risk Management |
| SSCP | Security Screening Checkpoint |
| Subcontractor/ Subconsultant | Third party not directly employed by the Consultant who will provide services identified in this RFQ. |
| TAIP | Terminal Area Improvements Project |

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3. SCOPE OF PROJECT

3.1 General Background

The Airport is a Department of the City. The Airport covers 1,166 acres of area and is centered between the major business and tourism areas of Orange and Los Angeles counties and has continued to serve as an economic engine for the region since 1923. Aviation activities are located just north of Interstate 405 (I-405) and generally bound by Cherry Avenue to the west, City of Lakewood and Douglas Park to the north, and Lakewood Boulevard to the east. The Airport and surrounding area are located in the City's Airport Land Use District, which the zoning code designates as Planned Development (PD). Allowed uses within the District (PD-12) include areas for commercial storage, general industrial, light industrial, medium industrial, park or planned development.

The Airport is slot regulated and currently allocates 50 daily slots for air carrier operations. Five major airlines (JetBlue, Southwest, American Airlines, Delta, and Hawaiian Airlines), along with smaller charter operators, served more than 3.9 million passengers in calendar year 2018. In addition to commercial operations, aircraft manufacturing and the completion center for Gulfstream corporate jets and four Fixed Base Operators (FBO) also operate at LGB. Cargo operations by FedEx and UPS handled just over 48 million pounds of cargo last year. This activity in 2018, combined with a healthy general aviation component, provided LGB with just over 274,000 aircraft operations.

Terminal

The existing Long Beach Airport terminal building ("Terminal") was constructed in 1941 and was declared a local historic landmark in 1990. The existing 11-gate passenger concourse ("Concourse") and passenger security-screening checkpoint ("SSCP") were completed in 2012 as part of the first phase of the Terminal Area Improvements Program (TAIP).

The Airport is currently undergoing the second phase of the TAIP ("Phase II"), which is estimated to be complete in 2021. Phase II generally focuses on the pre-security side and is intended to increase operational efficiency and improve passenger experience at the Airport.

Airfield

LGB has three runways, including one primary commercial runway of 10,000 feet, a secondary air-carrier with a length of 6,192 feet, and a 3,918 ft long General Aviation runway. As a small hub airport with 12.5 million square feet of airfield pavement, LGB relies on the FAA Airport Improvement Program (AIP) to ensure that the Airport



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continues to conform to existing and future demands, facilitates safe and efficient operations, and maintains FAA compliant airfield.

In 2002, the FAA identified LGB as one of the sixteen assessed airports that would benefit from safety enhancements to prevent runway incursions. The FAA also identified multiple "Hot Spots" or high risk of incursion locations within the LGB airfield. The Airport subsequently completed a multi-year geometry study that was intended to address the complexities of the airfield geometry. In December 2014, City council approved the Alternative 3A recommendation from the AGS as the preferred solution. The solutions comprise numerous airfield geometry reconfigurations to be implemented incrementally over 20+ years to construct. LGB has incorporated these recommendations into the LGB Airport Layout Plan (ALP) and the Airport Capital Improvement Plans (ACIP). Additional detailed information regarding each project are listed in Appendix A Project Descriptions.

- 3.2 **General Scope.** The City desires to engage the services of professional consulting firms to provide Material Testing and Inspection services for various development projects at the Airport. Potential projects include, but are not limited to, those contained in the Airport's Capital Improvement Plan (ACIP) provided in Appendix A Project Descriptions. The work funded under Federal grant programs, are expected to be accomplished during the course of several grant cycles.
- 3.3 **Material Testing and Inspection Services.** The main category of Consultant services that are utilized for projects conducted under Airport grant programs for this RFQ is Materials Testing and Inspection of Airport construction projects:

The scope of services generally includes, but are not limited to:

- a. Attending preconstruction meetings with the Contractor, Design Team, other Consultants, and the Airport. Review project organization, lines of authority and communication, and project procedures.
- b. Aligning schedule of work performance with the Contractor's schedule for fabrication, inspection, delivery, and installation of equipment, materials, and fixtures.
- c. Coordinating and dispatching qualified personnel to perform quality assurance activities, i.e., material testing and inspection as required and as described in FAA AC 150/5370-10H.
 1. Testing must be performed in full conformance with all FAA requirements and the American Society for Testing and Material (ASTM) standards.



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2. Testing must be performed by testing laboratories which comply with all applicable FAA requirements and ASTM standards.
 3. It is desirable that the consulting firm can dispatch qualified personnel within four (4) hours. Services are requested one day prior and are typically performed between the hours of 7:00 AM and 5:00 PM, Monday through Friday, but may vary depending on time limitations set for the project.
- d. Observing work in progress for conformance with plans, specifications, and schedules. Reporting defects and deficiencies to the City.
 - e. Providing reports of all testing services performed to the Airport's representative and/or other Consultant teams within such timeframe required to avoid any delay in construction.
 - f. At the end of each project, providing a final report including all test results, highlighting tests that failed or did not meet the applicable test standard and note corrective action and retesting result.
 - g. Attending designated progress meetings and other specially called meetings, as determined by the Airport.
 - h. Providing deputy and/or inspection as required by code or contract documents. Deputy inspections shall include, but are not limited to: grading, reinforced concrete, prestressed concrete, masonry, structural steel, steel moment and ductile frames, welding, high strength bolts, epoxy anchors, fireproofing, and structural observation.
- 3.4 **Division of Responsibility and Authority.** It is common to have one firm provide the basic services and one or more firms provide special services. In these cases, the firm providing the basic services is considered the primary engineer or principal consultant as defined above. As such, the principal consultant will represent the City in coordinating and overseeing the work of other engineering / consultant firms and has the overall responsibility to coordinate the work and to review the work products for general conformance to the requirements of the City. The subsequent task order assignments shall clearly specify the division of responsibility and authority between all parties involved in carrying out elements of the project.
- 3.5 **Expected Projects.** If multiple firms are selected, the expected projects to be performed by each firm will be defined for federally funded projects, together with the statement of work and the required services, during the selection process, before the award of contracts. The Airport will provide notification to each firm of the projects they were awarded.



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- 3.6 All prospective Consultants are advised that this RFQ does not guarantee work, and that some of the services may not be required. The City reserves the right to initiate additional procurement action for any of the services included in this RFQ.

4. **SUBMITTAL INSTRUCTIONS**

- 4.1 For questions regarding this RFQ, submit all inquiries via email to rfppurchasing@longbeach.gov by 4:00 PM, PST on October 28, 2019. Responses to the questions will be posted on the City's website longbeach.gov/purchasing under the "Bids/RFPs" tab no later than the date and time shown below. All proposers are recommended to visit the abovementioned City website on a regular basis as the responses may be posted earlier than the date above.

- 4.1.1 The City will not be responsible for or bound by (1) any oral communication or (2) any other information or contact that occurs outside the official communication process specified herein, unless confirmed in writing by the City Contact.

4.2 **RFQ Timeline (times indicated are Pacific Time)**

| <i>TASK</i> | <i>DATE/TIME</i> |
|--|------------------------------|
| Mandatory Pre-SOQ Conference | October 16, 2019 at 9:00 am |
| Deadline for submitting questions | October 28, 2019 by 4:00 pm |
| Answers to all questions submitted available | November 25, 2019 by 4:00 pm |
| Deadline for submission of SOQ | January 7, 2020 by 11:00 am |
| Evaluation period | January – February 2020 |
| Invitation for Interview Presentations | Week of January 27, 2020 |
| Interview Presentations | Week of February 10, 2020 |
| Selection of Consultant | On or about February 2020 |

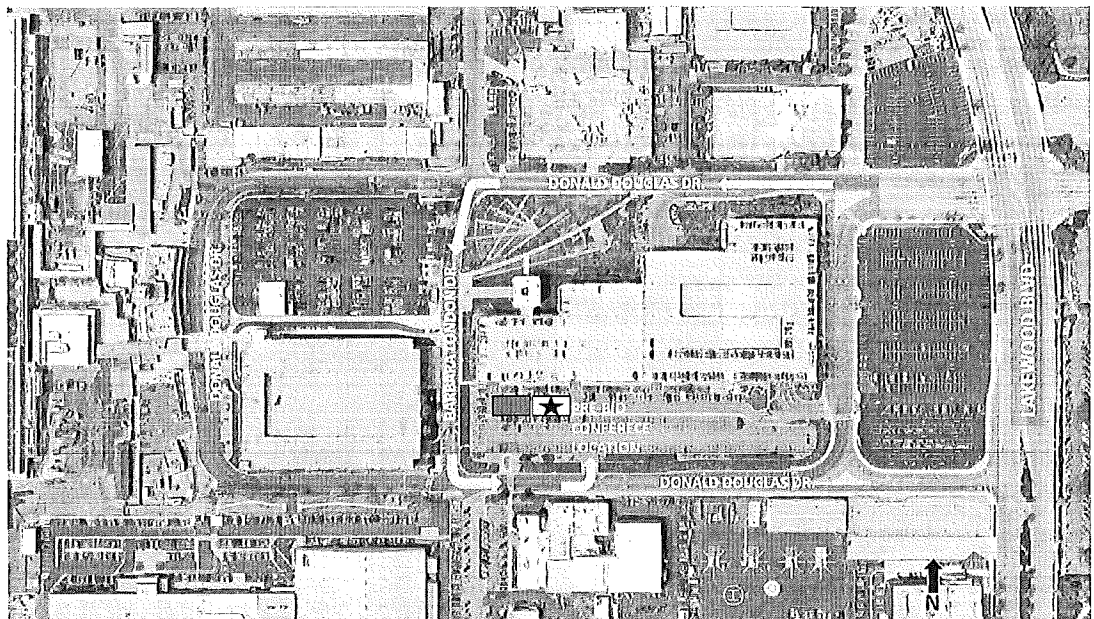
NOTE: These dates represent a tentative schedule of events. The City reserves the right to modify these dates at any time, with appropriate notice to prospective Contractors.



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4.2.1 Mandatory Pre-SOQ Meeting

A mandatory pre-SOQ meeting is scheduled for **October 16, 2019 at 9:00 AM at LGB Engineering Field Construction Office, 4339 Donald Douglas Dr., Long Beach CA 90808** (located on the surface parking lot directly south of Parking Structure B. Entrance is through eastbound Donald Douglas Drive). Attendees are encouraged to park at the surface lot adjacent to the LGB Field Construction Office. Parking at the surface lot is free of charge. Valet will NOT be validated.



The purpose of this conference is to explain the scope of the project and provide answers to questions regarding the RFQ document. It is recommended that Consultants bring a copy of the RFQ document to this conference, as limited copies will be available.

RSVPs are required and helpful in determining the required resources needed to conduct the meeting. Please use the "RSVP" button on the PlanetBids site to RSVP prior to the pre-SOQ conference.

Due to the nature of the scope of services and the specific standards required by the City, **no SOQ will be accepted from a Consultant who fails to attend the Pre-SOQ Conference as scheduled.** Consultants shall be required to sign-in at the Pre-SOQ Conference. Please note that attendance to the conference is only mandatory for Proposers submitting SOQs as Primary Consultants. Attendance to the conference is optional for prospective subconsultants/subcontractors.



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4.3 Method of Submission

Electronic SOQs shall be submitted via the City's secure online bidding system. All required sections of the SOQ must be submitted via the website. Proposer is solely responsible for "on time" submission of their electronic SOQ. The Bid Management System will not accept late submittals and no exceptions shall be made. Proposers will receive an e-bid confirmation number with a time stamp from the Bid Management System indicating that their SOQ was submitted successfully. The City will only receive those SOQs that were transmitted successfully.

RFQ cover page shall be signed in ink, scanned and included with SOQ in the electronic submission.

Submit SOQ online at:

<http://www.planetbids.com/portal/portal.cfm?CompanyID=15810>

Technical support is available by phone at (818) 992-1771. A list of Frequently Asked Questions is also available by clicking on the red question mark icon for Support, located at the top-right corner once "Place eBid" has been selected and all terms and addenda have been acknowledged, as well as at the top-right corner of the "Bid Opportunities" tab.

- 4.4 **SOQs must be received by 11:00 AM (PST) on January 7, 2020.** SOQs that do not arrive by the specified date and time WILL NOT BE ACCEPTED. Consultants may submit their SOQ any time prior to the above stated deadline. The City will not be held responsible for SOQs mishandled as a result of technical error. Facsimile or telephone SOQs will NOT be considered unless otherwise authorized; however, SOQs may be modified by fax or written notice provided such notice is received prior to the opening of the SOQs.
- 4.5 SOQs are to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFQ, per the evaluation criteria listed in Section 5.1. The SOQ should be presented in a format that corresponds to and references Section 3, Scope of Project; Section 7, Project Specifications; Section 8, Warranty/Maintenance and Service; Section 9, Company Background and References; and Section 10, Cost, and should be presented in the same order. Responses to each section and subsection should be labeled so as to indicate which item is being addressed.
- 4.6 Colored displays, promotional materials, etc., are not necessary or desired. Emphasis should be concentrated on conformance to the RFQ instructions, responsiveness to the RFQ requirements, and on completeness and clarity of content.



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- 4.7 The SOQ must be signed by the individual(s) legally authorized to bind the Consultant. Consultants shall complete the cover page of the RFQ document, sign in ink, and submit electronically with their SOQ.
- 4.8 If complete responses cannot be provided without referencing supporting documentation, such documentation must be provided with the SOQ and specific references made to the tab, page, section and/or paragraph where the supplemental information can be found.
- 4.9 Descriptions on how any and all equipment and/or services will be used to meet the requirements of this RFQ shall be given, in detail, along with any additional information documents that are appropriately marked.
- 4.10 SOQs shall be submitted in three (3) distinct parts:

Part One (1) – Statement of Qualifications

Part Two (2) – City Required Forms

Part Three (3) – Financial Documentation/Statements

THE SOQ MUST NOT INCLUDE COST AND PRICING INFORMATION. The City will request such information from selected Consultants prior to Contract award. **Inclusion of cost and pricing information will result in disqualification of the SOQ.**

- 4.11 A responsive SOQ will include the following completed documents:

- **SOQ**
- **City Required Forms** shall be one separate file and uploaded separately from the SOQ on the general attachment tab in PlanetBids:
 - Attachment A – Compliance with the Terms and Conditions of the RFQ, signed with any exceptions noted
 - Attachment C – Statement of Non-Collusion, signed and dated
 - Attachment D – Debarment, Suspension, Ineligibility and Voluntary Exclusion Certificate, signed and dated
 - Attachment E – Contractor's W-9
 - Attachment F – Secretary of State Registration. Contractors must be registered with the California Secretary of State prior to contract execution. Submission of Attachment F with the SOQ is not mandatory; however, if the Contractor has already filed, it may be uploaded as a general attachment.
 - Attachment G – Completed, signed and dated Equal Benefits Ordinance (EBO) Form.
 - Attachment H – Insurance Requirements, Signed and dated
 - Attachment I – Completed DBE Race-Neutral Participation Listing
 - Addenda (if applicable)



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- **Financial Documentation/Statements.**

5. SOQ EVALUATION AND AWARD PROCESS

- 5.1 SOQs shall be consistently evaluated based upon the following criteria:
 - 5.1.1 Demonstrated competence;
 - 5.1.2 Experience in performance of comparable engagements;
 - 5.1.3 Expertise and availability of key personnel;
 - 5.1.4 Financial stability;
 - 5.1.5 Conformance with the terms of this RFQ; and
- 5.2 SOQs shall be kept confidential until a contract is awarded.
- 5.3 The City may also contact the references provided in response to Section 9.3; contact any Consultant to clarify any response; contact any current users of a Consultant's services; solicit information from any available source concerning any aspect of an SOQ; and seek and review any other information deemed pertinent to the evaluation process. The City shall make an award in the best interests of the City of Long Beach.
- 5.4 The City reserves the right to request clarification of any SOQ term from prospective Consultants.
- 5.5 Selected Consultant(s) will be notified in writing. Any award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing Consultants unless and until an agreement is reached. If contract negotiations cannot be concluded successfully, the City reserves the right to negotiate a contract with another Consultant or withdraw the RFQ.
- 5.6 Any contract resulting from this RFQ shall not be effective unless and until approved by the City Council / City Manager, as applicable.
- 5.7 **Federal Procedures for Selection of Consultants.** The procedures included in Chapter 2 of FAA AC 150/5100-14E Change 1 are hereby incorporated by reference into this RFQ. Should any conflict arise between this RFQ and FAA AC 150/5100-14E Change 1, the more stringent requirement shall take precedence.
- 5.8 **Selection Committee.** The Airport Director will appoint a selection committee to evaluate each SOQ. The selection committee will be comprised of Airport officials (management staff), licensed engineers, and other professionals qualified to evaluate the merits of the SOQ based on the criteria listed in Section 5.



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5.9 SOQ Evaluation Criteria. The criteria to be used in evaluating potential Consultants are listed below. Numerical rating factors have been assigned to each criterion on the basis of the City's priorities and conception of the importance of each factor in the attainment of a successful project.

5.9.1 Proven experience in Airport construction materials testing and inspection and capability to perform all or most aspects of the project and recent experience in airport projects comparable to the proposed task.

(20 points)

5.9.2 Key personnel's professional qualifications, experience, and availability for the proposed project; their reputation and professional integrity and competence; and their knowledge of FAA regulations, policies, and procedures.

(15 points)

5.9.3 Demonstrated understanding of project implementation, potential problems and the City's special concerns.

(15 points)

5.9.4 Quality of projects previously undertaken and capability to complete projects without having major cost escalations or overruns.

(10 points)

5.9.5 Current workload and demonstrated ability to meet scheduled deadlines.

(10 points)

5.9.6 Ability to furnish qualified personnel for materials testing and/or construction inspection.

(10 points)

5.9.7 Understanding of the project's potential challenges and the Sponsor's special concerns.

(10 points)

5.9.8 Capability of a branch office that will do the work to perform independently of the home office, or conversely, its capability to obtain necessary support from the home office.

(5 points)

5.9.9 Degree of interest shown in undertaking the project and familiarity with and proximity to the geographic location of the project.

(5 points)

Total Possible SOQ Evaluation Score

(100 Points)

5.10 Pre-Selection Short List Procedure. Members of the selection committee will rank prospective Consultants by their respective SOQ Evaluation Scores. The selection committee will convene to discuss and evaluate scoring, for purposes of developing pre-selection short lists of the top-ranked Consultants for basic and special services. Proposers who score less than 80 out of the possible 100 points on the SOQ Evaluation Criteria will not be eligible to the short list.



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5.11 Interview Presentations. Consultants from the short lists will be invited to present their general approach to providing professional services and discuss their approach to meeting the City's requirements. The invitation notification will include the location, date, time, and parameters for the presentation and subsequent interview. Presenters must participate in the interview to a degree commensurate with their role in the firm's performance of the professional services offered.

5.11.1 Consultants from the short list will be invited to present their general approach to achieving project excellence, while successfully controlling time and costs for one of the projects listed in the ACIP. Short listed Consultants will be notified in writing of the project for which they are to prepare and present a general project proposal. The general project proposal must NOT include cost or pricing information. The interview and general proposal evaluation criteria include:

- a. Communication / interpersonal skills, including responses to questions.
(25 points)
- b. Technical approach – brief discussion of the tasks or steps the Consultant would take to accomplish the work described in the scope of services.
(25 points)
- c. Company's organizational and management structure and the team members and key personnel assigned to the management of contract and service delivery. Qualifications and time commitment of the team members proposed for the project.
(25 points)
- d. A detailed description of the proposed scope of services required for the identified project.
(25 points)

Total Possible Interview Score (100 Points)

5.12 Consultant Selection. Members of the selection committee will rank prospective Consultants by their respective Interview Scores. The selection committee will convene to discuss and evaluate scoring, for purposes of determining the highest qualified Consultant(s) for basic and special services. The City may select zero (0), one (1), or multiple Consultants. The Airport Director will submit the recommendation of the selection committee to the City Council for approval.

5.13 Following selection, prior to the start of contract negotiations, selected Consultants must submit to the City an initial cost proposal, required insurance certificates (including listed subconsultants), and the complete DBE list. It is anticipated that materials testing tasks will utilize the Cost Plus Fixed Fee Payment contracting methods; however, specific contracting methods will be agreed upon during contract negotiations.



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6. PROTEST PROCEDURES

6.1 Who May Protest

Only a proposer who has actually submitted a SOQ is eligible to protest a contract awarded through a Request for Qualifications (RFQ). A proposer may not rely on the protest submitted by another proposer but must pursue its own protest.

6.2 Time for Protest

The City will post a notice of the intent to award a contract at least ten (10) business days before an award is made. The notice will be available to all proposers who submitted an SOQ via the City's electronic bid notification system at <http://www.longbeach.gov/purchasing/default.asp>. A proposer desiring to submit a protest for a SOQ must do so within five (5) business days of the electronic notification of intent to award. The City Purchasing Agent must receive the protest by the close of business on the fifth (5th) business day following posting of notification of intent to award the contract. Proposers are responsible for registering with the City's electronic bid notification system and maintaining an updated Consultant profile. The City is not responsible for proposers' failure to obtain notification for any reason, including but not limited to failure to maintain updated email addresses, failure to open/read electronic messages and failure of their own computer/technology equipment. The City's RFQ justification memo will be available for review by protestors once the notification of intent to award has been posted via the City's electronic bid notification system.

6.3 Form of Protest

The protest must be in writing and signed by the individual who signed the SOQ or, if the proposer is a corporation, by an officer of the corporation, and addressed to the City Purchasing Agent. Protests may be submitted via US Mail, hand delivery or email, and must include a valid email address, street address and phone number sufficient to ensure that the City's decision concerning the protest will be received. Protests must set forth a complete and detailed statement of the grounds for the protest and include all relevant information to support the grounds stated, and must refer to specific portions of the RFQ and attachments upon which the protest is based. Once the protest is received by the City Purchasing Agent, the City will not accept additional information on the protest unless the City requests it.

6.4 City Response to Protest

The City Purchasing Agent or designee will respond with a decision regarding the protest within five (5) business days of receipt of protest by email or US Mail to the address provided in the protest. This decision shall be final.



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6.5 Limitation of Remedy

The procedure and time limits set forth herein are mandatory and are the proposer's sole and exclusive remedy in the event of a protest. The proposer's failure to comply with these procedures shall constitute a waiver of any right to further pursue a protest, including filing a Government Code Claim or initiation of legal proceedings.

7. PROJECT SPECIFICATIONS

7.1 Project Scope Definition. It is important for the City and Consultant(s) to reach a complete and mutual understanding of the scope of services to be provided. The general scope of services developed during the RFQ process is of necessity too broad to serve as the basis for a contractual agreement. A well-defined project description and scope of services shall be developed between the City and Consultant prior to negotiating a project design fee. The project scope may be accomplished during a meeting with the Airport Engineer or through investigation and/or study to clearly define the extent of the project. The project scope meeting will offer the opportunity for refinement, amendment, and allow for project definition of the services to be rendered.

7.2 The scope of the service(s) must be sufficiently detailed so that a reasonable fee estimate can be provided to the City (see Appendix F). for Consultant Services Fee-Costs Samples. Although the scope of the service(s) will vary from project to project (see samples in Appendix E), the following items are typical of those that should be considered in developing the scope of services:

7.2.1 Nature, extent, and character of the project, the location thereof, and time limitations.

7.2.2 Delineation of responsibilities of the Consultant, the City, and other Consultants and parties involved in the performance of the project, particularly key personnel such as the project manager.

7.2.3 List of meetings the Consultant is expected to attend.

7.2.4 Special services required.

7.2.5 Complexity of construction.

7.2.6 Safety and operational considerations.

7.2.7 Environmental considerations.

7.2.8 Inspection services during construction.



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7.2.9 Preparation of forms, letters, documents, and reports.

7.2.10 Coordination with other Consultants and Agencies.

7.2.11 Deliverables.

7.2.12 Data and material furnished by the City.

7.2.13 Testing and commissioning requirements.

7.2.14 City / County requirements.

8. WARRANTY/MAINTENANCE AND SERVICE

The Consultant shall maintain all warranties listed in the Pro-Forma Agreement attached to this RFQ. Consultants shall provide acknowledgement and acceptance of the full Pro Forma Agreement of the City of Long Beach on company letterhead as part of the SOQ.

9. COMPANY BACKGROUND AND REFERENCES

9.1 Primary Consultant Information

Consultants must provide a company profile. Information provided shall include:

- Company ownership. If incorporated, the state in which the company is incorporated and the date of incorporation. An out-of-state Consultant must register with the State of California Secretary of State before a contract can be executed (<http://www.sos.ca.gov/business/>).
- Location of the company offices.
- Location of the office servicing any California account(s).
- Number of employees both locally and nationally. Specify the number of full time and part-time employees residing in Long Beach.
- Location(s) from which employees will be assigned.
- Name, address and telephone number of the Consultant's point of contact for a contract resulting from this RFQ.
- Company background/history and why Consultant is qualified to provide the services described in this RFQ.
- Length of time Consultant has been providing services described in this RFQ to the public and/or private sector. Please provide a brief description.



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- Resumes for key staff to be responsible for performance of any contract resulting from this RFQ.
- Financial stability: Proposers must provide financial statements giving the City enough information to determine financial stability. These statements may include, but are not limited to:
 - a) Financial Statement or Annual Report;
 - b) Business tax return;
 - c) Statement of income and related earnings;
 - d) Statement of Changes in financial position;
 - e) Letter from the proposer's banking institution;
 - f) Statement from a certified public accounting firm.

The level and term of documentation required from the proposer to satisfy the City will be commensurate with the size and complexity of the contract and proposers should submit accordingly. If the information submitted by the proposer, or available from other sources, is insufficient to satisfy the City as to the proposer's contractual responsibility, the City may request additional information from the proposer or may deem the SOQ non-responsive. The City's determination of the proposer's responsibility, for the purposes of this RFQ, shall be final.

9.2 Subconsultant Information

9.2.1 Does this SOQ include the use of subconsultants?

Yes _____ No _____ Initials _____

If "Yes", Consultant must:

- 9.2.1.1 Identify specific subconsultants and the specific requirements of this RFQ for which each proposed subconsultant will perform services.
- 9.2.1.2 Provide the same information for any subconsultants as is indicated in Section 9.1 for the Consultant as primary consultant.
- 9.2.1.3 References as specified in Section 9.3 below must also be provided for any proposed subconsultants.
- 9.2.1.4 The City requires that the awarded Consultant provide proof of payment of any subconsultants used for this project. SOQs shall include a plan by which the City will be notified of such payments.



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- 9.2.1.5 Primary Consultant shall not allow any subconsultant to commence work until all insurance required of subconsultant is obtained.

9.3 References

Consultants should provide a minimum of five (5) references from similar projects performed for state and/or large local government clients within the last three years. Information provided shall include:

- Client name;
- Project description;
- Project dates (starting and ending);
- Technical environment
- Staff assigned to reference engagement that will be designated for work per this RFQ;
- Client project manager name and telephone number.

9.4 Business License

The Long Beach Municipal Code (LBMC) requires all businesses operating in the City of Long Beach to pay a business license tax. In some cases, the City may require a regulatory permit and/or evidence of a State or Federal license. Prior to issuing a business license, certain business types will require the business license application and/or business location to be reviewed by the Development Services, Fire, Health, and/or Police Departments.

For more information, go to www.longbeach.gov/finance/business_license.

10. COST

- 10.1 THE SOQ **MUST NOT** INCLUDE COST AND PRICING INFORMATION. Inclusion of cost and pricing information shall result in disqualification of the SOQ. The below is for informational purposes only and will be requested only from the selected successful Consultant(s).
- 10.2 Upon selection of the successful Consultant and prior to the start of contract negotiations, the City and Consultant shall meet to develop a general forecast scope of services for the term of the Contract. The awarded Consultant shall submit a proposed general fee and supporting cost breakdown. The proposed general fee will be used to establish the overall contract value.
- 10.3 Compensation for various assigned tasks may be based on a fixed sum, paid monthly, or on some other mutually agreeable basis, with per diem or hourly rates in addition to time spent at the request of the City. The Consultant shall provide supporting per diem and hourly rate cost breakdown information following selection,



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prior to contract award. The Consultant may provide per diem or hourly rates on an annual basis or blended rates for the initial term.

- 10.4 A detailed scope of services, proposed fee, and supporting cost breakdown will be requested by the City on a task order basis. Subsequent fee review and negotiations will be conducted in accordance with FAA AC 150/5100-14E Change 1.
- 10.5 Allowable Costs. Costs incurred must be consistent with the Federal cost principles contained in 48 CFR part 31, Office of Management and Budget (OMB) Circular A- 87, and FAA Order 5100.38 to be reimbursable under an airport planning or development grant. Chapter 4 of FAA AC 150/5100-14E Change 1 contains examples of typical expenses allowable under the above regulations.
- 10.6 **Non-allowable Costs.** The expenses listed below are not allowable for reimbursement under an airport grant:
 - 10.6.1 Costs of amusement and social activities and incidental costs such as meals, lodging, rentals, transportation, and gratuities.
 - 10.6.2 Contributions and donations.
 - 10.6.3 Bad debts, including losses due to uncollectible customer's accounts and other claims, related collection costs, and related legal costs, arising from other businesses of the Consultant.
 - 10.6.4 Dividend provisions or payments and, in the case of sole proprietors and partners, distributions of profit.
 - 10.6.5 Interest on borrowed capital.
 - 10.6.6 Bonus payment for early completion of work.

11. **BONDS**

Not Applicable.

12. **ADDITIONAL REQUIREMENTS FROM FUNDING SOURCE**

Any Contract arising from this procurement process shall be funded in whole or in part from grants awarded under FAA Airport Improvement Program (AIP) grant. Pursuant to said grants, the Awarded Consultant is required to comply with (and to incorporate into its agreements with any sub-consultants) the following provisions in the performance of the Contract, as applicable.



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- 12.1 Order of Precedence – In the event of conflicts or discrepancies between these Federal grant funding provisions and any other Contract document, the Federal grant provisions shall take precedence.
- 12.2 Access to Consultant's Records – The Awarded Consultant shall provide the City, the Office of State and Local Government Coordination and Preparedness, the Comptroller General of the United States, or any of their authorized representatives, access to any books, documents, papers, and records of the Awarded Consultant which are directly pertinent to the work performed under the Contract for the purposes of making audit, examination, excerpts or transcriptions.
- 12.3 Americans with Disabilities Act – The Awarded Consultant hereby certifies that it will comply, as applicable, with the Americans with Disabilities Act of 1990 ("ADA"), 42 USC §§ 12101 et seq., and its implementing regulations, including Subtitle A, Title II of the ADA. The Awarded Consultant will provide, as applicable, reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the ADA. The Awarded Consultant will not discriminate against persons with disabilities nor against persons due to their relationship to or association with a person with a disability. Any contract entered into by the Awarded Consultant (or any subcontract thereof), relating to this Agreement, shall be subject to the provisions of this paragraph.
- 12.4 Compliance with Contract Work Hours and Safety Standard Act – The Awarded Consultant shall comply with the requirements of §§ 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C §§ 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5).
- 12.5 Compliance with Copeland "Anti-Kickback" Act – The Awarded Consultant shall comply with the requirements of the Copeland "Anti-Kickback" Act (18 U.S.C. § 874) as supplemented in the Department of Labor regulations (29 CFR Part 3).
- 12.6 Compliance with Davis-Bacon Act – The Awarded Consultant shall comply with the requirements of the Davis-Bacon ACT (40 U.S.C. §§ 276 to 276-a7) as supplemented by Department of Labor regulations (29 CFR Part 5) where applicable and shall provide the City with all applicable payroll records on a weekly basis.
- 12.7 Copyright – The Awarded Consultant acknowledges the existence of requirements and regulations of the awarding Federal agency relating to copyrights and right in data, including, but not limited to those set forth in 44 CFR Part 13.34 which states: "The Federal awarding agency reserves royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes: (a) The copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and (b) Any rights of copyright



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to which a grantee, subgrantee or a Consultant purchases ownership with grant support." The Awarded Consultant shall comply with 25 CFR 85.34.

- 12.8 Drug-Free Workplace – The Awarded Consultant hereby certifies that it shall provide or shall continue to provide a drug-free workplace as required by the Drug-Free Workplace Act of 1988 (41 U.S.C. § 701), and implemented at 44 CFR Part 17.
- 12.9 Energy Efficiency – The Awarded Consultant shall comply with all mandatory standards and policies relating to energy efficiency that are contained in the State of California's energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163, 89 Stat. 871).
- 12.10 Environmental Legislation – The Awarded Consultant shall comply with all applicable standards, orders or requirements issued under § 306 of the Clean Air Act (42 U.S.C. 1857 (h)), § 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).
- 12.11 System for Award Management (SAM) – In accordance with Executive Orders 12549 and 12689 concerning suspension and debarment, contracts must prohibit Consultants from awarding any subcontract to persons (individuals or organizations) listed as having an active exclusion of the Federal System for Awards Management Database (www.sam.gov).
- 12.12 Minority, Women and Other Business Enterprise Outreach – In accordance with CalEMA/Grantor directives, as applicable, firms who represent small business enterprises (SBEs), minority business enterprises (MBEs) and women business enterprises (WBEs) are encouraged to participate in competition for this opportunity. Any such enterprise shall include the appropriate SBE/MBE/WBE certification along with its SOQ. The Awarded Consultant agrees that, to the extent consultants or subconsultants are utilized, the Awarded Consultants shall use small, minority, women-owned, or disadvantaged business concerns and consultants or subconsultants to the extent practicable and shall take the affirmative steps as set forth in 49 CFR §13.36(e).
 - 12.12.1 It is the policy of the City of Long Beach to encourage the use of Disadvantaged-, Minority- or Women-Owned Business Enterprises in all aspects of contracting relating to construction, materials and services, professional services, land development related activities, leases and concessions.
 - 12.12.2 The Airport has established a Triennial Disadvantaged Business Enterprise (DBE) Overall Goal of 8.0% applicable to U. S. Department of Transportation Federal Aviation Administration (FAA) assisted contracts for Federal Fiscal Years 2018-2020. However, bidders are urged to obtain DBE participation to the maximum extent possible.



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The requirements of 49 CFR part 26 apply to this contract. It is the policy of the City of Long Beach to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

If the Contractor intends to utilize subconsultants during the performance of this contract, the Contractor is expected to afford DBEs equitable opportunity to compete and perform in these areas. To facilitate capturing Race-Neutral DBE participation under this Contract, the Contractor is requested to complete and submit the "DBE Race-Neutral Participation Listing" form with the executed contract documents, which includes the following information for each DBE listed:

- 12.12.2.1 The name, address, and telephone number of the firm
- 12.12.2.2 Type of work to be performed;
- 12.12.2.3 The estimated dollar amount of work to be performed
- 12.12.2.4 Number of years in business.
- 12.12.2.5 DBE certification eligibility status, in conformance with 49 CFR Part 26
- 12.12.2.6 Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed to meet the Owner's overall goal.

12.13 National Preservation Acts – The Awarded Consultant shall assist City (if necessary) in assuring compliance with § 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470), Executive Order 11593 (identification and protection of historic properties), the Archeological and Historical Preservation Act of 1974 (16 U.S.C. § 469 a-1 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. § 4321).

12.14 Non-discrimination; Equal Employment Opportunity – The Awarded Consultant hereby assures the City that in performing its obligations pursuant to the Contract, it will comply with all applicable nondiscrimination requirements as set forth in 44 CFR Part 13.36. In addition, the Awarded Consultant shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Opportunity Employment," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60), and where applicable to the nondiscrimination provisions of the Omnibus Crime Control and Safe Street Acts of 1968 (42 U.S.C. § 3789d), the Victims of Crimes Act (42 U.S.C. § 10604(e)), the Juvenile Justice and Delinquency Prevention Act (42 U.S.C. § 5672(b)), the Civil Rights Act of 1964 (42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (29 U.S.C. § 794), the Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12131-34), the Education Amendments of 1972 (20 U.S.C. §§ 1681, 1683, 1685-86), and the Age Discrimination Act of 1975 (42 U.S.C. §§ 6101-07), see Executive Order 13279



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(equal protection of the laws for faith-based and community organizations). This provision must be incorporated by Awarded Consultant into any subcontract exceeding \$10,000.

- 12.15 Patent Rights – The Awarded Consultant acknowledges the existence of requirements and regulations of the awarding Federal agency relating to patent rights with respect to any discovery or invention which arises or is developed in the course or under this Contract, including, but not limited to those regulations and requirements set forth in 44 CFR Part 13.36. Any discovery or invention that arises during the course of this Contract shall be immediately reported to the Department's project management team. The awarding Federal agency shall determine how rights in the invention/discovery shall be allocated consistent with "Government Patent Policy" and 37 CFR Part 401.
- 12.16 Payments, Reports, Records, Retention and Enforcement – The Awarded Consultant acknowledges the requirements and regulations set forth in 44 CFR Parts 13.36 through 13.42 and 49 CFR Part 18 and agrees to cooperate with the City in order to allow the City to comply with said requirements. The Awarded Consultant shall retain all of its records relating to the project for a period of five (5) years after City makes final payment to the Awarded Consultant and all other pending matters are closed.
- 12.17 Publications – All publications created and/or published with funding under any contract arising from this RFQ shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions in this document are those of the author(s) and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate or the U.S. Department of Homeland Security."
- 12.18 Rights to Data – The Grantor and the City shall have unlimited rights or copyright license to any data first produced or delivered under this Agreement. "Unlimited rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public and perform and display publicly, or permit others to do so; as required by 48 CFR 27.401. Where the data are not first produced under this Contract or are published copyrighted data with the notice of 17 U.S.C § 401 or 402, the Grantor acquires the data under copyright license as set forth in 48 CFR 27.404(f)(2) instead of unlimited rights (4 CFR 27.404(a)).
- 12.19 Rights to Use Inventions – City and all grantors and/or awarding Federal Agency shall have an unencumbered right, and a non-exclusive, irrevocable, royalty-free license, to use, manufacture, improve upon and all others to do so for all governmental purposes, any invention developed under the Contract.



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- 12.20 All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Consultant has full responsibility to monitor compliance to the referenced statute or regulation. The Consultant must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

13. TERMS, CONDITIONS AND EXCEPTIONS

- 13.1 This contract will be for a period of two (2) years with three (3) annual renewal options at the discretion of the City. The contract term will not exceed 5 years.
- 13.2 The City reserves the right to alter, amend, or modify any provisions of this RFQ, or to withdraw this RFQ, at any time prior to the award of a contract pursuant hereto, if it is in the best interest of the City to do so.
- 13.3 The City reserves the right to waive informalities and minor irregularities in SOQs received.
- 13.4 The City reserves the right to reject any or all SOQs received prior to contract award.
- 13.5 The City will make an award in the best interests of the City of Long Beach after all factors have been evaluated.
- 13.6 Any irregularities or lack of clarity in the RFQ should be brought to the Purchasing Division designee's attention as soon as possible so that corrective addenda may be furnished to prospective Consultants.
- 13.7 SOQs must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance/service agreements, license agreements, lease purchase agreements and the Consultant's standard contract language. The omission of these documents may render a SOQ non-responsive.
- 13.8 Alterations, modifications or variations to a SOQ may not be considered unless authorized by the RFQ or by addendum or amendment.
- 13.9 SOQs which appear unrealistic in the terms of technical commitments, lack of technical competence, or are indicative of failure to comprehend the complexity and risk of this contract, may be rejected.



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- 13.10 SOQs may be withdrawn by written or facsimile notice received prior to the SOQ opening time.
- 13.11 The price and amount of this proposal must have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other consultant, Consultant or prospective Consultant.
- 13.12 No attempt may be made at any time to induce any firm or person to refrain from submitting an SOQ or to submit any intentionally high or noncompetitive proposal. All SOQs must be made in good faith and without collusion.
- 13.13 Prices offered by Consultants in their proposals are an irrevocable offer for the term of the contract and any contract extensions. The awarded Consultant agrees to provide the purchased services at the costs, rates and fees as set forth in their SOQ in response to this RFQ. No other costs, rates or fees shall be payable to the awarded Consultant for implementation of their proposal.
- 13.14 The City is not liable for any costs incurred by Consultants prior to entering into a formal contract. Costs of developing the SOQs or any other such expenses incurred by the Consultant in responding to the RFQ, are entirely the responsibility of the Consultant, and shall not be reimbursed in any manner by the City.
- 13.15 SOQ will become public record after staff proposes the award of a contract unless the SOQ or specific parts of the SOQ can be shown to be exempt by law. Each Consultant may clearly label all or part of a SOQ as "CONFIDENTIAL" provided that the Consultant thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any information that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the information.
- 13.16 A SOQ submitted in response to this RFQ must identify any subconsultants, and outline the contractual relationship between the awarded Consultant and each subconsultant. An official of each proposed subconsultant must sign, and include as part of the SOQ submitted in response to this RFQ, a statement to the effect that the subconsultant has read and will agree to abide by the awarded Consultant's obligations.
- 13.17 The awarded Consultant will be the sole point of contract responsibility. The City will look solely to the awarded Consultant for the performance of all contractual obligations which may result from an award based on this RFQ, and the awarded Consultant shall not be relieved for the non-performance of any or all subconsultants.
- 13.18 The awarded Consultant must maintain, for the duration of its contract, insurance coverages as required by the City. Work on the contract shall not begin until after



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the awarded Consultant has submitted acceptable evidence of the required insurance coverages.

- 13.19 Each Consultant must disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFQ. Any such relationship that might be perceived or represented as a conflict should be disclosed. The City reserves the right to disqualify any Consultant on the grounds of actual or apparent conflict of interest.
- 13.20 Each Consultant must include in its SOQ a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Consultant or in which the Consultant has been judged guilty or liable. Failure to comply with the terms of this provision will disqualify any SOQ. The City reserves the right to reject any SOQ based upon the Consultant's prior history with the City or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures.
- 13.21 The City will not be liable for Federal, State, or Local excise taxes.
- 13.22 Execution of **Attachment A** of this RFQ shall constitute an agreement to all terms and conditions specified in the RFQ, including, without limitation, the **Attachment B** contract form and all terms and conditions therein, except such terms and conditions that the Consultant expressly excludes.
- 13.23 The City reserves the right to negotiate final contract terms with any Consultant selected. The contract between the parties will consist of the RFQ together with any modifications thereto, and the awarded Consultant's SOQ, together with any modifications and clarifications thereto that are submitted at the request of the City during the evaluation and negotiation process. In the event of any conflict or contradiction between or among these documents, the documents shall control in the following order of precedence: the final executed contract, the RFQ, any modifications and clarifications to the awarded Consultant's SOQ, and the awarded Consultant's SOQ. Specific exceptions to this general rule may be noted in the final executed contract.
- 13.24 Consultant understands and acknowledges that the representations above are material and important, and will be relied on by the City in evaluation of the SOQ. Any Consultant misrepresentation shall be treated as fraudulent concealment from the City of the true facts relating to the SOQ.
- 13.25 No announcement concerning the award of a contract as a result of this RFQ may be made without the prior written approval of the City.



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- 13.26 Proposers are advised that any contract awarded pursuant to this procurement process that exceeds \$100,000 shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 *et seq.*, the Equal Benefits Ordinance. Proposers shall refer to **Attachment G** for further information regarding the requirements of the ordinance.

All Proposers shall complete and return, with their bid, the Equal Benefits Ordinance Compliance form contained in **Attachment G**. Unless otherwise specified in the procurement package, Proposers do not need to submit with their bid supporting documentation proving compliance. However, supporting documentation verifying that the benefits are provided equally shall be required if the proposer is selected for award of a contract.

- 13.27 All work performed in connection with construction shall be performed in compliance with all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770 *et seq.* of the California Labor Code), and (b) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction.

Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, including attorneys' fees, court costs, expert and witness fees, and other costs and fees of litigation, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Contract, including any obligations arising from the Project's Consultant's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subconsultants, or anyone under Consultant's control, in the performance of work or services under this Contract (collectively "Claims" or individually "Claim").

In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.



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If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

If the Consultant elects to use subconsultants, Consultant agrees to require its subconsultants to indemnify Indemnified Parties and to provide insurance coverage to the same extent as Consultant.

The provisions of this Section shall survive the expiration or termination of this Contract.

Consultant agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code sections 1770 *et seq.* City makes no representation or statement that the project or any portion thereof, is or is not a "public work" as defined in California Labor Code section 1720.

In all bid specifications, contracts and subcontracts for any such Public Work, Consultant shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the consultant to pay not less than the said prevailing rate of wages to all workers employed by the consultant in the execution of this contract. The Consultant expressly agrees to comply with the penalty provisions of California Labor Code section 1775 and the payroll record keeping requirements of California Labor Code section 1771."

- 13.28 **CALIFORNIA WAGE RATE REQUIREMENTS:** Pursuant to Division 2, Part 7, Chapter 1 of the Labor Code of the State of California, the Director of Public Works of the City by and on behalf of the City Council has obtained from the Director of the Department of Industrial Relations of the State of California the general prevailing rate of per diem wages, and the general prevailing rate of holiday and overtime work in the locality in which the public work is to be performed for each craft, classification or type of workers needed to perform the Work. This project will be subject the **2019-2 prevailing wage** determined by the Director of the Department of Industrial Relations for the State of California. The Contractor to whom the Contract is awarded, and its subcontractors, shall pay to all workers in the performance of the Work not less than the prevailing rate of wages needed to execute the contract. Copies of schedules of prevailing wage rates may be obtained on the California Department of Industrial Relations website <http://www.dir.ca.gov/dlsr>. Bidders are directed to Section 7-2, "Labor," of the Standard Specifications, and to Division H,



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Subsection 7-2.2, "Prevailing Wages," for requirements concerning payment of prevailing wages, payroll records, and hours of labor. [California Labor Code Section 1773.2] [LBMC 2.87.120]

- 13.29 DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) COMPLIANCE:** This project is a public work and subject to the following: No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractors are further cautioned that certified payrolls shall be submitted electronically directly to the Department of Industrial Relations.
- 13.30 CERTIFIED PAYROLL SUBMISSION TO THE CITY OF LONG BEACH:** Each contractor and every lower-tier subcontractor and supplier shall be required to submit certified payrolls and labor compliance documentation electronically at the discretion of and the manner specified by the City of Long Beach. Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and password to access the City of Long Beach reporting system. Use of the system may entail additional data entry of weekly payroll information including; employee identification, labor classification, total hours worked and hours worked on this project, wage and benefit rates paid, etc. The contractor's payroll and accounting software might be capable of generating a 'comma delimited file' that will interface with the software. This requirement will be a 'flow-down' requirement to every lower-tier subcontractor and vendor required to provide labor compliance documentation.
- 13.31** The City of Long Beach has a Project Labor Agreement (PLA) that establishes the labor relations Policies and Procedures for the City, the Contractor and subcontractors awarded contracts for the Work and for the craft persons employed by the Contractor or subcontractor while engaged in the Work. The goal of the PLA is to provide that the Work brings full employment and economic benefit to the City and its residents. With the PLA, the parties have established a framework for fair wages, hours and working conditions through which these goals may be achieved, and which will permit the utilization of the most modern, efficient and effective procedures for construction, assure a sufficient supply of skilled craft persons, and reduce or eliminate the causes of disruptions or interference with the Work.



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

In the instances where a specific project is subject to the PLA, the awarded firm(s) may be subject to the terms of PLA Agreement depending on their scope of work for that particular task order. A copy of the City PLA can be found at <http://www.longbeach.gov/globalassets/finance/media-library/documents/business-info/compliance/project-labor-agreement/2015-0526-copy-of-approved-pla>

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City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment A

Certification of Compliance with Terms and Conditions Of RFQ

I have read, understand and agree to comply with the terms and conditions specified in this Request for Qualifications. Any exceptions MUST be documented.

SIGNATURE _____

EXCEPTIONS: Attach additional sheets if necessary. Please use this format.

EXCEPTION SUMMARY FORM

| RFQ SECTION NUMBER | RFQ PAGE NUMBER | EXCEPTION (PROVIDE A DETAILED EXPLANATION) |
|-----------------------|--------------------|--|
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City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment B

Pro-Forma Agreement

[Attached for reference; to be completed upon Contract Award]

AGREEMENT

THIS AGREEMENT is made and entered, in duplicate, as of _____, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on _____, 20__, by and between _____, a _____ corporation/limited liability company etc. ("Consultant"), with a place of business at _____, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City requires specialized services requiring unique skills to be performed in connection with _____ ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services; and

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services more particularly described in Exhibit "A", attached to this Agreement and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, not to exceed _____ Dollars (\$_____), at the rates or charges shown in Exhibit "B".

B. The City's obligation to pay the sum stated above for any one fiscal year shall be contingent upon the City Council of the City appropriating the necessary funds for such payment by the City in each fiscal year during the term of

1 this Agreement. For the purposes of this Section, a fiscal year commences on
2 October 1 of the year and continues through September 30 of the following year. In
3 the event that the City Council of the City fails to appropriate the necessary funds
4 for any fiscal year, then, and in that event, the Agreement will terminate at no
5 additional cost or obligation to the City.

6 C. Consultant may select the time and place of performance for
7 these services; provided, however, that access to City documents, records and the
8 like, if needed by Consultant, shall be available only during City's normal business
9 hours and provided that milestones for performance, if any, are met.

10 D. Consultant has requested to receive regular payments. City
11 shall pay Consultant in due course of payments following receipt from Consultant
12 and approval by City of invoices showing the services or task performed, the time
13 expended (if billing is hourly), and the name of the Project. Consultant shall certify
14 on the invoices that Consultant has performed the services in full conformance with
15 this Agreement and is entitled to receive payment. Each invoice shall be
16 accompanied by a progress report indicating the progress to date of services
17 performed and covered by the invoice, including a brief statement of any Project
18 problems and potential causes of delay in performance, and listing those services
19 that are projected for performance by Consultant during the next invoice cycle.
20 Where billing is done and payment is made on an hourly basis, the parties
21 acknowledge that this arrangement is either customary practice for Consultant's
22 profession, industry or business, or is necessary to satisfy audit and legal
23 requirements which may arise due to the fact that City is a municipality.

24 E. Consultant represents that Consultant has obtained all
25 necessary information on conditions and circumstances that may affect its
26 performance and has conducted site visits, if necessary.

27 F. CAUTION: Consultant shall not begin work until this
28 Agreement has been signed by both parties and until Consultant's evidence of

insurance has been delivered to and approved by City.

2. TERM. The term of this Agreement shall commence at midnight on (BEGINNING DATE), and shall terminate at 11:59 p.m. on (ENDING DATE), unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner.

3. COORDINATION AND ORGANIZATION.

A. Consultant shall coordinate its performance with City's representative, if any, named in Exhibit "C", attached to this Agreement and incorporated by this reference. Consultant shall advise and inform City's representative of the work in progress on the Project in sufficient detail so as to assist City's representative in making presentations and in holding meetings on the Project. City shall furnish to Consultant information or materials, if any, described in Exhibit "D", attached to this Agreement and incorporated by this reference, and shall perform any other tasks described in the Exhibit.

B. The parties acknowledge that a substantial inducement to City for entering this Agreement was and is the reputation and skill of Consultant's key employee, named in Exhibit "E" attached to this Agreement and incorporated by this reference. City shall have the right to approve any person proposed by Consultant to replace that key employee.

4. INDEPENDENT CONTRACTOR. In performing its services, Consultant is and shall act as an independent contractor and not an employee, representative or agent of City. Consultant shall have control of Consultant's work and the manner in which it is performed. Consultant shall be free to contract for similar services to be performed for others during this Agreement; provided, however, that Consultant acts in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges and agrees that (a) City will not withhold taxes of any kind from Consultant's compensation; (b) City will not secure workers' compensation or pay unemployment insurance to, for or on Consultant's behalf; and (c) City will not provide and Consultant is not entitled to any of

1 the usual and customary rights, benefits or privileges of City employees. Consultant
2 expressly warrants that neither Consultant nor any of Consultant's employees or agents
3 shall represent themselves to be employees or agents of City.

4 5. INSURANCE.

5 A. As a condition precedent to the effectiveness of this
6 Agreement, Consultant shall procure and maintain, at Consultant's expense for the
7 duration of this Agreement, from insurance companies that are admitted to write
8 insurance in California and have ratings of or equivalent to A:V by A.M. Best
9 Company or from authorized non-admitted insurance companies subject to Section
10 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII
11 by A.M. Best Company, the following insurance:

12 i. Commercial general liability insurance (equivalent in
13 scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less
14 than \$1,000,000 per each occurrence and \$2,000,000 general aggregate.
15 This coverage shall include but not be limited to broad form contractual
16 liability, cross liability, independent contractors liability, and products and
17 completed operations liability. City, its boards and commissions, and their
18 officials, employees and agents shall be named as additional insureds by
19 endorsement (on City's endorsement form or on an endorsement equivalent
20 in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10
21 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04),
22 and this insurance shall contain no special limitations on the scope of
23 protection given to City, its boards and commissions, and their officials,
24 employees and agents. This policy shall be endorsed to state that the insurer
25 waives its right of subrogation against City, its boards and commissions, and
26 their officials, employees and agents.

27 ii. Workers' Compensation insurance as required by the
28 California Labor Code and employer's liability insurance in an amount not

less than \$1,000,000. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

iii. Professional liability or errors and omissions insurance in an amount not less than \$1,000,000 per claim.

iv. Commercial automobile liability insurance (equivalent in scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an amount not less than \$500,000 combined single limit per accident.

B. Any self-insurance program, self-insured retention, or deductible must be separately approved in writing by City's Risk Manager or designee and shall protect City, its officials, employees and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention or deductible provisions.

C. Each insurance policy shall be endorsed to state that coverage shall not be reduced, non-renewed or canceled except after thirty (30) days prior written notice to City, shall be primary and not contributing to any other insurance or self-insurance maintained by City, and shall be endorsed to state that coverage maintained by City shall be excess to and shall not contribute to insurance or self-insurance maintained by Consultant. Consultant shall notify City in writing within five (5) days after any insurance has been voided by the insurer or cancelled by the insured.

D. If this coverage is written on a "claims made" basis, it must provide for an extended reporting period of not less than one hundred eighty (180) days, commencing on the date this Agreement expires or is terminated, unless Consultant guarantees that Consultant will provide to City evidence of uninterrupted, continuing coverage for a period of not less than three (3) years, commencing on the date this Agreement expires or is terminated.

E. Consultant shall require that all subconsultants or contractors

1 that Consultant uses in the performance of these services maintain insurance in
2 compliance with this Section unless otherwise agreed in writing by City's Risk
3 Manager or designee.

4 F. Prior to the start of performance, Consultant shall deliver to City
5 certificates of insurance and the endorsements for approval as to sufficiency and
6 form. In addition, Consultant shall, within thirty (30) days prior to expiration of the
7 insurance, furnish to City certificates of insurance and endorsements evidencing
8 renewal of the insurance. City reserves the right to require complete certified copies
9 of all policies of Consultant and Consultant's subconsultants and contractors, at any
10 time. Consultant shall make available to City's Risk Manager or designee all books,
11 records and other information relating to this insurance, during normal business
12 hours.

13 G. Any modification or waiver of these insurance requirements
14 shall only be made with the approval of City's Risk Manager or designee. Not more
15 frequently than once a year, City's Risk Manager or designee may require that
16 Consultant, Consultant's subconsultants and contractors change the amount, scope
17 or types of coverages required in this Section if, in his or her sole opinion, the
18 amount, scope or types of coverages are not adequate.

19 H. The procuring or existence of insurance shall not be construed
20 or deemed as a limitation on liability relating to Consultant's performance or as full
21 performance of or compliance with the indemnification provisions of this Agreement.

22 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement
23 contemplates the personal services of Consultant and Consultant's employees, and the
24 parties acknowledge that a substantial inducement to City for entering this Agreement was
25 and is the professional reputation and competence of Consultant and Consultant's
26 employees. Consultant shall not assign its rights or delegate its duties under this
27 Agreement, or any interest in this Agreement, or any portion of it, without the prior approval
28 of City, except that Consultant may with the prior approval of the City Manager of City,

1 assign any moneys due or to become due Consultant under this Agreement. Any
2 attempted assignment or delegation shall be void, and any assignee or delegate shall
3 acquire no right or interest by reason of an attempted assignment or delegation.
4 Furthermore, Consultant shall not subcontract any portion of its performance without the
5 prior approval of the City Manager or designee, or substitute an approved subconsultant
6 or contractor without approval prior to the substitution. Nothing stated in this Section shall
7 prevent Consultant from employing as many employees as Consultant deems necessary
8 for performance of this Agreement.

9 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement,
10 certifies that, at the time Consultant executes this Agreement and for its duration,
11 Consultant does not and will not perform services for any other client which would create
12 a conflict, whether monetary or otherwise, as between the interests of City and the interests
13 of that other client. Consultant further certifies that Consultant does not now have and shall
14 not acquire any interest, direct or indirect, in the area covered by this Agreement or any
15 other source of income, interest in real property or investment which would be affected in
16 any manner or degree by the performance of Consultant's services hereunder. And,
17 Consultant shall obtain similar certifications from Consultant's employees, subconsultants
18 and contractors.

19 8. MATERIALS. Consultant shall furnish all labor and supervision,
20 supplies, materials, tools, machinery, equipment, appliances, transportation and services
21 necessary to or used in the performance of Consultant's obligations under this Agreement,
22 except as stated in Exhibit "D".

23 9. OWNERSHIP OF DATA. All materials, information and data
24 prepared, developed or assembled by Consultant or furnished to Consultant in connection
25 with this Agreement, including but not limited to documents, estimates, calculations,
26 studies, maps, graphs, charts, computer disks, computer source documentation, samples,
27 models, reports, summaries, drawings, designs, notes, plans, information, material and
28 memorandum ("Data") shall be the exclusive property of City. Data shall be given to City,

1 and City shall have the unrestricted right to use and disclose the Data in any manner and
2 for any purpose without payment of further compensation to Consultant. Copies of Data
3 may be retained by Consultant but Consultant warrants that Data shall not be made
4 available to any person or entity for use without the prior approval of City. This warranty
5 shall survive termination of this Agreement for five (5) years.

6 10. TERMINATION. Either party shall have the right to terminate this
7 Agreement for any reason or no reason at any time by giving fifteen (15) calendar days
8 prior written notice to the other party. In the event of termination under this Section, City
9 shall pay Consultant for services satisfactorily performed and costs incurred up to the
10 effective date of termination for which Consultant has not been previously paid. The
11 procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective
12 date of termination, Consultant shall deliver to City all Data developed or accumulated in
13 the performance of this Agreement, whether in draft or final form, or in process. And,
14 Consultant acknowledges and agrees that City's obligation to make final payment is
15 conditioned on Consultant's delivery of the Data to City.

16 11. CONFIDENTIALITY. Consultant shall keep all Data confidential and
17 shall not disclose the Data or use the Data directly or indirectly, other than in the course of
18 performing its services, during the term of this Agreement and for five (5) years following
19 expiration or termination of this Agreement. In addition, Consultant shall keep confidential
20 all information, whether written, oral or visual, obtained by any means whatsoever in the
21 course of performing its services for the same period of time. Consultant shall not disclose
22 any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit
23 of others except for the purpose of this Agreement.

24 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for
25 a breach of confidentiality with respect to Data that: (a) Consultant demonstrates
26 Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available
27 without breach of this Agreement by Consultant; or (c) a third party who has a right to
28 disclose does so to Consultant without restrictions on further disclosure; or (d) must be

disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

A. Any costs incurred by City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.

B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.

14. AMENDMENT. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.

15. LAW. This Agreement shall be construed in accordance with the laws of the State of California, and the venue for any legal actions brought by any party with respect to this Agreement shall be the County of Los Angeles, State of California for state actions and the Central District of California for any federal actions. Consultant shall cause all work performed in connection with construction of the Project to be performed in compliance with (1) all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770

1 *et seq.* of the California Labor Code); and (2) all directions, rules and regulations of any fire
2 marshal, health officer, building inspector, or other officer of every governmental agency
3 now having or hereafter acquiring jurisdiction.

4 16. PREVAILING WAGES.

5 A. Consultant agrees that all public work (as defined in California
6 Labor Code section 1720) performed pursuant to this Agreement (the "Public
7 Work"), if any, shall comply with the requirements of California Labor Code sections
8 1770 *et seq.* City makes no representation or statement that the Project, or any
9 portion thereof, is or is not a "public work" as defined in California Labor Code
10 section 1720.

11 B. In all bid specifications, contracts and subcontracts for any
12 such Public Work, Consultant shall obtain the general prevailing rate of per diem
13 wages and the general prevailing rate for holiday and overtime work in this locality
14 for each craft, classification or type of worker needed to perform the Public Work,
15 and shall include such rates in the bid specifications, contract or subcontract. Such
16 bid specifications, contract or subcontract must contain the following provision: "It
17 shall be mandatory for the contractor to pay not less than the said prevailing rate of
18 wages to all workers employed by the contractor in the execution of this contract.
19 The contractor expressly agrees to comply with the penalty provisions of California
20 Labor Code section 1775 and the payroll record keeping requirements of California
21 Labor Code section 1771."

22 17. ENTIRE AGREEMENT. This Agreement, including all Exhibits,
23 constitutes the entire understanding between the parties and supersedes all other
24 agreements, oral or written, with respect to the subject matter in this Agreement.

25 18. INDEMNITY.

26 A. Consultant shall indemnify, protect and hold harmless City, its
27 Boards, Commissions, and their officials, employees and agents ("Indemnified
28 Parties"), from and against any and all liability, claims, demands, damage, loss,

obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Agreement, including any obligations arising from the Project's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Agreement (collectively "Claims" or individually "Claim").

B. In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.

C. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

D. The provisions of this Section shall survive the expiration or termination of this Agreement.

19. AMBIGUITY. In the event of any conflict or ambiguity between this

Agreement and any Exhibit, the provisions of this Agreement shall govern.

20. NONDISCRIMINATION.

A. In connection with performance of this Agreement and subject to applicable rules and regulations, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or disability. Consultant shall ensure that applicants are employed, and that employees are treated during their employment, without regard to these bases. These actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

B. It is the policy of City to encourage the participation of Disadvantaged, Minority and Women-Owned Business Enterprises in City's procurement process, and Consultant agrees to use its best efforts to carry out this policy in its use of subconsultants and contractors to the fullest extent consistent with the efficient performance of this Agreement. Consultant may rely on written representations by subconsultants and contractors regarding their status. Consultant shall report to City in May and in December or, in the case of short-term agreements, prior to invoicing for final payment, the names of all subconsultants and contractors hired by Consultant for this Project and information on whether or not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

21. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in accordance with the provisions of the Ordinance, this Agreement is subject to the applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time.

A. During the performance of this Agreement, the Consultant

1 certifies and represents that the Consultant will comply with the EBO. The
2 Consultant agrees to post the following statement in conspicuous places at its place
3 of business available to employees and applicants for employment:

4 "During the performance of a contract with the City of Long Beach, the
5 Consultant will provide equal benefits to employees with spouses and its
6 employees with domestic partners. Additional information about the City of
7 Long Beach's Equal Benefits Ordinance may be obtained from the City of
8 Long Beach Business Services Division at 562-570-6200."

9 B. The failure of the Consultant to comply with the EBO will be
10 deemed to be a material breach of the Agreement by the City.

11 C. If the Consultant fails to comply with the EBO, the City may
12 cancel, terminate or suspend the Agreement, in whole or in part, and monies due or
13 to become due under the Agreement may be retained by the City. The City may
14 also pursue any and all other remedies at law or in equity for any breach.

15 D. Failure to comply with the EBO may be used as evidence
16 against the Consultant in actions taken pursuant to the provisions of Long Beach
17 Municipal Code 2.93 et seq., Contractor Responsibility.

18 E. If the City determines that the Consultant has set up or used its
19 contracting entity for the purpose of evading the intent of the EBO, the City may
20 terminate the Agreement on behalf of the City. Violation of this provision may be
21 used as evidence against the Consultant in actions taken pursuant to the provisions
22 of Long Beach Municipal Code Section 2.93 et seq., Contractor Responsibility.

23 22. NOTICES. Any notice or approval required by this Agreement shall
24 be in writing and personally delivered or deposited in the U.S. Postal Service, first class,
25 postage prepaid, addressed to Consultant at the address first stated above, and to City at
26 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a copy
27 to the City Engineer at the same address. Notice of change of address shall be given in
28 the same manner as stated for other notices. Notice shall be deemed given on the date

1 deposited in the mail or on the date personal delivery is made, whichever occurs first.

2 23. COPYRIGHTS AND PATENT RIGHTS.

3 A. Consultant shall place the following copyright protection on all
4 Data: © City of Long Beach, California ____, inserting the appropriate year.

5 B. City reserves the exclusive right to seek and obtain a patent or
6 copyright registration on any Data or other result arising from Consultant's
7 performance of this Agreement. By executing this Agreement, Consultant assigns
8 any ownership interest Consultant may have in the Data to City.

9 C. Consultant warrants that the Data does not violate or infringe
10 any patent, copyright, trade secret or other proprietary right of any other party.
11 Consultant agrees to and shall protect, defend, indemnify and hold City, its officials
12 and employees harmless from any and all claims, demands, damages, loss, liability,
13 causes of action, costs or expenses (including reasonable attorney's fees) whether
14 or not reduced to judgment, arising from any breach or alleged breach of this
15 warranty.

16 24. COVENANT AGAINST CONTINGENT FEES. Consultant warrants
17 that Consultant has not employed or retained any entity or person to solicit or obtain this
18 Agreement and that Consultant has not paid or agreed to pay any entity or person any fee,
19 commission or other monies based on or from the award of this Agreement. If Consultant
20 breaches this warranty, City shall have the right to terminate this Agreement immediately
21 notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments
22 due under this Agreement or otherwise recover the full amount of the fee, commission or
23 other monies.

24 25. WAIVER. The acceptance of any services or the payment of any
25 money by City shall not operate as a waiver of any provision of this Agreement or of any
26 right to damages or indemnity stated in this Agreement. The waiver of any breach of this
27 Agreement shall not constitute a waiver of any other or subsequent breach of this
28 Agreement.

26. CONTINUATION. Termination or expiration of this Agreement shall not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

27. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation to pay Consultant until Consultant provides one of these numbers.

28. ADVERTISING. Consultant shall not use the name of City, its officials or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.

29. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from and copy all books, records, accounts and other documents of Consultant relating to this Agreement.

30. THIRD PARTY BENEFICIARY. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

(NAME OF CONSULTANT)

_____, 20__

By _____
Name _____
Title _____

_____, 20__

By _____

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Lana Beach, CA 90802-4664

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Name _____
Title _____

"Consultant"

CITY OF LONG BEACH, a municipal
corporation

_____, 20____ By _____
City Manager

"City"

This Agreement is approved as to form on _____, 20____.

CHARLES PARKIN, City Attorney

By _____
Deputy



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment C

Statement of Non-collusion

The SOQ is submitted as a firm and fixed request valid and open for 180 days from the submission deadline.

This SOQ is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not herein named; the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham SOQ and the proposer has not in any manner sought by collusion to secure for himself or herself an advantage over any other proposer.

In addition, this organization and its members are not now and will not in the future be engaged in any activity resulting in a conflict of interest, real or apparent, in the selection, award, or administration of a subcontract.

Authorized signature and date

Print Name & Title



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment D

Debarment, Suspension, Ineligibility and Voluntary Exclusion Certification

Please read Acceptance of Certification and Instructions for Certification before completing

As a current or potential vendor for the City of Long Beach (City) your firm, through its business relationship with the City, may be the recipient of federal grant funds. As such, the City is required to document that neither your business entity or organization, nor any of your principals are debarred, suspended, ineligible, or have voluntarily been excluded from receiving federal grant funds. Consistent with Executive Order No. 12549 Title 2 CFR Part 180 Subpart C, all potential recipients of federal grant funds are required to comply with the requirements specified below. By submission of proposal/bid/agreement, the undersigned, under penalty of perjury, certifies that the participant, nor any of its principals in the capacity of owner, director, partner, officer, manager, or other person with substantial influence in the development or outcome of a covered transaction, whether or not employed by the participant:

- Are not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal department or agency;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been suspended, debarred, voluntarily excluded or declared ineligible by a federal agency;
- Do not presently have a proposed debarment proceeding pending;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been indicted or convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, had one or more public transactions (Federal, State, or local) terminated for cause or default.

If reorganization, management turnover, or a shift or change of principals' status occurs, written notice must be submitted within 21 days. Subsequent disclosure of unfavorable information will be subject to thorough review and remedial action. Updated versions of this certification may be requested on a routine basis.

Where the potential prospective recipient of Federal assistance funds is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to the applicable bid/agreement/proposal.

Business/Contractor/Agency

Name of Authorized Representative

Title of Authorized Representative

Signature of Authorized Representative

Date

r20141001



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Acceptance of Certification

1. This bid/agreement/proposal or like document has the potential to be a recipient of Federal funds. In order to be in compliance with Code of Federal Regulations, the City requires this completed form. By signing and submitting this document, the prospective bidder/proposer is providing the certification and acknowledgement as follows:
2. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549.
3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
4. The potential recipient of Federal assistance funds agrees by submitting this bid/agreement/proposal or like document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

Instructions for completing the form, Attachment –Debarment Certification

1. The City of Long Beach sometimes receives Federal funding on certain purchases/projects. To ensure that the City is in compliance with Federal regulations we require this form to be completed.
2. The City of Long Beach checks the System for Award Management at www.sam.gov to make sure that Consultants who are awarded City contracts and/or purchase orders are not debarred or suspended. Prospective consultants should perform a search on this website for your company and or persons associated with your business.
3. If your business is in compliance with the conditions in the form, please have the appropriate person complete and sign this form and return with your bid/proposal/agreement.
4. If at any time, your business or persons associated with your business become debarred or suspended, we require that you inform us of this change in status.
5. If there are any exceptions to the certification, please include an attachment. Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception, indicate to whom it applies, initiating agency and dates of action.
6. Note: Providing false information may result in criminal prosecution or administrative sanctions.

***If you have any questions on how to complete this form, please contact the
Purchasing Division in the City of Long Beach Business Services Bureau at 562-570-6200.***

Rev 12.11.13



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment E

W-9 Request for Taxpayer Identification Number and Certification

[W-9 Form must be signed and dated.]

[Form-Fillable PDF available at <http://www.irs.gov/pub/irs-pdf/fw9.pdf>]

[Vendor Application Form is for internal City use only.]



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

| Form W-9 (Rev. October 2014) Department of the Treasury Internal Revenue Service | | Request for Taxpayer Identification Number and Certification | | Give Form to the requester. Do not send to the IRS. |
|---|---|---|---|--|
| Go to www.irs.gov/FormW9 for instructions and the latest information. | | | | |
| Print or type. See Specific Instructions on page 2. | 1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. | | | |
| | 2 Business name/disregarded entity name, if different from above | | | |
| | 3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes: <div style="display: flex; justify-content: space-between; margin-top: 5px;"><div><input type="checkbox"/> Individual/sole proprietor or single-member LLC</div><div><input type="checkbox"/> C Corporation</div><div><input type="checkbox"/> S Corporation</div><div><input type="checkbox"/> Partnership</div><div><input type="checkbox"/> Trust/estate</div></div> <div style="margin-top: 5px;"><input type="checkbox"/> Limited liability company. Enter the tax classification (C-C corporation, S-S corporation, P-Partnership) ▶ _____ <small>Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.</small></div> <div style="margin-top: 5px;"><input type="checkbox"/> Other (see instructions) ▶ _____</div> | | | |
| | 4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3) Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Type in 0 if no exemption applies to you.)</small> | | 5 Address (number, street, and apt. or suite no.) (See instructions) | |
| | 6 City, state, and ZIP code | | Requester's name and address (optional) | |
| | 7 List account number(s) here (optional) | | | |
| | Part I Taxpayer Identification Number (TIN) | | | |
| Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i>, later. | | | | |
| Note: If the account is in more than one name, see the instructions for line 1. Also see <i>What Name and Number To Give the Requester</i> for guidelines on whose number to enter. | | | | |
| Part II Certification | | | | |
| Under penalties of perjury, I certify that: | | | | |
| 1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and | | | | |
| 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and | | | | |
| 3. I am a U.S. citizen or other U.S. person (defined below); and | | | | |
| 4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct. | | | | |
| Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later. | | | | |
| Sign Here | | Date ▶ | | |
| Signature of U.S. person ▶ _____ | | _____ | | |
| General Instructions | | | | |
| Section references are to the Internal Revenue Code unless otherwise noted. | | | | |
| Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/formw9 . | | | | |
| Purpose of Form | | | | |
| An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following: | | | | |
| <ul style="list-style-type: none">• Form 1099-INT (interest earned or paid)• Form 1099-DIV (dividends, including those from stocks or mutual funds)• Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)• Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)• Form 1099-S (proceeds from real estate transactions)• Form 1099-K (merchant card and third party network transactions)• Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)• Form 1099-G (canceled debt)• Form 1099-A (acquisition or abandonment of secured property) | | | | |
| Use Form W-9 only if you are a U.S. person (including a resident alien) to provide your correct TIN. | | | | |
| If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See <i>What is backup withholding</i> , later. | | | | |

Doc. No. 102310

Form W-9 (Rev. 10-13-2014)



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Vendor Application Form

| | |
|---|--|
| Company Name (same as line 1 on W9): | |
| DBA Name (same as line 2 on W9): | |
| Federal Tax ID Number (or SSN): | required (this number is a fed tax ID: <input type="radio"/> leave blank if not applicable SSN: <input type="radio"/> |
| Web Address: | |
| Purchase Order Address: | |
| Attn: | |
| City: | |
| State: | Zip Code: |
| Contact Name: | |
| Email: | |
| Phone Number: | |
| Fax: | |
| Toll Free: | |
| If 'remit to' address is the same as the purchase order address, put SAME in first box only | |
| 'Remit to' Address : | |
| Attn: | |
| City: | |
| State: | Zip Code: |
| Contact Name: | |
| Email: | |
| Phone Number: | |
| Fax: | |
| Toll Free: | |

| | | | | | |
|---|-----------------------------------|-----------------------------------|---------------------------|-------------------------------------|---------------------------------------|
| Type of Ownership: | | | | | |
| Individual <input type="radio"/> | Partnership <input type="radio"/> | Corporation <input type="radio"/> | LLC <input type="radio"/> | Nonprofit <input type="radio"/> | Government <input type="radio"/> |
| Composition of Ownership (at least 51% of ownership of the organization) (check all that apply) | | | | | |
| MBE <input type="radio"/> | WBE <input type="radio"/> | Local <input type="radio"/> | DBE <input type="radio"/> | Certified SBE <input type="radio"/> | Certified Micro <input type="radio"/> |
| State certification number: | | | | | |



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment F

Secretary of State Certification

Please provide print out showing your business is registered with the California Secretary of State.

Awarded vendors/contractors must be registered with the California Secretary of State prior to contract execution. For more information, please consult:

<https://businesssearch.sos.ca.gov/>

Business Search - Business Entities (BE)

Online Services

- E-File Statements of Information for Corporations
- Business Search
- Processing Times
- Disclosure Search
- Service Options
- Name Availability
- Forms, Samples & Fees
- Statements of Information (annual/biennial reports)
- Filing Tips
- Information Requests (certificates, copies & status reports)
- Service of Process
- FAQs

Business Search

This search provides access to available information for corporations, limited liability companies and limited partnerships of record with the California Secretary of State, including free uncertified PDF copies of the most recent Statements of Information filed for corporations and limited liability companies, if the statements have been imaged. Please note: This search is not intended to serve as a name availability search. For information on checking or reserving a name, refer to [Name Availability](#).

To conduct a search

- Select the applicable search type.
- In the "Search Criteria" box, enter the entity name or number you wish to search. Note: If entering the entity number of a corporation, the number must begin with the letter C.
- Select the search filter you wish to use to locate the entity if searching for an entity name.
- Select the Search button.
- For help with searching an entity name or number, refer to [Search Tips](#).

All fields marked with an asterisk (*) are required.

Search Type *

☐ Search by Corporation Name ☐ Search by LP/LLC Name ☐ Search by Entity Number

Search Criteria * Search Filter

(Note, individual and sole proprietor companies are not required to register)



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment G

Equal Benefits Ordinance (EBO) Compliance Form

EQUAL BENEFITS ORDINANCE DISCLOSURE FORM

As a condition of being awarded a contract with the City of Long Beach ("City"), the selected Contractor/Vendor ("Contractor") may be required during the performance of the Contract, to comply with the City's nondiscrimination provisions of the Equal Benefits Ordinance ("EBO") set forth in the Long Beach Municipal Code section 2.73 et seq. The EBO requires that during the performance of the contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners. Benefits include but are not limited to, health benefits, bereavement leave, family medical leave, member ship and membership discounts, moving expenses, retirement benefits and travel benefits. A cash equivalent payment is permitted if an employer has made all reasonable efforts to provide domestic partners with access to benefits but is unable to do so. A situation in which a cash equivalent payment might be used if where the employer has difficulty finding an insurance provider that is willing to provide domestic partner benefits.

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements and other construction projects in the amount of \$100,000 or more
- For-profit entities that generate \$350,000 or more in annual gross receipts leasing City property pursuant to a written agreement for a term exceeding 29 days in any calendar year

Contractors who are subject to the EBO must certify to the City before execution of the contract that they are in compliance with the EBO by completing the EBO Certification Form, attached, or that they have been issued a waiver by the City. Contractors must also allow authorized City representatives access to records so the City can verify compliance with the EBO.

The EBO includes provisions that address difficulties associated with implementing procedures to comply with the EBO. Contractors can delay implementation of procedures to comply with the EBO in the following circumstances

- 1) By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/vendor submits evidence of taking reasonable measures to comply with the EBO; or
- 2) At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or
- 3) Upon expiration of the contractor's current collective bargaining agreement(s).

Compliance with the EBO

If a contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the

Contractor may be deemed to be in material breach of the Contract. In the event of a material breach, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of three years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor. The City may also pursue any other remedies available at law or in equity.

By my signature below, I acknowledge that the Contractor understands that to the extent it is subject to the provisions of the Long Beach Municipal Code section 2.73, the Contractor shall comply with this provision.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Business Entity Name: _____

**CERTIFICATION OF COMPLIANCE WITH THE
EQUAL BENEFITS ORDINANCE**

Section 1. CONTRACTOR/VENDOR INFORMATION

Name: _____ Federal Tax ID No. _____
Address: _____
City: _____ State: _____ ZIP: _____
Contact Person: _____ Telephone: _____
Email: _____ Fax: _____

Section 2. COMPLIANCE QUESTIONS

- A. The EBO is inapplicable to this Contract because the Contractor/Vendor has no employees. ____ Yes ____ No
- B. Does your company provide (or make available at the employees' expense) any employee benefits? ____ Yes ____ No
(If "yes," proceed to Question C. If "no," proceed to section 5, as the EBO does not apply to you.)
- C. Does your company provide (or make available at the employees' expense) any benefits to the spouse of an employee?
____ Yes ____ No
- D. Does your company provide (or make available at the employees' expense) any benefits to the domestic partner of an employee?
____ Yes ____ No (If you answered "no" to both questions C and D, proceed to section 5, as the EBO is not applicable to this contract. If you answered "yes" to both Questions C and D, please continue to Question E. If you answered "yes" to Question C and "no" to Question D, please continue to section 3.)
- E. Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of an employee? ____ Yes ____ No
(If "yes," proceed to section 4, as you are in compliance with the EBO. If "no," continue to section 3.)

Section 3. PROVISIONAL COMPLIANCE

- A. Contractor/vendor is not in compliance with the EBO now but will comply by the following date:

_____ By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/vendor submits evidence of taking reasonable measures to comply with the EBO; or

_____ At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or

_____ Upon expiration of the contractor's current collective bargaining agreement(s).

- B. If you have taken all reasonable measures to comply with the EBO but are unable to do so, do you agree to provide employees with a cash equivalent? (The cash equivalent is the amount of money your company pays for spousal benefits that are unavailable for domestic partners.)
_____ Yes _____ No

Section 4. REQUIRED DOCUMENTATION

At time of issuance of purchase order or contract award, you may be required by the City to provide documentation (copy of employee handbook, eligibility statement from your plans, insurance provider statement, etc.) to verify that you do not discriminate in the provision of benefits.

Section 5. CERTIFICATION

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Long Beach Municipal Code and in the terms of the contract of purchase order with the City.

Executed this _____ day of _____, 20____, at _____, _____

Name _____ Signature _____

Title _____ Federal Tax ID No. _____

ORDINANCE NO. ORD-09-0036

AN ORDINANCE OF THE CITY COUNCIL OF THE
CITY OF LONG BEACH AMENDING THE LONG BEACH
MUNICIPAL CODE BY ADDING CHAPTER 2.73
ESTABLISHING AN "EQUAL BENEFITS ORDINANCE"
REQUIRING CONTRACTORS ON CITY CONTRACTS TO
PROVIDE EMPLOYEE BENEFITS TO THEIR EMPLOYEES
WITH DOMESTIC PARTNERS EQUIVALENT TO THOSE
PROVIDED TO THEIR EMPLOYEES WITH SPOUSES

WHEREAS, employee benefits comprise a significant portion of total
employee compensation; and

WHEREAS, discrimination in the provision of employee benefits between
employees with domestic partners and employees with spouses results in unequal pay
for equal work; and

WHEREAS, the City of Long Beach prohibits discrimination based on
marital status and/or sexual orientation; and

WHEREAS, contractors with the City of Long Beach are required to comply
with the City's nondiscrimination laws; and

WHEREAS, the City Council finds and determines that the public, health,
safety and welfare will be furthered by requiring that public funds be expended in such a
manner as to prohibit discrimination in the provision of employee benefits by City
contractors between employees with spouses and employees with domestic partners,
and between domestic partners and spouses of such employees;

NOW, THEREFORE, the City Council of the City of Long Beach ordains as
follows:

///

1 Section 1. Chapter 2.73 is added to the Long Beach Municipal Code to
2 read as follows:

3 Chapter 2.73

4 EQUAL BENEFITS TO EMPLOYEES OF CITY CONTRACTORS

5
6 2.73.010 Title and purpose.

7 This ordinance shall be known as the "Long Beach Equal Benefits
8 Ordinance". The purpose of this Chapter is to protect the public health,
9 safety and welfare by requiring that public funds be expended in such a
10 manner as to prohibit discrimination in the provision of employee benefits by
11 City contractors between employees with spouses and employees with
12 domestic partners, and/or between domestic partners and spouses of such
13 employees.

14
15 2.73.020 Definitions.

16 A. "Contractor" shall mean any person or persons, firm,
17 partnership, corporation, or combination thereof, who enters into a contract
18 with the City.

19 B. "Domestic partner" shall mean any person who has a currently
20 registered domestic partnership with a governmental body pursuant to state
21 or local law authorizing such registration or with his or her employer or his or
22 her domestic partner's employer.

23 C. "Non-profit" shall mean a non-profit organization described in
24 Section 501(c)(3) of the Internal Revenue Code of 1954 which is exempt
25 from taxation under Section 501(c)(3) of that Code, or any nonprofit
26 educational organization qualified under Section 23701(d) of the Revenue
27 and Taxation Code.

28 ///

1 2.73.030 Contractors subject to requirements.

2 A. The following contractors are subject to this Chapter:

3 1. For-profit entities which enter into an agreement with
4 the City for public works or improvements to be performed, or for goods or
5 services to be purchased, for an amount of One Hundred Thousand Dollars
6 (\$100,000) or more; and

7 2. For-profit entities which generate Three Hundred Fifty
8 Thousand Dollars (\$350,000) or more in annual gross receipts and which
9 occupy City property pursuant to a written agreement for the exclusive use
10 or occupancy of said property for a term exceeding twenty-nine (29) days in
11 any calendar year.

12 B. The requirements of this Chapter shall only apply to those
13 portions of a contractor's operations that occur (i) within the City; (ii) on real
14 property outside the City if the property is owned by the City or if the City
15 has a right to occupy the property, and if the contractor's presence at that
16 location is connected to a contract with the City; and (iii) elsewhere in the
17 United States where work related to a City contract is being performed. The
18 requirements of this Chapter shall not apply to subcontracts or
19 subcontractors of any contract or contractor.

20 C. The City Manager or designee will provide a report to the City
21 Council regarding the implementation of this ordinance no later than one
22 year following the effective date of this Ordinance, and will consider among
23 other items, whether the dollar thresholds set forth in subsections (A) and
24 (B) should be modified.

25
26 2.73.040 Non-discrimination in provision of benefits.

27 A. No contractor subject to this Chapter pursuant to Section
28 2.73.030 shall discriminate in the provision of bereavement leave, family

1 medical leave, health benefits, membership or membership discounts,
2 moving expenses, pensions and retirement benefits or travel benefits or in
3 the provision of any benefits other than bereavement leave, family medical
4 leave, health benefits, membership or membership discounts, moving
5 expenses, pensions and retirement benefits or travel benefits between
6 employees with domestic partners and employees with spouses, and/or
7 between the domestic partners and spouses of such employees except as
8 set forth in Subsections 2.73.040.A.1 and 2 below;

9 1. In the event that the contractor's actual cost of
10 providing a particular benefit for the domestic partner of an employee
11 exceeds that of providing it for the spouse of an employee, or the
12 contractor's actual cost of providing a particular benefit for the spouse of an
13 employee exceeds that of providing it for the domestic partner of an
14 employee, the contractor shall not be deemed to discriminate in the
15 provision of employee benefits if the contractor conditions providing such
16 benefit upon the employee agreeing to pay the excess costs.

17 2. The contractor shall not be deemed to discriminate in
18 the provision of employee benefits if, despite taking reasonable measure to
19 do so, the contractor is unable to extend a particular employee benefit to
20 domestic partners, so long as the contractor provides the employee with a
21 cash equivalent.

22 B. Provided that a contractor does not discriminate in the
23 provision of benefits between employees with spouses and employees with
24 domestic partners, a contractor may:

25 1. Elect to provide benefits to individuals in addition to
26 employees' spouses and employees' domestic partners;

27 2. Allow each employee to designate a legally domiciled
28 member of the employee's household as being eligible for spousal

1 equivalent benefits; or

2 3. Provide benefits neither to employees' spouses nor to
3 employees' domestic partners.

4 C. A contractor will not be deemed to be discriminating in the
5 provision of benefits where the implementation of policies ending
6 discrimination in benefits is delayed following the first award of a City
7 contract to a contractor after the effective date of this Chapter:

8 1. Until the first effective date after the first open
9 enrollment process following the date the contract with the City is executed,
10 provided that the contractor submits evidence that it is making reasonable
11 efforts to end discrimination in benefits. This delay may not exceed two (2)
12 years from the date the contract with the City is executed and only applies
13 to benefits for which an open enrollment process is applicable.

14 2. Until administrative steps can be taken to incorporate
15 nondiscrimination in benefits in the contractor's infrastructure. The timer
16 allotted for these administrative steps shall apply only to those benefits for
17 which administrative steps are necessary and may not exceed three (3)
18 months. An extension of this time may be granted at the discretion of the
19 City Manager upon the written request of a contractor, setting forth the
20 reasons that additional time is required.

21 3. Until the expiration of a contractor's current collective
22 bargaining agreement(s) where all of the following conditions have been
23 met:

24 a. The provision of benefits is governed by one or
25 more collective bargaining agreement(s); and

26 b. The contractor takes all reasonable measures to
27 end discrimination in benefits by either requesting that the union(s) involved
28 agree to reopen the agreement(s) in order for the contractor to take

1 whatever steps are necessary to end discrimination in benefits or by ending
2 discrimination in benefits without reopening the collective bargaining
3 agreement(s); and

4 c. In the event that the contractor cannot end
5 discrimination in benefits despite taking all reasonable measure to do so,
6 the contractor provides a cash equivalent to eligible employees for whom
7 benefits are not available. Unless otherwise authorized, in writing by the
8 City Manager, this cash equivalent payment must begin at the time the
9 union(s) refuse to allow the collective bargaining agreement(s) to be
10 reopened, or in any case no longer than three (3) months from the date the
11 contract with the City was executed. This cash equivalent payment shall not
12 be required where it is prohibited by federal labor law.

13 D. Employers subject to this Chapter pursuant to Section
14 2.73.030 shall give written notification to each current and new employee of
15 his or her potential rights under this Chapter in a form specified by the City.
16 Such notice shall also be posted prominently in areas where it may be seen
17 by all employees.

18
19 2.73.050 Required contract provisions.

20 Every contract subject to this Chapter shall contain provisions
21 requiring it to comply with the provisions of this Chapter as they exist on the
22 date when the contractor entered the contract with the City or when such
23 contract is amended. Such contract provisions may include but need not be
24 limited to the contractor's duty to promptly provide to the City documents
25 and information verifying its compliance with the requirements of this
26 Chapter and sanctions for noncompliance.

27 ///

28 ///

1 2.73.060 Waivers and exemptions.

2 A. The City may waive the requirements of this Chapter where
3 the City Manager makes one or more of the following findings:

4 1. Award of a contract or amendment is necessary to
5 respond to an emergency;

6 2. The contractor is a sole source;

7 3. The contractor is a non-profit entity as defined in
8 Section 2.73.020, above;

9 4. Non compliant contractors are capable of providing
10 goods or services that respond to the City's requirements;

11 5. The contractor is a public entity;

12 6. The requirements of this Chapter are inconsistent with
13 a grant, subvention or agreement with a public agency;

14 7. The City is purchasing through a cooperative or joint
15 purchasing agreement;

16 8. The contract involves specialized legal services such
17 that it would be in the best interests of the City to waive the requirements of
18 this Chapter, as determined by the City Attorney;

19 9. The contract involves investment of trust moneys or
20 agreements relating to the management of trust assets, City moneys
21 invested in U.S. government securities or under pre-existing investment
22 agreements, or the investment of City moneys where no person, entity or
23 financial institution doing business with the City which is in compliance with
24 this Chapter is capable of performing the desired transactions or the City will
25 incur financial loss if the requirements of this Chapter are enforced;

26 10. After taking all reasonable measures to find an entity
27 that complies with this Chapter, the City may waive any or all requirements
28 of this Chapter for any contract or bid package advertised and made

1 available to the public, or any competitive or sealed bids received by the
2 City as of the effective date of this Chapter under the following
3 circumstances:

4 a. There are no qualified responsive bidders or
5 prospective contractors who comply with this Chapter and the contract is for
6 goods, a service or a project that is essential to the City or City residents; or

7 b. The requirements of this Chapter would result in
8 the City's entering into a contract with an entity that was set up, or is being
9 used for the purpose of evading the intent of this Chapter.

10 B. The requirements of this Chapter shall not be applicable to
11 contracts executed or amended prior to the effective date of this Chapter, or
12 to bid packages advertised and made available to the public, or any
13 competitive or sealed bids received by the City prior to the effective date of
14 this Chapter, unless and until such contracts are amended after the effective
15 date of this Chapter and would otherwise be subject to this Chapter.

16 C. The City Manager or designee may issue regulations from
17 time to time implementing the provisions of this ordinance.

18 D. The City Manager shall report to the City Council annually on
19 the status of waivers and exemptions.

20
21 2.73.070 Retaliation and discrimination prohibited.

22 A. No employer shall retaliate or discriminate against an
23 employee in his or her terms and conditions of employment by reason of the
24 person's status as an employee protected by the requirements of this
25 Chapter.

26 B. No employer shall retaliate or discriminate against a person in
27 his or her terms and conditions of employment by reason of the person
28 reporting a violation of this Chapter or for prosecuting an action for

1 enforcement of this Chapter.

2
3 2.73.080 Employee complaints to City.

4 A. An employee who alleges violation of any provision of the
5 requirements of this Chapter may report such acts to the City. The City
6 Manager may establish a procedure for receiving and investigating such
7 complaints and take appropriate enforcement action.

8 B. The City shall have the power to examine contractors' benefit
9 programs covered by this Chapter.

10 C. Any complaints received shall be treated as confidential
11 matters, to the extent permitted by law. Any complaints received and all
12 investigation documents related thereto shall be deemed exempt from
13 disclosure pursuant to California Government Code Sections 6254 and
14 6255.

15
16 2.73.090 Remedies.

17 A. Upon a finding by the City Manager that a contractor has
18 violated the requirements of this Chapter, the City shall have the rights and
19 remedies described in this Section, in addition to any rights and remedies
20 provided at law or in equity.

21 1. The City Manager shall be authorized to terminate said
22 contract and bar the contractor from bidding on future contracts with the City
23 for three (3) years from the effective date of the contract termination.

24 2. In the City Manager's sole discretion, a contractor found
25 to have willfully violated the requirements of this Chapter may be required to
26 pay liquidated damages.

27 3. The City may seek recovery of reasonable attorneys'
28 fees and costs necessary for enforcement of this Chapter.

1 B. Notwithstanding any provision of this Chapter or any other
2 Chapter to the contrary, no criminal penalties shall attach for any violation of
3 this Chapter.

4 C. No remedy set forth in this Chapter is intended to be exclusive
5 or a prerequisite for asserting a cause of action to enforce any rights
6 hereunder in a court of law. This Chapter shall not be construed to limit an
7 employee's right to bring a common law cause of action for wrongful
8 termination.

9 D. Nothing in this Chapter shall be interpreted to authorize a right
10 of action against the City.

11
12 Section 2. The City Clerk shall certify to the passage of this ordinance by
13 the City Council and cause it to be posted in three (3) conspicuous places in the City of
14 Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the
15 Mayor.

16 ///

17 ///

18 ///

19 ///

20 ///

21 ///

22 ///

23 ///

24 ///

25 ///

26 ///

27 ///

28 ///

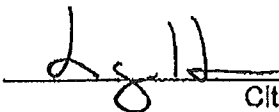
OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

I hereby certify that the foregoing ordinance was adopted by the City Council of the City of Long Beach at its meeting of December 8, 2009, by the following vote:

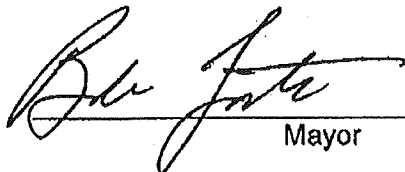
Ayes: Councilmembers: Garcia, Lowenthal, DeLong,
O'Donnell, Schipske, Andrews,
Reyes Uranga, Gabelich, Lerch.

Noes: Councilmembers: None.

Absent: Councilmembers: None.


City Clerk

Approved: 12/11/09
(Date)


Mayor



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment I

Insurance Requirements

[This replaces the insurance requirements of the Proforma Agreement]

INDEMNIFICATION: Consultant shall defend, indemnify, and hold harmless the City, its Commissions and Boards, and their officials, employees, and agents from and against any and all demands, claims, causes of action, liability, loss, liens, damage, costs, and expenses (including attorney's fees) arising from or in any way connected or alleged to be connected with Consultant's performance of the work under this Agreement and from any act or omission, willful misconduct, or negligence (active or passive) by or alleged to be by Consultant, its employees, agents, or subconsultants either as a sole or contributory cause, sustained by any person or entity (including employees or representatives of City or Consultant). The foregoing shall not apply to claims or causes of action caused by the sole negligence or willful misconduct of the City, its Commissions and Boards, or their officials, employees, or agents.

INSURANCE. As a condition precedent to the effectiveness of this Agreement, Consultant shall procure and maintain at Consultant's expense for the duration of this Agreement from an insurance company that is admitted to write insurance in the State of California or that has a rating of or equivalent to an A:VIII by A.M. Best and Company the following insurance:

- (a) Commercial general liability insurance or self-insurance equivalent in coverage scope to ISO CG 00 01 10 93 naming the City of Long Beach, and their officials, employees, and agents as additional insureds on a form equivalent in coverage scope to ISO CG 20 10 11 85 from and against claims, demands, causes of action, expenses, costs, or liability for injury to or death of persons, or damage to or loss of property arising out activities performed by or on behalf of the Consultant in an amount not less than One Million Dollars (US \$1,000,000) per occurrence and Two Million Dollars (US \$2,000,000) in general aggregate.
- (b) Workers' compensation coverage as required by the Labor Code of the State of California and Employer's liability insurance with minimum limits of One Million Dollars (US \$1,000,000) per accident or occupational illness. The policy shall be endorsed with a waiver of the insurer's right of subrogation against the City of Long Beach, and their officials, employees, and agents.
- (c) Automobile liability insurance equivalent in coverage scope to ISO CA 00 01 06 92 in an amount not less than Two Million Dollars (US \$2,000,000) combined single limit (CSL) per accident for bodily injury and property damage covering Symbol 1 ("any auto").



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

(d) For the projects with costs < \$ 10 million, umbrella liability (In excess of liability coverages as delineated otherwise in the Agreement) in an amount not less than Four Million Dollars (\$4,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

For the projects with costs \$ 10 million to < \$ 25 million or any projects airside, umbrella liability (In excess of liability coverages as delineated otherwise in the Agreement) in an amount not less than Nine Million Dollars (\$9,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

For the projects with costs \$ 25 million to \$ 100 million, umbrella liability (In excess of liability coverages as delineated otherwise in the Agreement) in an amount not less than Fourteen Million Dollars (\$14,000,000) per claim covering the services provided pursuant to this Agreement should be provided.

(e) Professional liability or errors and omissions liability insurance in an amount not Two Million Dollars (\$2,000,000) per claim and in aggregate covering the services provided pursuant to this Agreement.

Any self-insurance program or self-insurance retention must be approved separately in writing by City and shall protect the City of Long Beach, and their officials, employees, and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention provisions. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided, or canceled by either party except after thirty (30) days prior written notice to City, and shall be primary and not contributing to any other insurance or self- insurance maintained by City.

Any subconsultants which Consultant may use in the performance of this Agreement shall be required to maintain insurance in compliance with the provisions of this section and to indemnify the City to the same extent as the Consultant with respect to this Agreement.

Consultant shall deliver to City certificates of insurance and original endorsements for approval as to sufficiency and form prior to the start of performance hereunder. The certificates and endorsements for each insurance policy shall contain the original signature of a person authorized by that insurer to bind coverage on its behalf. "Claims-made" policies are not acceptable unless City Risk Manager determines that "Occurrence" policies are not available in the market for the risk being insured. In a "Claims-made" policy is accepted, it must provide for an extended reporting period of not less than one hundred eighty (180) days. Such insurance as required herein shall not be deemed to limit Consultant's liability relating to performance under this Agreement. City reserves the right to require complete certified copies of all said



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

policies at any time. Any modification or waiver of the insurance requirements herein shall be made only with the approval of City Risk Manager. The procuring of insurance shall not be construed as a limitation on liability or as full performance of the indemnification provisions of this Agreement.

By submitting a signature below, Proposer agrees that insurance requirements can be provided as requested.

Printed Name: _____ Title: _____

Signature: _____ Date: _____



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

Attachment I

DBE Instructions and Forms



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

DBE Instructions to Bidders

If the Proposer intends to utilize subconsultants during the performance of this contract, the Proposer is expected to afford DBEs equitable opportunity to compete and perform in these areas. To facilitate capturing Race-Neutral DBE participation under this Contract, the Proposer is requested to complete and submit the "DBE Race-Neutral Participation Listing" form with the SOQ, which shall include the following information for each DBE listed:

- The name and address of each DBE who will participate in the contract;
- A clearly defined scope of work to be performed by the DBE;
- The estimated value of the work to be performed by the DBE; and,
- DBE certification eligibility status, in conformance with 49 CFR Part 26

All Contractors that are certified DBEs in accordance with eligibility standards set forth in 49 CFR Part 26, and, which are responsible for a commercially useful function (i.e. a distinct element of the actual scope of work), are to be listed in the "DBE Race-Neutral Participation Listing" regardless of contract amount. In addition, a copy of the DBE certification for each proposed Contractor must be enclosed with the "DBE Race-Neutral Participation Listing". Additional pages may be duplicated if needed to list additional DBE Contractors.

DBE RACE-NEUTRAL PARTICIPATION LISTING – RFQ SUBMITTAL

Proposers should complete and submit "DBE Race-Neutral Participation Listing" with their SOQ, but no later than 48 hours following the SOQ due date and time. DBEs must be certified on the date SOQs are due to the City. In the event of no race-neutral DBE participation, Proposers must mark "None" under the column entitled "DBE Firm Name.") *The DBE information and content provided under "DBE Race-Neutral Participation Listing" will not be considered in the evaluation of the SOQ or determination of award of any contract.*

| | | | |
|------------------------|--|---|----------------------------------|
| DBE Firm Name*: | Provide Complete Description of Work to be Performed: | | |
| Business Address: | | | |
| Contact Person: | | | |
| Telephone: | | | |
| Email: | Check Appropriate Box Describing: Subcontractor/Supplier Activity: | | |
| DBE Certification No.: | <input type="checkbox"/> Subcontractor (100%) | <input type="checkbox"/> Manufacturer (100%) | <input type="checkbox"/> Broker |
| Subcontract %: | <input type="checkbox"/> Supplier (60%) | <input type="checkbox"/> Regular Dealer (60%) | <input type="checkbox"/> Trucker |

| | | | |
|------------------------|--|---|----------------------------------|
| DBE Firm Name*: | Provide Complete Description of Work to be Performed: | | |
| Business Address: | | | |
| Contact Person: | | | |
| Telephone: | | | |
| Email: | Check Appropriate Box Describing: Subcontractor/Supplier Activity: | | |
| DBE Certification No.: | <input type="checkbox"/> Subcontractor (100%) | <input type="checkbox"/> Manufacturer (100%) | <input type="checkbox"/> Broker |
| Subcontract %: | <input type="checkbox"/> Supplier (60%) | <input type="checkbox"/> Regular Dealer (60%) | <input type="checkbox"/> Trucker |

| | | | |
|------------------------|--|---|----------------------------------|
| DBE Firm Name*: | Provide Complete Description of Work to be Performed: | | |
| Business Address: | | | |
| Contact Person: | | | |
| Telephone: | | | |
| Email: | Check Appropriate Box Describing: Subcontractor/Supplier Activity: | | |
| DBE Certification No.: | <input type="checkbox"/> Subcontractor (100%) | <input type="checkbox"/> Manufacturer (100%) | <input type="checkbox"/> Broker |
| Subcontract %: | <input type="checkbox"/> Supplier (60%) | <input type="checkbox"/> Regular Dealer (60%) | <input type="checkbox"/> Trucker |

DBE RACE-NEUTRAL PARTICIPATION LISTING – RFQ SUBMITTAL

Proposers should complete and submit "DBE Race-Neutral Participation Listing" with their SOQ, but no later than 48 hours following the SOQ due date and time. DBEs must be certified on the date SOQs are due to the City. In the event of no race-neutral DBE participation, Proposers must mark "None" under the column entitled "DBE Firm Name.") *The DBE information and content provided under "DBE Race-Neutral Participation Listing" will not be considered in the evaluation of the SOQ or determination of award of any contract.*

| | | | |
|------------------------|--|---|----------------------------------|
| DBE Firm Name*: | Provide Complete Description of Work to be Performed: | | |
| Business Address: | | | |
| Contact Person: | | | |
| Telephone: | | | |
| Email: | | | |
| DBE Certification No.: | Check Appropriate Box Describing: Subcontractor/Supplier Activity: | | |
| Subcontract %: | <input type="checkbox"/> Subcontractor (100%) | <input type="checkbox"/> Manufacturer (100%) | <input type="checkbox"/> Broker |
| | <input type="checkbox"/> Supplier (60%) | <input type="checkbox"/> Regular Dealer (60%) | <input type="checkbox"/> Trucker |

| | | | |
|------------------------|--|---|----------------------------------|
| DBE Firm Name*: | Provide Complete Description of Work to be Performed: | | |
| Business Address: | | | |
| Contact Person: | | | |
| Telephone: | | | |
| Email: | | | |
| DBE Certification No.: | Check Appropriate Box Describing: Subcontractor/Supplier Activity: | | |
| Subcontract %: | <input type="checkbox"/> Subcontractor (100%) | <input type="checkbox"/> Manufacturer (100%) | <input type="checkbox"/> Broker |
| | <input type="checkbox"/> Supplier (60%) | <input type="checkbox"/> Regular Dealer (60%) | <input type="checkbox"/> Trucker |

| | | | |
|------------------------|--|---|----------------------------------|
| DBE Firm Name*: | Provide Complete Description of Work to be Performed: | | |
| Business Address: | | | |
| Contact Person: | | | |
| Telephone: | | | |
| Email: | | | |
| DBE Certification No.: | Check Appropriate Box Describing: Subcontractor/Supplier Activity: | | |
| Subcontract %: | <input type="checkbox"/> Subcontractor (100%) | <input type="checkbox"/> Manufacturer (100%) | <input type="checkbox"/> Broker |
| | <input type="checkbox"/> Supplier (60%) | <input type="checkbox"/> Regular Dealer (60%) | <input type="checkbox"/> Trucker |

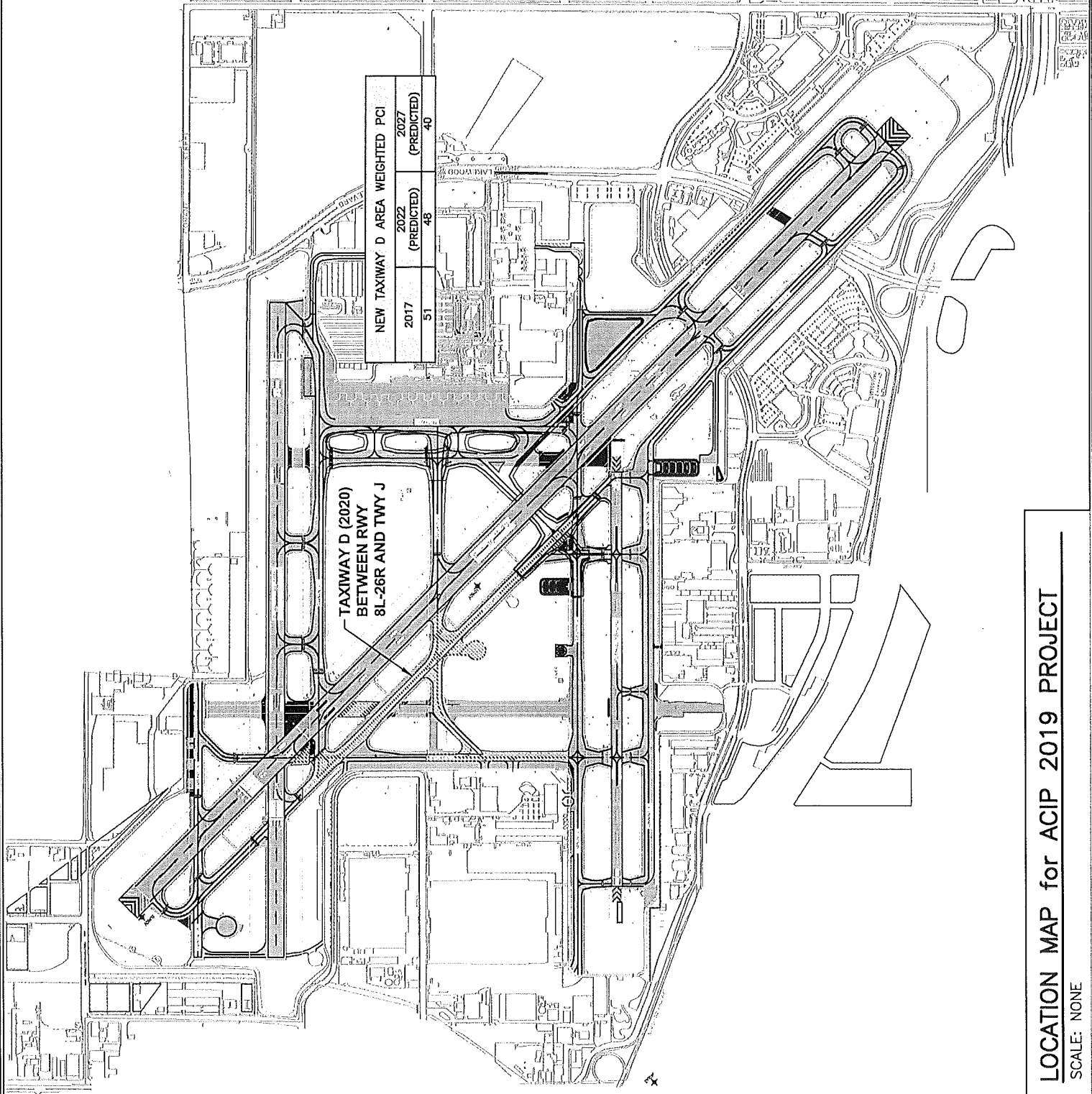
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Appendix A

**PROJECT DESCRIPTIONS
(2020-2023 ACIP Data Sheets)**

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| Airport Name | | Long Beach Airport (LGB) | | Fiscal Year 2019 | |
|--|----------------------------|---|---|-------------------------------|-------------------------|
| Shown On ALP | Project Type* | Project Description | Federal Share | Local Share | Total |
| Yes | D | Taxiway D Rehabilitation between Runway 8L-26R and Taxiway J (National Priority Rating Code: SA TW IM/SF/SZ = 66) | | | |
| | | Administration / Design (10%) | \$365,894 | \$37,695 | \$403,589 |
| | | Construction | \$3,658,939 | \$376,952 | \$4,035,892 |
| | | Construction Engineering/Inspection (12%) | \$439,073 | \$45,234 | \$484,307 |
| | | TOTAL | \$4,463,906 | \$459,882 | \$4,923,788 |
| * D - Development; P - Planning; E - Environmental | | | | | |
| PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS | | | | | |
| Detail Project Description (Square/Lineal Footage or Length/Width) | | | | | |
| <p>Taxiway D Rehabilitation - Approximately 500,000 sf of Taxiway D pavement requires rehabilitation. The mid section of Taxiway D between Runway 8L-26R and Taxiway J will be milled 3" and overlaid with Asphalt Concrete (AC) pavement. This pavement area was last reconstructed in 1994 and had a 2017 PCI of 51. It is projected to have a PCI of 48 in 2019. The project includes improvements and modifications to shoulders, adjacent infield areas, pavement markings, lighting, signage, and drainage systems. Resurfacing of the connecting Midfield Engine Runup Pad will also be performed. This section of Taxiway D is typically utilized by general aviation, FBO FedEx, and as an alternative commercial taxi route when Taxiway L is unavailable. This rehabilitation will assist in continued extension of pavement life.</p> <p>Also included will be the removal of approximately 45,000 sf of Runway 16R-34L pavement (between TWY D and RWY 12-30, including shoulders). Approximately 25,000 sf of Taxiway B pavement (between TWY K and RWY 12-30, including shoulders) will be removed. In addition, the west section of Taxiway G between Taxiway D and Taxiway B will be milled 6" and overlaid with AC pavement. The shoulders within this section of Taxiway G will be fully reconstructed. Approximately 100,000 sf of Taxiway B (between Taxiway G and Taxiway J) will be milled 3" and overlaid with AC. The project will enhance airfield safety, address complex taxiway geometry, and preserve capacity.</p> | | | | | |
| Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process) | | | | | |
| Grant Application | | DEC 2019 | Grant Execution | | JUL 2020 |
| Bid Opening | | MAY 2020 | Construction Commencement | | OCT 2020 |
| Grant Offer | | JUN 2020 | Construction Completion | | FEB 2021 |
| NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval) | | | | | |
| CATEX documentation will be completed and submitted to the FAA for a determination on the Taxiway D Rehabilitation project prior to submission of the grant application. | | | | | |
| Date of Last ALP Approval Depicting Proposed Projects | | | | | |
| July 6, 2017 | | | | | |
| Land Title Status & Date of Exhibit "A" Status | | | | Date | |
| Exhibit "A" Property Map Drawing No new R/W is required for this project. | | | | June 18, 2012 | |
| Open AIP Funded Projects (include grant number and grant description) | | | | | Expected Close-out Date |
| 3-06-0127-043-2015 | Geometry Study Phase 2 | | | DEC 2018 | |
| 3-06-0127-044-2017 | Runway 7R-25L Improvements | | | JUNE 2019 | |
| Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor. | | | | | |
| Cynthia Guldry Director, Long Beach Airport | | | Stephan G. Lum, P.E. Senior Civil Engineer, Long Beach Airport | | |
| Name / Title of Authorized Representative (Print or Type) | | | Contact Name and Title (Print or Type) | | |
| | | | 562.570.2682 | | |
| Signature | | Date | | Contact Phone (Print or Type) | |



| NEW TAXIWAY D AREA WEIGHTED PCI | | | |
|---------------------------------|------------------|------------------|--|
| 2017 | 2022 (PREDICTED) | 2027 (PREDICTED) | |
| 51 | 48 | 40 | |

TAXIWAY D (2020)
BETWEEN RWY
8L-26R AND TWY J



MAGNETIC VARIATION: 13°49'48"
30 JANUARY 1992
ANNUAL RATE OF CHANGE: 001'30"W

LOCATION MAP for ACIP 2019 PROJECT

SCALE: NONE

| | | | | | |
|--|----------------------------|--|---|-------------------------|--------------------------------|
| Airport Name | | Long Beach Airport (LGB) | | Fiscal Year 2020 | |
| Shown On ALP | Project Type* | Project Description | Federal Share | Local Share | Total |
| Yes | D | Runway 16R-34L Conversion to Taxiway B (National Priority Rating Code: SA TW IM/SF/SZ = 89) | | | |
| | | Administration / Design (15%) | \$766,984 | \$79,016 | \$846,000 |
| | | Construction | \$5,113,224 | \$526,776 | \$5,640,000 |
| | | Construction Engineering/Inspection (15%) | \$766,984 | \$79,016 | \$846,000 |
| | | TOTAL | \$6,647,191 | \$684,809 | \$7,332,000 |
| * D - Development; P - Planning; E - Environmental | | | | | |
| PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS | | | | | |
| Detail Project Description (Square/Lineal Footage or Length/Width) | | | | | |
| <p>Runway 16R-34L Conversion to Taxiway B - Reconstruction of approximately 250,000 sf of runway pavement (2,000'x125', including shoulders) and the construction of approximately a 67,500 sf of a new taxiway connector (500'x75', including shoulders). The project includes improvements to adjacent infield areas, pavement markings, lighting, signage, and drainage systems. AIP and future PFC funds will be used.</p> <p>Runway 16R-34L was last rehabilitated in 1985. A PMMS report completed in August 2017 determined the Area-weighted PCI value for Runway 16R-34L to be 18, with a predicted Area-weighted PCI of 13 and 7 in 2022 and 2027, respectively. Conversion of Runway 16R-34L to new Taxiway B will preserve safety and capacity. Taxiway B serves as access to Fixed Base Operators on the west side of the airfield and many of the 300,000 general aviation operations at the Airport.</p> | | | | | |
| Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process) | | | | | |
| Grant Application | | DEC 2020 | Grant Execution | | JUL 2021 |
| Bid Opening | | MAY 2021 | Construction Commencement | | NOV 2021 |
| Grant Offer | | JUN 2021 | Construction Completion | | AUG 2022 |
| NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval) | | | | | |
| CATEX documentation will be completed and submitted to the FAA for a determination on the Conversion of Runway 16R-34L to Taxiway B prior to submission of the grant application. | | | | | |
| Date of Last ALP Approval Depicting Proposed Projects | | | | | |
| 7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A) | | | | | |
| Land Title Status & Date of Exhibit "A" Status | | | | | Date |
| Exhibit "A" Property Map Drawing No new R/W is required for this project. | | | | | June 18, 2012 |
| Open AIP Funded Projects (include grant number and grant description) | | | | | Expected Close-out Date |
| 3-06-0127-043-2015 | Geometry Study Phase 2 | | | | DEC 2018 |
| 3-06-0127-044-2017 | Runway 7R-25L Improvements | | | | JUNE 2019 |
| Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor. | | | | | |
| Jess L. Romo, A.A.E. Director, Long Beach Airport Name / Title of Authorized Representative (Print or Type) | | | Stephan G. Lum, P.E. Senior Civil Engineer, Long Beach Airport Contact Name and Title (Print or Type) | | |
| Signature | | | Date | | |
| | | | 562.570.2682 | | |
| | | | Contact Phone (Print or Type) | | |

| | | | | | |
|---|----------------------------|---|---|-------------------------|--------------------------------|
| Airport Name | | Long Beach Airport (LGB) | | Fiscal Year 2021 | |
| Shown On ALP | Project Type* | Project Description | Federal Share | Local Share | Total |
| Yes | D | Improvements to Taxiway L (National Priority Rating Code: RE TW IM = 66) | | | |
| | | Administration / Design (15%) | \$4,122,401 | \$424,699 | \$4,547,100 |
| | | Construction | \$27,482,672 | \$2,831,328 | \$30,314,000 |
| | | Construction Engineering/Inspection (15%) | \$4,122,401 | \$424,699 | \$4,547,100 |
| | | TOTAL | \$35,727,474 | \$3,680,726 | \$39,408,200 |
| * D - Development; P - Planning; E - Environmental | | | | | |
| PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS | | | | | |
| Detail Project Description (Square/Lineal Footage or Length/Width) | | | | | |
| <p>Improvements to Taxiway L - The project includes improvements to pavement marking, lighting, signage, and drainage systems. Drainage system improvements will consist of under-drain facilities for the portion of the taxiway between, and adjacent to, the Lakewood Boulevard and Spring Street underpasses to alleviate sub-grade saturation caused by ground water build up. Approximately 337,500 sf (4,500'x75') of taxiway pavement will be reconstructed using P-501 Portland cement concrete between, and including, the Lakewood Boulevard and Spring Street underpasses. Approximately 225,000 sf (4,500'x50', including shoulders) will be rehabilitated via cold milling and replacing asphalt pavement. Taxiway L3 will be relocated off of the Spring Street underpass and aligned closer to the displaced threshold for Runway 12-30. AIP and future PFC funds will be used.</p> <p>Taxiway L serves as the primary taxiway for all departing commercial aircraft and is also used by Air cargo carriers. Taxiway L was last rehabilitated in 2006. A PMMS report completed in August 2017, determined the Area-weighted PCI value for Taxiway L to be 68, with a predicted Area-weighted PCI of 61 in 2022. Taxiway L has exhibited accelerated pavement damage presumably due to the limitations of compaction over the Lakewood and Spring St. tunnels. Improvements to the primary air carrier taxiway will preserve safety and capacity.</p> | | | | | |
| Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process) | | | | | |
| Grant Application | | DEC 2020 | Grant Execution | | JUL 2021 |
| Bid Opening | | MAY 2021 | Construction Commencement | | NOV 2021 |
| Grant Offer | | JUN 2021 | Construction Completion | | AUG 2022 |
| NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval) | | | | | |
| CATEX documentation will be completed and submitted to the FAA for a determination on the Improvements to Taxiway L prior to submission of the grant application. | | | | | |
| Date of Last ALP Approval Depicting Proposed Projects | | | | | |
| 7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A) | | | | | |
| Land Title Status & Date of Exhibit "A" Status | | | | Date | |
| Exhibit "A" Property Map Drawing No new R/W is required for this project. | | | | June 18, 2012 | |
| Open AIP Funded Projects (include grant number and grant description) | | | | | Expected Close-out Date |
| 3-06-0127-043-2015 | Geometry Study Phase 2 | | | DEC 2018 | |
| 3-06-0127-044-2017 | Runway 7R-25L Improvements | | | JUNE 2019 | |
| Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor. | | | | | |
| Jess L. Romo, A.A.E. Director, Long Beach Airport | | | Stephan G. Lum, P.E. Senior Civil Engineer, Long Beach Airport | | |
| Name / Title of Authorized Representative (Print or Type) | | | Contact Name and Title (Print or Type) | | |
| | | | 562.570.2682 | | |
| Signature | | Date | Contact Phone (Print or Type) | | |



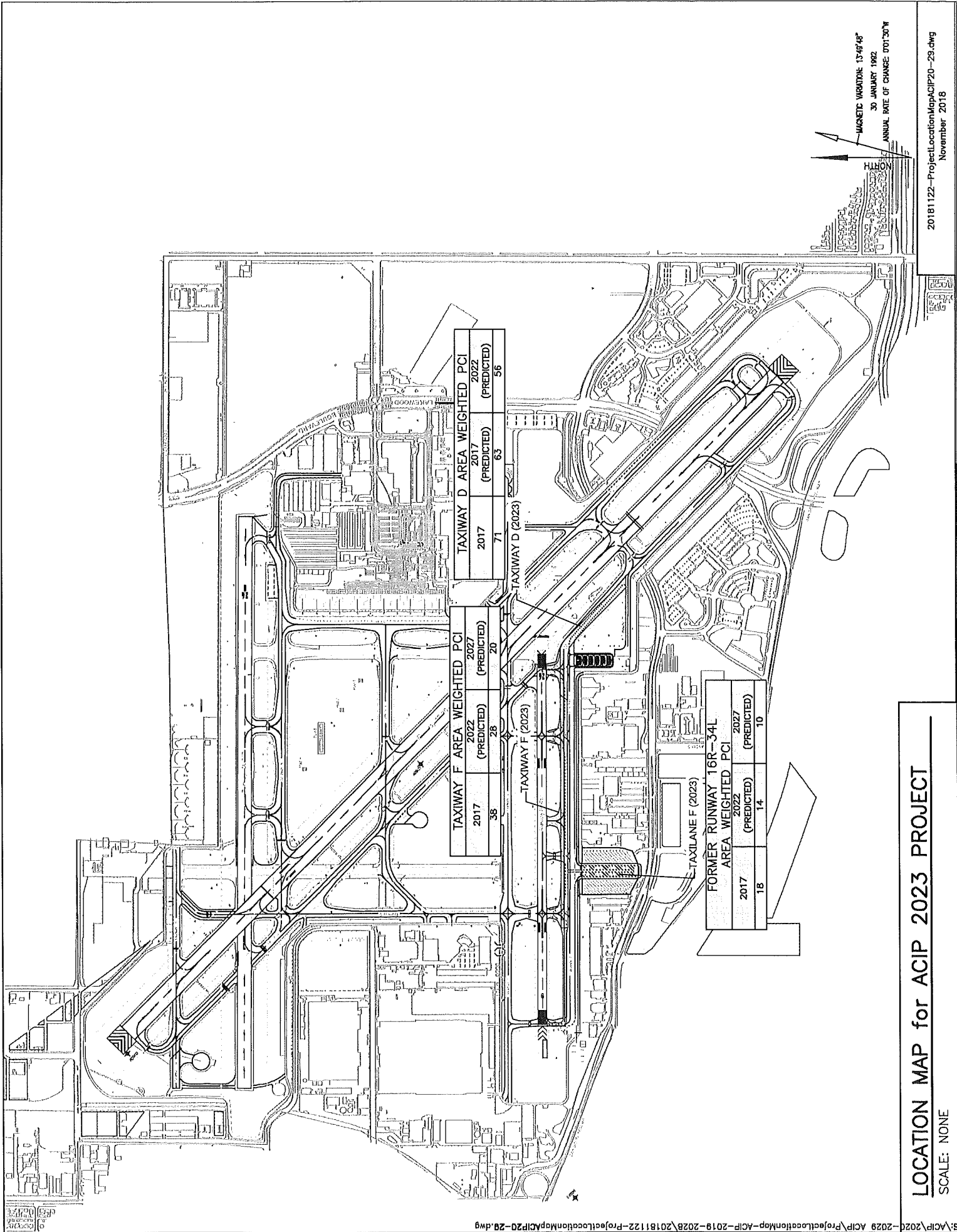
| NEW TAXIWAY B AREA WEIGHTED PCI | | |
|---------------------------------|---------------------|---------------------|
| 2017 | 2022 (PREDICTED) | 2027 (PREDICTED) |
| 18 | 13 | 7 |

| TAXIWAY L AREA WEIGHTED PCI | | |
|-----------------------------|---------------------|---------------------|
| 2017 | 2022 (PREDICTED) | 2027 (PREDICTED) |
| 68 | 61 | 54 |

LOCATION MAP for ACIP 2021 PROJECT

SCALE: NONE

| Airport Name | | Long Beach Airport (LGB) | | Fiscal Year 2023 | |
|---|----------------------------|--|---|-------------------------|-------------|
| Shown On ALP | Project Type* | Project Description | Federal Share | Local Share | Total |
| Yes | D | AGS Phase 5 - Taxilane F Reconstruction [Former Rwy 16R] (National Priority Rating Code: SA TW IM/SF/SZ = 89) | | | |
| | | Administration / Design (15%) | \$167,336 | \$17,239 | \$184,575 |
| | | Construction | \$1,115,571 | \$114,929 | \$1,230,500 |
| | | Construction Engineering / Inspection (15%) | \$167,336 | \$17,239 | \$184,575 |
| | | TOTAL | \$1,450,243 | \$149,407 | \$1,599,650 |
| * D - Development; P - Planning; E - Environmental | | | | | |
| PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS | | | | | |
| Detail Project Description (Square/Lineal Footage or Length/Width) | | | | | |
| <p>AGS Phase 5 - Taxilane F Reconstruction - As part of the fifth phase of implementation of the safety and standardization recommendations contained in the Airfield Geometry Study (AGS), the project includes conversion of [former] Runway 16R-34L south of TWY F to Taxilane F to provide tenant access and facilitate development of a new run-up area at the south end of [former] Runway 16R-34L. Approximately 42,900 sf of taxilane pavement (660'x65', including shoulders) will be reconstructed. The project includes improvements to pavement marking, lighting, signage and drainage systems. AIP and future PFC funds will be used.</p> <p>Taxilane F serves as access to Taxiway F for cargo companies general aviation operations at the Airport. Taxilane F [Former Runway 16R-34L] was last rehabilitated in 1985. A PMMS report completed in August 2017 determined the area-weighted PCI for Taxilane F to be 18, with a 2022 predicted area-weighted PCI of 14. These improvements will preserve safety and capacity.</p> | | | | | |
| Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process) | | | | | |
| | Grant Application | DEC 2022 | Grant Execution | JUL 2023 | |
| | Bid Opening | MAY 2023 | Construction Commencement | NOV 2023 | |
| | Grant Offer | JUN 2023 | Construction Completion | DEC 2024 | |
| NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval) | | | | | |
| CATEX documentation will be completed and submitted to the FAA for a determination on the Taxiway F Realignment & Reconstruction project prior to submission of the grant application. | | | | | |
| Date of Last ALP Approval Depicting Proposed Projects | | | | | |
| 7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A) | | | | | |
| Land Title Status & Date of Exhibit "A" Status | | | | Date | |
| Exhibit "A" Property Map Drawing No new R/W is required for this project. | | | | June 18, 2012 | |
| Open AIP Funded Projects (include grant number and grant description) | | | | Expected Close-out Date | |
| 3-06-0127-043-2015 | Geometry Study Phase 2 | | | DEC 2018 | |
| 3-06-0127-044-2017 | Runway 7R-25L Improvements | | | JUNE 2019 | |
| Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor. | | | | | |
| Jess L. Romo, A.A.E. Director, Long Beach Airport | | | Stephan G. Lum, P.E. Senior Civil Engineer, Long Beach Airport | | |
| Name / Title of Authorized Representative (Print or Type) | | | Contact Name and Title (Print or Type) | | |
| | | | 562.570.2682 | | |
| Signature | | Date | Contact Phone (Print or Type) | | |



LOCATION MAP for ACIP 2023 PROJECT

SCALE: NONE

Appendix B

**(FAA – Airport Design and Engineering
Standards)**

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Federal Aviation Administration

Airport Design and Engineering Standards

Airports

This page provides a quick reference to engineering, design, and construction standards for various airport-related equipment, facilities, and structures. Visit our [Series 150 Advisory Circular Library](#) (www.faa.gov/airports/resources/advisory_circulars/) for a complete listing of current advisory circulars.

See also--

- [Airport Construction Standards](#)
(www.faa.gov/airports/engineering/construction_standards/)
- [Airport Design Software](#) (www.faa.gov/airports/engineering/design_software/)
- [Airport Engineering Briefs](#)
(www.faa.gov/airports/engineering/engineering_briefs/)

Design Standards

| Item | Reference (See most recent version and any associated changes) |
|---|---|
| ADS-B (Automatic Dependent Surveillance- Broadcast) Squitters | AC 150/5220-26 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-26) |
| Airport Design | AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) |
| Airport Drainage | AC 150/5320-5 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5320-5) |
| Airport Layout Plans | AC 150/5070-6 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5070-6) |
| Airport Lighting - Runway/Taxiway | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Airport Lighting - Runway Centerline | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Airport Lighting - Radio Control | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Airport Marking | AC 150/5340-1 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-1) |
| Airport Master Plans | AC 150/5070-6 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5070-6) |
| Airport Signage | AC 150/5340-18 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-18) |
| Airport Terminal Facilities | AC 150/5360-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5360-13) |
| Apron | AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 5) |
| ARFF (aircraft rescue and fire fighting) Building | AC 150/5210-15 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-15) |

| Item | Reference (See most recent version and any associated changes) |
|---|--|
| ARFF (aircraft rescue and fire fighting) Equipment - DEVS | AC 150/5220-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-10)(www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-19) |
| ARFF (aircraft rescue and fire fighting) Equipment - Clothing | AC 150/5210-14 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-14) |
| ARFF (aircraft rescue and fire fighting) Training Facility | AC 150/5220-17 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-17) |
| ARFF (aircraft rescue and fire fighting) Vehicle - Small Dual Agent | AC 150/5220-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-10)(www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-19) |
| ARFF (aircraft rescue and fire fighting) Vehicle | AC 150/5220-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-10) |
| Artificial Turf | AC 150/5370-15 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-15) |
| AWOS (Automated Weather Observing Systems) | AC 150/5220-16 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-16) |
| Beacons | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Compass Calibration Pad | AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13)(Appendix 4) |
| Construction Standards | AC 150/5370-10 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-10). See also Construction Standards for Airports (www.faa.gov/airports/engineering/construction_standards/) |
| Deicing Facilities | AC 150/5300-14 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-14) |
| Disability Access to Airports | AC 150/5360-14 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5360-14) |
| EMAS (Engineered Material Arresting System) Arresting System | AC 150/5220-22 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-22) |
| Fuel Storage | AC 150/5230-4 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5230-4) |
| Hellport Design | AC 150/5390-2 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5390-2) |
| Landfills | AC 150/5200-34 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-34) |
| Land and Hold Short Lighting | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Marking of Airport Vehicles | AC 150/5210-5 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5210-5) |

| Item | Reference (See most recent version and any associated changes) |
|--|---|
| Operational Safety - Construction | AC 150/5370-2 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-2) |
| PAPI | AC 150/5345-28 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5345-28) |
| Passenger Lift for the Impaired | AC 150/5220-21 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-21) |
| Pavement - Heated | AC 150/5370-17 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-17) |
| Pavement Design | AC 150/5320-6 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5320-6) |
| Pavement Management System | AC 150/5380-7 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5380-7) |
| REIL | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Runway Length Requirements | AC 150/5325-4 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5325-4) |
| Runway Surface Monitors | AC 150/5200-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-30) |
| Runway Thresholds | AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 2) |
| Segmented Circle | AC 150/5340-5 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-5) |
| SMGCS | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Snow Removal Operations | AC 150/5200-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-30) |
| SRE Buildings | AC 150/5220-18 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-18) |
| SRE Equipment | AC 150/5220-20 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5220-20) |
| State Standards for Non-primary Airports | AC 150/5100-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5100-13) |
| VASI | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Wildlife Attractants | AC 150/5200-33 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-33) |
| Wind Analysis | AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendix 1) |
| Wind Cones | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Wind Cones - Supplemental | AC 150/5340-30 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5340-30) |
| Windrose | AC 150/5300-13 (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13) (Appendices 1, 11) Airports GIS Windrose Form (https://airports-gis.faa.gov/airportsgis/publicToolbox/windroseForm.jsp) |

Page last modified: March 06, 2018 4:49:02 PM EST

This page was originally published at: https://www.faa.gov/airports/engineering/design_standards/

Appendix C

(FAA – Airport Construction Standards)

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Federal Aviation Administration

Airport Construction Standards (AC 150/5370-10) Airports

« [Airports Orders \(www.faa.gov/airports/resources/publications/orders/\)](http://www.faa.gov/airports/resources/publications/orders/)

Instructions: The following standards are from [AC 150/5370-10H, Standards for Specifying Construction of Airports](#) (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-10). To view the entire AC and the latest errata sheet, select the "Complete AC" link below..

See also--

- [Airport Design and Engineering Standards](#)
(www.faa.gov/airports/engineering/design_standards/)
- [Airport Design Software](#) (www.faa.gov/airports/engineering/design_software/)
- [Airport Engineering Briefs](#)
(www.faa.gov/airports/engineering/engineering_briefs/)
- [Series 150 Airport ACs](#) (www.faa.gov/airports/resources/advisory_circulars/)

Note: We are in the process of preparing individual files for each Part. Please check back soon to access the files.

AC 150/5370-10H

Complete AC

(www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-10).(CURRENT)

Part 1 - General Contract Provisions

- Section 10 Definition of Terms
- Section 20 Proposal Requirements and Conditions
- Section 30 Award and Execution of Contract
- Section 40 Scope of Work
- Section 50 Control of Work
- Section 60 Control of Materials
- Section 70 Legal Regulations and Responsibility to Public
- Section 80 Execution and Progress
- Section 90 Measurement and Payment

Part 2 – General Construction Items

- Item C-100 Contractor Quality Control Program (CQCP)
- Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control
- Item C-105 Mobilization
- [Item C-110 Method of Estimating Percentage of Material Within Specification Limits (PWL)]

Part 3 – Sitework

- Item P-101 Preparation/Removal of Existing Pavements
- Item P-151 Clearing and Grubbing
- Item P-152 Excavation, Subgrade, and Embankment
- Item P-153 Controlled Low-Strength Material (CLSM)
- Item P-154 Subbase Course
- Item P-155 Lime-Treated Subgrade
- Item P-156 Cement Treated Subgrade
- Item P-157 [Cement] [Lime] Kiln Dust Treated Subgrade
- Item P-158 Fly Ash Treated Subgrade

Part 4 – Base Courses

- Item P-207 In-Place Full Depth Reclamation (FDR) Recycled Asphalt Aggregate Base Course
- Item P-208 Aggregate Base Course
- Item P-209 Crushed Aggregate Base Course
- Item P-210 Caliche Base Course
- Item P-211 Lime Rock Base Course
- Item P-212 Shell Base Course
- Item P-213 Sand-Clay Base Course
- Item P-217 Aggregate-Turf Runway/Taxiway
- Item P-219 Recycled Concrete Aggregate Base Course
- Item P-220 Cement Treated Soil Base Course

Part 5 – Stabilized Base Courses

- Item P-304 Cement-Treated Aggregate Base Course (CTP)
- Item P-306 Lean Concrete Base Course
- Item P-307 Cement Treated Permeable Base Course (CTPB)

Part 6 – Flexible Pavements

- Item P-401 Asphalt Mix Pavement
- Item P-403 Asphalt Mix Pavement [Base] [Leveling] [Surface] Course
- Item P-404 Fuel-Resistant Asphalt Mix Pavement

Part 7 – Rigid Pavement

- Item P-501 Cement Concrete Pavement

- Sample PCC Joint Plans
(www.faa.gov/airports/engineering/pavement_design/#PCCjointplans)

Part 8 – Surface Treatements

- Item P-608 Emulsified Asphalt Seal Coat
- Item P-608-R Rapid Cure Seal Coat
- Item P-609 Chip Seal Coat
- Item P-623 Emulsified Asphalt Spray Seal Coat
- Item P-626 Emulsified Asphalt Slurry Seal Surface Treatment
- Item P-629 Thermoplastic Coal Tar Emulsion Surface Treatments
- Item P-630 Refined Coal Tar Emulsion Without Additives, Slurry Seal Surface Treatment
- Item P-631 Refined Coal Tar Emulsion With Additives, Slurry Seal Surface Treatment
- Item P-632 Asphalt Pavement Rejuvenation

Part 9 – Miscellaneous

- Item P-602 Emulsified Asphalt Prime Coat
- Item P-603 Emulsified Asphalt Tack Coat
- Item P-604 Compression Joint Seals for Concrete Pavements
- Item P-605 Joint Sealants for Pavements
- Item P-606 Adhesive Compounds, Two-Component for Sealing Wire and Lights in Pavement
- Item P-610 Concrete for Miscellaneous Structures
- Item P-620 Runway and Taxiway Marking
- Item P-621 Saw-Cut Grooves

Part 10 – Fencing

- Item F-160 Wire Fence with Wood Posts (Class A and B Fences)
- Item F-161 Wire Fence with Steel Posts (Class C and D Fences)
- Item F-162 Chain-Link Fence
- Item F-163 Wildlife Deterrent Fence Skirt
 - Wildlife Fence Details (below)
- Item F-164 Wildlife Exclusion Fence
 - Wildlife Fence Details (below)

Part 11 – Drainage

- Item D-701 Pipe for Storm Drains and Culverts
- Item D-702 Slotted Drain
- Item D-705 Pipe Underdrains for Airports
- Item D-751 Manholes, Catch Basins, Inlets and Inspection Holes
- Item D-752 Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures
- Item D-754 Concrete Gutters, Ditches, and Flumes

Part 12 – Turfing

- Item T-901 Seeding
- Item T-903 Sprigging
- Item T-904 Sodding
- Item T-905 Topsoiling
- Item T-908 Mulching

Part 13 – Lighting Installation

- Item L-101 Airport Rotating Beacons
- Item L-103 Airport Beacon Towers
- Item L-107 Airport Wind Cones
- Item L-108 Underground Power Cable for Airports
- Item L-109 Airport Transformer Vault and Vault Equipment
- Item L-110 Airport Underground Electrical Duct Banks and Conduits
- Item L-115 Electrical Manholes and Junction Structures
- Item L-119 Airport Obstruction Lights
- Item L-125 Installation of Airport Lighting Systems

Wildlife Fence Details

- Detail F-163-1 Typical Wildlife Deterrent Fence Skirt Details: [PDF](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-1-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-1-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), [DWG](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-1-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-1-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
- Detail F-163-2 Typical Wildlife Deterrent Fence Skirt Details: [PDF](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), [DWG](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
- Detail F-163-3 Typical Wildlife Deterrent Fence Skirt Details: [PDF](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), [DWG](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.dwg)
- Detail F-164-1 Typical Wildlife Exclusion Fence Details: [PDF](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-1-Typical-Wildlife-Exclusion-Fence-Details-Model.pdf)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-1-Typical-Wildlife-Exclusion-Fence-Details-Model.pdf), [DWG](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-1-Typical-Wildlife-Exclusion-Fence-Details-Model.dwg)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-1-Typical-Wildlife-Exclusion-Fence-Details-Model.dwg)
- Detail F-164-2 Typical Wildlife Exclusion Fence Ditch Crossing: [PDF](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.pdf)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.pdf), [DWG](http://www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.dwg)
(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.dwg)

(www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.dwg).

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Appendix D

(FAA – Airport Engineering Briefs)

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Federal Aviation
Administration

Airport Engineering Briefs Airports

Airport engineering briefs provide additional information about airport engineering, design, and construction standards and specifications included in advisory circulars.

Question about an Engineering Brief (EB)?

Contact the [Airport Engineering Division](#)

(www.faa.gov/about/office_org/headquarters_offices/ero/offices/ass/aas100/).

On February 25, 2015, obsolete and out-of-date engineering briefs were cancelled. Use of materials or procedures in any of the cancelled engineering briefs will require a modification to standards.

Cancelled Airport Engineering Briefs

(www.faa.gov/airports/engineering/engineering_briefs/media/cancelled-airport-engineering-briefs.pdf).(PDF)

Active Engineering Briefs

| EB No. (View EB) | Description | Date |
|--|--|----------------|
| Full Set (www.faa.gov/airports/engineering/engineering_briefs/media/eb-zip.zip) (Zip, 16.3 MB) | Download the Full Set of Engineering Briefs as a Zipped File | May 13, 2019 |
| EB101 | Internal Use | |
| EB100 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-100-holding-position-signs.pdf) (PDF) | Holding Position Sign for Runway Approach/Departure Areas | May 13, 2019 |
| EB99 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-99-Airport-Design-Tables-3-2-and-3-4.pdf) (PDF) | Changes to Tables 3-2 and 3-4 of Advisory Circular 150/5300-13A, Airport Design Note: Editorially updated 9/24/2018 to correct metric equivalent in Table 3-2, column C, rows 4 and 5. | Sept. 20, 2018 |
| EB98 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-98-NVG.pdf) (PDF) | Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Goggles (NVGs) | Dec. 18, 2017 |
| EB97 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-97-aeroMACS.pdf) (PDF) | Guidance for AeroMACS Installation by the Airport Operator | June 3, 2016 |
| EB95 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-95-papi-vgsi.pdf) (PDF) | Additional Siting and Survey Considerations for Precision Approach Path Indicator (PAPI) and Other Visual Glide Slope Indicators (VGSI) Note: We have removed the note from paragraph 8.2. PAPIs installed per FAA siting criteria are exempt from the 7460 process. (updated 3/28/2018) | Dec. 19, 2017 |
| EB94 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-94-B-777-9-folding-wingtips.pdf) (PDF) | Accommodating the Boeing B-777 Folding Wingtip Airplane onto Airports | April 2, 2018 |
| EB93 (www.faa.gov/airports/engineering/engineering_briefs/media/eb-93-temp-orange-signs.pdf) (PDF) | Guidance for the Assembly and Installation of Temporary Orange Construction Signs | Dec. 13, 2017 |
| Draft EB92A (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-92a.pdf) (PDF) | Light Spacing Guidance for New Taxiway Fillet Geometry (per AC 150/5300-13A, Airport Design) • Industry Letter for Draft EB 92A (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-92a-industry-letter.pdf) (PDF) - Comment by March 1, 2016 • Comments Matrix for Draft EB 92A (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-92a-comments-matrix.docx) (MS Word) | Feb. 2, 2016 |
| EB92 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-92.pdf) (PDF) | Light Spacing Guidance for New Taxiway Fillet Geometry (per AC 150/5300-13A, Airport Design) | Nov. 29, 2013 |
| EB91 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-91.pdf) (PDF, 1.3 MB) | Management of Vegetation in the Airport Environment | Nov. 16, 2013 |
| EB89 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-89.pdf) (PDF) | Taxiway Nomenclature Convention | Mar. 29, 2012 |
| EB88 | Reserved | NA |
| EB87 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-87.pdf) (PDF) | Hellport Perimeter Light for Visual Meteorological Conditions • See AC 150/5390-2, Hellport Design (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document/current/documentNumber/160_6390-2) | Jan. 13, 2012 |
| EB86 | Reserved | NA |
| Draft EB85 (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-85.pdf) (PDF) | Ductile Snowplow Protection Ring And Installation Procedures | Dec. 3, 2014 |

Airport Engineering Briefs – Airports

| EB No. (View EB) | Description | Date |
|---|---|----------------------|
| Draft EB84 (www.faa.gov/airports/engineering/engineering_briefs/media/draft-EB-84.pdf) (PDF) | Remote Maintenance and Monitoring of ALCMS and L-821 Computerized Control Panels | Feb. 22, 2011 |
| EB83A (www.faa.gov/airports/engineering/engineering_briefs/media/eb-83a-in-pavement-light-fixture-bolts.pdf) (PDF, 1.17 MB) | In-Pavement Light Fixture Bolts (added 12/27/2018) | Dec. 28, 2018 |
| EB82 | Reserved | NA |
| EB79A (www.faa.gov/airports/engineering/engineering_briefs/media/EB-79a.pdf) (PDF) | Determining RSA NAVAID Frangibility and Fixed-By-Function Requirements | Jan. 21, 2016 |
| EB78 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-78.pdf) (PDF) | Linear Equations for Evaluating the Separation of Airplane Design Groups on Parallel Taxiways and Taxiways to Fixed/Movable Objects | Sept. 28, 2012 |
| EB76 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-76.pdf) (PDF) | Using Solar Power for Airport Obstruction Lighting | Jan. 14, 2008 |
| EB75 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-75.pdf) (PDF) | Incorporation of Runway Incursion Prevention Into Taxiway and Apron Design | Nov. 8, 2007 |
| EB74A (www.faa.gov/airports/engineering/engineering_briefs/media/EB-74A.pdf) (PDF) | Use of 150-foot (45-M) Wide Runways and Blast Pads for Boeing 747-8 Operations | Aug. 11, 2011 |
| EB73 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-73.pdf) (PDF) | Use of Non-Standard 75-Foot- (23-M) Wide Straight Taxiway Sections for Boeing 747-8 Taxiing Operations | Nov. 27, 2007 |
| EB72A (www.faa.gov/airports/engineering/engineering_briefs/media/EB-72a.pdf) (PDF) | Positive Identification of Runways for Landing | Nov. 2, 2007 |
| EB67D (www.faa.gov/airports/engineering/engineering_briefs/media/EB_67d_rev.pdf) (PDF) | Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures <ul style="list-style-type: none"> • "Note" added to par. 2.15 for clarification (July 25, 2017) • Clarification of 'Effective Date' in Engineering Brief No. 67D (www.faa.gov/airports/engineering/engineering_briefs/media/EB-67dClarification.pdf) (PDF) | Mar. 6, 2012 |
| EB66 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-66.pdf) (PDF) | Rubblized Portland Cement Concrete Base Course | Feb. 13, 2004 |
| EB65A (www.faa.gov/airports/engineering/engineering_briefs/media/EB-65a.pdf) (PDF) | Use of 150-Foot- (45-M) Wide Runways for Airbus A380 Operations | Dec. 10, 2007 |
| EB64D (www.faa.gov/airports/engineering/engineering_briefs/media/EB-64d.pdf) (PDF) | Runway Status Lights System | May 6, 2011 |
| EB63B (www.faa.gov/airports/engineering/engineering_briefs/media/EB-63b.pdf) (PDF) | Taxiways for Airbus A380 Taxiing Operations (Supersedes EB 63a) | Nov. 27, 2007 |
| EB57 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-57.pdf) (PDF) | Extended Q-Value Table for Estimating Percent of Lot Within Limits (PWL), Q-Value and PWL Table (www.faa.gov/airports/engineering/engineering_briefs/media/EB-57PWL.xls) (MS Excel) | May 19, 1999 |
| EB56 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-56.pdf) (PDF) | Development of Revised Acceptance Criteria for Item P-401 and Item P-501. | Jan. 27, 1999 |
| EB42 (www.faa.gov/airports/engineering/engineering_briefs/media/EB-42.pdf) (PDF) | Geocomposite Pavement Edge Drains | Mar. 22, 1989 |
| EB34A (www.faa.gov/airports/engineering/engineering_briefs/media/EB-34a.pdf) (PDF) | Referee Testing of Hardened Portland Cement Concrete Pavement-Percent within Limits Revision | May 13, 2002 |

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Appendix E

(Scope of Services Samples)

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APPENDIX C. SCOPE OF SERVICES SAMPLES

- C.1 This appendix contains three different examples of Scope of Services. Example 1 is a Design Services scope, Example 2 is a Planning Services scope, and Example 3 is a Construction Services scope. Samples may not necessarily include all provisions and terms required by this AC. If a conflict exists between these examples and the AC, the AC will prevail.

C.2 **Example 1. Design Services Scope.**

**TAXIWAY A SOUTH AND HOLDING APRON RECONSTRUCTION AND NEW
HARDSTAND**

ABC INTERNATIONAL AIRPORT

The consultant will provide the required professional services to design the reconstruction of Taxiway A South and holding apron and the proposed hardstand (attach a drawing or exhibit if necessary). This work will be performed and constructed under a Federal Aviation Administration (FAA) Airport Improvement Program (AIP) grant to the airport.

Taxiway A South will be constructed in Portland Cement concrete and will be widened to 100 feet and have new 40-foot-wide asphalt shoulders added. The South Holding Apron will be reconstructed to essentially the same configuration as presently exists. Centerline taxiway lighting will be added to the taxiway and through the holding apron to Runway 18L/36R. Control panels in the FAA tower and field lighting electrical vault will also be modified for the new centerline lighting.

The new hardstand will be located north of the Airlift Airlines Maintenance Facility (currently under construction) south of the northeast Cargo Taxilane and west of the flying Bears hardstand. The hardstand will be a Portland Cement concrete apron with lighting similar to other hardstands, drainage to the Industrial Waste Sewerage System (IWS), and other utilities including fire protection. No downstream IWS changes are anticipated. It is anticipated that utilities are immediately available for fire protection adjacent to hardstand.

Professional services to be provided by the consultant will include civil, electrical and structural, and geotechnical engineering services required to accomplish the following items:

PHASE 1 - PRELIMINARY DESIGN

The preliminary design phase is intended to identify and evaluate alternatives to assure cost effective and practical solutions for the work items identified. The consultant will complete its evaluation of alternatives through contacts with local authorities and review of the preapplication, field investigations, and a practical design approach. The design will take advantage of local knowledge and experience and utilize expertise from recent construction projects to design a cost-effective project and ensure competitive construction bids. Activities include:

1. Coordinate with airport operations, FAA tower, and the airlines to minimize impacts in day-to-day operations of the airlines and air cargo lines. Also coordinate with facilities and

maintenance and fire department. (This will require four coordination meetings throughout the design.)

2. Prepare a preliminary estimate of probable construction costs and schematic design for each element of the project.
3. Provide all geotechnical investigation and analysis and pavement and other nondestructive testing and analysis required for the design.
4. Coordinate with the airport's project manager for required survey information.
5. Prepare an overall construction phasing plan in order to maximize project constructability and minimize interference with airport operations. The consultant's phasing plan must take into account other airport construction projects.
6. Determine aircraft usage through coordination with Airport staff and information furnished by the Sponsor. Design the pavements to meet the anticipated aircraft traffic.

PHASE 2 - ENGINEERING PHASE ACTIVITIES

1. Evaluate local conditions.
 - a. Evaluate local material suppliers, sources, and capabilities.
 - b. Evaluate drainage alternatives.
 - c. Review electrical lighting layouts and determine system relocation capacities.
2. Review and evaluate project layout.
 - a. Verify master plan dimensions and data.
 - b. Review findings and recommendations with airport personnel.
3. Complete a soils investigation, soils report, and recommendations including:
 - a. Field Exploration.
 - i. Conduct test pit explorations with a rubber-tired backhoe at various locations to a maximum depth of 8 feet in the runway, taxiway, and apron areas. Log and field classify soils and obtain samples for laboratory testing.
 - b. Laboratory Testing.
 - i. Perform laboratory index and strength tests as follows:
 - (1) Compacted CBR test (3 compaction points/test).
 - (2) Standard Proctor (4 point) compaction tests.
 - (3) Atterberg limit determinations.
 - (4) Sieve analysis.
 - (5) Unit weight and water content determinations.
 - (6) FAA soil classifications for all samples.
4. Complete necessary topography and site surveying, including establishment of project control points.

5. Complete pavement section alternatives analysis and provide recommendations including:
 - a. Conduct an initial cost analysis, life-cycle cost analysis, and analysis of locally available resources for up to three alternatives.
 - b. Strategize bidding procedures and pavement section alternatives to provide a basis for competitive bidding.
6. Complete preliminary plan and profile design for the runway, taxiway, and apron area.
7. Complete preliminary runway lighting, signing, and system circuitry layout.
8. Provide recommendations for construction phasing to the Sponsor for their review.
9. Complete estimates of probable construction costs for the recommended alternatives.
10. Provide five sets of review documents.
11. Complete the preliminary design report including:
 - a. Geotechnical investigation.
 - b. Topographical survey.
 - c. Preliminary plans.
 - d. Pavement section design and analysis.
 - e. Drainage design analysis.
 - f. Estimates of probable construction costs.
 - g. Final summary and recommendations.
 - h. Phasing and scheduling recommendations.
12. Solicit comments on preliminary design from airport personnel and the FAA.

PHASE 3 - FINAL DESIGN

In the decision phase, the consultant will provide well-defined construction requirements, with selected bid alternatives as appropriate to provide a basis for competitive construction bids. Construction schedules will be closely coordinated to endeavor the best possible weather conditions and the least possible interference with airport operations. Assist the airport with the advertisement, notification of local airport users, and generally complete the final construction contract documents for the project. The following outline describes in greater detail the tasks and products.

1. Incorporate preliminary design comments and respond as necessary to requests for additional information.
2. Provide final design drawings, specifications, and final estimate of probable construction costs and schedule for the project.
3. Provide Engineering Report.
4. Develop specifications using Advisory Circular 150/5370-10, Standards for Specifying Construction of Airports, as amended, and utilize standard provisions supplied by the Sponsor.

5. Develop a safety plan in accordance with AC 150/5370-2, Operational Safety on Airports During Construction.
6. Design all improvements in accordance with FAA standards and guidelines and in accordance with the Airport Certification Manual.
7. Coordinate the design of the project with existing and ultimate grades established at adjacent areas.
8. Provide for all required design of utilities and services within the area defined in the preliminary design.
9. Complete final quantity calculations.
10. Solicit Sponsor and FAA review and approval.
11. Provide ____ sets of contract documents.
12. Assist airport with advertising and interpretation of project requirements.
13. Assist airport with preparation of the FAA application.
14. Provide review of all submittal and shop drawings during construction.
15. Provide technical assistance and recommendations to the Sponsor during construction.
16. The following project schedule will be utilized unless otherwise approved by the Sponsor: Taxiway A South and the Holding Apron portion of the project will be phased to be constructed on an accelerated basis to be completed within two (2) months of the construction consultant's notice to proceed or earlier, if possible. During construction, runway 18L/36R will be kept in service at all times. The project limits will be defined such that the construction activities will not impact the operation of the runway as defined by airport and FAA operational criteria.
17. The construction budget for the project is \$____, including construction change order contingency. The consultant will evaluate the feasibility of this budget and keep the Sponsor apprised during each phase of the design. The consultant will advise the Sponsor as to options available for reducing construction costs to stay within the budget, if it appears likely that construction bid prices will exceed this budget.

The design schedule is anticipated to be as follows:

Commission Authorization of Consultant Contract - 10/10/XX
Contract Execution - 10/10/XX
Start Design - 10/11/XX
50 Percent Design Review - 11/22/XX
Complete Design, Submit Estimates, Plans and Specs for Review 1/12/XX

Advertise for Bids - 3/21/XX
Open Bids - 4/11/XX
Prepare Award Memo - 4/12/XX
Award Construction Contract - 4/25/XX
Construction Contract Executed - 5/08/XX
Construction Notice to Proceed - 5/14/XX

Complete Taxiway A South & Holding Apron - 7/13/XX
Complete Hardstand Construction - 11/01/XX

PHASE 4 - CONSTRUCTION SERVICES

During the construction phase of the project, the consultant will assist the Sponsor to monitor and document progress for quality and cost. Review contractor payment requests, complete necessary quality control testing, establish necessary survey control, continually inform the Sponsor on project progress and problems, conduct the final project inspection, and complete the associated certification.

ACTIVITIES

1. Assist with prebid conference and bid opening. Issue addenda, prepare an abstract of bids, and make recommendations for award.
2. Assist in award notification to successful bidder and notify and return bid bonds to the unsuccessful bidders.
3. Solicit and review bonds, insurance certificates, construction schedules, etc.
4. Conduct preconstruction conference.
5. Provide horizontal and vertical control.
6. Provide resident project representative to monitor and document construction progress, confirm conformance with schedules, plans and specifications, measure and document construction pay quantities, document significant conversations or situations, document input or visits by local authorities, etc.
7. Prepare change orders and supplemental agreement, if required.
8. Prepare and submit inspection reports.
9. Prepare and confirm monthly payment request.
10. Conduct necessary quality control testing.
11. Conduct and document periodic wage rate interviews.
12. Conduct a final project inspection with airport personnel, the FAA, and the consultant.
13. Prepare as-constructed drawings and the final project report from information furnished by the consultant.

C.3 Example 2. Planning Services Scope.

AIRPORT LAYOUT PLAN UPDATE

ANYTOWN MUNICIPAL AIRPORT

The purpose of this Airport Layout Plan Update (ALPU) is to identify potential development options specifically associated with closed Runway 10-28 at Anytown Municipal Airport. The existing Airport Layout Plan (ALP) is an integral component of the Airport Master Plan Update (AMPU) completed in 2005, which was based on data compiled in the mid-2000s, which is now

nearly 10 years old. Since that time, a number of critical growth and operational issues have surfaced that need to be assessed and factored into the preferred layout plan.

This ALPU will help the community focus on the best course of action for continued development of the airport, by identifying the key critical issues the airport faces in the next five to ten years.

CRITICAL ISSUES

Anytown is in a multiyear airport development plan that includes the reconstruction of Runway 15-33, expansion of hangar and aircraft parking facilities, construction of an airport access road, plus plans for the development of a new terminal building, expanded aircraft parking, and fueling facilities.

The airport is now in a position to start focusing on long-term landside development, particularly along the closed runway, with a realistic assessment of the existing terminal area configuration on the east end of the closed runway. An equally important component of this study is the identification of aviation development limits on the west end of the closed runway over the next 20 years.

TASKS

XYZ Company proposes to provide the following services. To the maximum extent possible, and unless otherwise noted, data from the most recent AMPU and ALP will be used. In the interest of cost savings, updated aerial mapping will not be obtained for this project. XYZ Company will rely on existing data.

CONCEPT

XYZ Company will prepare a written report and update the ALP, focusing on development of airport landside facilities, with emphasis on the closed runway, and the limits of compatible aviation development. Findings will be presented in written form at key phases through the term of this project, with each subsequent part building on previously submitted information. This concept will result in the development of a complete draft report that will then be updated to reflect agreed upon changes, resulting ultimately in the final ALPU.

TASK A - STUDY DESIGN/ADMINISTRATIVE

1. Project Scoping Meeting. The consultant will arrange and attend a project scoping meeting with the FAA, state, and city of Anytown (Sponsor) to review the project scope and tasks and to confirm the specific requirements of the ALPU.
2. Refine Scope of Services. XYZ Company will refine and prepare a detailed scope of services and fee to complete the defined tasks for submission to the Sponsor, state, and FAA.
3. Prepare Grant Application. XYZ Company will prepare and submit applications for Federal assistance. The Sponsor will sign and distribute the applications to state and FAA. The grant application will be submitted on or about April 15, 20XX.
4. Attend City Council Meeting. XYZ Company will attend a regularly scheduled city council meeting for the purpose of answering questions and addressing issues concerning this project.
5. Grant Administration.

- a. XYZ Company will submit a monthly invoice to the Sponsor, including supporting documentation which specifically describes the work and other items for which the billing is submitted. The billing report will also include an estimate of the percent complete of each task appearing on the report. The Sponsor will be billed on a monthly basis for all work conducted in association with this project.
- b. The FAA and state will reimburse the Sponsor for these fees through the grant reimbursement process. XYZ Company will prepare these grant reimbursement requests for the Sponsor's signature and distribution to the FAA and state. It is anticipated that seven grant reimbursement requests will be prepared during the life of this project.

TASK B - ALPU REPORT

XYZ Company will prepare an ALPU report consisting of five chapters and various appendices, developed in two phases (draft and final).

Chapter 1 - Inventory and Forecasts

1. Update Existing Activity: This task will update existing based aircraft totals and evaluate current aircraft operations using industry standards, observations, and discussions with airport operators and users. The Sponsor will provide XYZ Company with an accurate list of all based aircraft by aircraft make and model, sorted by hangared aircraft and aircraft parked on open aprons.
2. Field Inventory: XYZ Company will conduct a site field investigation of the airport that will provide an update of recently constructed facilities as well as potential development areas.
3. Identify On-Airport Developable Land: XYZ Company will use existing base mapping superimposed by the airport property line and resource protection limits to identify areas of airport property that can be "disturbed" or used for future airport development. This task will focus on the closed runway.
4. Evaluate Existing Lease Agreements. XYZ Company will obtain and evaluate existing airport lease agreements for compliance with FAA grant assurances.
5. Review SASP: XYZ Company will obtain and review aircraft and operational data in the current State Aviation Systems Plan (SASP) as applicable to Anytown.
6. Update 19XX Forecasts. The 20XX AMPU forecasts will be updated based on current aircraft loading and operations and projected forward 5, 10 and 20 years using SASP forecasts, as applicable.
7. Forward Draft Findings. XYZ Company will prepare and submit a draft Inventory and Forecasts Chapter, providing 10 copies of the draft chapter to the Sponsor and one copy each to the state and FAA. It is recommended that the Sponsor post this report on its website. XYZ Company will provide a copy of the report as it progresses, in Adobe® PDF format, to the Sponsor's webmaster or information technology (IT) department.
8. Meeting. XYZ Company will present the Inventory and Forecast data to the Sponsor; answering questions and resolving any conflicts prior to starting the next phase of the project.

Chapter 2 - Demand/Capacity Analysis & Facility Requirements. Pending receipt and resolution of comments from the Sponsor, state, and the FAA on Chapter 1, XYZ Company will prepare Chapter 2. XYZ Company will review and respond to comments to all parties.

1. Landside Facility Capacities: XYZ Company will identify the capacity of the existing landside facilities including, but not limited to aviation facilities: hangars, aircraft parking, fuel facilities; compatible non-aviation facilities: industrial park; and common facilities: automobile parking and access roads
2. Airside Facility Requirements: This ALPU will not evaluate airside facilities (runway, taxiways, etc).
3. Landside Facility Requirements: XYZ Company will evaluate existing landside facilities and compliance with FAA safety and design requirements. Based on the safety and capacity computations as well as the forecasts of aviation demand for the airport, XYZ Company will identify the needed improvements for the landside facilities (i.e., hangars, aircraft parking, automobile parking and access, and aircraft fueling facilities).
4. Forward Draft Findings: XYZ Company will prepare and submit the Capacity and Facilities Chapter, providing 10 copies of the draft chapter to the Sponsor and one copy each to the state and FAA.
5. Meeting. XYZ Company will present its findings from the first two chapters to the Sponsor; answering questions and resolving any conflicts prior to starting the next phase of the project.

Chapter 3 - Alternative Developments. Pending receipt and resolution of comments from the Sponsor, state, and FAA on Chapter 2, XYZ Company will prepare Chapter 3. XYZ Company will review and respond to comments to all parties.

1. Identify Limits of Short-Term Aviation Development. Based on previously developed forecasts (Chapter 1) and identified facility needs (Chapter 2), XYZ Company will identify areas of airport property that can be used for future airport development. Emphasis will be placed along the entire close runway corridor, with particular attention given to realistic development of the existing terminal area.
2. Identify Potential Nonaeronautical Use. XYZ Company will analyze future aviation needs (projected in 5, 10, and 20 year periods) and then identify on-airport areas potentially available for compatible nonaeronautical use. Emphasis will be placed on development in the area along or in the vicinity of the west end of the closed runway.
3. Identify Development Alternatives: The objective of this task is to identify feasible landside alternative development plans for the airport based on Tasks A and B above. While a variety of alternative solutions could be considered, for the purposes of this study, XYZ Company will develop a series of possible alternatives consistent with the needs of the Sponsor.
4. Forward Draft Findings: XYZ Company will prepare and submit the Alternatives Chapter addressing the tasks in this chapter, providing 10 copies of the draft chapter to the city, and one copy each to the state and FAA.
5. Preferred Alternative Meeting: XYZ Company will meet with the Sponsor to assist him in evaluating and selecting the preferred alternative. Subsequent to the selection of the preferred alternative, XYZ Company will complete and submit an updated Alternatives Chapter to all parties.

Chapter 4 - Environmental Evaluation. Pending receipt and resolution of comments from the Sponsor, state, and FAA on Chapter 3, XYZ Company will prepare Chapter 4. XYZ Company will review and respond to comments to all parties.

1. Identify Existing Environmental Conditions.
 2. This task will include the collection of data to identify protected resources and environmental issues as defined by the 23 impact categories found in FAA Order 5050.4, Airport Environmental Handbook, in the vicinity of the airport that are anticipated to be impacted by the proposed capital improvements or existing operations. A review of existing data and coordination with appropriate regulatory agencies will identify potential protected resources and issues important to the human and natural environment that may require additional data collection beyond the scope of this study. XYZ Company will conduct one site visit to compare existing conditions to written data.
 3. In addition, XYZ Company will review previous environmental permitting and, if applicable, protected resource mitigation performed as part of previous airport and industrial park improvement projects. This information will be useful to the Sponsor when future environmental permits need to be obtained.
 4. Delineated flagged wetlands will be identified and evaluated using the current Federal and State (and local, if applicable) methodologies. These wetland boundaries, which are already digitized, will be placed on the appropriate airport plans and figures.
5. Identify Potential Adverse Impacts: Based upon the recommended airport improvements identified as the preferred alternative, potential impacts to the environment that are protected by local, State, and Federal regulations will be identified for the first five years of the planning period.
6. Describe Regulatory Requirements: XYZ Company will identify the permit requirements for the anticipated first five years of airport improvements. This information can then be used to plan the phasing requirements for each project (refer to Chapter 5 – Implementation Schedule & Financial Analysis).
7. Forward Draft Findings: XYZ Company will prepare and forward the Environmental Chapter covering the tasks described in this section. This chapter will provide the basis for the environmental permitting requirements and financial impacts presented in Chapter 6. XYZ Company will provide copies as previously described above.

Chapter 5 - Implementation & Financial Analysis. Pending receipt and resolution of comments from the Sponsor, state, and FAA on Chapter 4, XYZ Company will prepare Chapter 5. XYZ Company will review and respond to comments to all parties.

1. Implementation Schedule. Based on the adopted preferred alternative, a phased implementation schedule will be developed. This schedule will be based on demand levels and their estimated timeframes for realization. This schedule will not only include the development previously mentioned, but also major maintenance projects that were identified and necessary to maintain the viability of the airport.
2. Capital Improvement Plan. The ALPU will include a CIP using planning-level opinions of cost for each of the projects, both for development and maintenance of the airport. The distribution of eligible costs between the Sponsor, state, FAA, and private investors will be

evaluated for the presence of extensive financial burdens during any one timeframe; if necessary, projects may be shifted to offset this burden.

3. Funding Sources: XYZ Company will identify typical and potential funding sources for paying for proposed airport improvements or necessary maintenance projects.
4. Forward Draft Findings. XYZ Company will prepare and forward the Implementation Schedule and Financial Analysis Chapter covering the tasks described in this section. This chapter will provide the basis for future capital planning considerations on the part of the state and FAA. XYZ Company will provide copies as previously described above.

TASK C – UPDATE ALP

Three key components of the ALP will be updated: Existing Airport Layout Plan, Terminal Plan, and Ultimate Airport Layout Plan. The Approach Plan and Profile, Land-Use, and CFR Part 77 Analysis sheets **will not** be updated. Based on the selection of the preferred alternative, several drawings of the existing ALP set will require revisions and updating. All plans will be prepared to conform to state and FAA CADD standards and will be made available in electronic format.

1. Existing Airport Facilities Plan: This drawing will be updated reflecting changes since completion of the existing drawing. This drawing will be prepared at a scale of either 1" = 300' or 1" = 400'.
2. Ultimate Airport Layout Plan: This drawing will be revised reflecting the preferred alternate layout. This drawing will be prepared at a scale of either 1" = 300' or 1" = 400'.
3. Terminal Area Plan: This drawing will be prepared at a scale of either 1" = 50' or 100' reflecting the revised preferred layout.
4. Forward Draft Findings: XYZ Company will prepare and submit the revised ALP drawings. One full-size 24" x 36" set will be provided each to the Sponsor, FAA, and the state. In addition, a reduced 11" x 17" set will be provided in Adobe PDF to the Sponsor's webmaster for inclusion on the city's website.

TASK D – FINAL DOCUMENTATION

1. Final Meeting. XYZ Company will hold a final project meeting with the Sponsor, state, and FAA to review the project and solicit all final comments.
2. Final Report. Pending receipt of comments from all interested parties, a final ALPU report will be prepared. Bound, printed copies will be distributed to the Sponsor, state, and FAA. Additional copies of the final report will be available upon request on CD-ROM in Adobe PDF format.
3. Airport Layout Plan. Four (4) full-size sets of the final ALP set will be distributed to the Sponsor, state, and FAA for approval signatures. All signatory parties and XYZ Company will receive one (1) signed ALP set for their files.

ANTICIPATED PROJECT SCHEDULE

The following anticipated project schedule is based on the timely receipt and resolution of comments from the Sponsor, state, and FAA:

Anticipated Project Schedule

| Task | Date |
|---|----------------|
| Study Design | May 20XX |
| Inventory and Forecasts | June 20XX |
| Capacity Analysis and Facility Requirements | August 20XX |
| Alternatives Development | September 20XX |
| Environmental Evaluation | October 20XX |
| Financial Analysis | November 20XX |
| Airport Plans | December 20XX |
| Final Documentation | January 20XX |

C.4 Example 3. Construction Services Scope.

DESIGN AND CONSTRUCT 6-UNIT HANGAR

ANYTOWN MUNICIPAL AIRPORT

ARTICLE A - DATA COLLECTION AND PROJECT DEVELOPMENT

1. Predesign Conference - A representative of the engineer will attend a predesign meeting at the offices of the state to provide the representatives of the Sponsor, the FAA, and the state with the opportunity to review and discuss the nature and extent of the project and to establish the project design criteria, budget, and schedule. The engineer will coordinate the date and time of the predesign conference via teleconferences, letters, faxes and emails to the representatives of the Sponsor, the FAA and the state. The engineer will prepare a presentation of the project components for discussion at the predesign conference. The engineer will use the Airports Division Predesign Conference Form XX to determine the design and construction parameters that will be used for this project.
2. Review and Evaluate Existing Data - The engineer will compile the existing data that was prepared for previous projects at the airport, that is germane to the project, and that might be useful in the design of the project. The existing data includes airport master plan, airport Exhibit "A" property plan, engineering drawings, airspace obstruction analyses, aerial photogrammetry data, and aerial photographs. The engineer will utilize the pertinent data and information as appropriate to prepare worksheets to facilitate the development of the project. The engineer will review the existing data for accuracy and completeness and to determine the feasibility of utilizing the data to prepare plans and specifications for the design and construction of the project.
3. Site Location Survey - The engineer will retain a professional land surveyor who is licensed in the State to provide site location survey services in the vicinity of the proposed hangar project area sufficient to prepare the project plans. The land surveyor may be required to locate the pertinent existing physical features within the vicinity of the project including

pavements, drainage structures, swales and ditches, fence lines, property lines, rights-of-way, and tree and brush lines. The engineer will incorporate the results of the survey into the project plans to supplement the available existing data for the project locations.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, newspaper advertisements, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

Outside Services - The engineer will incur certain project related costs during the data collection and project development phase of the work in the form of subconsultant costs for land surveying. These costs will be included in the engineer's contract with the Sponsor.

ARTICLE B - DESIGNS, PLANS AND SPECIFICATIONS

1. Project Plans - The engineer will prepare preliminary and final plans based on the existing conditions plans that were prepared during the data collection phase of the project. The engineer will prepare the plans based on the locations of pavements, buildings, wetlands, tree lines, pole lines, fences, property lines, aviation easements, rights-of-way and other considerations to sufficiently depict the project area for the construction of the hangar. The engineer will evaluate the project work area to identify other necessary incidental improvements that should be included in the project. The engineer will incorporate the electrical and structural plans into the project plans. The engineer will coordinate the development of the project plans with the staff of their aviation planning and environmental departments including:

- Title sheet
- Site plan
- Grading Plan
- Civil Details
- Cross Sections
- Hangar Elevations and Details
- Floor Plan and Details
- Foundation Plan and Details
- Building Details and Typical Sections
- Electrical Layout Plan
- Electrical Schedules and One-Line Diagram
- Electrical Specifications

- a. The engineer will distribute the preliminary plans to the Sponsor, the state, and the FAA for review. The engineer will provide the Sponsor with one (1) set of preliminary plans for review and comments. The engineer will provide the state with two (2) sets

- of preliminary plans for review and comments. The engineer will provide the FAA with five (5) sets of preliminary plans for review and comments. The engineer will further develop the preliminary plans into final plans subsequent to the review and comment period.
- b. The engineer will distribute the final plans to the Sponsor, the state, and the FAA. The engineer will provide the Sponsor with one (1) set of final plans. The engineer will provide the state with one (1) set of final plans. The engineer will provide the FAA with one (1) set of final plans.
2. Project Specifications and Contract Documents – The engineer will prepare preliminary and final specifications and construction contract documents based on the preliminary and final plans. The engineer will incorporate the electrical and structural specifications into the project specifications. The specifications will establish the requirements for the project in accordance with the current version of and changes to FAA AC 150/5370-10, *Standards for Specifying Construction of Airports*, including general provisions and technical specifications.
- a. The contract documents will include: Invitation to Bid, Information for Bidders, Bid Proposal, Schedule of Items, consultant's Qualifications and Certifications, Buy American Requirements, Contract Agreement, Notice to Bidders (Bonding), Bid Bond, Payment Bond, Performance Bond, Maintenance Bond, and Insurance Requirements. The contract documents will include Federal special provisions including: Federal Requirements for Construction Contracts \$100,000 and Over, Instructions to Bidders, Certification for Nonsegregated Facilities, Required Assurances, Disadvantaged Business Enterprise Eligibility Requirements, and Federal wage rate requirements for Anytown USA.
 - b. The engineer will distribute the preliminary specifications and contract documents to the Sponsor, the state, and the FAA for review and approval. The engineer will provide the Sponsor with one (1) set of preliminary specifications and contract documents for review and comment. The engineer will provide the state with one (1) set of preliminary specifications and contract documents for review and comment. The engineer will provide the FAA with one (1) set of preliminary specifications and contract documents for review and comment. The engineer will further develop the preliminary specifications and contract documents into final specifications and contract documents subsequent to the review and comment period.
 - c. The engineer will distribute the final specifications and contract documents to the Sponsor, the state, and the FAA. The engineer will provide the Sponsor with one (1) set of final specifications and contract documents. The engineer will provide the state with one (1) set of final specifications and contract documents. The engineer will provide the FAA with one (1) set of final specifications and contract documents.
3. Estimates - The engineer will prepare estimates of material quantities and construction costs based on the plans, specifications, and environmental permitting requirements. The engineer will incorporate the electrical and structural estimates into the project estimates. The estimates will be distributed to the Sponsor, the state, and the FAA for review and modification. The Sponsor, the state and the FAA each will be provided with one (1) copy of the estimates.

Note: The construction cost estimates will reflect the engineer's opinion of probable construction costs and will be based on the engineer's experience with similar recent construction. The engineer has no control over the actual cost of consultant labor and materials or over the competitive bidding and construction market conditions. The engineer cannot guarantee the accuracy of the construction cost estimates when compared to the consultants' construction bids or to the final project construction cost.

4. Electrical Design, Specifications and Estimates - The engineer will utilize the staff of their electrical division for the design of the electrical components of the hangar building. The engineer will visit the project site to determine the availability and suitability of the existing electrical system for the proposed project. The engineer will prepare electrical plans in the form of one line diagrams, electrical service installation details, panel schedules, lighting plan, power plan, and fixture schedule. The engineer will prepare electrical specifications and cost estimates for the construction of a pre-engineered metal building. The engineer will incorporate the electrical plans, specifications, and cost estimates into the project plans, project specifications and project cost estimates.
5. Structural Design, Specifications and Estimates - The engineer will utilize the staff of their structural division for the design of the structural components of a hangar building measuring approximately 33-feet wide by 252-feet long. The engineer will visit the project site to determine the suitability of the proposed site for the hangar building. The engineer will utilize the geotechnical data compiled for the recent runway, taxiway, and apron reconstruction projects to evaluate the suitability of the existing soils to design the building foundation. The engineer will prepare structural plans in the form of building elevations, floor plans, foundation plans, reinforcing plans, structural cross sections, and details suitable for establishing the requirements of a pre-engineered metal building. The engineer will prepare structural specifications and cost estimates for the construction of the pre-engineered metal building. The engineer will incorporate the structural plans, specifications, and cost estimates into the project plans, project specifications and project cost estimates.
6. Quality Control and Design Review - The engineer will conduct in-house quality control and design review meeting with experienced representatives of the engineer. The engineer will provide staff members with the opportunity to perform independent analyses of the final plans and specifications to ensure clarity, accuracy, completeness, and constructability. The electrical and structural plans will be reviewed separately by senior staff members in those disciplines. Subsequent to the independent reviews, a special in-house project review meeting will be conducted to discuss and consolidate the findings of the reviewers. The recommendations of the design review team will be incorporated into the final plans and specifications.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE C - ENVIRONMENTAL SERVICES

1. Regulatory Review - The engineer will evaluate the preliminary design of the project to determine the environmental impacts of the project. The engineer will review the latest

pertinent Federal, State, and local environmental regulatory measures for recent changes and compliance issues. The engineer will contact the appropriate Federal, State, and local regulatory authorities to ascertain the permitting requirements for the project based on the anticipated final design and its potential environmental impacts. The engineer will contact regulatory authorities through telephone calls, letter correspondence, fax, and email to confirm environmental, aviation, and municipal zoning regulations. The engineer will review the available environmental documents including the airport master plan and wetlands studies for environmental issues and recommendations. The engineer will incorporate the recommendations of the regulatory agencies into the final design of the project to mitigate the environmental aspects of the project.

2. Facility Storm Water Pollution Prevention Plan - The engineer will amend the Sponsor's airport Storm Water Pollution Prevention Plan (SWPPP) which was prepared in 1996 for the Sponsor's airport industrial use as required by the National Pollution Discharge Elimination System (NPDES) regulations. The engineer will prepare a revised airport base map depicting the hangar development and other incidental changes. The engineer will prepare a narrative describing the changes at the airport. The engineer will deliver the revised base map and narrative to the Sponsor for inclusion in the SWPPP as an appendix.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, newspaper advertisements, permit application fees, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE D - PROJECT ADMINISTRATION

1. Scope of Services and Contract - The engineer will communicate and coordinate with the Sponsor via telephone, letters, fax, and email requesting the authority to proceed with the preliminary phases of the proposed project pending the execution of the engineering services agreement. The engineer will prepare an engineering services agreement including a detailed work scope narrative and itemized fee schedules for submission to the Sponsor, the state, and the FAA for review and approval. The engineer will coordinate the preparation of the contract with the staff of their planning, CADD, and environmental departments.
 - a. The engineer will make changes to the work scope narrative and the fee schedules of the selected proposal. The engineer will make changes to the contract document standard provisions at the request of the Sponsor's legal counsel and with the approval of the engineer's executive management. The engineer will prepare letters of transmittal and will distribute three (3) copies the final contract to the Sponsor and the engineer's executive management for original authorized signatures. The engineer will prepare letters of transmittal and will distribute one (1) signed original copy of the fully executed contract to the Sponsor, one (1) signed original copy to the engineer's executive management, one (1) signed photocopy to the state, and one (1) signed photocopy to the FAA.
2. FAA Grant Application - The engineer will prepare seven (7) copies of the formal FAA grant application including letters of transmittal, Standard Form 424, Standard Form 5100-100, project narrative, cost estimate, project schedule, location sketch, statement of environmental

action, statement of airport user coordination, statement of intergovernmental coordination, statement of Sponsor DBE program status, Sponsor certifications, and grant assurances. The engineer will submit the grant application to the Sponsor with transmittal letters for signatures and forwarding to the FAA and state. The engineer will review the Federal grant offer and assist the Sponsor in complying with the terms and conditions of the grant offer.

3. Executive Order 12372 - The engineer will communicate with the Anystate Office of State Planning to confirm the requirements of the submission package for intergovernmental agency review in accordance with Executive Order 12372. The engineer will prepare and submit six (6) copies of the submission package with a cover letter. The engineer will also prepare and deliver one (1) submission package with a cover letter directly to the U.S. Fish and Wildlife Service to facilitate Federal agency review of the proposed project. The engineer will obtain response letters at the end of the review period identifying specific requirements to be incorporated into the proposed project.
4. Reimbursement Requests - The engineer will prepare the Federal and State reimbursement requests including letters of transmittal to the FAA and state. The engineer will compile the Sponsor administration costs, engineering costs, subconsultant costs and construction costs.
 - a. The engineer will compile, review, and approve the contractor's construction cost data and will prepare periodic cost estimates. The engineer will submit periodic cost estimates to the contractor for signature and return to the engineer for inclusion in the reimbursement requests.
5. In-House Administration - The engineer will provide general project administration and coordination including in-house staff review of the project's progress, in-house staff communication, and dissemination of project data and information to in-house staff in the form of internal memos, discussions, meetings, and updates to apprise the project team of new developments throughout the design phases of the project. The engineer will prepare an in-house project work plan for distribution to the engineer's design team members to inform them of the project goals and objectives including scope of work, team assignments and responsibilities, project budget, project schedule, project contacts, and contract requirements, obligations, and limitations.
6. Outside Administration - The engineer will provide general project administration and coordination including disseminating interim project data and information to the Sponsor, the state, the FAA, and the engineer's subconsultants in the form of telephone conversations, letters, faxes, email, copies, etc. to apprise the Sponsor, the state, and the FAA of new developments throughout the design phase of the project.
7. Accounting Administration - The engineer will provide general project administration and coordination with the staff of their accounting department. The engineer will prepare the internal close out forms. The engineer will verify and reconcile the monthly accounting statements and will prepare memos for adjustments and corrections when necessary. The engineer will approve and process invoices received from subconsultants and vendors providing services to the engineer throughout the design phases of the project. The engineer will prepare and submit monthly invoices to the Sponsor for services provided to the Sponsor and for costs incurred by the engineer and their subconsultants. It is anticipated that a total of six (6) invoices will be prepared and submitted during the course of the project.

8. Miscellaneous Administration - The engineer will provide miscellaneous project administration and coordination duties which are not specifically addressed or anticipated in other project related tasks including telephone conversations with the Sponsor, the state, the FAA, and other interested parties; disseminating interim project information to the Sponsor, the state, the FAA, and other interested parties; and organizing, maintaining, and archiving the project records for six (6) years.
9. Disadvantaged Business Enterprise Program - The engineer will update the airport Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The engineer will review the methodology for evaluating the availability of DBE businesses to provide services and products for airport projects in the Federal fiscal year 20XX. The engineer will review the airport's service area by analyzing the utilization of DBE businesses on previous airport projects. The engineer will prepare a legal advertisement describing the revised DBE utilization goal and methodology. The engineer will deliver the advertisement to the Sponsor to publish in one (1) newspaper as a public notice to provide a thirty day public comment period. The engineer will submit the revised DBE program to the FAA Office of Civil Rights review and comments. The engineer will prepare the DBE program annual update on Form 4XXX at the conclusion of Federal fiscal year 20XX to reflect the actual DBE utilization on airport projects.

Expenses - The engineer will incur certain miscellaneous project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE E - BIDDING SERVICES AND CONSTRUCTION ARRANGEMENTS

1. Bid Documents - The engineer will prepare XX sets of bid documents comprising the construction plans, construction specifications, and construction contract in accordance with the requirements of the Sponsor, the state, and the FAA.
2. Bid Advertisement - The engineer will prepare a legal advertisement and deliver it to three (3) newspapers to publish as a solicitation for construction bids in accordance with the Sponsor's bidding procedures. The engineer will deliver the bid advertisement to five (5) plan viewing rooms for publication in order to maximize the project exposure and generate widespread consultant interest in the project. The engineer will communicate with the plan viewing rooms and similar industry entities to provide technical information for their publications. The engineer will notify the state and the FAA of the project's advertisement.
3. Distribute Bid Documents - The engineer will contact consultants who are potential bidders in order to maximize consultant participation in the project. The engineer will issue the bid documents to the interested bidders and to five (5) plan viewing rooms. The engineer will maintain a list of the bid document recipients including the recipient's name, overnight mailing address, telephone number, and fax number for use in issuing addenda. The engineer will distribute the bid document recipient list to interested parties if requested by potential bidders.

4. Pre-Bid Conference - The engineer will attend the pre-bid conference at the airport to present the project to interested parties and to answer consultants' and subconsultants' questions. The engineer will conduct a site walk of the project area to allow the consultants and subconsultants to observe the existing conditions first-hand and to ask questions regarding their observations. The engineer will prepare written responses to questions that require additional information that is not available at the time of the pre-bid conferences. The engineer will distribute the responses to the bid document recipients and pre-bid conference attendees.
5. Bid Questions and Addenda - The engineer will answer questions and provide technical advice to the potential bidders concerning the bid documents. The engineer will answer questions and provide technical advice to the Sponsor concerning the bid documents. The engineer will prepare and issue one (1) addenda to the bid document recipients to clarify, modify, or correct the bid documents.
6. Bid Analyses, Recommendation and Award - The engineer will conduct a detailed analysis of the consultants' bids for completeness and accuracy and will note omissions and discrepancies. The engineer will compile a bid summary comprising the results of the bids for distribution to the bid document recipients. The engineer will write a letter to the Sponsor recommending the award of the construction contract to the apparent low bidder based on the bid analyses. With the concurrence of the Sponsor, the state and the FAA, the engineer will issue a written notification to the successful bidder informing the bidder of the bid results. The engineer will disseminate the bid results to the plan viewing rooms.
7. Bid Sureties - The engineer will issue letters to the unsuccessful bidders returning the bid sureties, distributing the bid summary, and describing the bid results. The engineer will return the bid surety to the successful bidder after the bidder has executed the construction contract. The engineer will return the bid surety to the second low bidder after the successful bidder has executed the construction contract.
8. Consultant Coordination - The engineer will prepare six (6) copies of the consultant's bid proposal package for use as the construction contract document. The engineer will coordinate with and provide information to the consultant to facilitate the preparation and execution of the construction contract document. The engineer will review the consultant's construction contract for accuracy and completeness before submitting the document to the Sponsor for final signatures. The engineer will prepare a checklist of tasks to be performed by the Sponsor to fully execute the construction contract. The engineer will distribute the construction contract documents at the preconstruction conference.

Expenses - The engineer will incur certain project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices.

These expenses will be included in the engineer's contract with the Sponsor.

ARTICLE F - CONSTRUCTION ADMINISTRATION

1. Preconstruction Conference - The engineer will coordinate the time, date, and location of the preconstruction conference. The engineer will notify the Sponsor, the FAA, the state, the consultant, the resident engineer, and other interested parties of the preconstruction

conference and will invite their representatives to attend. The engineer will conduct the preconstruction conference in accordance with FAA AC 150/5300-9, *Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects*, to ensure that the attendees are aware of the design, construction, and safety requirements of the project and are informed of their individual responsibilities.

2. Shop Drawing Review - The engineer will review the shop drawings and materials submittals that are furnished by the consultant as required by the construction contract documents. The engineer will either fully approve, conditionally approve, or reject the shop drawings and materials. The engineer will return conditionally approved and rejected shop drawings and materials submittals to the consultant for changes or revisions prior to the use of the materials on the project. The engineer will review only one resubmission of a conditionally approved or rejected shop drawing or submittal. The engineer will prepare and maintain a submittal register identifying the submittal number, description, specification section, specification paragraph, received date, action date, and action taken. The engineer will distribute copies of the submittals and the updated submittal register to the Sponsor and the consultant.
3. Construction Administration - The engineer will provide general consultation and advice to the Sponsor during the construction phase of the project. The engineer will provide general coordination between the Sponsor, the state, and the FAA during the construction phase of the project. The engineer will assist the Sponsor with the preparation and issuance of change orders, recommend construction specification waivers, and advise the Sponsor as to the consultant's performance. The engineer will review daily progress reports, monthly construction progress reports, wage survey records, and certified payrolls. The engineer will distribute copies of the monthly construction progress reports to the Sponsor, the FAA, and the state.
 - a. The engineer will provide general supervision and support to the resident engineer including, but not limited to, coordinating field survey personnel, processing the resident engineer's weekly time sheets and expense sheets, providing technical documentation, providing field office supplies and materials, performing construction contract interpretation, analyzing unusual or unique developments or complications during construction, and communicating and corresponding with the consultant regarding contract administration, project changes, bonding and insurance issues, and other construction related matters.
 - b. The engineer will communicate and coordinate with the consultant on a regular basis throughout the construction phase of the project in the form of teleconferences, letters, memos, faxes, and email.
4. Site Visits - The engineer will make visits to the construction site to observe the progress, safety, and quality of the construction. The engineer will coordinate the site visits with the Sponsor and representatives of the electrical and structural divisions. The engineer's representatives will meet with the representatives of the Sponsor and the consultant to discuss the project's progress and to identify areas of concern to facilitate the construction.
5. Final Inspection - The engineer will conduct a site walk and final inspection of the project to confirm the completeness and quality of the construction. The engineer will coordinate the date and time of the final inspection via teleconferences, letters, faxes and email to the Sponsor, the FAA, the state, the resident engineer, and the consultant. The engineer will

prepare a summary report of the final inspection, including a punch list of work items that the consultant must accomplish to complete the project. The engineer will distribute the summary report to the Sponsor, the FAA, the state, the resident engineer, and the consultant.

6. Record Drawings - The engineer will prepare four (4) sets of paper copies of the record drawings and final quantities representing the completed project and reflecting the actual work accomplished during construction. The engineer will distribute the four (4) sets of record drawings to the Sponsor, the FAA, and the state for signatures. The engineer will prepare and distribute one (1) set of mylar copies of the record drawings to the Sponsor after the record drawings have been signed by all parties. The engineer will provide the Sponsor with electronic files of the record drawings in AutoCAD DWG format and PDF format on CD-ROM.
7. Airport Layout Plan Drawing - The engineer will update the electronic versions of the Ultimate Airport Layout Plan drawing which is identified as Sheet 3 of the Airport Layout Plan drawing set. The engineer will update the drawing to reflect the actual work accomplished by the project.
8. Airport Terminal Area Plan Drawing - The engineer will update the electronic version of the Airport Terminal Area Plan drawing which is identified as Sheet 4 of the Airport Layout Plan drawing set. The engineer will update the drawing to reflect the actual work accomplished by the project and previous airport development.
9. Project Close Out Report - The engineer will prepare the final project documentation in the form of a project close out report that consolidates the project related information that will be required by the FAA to formally close out the project. The engineer will include in the close out report all general, fiscal, miscellaneous, engineering and construction information, and submissions/certifications listed on the FAA project closure summary checklist. The engineer will distribute one (1) copy of the project close out report each to the Sponsor, the FAA and the state.

Expenses - The engineer will incur certain project related expenses during this phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, plans, photocopies, photographic materials, equipment rental, survey materials, and long distance telephone calls from the field. These expenses will be included in the engineer's contract with the Sponsor.

Outside Services - The engineer will incur certain project related costs during the construction administration phase of the work in the form of subconsultant costs for geotechnical testing services. These costs will be included in the engineer's contract with the Sponsor.

ARTICLE G - TECHNICAL OBSERVATION OF CONSTRUCTION

1. Resident Engineer - The engineer will provide a qualified construction resident engineer to observe that the construction is carried out in reasonable conformity with the contract documents and in accordance with the customary practices of professional engineers and consultants. The resident engineer will be available for both full-time and part-time construction observation services during the 90 calendar day duration of the project as required by the nature of the ongoing construction activities.

- a. For budgeting purposes, the resident engineer can be available sixteen (16) hours per week for twelve (12) weeks including travel time for a total of 192 hours during the course of the construction. The resident engineer can also be available for eight (8) hours to attend the final inspection. Variations to this proposed manhour distribution may be necessary as the work progresses but must not exceed 200 manhours. Additional manhours for the resident engineer must be addressed by a supplemental agreement.
- b. The resident engineer will be the engineer's primary contact with the consultant and their subconsultants during the course of construction. The resident engineer will be available to meet with the representatives of the Sponsor, the FAA, the state, and other interested parties at the project location. The resident engineer will coordinate and supervise the engineer's subconsultants and personnel who are performing on-site testing, surveying, or other project related services.
- c. The resident engineer will monitor and coordinate the construction progress; will coordinate with the Sponsor, the engineer, and the consultant; will provide construction oversight to ensure that the work is proceeding according to the construction contract documents; and will notify the engineer if problems, disputes, or changes arise during the course of construction.
- d. The resident engineer will prepare and maintain cost estimates and construction quantity estimates for use in preparing monthly payment reimbursement requests and for monitoring the progress of the consultant's work. The resident engineer will prepare daily construction progress reports of the construction activities that are observed and will submit the reports to the engineer for review. The resident engineer will prepare monthly construction summary reports of completed work that has been accepted and approved by the consultant and will submit the reports to the engineer for review.
- e. The resident engineer will conduct Federal wage rate surveys with the consultant's personnel and their subconsultants' personnel to ensure compliance with the U.S. Department of Labor regulations for federally funded construction projects. The resident engineer will submit the wage rate survey records to the engineer for review.
- f. The resident engineer will assist the consultant with construction surveying to identify the limits of work, to determine elevations and grades, to locate physical features discovered during the course of construction, and to calculate quantities of materials either removed or utilized on the project. The consultant's construction survey data will be incorporated into the record drawings at the completion of the project. The engineer will provide the resident engineer with CADD support to plot the results of the construction survey data and to generate electronic drawings, sketches, and details at the request of the resident engineer to facilitate the construction.

Expenses - The engineer will incur certain project related expenses during the course of the technical observation of construction phase of the work which may include but will not be limited to: meals, lodging, mileage cost at \$0.405 per mile, tolls, overnight shipping, blueprints, photocopies, photographic materials, equipment rental, survey materials, long distance telephone calls from the field, and miscellaneous vendor invoices. These expenses will be included in the engineer's contract with the Sponsor.

Outside Services - The engineer will incur certain project related costs during the technical observation phase of the work in the form of geotechnical subconsultant costs for quality assurance testing of construction materials and practices. These costs will be included in the engineer's contract with the Sponsor.

Appendix F

(Consultant Services Fee-Costs Sample)

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CONSULTANT SERVICES FEE/COSTS SAMPLE

This example can be modified as necessary for any type of project.

| SALARY COSTS | | CLASSIFICATIONS HOURS | | | | | TOTALS |
|--|---|--------------------------|---------------------------------------|---------------------|-----------------------------|---------------------------------|--|
| TASKS | TASKS VARY WITH SCOPE AND TYPE OF SERVICES | Principal | Project Manager | Sr. Airport Planner | Environ. Analyst | Technician Clerical | |
| 1. Project Scoping Meeting | CLASSIFICATIONS WILL VARY PER FIRM AND PROJECT TYPE | 0 | 0 | 0 | | | HOURS WILL VARY PER LEVEL OF EFFORT AND NEGOTIATIONS |
| 2. Refine Scope and Fee | | 0 | 0 | 0 | | | |
| 3. Prepare Grant Application | | 0 | 0 | 0 | | | |
| 4. Attend Airport Board Meeting | | 0 | 0 | 0 | 0 | 0 | |
| 5. Update Existing Activity | | 0 | 0 | 0 | 0 | 0 | |
| 6. Field Inventory | | 0 | 0 | 0 | 0 | 0 | |
| 7. Identify On-Airport Development Land | | 0 | 0 | 0 | 0 | 0 | |
| 8. Evaluate Existing Lease Agreements | | 0 | 0 | 0 | 0 | 0 | |
| 9. Update Forecast | | 0 | 0 | 0 | 0 | 0 | |
| 10. 1st Review and Response to Comments | | 0 | 0 | 0 | 0 | 0 | |
| 11. Landside Facility Capacity & Requirements | | 0 | 0 | 0 | 0 | 0 | |
| 12. Meeting | | 0 | 0 | 0 | 0 | 0 | |
| 13. 2nd Review and Response to Comments | | 0 | 0 | 0 | 0 | 0 | |
| 14. Identify Limits of Aviation Development | | 0 | 0 | 0 | 0 | 0 | |
| 15. Identify Development Alternatives | | 0 | 0 | 0 | 0 | 0 | |
| 16. Review and Respond to Comments | | 0 | 0 | 0 | 0 | 0 | |
| 17. Identify Existing Environmental Conditions | | 0 | 0 | 0 | 0 | 0 | |
| 18. Describe Regulatory Requirements | | 0 | 0 | 0 | 0 | 0 | |
| 19. Prepare and Forward Draft Findings | | 0 | 0 | 0 | 0 | 0 | |
| 20. Implementation/Capital Improvement Plan | | 0 | 0 | 0 | 0 | 0 | |
| 21. Existing Airport Facilities Plan | | RATES WILL VARY PER FIRM | | | | 0 | 0 |
| 22. Ultimate Airport Facilities Plan | | 0 | 0 | 0 | 0 | 0 | |
| 23. Final Meetings | | 0 | LABOR HOURS MULTIPLIED BY HOURLY RATE | | | 0 | 0 |
| 24. Prepare and Forward Final Report | | 0 | 0 | 0 | 0 | 0 | |
| 25. Prepare and Forward Final Airport Layout Plan | | 0 | 0 | 0 | 0 | 0 | |
| A/E'S CERTIFIED OVERHEAD RATE | Subtotal Hours | 0 | 0 | 0 | PROFIT BASED ON LABOR HOURS | | 0 |
| | Basic Hourly Rate | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| | Direct Salary Costs | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| | Labor & General Administrative Overhead (0.00%) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| | Subtotal Salary Costs | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| | | | | | | Total Salary Costs = | \$0.00 |
| | | | | | | Profit (Labor Costs) = | \$0.00 |
| REIMBURSABLE EXPENSES ARE PASS-THROUGH COSTS NOT SUBJECT TO MARKUP | | | | | | | |
| NON-SALARY COSTS | | | | | | | |
| A. Reimbursable Expenses | | Quantity | Unit | Rate | Subtotal | | |
| Mileage | | 0 | Miles | \$0.00 | \$0.00 | | |
| Lodging | | 0 | Day | \$0.00 | \$0.00 | | |
| Subsistence Per Diem | | 0 | Day | \$0.00 | \$0.00 | | |
| Printing | | 0 | LS | \$0.00 | \$0.00 | | |
| Mailing | | 0 | LS | \$0.00 | \$0.00 | | |
| Supplies | | 0 | LS | \$0.00 | \$0.00 | | |
| B. Subcontracting Expenses | | Contract Value | Contract Type | Prime Fixed Fee | Subtotal | | |
| Services | | 0 | Hourly | \$0.00 | \$0.00 | | |
| Sub-Consultant No. 1 | | 0 | Cost-Plus | \$0.00 | \$0.00 | | |
| Sub-Consultant No. 2 | | 0 | Lump Sum | \$0.00 | \$0.00 | | |
| | | | | | | Total Direct Non-Salary Costs = | \$0.00 |
| AMOUNT OF ANY MARK-UP FEE MUST REFLECT VALUE ADDED BY PRIME AND CANNOT DUPLICATE EFFORT ADDRESSED UNDER SALARY COSTS | | | | | | TOTAL FEE FOR SERVICES = | \$0.00 |

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Appendix G

**(City of Long Beach General Requirements
Supplement For Federally Funded Professional
Services (A/E) Contracts Under the Airport
Improvement Program (AIP))**

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**City of Long Beach General Requirements Supplement
For Federally Funded Professional Services (A/E) Contracts
Under the Airport Improvement Program (AIP)**

ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION to
ENSURE EQUAL EMPLOYMENT OPPORTUNITY**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

- | | |
|--|---------------|
| Goals for minority participation for each trade: | 28.3 % |
| Goals for female participation in each trade: | 6.9% |

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the

contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is ***City of Long Beach, Los Angeles County, California.***

BREACH OF CONTRACT TERMS

Any violation or breach of terms of this contract on the part of the Consultant or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Consultant written notice that describes the nature of the breach and corrective actions the Consultant must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Consultant must correct the breach. Owner may proceed with termination of the contract if the Consultant fails to correct the breach by the deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

GENERAL CIVIL RIGHTS PROVISIONS

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

Title VI Solicitation Notice:

The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, [select disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose

property has been acquired because of Federal or Federal-aid programs and projects);

- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 *et seq.*).

CLEAN AIR AND WATER POLLUTION CONTROL

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally assisted

contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

4. Subcontractors.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

COPELAND "ANTI-KICKBACK" ACT

Contractor must comply with the requirements of the Copeland "Anti-Kickback" Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

DAVIS-BACON REQUIREMENTS

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided* that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program: *Provided* that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding.

The Federal Aviation Administration or the sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and that show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission

to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (1) The payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;
- (2) Each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;
- (3) Each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices

shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

(i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC 1001.

CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>.
2. Collecting a certification statement similar to the Certification of Offerer /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

DISADVANTAGED BUSINESS ENTERPRISES

Contract Assurance (§ 26.13) –

The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Owner deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or

- 4) Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (§26.29) – The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from City of Long Beach. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the City of Long Beach. This clause applies to both DBE and non-DBE subcontractors.

TEXTING WHEN DRIVING

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving", (10/1/2009) and DOT Order 3902.10, "Text Messaging While Driving", (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 that involve driving a motor vehicle in performance of work activities associated with the project.

ENERGY CONSERVATION REQUIREMENTS

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201 *et seq*).

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are

treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24,

1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period and the Contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications

shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or female sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and

collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items, with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all

personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally), the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

CERTIFICATION REGARDING LOBBYING

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

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

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

PROHIBITION OF SEGREGATED FACILITIES

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

OCCUPATIONAL SAFETY AND HEALTH ACT

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

PROCUREMENT OF RECOVERED MATERIALS

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

RIGHTS TO INVENTIONS

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

SEISMIC SAFETY

In the performance of design services, the Consultant agrees to furnish a building design and associated construction specification that conform to a building code standard that provides a level of seismic safety substantially equivalent to standards as established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their building code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety. At the conclusion of the design services, the Consultant agrees to furnish the Owner a "certification of compliance" that attests conformance of the building design and the construction specifications with the seismic standards of NEHRP or an equivalent building code.

TERMINATION FOR CONVENIENCE (PROFESSIONAL SERVICES)

The Owner may, by written notice to the Consultant, terminate this Agreement for its convenience and without cause or default on the part of Consultant. Upon receipt of

the notice of termination, except as explicitly directed by the Owner, the Contractor must immediately discontinue all services affected.

Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

TERMINATION FOR DEFAULT (PROFESSIONAL SERVICES)

Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

a) **Termination by Owner:** The Owner may terminate this Agreement in whole or in part, for the failure of the Consultant to:

1. Perform the services within the time specified in this contract or by Owner approved extension;
2. Make adequate progress so as to endanger satisfactory performance of the Project; or
3. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Consultant must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

If, after finalization of the termination action, the Owner determines the Consultant was not in default of the Agreement, the rights and obligations of the parties shall be the same as if the Owner issued the termination for the convenience of the Owner.

b) **Termination by Consultant:** The Consultant may terminate this Agreement in whole or in part, if the Owner:

1. Defaults on its obligations under this Agreement;
2. Fails to make payment to the Consultant in accordance with the terms of this Agreement;
3. Suspends the Project for more than [180] days due to reasons beyond the control of the Consultant.

Upon receipt of a notice of termination from the Consultant, Owner agrees to cooperate with Consultant for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Consultant cannot reach mutual agreement on the termination settlement, the Consultant may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Engineer is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Consultant through the effective date of termination action. Owner agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.



City of Long Beach

Department of Financial Management
Purchasing Division
411 W Ocean Blvd. 6th floor, Long Beach, California 90802
p 562.570.6200

October 11, 2019

NOTICE TO RESPONDENTS

ADDENDUM NO. 1

RFQ No. AP 19-133

Construction Materials Testing and Inspection Services for Various Development Projects at Long Beach Airport

This addendum changes and supersedes the language in the original RFP. Please acknowledge receipt of this addendum by signing and submitting with your proposals. Any proposer who fails to submit this addendum may be disqualified.

The City would like to provide the following changes to the RFQ:

- Whereas Section 1. Overview of Project states Taxiway and Taxilane F Reconstruction, it should state: **Taxiway and Taxilane F Reconstruction, and Taxiway D Realignment (between Taxiway E and Taxiway F)**
- **Section 1. Overview of Project:** Phase II Terminal Area Improvements Project shall be added
- **Appendix A:** Taxiway D Realignment ACIP Sheet shall be added and is provided attached to this addendum.
- **Appendix A:** Taxiway F ACIP Sheet shall be added and is provided attached to this addendum.

PREPARED BY: Sokunthea Kol, Buyer II

ACKNOWLEDGED BY: _____

Company Name

Print Name

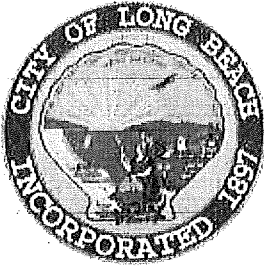
Title

Signature

Date

| Airport Name | | Long Beach Airport (LGB) | | Fiscal Year 2023 | |
|--|----------------------------|--|---|-------------------------|--------------------|
| Shown On ALP | Project Type* | Project Description | Federal Share | Local Share | Total |
| Yes | D | AGS Phase 5 - Taxiway D Realignment & Reconstruction Between TWY E and TWY F (National Priority Rating Code: SA TW IM/SF/SZ = 89) | | | |
| | | Administration / Design (15%) | \$489,496 | \$50,429 | \$539,925 |
| | | Construction | \$3,263,307 | \$336,193 | \$3,599,500 |
| | | Construction Engineering/Inspection (15%) | \$489,496 | \$50,429 | \$539,925 |
| | | TOTAL | \$4,242,299 | \$437,051 | \$4,679,350 |
| * D - Development; P - Planning; E - Environmental | | | | | |
| PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS | | | | | |
| Detail Project Description (Square/Lineal Footage or Length/Width) | | | | | |
| <p>AGS Phase 5 - Taxiway D Realignment Between TWY E and F - As part of the fifth phase of the implementation of the safety and standardization recommendations contained in the Airfield Geometry Study (AGS), Taxiway D will be realigned between TWY E and TWY F to the proper separation (400-ft) from primary Runway 12-30. Approximately 125,000 sf of taxiway pavement (1,000' x 125', including shoulders) along with a 70,000 sf run-up area will be reconstructed. The run-up area will be located at the intersection of Taxiway D and Taxiway F. The project includes improvements to pavement marking, lighting, signage, and drainage systems. AIP and future PFC funds will be used.</p> <p>Taxiway D between TWY E and TWY F was last rehabilitated in 1994. A PMMS report completed in August 2017 determined the area-weighted PCI for Taxiway D to be 71, with a 2022 predicted area-weighted PCI of 63. Improvements to Taxiway D will address the national priority of standardized airfield taxiways, preserve safety, and preserve capacity.</p> | | | | | |
| Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process) | | | | | |
| | Grant Application | DEC 2022 | Grant Execution | JUL 2023 | |
| | Bid Opening | MAY 2023 | Construction Commencement | NOV 2023 | |
| | Grant Offer | JUN 2023 | Construction Completion | DEC 2024 | |
| NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval) | | | | | |
| CATEX documentation will be completed and submitted to the FAA for a determination on the Taxiway D Realignment & Reconstruction between TWY E and TWY F prior to submission of the grant application. | | | | | |
| Date of Last ALP Approval Depicting Proposed Projects | | | | | |
| 7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A) | | | | | |
| Land Title Status & Date of Exhibit "A" Status | | | | Date | |
| Exhibit "A" Property Map Drawing No new R/W is required for this project. | | | | June 18, 2012 | |
| Open AIP Funded Projects (include grant number and grant description) | | | | Expected Close-out Date | |
| 3-06-0127-043-2015 | Geometry Study Phase 2 | | | DEC 2018 | |
| 3-06-0127-044-2017 | Runway 7R-25L Improvements | | | JUNE 2019 | |
| Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor. | | | | | |
| Cynthia Guidry Director, Long Beach Airport | | | Stephan G. Lum, P.E. Senior Civil Engineer, Long Beach Airport | | |
| Name / Title of Authorized Representative (Print or Type) | | | Contact Name and Title (Print or Type) | | |
| | | | 562.570.2682 | | |
| Signature | | Date | Contact Phone (Print or Type) | | |

| | | | | | |
|---|----------------------------|--|---|-------------------------|-------------------------|
| Airport Name | | Long Beach Airport (LGB) | | Fiscal Year 2023 | |
| Shown On ALP | Project Type* | Project Description | Federal Share | Local Share | Total |
| Yes | D | AGS Phase 5 - Taxiway F Realignment & Reconstruction (National Priority Rating Code: SA TW IM/SF/SZ = 89) | | | |
| | | Administration / Design (15%) | \$1,674,921 | \$172,554 | \$1,847,475 |
| | | Construction | \$11,166,139 | \$1,150,361 | \$12,316,500 |
| | | Construction Engineering / Inspection (15%) | \$1,674,921 | \$172,554 | \$1,847,475 |
| | | TOTAL | \$14,515,981 | \$1,495,469 | \$16,011,450 |
| * D - Development; P - Planning; E - Environmental | | | | | |
| PROVIDE THE FOLLOWING DETAILED INFORMATION FOR PROJECTS ANTICIPATED WITHIN 1-2 YEARS | | | | | |
| Detail Project Description (Square/Lineal Footage or Length/Width) | | | | | |
| <p>AGS Phase 5 - Taxiway F Realignment & Reconstruction - As part of the fifth phase of implementation of the safety and standardization recommendations contained in the Airfield Geometry Study (AGS), the project includes reducing the width of Taxiway F from 100-ft to 75-ft to maintain visual conspicuity and differentiation from Runway 25L [26L] as seen from the air. The centerline alignment will be relocated approximately 60 feet north to maximize separation and enable construction of islands between Taxiway F and the adjacent leasehold aprons. Approximately 550,000 sf of taxiway pavement (4,150' x 125', including shoulders) will be reconstructed. Approximately 70,000 sf of taxiway pavement (including shoulders) will be removed. The project includes improvements to pavement marking, lighting, signage and drainage systems. AIP and future PFC funds will be used.</p> <p>Taxiway F serves as access to cargo and military aircraft companies as well as the majority of the 300,000 general aviation operations at the Airport. Taxiway F was last rehabilitated in 1991 and slurry sealed in 2018. A PMMS report completed in August 2017 determined the area-weighted PCI for Taxiway F to be 38, with a 2022 predicted area-weighted PCI of 20. These improvements will preserve safety and capacity.</p> | | | | | |
| Project Schedule (Anticipated date for bids or negotiated prices, consultant selection for planning or environmental projects, length of construction or design, planning or environmental process) | | | | | |
| | Grant Application | DEC 2022 | Grant Execution | JUL 2023 | |
| | Bid Opening | MAY 2023 | Construction Commencement | NOV 2023 | |
| | Grant Offer | JUN 2023 | Construction Completion | DEC 2024 | |
| NEPA Environmental Status (With grant application include copy of ROD, FONSI or CATEX letter of approval) | | | | | |
| CATEX documentation will be completed and submitted to the FAA for a determination on the Taxiway F Realignment & Reconstruction project prior to submission of the grant application. | | | | | |
| Date of Last ALP Approval Depicting Proposed Projects | | | | | |
| 7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A) | | | | | |
| Land Title Status & Date of Exhibit "A" Status | | | | Date | |
| Exhibit "A" Property Map Drawing No new R/W is required for this project. | | | | June 18, 2012 | |
| Open AIP Funded Projects (include grant number and grant description) | | | | | Expected Close-out Date |
| 3-06-0127-043-2015 | Geometry Study Phase 2 | | | DEC 2018 | |
| 3-06-0127-044-2017 | Runway 7R-25L Improvements | | | JUNE 2019 | |
| Certification: To the best of my knowledge and belief, all information shown in the ACIP Data Sheet is true and correct and had been duly authorized by the Sponsor. | | | | | |
| Cynthia Guidry Director, Long Beach Airport | | | Stephan G. Lum, P.E. Senior Civil Engineer, Long Beach Airport | | |
| Name / Title of Authorized Representative (Print or Type) | | | Contact Name and Title (Print or Type) | | |
| | | | 562.570.2682 | | |
| Signature | | Date | Contact Phone (Print or Type) | | |



City of Long Beach

Department of Financial Management
Purchasing Division
411 W Ocean Blvd. 6th floor, Long Beach, California 90802
p 562.570.6200

November 25, 2019

NOTICE TO RESPONDENTS

ADDENDUM NO. 2: Q & A

RFQ No. AP19-133

**Construction Materials Testing & Inspection Services for Various Development Projects
at Long Beach Airport**

This addendum changes and supersedes the language in the original RFQ. Please acknowledge receipt of this addendum by signing and submitting with your proposals. Any proposer who fails to submit this addendum may be disqualified.

The City would like to provide the following:

- Attachment J - Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions. Consultants shall complete and submit with City Required Forms.
- Long Beach Airport ALP (2017)
- Long Beach Airport PMMS Report (2019)

The following shall be added as the page limitations of the Statement of Qualifications (SOQ):

- Narrative/Technical SOQ shall be limited to 30 pages.
- SOQ shall be clear and concise.
- SOQ shall be prepared on size 8 ½" x 11". 11"x17" sheets may be included but shall count as two pages.
- SOQ shall use a minimum of 11-point fonts, excluding captions for graphics
- SOQ shall include divided sections. (One for each section, dividers are not part of the 30 pages)
- Detailed resumes attached as an appendix do not count toward page totals but shall not exceed two pages per person and twenty pages total.
- Each page of the SOQ shall be identified with the Proposer's Name, RFQ Number, and page number.

Question and answer:

1. Q: Regarding the Request for Qualifications Number 19-133 for Construction Material Testing and Inspection Services for various Development projects at Long Beach Airport; could you please clarify if a consultant may present qualifications as Prime Consultant and at the same time be a sub-consultant on other teams to assist on the SB participation requirements?

A: The RFQ contains a prohibition against collusion with other prospective proposers. Please refer to Section 13.11 of the RFQ. A prime consultant submitting SOQ would be violating its non-collusion statement if that same consultant had negotiated an arrangement where it was part of another competing submission.

PREPARED BY: Sokunthea Kol, Buyer II

ACKNOWLEDGED BY:

Company Name

Print Name

Title

Signature

Date

EXHIBIT “A-2”

Consultant’s Proposal



2883 East Spring Street, Suite 300
Long Beach CA 90806

Tel 562.426.3355
Fax 562.426.6424

**Long Beach Airport, City of Long Beach
Taxiway L Reconstruction**

**Proposal to provide construction material testing and inspection,
in accordance with Section 5.11.1 of RFQ AP19-13**

Twining, Inc. (Twining) is pleased to submit this proposal to provide material testing and inspection services during the reconstruction of the Taxiway L, in Long Beach Airport. We appreciate the opportunity to provide this proposal to you and look forward to working with the Long Beach Airport.

PROJECT UNDERSTANDING

We understand the City intends to reconstruct the Taxiway L and relocate the Taxiway L3 off the Spring Street underpass. The project will also include improvements to pavement marking, lighting, signage, and drainage systems. Drainage system improvements will consist of under-drain facilities for the portion of the taxiway between, and adjacent to, the Lakewood Boulevard and Spring Street underpasses to alleviate sub-grade saturation caused by ground water build up. We understand that portions of Taxiway L exhibit accelerated pavement damage apparently due to subgrade failure, particularly in areas above the Spring Street and Lakewood Boulevard tunnels where compaction limitations were imposed during their construction and saturation of underlying subgrade leading to unstable and weakened soils. Numerous emergency repairs have been performed on the taxiway over the years to prevent foreign object debris (FOD) on the taxiway and adjacent Runway 12-30.

Rehabilitation of the taxiway will consist of reconstruction of a large portion (337,500 square feet) of the taxiway using P-501 concrete pavement and a smaller portion (225,000 square feet) of the asphalt-paved taxiway will be cold milled and the asphalt replaced.

PROPOSED SCOPE OF SERVICES

Based on our understanding of the proposed project, we have developed a scope of services as follows:

- Task 1 –Subgrade soil, subbase and base inspection and material testing
- Task 2 – Asphalt inspection and testing
- Task 3 – Portland cement concrete inspection and testing; and
- Task 4 – Project management and reporting.

Task 1 – Subgrade soil, subbase, and base inspection and material testing

Based on our understanding of the project and our experience with similar projects we expect major earthwork and soil treatment throughout this project. This stage will mainly consist of:

- P-152 Excavation, Subgrade, and Embankment
- P-154 Subbase Course
- P-155 Lime-Treated Subgrade
- P-304 Cement-Treated Base Course

The purpose of earthwork observation and testing is to verify that the work is done in compliance with the approved plans and specifications, and in accordance with the recommendations of the project geotechnical report. Twining's field soil inspectors and geotechnical laboratory technicians provides the following verification, testing, and reporting services:

Verification

- Verify use of proper materials, densities, and lift thickness during placement and compaction
- Monitor spread rates and hydration time for lime treatment activities
- Perform compaction testing, moisture contents, and thickness determinations during placement and compaction of subgrade soils and lime-treated soils

Testing

- Subgrade materials, native-fill materials, imported materials, and additive materials are delivered to our local laboratory for testing
- Geotechnical laboratory technician performs soil classification and properties tests on native and/or imported soils
- Geotechnical laboratory determines moisture-density relationship tests and other structural property tests
- Geotechnical laboratory testing is performed to determine soil properties resulting from admixtures such as cement or lime, as applicable
- Periodically sample materials in the field in accordance with frequencies defined in the specifications (and more if warranted) to verify continued compliance with specification requirements

Reports

A daily field report will be submitted to Airport, incorporating a map presenting approximate location of all field tests, approximate limits of the work and all density test results. Geotechnical laboratory reports and daily field reports will be reviewed and approved by the Twining project manager prior to submittal to the Airport.

Task 2 – Asphalt inspection and testing

The purpose of observation and testing of Hot Mix Asphalt (HMA) paving (P-401 and P-403) is to verify that paving contractors exercise adequate quality control of their operations and are providing a finished product that complies with the project plans and specifications. Adequate sampling is also required in accordance with the acceptance plan in the project specification.

During the asphalt construction, Twining will provide at least two experienced asphalt inspectors. One inspector will monitor the placement of the asphalt in the field and the other inspector will perform inspection at the plant and run quality assurance tests at the Plant's laboratory or mobile lab.

Asphalt plant inspector will provide the following services

- Check the plant facilities prior to production of HMA
- Check the approved mix design with the material under production
- Check aggregates in stockpile to verify conformance to materials utilized in the design
- Check the temperature and weights of the aggregate fractions and asphalt cement
- Check the mixing temperature and the temperature of the mixed batches on the truck
- Conduct sampling of the asphalt cement and blended aggregates for laboratory testing
- Before loading, truck beds are checked for cleanliness and absence of materials that might be detrimental to the mix. Ensure trucks are tarped after loading.
- Perform acceptance testing in the provided plant laboratory or the mobile lab
- Communicate constantly with the field inspector

Asphalt field inspector will provide the following services

- Field inspector contacts plant inspector immediately if observed conditions during placement and spreading suggest a need for a change at the plant. Following items are addressed prior to and during placement:
- Area to be paved, cleaned, crack sealed, and properly primed or tack coated
- Leveling source installed where required
- Suitability of spreading and paving equipment
- Ambient and base temperature noted
- Mix temperature when delivered, during, and after final rolling is within limits
- Density tests by nuclear gauge during rolling (information only)
- Thickness control by adequate placement and compaction
- Core samples taken for verification of thickness and in-place density of the mat and joints
- Application of seal coat and curing

Laboratory testing

- Stability and air voids
- Asphalt content
- Aggregate quality: gradation, LA abrasion, sand equivalent, fractured faces, uncompacted voids, etc.
- Thickness and Field density of core samples
- Smoothness tolerance

Reports

Test results will be provided to the Airport on a daily basis to ensure that the Airport is aware of the quality of material that was placed during the prior shift.

Reports are submitted describing the observations made and showing the action taken to correct nonconforming work, including itemized changes authorized by the Engineer. Any deviations from plans or specifications are reported.

Task 3 –Portland cement concrete inspection and testing

Twining will provide minimum of two inspectors during the construction of concrete pavement; batch plant inspector and field inspector Twining perform the following observations, sampling, and testing duties:

Observation

- Verify the paving area for the day according to the plan
- Verify that the location and preparation of construction joints are in compliance with the project plans
- Check forms for cleanliness and proper treatment prior to placement
- Visually estimate the slump of each batch delivered and perform slump tests regularly
- Determine concrete temperature, number of mixing revolutions, and/or length of time since batching
- Observe placement procedures for evidence of segregation, possible cold joints, displacement of reinforcing or forms, and proper support of embedded items.
- Observe methods used for compaction/consolidation
- When specified, verify that concrete is protected from temperature extremes and that proper curing is initiated When specified, verify maintenance of cure temperatures and techniques

Sampling and Testing

- Sample and test fresh concrete for the following (or as stipulated by plans and specifications):
 - Slump
 - Temperature
 - Entrained air, when required
 - Wet unit weight, when required
- Sample concrete and prepare specimens for flexural test.



2883 East Spring Street, Suite 300
Long Beach CA 90806

Tel 562.426.3355
Fax 562.426.6424

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications. Reports are reviewed daily by the Twining project manager prior to submittal to the Airport to ensure accuracy.

Task 4 – Project Management and Reporting

Twining will assign a project manager to the project. Throughout the project, it is the main responsibility of the project manager to ensure the proper field and laboratory personnel are coordinated and prepared for dispatch and to review the reports and address any potential issue during the project. The project manager will be the Airport's single point of contact, copied on all communications and up to date on daily basis regarding to the progress and status of the construction and our scope of services. The project manager will be communicating with the Twining field inspector on a daily basis which will allow Twining to look ahead at upcoming activities and proactively prepare other field inspectors, laboratory personnel and in-office engineers and specialists, as needed.

Upon completion of the project, the project manager will assemble a final QA report which will incorporate a summary of tasks performed, daily field reports, laboratory test results, a description of corrective actions performed by the Contractor (where warranted) and credentials of the people who were involved in the project. The Final QA report will be signed by the PM and will be submitted to the Airport of their review.

We thank the City for the opportunity to submit our qualifications for this important contract. In addition to the requested qualifications detailed herein, we trust you will find our technical pavement expertise, familiarity with local geotechnical conditions, and integration with the City to qualify us as the number one choice to continue serving Long Beach Airport.

Contact:

Talin Espinoza
Role for this contract: Client Services Manager
Senior Vice President, Strategic Growth
tespinoza@twininginc.com
562.426.3355 office

Paul Soltis, PE, GE
Role for this contract: Project Executive
Vice President, Geotechnical Operations
psoltis@twininginc.com
562.426.3355 office



City of Long Beach
Purchasing Division
411 W. Ocean Blvd, 6th Floor
Long Beach, CA 90802

City of Long Beach

Request For Qualifications Number AP19-133

For

Construction Materials Testing and Inspection Services for Various Development Projects at Long Beach Airport

| | |
|-------------------------------|------------|
| Release Date: | 10/03/2019 |
| Mandatory Pre-SOQ Conference: | 10/16/2019 |
| Questions Due to the City: | 10/28/2019 |
| Posting of the Q & A: | 11/25/2019 |
| Due Date: | 01/07/2020 |


City Contact: *Sokunthea Kol* Buyer II 562-570-6123

See Section 4 for instructions on submitting SOQ.

Company Name Twining, Inc. Contact Person Talin Espinoza
Address 2883 East Spring Street, Suite 300 City Long Beach State CA Zip 90806
Telephone (562) 426.3355 Fax (562) 426.6424 Federal Tax ID No. [REDACTED]
E-mail: tespinoza@twininginc.com

Prices contained in this SOQ are subject to acceptance within 180 calendar days.

I have read, understand, and agree to all terms and conditions herein. Date January 7, 2020

Signed 

Print Name & Title Talin Espinoza, Senior Vice President, Strategic Growth



2883 East Spring Street, Suite 300
Long Beach CA 90806

Tel 562.426.3355
Fax 562.426.6424

January 7, 2019
Proposal No. 19-2049
City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802
Attn: Sokunthea Kol

**Subject: Statement of Qualifications Number AP19-133 for
Construction Materials Testing and Inspection Services for
Various Development Projects at Long Beach Airport**

Dear Ms. Kol:

We are pleased to present our qualifications to the City of Long Beach (City) in response to the solicitation for construction materials testing and inspection services for various development projects at Long Beach Airport (LGB). A city-owned airport, the nearly 100-year old transportation hub sits on 1,166 acres of land and houses five runways. In addition to airside operations, there are more than 200 businesses on airport property, one of which is home to the Twining corporate headquarters. With a clear view of LGB out any southern- or eastern-facing window of our building, we have awaited anxiously the solicitation of this contract and our opportunity to continue serving this nearby landmark. In the remainder of this letter and in the following pages of our proposal, we detail the qualifications that prove Twining as the clear choice for this contract.

Hometown Heroes Headquartered in Long Beach since our incorporation in 1954, the Twining name is well intertwined with the City. We work closely with the City's Public Works Department, Long Beach Gas and Oil, Long Beach Water Department, Aquarium of the Pacific, and Port of Long Beach, Long Beach Unified School District, Long Beach Community College District, and Cal State Long Beach. This close proximity means that we can also dispatch inspectors within the desired four hour time frame.

Pavement Expertise Our pavement engineering team provides cost effective and innovative solutions to meet the needs of our clients. We utilize our vast knowledge of new alternatives in construction material and methodologies in combination with the most recent FAA approved design procedures to tailor an economical and long lasting solution to the specific need of our clients. Our engineering team is well versed in pavement evaluation techniques utilizing different testing equipment and methods, such as ground penetrating radar, falling weight deflectometer, dynamic cone penetrometer, to design structural sections for different applications in an airport environment.

We are also experienced in utilizing different technologies in our recommendations to help agencies reduce the construction cost, adapt sustainable construction methods, and apply green technologies in their projects. These alternatives include but are not limited to:

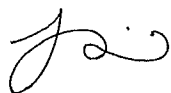
- » Soil Stabilization and Reconstruction (Cement, Lime)
- » Full Depth Reclamation
- » Cold Recycling of Asphalt
- » Roller Compacted Concrete

As part of these services, Twining's team will provide life cycle cost analysis and construction cost estimates for various options so that the our clients can make an informed decision. Additionally, Twining's engineering team is highly knowledgeable on different grants that can be available to the agencies for their construction process as well.

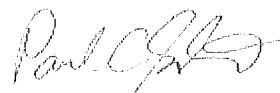
Knowledge of Local Soil Conditions Soil conditions at LGB generally consist of alluvial deposits ranging from silty sand to clay with medium to high plasticity and engineered fill materials derived from the alluvial soils. Soils with elevated moisture contents are common at the airport. These conditions should be addressed as part of design to identify potential issues with unsuitable soil conditions with respect to compaction of these soils. Elevated moisture in soils contributes to instability (e.g., pumping, yielding during compaction effort) and relatively low strength of the soils. To address these issues, consideration of cement and/or lime treatment of relatively wet, soft soil has been performed under the observation and testing by Twining at several locations at the LGB. Twining has extensive experience with the soil conditions at LGB and have demonstrated our ability to address them efficiently in both design and construction, which will be a critical component to with respect to the planned runway, apron and taxiway projects.

We thank the City for the opportunity to submit our qualifications for this important contract. In addition to the requested qualifications detailed herein, we trust you will find our technical pavement expertise, familiarity with local geotechnical conditions, and integration with the City to qualify us as the number one choice to continue serving Long Beach Airport. Should you have any questions regarding our submittal, please contact Talin Espinoza, Client Services Manager, by phone at 562.426.3355 or by email at tespinoza@twininginc.com

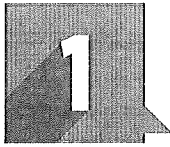
Sincerely,



Talin Espinoza
Client Services Manager
Senior Vice President, Strategic Growth
Legally authorized to bind Twining



Paul Soltis, PE, GE
Project Executive
Vice President, Geotechnical Operations
Legally authorized to bind Twining



SECTION 5.1.1

Demonstrated Competence

Information in this section addresses the following Evaluation Criteria:

5.9.3 Demonstrated understanding of project implementation, potential problems and the City's special concerns.

5.9.5 Current workload and demonstrated ability to meet scheduled deadlines.

5.9.7 Understanding of the project's potential challenges and the Sponsor's special concerns.

5.9.8 Capability of a branch office that will do the work to perform independently of the home office, or conversely, its capability to obtain necessary support from the home office.

5.9.9 Degree of interest shown in undertaking the project and familiarity with and proximity to the geographic location of the project.

5.1.1 DEMONSTRATED COMPETENCE

The following is our technical approach to providing construction materials testing and inspection. This addresses our demonstrated understanding of the project implementation.

Soils

The purpose of earthwork observation and testing is to verify that the work is done in compliance with the approved plans and specification, in particular with the recommendations of the project geotechnical report. Twining provides the following verification, testing, and reporting services:

- » Lab testing technician performs laboratory testing to determine mix design for cement- and/or lime-treated materials as needed
- » Field soils technician conducts in-place field density and moisture tests
- » Field soils technician periodically samples materials in the field to verify continued compliance with specification requirements

Verification

- » Verify materials below footings are adequate
- » Verify excavations are extended to proper depth and have reached proper material
- » Perform classification and testing of controlled fill materials
- » Verify use of proper materials, densities, and lift thickness during placement and compaction
- » Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly

Testing

- » Subgrade materials, native-fill materials, imported materials, and additive materials are delivered to the laboratory for testing
- » Lab testing technician performs soils classification and properties tests on native and/or imported soils to confirm compliance with project specifications and geotechnical engineering requirements
- » Lab testing technician performs laboratory moisture-density relationship tests or other structural property tests

Reports

Written progress reports are submitted describing the tests and observations made and showing the action taken to correct nonconforming work. Reports are provided to Airport representative(s) on a daily basis to document the work observed and tested.

Piles Observation and Testing

Piles inspection is either performed by or monitored by the geotechnical engineer of record. The following verifications are performed:

Verification

- » Verify that pile materials, sizes, and lengths are compliant
- » Determine capacities of test piles and observe the implementation of load tests, as required
- » Observe pile driving operations and maintain complete and accurate records for each pile
- » Verify locations of piles and their plumbness
- » For drilled piles (including auger cast grouted displacement piles), observe diameter and depth of drilled hole, verify bearing strata, maintain drilling log for each pile, and monitor the volume of concrete used to construct pile



ADDRESSING 5.9.3

Testing

- » A Twining engineer will review the pile testing requirements as applicable and ensure the testing is performed with the project specifications and geotechnical engineering recommendations
- » A Twining engineer or qualified field technician will observe the testing performed on piles and document the results
- » Testing may consist of compression or tension load testing, cross-hole sonic logging, dynamic testing with Pile Driving Analyzer, and gamma-gamma

Reports

Written progress reports are submitted daily to Airport representative(s) that will show the results of testing and a statement regarding compliance with the project requirements. Pile load and integrity testing will be signed by a Twining geotechnical engineer.

Asphalt Concrete

The purpose of observation and testing of Hot Mix Asphalt (HMA) and Rubberized Hot Mix Asphalt (RHMA) paving is to verify that paving contractors exercise adequate quality control of their operations and are providing a finished product that complies with the project plans and specifications. Adequate sampling is also required in accordance with the Quality Assurance Plan.

Sampling

- » Sample and perform preliminary tests on proposed aggregates and asphalt cement to verify Job Mix Formula (JMF)

Subgrade and Base

- » Confirm that sources of materials have been sampled and approved

- » Verify that materials delivered are of uniform quality
- » Verify that control testing of subgrade materials is being performed and recorded
- » Verify that subbase and base courses are of the source, type, thickness, and density specified
- » Verify that soil stabilization is provided

Plant

- » Inspector familiarizes himself with the appearance and physical characteristics of the mix so that unsatisfactory conditions may be readily recognized
- » Check the plant facilities prior to production of HMA or RHMA
- » Check aggregates in stockpile to verify conformance to materials utilized in the design
- » Check the temperature and weights of the aggregate fractions and asphalt cement
- » Check the mixing temperature and the temperature of the mixed batches on the truck
- » Conduct sampling of the asphalt cement and blended aggregates to verify the JMF is within tolerance
- » Before loading, truck beds are checked for cleanliness and absence of materials that might be detrimental to the mix. Ensure trucks are tarped after loading.
- » Coordinate with job site inspector to obtain a uniform and consistent HMA

Spreading and Paving

- » Field inspector contacts plant inspector immediately if observed conditions during placement and spreading suggest a need for a change at the plant. Following items are addressed prior to and during placement:
 - » Area to be paved, cleaned, crack sealed, and properly primed or tack coated



ADDRESSING 5.9.3

- » Leveling source installed where required
- » Suitability of spreading and paving equipment
- » Ambient and base temperature noted
- » Mix temperature when delivered, during, and after final rolling is within limits
- » Density tests by nuclear gauge during rolling
- » Thickness control by adequate placement and compaction
- » Sampling of HMA and RHMA at jobsite during placement for laboratory testing
- » Core samples taken for verification of thickness and in-place density of the mat
- » Application of seal coat and curing

Verification

- » Stability and air voids
- » Asphalt content and gradation by extraction
- » Physical properties of the asphalt cement: penetration, viscosity, softening point, resilience, ductility, and specific gravity
- » Aggregate quality: gradation, LA abrasion, and equivalent, fractured faces, uncompacted voids, etc.
- » Thickness and Field density of core samples
- » Smoothness tolerance

Reports

Reports are submitted describing the observations made and showing the action taken to correct nonconforming work, including itemized changes authorized by the architect/engineer. All deviations from plans or specifications are reported.

Reinforcing Steel

The purpose of reinforcing steel observation is to give assurance that the supplier is exercising satisfactory control over production, fabrication, and placing of reinforcing steel so that it meets the project specifications, applicable codes, and industry standards. Twining provides the following observation duties:

Mill Test Reports

- » Verify reinforcing steel mill test reports for mill markings and test data
- » Sample material for tests directly from unopened bundles

Fabrication

Check each shipment of reinforcing steel for the following

- » Bar sizes and grades are as specified
- » Mill marking is in conformance with mill test reports
- » Corrosion, contaminants, surface cracks, and bars damaged in shipment
- » Shop bends for specific radius and cracks

Placement

- » During placement of reinforcing, check for proper bar locations, alignment, laps, ties, form and ground clearance, supports, field bend radii and cracks, gouges or tack welds causing stress concentrations, removal of contaminants, and hardened concrete
- » If welding of reinforcing is required, it should be observed with particular emphasis on joint configuration, suitability of low hydrogen electrodes, preheat and interpass temperatures, and interpass slag removal.
- » Prior to concrete placement, check for complete installation and notify contractor of any variations from plans and specifications.



ADDRESSING 5.9.3

- » During concrete placement, check that reinforcing stays in place and is adequately supported. Check for removal of dirt, concrete spatter, grease, etc.
- » Check embedded items for compliance with project documents.

Reports

Written progress reports are submitted describing the tests and observation made and showing the action taken to correct nonconforming work. Any changes authorized by the architect/engineer are itemized. All uncorrected deviations from plans or specifications are reported, as well.

Concrete Batch Plant

The purpose of batch plant observation is to verify that the concrete supplier is exercising adequate quality control to produce concrete that will meet the project requirements for materials, their batch proportions, and mixing and adjustment for moisture. Twining performs the following observation duties:

Equipment

- » Check the trucks for worn out or damaged fins for excessive buildup of hardened concrete and for the presence of wash water from the previous delivery
- » Check the National Ready-Mix Concrete Manufacturers Association truck rating plate and verify that load capacities are not exceeded
- » Check the current "weights and measures" seal on scales
- » Verify that the moisture metering device is operable
- » Verify that the scales start at and return to zero after each weighing operation
- » Verify that the metering devices for admixtures have been calibrated

Materials, Storage, Handling

- » Visually check the sand and coarse aggregate for method of storage, handling, source, grading, cleanliness, and moisture condition
- » Obtain samples of aggregates, when specified
- » Obtain grab samples of cement and pozzolanic materials, when specified
- » Check cement temperature
- » For lightweight aggregates, check loose moist unit weight regularly and verify whether the plant is making proper adjustments to batch weights to compensate for variations in weight as well as in moisture

Batching of Materials

- » Record the volume of cubic yards for each class of concrete delivered
- » Verify that the specified materials are dispensed to the weight hopper and record the adjusted batch weights
- » Verify that the proper adjustments have been made for variations in moisture of aggregates
- » Record the mixing time and check whether it is sufficient
- » Visually estimate the slump of the concrete and report immediately to the operator any slumps outside the specified tolerance
- » Coordinate with the job site and verify the "as delivered" slump, air content, unit weight, mix temperature, general workability, and preparation of test samples

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.



ADDRESSING 5.9.3

Concrete

Quality assurance for concrete is divided into two phases. The first involves collecting evidence from standard tests to verify that the delivered concrete was produced to the standards specified. The second involves verifying that the proper construction practices are followed during placement, finishing, and curing. Twining performs the following observations, sampling, and testing duties:

Observation

- » Verify formwork is of proper size and shape
- » Verify that the location and preparation of construction joints are in compliance
- » Check forms for cleanliness and proper treatment prior to placement
- » Visually estimate the slump of each batch delivered and perform slump tests regularly
- » Determine concrete temperature, number of mixing revolutions, and/or length of time since batching
- » Observe placement procedures for evidence of segregation, possible cold joints, displacement of reinforcing or forms, and proper support of embedded items, anchor bolts, etc.
- » Observe methods used for compaction/consolidation
- » When specified, verify that concrete is protected from temperature extremes and that proper curing is initiated
- » When specified, verify maintenance of cure temperatures and techniques

Sampling and Testing

- » Sample and test fresh concrete for the following (or as stipulated by plans and specifications):
 - » Slump

- » Temperature
- » Entrained air, when required
- » Wet unit weight, when required

- » Sample concrete and prepare test cylinders in accordance with ASTM C31.
- » Field sampling and testing of concrete will be performed by a qualified technician, certified by ACI as a Concrete Field Testing Technician – Grade 1 (or approved equal)

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.

Shotcrete

The purpose of special observation for shotcrete is to verify that the materials, processes, and the particularly unique application techniques conform to the project documents.

Observation

- » Verify main and auxiliary equipment for compliance, capacity, pressures, and proper functioning
- » Check for hot or cold weather limitations and precautions
- » Verify reinforcing is proper type, grade, and size; free of dirt, oil, and rust; properly coated and/or sheathed; located within acceptable tolerances and adequately supported; and will allow for minimum shotcrete cover
- » Verify that placement of reinforcing steel complies with spacing, profile, and quantity requirements
- » Verify hooks, bends, ties, stirrups, and supplemental reinforcement are fabricated and placed as specified



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- » Verify required non-contact lap lengths
- » Verify proper installation of approved mechanical connections and/or bolts
- » Ensure all welds of reinforcing steel and other weldments are as specified and have been inspected and approved by welding inspector.
- » Verify formwork is proper size and shape; location of all construction joints; and penetrations and embeds are correct and adequately supported.
- » Check for ground wires or other thickness gauging control method.
- » Verify the nozzleman has suitable shooting positions and access to achieve placement with minimal rebound.
- » Review mixing and placing procedures with crew before commencement of application.
- » Verify that batch tickets indicate delivery of the approved mix as specified.
- » Observe placement for:
 - » Consistency
 - » Consolidation
 - » Coverage
 - » Rebound
 - » Finish
- » Check completed job for defects and corrective action.
- » Verify protection from temperature extremes and determine proper curing is initiated.
- » Most congested area specified in the structural design.
- » Shot at the same angle, using the same nozzleman, and with the same mix design that will be used.
- » Same equipment to be used during construction, unless substitution has been approved by the Building Official.
- » During construction, observe preparation of a test panel (either 18" x 18" or 12" x 12" based on aggregate size), or as otherwise specified, to obtain suitable cores for testing. Arrange correct positioning of sample panel to represent job shotcrete. Prearrange with nozzleman the correct timing of the test sample preparation and verify that it is representative of job placement, finish, and cure. Refer to ACI 506 for further guidance.
- » Strength testing requires not less than three specimens from each panel. Specimens shall be either 3" diameter cores or 3" cubes when maximum-size aggregate is larger than 3/8". Specimens shall be at least 2" diameter cores or 2" cubes when maximum-size aggregate is 3/8" or smaller.
- » Mark panel with specimen identification, protect for curing period, and arrange for transportation to the testing laboratory.

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.

Pre-Tensioned Concrete

The quality of materials used in prestressed construction is more closely controlled than normal concrete construction, and plant manufacturers develop detailed quality system programs. As a result, the purpose of pre-tensioned concrete plant observation is to verify the actual control program and to check its effectiveness. Twining performs the following observation duties:

Sampling and Testing

- » Determine required type, quantity, and frequency of tests on fresh and hardened shotcrete.
- » When required, observe preparation of preconstruction test panel(s), simulating job conditions as closely as possible. The panel(s) thickness and reinforcing should represent:



ADDRESSING 5.9.3

Mill and Plant Test Reports

- » Check conformance of all materials to project specifications. Verify steel mill test reports for prestressing steel and deformed bar steel. Verify mill markings and tags. Verify cement mill test reports and certification.
- » Check fabricator's testing facility and reporting of tests performed under fabricator's quality control program.

Sampling

- » Sample and deliver or ship to the laboratory for testing the following when independent tests are required by project specifications:
 - » Concrete aggregates
 - » Prestressing strand or wire
 - » Reinforcing steel
 - » Steel used for structural steel embedded items

Steel Fabrication of Embedded Items

- » Verify that qualified welders are employed to perform welding of structural steel using welding procedures qualified in accordance with AWS Structural Welding Code.

Pre-Placement Observations

- » Bed layout and form cleanliness.
- » Quantity and spacing of reinforcing and stressing steel.
- » Location of inserts and embedded items.
- » Profile of stressing steel.
- » Witness tensioning of prestressing elements, measure elongation of strand, and record gauge pressure.

Tests and Observation During Casting

- » Perform batch plant observations.
- » Conduct slump, air, and unit weight tests. Request adjustments as necessary.
- » Cast compression test specimens.
- » Observe placement and vibration of concrete in forms.
- » Observe finishing treatment.

Post-Placement Tests and Observations

- » Observe curing procedures, temperatures, and curing cycles.
- » Monitor compressive strength results for specified release strength.
- » Witness stress transfer.
- » Identify member by component and date cast.

Field Erection

- » Check members for damage during storage or shipment.
- » Check field installation and structural connections.

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.

Post-Tensioned Concrete

Post-tensioned concrete is normally constructed onsite rather than fabricated in plants. As a result, more responsibility is placed on the independent inspection agency to verify that quality control meets acceptable standards. Twining's special inspectors provide the following observation duties:



ADDRESSING 5.9.3

Documents

- » Review the approved plans, specifications, and approved placing and stressing drawings furnished by the post-tensioning contractor.
- » Review the reinforcing steel placing drawings to check whether they have been coordinated with the stressing drawings.

Mill Test Reports

- » Check that reinforcing steel and post-tensioning steel supplied to job is properly identified and mill test reports show conformance to project specifications.

Sampling of Materials

- » Sample and deliver to the laboratory for testing the following materials when required by project specifications:
 - » Concrete aggregates and cement
 - » Prestressing strand, rods, or wire
 - » Reinforcing steel
 - » Steel used for structural inserts

Steel Fabrication of Embedded Items

- » Visit fabrication plant.
- » Verify that qualified welders only are welding in accordance with AWS Structural Welding Code.
- » Verify that only qualified welding procedures are being used.
- » Observe the welding operations and the finished product for defects and verify that corrections are made, if necessary.

Pre-Placement Observations

- » Check the general layout, size, spacing, and profile of all reinforcing steel and post-tensioning steel.
- » Observe all anchorages, inserts, embedded items, blockouts, conduits, etc.
- » Calibrate or review current calibration data on the proposed stressing equipment.

Observation During Placement of Concrete

- » Observe batch plant operations when required.
- » Observe concrete placement and report any damage or misalignment of any embedded components (with particular emphasis at end anchorages).
- » Cast compression test specimens.
- » Test slump, air content, and unit weight. Request adjustment as necessary.

Stressing

- » Verify that the concrete compressive strength meets the minimum required strength prior to post-tensioning.
- » Check the stressing sequence and verify the required post-tensioning forces.
- » Call to the attention of the structural engineer any out of tolerance discrepancy in force-elongation relationship, spelled concrete, broken tendons, or anchorage slippage.
- » Verify friction losses where applicable.
- » When using bonded tendons, observe grouting procedure.

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.



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Masonry

The purpose of special observation for masonry is to verify that the workmanship and materials meet the minimum standards required by code and by the approved project plans and specifications. Twining's special inspector provides the following observation duties:

Documents

- » Review the approved plans, specifications, and Statement of Special Inspections with the masonry contractor and architect's representative in a preconstruction meeting.
- » Verify whether high lift or low lift procedures have been approved and documented for use.

Mill Test Reports

- » Verify that mill test certifications for unit masonry, cement, reinforcing steel, and embedded anchors have been furnished by supplier and are acceptable to the architect/engineer.

Sampling of Materials

- » Sample and verify that the following materials are delivered to laboratory for testing when required:
 - » Concrete block or brick
 - » Aggregates and cement for mortar and grout
 - » Reinforcing steel as delivered

Storage of Materials

- » Verify cement, lime, block, and brick are supported on pallets and covered to protect from exposure to excessive moisture or drying.
- » Verify aggregates for mortar and grout are stored free from contamination and in such a manner as to

minimize segregation.

- » Verify reinforcement, ties, and metal accessories are stored off the ground and in a manner to prevent permanent distortions.

Preparation for Lay-Up

- » Verify size and spacing of reinforcing dowels.
- » Verify length of dowel protruding from footing is of sufficient length to allow for the splicing of vertical reinforcing steel as required.
- » Verify that foundation concrete is clean and prepared as required by specifications.

Lay-Up or Placing of Masonry Units

- » Verify that cleanouts are provided for first course of each pour, if high lift method is used.
- » Verify plumb and lay-up configuration.
- » Verify moisture condition of masonry units.
- » Verify that proper mortar ingredients and batching techniques are being used and prepare mortar compression test specimens.
- » Verify mortar time on board.
- » Verify that head joints are the same thickness as face shells or that full head joints are used when specified.
- » Verify that mortar extrusions (fins) are cleaned off inside.
- » Verify whether joints are tooled as specified.
- » Verify required frequency of masonry wall prisms and observe construction of same as specified.
- » Observe horizontal and vertical reinforcing steel to verify:
 - » Reinforcing steel is of specified size and grade.
 - » Reinforcing steel is located and spliced as specified.



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- » Lap splices are staggered in bond beams and corners as required.
- » Hooks are specified size and bent as required.
- » Ties are specified size, spacing, and bent as required.
- » Reinforcing steel is properly secured and minimum clearances are as required.
- » Verify embedded items are:
 - » Placed at proper location and secured.
 - » Proper size and clearances are as required.
- » Verify masonry is protected from weather:
 - » When ambient or CMU temperature falls below 40°F.
 - » When ambient temperature exceeds 100°F or 90°F (wind velocity greater than 8 mph).
- » Monitor flow of grout throughout wall and each grout pour height for conformance to specifications.
- » Preparation of any required grout specimens and/or prisms shall be observed. Note mortar specimens are no longer required.
- » Verify grout is stopped below top for keying where required.
- » Verify curing requirements are being followed.

Pre-grouting Tasks

- » Verify that cells and starting beds are clean.
- » Verify dowels, anchor bolts, and inserts are all in place, particularly at rooflines, floor lines, and intersecting wall lines.
- » Verify installation of cleanout closures.

Grouting Observations

- » Verify grout mix for conformance to approved mix design.
- » Verify slump is in accordance with the specifications.
- » If low lift grouting, verify maximum masonry height is in accordance with the code before grouting.
- » Verify consolidation (mechanical vibrating or puddling) during placement, and later during reconsolidation.
- » Monitor time since batching of grout.

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.

Structural Steel

The purpose of structural steel inspection is to assure that proper quality control is exercised at the fabrication location and in the field, despite variations in the environment. Twining provides the following observation duties:

Mill Test Reports

- » Review mill test reports and check heat numbers with material as received. Verify that proper identification of steel is maintained during fabrication.

Sampling and Testing

- » When required by project specifications, mark sample location with steel stamp on each piece tested.
- » Record sample number and location and check that sample identification is maintained as samples are delivered to laboratory and tested.
- » When steel members are delivered to finish length and no "crop ends" are available for sample cutting, coordinate cutting and patching requirements with architect/engineer and fabricator.



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Welding Observation (Applicable to Shop and Field)

- » Check all welders' certifications and verify that they work only as covered by their certification.
- » Keep a written record of all welders by name, their identifying steel mark, and the percentage of rejectable welds.
- » Upon detection of a rejectable weld (either visually or by nondestructive test), the inspector will notify the foreman for verification of defect. The inspector will observe removal of defects and repairs to check whether acceptable procedures were used.
- » Inspect joints for proper preparation, including bevel, root faces, root opening, etc.
- » Check the type and size of electrodes to be used for the various joints and positions. Check the storage facilities to see if they are adequate to keep the electrodes dry.
- » Observe the technique of each welder periodically with the use of a welding inspection shield.
- » Verify the use of Welding Procedure Specifications (WPS).
- » Observe multi-pass welds continuously.
- » Continuous observation is defined as follows: The inspector is present in the welding area at all times. The extent of inspection of individual welds will depend on the number of operators welding.
- » Observe single pass fillet welds periodically (in accordance with CBC Section 1704.3.2), after determining that the operator is capable of producing the welds required.
- » If straightening or restraining of weldments is necessary, verify that approved methods will be used.
- » Tag or stamp accepted weldments with the inspector's identification stamp.

Workmanship

- » Check straightening and bending procedures.
- » Check cut edges, including those flame cut, sheared, or milled.
- » Check bolt holes for diameter size in major connections.

Additional Duties (if required)

- » Verify that the welding sequence complies with approved construction documents.
- » Check steel frame joint details for compliance with approved construction documents, including details such as bracing and stiffening, member locations, and application of joint details at each connection.
- » During adverse weather conditions, check that adequate steps are taken to prevent moisture penetration at welding location.

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.

High Strength Bolting

The purpose of high strength bolting observation (continuous or periodic) is to provide assurance that the proper bolt type(s) and installation procedures are used to meet the project specifications and applicable codes and industry standards. Twining provides the following testing and inspection services:

Mill Test Reports

- » Review mill test reports and check identification markings with material as received.



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Sampling and Testing

- » Sample high strength bolts, washers, and nuts for testing from the lots in the shop or on the jobsite, if required.
- » Record sample information from each lot and check that sample identification is maintained as samples are delivered to laboratory and tested.

High Strength Bolting Observation

- » Review type of joint specified (i.e., slip-critical, bearing-type).
- » Check bolts, nuts, and washers for compliance to project specifications.
- » Review the procedure for installation of bolts. The amount and type of inspection during installation will depend on the method used (i.e., turn-of-nut calibrated wrench, twist-off bolts, direct tension-indicator washers).
- » Check joint surfaces to verify that they are free of burrs, dirt, etc.
- » Observe preinstallation testing and calibration procedures when required.
- » Verify all plies of connected materials have been drawn together and properly snugged.
- » Monitor the installation of bolts to verify the selected installation procedure is properly used to tighten bolts.
- » For joints requiring only snug-tight condition, verify connected materials have been drawn together and properly snugged.

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all

uncorrected deviations from plans or specifications.

Non-Destructive Testing (NDT)

The purpose of nondestructive testing is to verify that structural steel and/or completed welds are sound with respect to the given project criteria. Twining's NDT inspectors provide the following observation duties:

Personnel

- » All NDT personnel shall be qualified in accordance with the American Society for Nondestructive Testing, Recommended Practice SNT-TC-1A, (also CP189) and the supplement applicable to the method to be used. Only Level II and III inspectors, or Level I inspectors working under the direct supervision of a Level II or III inspector, are permitted to conduct the tests.

Method Selection

- » Method to be used shall be as prescribed by project specifications, building codes, or as recommended by the materials engineering laboratory under the direction of the design professional.
- » Effective use of NDT depends on utilizing the proper test method and techniques. Where field conditions or sequences affect the specified methods, the materials engineering laboratory will contact the project architect or engineer for suitable approved methods or techniques.

Tests

- » Perform tests as prescribed by contract documents, for welds, laminations, or lamellar tearing.
- » Upon detection of a defect, mark the defect and notify the foreman.



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- » Keep written records of pieces, welds, welder identification marks, length and location of defects, method and date of repair, number of retests, records of performance of each welder (percent of rejected welds), and sampling rate.

Reports

- » Written progress reports are submitted describing the tests and observations made, their location, and any corrective actions taken. Reports include the the current percent of rejectable welds.

Standards

- » Many nondestructive testing standards and codes are presently available for information and reference. Most standards and codes specify equipment and personnel requirements, operational steps, and acceptance standards tied to the end-use function. Following is a partial list of the more common standard test methods.
 - » Radiography–AWS D1.1, ASTM E94 and E99, ASME Section V.
 - » Ultrasonic Testing–AWS D1.1, AWS D1.8, ASTM E164, ASME Section V.
 - » Magnetic Particle Testing–ASTM E109, ASME Section V.
 - » Penetrant Testing–ASTM E165, ASME Section V.

Fire-Resistant Materials — Sprayed

The purpose of spray-applied fire-resistant materials observation is to verify that the application of material is in accordance with the project specifications, applicable codes, and manufacturer's recommendations. Twining's fireproofing inspector provides the following observation and testing duties:

Observation Procedures

- » Verify substrate condition for cleanliness prior to application.

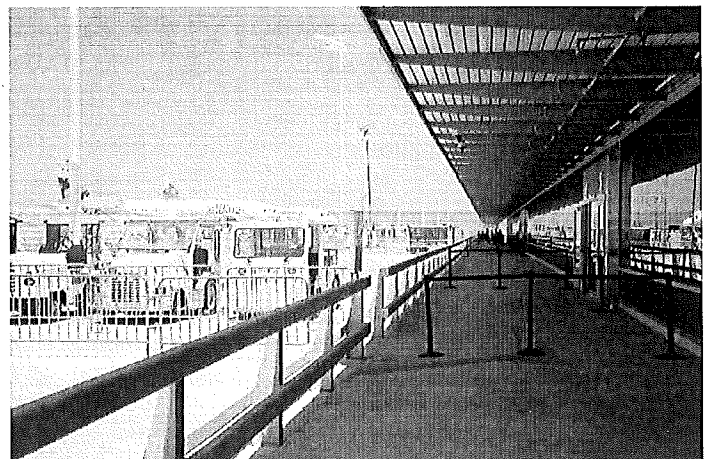
- » Verify application in accordance with code, referenced standard, and specifications.

Testing and Sampling Duties

- » Measure thickness of spray-applied fire-resistive material in accordance with specifications, CBC Section 1704.10 and AWCI 12-A.
- » Remove and deliver samples to materials engineering laboratory for unit weight tests.
- » Perform cohesive/adhesive bond strength tests per ASTM E736.
- » Re-inspect areas repaired due to insufficient thickness or damage by sampling, tenant improvements, panel placement, rain, etc. (This work must be scheduled and coordinated by the general contractor.)

Reports

Twining submits written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. The reports itemize any changes authorized by architect/engineer and all uncorrected deviations from plans or specifications.





ADDRESSING 5.9.3/5.9.7

Potential Problems and the City's Special Concerns

Our clients rely on us to ensure standards of quality are achieved on their projects. The quality of our internal procedures is essential to ensure the quality of service our clients are accustomed to receiving. Our firm has an established reputation for reliability in the area of quality assurance and quality control.

Twining and our team are ready to start work on this contract immediately. We are staffed up, trained up, and ready to go. We will cover every aspect of the scope of services, which is summarized as follows:

- » Compliance
 - » Job-site enforcement
 - » Quality assurance/quality control
 - » Laboratory testing
- » Services
 - » Concurrent inspections
 - » Bench of experts
 - » Recruiting program
 - » Short-notice request support
 - » Continuing education
 - » Specialty subconsultants
- » Flexibility
 - » Comprehensive scope coverage
 - » Staffing an on-call contract
- » Reports
 - » Enforcing good reporting
 - » Inspection
 - » Record-keeping
- » Working in a fully-active airport
 - » Security considerations
 - » Emergency situations, last-minute requests, night work

- » Adapting to change
- » Providing supporting specialty resources
- » Safety management

Four Hour Dispatch

We understand that the City seeks a firm that can respond to service requests under this contract in a four-hour period. Due to our extremely close proximity, which has been further detailed at the end of this section, we are proud to embrace this challenge and anticipate being able to accommodate this request with ease.

Compliance with Project Labor Agreements (PLA)

Twining is signatory with the International Union of Operating Engineers Local 12. We are familiar with the special challenges of working on jobs with a project labor agreement. All inspection staff proposed and referenced in this RFP are union inspectors.

Experience with Federal Funding

We have been and are currently working on many federally funded projects for municipal agencies in southern California. Our team is exceptionally well versed in working with the Local Assistance Procedures Manual (LAPM) which is used by municipal agencies to regulate quality assurance/quality control services on federally funded projects. Our project management team is committed to deliver this project in strict, by-the-book accordance with the LAPM as we have for many public agencies. Our team has worked on many federally funded projects and maintains meticulous documentations of our Quality Assurance activities in support of our City 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.



Current Workload And Demonstrated Ability to Meet Scheduled Deadlines

While we have been successful in maintaining a backlog of work, we are prepared to fully staff the projects arising under this contract. We are currently working on several LGB projects with construction management team Jacobs, as well as projects with the City of Long Beach Department of Public Works. We have nearly 100 inspectors based out of our Long Beach office alone, many of whom are multi-licensed to inspect both vertical construction and flatwork projects. Our project manager, Greg Ginther, is ready and available to provide support to the Various Development Projects falling under this agreement. We are fully staffed with experienced project support personnel as well as field and laboratory technicians. The large amount of work currently being delivered by our operations is a direct reflection of the quality of our work as well as a demonstration of our capacity to deliver a large number of projects, many of which are completed concurrently. We do not anticipate any problems in supporting this contract.

As one of the largest providers of construction QA/QC services, there is no instance that would occur that would hinder our ability to service the stakeholders involved in this solicitation. The City and LGB alike are among our top clients, and we consider working together to be a vital business function.

Capability of the Office to Service the Project

We will service this project from our Long Beach headquarters, as opposed to a branch office, and thus will be able to provide the maximum amount of support and greatest access to Twining resources. This location offers the following in support of this contract:

- » Your contract project executive, project manager, and specialty staff in the scopes of asphalt, concrete, and structural steel
- » Four licensed professional civil engineers
- » Two licensed geotechnical engineers
- » Two PhD level engineers
- » Corporate project administrators and billing staff
- » An adjacent laboratory with the greatest testing capabilities in our network
- » Support from branch offices, if needed





ADDRESSING 5.9.9

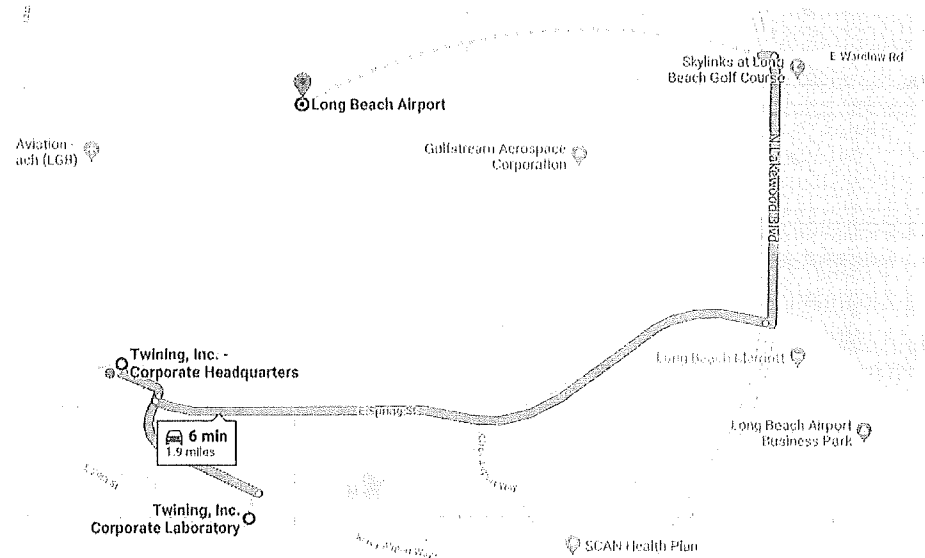
Interest in the Project and Proximity

Twining has long awaited the release of this RFQ and is enthusiastic at the opportunity to be selected for this contract. More than a simple business decision, our pursuit with your team represents a mutually beneficial partnership that will benefit the surrounding community.

Aging infrastructure and growing communities put strains on municipal agencies' available budget. We understand challenges you are facing in allocating funding for specialty projects such as your City-owned airport. As a member of this community, our primary

interest in this contract stems from the desire to use our competencies to help the City find the most efficient solutions for your projects. More than just testing and reporting, our team has proven success providing creative and often cost-saving solutions.

As featured in the above map, we are very clearly the closest materials testing and inspection firm to your project site, and our corporate headquarters is technically on airport-owned property. Our laboratory sits just across the street on Airport Drive. This close proximity ensures a rapid response and intimate working relationship for all activities conducted between the City and Twining.



SECTION 5.1.2

Experience in the Performance of Comparable Engagements

Information in this section addresses the following Evaluation Criteria:

5.9.1 Proven experience in airport construction materials testing and inspection and capability to perform all or most aspects of the project and recent experience in airport projects comparable to the proposed task.

5.9.4 Quality of projects previously undertaken and capability to complete projects without having major cost escalations or overruns.

5.1.2 EXPERIENCE IN PERFORMANCE OF COMPARABLE AGREEMENTS

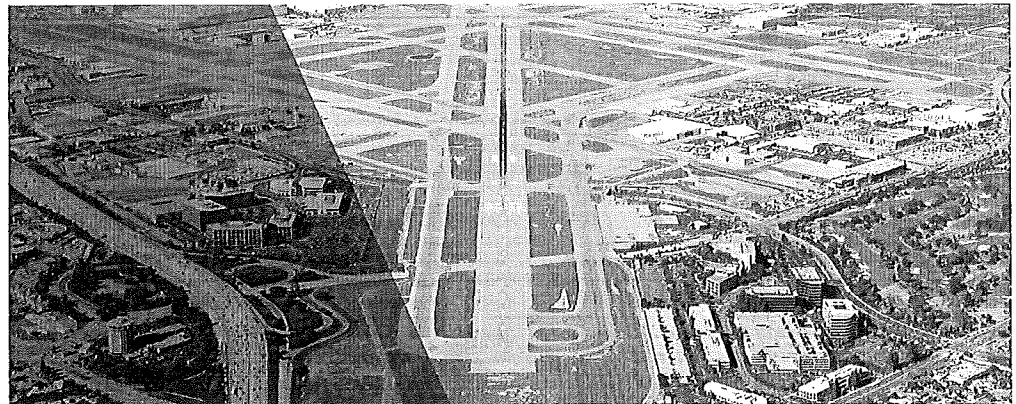
Twining is the leading provider of testing and inspection services on FAA projects throughout California. We bring over one hundred years of excellence to each project we undertake, and our proven reliability means that you can count on Twining to deliver continuity and quality of service in all circumstances. We are proud of our legacy of successful projects, the most recent of which are sampled below. Additionally, we have included detailed project profiles for select projects on the following pages.

- » **Long Beach Airport, Phase II Construction Management**
- » **Long Beach Airport, AOA Security Wall**
- » **Long Beach Airport, Major and Secondary Highway, Runway 12-30 Paving Repair**
- » **Long Beach Airport, Taxiway C**
- » **Long Beach Airport, Terminal Expansion Phase II**
- » **Long Beach Airport, Annual Contract for Major and Secondary Highway, Taxiway L**
- » **Long Beach Airport, Geotechnical Borings Perimeter Fence**
- » Big Bear Airport, Terminal Improvements
- » Cable Airport, Apron Improvement
- » Camarillo Airport, Taxiway H Pavement Rehab
- » Chino Airport, Apron Improvement Project
- » Palm Springs Airport, On Call Services
- » Compton Woodley Airport, Runway 7R25L Pavement Reconstruction
- » County of Sacramento Airports, On Call Material Testing and Construction Support Services
- » LAWA, Runway 25L Rehabilitation
- » Sacramento Airport, Pedestrian Walkway
- » Santa Barbara Airport
- » John Wayne Airport, QVL for On-Call Airport Engineering Services
- » LAWA, PM/CM Services for Berg & Associates
- » LAWA, Van Nuys Fuel Tank Removal
- » LAWA, T4 FIS APC Reconfiguration
- » LAWA, Midfield Satellite Concourse
- » LAWA, LAX T4 Gate Enhancement for American Airlines
- » LAWA, Utilities and LAMP Enabling Projects
- » Ontario Airport, Taxiway G and Terminal Gate 1-3 Apron
- » Ontario Airport, South Cargo Ramp Rehab
- » Ontario Airport, On-Call for Non-AIP Funded Projects
- » LAWA, LAX Terminal 1
- » Sacramento County, Authorizations 2-4
- » Sacramento County, Mather Airport GA Apron Project
- » Sacramento International Airport East Taxiway Improvements
- » San Bernardino International Airport, Pavement Design Project
- » San Bernardino International Airport, Hangar Design Project
- » Santa Monica Airport, Airport Shortening of Runway 3-21
- » Visalia Airport



LGB

Taxiway L



Owner Name

» City of Long Beach

Start Date

» 2019

Completion Date

» 2020

Contact Information

» Brook Corney,
Construction Manager

» p: 909.583.1159

» e: brook.corney@jacobs.com

Original Budget

» Time and Materials

Amount Billed

» \$315,000

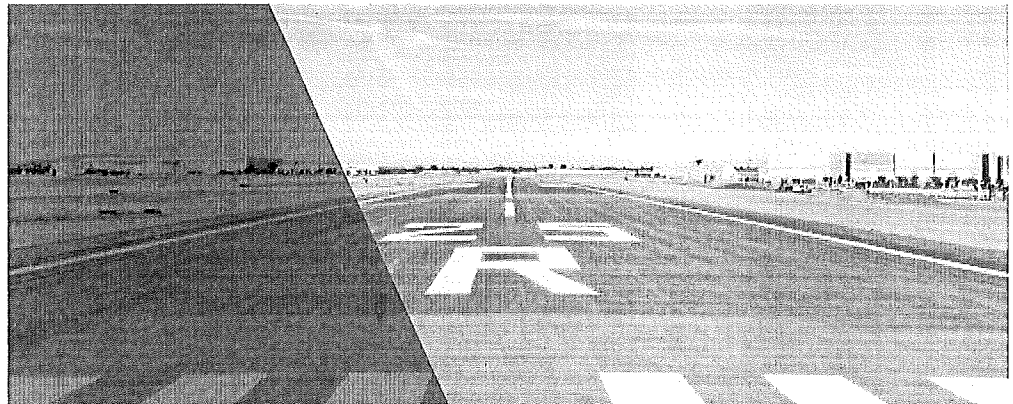
This project included the repair of an area of Taxiway L at Long Beach Airport. A section of the existing asphalt was removed by cold milling, and was then repaved with new asphalt. Twining observed the cold milling and new paving activities to ensure compliance. While paving, we performed nuclear density tests and obtained hot mix samples of the asphalt mix as well as core samples with a coring machine. Then, we performed lab testing on the hot mix asphalt samples and core samples to verify the materials were adequate and properly compacted.



ADDRESSING 5.9.1/5.9.4

LGB

Taxiway J Rehabilitation



Owner Name

» City of Long Beach

Start Date

» 2014

Completion Date

» 2014

Contact Information

» Henry Monfiero,
Project Manager

» p: 562.570.2616

» e: henry.monfiero@
longbeach.gov

Original Budget

» \$62,492

Amount Billed

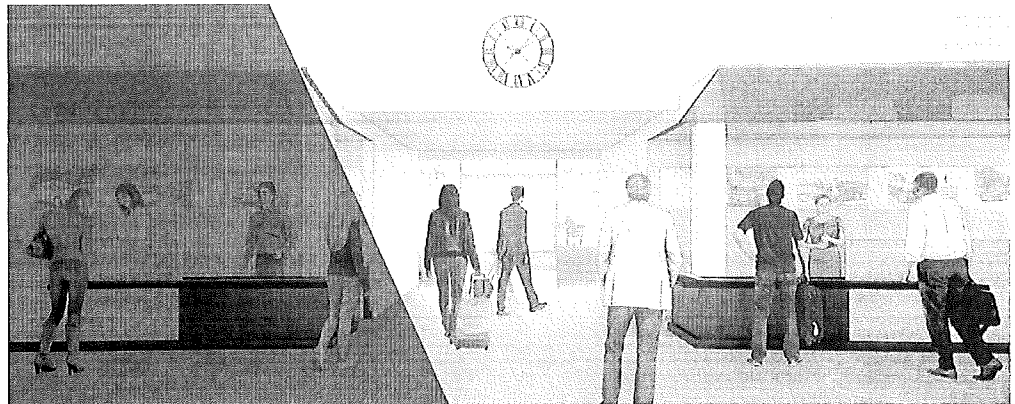
» \$64,190

Twining provided geotechnical field investigation at this active airfield. Twining oversaw the drilling of 27 borings and 15 pavement cores to characterize the existing subgrade and pavement section conditions. Analyses were performed to evaluate new pavement sections incorporating both asphalt and Portland cement concrete. Anticipated aircraft loading included the heavy C-17 transport aircraft as well as commercial and relatively light aircraft. Recommendations for the use of cement-treated soil were also incorporated into the project as alternative sections for relatively soft, wet subgrade conditions encountered.



LGB

Terminal Improvements, Phases I and II



Owner Name

» City of Long Beach

Start Date

» 2011

Completion Date

» Ongoing

Contact Information

» Brook Corney, CCM,
Construction Manager

» p: 909.583.1159

» e: brook.corney@jacobs.com

Original Budget

» \$276,782 (Phase I Only)

Amount Billed

» \$281,912 (Phase I Only)

Phase I of the Terminal Improvements utilized ConXTech® for the new 13,000 square foot south holdroom structure and 24,700 square foot north holdroom structure with a connecting courtyard. The holdroom structures include passenger amenities such as concessions, restrooms, and passenger waiting areas. In addition, the project also included a new 7,000 square foot passenger screening building that meets current Transportation Security Administration (TSA) requirements.

The project also included the relocation of an existing baggage carousel and canopy, construction of a new passenger security screening checkpoint, removal of an existing canopy, building a "Meeters and Greeters Plaza," more walkway canopies and a new temporary holdroom to mitigate impacts to travelers during construction. The City is counting on long term savings to come from the airport's sustainable design features with LEED Certification.

Phase II of the Long Beach Airport Terminal Expansion improvements include nine separate projects. The new facilities and renovations are geared toward improving customers' experience at LGB. The projects include a new ticketing hall, a new checked baggage inspection system (CBIS) area for the TSA, a consolidated baggage claim, an upgraded "meet-and-greet" plaza, pre-security restrooms and concessions, terminal renovations, roadway improvements, and a consolidated rent-a-car lot.

During Phase I, Twining provided geotechnical services, materials testing, inspection, and asphalt pavement quality control services. Twining is currently providing geotechnical engineering, material testing, and inspection services. Our scope of services includes site grading, compaction, reinforced concrete, structural steel, spray applied fireproofing, and inspection of epoxy dowels, anchors, and embeds for Phase II.



ADDRESSING 5.9.1/5.9.4

LAWA

On-Call Materials Testing Services



Owner Name

» Los Angeles World Airports

Start Date

» 2008

Completion Date

» 2018

Contact Information

» Robert R. Loya
Chief Construction Inspector

» p: 424.646.9494

» e: rloya@lawa.org

Original Budget

» \$10,500,000 (TBIT Only)

Amount Billed

» 10,126,000 (TBIT Only)

LAWA is currently managing a Capital Improvement Program valued in excess of \$5 billion. It is anticipated that a record number of additional projects will be added to the CIP in the coming years in response to the City's commitment to rebuild and renovate LAX. The anticipated LAWA construction improvements require the support of a record number of specialty inspection and materials testing personnel. During peak construction, Twining had as many as 25 construction inspectors and 35 materials testing engineers/technicians working on LAWA projects during the same time period.

Twining was awarded the prime contract for on-call services on consecutive contracts. Our scope of services under this contract included providing inspection in accordance with the City of Los Angeles Building Code. Our team provided inspectors in the field as well as at fabrication shops throughout the United States. We also provided electrical/mechanical inspection services for safety and technology systems, electrical power systems and IT/Network systems of various airport facilities, including the Tom Bradley International Terminal (TBIT).

In the performance of these various duties, and as directed by LAWA authorities, Twining acted as an integral part of the team for those phases of work in which we were involved.

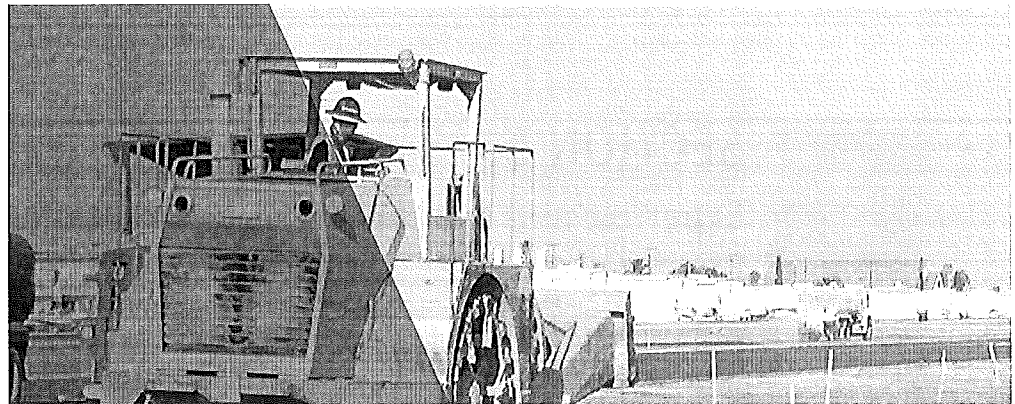
The TBIT project is the largest of the projects on which we provided services under our on-call contract. The TBIT project included a new gate and concourse areas and a Great Hall for luxury dining and retail. LAWA also completed a \$737-million renovation in 2010 of the existing TBIT, for which we provided testing and inspection services, which upgraded the facility with a new in-line baggage screening system and interior improvements.

The New TBIT is a \$1.7 billion project that provides greater capacity to TBIT's west-side with a total of 18 new gates, nine of which comfortably accommodate passenger loads for new-generation aircraft. The New TBIT project is considered to be the largest public works project in the history of the City of Los Angeles.



LADPW

Compton Woodley Airport, Runway 7R/25L Pavement Reconstruction



Owner Name

» Los Angeles County
Department of Public Works

Start Date

» 2018

Completion Date

» 2018

Contact Information

» Wigen Babakhanians
Head Construction Inspector

» p: 626.607.7426

» e: wbabakhanians@dpw.
lacounty.gov

Original Budget

» \$42,143

Amount Billed

» \$47,034

This project consisted of rehabilitating the existing Runway 7R/25L, which runs parallel to taxiway Alpha and connectors. In order to comply with FAA standards as well as the County's formal Airport Pavement Maintenance Program, no additions or deletions of paved areas were required to improve the current conditions. The project included removal of existing asphalt concrete, grading, drainage, layout, and pavement striping.

Work included lime treating the soil to create stabilized foundations for the airport taxiways. Using this sustainable methodology, the County was able to save money while using in-place material for the reconstruction of the airport infrastructure. Twining provided technical support and material testing and inspection. We also provided experienced field inspectors who specialize in these type of treatments.

3

SECTION 5.1.3

Expertise and Availability of Key Personnel

Information in this section addresses the following Evaluation Criteria:

5.9.2 Key personnel's professional qualifications, experience, and availability for the proposed project; their reputation and professional integrity and competence; and their knowledge of FAA regulations, policies, and procedures.

5.9.6 Ability to furnish qualified personnel for materials testing and/or construction inspection.

5.1.3 EXPERTISE AND AVAILABILITY OF KEY PERSONNEL



Paul Soltis, PE, GE
Project Executive/Geotechnical Engineer

Talin Espinoza
Client Services Manager

Greg Ginther
Project Manager

Specialty Technical Staff

Amir Ghavibazoo, PhD
Technical Advisor, Asphalt

Boris Stein, DSc
Technical Advisor, Concrete

Robert Ryan, ASNT III
Technical Advisor, Structural Steel

Adrian Moreno, PE
Senior Staff Engineer

Inspectors/Technicians

John Lara, Jr.
Andrew Solis
Essam Abdelnour
Samir Saleh

Plus 100+ Multi-Licensed Inspectors

Subconsultants

Kal Krishnan Consulting Services
DBE Electrical Inspection

Fernandez Project Services, Inc.
DBE Materials Testing

Gregg Drilling
Geotechnical Drilling and Cone Penetration Testing (CPT)

GEOVision
Utility Location and Geophysical Survey

Single point of contact for all requested services



ADDRESSING 5.9.2/5.9.6

Project Executive

For this contract, Paul will act as a resource for both the City and Greg, providing engineering review and technical oversight of all soils, construction materials testing, and special inspection services we provide. Paul will utilize his years of experience managing geotechnical and materials testing services on projects from the initial planning and conceptualization phase to final design and construction, to make recommendations, act as a resource, and act as a back-up in rare instances where Greg is unavailable.

Client Services Manager

Talin works closely with public works leaders and Twining ownership to ensure that our firm meets and exceeds the City's expectations. She has more than 10 years of experience in the industry and leads the business development and marketing activities for Twining.

Project Manager

Greg will be your single point of contact for all of your projects under this on-call contract, and will be responsible for providing project management and technical oversight of all of our services. He will oversee the project team, ensuring that your projects receive special attention, and that our services are provided to the City in a comprehensive and seamless manner.

Greg will also ensure the accuracy and timeliness of all reporting and billing activities. He will review all invoices, inspection reports, and test reports prior to their issuance. Further, he will always be available to the City to answer questions or make suggestions. Greg also plays a critical role in informing the City of budget status, working with the project team to reduce costs, and delivering our services in an efficient manner. In the event of budget deviations, Greg will ensure that the City is proactively advised, and will work with you to find the source of the deviations, to ensure they don't impact upcoming projects.

Technical Advisor, Asphalt

Amir will provide technical oversight for all pavement components of projects under this on-call contract, making recommendations, and work with Greg to find the best fit for each project.

Technical Advisor, Concrete

For this contract, Boris will be responsible for the oversight of the development and evaluation of concrete mixes for any and all concrete project components. Boris has provided technical support for airport clients in materials related tasks including the development of quality assurance/quality control documentation for cellular concrete production and construction, troubleshooting, and forensic evaluation of concrete in existing structures.

Technical Advisor, Structural Steel

Robert will provide airport project oversight for this contract, as well as consultation on welding and non-destructive procedures, including specification preparation and review, and on complex problems related to welding such as cracking, and unusual joint configurations.

Geotechnical Engineering

For this contract, Paul and Adrian will be responsible for the technical oversight of the firm's geotechnical construction projects, and act as a resource for Greg, when required, to deliver effective project solutions.

Inspectors

Our inspectors perform testing and inspection per project specifications. Twining's key personnel are supported by more than 150 inspectors statewide, the majority of whom are multi-licensed. We expect and demand that Twining's inspection personnel execute their inspection responsibilities in a manner of efficiency and effectiveness, and perform multiple inspections when and where possible within the regulations.



ADDRESSING 5.9.2/5.2.9

Subconsultants

Kal Krishnan Consulting Services, Inc. (KKCS) - Electrical Inspection

KKCS is a full-service program, project, and construction management firm with more than 30 years of experience specializing in project controls and inspection services for transportation, aviation, and infrastructure projects throughout the United States. Founded in 1987, KKCS is a certified DBE and Small Business Enterprise (SBE) headquartered in Los Angeles, California, with 10 regional offices throughout the country.

Currently, KKCS is providing on-call inspection services and on-call project management/construction management services for various projects at LAX, including the Midfield Satellite Concourse North. Inspection experience at LAX also includes various terminal modernization projects, including the TBIT Modernization, as well as various terminal electrical projects.

Fernandez Project Services, Inc. (FPS) - DBE Redundancy/Materials Testing and Inspection

Fernandez Project Services, Inc (FPS) is a certified Minority Owned Enterprise (MBE) and DBE firm with a wide range of diverse projects and market experience. FPS has industry recognized knowledge for project delivery including site management, quality inspection services, and PM/CM related expertise making the company well suited for supporting the City's contract.

Management experience related to airport projects includes many projects completed at LAX, San Diego, Chicago, Miami, and New York. FPS has experience in all phases of projects including conceptual planning stages of project delivery, contracting strategy development, engineering management, construction management, and project closeout. FPS' support to the Twining Team and City of Long Beach will be highly professional and draw from best practices developed from leading industry associations.

Gregg Drilling - Geotechnical Drilling and CPT

Gregg Drilling offers a wide range of services for environmental, geotechnical and marine site investigation and remediation. Since their inception, Gregg Drilling has been widely recognized as a leader and innovator in drilling, sampling, CPT, and subsurface investigation, providing clients in industry and government with the highest quality services.

The Gregg companies are directed and staffed by geotechnical and environmental professionals with experience in industry, consulting, and research. All personnel are highly trained, certified, and experienced in site investigation technologies and applications. These exceptional qualifications enable Gregg personnel to solve complex problems and create a seamless working relationship between our staff and our clients.

GEOVision - Utility Location and CPT

GEOVision offers a full range of high-quality geophysical data acquisition, analysis, and imaging services that are useful for utility location and subsurface evaluation of soil/rock materials. GEOVision specializes in non-invasive methods of investigation for engineering, environmental, groundwater, mining, and archaeological applications, including subsurface geologic and hydrological characterization; subsurface infrastructure characterization; earthquake hazard mitigation; and engineering properties of soil, rock, and structure.



SECTION 5.1.4

Financial Stability

5.1.4 FINANCIAL STABILITY

Twining is financially solvent and has sufficient liquidity to meet all current obligations. There are no existing conditions including bankruptcy, pending litigation, planned office closures or any impending mergers which could impede the firm's ability to complete its current projects.

Over the past five years, Twining has averaged a consistent number of employees to support our steadily-growing firm. Our average number of staff employed over the past five years is 300, which includes our inspection and field technician personnel. Twining has not experienced significant staffing shortages, nor have we experienced a staffing surplus resulting in significant downsizing in this time.

For more information on our firm's financial stability, please see our most recent financial statements, which have been submitted as Part 3 of our submittal as requested in the RFQ.



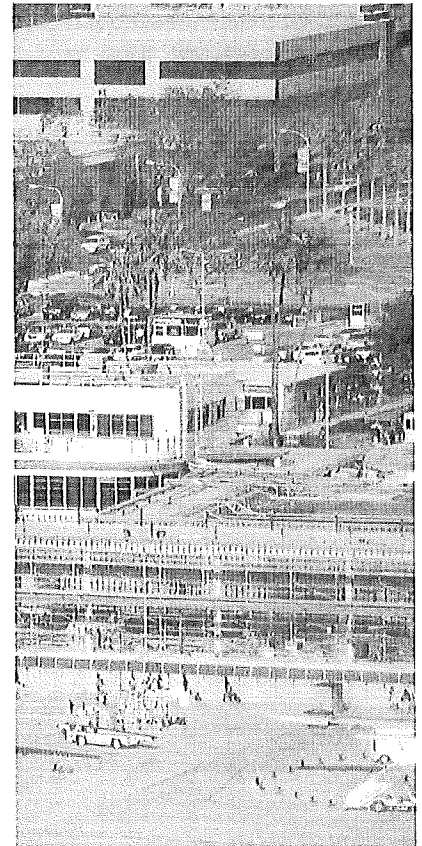
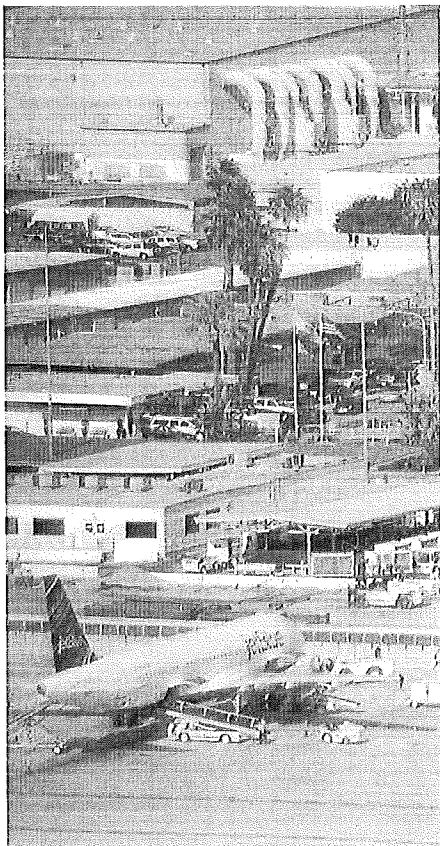


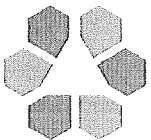
SECTION 5.1.5

Conformance with the Terms of this RFQ

5.1.5 CONFORMANCE WITH THE RFQ TERMS

Twining has reviewed the City's RFQ in entirety, including the scope requirements, pro-forma agreement, insurance requirements, and both addendums released. We can comply with all terms as written and make no exceptions to any of the language presented.





SECTION A

Appendix



ADDRESSING 5.9.2/5.2.9

PAUL SOLTIS

PE, GE, Project Executive/Geotechnical Engineer

Professional Summary

Paul Soltis' experience includes geotechnical investigations and analyses relative to the development of capital projects, including airports, healthcare facilities, sheriff facilities, fire stations, and courts. For this contract, Paul will be responsible for the technical oversight of the firm's geotechnical construction projects, and acting as a resource for Greg, when required, to deliver effective project solutions. He has extensive experience working with the special requirements of the City of Long Beach, FAA and Caltrans LAPM. Paul is responsible for the technical oversight of Twining's geotechnical engineering projects and management of the firm's geotechnical personnel.

Relevant Experience

Overview

- » Years' Experience: 1992 - Present

Education

- » MS, Geotechnical Engineering
University of Colorado, Boulder, CO
- » BS, Civil Engineering
California Polytechnic State University,
San Luis Obispo, CA

Current Licenses Held

- » Professional Engineer, Civil, CA, RCE 56140
- » Registered Geotechnical Engineer, CA, GE 2606

Availability

- » 40%

Long Beach Airport, Taxiway J Improvements

Paul served as senior geotechnical engineer for this project where Twining performed geotechnical field investigation at an active airfield. Twining oversaw the drilling of 27 borings and 15 pavement cores to characterize the existing subgrade and pavement section conditions. Analyses were performed using the FAA computer program FAARFIELD to evaluate new pavement sections incorporating both asphalt and Portland cement concrete. Anticipated aircraft loading included the heavy C-17 transport aircraft as well as commercial and relatively light aircraft. Recommendations for the use of cement-treated soil were also incorporated into the project as alternative sections for relatively soft, wet subgrade conditions encountered.

San Diego International Airport, Taxiway C Rehabilitation

This project involved the rehabilitation of an existing taxiway at San Diego International Airport. Twining was actively involved, providing all quality control inspection and testing services during construction of earthwork, aggregate base and the construction of P-501 Portland cement concrete pavement. Paul served as project engineer and provided engineering oversight to all geotechnical services throughout the course of the project.



ADDRESSING 5.9.2/5.2.9

GREG GINTHER

Project Manager

Professional Summary

Greg Ginther provides project management at all levels from supervising field inspectors to managing laboratory testing. He has the unique experience of having worked on projects as an inspector, field supervisor, and project manager. Greg currently serves as Twining's project manager for Long Beach Airport projects such as Taxiway L. He is very familiar with FAA requirements, as well as the Greenbook, California Building Code, Caltrans Construction Manual, Caltrans LAPM and Standard Specifications. He is intimately involved with testing and inspection quantities and requirements and has hands-on experience with asphalt paving, concrete, soils and steel construction.

Relevant Experience

Overview

» Years' Experience: 2015 - Present

Education

» BS, Geological Studies,
Ohio University, Athens

Current Licenses Held

- » ACI Aggregate Testing Technician - Level 1
- » ACI Concrete Field Testing Technician - Grade I
- » ICC Masonry

Availability

» 65%

City of Long Beach, LGB Taxiway L

This project included the repair of an area of Taxiway L at Long Beach Airport. A section of the existing asphalt was removed by cold milling, and was then repaved with new asphalt. Twining observed the cold milling and new paving activities to ensure compliance. While paving, we performed nuclear density tests and obtained hot mix samples of the asphalt mix as well as core samples with a coring machine. Then, we performed lab testing on the hot mix asphalt samples and core samples to verify the materials were adequate and properly compacted. Greg served as project manager.

City of Long Beach, LGB Runway 12-30 Ponding Repair

This project included the repair of an area of TRunway 12-30 at Long Beach Airport. A section of the existing asphalt was removed by cold milling, and was then repaved with new asphalt. Twining observed the cold milling and new paving activities to ensure compliance. While paving, we performed nuclear density tests and obtained hot mix samples of the asphalt mix as well as core samples with a coring machine. Then, we performed lab testing on the hot mix asphalt samples and core samples to verify the materials were adequate and properly compacted. Greg served as project manager.

LA Metro, Purple Line Extension

Greg is serving as the quality control project manager for Sections 1, 2, and 3 of the Metro Purple Line Extension Project. The Purple Line Extension is a new heavy rail subway corridor in Los Angeles County, extending the Metro Purple Line from its current terminus at Wilshire/Western station in Los Angeles to the Westside region. Twining is providing quality control services in addition to implementing quality control protocols.



ADDRESSING 5.9.2/5.2.9

AMIR GHAVIBAZOO

PhD, Technical Advisor, Asphalt

Professional Summary

Dr. Amir Ghavibazoo is Twining's Director of Asphalt Engineering and Pavement Design. He directs and works on pavement design, highway design, engineering specifications, and consulting services. He joined Twining in 2014 after completing graduate studies with a focus on Pavement Management Systems (MicroPaver), pavement evaluation, and pavement rehabilitation strategies. He is experienced in calculating Pavement Condition Index (PCI) through visual inspection following the United States Army Corps of Engineers' methodology as well as conducting Life Cycle Cost Analysis (LCCA) rehabilitation strategies for pavements. He has worked on many projects such as asphalt rubber projects, Superpave, investigations of pavement distress, and green technologies in pavement construction.

Relevant Experience

Overview

- » Years' Experience: 2014 – Present

Education

- » PhD, Civil and Environmental Engineering
North Dakota State University,
- » MS, Railways Engineering,
Iran University of Science and Technology,
Tehran, Iran
- » BS, Industrial Engineering,
University of Technology, Tehran, Iran

Availability

- » 50%, as needed

LADPW, Compton Woodley Airport Runway 7R/25L Pavement Reconstruction

This project consisted of rehabilitating the existing Runway 7R/25L, which runs parallel to taxiway Alpha and connectors. In order to comply with FAA standards as well as the County's formal Airport Pavement Maintenance Program, no additions or deletions of paved areas were required to improve the current conditions. The project included removal of existing asphalt concrete, grading, drainage, layout, and pavement striping. Twining provided technical support and material testing and inspection. Amir served as project manager.

City of Long Beach, Studebaker Road Pavement Evaluation

Serving as pavement engineer, Amir performed pavement evaluation on 0.5 miles of Studebaker Road. The surface condition assessment was performed following the Caltrans Flexible Pavement Rehabilitation Manual. Also, boring and coring were performed to investigate the subsurface condition of the road. Several rehabilitation strategies were calculated and recommended to the City of Long Beach, including Cold In-place Recycled Asphalt Concrete Pavement (CIRACP) and Cement Stabilized Pulverized Base (CSPB).

City of Coachella, Grapefruit Boulevard Pavement Evaluation

Serving as pavement engineer, Amir performed pavement evaluation on 1.7 miles of Grapefruit Boulevard for the City of Coachella. The surface condition assessment was performed following the Caltrans Flexible Pavement Rehabilitation Manual and ASTM D6433. Also, boring and coring were performed to investigate the subsurface condition of the road. Several different rehabilitation strategies were calculated and recommended to the City of Coachella, including CCPRACP and CSPB.

Twining, Inc. | City of Long Beach RFQ No. AP19-133 Resumes



ADDRESSING 5.9.2/5.2.9

BORIS STEIN

DSc, Technical Advisor, Concrete

Professional Summary

Dr. Boris Stein began his professional academic and engineering career in Soviet Union, Moscow in 1972. He joined Twining shortly after immigrating to the United States in 1994. His knowledge combines 45 years of experience in academia and industry. His specialized expertise includes cementitious materials; concrete materials science; cast-in-place concrete technology; precast concrete technology; concrete pavements; rapid strength concrete for preservation and rehabilitation of pavements; testing of concrete and materials for concrete; troubleshooting concrete production and construction; and materials condition evaluations of concrete structures and pavements.

Relevant Experience

Overview

» Years' Experience: 1972 – Present

Education

- » DSc, Engineering, Honoris Causa
Dubna University, Moscow, Russia
- » MS, Engineering,
Moscow Civil Engineering University,
Moscow, Russia

Availability

» 50%, as needed

Boris's expertise with construction of airfield and highway pavements encompasses development and peer review of standard and project technical specifications; evaluation of materials for concrete; development of concrete mixtures; development and implementation of quality control, testing and cracking mitigation plans; direction of operations of mobile and portable field laboratories; troubleshooting of production, construction and testing practices and procedures; material condition evaluation of pavements for mechanisms of cracking and distress; and training of industry. Boris has provided more than 150 training seminars to Caltrans and concrete construction industry on production and construction of various types of concrete pavements.

Focus on Aviation

Airfields: From 2003 to 2018, Boris served as the Twining project manager and/or technical advisor in construction of civilian and military airfields. These included various civilian airports in California (new construction and repairs of runways, taxiways, aprons), among them Los Angeles International Airport (LAX), Ontario International Airport (ONT), Sacramento International Airport (SMF), San Diego International Airport (SAN), John Wayne Airport (SNA), and San Bernardino International Airport (SBD). These also included various military facilities, among them March Air Reserve Base, Marine Corps Air Station Miramar, China Lake Naval Air Weapons Station, Marine Corps Base Camp Pendleton, Naval Air Station North Island.



ROBERT M. RYAN

ASNT Level III, Technical Advisor, Structural Steel

Professional Summary

Robert M. Ryan has been affiliated with Twining, and its associated companies, since 1978. He brings vast knowledge in all areas of field inspection, and is a leading expert on all aspects of structural steel construction and non-destructive testing. His experience includes oversight of special inspection for some of Southern California's landmark projects, including the LAX TBIT project, the Getty Museum, and multiple Disneyland projects. Robert provides consultation on welding and non-destructive procedures, including specification preparation and review, and on complex problems related to welding such as cracking, and unusual joint configurations.

Relevant Experience

Overview

- » Years' Experience: 1978 – Present

Education

- » BS Mathematics, California State University, Los Angeles
- » MS Applied Mathematics, University of Washington (anticipated 2021)

Current Licenses Held

- » ASNT Level III, UT, MT, PT
- » AWS CWI-QC1

Availability

- » 50%, as needed

Los Angeles World Airport (LAWA) On-Call Contract, 2010–2013

Robert served as operations manager/program executive under Twining's on-call prime contract with LAWA. During this contract period, Robert oversaw the TBIT which included a new gate and concourse areas and a Great Hall for luxury dining and retail. As operations manager/program executive, Robert was the executive in charge of the contract and oversaw all deputy inspection services for the contract as well as provided oversight of Twining's project management team, invoicing operations, and subconsultant involvement on each project under the on-call contract.

Los Angeles World Airport (LAWA) On-Call Contract, (Subconsultant to Parsons)

Robert continued to serve as operations manager/program executive on the current program management contract, awarded to Parsons, allowing LAWA to retain the continuity and high-quality services provided by Robert and Twining. With nearly 10 years dedicated to LAWA, Robert has been an instrumental part of delivering accurate and high-quality services at Los Angeles International Airport.



ADDRESSING 5.9.2/5.2.9

ADRIAN MORENO

PE, Senior Staff Engineer

Professional Summary

Adrian Moreno, PE brings over six years of technical expertise to Twining. He excels at geotechnical engineering functions at any project stage, from the management of subsurface investigations, laboratory testing programs, and the preparation of geotechnical and foundation recommendation reports during the design phase, to the management of quality control testing and inspection programs during the construction phase of projects. Adrian is experienced in the analysis of topographical and geologic data, making geotechnical engineering observations, analyzing laboratory testing data, and performing calculations necessary for the selection of geotechnical design parameters. In addition, Adrian is experienced in performing pavement condition evaluations, and the geotechnical engineering design of rigid and flexible pavement sections.

Relevant Experience

Overview

» Years' Experience: 2013 - Present

Education

» BS, Civil Engineering, California Polytechnic State University, Pomona

Current Licenses Held

» Professional Civil Engineer, CA 87057

Availability

» 75%, as needed

West Point Contractors, Edwards Air Force Base Geotechnical Investigation

As Senior Staff Engineer, Adrian provided on-site soil sampling, laboratory testing, and development of geotechnical recommendations of new asphalt pavement for a one-mile road. The road is primarily used by equipment trucks on the base.

City of San Diego, As Needed Geotechnical Engineering Services

Twining was awarded a contract in 2016 to provide geotechnical services on an on-call basis. Adrian serves as a senior staff engineer on this as-needed contract. The scope of services for projects under this as-needed agreement include geotechnical and soil investigation, subsurface evaluation, laboratory testing, and corrosion surveys for various sewer and water line replacements throughout the City.

City of Huntington Beach, Beach Boulevard and Ellis Avenue Sewer Replacement

The sewer replacement project, located on Beach Boulevard and Ellis Avenue in the City of Huntington Beach was installed at depths up to 15 feet below the existing grade. Trenching and shoring was done during construction of the proposed sewer line. Twining provided geotechnical design recommendations and then soils testing during construction. Adrian served as a senior staff engineer. His responsibilities included field and testing oversight.



ADDRESSING 5.9.2/5.2.9

JOHN LARA, JR.

Inspector

Professional Summary

John Lara, Jr., one of our most requested inspectors, carries the most tenure at LGB. Of all our inspectors, he has spent the most time on your property, inspecting construction materials for projects that make yours a better, safer airport. John brings over 16 years of technical expertise in public works inspection. John has successfully performed quality assurance/control testing services in accordance with Advisory Circular, FAA, City Standards, Greenbook, ASTM, AASHTO and Caltrans standards on numerous projects. He is very familiar with reading and understanding plans and specifications and has extensive experience on all aspects of concrete and asphalt pavement projects.

Relevant Experience

Overview

- » Years' Experience: 2003 - Present

Education

- » Continuing Education, Operating Engineers Training Trust

Current Licenses Held

- » Caltrans Certifications: 125, 231, 375
- » OSHA Safety 10 Hour
- » Twining Confined Space
- » Twining Nuclear Gauge Inspector
- » Twining CPN Radiation Safety Officer Inspector
- » Twining Competent Person Inspector

Availability

- » 100%, as needed

Long Beach Airport, North Air Carrier Ramp

The four-phase project consisted of the reconstruction of 10 existing aircraft parking positions; the addition of two new aircraft parking positions; re-grading the ramps; and improving drainage to meet National Fire Protection Association standards. In addition to replacing the aging pavement, the new development enhanced the safety of the airport by improving drainage and providing a better surface for passenger traffic. John was the lead field technician who oversaw the entire project. He performed soil and concrete testing in the field and in the laboratory.

Long Beach Airport, Taxiways E & F Improvements

As part of the \$140 million Airport Modernization Plan, the City of Long Beach rehabilitated Taxiway E and Taxiway F. This project consisted of the reconstruction of pavement adjacent to leaseholds bordering the taxiways and included improvements to the pavement markings and lighting, signage, and drainage systems. The City funded this project with grants from the Federal Aviation Administration (FAA). Twining provided quality assurance materials testing and inspection for this project. All work was completed in accordance with FAA requirements and current FAA Advisory Circulars. John served as the lead inspector and was responsible for the oversight of all the inspectors. He also performed concrete and soils testing.



ADDRESSING 5.9.2/5.2.9

Long Beach Airport, Taxiway J Improvements

Twining provides the City of Long Beach with as-needed quality assurance testing services, which includes work at the City-owned LGB. This project included the reconstruction of deteriorated pavement, and improvements to drainage and pavement markings and was funded with AIP and PFC funds. John provided coring services on this project during the geotechnical investigation.

Long Beach Airport, Runway 12-30 RSA Southeast End

This project included grading, drainage, and fencing improvements within the RSA at the southeast end of Runway 12-30. Portions of the adjacent perimeter roads were also reconstructed. Twining provided the geotechnical investigation for this project, under our agreement with the City of Long Beach. John provided soils testing and inspection services for this project.

Long Beach Airport, Taxiways A & D Improvements

As part of the \$140 million Airport Modernization Plan, the City of Long Beach rehabilitated LGB's Taxiway A and Taxiway D. This project consisted of the reconstruction of deteriorated pavement and improvements to the pavement markings and lighting, signage, and drainage systems. The City funded this project with grants from the FAA. Twining provided comprehensive construction quality assurance materials testing and inspection for this project. All work was completed in accordance with FAA requirements and current FAA Advisory Circulars. John served as the lead inspector for this project. He was responsible for overseeing the work of all the inspectors. His daily duties included performing field tests and written daily reports.



Legacy photo taken by John Lara, Jr. on a previous LGB project.



ADDRESSING 5.9.2/5.2.9

ANDREW SOLIS

Inspector

Professional Summary

Andrew Solis began his career working as a laboratory technician, providing testing services. Now as a field technician, Andrew has worked on numerous airport and public agency projects. He provides a daily report of his findings, and ensures that the project conforms with the plans, specifications, and building codes. Andrew has experience at LGB and is knowledgeable of FAA requirements and the Advisory Circular.

Relevant Experience

Overview

- » Years' Experience: 2014 - Present

Current Licenses Held

- » ACI Field Technician, Grade I
- » Caltrans Certifications: 105, 106, 125, 201, 202, 205, 216, 217, 226, 227, 229, 231, 521, 523, 533
- » Nuclear Gauge

Availability

- » 100%, as needed

City of Long Beach, Long Beach Airport Taxiway J Improvements

Twining provides the City of Long Beach with as-needed quality assurance testing services, which includes work at the City-owned LGB. This project included the reconstruction of deteriorated pavement, and improvements to drainage and pavement markings, which was funded with AIP and PFC funds. Andrew served as soils technician during this project. He was responsible for field soils testing services, preparing a field report of his findings, and notifying the project manager immediately of any nonconformance issues.

Caltrans District 11, On-Call Materials Testing

The contract consisted of professional and technical roadway materials sampling and testing services on an as needed basis to support the development and construction of various Caltrans projects within the D11 region. The types of projects included widening of highways, pavement rehabilitation, installation of medians and shoulders, bridge work, HOV lane construction, and bridge replacement. Andrew served as soils technician on several projects under this on-call, preparing a daily report of his findings, and notifying the project manager immediately of any nonconformance issues.

SANBAG, Downtown San Bernardino Passenger Rail Project

This project extended the San Bernardino Metrolink service one mile from the Santa Fe Depot to the multi-modal San Bernardino Transit Center. It also provided a link to additional transit options in San Bernardino, Redlands, and Loma Linda. Due to his multiple certifications, Andrew served as an asphalt and soils technician on this project, which translated into cost savings to the client, as Twining provided multiple inspections during a single site visit.



ADDRESSING 5.9.2/5.2.9

ESSAM ABDELNOUR

Inspector

Professional Summary

Essam Abdelnour brings more than eight years of technical experience to Twining. His knowledge of code requirements and multiple inspection certifications/licenses makes him a valuable team member on every project he is dispatched to. This knowledge, coupled with his experience and multiple licenses, makes him one of our most requested special inspectors. Essam has experience at LGB and is knowledgeable of FAA requirements. He can also provide structural inspections falling under the jurisdiction of the City of Long Beach or ICC, as necessary.

Relevant Experience

Overview

- » Years' Experience: 2011 – Present

Current Licenses Held

- » ACI Concrete Field Testing Technician - Grade I
- » ICC Structural Welding
- » ICC Prestressed Concrete
- » ICC Structural Steel and Bolting
- » ICC Structural Masonry
- » ICC Spray Applied Fireproofing
- » ICC Reinforced Concrete
- » ICC Master of Special Inspection
- » City of Long Beach Concrete
- » City of Long Beach Drilled in Anchors
- » City of Long Beach Fireproofing
- » City of Long Beach Masonry
- » City of Long Beach Post Tension
- » City of Long Beach Welding

Availability

- » 100%, as needed

Long Beach Airport, AOA Security Wall

The AOA includes all areas with the Airport's perimeter fence. The primary purpose of the AOA is aircraft landing, takeoff, ground maneuvering and parking. Essam served as a welding inspector for this project at the security wall. He inspected reinforcing steel of rebar couplers to verify the correct size and type. He also observed bolting.

LA County Sanitation District, Temporary On-Call Services

Twining was retained to provide on-call inspection services to the District in 2018. In addition to providing standard quality control services within the jurisdiction of ICC and Los Angeles County, we provide contractor supervision as requested by the District, ensuring that work performed falls within specifications. The work also includes associated specialty inspections as required by project plans and specifications. Essam provided inspection services for various projects.

NBC Universal, Universal Studios, Hollywood

Twining has a longstanding history on the Universal Studios campus, having provided geotechnical engineering and materials testing services for more than 25 projects over the past decade. Our scope regularly includes the testing and inspection of structural steel, reinforced masonry, reinforced concrete, shotcrete, epoxy dowels, wedge anchors, and embeds. We also provided nondestructive testing and full scope geotechnical services. Essam served as an inspector on a variety of projects, including rides and attractions, studio spaces, and general park infrastructure.



ADDRESSING 5.9.2/5.2.9

SAMIR SALEH

Inspector

Professional Summary

Samir Saleh brings more than 20 years of technical expertise as a registered deputy/special inspector to our team. His experience encompasses all aspects of testing and inspection with special emphasis in concrete and masonry inspection. His ability to perform multiple inspections at one time helps to keep costs down and projects on schedule. He is familiar with various building code requirements and has specialized airport project experience, making him a valuable member of any project team. He can also provide structural inspections falling under ICC jurisdiction as necessary.

Relevant Experience

Overview

» Years' Experience: 1999 – Present

Education

» BS, Civil Engineering, AS University, Egypt

Current Licenses Held

- » ICC Prestressed Concrete
- » ICC Reinforced Concrete
- » ICC Soils
- » ICC Spray-Applied Fireproofing
- » ICC Structural Masonry
- » ICC Structural Steel and Bolting
- » ICC Structural Welding
- » LA City Concrete
- » LA County Concrete
- » LA County Masonry
- » OSHA 10-Hour

Availability

» 100%, as needed

LAX, Southwest Airlines Terminal 1 Modernization Program

Southwest Airlines spent more than \$500 million renovating Terminal 1 at LAX, adding a 13th gate to the terminal, and increasing the size of the concourse to provide larger holdrooms, restrooms, and additional retail spaces. Samir performed concrete, drilled-in anchor and masonry shop inspection services for this project.

LAX, Terminal 6 Premises Definitive Improvement Plan 15

The project developed, leased, and managed convenience retail, specialty retail, food and beverage, and certain other passenger services in Terminal 6 at LAX. Samir was responsible for providing concrete and drilled-in anchor inspections.

LAX, United Terminal Redevelopment

United redeveloped their facilities at Terminal 6, 7, and 8 at LAX, extending the useful life of the terminals, upgrading the baggage and passenger security screening facilities and modernizing the customer service facilities. Samir served as a special inspector on this project, providing concrete, masonry, and drilled-in anchor inspection.



ADDRESSING 5.9.2/5.2.9

MATRIX OF INSPECTORS

| Inspector | 105 | | | | | | | | | | 370 | | | | | | | | | | 537 | | | | | | | | | | ADJ Field Tech Comp Strength Area 1 | | ADJ Field Tech Agg Level 1 | | ADJ Field Tech Comp Level 1 | | | |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|--|---|--|-------------------------------|--|--------------------------------|--|--|--|
| | 105 | 106 | 125 | 201 | 202 | 205 | 216 | 217 | 226 | 227 | 229 | 231 | 308 | 309 | 370 | 375 | 382 | 504 | 518 | 521 | 523 | 524.1 | 524 | 533 | 539 | 540 | 543 | 556 | 557 | | | | | | | | | |
| Aaron Almanza | | | x | x | x | | x | x | x | x | x | x | | | | | | x | x | x | x | x | x | x | x | x | x | x | x | | | | | | | | | |
| Andrew Solis | x | | x | x | x | | x | x | x | x | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Ben Granhaard | x | | x | x | | | x | x | x | x | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Bertha Campos | | | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brandon Schroeder | x | | x | x | x | | x | x | x | x | x | x | | | | | | x | x | x | x | x | | | | | | | | | | | | | | | | |
| Bryan Dorsch | x | | x | x | x | | x | x | x | x | x | x | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Darren Davis | | | x | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| David Morales | x | | x | x | x | | x | x | x | x | x | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| David Scherer | | | x | | | | x | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Dea Allen | | | | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Howard Franklin | | | x | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Jason Barron | | | | | | | x | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Joe Wallen | | | x | x | x | | x | x | x | x | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| John Lara Jr. | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| John Murbarger | | | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Michael Nunez | x | | x | x | x | | x | x | x | x | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Mike Richardson | | | x | | | | x | | x | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Rich Williams | | | x | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Ron Pedersen | | | x | x | x | | x | x | x | x | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Roy Schroeder | | | x | x | x | | x | x | x | x | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Shawn Snowdale | | | | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Steve Goldiron | | | x | x | x | | x | x | x | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tammy Sweet | | | | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Tom McGrath | | | | | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |
| Trevor Roberts | | | x | x | | | | | | | | | | | | | | x | x | x | x | | | | | | | | | | | | | | | | | |

EXHIBIT “B”

Rates or Charges

Rate Schedule for the City of Long Beach As-Needed Projects at Long Beach Airport

Effective Dates Rates Are Effective through July 1, 2021

Consultant:

| Employee Classification | Total Loaded Rate | unit of measure |
|--------------------------------|--------------------------|------------------------|
| Principal Engineer | \$217.90 | hourly |
| Project Manager | \$148.17 | hourly |
| Technical Advisor | \$168.18 | hourly |
| Staff Engineer | \$130.00 | hourly |
| Lead Inspector Group 1 | \$123.11 | hourly |
| Inspector Group 1 | \$118.29 | hourly |
| Lead Inspector Group 2 | \$127.41 | hourly |
| Inspector Group 2 | \$122.58 | hourly |
| Lead Inspector Group 3 | \$132.23 | hourly |
| Inspector Group 3 | \$127.41 | hourly |
| Clerical Administrative | \$90.00 | hourly |

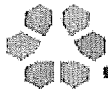


Schedule of ODC_Laboratory Testing 2020 - 2021

UNIT OF MEASURE: All ODC's listed will be charged on a per-test basis

| Task Code | Concrete Tests (Field Made Specimens), Continued | Rate |
|-----------|--|-------------|
| 40005 | Flexural Toughness (ASTM C1609, Formerly ASTM C1018) | \$ 800.00 |
| 40006 | Double Punch Strength of Fiber Reinforced Concrete | \$ 500.00 |
| 40009 | Coefficient of Thermal Expansion of Concrete (CRD 39, AASHTO T336) | \$ 550.00 |
| Task Code | Concrete Specimen Preparation | Rate |
| 20151 | Sawing of Specimens (Each) | \$ 35.00 |
| 20157 | Coring of Specimens in Lab (Each) | \$ 35.00 |
| 20159 | Grinding of Concrete Below 6000 psi Strength (Each) | \$ 50.00 |
| 20160 | Grinding of Concrete 6000 psi Strength and Above (Each) | \$ 75.00 |
| Task Code | Laboratory Trial Batch: Concrete, Cement and Mortar | Rate |
| 30217 | Compression Test Cylinders Made and Tested in Laboratory (ASTM C192, C35) | \$ 55.00 |
| 30219 | 6" x 6" x 18" Flexural Beams Made and Tested in Laboratory (ASTM C192, C78) | \$ 95.00 |
| 30223 | Splitting Tensile Strength Cylinders Made and Tested in Laboratory (ASTM C192, C496) | \$ 110.00 |
| 30225 | Modulus of Elasticity Test Cylinders Made and Tested in Laboratory (ASTM C192, C469) | \$ 275.00 |
| 30227 | Density of Structural Lightweight Concrete Made in the Laboratory, Equilibrium or Oven Dry Method (ASTM C567) | \$ 100.00 |
| 30201 | Laboratory Trial Batch (ASTM C192) | \$ 500.00 |
| 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) | \$ 490.00 |
| 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) | \$ 150.00 |
| 30209 | Bleeding (ASTM C232) | \$ 150.00 |
| 30229 | Concrete Restrained Expansion (ASTM C878) | \$ 550.00 |
| 30211 | Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C878) | \$ 500.00 |
| 20263 | Non-Shrink Grout: Height Change after Final Set (ASTM C1090) | \$ 500.00 |
| 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) | \$ 5,000.00 |
| 30233 | Evaluation of Pre-Packaged Masonry Mortars (ASTM C270) | \$ 1,100.00 |
| 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) | \$ 250.00 |
| 80193 | Chloride Diffusion Coefficient of Cementitious Mixtures by Bulk Diffusion (ASTM C1556) | \$ 2,500.00 |
| 80129 | Petrographic Examination of Hardened Concrete (ASTM 856) (Comprehensive) | \$ 2,100.00 |

| Task Code | Concrete Tests (Field Made Specimens) | Rate |
|-----------|---|-------------|
| 20201 | 6" x 12" Cylinder: Compression Strength (ASTM C39) | \$ 38.00 |
| 20202 | 4" x 8" Cylinder: Compression Strength (ASTM C39) | \$ 33.00 |
| 20203 | Density of Structural Lightweight Concrete Equilibrium or Oven Dry Method (ASTM C567) | \$ 80.00 |
| 20205 | Core Compression Including Trimming (ASTM C42) | \$ 65.00 |
| 20207 | 6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523) | \$ 90.00 |
| 20209 | Splitting Tensile Strength (ASTM C496) | \$ 90.00 |
| 20211 | Modulus of Elasticity Test (ASTM C469) | \$ 260.00 |
| 80003 | Rapid Chloride Permeability Test: Cylinders or Cores (ASTM C1202) | \$ 500.00 |
| 80006 | Density, Absorption, and Voids in Hardened Concrete (ASTM C642) | \$ 500.00 |
| Task Code | Physical and Chemical Analysis of Fly Ash | Rate |
| 80140 | Chemical Analysis of Fly Ash per Standard Requirements (ASTM C618) | \$ 650.00 |
| 80143 | Physical Testing of Fly Ash per Standard Requirements (ASTM C618) | \$ 650.00 |
| 80146 | Partial Analysis or Specific Physical Tests | Quotation |
| 80147 | Chemical Analysis and Physical Testing of Fly Ash per Standard Requirements (ASTM C618) | \$ 1,200.00 |
| 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 |



TWINING

| Task Code | Physical and Chemical Analysis of Cement | Rate |
|-----------|---|-------------|
| 80195 | Physical Testing and Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150) | \$ 1,200.00 |
| 80100 | Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150) | \$ 650.00 |
| 80103 | Physical Testing of Portland Cement per Standard Requirements (ASTM C150) | \$ 650.00 |
| 80194 | Physical Testing of Type K Cement, Mortar Expansion (ASTM C806) | \$ 650.00 |
| 80106 | Partial Analysis or Specific Physical Tests | Quotation |
| 80110 | Sulfates Resistance of Hydraulic Cement (ASTM C1012), 6 months | \$ 2,500.00 |
| 80111 | Sulfates Resistance of Hydraulic Cement (ASTM C1012), 12 months | \$ 2,700.00 |

| Task Code | Soils and Aggregate Tests, Continued | Rate |
|-----------|--|-------------|
| 70397 | Potential Reactivity of Aggregate Combination, non-standard method; 14-Day Exposure, Mortar (after ASTM C1567) | \$ 950.00 |
| 70392 | Potential Reactivity of Aggregate Combination, non-standard method; 28-Day Exposure, Mortar (after ASTM C1567) | \$ 1,000.00 |
| 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 |

| | | |
|-------|--|-------------|
| 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) | \$ 525.00 |
| 70394 | Potential Reactivity: Mortar Bar Expansion Method, 14-Day Exposure (ASTM C1260) | \$ 825.00 |
| 70391 | Potential Reactivity: Mortar Bar Expansion Method, 28-Day Exposure (ASTM C1260) | \$ 875.00 |
| 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 |

| Task Code | Asphalt Concrete Tests, Continued | #REF! | Rate |
|-----------|---|-------|-------------|
| 75005 | Wet Track Abrasion Test (ASTM D3910) | | \$ 165.00 |
| 75093 | Hveem Mix Design (Excluding Aggregate Quality Tests) | | \$ 3,400.00 |
| 75096 | Hveem Mix Design, with RAP (Excluding Aggregate Quality Tests, RAP Qualification) | | \$ 3,800.00 |
| 75099 | Hveem Mix Design, with Lime (Excluding Aggregate Quality Tests) | | \$ 3,800.00 |
| 75094 | Hveem Mix Design Caltrans Untreated Mix (Including Aggregate Quality Tests) | | \$ 4,650.00 |
| 75095 | Hveem Mix Design Caltrans Lime Treated Mix (Including Aggregate Quality Tests) | | \$ 4,650.00 |



| Task Code | Soils and Aggregate Tests, Continued | Rate |
|-----------|--|-----------|
| 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 Particle: Coarse (ASTM C123) | \$ 410.00 |
| 30412 | Lightweight Particle: Fine (ASTM C123) | \$ 410.00 |

| 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: Paraffin 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, Paraffin, 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 |
| 75107 | Marshall Stability and Flow 6" Specimen, Premixed, 3 briquettes (ASTM D5581) | \$ 230.00 |
| 75083 | Moisture Content (CTM 370) | \$ 85.00 |

| Task Code | Asphalt Concrete Tests, Continued | #REF! |
|-----------|--|--------------|
| 75084 | Marshall Mix Design (Excluding Aggregate Quality Tests) | \$ 3,400.00 |
| 75087 | Marshall Mix Design with RAP (Excluding Aggregate Quality Tests) | \$ 3,800.00 |
| 75090 | Marshall Mix Design with Lime (Excluding Aggregate Quality Tests) | \$ 3,800.00 |
| 75083 | Open Grade Asphalt Concrete Mix Design (ASTM D7064, CTM 368) | \$ 1,700.00 |
| 75109 | Superpave Mix Design (Excluding Aggregate Quality Tests) | \$ 4,900.00 |
| 75113 | Superpave Mix Design, with RAP (Excluding Aggregate Quality Tests) | \$ 6,500.00 |
| 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 |
| 75087 | Marshall Stability, wet set, 3 replicates (AASHTO T245) | \$ 350.00 |
| 75088 | Marshall Stability, dry set, 3 replicates (AASHTO T245) | \$ 300.00 |
| 75070 | Cold Recycled Asphalt Mix Design: 2 gradings each, 3 emulsion content (Calltrans LP-8) | \$ 10,500.00 |
| 75114 | Superpave Mix Design, with Rubber (Excluding Aggregate Quality Tests) | \$ 6,600.00 |
| 75115 | Superpave Mix Design, with Additives (Excluding Aggregate Quality Tests) | \$ 5,790.00 |

| Task Code | Brick Masonry Tests, ASTM C67 | Rate |
|-----------|------------------------------------|----------|
| 20301 | Modulus of Rupture: Flexural | \$ 90.00 |
| 20303 | Compression Strength | \$ 55.00 |
| 20305 | Absorption: 5 Hour or 24 Hour | \$ 60.00 |
| 20307 | Absorption (Boil): 1, 2 or 5 Hours | \$ 90.00 |
| 20309 | Initial Rate of Absorption | \$ 50.00 |
| 20311 | Efflorescence | \$ 70.00 |
| 20313 | Cores: Compression | \$ 65.00 |
| 20315 | Shear Test on Brick Cores: 2 Faces | \$ 90.00 |

| Task Code | Concrete Block, ASTM C140 | Rate |
|-----------|--|-----------|
| 20321 | Compression | \$ 85.00 |
| 20323 | Absorption/Moisture Content/Oven Dry Density | \$ 85.00 |
| 20327 | Linear Shrinkage (ASTM C426) | \$ 225.00 |
| 20335 | Web and Face Shell Measurements | \$ 45.00 |
| 20329 | Tension Test | \$ 155.00 |
| 20331 | Core Compression | \$ 65.00 |
| 20333 | Shear Test of Masonry Cores: 2 Faces | \$ 90.00 |
| 20339 | Efflorescence Tests | \$ 70.00 |

| 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 | Task | Rate |
|-----------|--|-----------|
| 20155 | Masonry Specimen Preparation Cutting of Cubes or Prisms | \$ 65.00 |
| 20401 | Fireproofing Tests Oven Dry Density (ASTM E605) | \$ 70.00 |
| 20361 | Gunite and Shotcrete Tests Core Compression Including Trimming (ASTM C42) | \$ 65.00 |
| 20365 | Compression: Cubes (Includes Saw Cutting) | \$ 85.00 |
| 20371 | Concrete Roof Fill: Gypsum, Vermiculite, Perlite, Lightweight Insulating Concrete, Etc. | \$ 55.00 |
| 20373 | Compression Test (ASTM C495 and C472) | \$ 40.00 |
| 20379 | Air Dry Density (ASTM C472) | \$ 65.00 |
| 20501 | Oven Dry Density (ASTM C495) | \$ 65.00 |
| 20503 | Reinforcing Steel, ASTM A615, A706 Tensile Test: # 11 or Smaller | \$ 60.00 |
| 20504 | Bend Test: # 11 or Smaller | \$ 55.00 |
| 20505 | Bend Test #14 or #18 | \$ 350.00 |
| 20507 | Tensile Test: # 14 | \$ 240.00 |
| 20507 | Tensile Test: # 18 | \$ 340.00 |
| 20521 | Reinforcing Steel - Welded or Coupled Specimens Tensile Test: Welded/Coupled #11 and Smaller | \$ 70.00 |
| 20523 | Tensile Test: Welded/Coupled #14 | \$ 250.00 |
| 20525 | Tensile Test: Welded/Coupled #18 | \$ 375.00 |
| 20529 | Weld: Macroetch | \$ 75.00 |
| 20531 | Silppage Test - Caltrans (CTM 670) | \$ 200.00 |
| 20532 | Tensile Test: Welded Hoops #11 and Smaller | \$ 145.00 |
| 20601 | Metal and Steel Testing Tensile Strength: Up to 100K Pounds (Each) | \$ 65.00 |
| 20603 | Tensile Strength: Up to 200K Pounds (Each) | \$ 75.00 |
| 20605 | Tensile Strength: Up to 300K Pounds (Each) | \$ 90.00 |
| 20607 | Tensile Strength: Up to 400K Pounds (Each) | \$ 140.00 |
| 20609 | Tensile Strength: 400K to 600K Pounds (Each) | \$ 350.00 |
| 20611 | Tensile Strength: Stress-Strain Percent Offset | \$ 175.00 |
| 20545 | Weld: Macroetch | \$ 75.00 |
| 20547 | Weld: Fracture | \$ 40.00 |
| 20615 | Bend Test | \$ 55.00 |
| 20617 | Flattening Test | \$ 70.00 |
| 20619 | Hardness Test (ASTM E18) | \$ 80.00 |
| 20630 | Bolt: Axial Tensile Test (Up to 7/8" diameter) | \$ 50.00 |
| 20631 | Bolt: Wedge Tensile Test (Up to 7/8" diameter) | \$ 65.00 |
| 20632 | Bolt: Axial Tensile Test (Greater than 7/8" up to 1" diameter) | \$ 70.00 |
| 20633 | Bolt: Wedge Tensile Test (Greater than 7/8" up to 1" diameter) | \$ 90.00 |
| 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") | \$ 75.00 |
| 20637 | Bolt: Proof Load Test (Greater than 7/8" up to 1" diameter) | \$ 95.00 |
| 20638 | Bolt: Proof Load Test (Greater than 1") | Quotation |
| 20639 | Nut: Proof Load Test (Up to 7/8") | \$ 55.00 |
| 20640 | Nut: Proof Load Test (Greater than 7/8" up to 1" diameter) | \$ 75.00 |
| 20641 | Nut: Proof Load Test (Greater than 1") | Quotation |
| 80170 | Chemical Testing of Metal and Steel Steel Chemical Analysis | \$ 160.00 |
| 80173 | Weight of Galvanized Coating (ASTM A90) | \$ 75.00 |
| 80176 | Epoxy Coating Thickness | \$ 80.00 |

| Task Code | Task | Rate |
|--|---|-------------|
| 20351 | Mortar and Grout 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 (ASTM C42) | \$ 65.00 |
| 20751 | Machining and Preparation of Tensile and Bend Sample: Carbon Steel Machinist: Initial Preparation from Mock-up, Etc. (Per Hour) | \$ 95.00 |
| 20753 | Sawcut to Overall Width (Per 0.5" Thickness or Fraction Thereof) | \$ 50.00 |
| 20755 | Machine to Test Configuration: Milled Specimens | \$ 55.00 |
| 20757 | Machine to Test Configuration: Turned Specimens (Per 0.5" Thickness or Fraction Thereof) | \$ 70.00 |
| 20759 | Prepare Subsize Specimens (Per 0.5" Thickness or Fraction Thereof) | \$ 135.00 |
| 20621 | Charpy Impact Charpy Impact Ambient Temperature | \$ 85.00 |
| 20623 | Charpy Impact Reduced Temperature | \$ 90.00 |
| 20780 | Machining of Charpy Samples: Carbon Steel Cutting and Milling (Per 0.5" or Fraction Thereof) | \$ 80.00 |
| 20783 | Final Machining to Sample Configuration | \$ 90.00 |
| 20701 | Prestressing Wires and Tendons, (ASTM A416) Stress-Strain Analysis: Wire or Strands (Including Chart and Percent Offset) | \$ 180.00 |
| 20703 | Tensile Test Only | \$ 135.00 |
| 20705 | Tendons | |
| 20706 | Polymer Matrix Composite Materials (Fiberwrap) 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 |
| 20801 | Calibration Services and Universal Machine Usage Calibration/Verification Services | Quotation |
| 20803 | Universal Test Machine Usage (Per Hour) | \$ 350.00 |
| 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. | | |
| Cyclic and Fatigue Testing Programs on Special Products/Parts | | Quotation |
| Engineering and Technical supports/Design of Prototypes and Special Test Set-Up | | Quotation |
| Fastener/Coupling Full Testing Program Per New Regulations: Tension, Tension/Bend, Shear, Double Shear, 8 Compressions | | Quotation |
| Fiberglass/Composite Materials Field Testing Program (ASTM D1143 D1242, D2584, D4065, D4476, D4923, D7901, D7921, and D732) | | Quotation |
| Field Testing of Structures and Structural Elements | | Quotation |
| In-Place Shear Testing | | Quotation |
| Materials and/or Product Evaluation Per Specifications | | Quotation |
| Structural Dynamic Testing and Durability Analysis | | Quotation |

General Conditions

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

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

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

EXHIBIT “C”

City’s Representative:

Hugo Liu, Civil Engineering Associate

(562) 570-6195

EXHIBIT “D”

Materials/Information Furnished: None

EXHIBIT “E”

Consultant’s Key Employee:

Paul Soltis, Project Executive/Geotechnical
Engineer

Greg, Ginther, Project Manager