AGREEMENT

35472

THIS AGREEMENT is made and entered, in duplicate, as of February 11, 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 January 21, 2020, by and between HNTB CORPORATION, a Delaware corporation ("Consultant"), with a place of business at 601 W. 5th Street, Los Angeles, California 90071, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, the City requires specialized services requiring unique skills to be performed in connection with as-needed planning and design engineering 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 Qualification Number AP19-134, attached to this Agreement as Exhibit "A-1" and incorporated by this reference; and more particularly described in the Interview for RFQ# AP19-134, attached to this Agreement as Exhibit "A-2" and incorporated by this reference, and in the Statement of Qualifications, attached to this Agreement as Exhibit "A-3" and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the

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manner described below, in an amount not to exceed Two Million Eight Hundred Thousand Dollars ($2,800,000), 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 this Agreement. For the purposes of this Section, a fiscal year commences on October 1 of the year and continues through September 30 of the following year. In the event that the City Council of the City fails to appropriate the necessary funds for any fiscal year, then, and in that event, the Agreement will terminate at no additional cost or obligation to the City.

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

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

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

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

2. TERM. The term of this Agreement shall commence at midnight on February 21, 2020, and shall terminate at 11:59 p.m. on February 20, 2022, unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner. The term may be extended for three (3) additional one-year periods, at the discretion of the City Manager.

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

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

5. INSURANCE.

A. 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 insurance companies that are admitted to write insurance in California and have ratings of or equivalent to A:V by A.M. Best Company or from authorized non-admitted insurance companies subject to Section 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII by A.M. Best Company the following insurance:

i. Commercial general liability insurance (equivalent in scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less than $1,000,000 per each occurrence and $2,000,000 general aggregate. This coverage shall include but not be limited to broad form contractual liability, cross liability, independent contractors liability, and products and completed operations liability. The City, its boards and commissions, and their officials, employees and agents shall be named as additional insureds by endorsement (on City's endorsement form or on an endorsement equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04), and this insurance shall contain no special limitations on the scope of

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protection given to the City, its boards and commissions, and their officials, employees and agents. 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.

ii. Workers' Compensation insurance as required by the 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 the 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

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

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

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

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

6. ASSIGNMENT AND SUBCONTRACTING. This Agreement

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

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

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

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

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

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

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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 the 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 the 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 governed by and construed pursuant to the laws of the State of California (except those provisions of California law pertaining

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to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and regulations of and obtain all permits, licenses, and certificates required by all federal, state and local governmental authorities.

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

17. INDEMNITY.

A. 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, 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, 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

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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. To the extent this Agreement is a professional service agreement for work or services performed by a design professional (architect, landscape architect, professional engineer or professional land surveyor), the provisions of this Section regarding Consultant's duty to defend and indemnify shall be limited as provided in California Civil Code Section 2782.8, and shall apply only to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

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

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

19. 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

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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).

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

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

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

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

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

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

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

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

22. COPYRIGHTS AND PATENT RIGHTS.

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

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

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

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

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

25. 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.

26. 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.

27. 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.

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

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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.

29. 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.

HNTB CORPORATION, a Delaware corporation

2/14, 2020

By _____
Name _____
Title _____

2/14, 2020

By _____
Name KEVIN A. HABSOIAN
Title SENIOR VICE PRESIDENT

SEE CALIFORNIA ACKNOWLEDGMENT
DATE 2/19/20 INITL PH

"Consultant"

CITY OF LONG BEACH, a municipal corporation

February 20, 2020

By _____
City Manager

EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER

"City"

This Agreement is approved as to form on February 19, 2020.

CHARLES PARKIN, City Attorney

By _____
Deputy

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EXHIBIT "A-1"

Request for Qualifications

Number AP19-134

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange)

On February 14, 2020 before me, Philip Andrew Horn, Notary Public
(insert name and title of the officer)

personally appeared Kevin A. Haboian,
who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in ~~his~~/her/their authorized capacity~~(ies)~~, and that by ~~his~~/her/their signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

PHILIP ANDREW HORN
COMM. #2263954
Notary Public - California
Orange County
My Comm. Expires Nov. 21, 2022

NRO1 NRO1

Signature Phil Horn (Seal)

CALIFORNIA ACKNOWLEDGMENT CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Los Angeles }

On 2/14/2020 before me, Anthony Torres, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Thomas Dean Ellis
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

ANTHONY TORRES
Notary Public - California
Los Angeles County
Commission # 2269018
My Comm. Expires Dec 1, 2022

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal and/or Stamp Above

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer – Title(s): _____	☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

©2018 National Notary Association

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of LOS ANGELES)

On FEB 20, 2020 before me, JESSICA N.R. DELA ROSA, NOTARY PUBLIC
(insert name and title of the officer)

personally appeared REBECCA G. GARNER,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is/are~~ subscribed to the within instrument and acknowledged to me that ~~he/she/they~~ executed the same in ~~his/her/their~~ authorized capacity(ies), and that by ~~his/her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

JESSICA N.R. DELA ROSA
COMM. # 2269619
NOTARY PUBLIC • CALIFORNIA
LOS ANGELES COUNTY
Comm. Exp. DEC. 4, 2022

Signature _____ (Seal)

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

City of Long Beach

Request For Qualifications Number AP19-134

For
Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

Release Date:	10/03/2019
Mandatory Pre-SOQ Conference:	10/10/2019
Questions Due to the City:	10/15/2019
Posting of the Q & A:	10/23/2019
Due Date:	10/30/2019

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

See Section 4 for instructions on submitting SOQs.

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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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 various Engineering Planning and Design services, as well as other consulting services for Airport development projects. The nature of the Scope of Services will generally include, but are not limited to, architectural, civil, geotechnical, structural, mechanical, and electrical engineering. The City encourages businesses of all sizes to participate in the 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 has identified the Runway 16R-34L Conversion to Taxiway B project as having the most rigorous design schedule, and therefore will require that the plans, specifications, and other required design and phasing documents for this project be completed and submitted to the Airport and FAA by April 30, 2020.

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 also 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 $4M total.

Airport sponsors must use qualifications 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.

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
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, 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.
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

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

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 Planning, Engineering and Specialized Professional Consultant 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 **Planning Services.** This category includes studies under the broad headings of airport system and master planning, airport noise compatibility planning and environmental assessments and related studies. These studies include, but are not limited to, the following activities:

1. Design study to establish the framework and detailed work program.
2. Airport data collection and facility inventories.
3. Aeronautical activity forecasts and demand/capacity analyses.
4. Facility requirements determination.
5. Airfield modeling for capacity and delay.
6. Airport layout and terminal area plan development.
7. Airport noise studies under 14 CFR Parts 150 and 161.
8. Compatible land-use planning in the vicinity of airports.
9. Airport site selection studies.

10. Airport development schedules and cost estimates.

11. Airport financial planning and benefit cost analysis.

12. Participation in public information and community involvement programs and/or public hearings relating to airport development and planning projects.

13. Environmental Assessments (EA), Environmental Impact Statements (EIS), and other studies in accordance with FAA Orders 5050.4B and 1050.1F.

14. Preparation of or updating of the airport layout plan.

15. Airspace analysis.

16. GIS data collection, entry, and analysis and other electronic graphical/mapping efforts.

3.4 **Architectural/Engineering Services.** The main category of Consultant services that are utilized for projects conducted under airport grant programs for this RFQ is Engineering Services. This category of basic services is discussed below.

3.4.1 **Engineering services for Airport development projects.** This category includes the basic Engineering services normally required for Airport development projects. It involves services generally of a civil, geotechnical, structural, mechanical, and/or electrical engineering nature. In addition, there may be some services outside those normally considered basic that are discussed in Section 3.3 – Planning Services. The basic services are usually conducted in, but are not limited to, the four distinct and sequential phases summarized below:

a. **Preliminary Phase.** This phase involves those activities required for defining the scope of a project and establishing preliminary requirements. Some examples of activities within this phase of a project include, but are not limited to:

1. Conferring with the City on project requirements, finances, schedules, early phases of the project, and other pertinent matters and meeting with FAA and other concerned agencies and parties on matters affecting the project.

2. Planning, procuring, and/or preparing necessary surveys, geotechnical engineering investigations, field investigations, and architectural and engineering studies required for preliminary design considerations.

3. Developing design schematics, sketches, environmental and aesthetic considerations, project recommendations, and preliminary layouts and cost estimates.

b. **Design Phase.** This phase includes all activities required to undertake and accomplish a full and complete project design. Examples include, but are not limited to, the below:

1. Conducting and attending meetings and design conferences to obtain information and to coordinate or resolve design matters.

2. Collecting engineering data and undertaking field investigations; performing geotechnical engineering studies; and performing architectural, engineering, and special environmental studies.

3. Preparing necessary engineering reports and recommendations.

4. Preparing detailed plans, specifications, cost estimates, design schedules, and construction schedules.

5. Preparing construction safety plans and phasing plans (CSPP).

6. Printing and providing necessary copies of engineering drawings and contract specifications.

7. Conduct a Safety Risk Management (SRM) per FAA's Safety Risk Management Order, 8040.4 if necessary.

8. Preparing the Engineer's Design Report.

c. **Bidding and Negotiation Phase.** These activities are sometimes considered part of the construction phase. They involve assisting the City in advertising and securing bids, negotiating for services, analyzing bid results, furnishing recommendations on the award of contracts, and preparing contract documents.

d. **Construction Phase.** This phase includes all basic services rendered after the award of a construction contract, including, but not limited to, the following activities:

1. Providing consultation and advice to the City during all phases of construction.

2. Representing the City at preconstruction conferences.

3. Inspecting work in progress periodically and providing appropriate reports to the City.

4. Reviewing and approving shop and erection drawings submitted by contractors for compliance with design concept / drawings.

5. Reviewing, analyzing, and approving laboratory and mill test reports of materials and equipment.

6. Preparing and negotiating change orders and supplemental agreements.

7. Observing or reviewing performance tests required by specifications.

8. Making final inspections and submitting punch-lists.

9. Preparing a Final Construction Report of the completed project to the City.

10. Reviewing operations and maintenance manuals.

e. **Project Closeout Phase.** This phase includes all basic services rendered after the completion of a construction contract, including, but not limited to, the following activities:

1. Making final inspections and submitting punch-lists and a report of the completed project to the sponsor.

2. Providing record drawings.

3. Preparing grant amendment request and associated justification, if applicable.

4. Preparing final project reports including financial summary.

3.5 **Special Services.** Consultants performing special services may be employed directly by the Airport to implement one or more phases of a project or may be employed by the principal Consultant via a subcontract agreement. In certain instances, these services may also be performed by the principal Consultant. Some examples of special services that might be employed for Airport projects include, but are not limited to, the following:

1. Soil investigations, including core sampling, laboratory tests, related analyses, and reports.

2. Land surveys and topographic maps.

3. Photogrammetry surveys.

4. Special environmental studies and analyses.

5. Expert witness testimony in litigation involving specific projects.

6. Project feasibility studies.

7. Public information and community involvement surveys, studies, and activities.

8. Preparation of record drawings.

9. Assisting the Sponsor in the preparation of necessary applications for local, State, and Federal grants.

10. Preparation of an as-built Airport layout plan.

11. Preparation of property maps.

12. Preparation of quality control plan.

3.6 **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.

3.7 **Expected Projects.** If multiple firms are selected, the expected projects to be performed by each firm will be defined, 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.

3.8 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.

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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 15, 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)**

TASK	*DATE/TIME*
Mandatory Pre-SOQ conference	October 10, 2019 at 10:00 am
Deadline for submitting questions	October 15, 2019 by 4:00 pm
Answers to all questions submitted available	October 23, 2019 by 4:00 pm
Deadline for submission of SOQ	October 30, 2019 by 11:00 am
Evaluation period	November 2019
Short-list and Invitation for Interview	Week of November 11, 2019
Interview Presentations	Week of November 18, 2019
Selection of Consultant	On or about November 2019

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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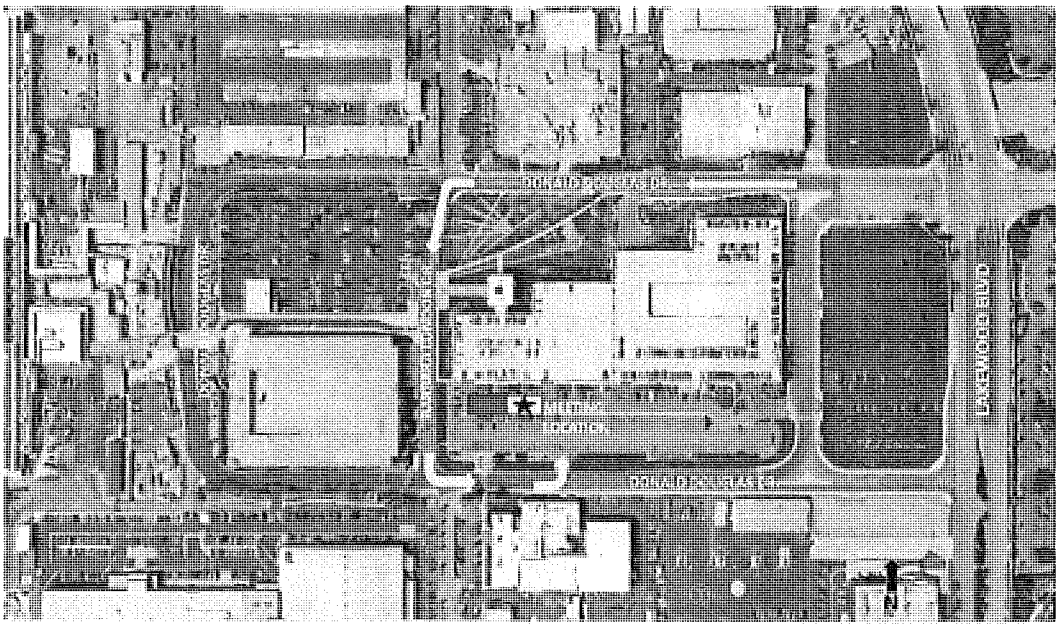
4.2.1 Mandatory Pre-SOQ Conference

A mandatory pre-SOQ meeting is scheduled for **October 10, 2019 at 10:00 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.



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.

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.

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.

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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 October 30, 2019.** 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.

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 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)

- **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.

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 all aspects of Airport Engineering and capability to perform all or most aspects of the project and recent experience in airport projects comparable to the proposed task. *(15 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. *(20 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 Capability to conduct a Value Engineering (VE) study for projects that are particularly complex or have unique features. *(10 points)*

5.9.7 Qualifications and experience of outside consultants regularly engaged by the Consultant under consideration. *(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.

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 design 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 evaluation criteria include:

a. Communication / interpersonal skills, including responses to questions. *(20 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. *(20 points)*

c. Team members, other key personnel, previous experience, and the role they would fill on the project. Qualifications and time commitment of the project manager proposed for the project. *(15 points)*

d. Current workload of team members, key personnel, and project manager. *(15 points)*

e. Proposed project schedule, including major tasks and target completion dates. *(15 points)*

f. Value engineering – brief discussion of the Consultant's capability, training, and experience to carry out value engineering studies. *(10 points)*

g. A detailed description of the proposed scope of services required for the identified project. *(5 points)*

Total Possible Basic Services 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 design phases will utilize the Fixed Lump-Sum Payment contracting methods; however, specific contracting methods will be agreed upon during contract negotiations.

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 an 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.

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(s) prior to negotiating a project design fee. This may be accomplished during meetings with the 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 more detailed 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 Design schedule.

7.2.5 Special services required.

7.2.6 Complexity of design.

7.2.7 Safety and operational considerations.

7.2.8 Environmental considerations.

7.2.9 Survey and geotechnical testing requirements.

7.2.10 Delineation of the duties and responsibilities of the Consultant resident Engineer/Inspector.

7.2.11 Preparation of a Quality Control / Quality Assurance Plan.

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

7.2.13 Preparation of an Engineer's Design Report and Final Report.

7.2.14 Quality Control during design.

7.2.15 Coordination with other Consultants and Agencies.

7.2.16 Deliverables.

7.2.17 Data and material furnished by the City.

7.2.18 Testing and commissioning requirements.

7.2.19 City / County requirements.

7.2.20 Number of bid packages.

7.2.21 Complexity of construction phasing to minimize impacts on Airport operations.

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

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.
- 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.

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, 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.

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 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.

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 (see Attachment I) 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 (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 produces 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.

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.

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 proposal 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 An 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 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.

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.
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. 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.

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 B

PRO-FORMA AGREEMENT

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

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

AGREEMENT

THIS AGREEMENT is made and entered, in duplicate, as of _____, 20__ 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 ("Consultant"), with a place of business at _____, and the CITY OF LONG BEACH, a municipal corporation ("City").

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

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

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

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

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

2. TERM. The term of this Agreement shall commence at midnight on _____, 20_, and shall terminate at 11:59 p.m. on _____, 20[19], 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,

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

5. INSURANCE.

A. 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 insurance companies that are admitted to write insurance in California and have ratings of or equivalent to A:V by A.M. Best Company or from authorized non-admitted insurance companies subject to Section 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII by A.M. Best Company the following insurance:

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

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ii. Workers' Compensation insurance as required by the 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 the 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 the City evidence of uninterrupted, continuing coverage for a period of not less than three (3) years,

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commencing on the date this Agreement expires or is terminated.

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

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

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

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

6. ASSIGNMENT AND SUBCONTRACTING. This Agreement contemplates the personal services of Consultant and Consultant's employees, and the parties acknowledge that a substantial inducement to City for entering this Agreement was and is the professional reputation and competence of Consultant and Consultant's employees. Consultant shall not assign its rights or delegate its duties under this

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

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

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

9. OWNERSHIP OF DATA. All materials, information and data prepared, developed, or assembled by Consultant or furnished to Consultant in connection with this Agreement, including but not limited to documents, estimates, calculations, studies, maps, graphs, charts, computer disks, computer source documentation, samples,

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models, reports, summaries, drawings, designs, notes, plans, information, material, and memorandum ("Data") shall be the exclusive property of City. Data shall be given to City, and City shall have the unrestricted right to use and disclose the Data in any manner and for any purpose without payment of further compensation to Consultant. Copies of Data may be retained by Consultant but Consultant warrants that Data shall not be made available to any person or entity for use without the prior approval of City. This warranty shall survive termination of this Agreement for five (5) years.

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

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

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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 the 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 the 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 governed by and construed pursuant to the laws of the State of California (except those provisions of California law pertaining to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and regulations of and obtain all permits, licenses, and certificates required by all federal, state and local governmental authorities.

16. ENTIRE AGREEMENT. This Agreement, including all Exhibits,

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constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter in this Agreement.

17. INDEMNITY.

A. 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, 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, 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.

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D. To the extent this Agreement is a professional service agreement for work or services performed by a design professional (architect, landscape architect, professional engineer or professional land surveyor), the provisions of this Section regarding Consultant's duty to defend and indemnify shall be limited as provided in California Civil Code Section 2782.8, and shall apply only to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

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

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

19. 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

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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).

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

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

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

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

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

E. If the City determines that the Consultant has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may

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terminate the Agreement on behalf of the City. Violation of this provision may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code section 2.93 et seq., Contractor Responsibility.

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

22. COPYRIGHTS AND PATENT RIGHTS.

A. Consultant shall place the following copyright protection on all Data: © City of Long Beach, California 2,104, inserting the appropriate year.

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

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

23. COVENANT AGAINST CONTINGENT FEES. Consultant warrants that Consultant has not employed or retained any entity or person to solicit or obtain this Agreement and that Consultant has not paid or agreed to pay any entity or person any fee, commission, or other monies based on or from the award of this Agreement. If Consultant

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breaches this warranty, City shall have the right to terminate this Agreement immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments due under this Agreement or otherwise recover the full amount of the fee, commission, or other monies.

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

25. 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.

26. 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.

27. 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.

28. 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.

29. THIRD PARTY BENEFICIARY. This Agreement is not intended or

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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_____
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

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CHARLES PARKIN, City Attorney
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Long Beach, CA 90802-4664

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/SOQ 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 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type. See Specific Instructions on page 3.

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.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶

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.

☐ Other (see instructions) ▶

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)

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

Requester's name and address (optional)

6 City, state, and ZIP code

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 *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

___ - ___ - ____

or

Employer identification number

__ - _____

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	Signature of U.S. person ▶	Date ▶

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.

- 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-C (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 What is backup withholding, later.

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):	leave blank if not applicable required (this number is a fed tax ID: O SSN: O
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 O Partnership O Corporation O LLC O Nonprofit O Government O

Composition of Ownership (at least 51% of ownership of the organization) (check all that apply)
MBE O WBE O Local O DBE O Certified SBE O Certified Micro O
State certification number:

City of Long Beach
Purchasing Division
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Long Beach, CA 90802

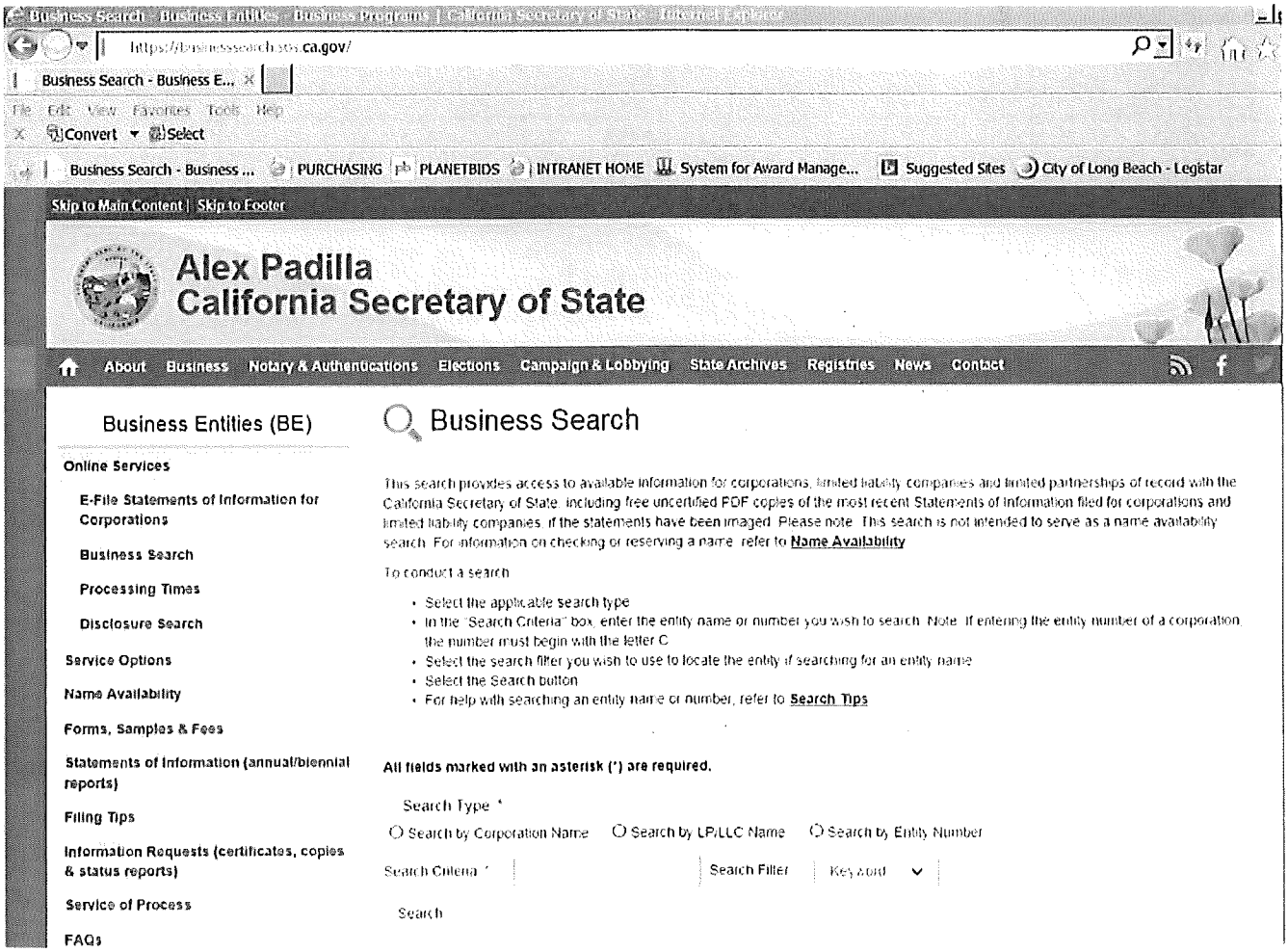
Attachment F

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/



(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 o f 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:

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ROBERT E. SHANNON, City Attorney
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Long Beach, CA 90802-4664

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

Chapter 2.73

EQUAL BENEFITS TO EMPLOYEES OF CITY CONTRACTORS

2.73.010 Title and purpose.

This ordinance shall be known as the "Long Beach Equal Benefits Ordinance". The purpose of this Chapter is to protect the public health, safety and welfare 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/or between domestic partners and spouses of such employees.

2.73.020 Definitions.

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

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

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

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2.73.030 Contractors subject to requirements.

A. The following contractors are subject to this Chapter:

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

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

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

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

2.73.040 Non-discrimination in provision of benefits.

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

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

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

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

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

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

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

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equivalent benefits; or

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

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

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

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

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

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

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

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

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

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

2.73.050 Required contract provisions.

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

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2.73.060 Waivers and exemptions.

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

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

2. The contractor is a sole source;

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

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

5. The contractor is a public entity;

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

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

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

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

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

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

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

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

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

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

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

2.73.070 Retaliation and discrimination prohibited.

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

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

enforcement of this Chapter.

2.73.080 Employee complaints to City.

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

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

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

2.73.090 Remedies.

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

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

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

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

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

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

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

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

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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

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

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

Attachment H

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").

(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.

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

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 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, Bidder 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 Form

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

DBE Instructions to Proposers

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

Proposers should complete and submit **"DBE Race-Neutral Participation Listing"** with their SOQ, but no later than 48 hours following the RFQ 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.:	☐ Subcontractor (100%) ☐ Manufacturer (100%) ☐ Broker
Subcontract %:	☐ Supplier (60%) ☐ Regular Dealer (60%) ☐ 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.:	☐ Subcontractor (100%) ☐ Manufacturer (100%) ☐ Broker
Subcontract %:	☐ Supplier (60%) ☐ Regular Dealer (60%) ☐ 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.:	☐ Subcontractor (100%) ☐ Manufacturer (100%) ☐ Broker
Subcontract %:	☐ Supplier (60%) ☐ Regular Dealer (60%) ☐ Trucker

DBE Firm Name*:	Provide Complete Description of Work to be Performed:

DBE RACE-NEUTRAL PARTICIPATION LISTING

Proposers should complete and submit **"DBE Race-Neutral Participation Listing"** with their SOQ, but no later than 48 hours following the RFQ 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.***

Business Address:	
Contact Person:	
Telephone:	
Email:	Check Appropriate Box Describing: Subcontractor/Supplier Activity:
DBE Certification No.:	☐ Subcontractor (100%) ☐ Manufacturer (100%) ☐ Broker
Subcontract %:	☐ Supplier (60%) ☐ Regular Dealer (60%) ☐ 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.:	☐ Subcontractor (100%) ☐ Manufacturer (100%) ☐ Broker
Subcontract %:	☐ Supplier (60%) ☐ Regular Dealer (60%) ☐ 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.:	☐ Subcontractor (100%) ☐ Manufacturer (100%) ☐ Broker
Subcontract %:	☐ Supplier (60%) ☐ Regular Dealer (60%) ☐ 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)

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 overlayed 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.

Also included will be 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 addtion, the west section of Taxiway G between Taxiway D and Taxiway B will be milled 6" and overlayed 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 overlayed with AC. The project will enhance airfield safety, address complex taxiway geometry, and preserve capacity.

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

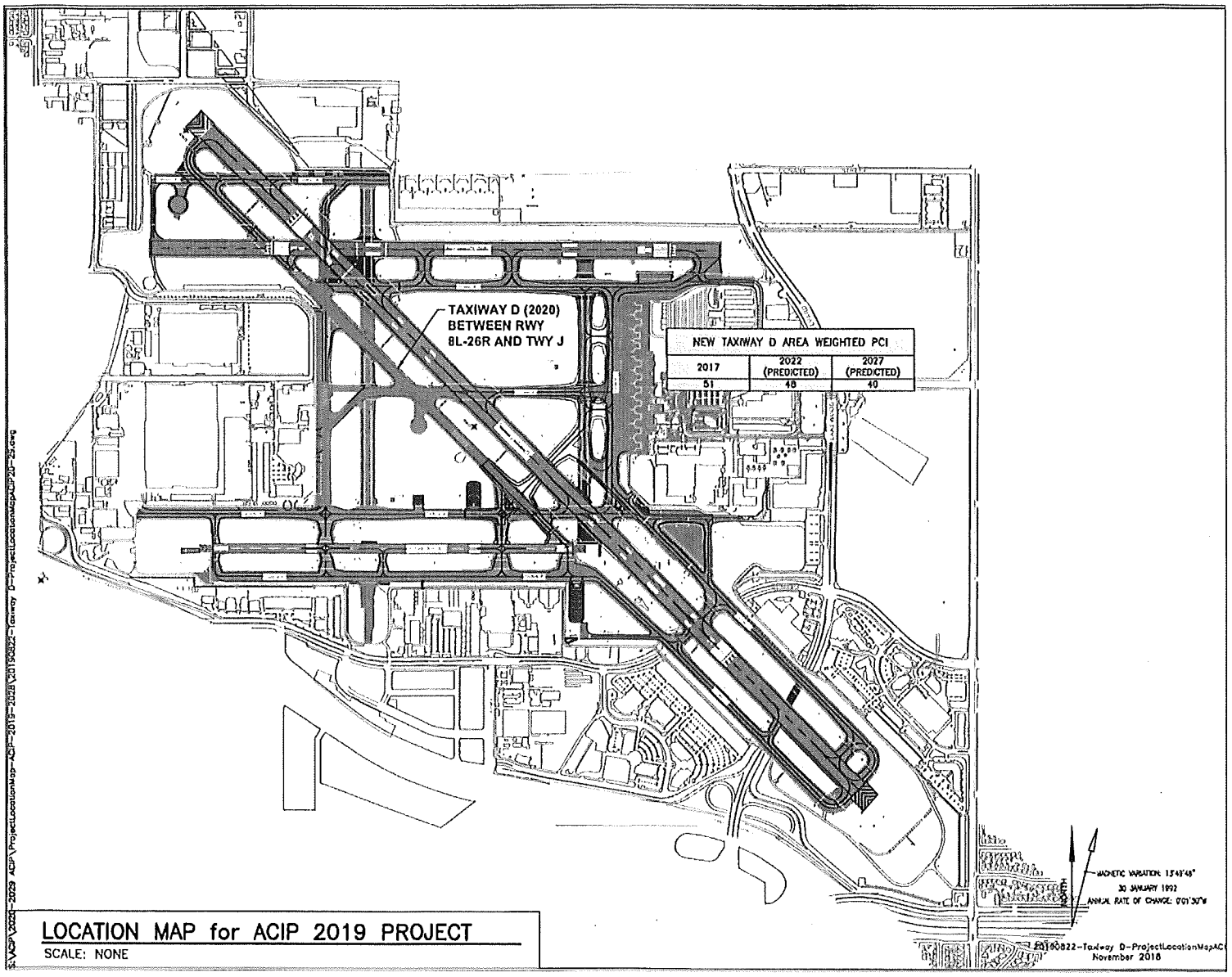
July 6, 2017

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 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)



LOCATION MAP for ACIP 2019 PROJECT

SCALE: NONE

November 2018

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)

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.

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 Operrators on the west side of the airfield and many of the 300,000 general aviation operations at the Airport.

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	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 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)

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 aleviate 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.

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 accerlerated 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.

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

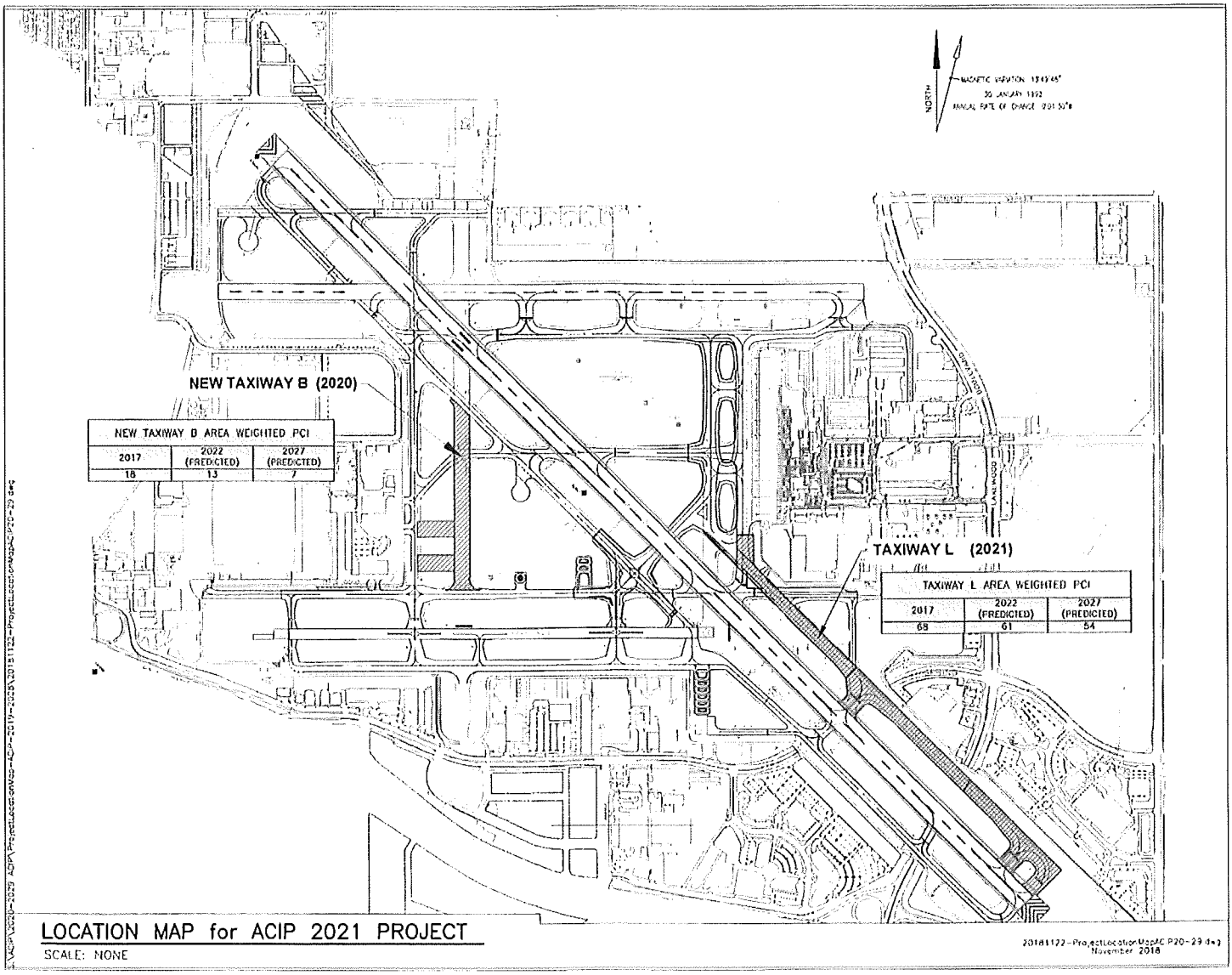
7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A)

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)



LOCATION MAP for ACIP 2021 PROJECT

SCALE: NONE

20181122-ProjectLocationMapAC P20-29.dwg
November 2018

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)

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.

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.

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

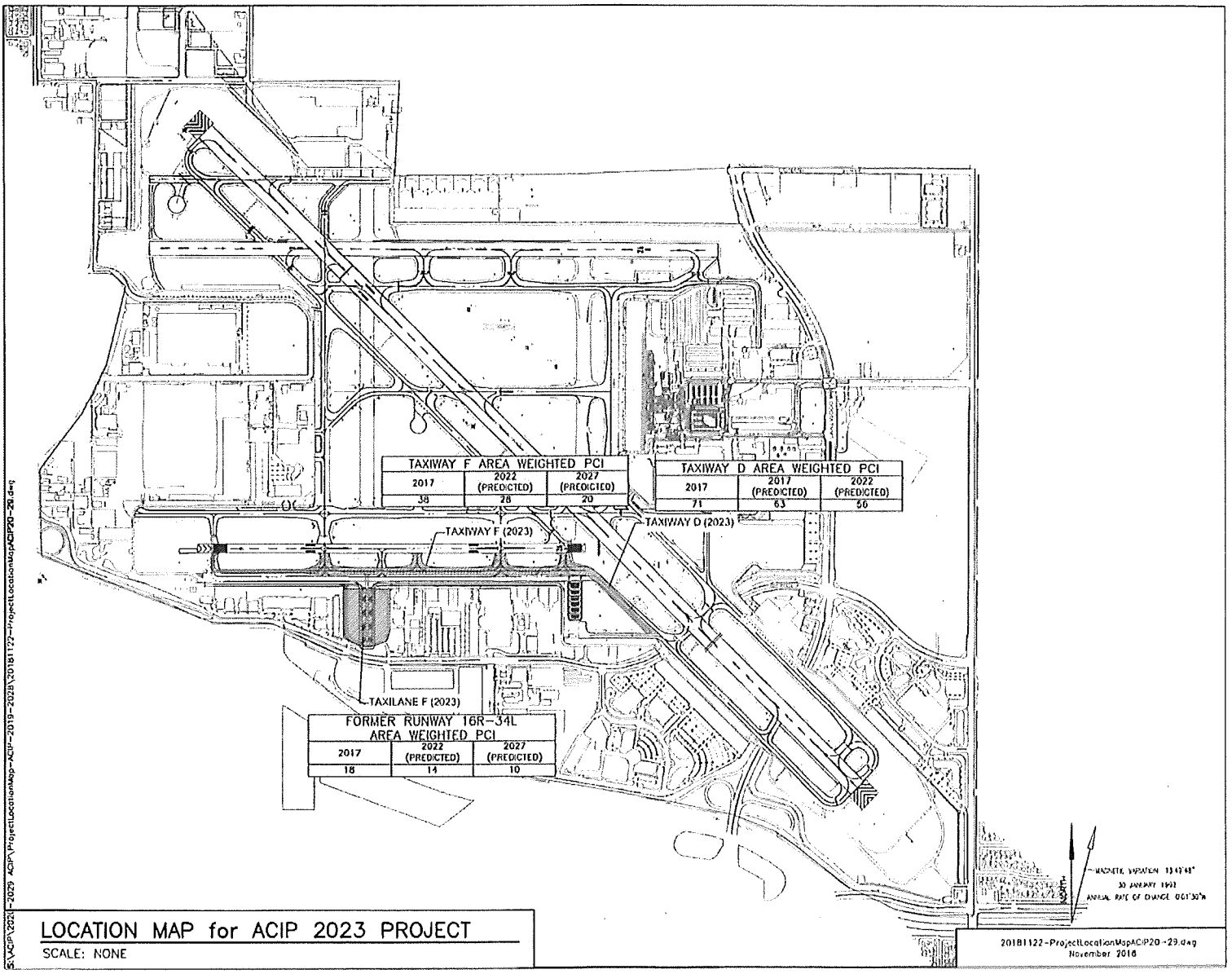
7/6/2017 (Approval of ALP update depicting the proposed changes within Airfield Geometry Study Preferred Alternative 3A)

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)



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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)
Heliport 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)

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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/)

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 Aggreagate 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 Concreate Aggregate Base Course
- Item P-220 Cement Treated Soil Base Course

Part 5 – Stabalized 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 Addititves, Slurry Seal Surface Treatment
- Item P-631 Refined Coal Tar Emulsion With Additives, Slurry Seal Surface Treatment
- Item P-632 Asphalt Pavement Rejuvination

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 Compounts, 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 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-1-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), 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 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-2-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), 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 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-163-3-Typical-Wildlife-Deterrent-Fence-Skirt-Details-Model.pdf), 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 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-1-Typical-Wildlife-Exclusion-Fence-Details-Model.pdf), 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 (www.faa.gov/airports/engineering/construction_standards/media/Detail-F-164-2-Typical-Wildlife-Exclusion-Fence-Ditch-Crossing-Model.pdf), 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/arp/offices/aas/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 3/29/2018)	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. 15, 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)	Heliport Perimeter Light for Visual Meteorological Conditions • See AC 150/5390-2, Heliport Design (www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5390-2)	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

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. 26, 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. 6, 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 • "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 9, 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, 1999
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-feet-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 will 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

TASKS VARY WITH SCOPE AND TYPE OF SERVICES

TASKS	CLASSIFICATIONS HOURS					TOTALS
	Principal	Project Manager	Sr. Airport Planner	Environ. Analyst	Technician Clerical	
1. Project Scoping Meeting	0	0	0			
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				0	0	
22. Ultimate Airport Facilities Plan	0	0	0	0	0	
23. Final Meetings	0	0	0	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	
Subtotal Hours	0	0			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	

CLASSIFICATIONS WILL VARY PER FIRM AND PROJECT TYPE

HOURS WILL VARY PER LEVEL OF EFFORT AND NEGOTIATIONS

RATES WILL VARY PER FIRM

LABOR HOURS MULTIPLIED BY HOURLY RATE

A/E'S CERTIFIED OVERHEAD RATE

PROFIT BASED ON LABOR HOURS

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	

AMOUNT OF ANY MARK-UP FEE MUST REFLECT VALUE ADDED BY PRIME AND CANNOT DUPLICATE EFFORT ADDRESSED UNDER SALARY COSTS

Total Direct Non-Salary Costs = $0.00

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 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.

EXHIBIT "A-2"

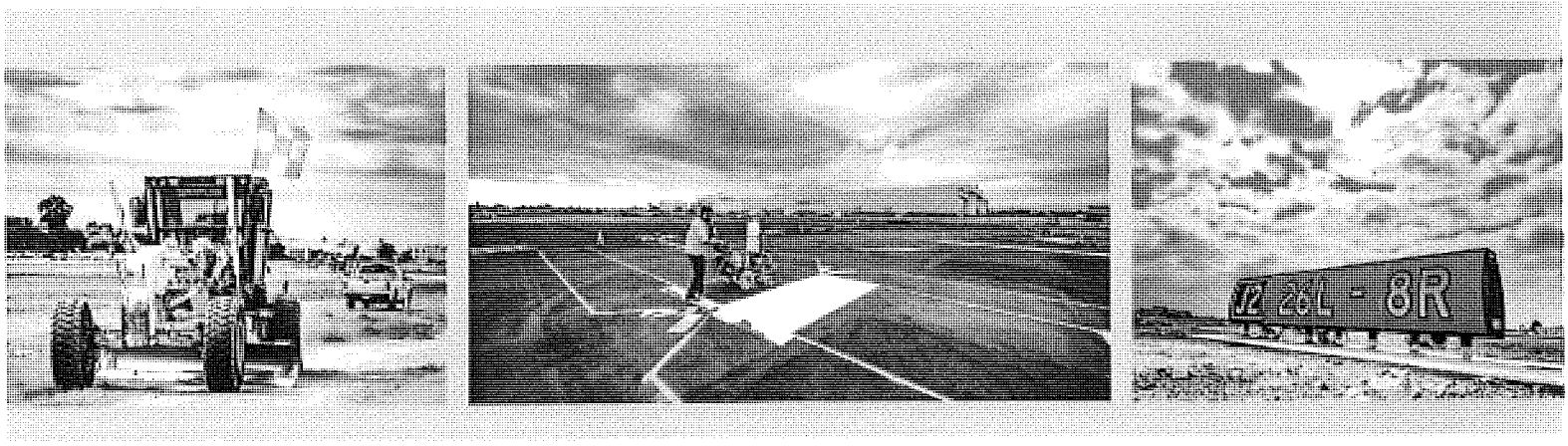
Interview for RFQ AP19-134

long beach
airport

Interview for RFQ#: AP19-134

ENGINEERING PLANNING AND DESIGN SERVICES FOR VARIOUS DEVELOPMENT PROJECTS AT LONG BEACH AIRPORT, CITY OF LONG BEACH

NOVEMBER 22, 2019



HNTB

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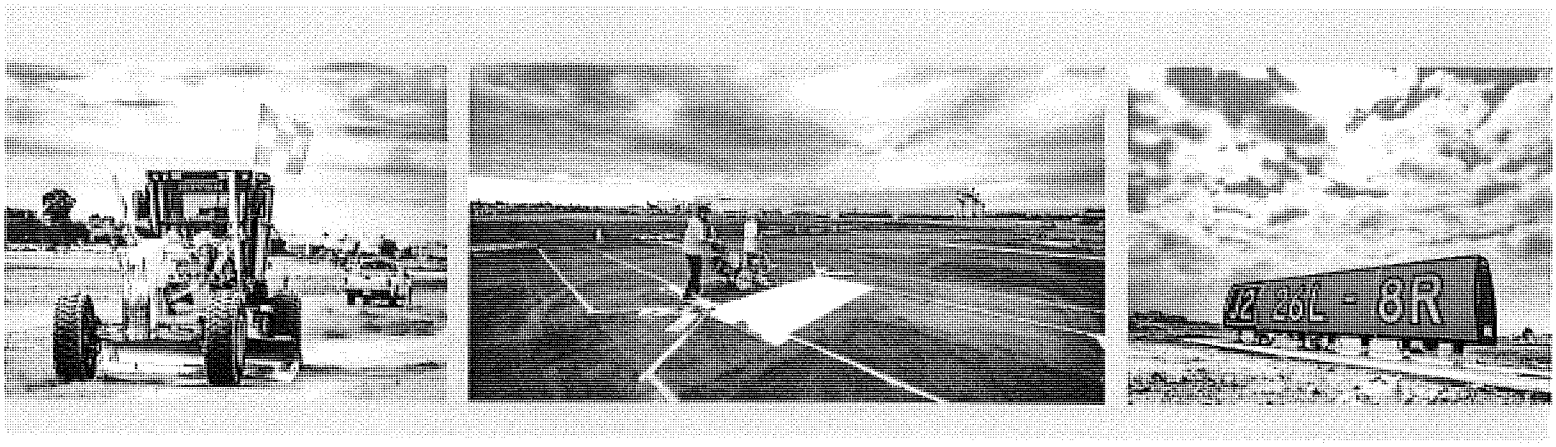


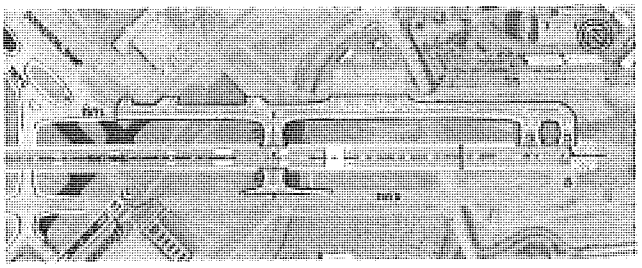
DEMONSTRATED UNDERSTANDING OF PROJECT IMPLEMENTATION, POTENTIAL PROBLEMS AND CITY'S SPECIAL CONCERNS

The HNTB team understands the importance of maintaining and improving LGB so that it continues to meet existing and future demands, facilitates safe and efficient operations and maintains an FAA-compliant airfield.

The HNTB team has established professional relationships with your staff and brings hands-on experience with complete aviation engineering and construction support services. We possess an excellent understanding of the existing conditions and operations of the LGB airfield.

Improvement to Taxiway L

Taxiway L serves as the primary taxiway for all departing commercial aircraft, and is also used by air cargo carriers. Because Taxiway L is the primary taxiway for air carriers to access Runway 30, it has been difficult to close the taxiway for long periods to allow for a complete a reconstruction to occur. During the construction phase on Taxiway L, the project phasing will require departing traffic to cross Runway 12-30 and taxi on Taxiway D to the end of the runway. Taxiway L also crosses over the underpass structures for Lakewood Boulevard and Spring Street.



The goals for the improvements to Taxiway L include:

1. REHABILITATE THE PAVEMENT: The pavement has deteriorated and requires rehabilitation to maintain safety and operational adequacy. The existing pavement is asphalt, and the Airport hopes to install new, more durable PCC pavement that could potentially have a 40-year life.
2. REALIGN TAXIWAY L3/D3 OFF THE SPRING STREET UNDERPASS STRUCTURE: Taxiway L3 is currently aligned directly on top of the Spring Street Underpass. When the taxiway is reconstructed in PCC, this will add more structural dead load on top of the structure. An opportunity exists to realign Taxiway L3 to the north so the new taxiway is not located on top of the structure. We will help study the optimal location and alignment for Taxiway L3.
3. PHASE WORK TO MINIMIZE IMPACTS TO RUNWAY 12-30: Taxiway L reconstruction will require reconstruction of Taxiways L1 and L2 as well. Construction in the runway safety area (RSA) must be completed during off-peak and nighttime operations, or when Runway 30 is temporarily shortened. HNTB understands accelerated construction techniques, and we have successfully designed taxiway improvements at LGB that allowed for reconstruction activities to occur at night with the runway reopening each morning.

Exhibit 2 on the following page describes potential issues and the City's special concerns. We provide examples of the added value HNTB can bring to eliminate any issues and any City concerns.

PROJECT APPROACH — ENGINEERING SERVICES

Our typical approach to design work includes a four-phase work plan that is described below. This general work plan will be used to guide each of the proposed airfield projects. Each of the four phases are intended to complete specific elements and tasks to efficiently and quickly produce high-quality, well-thought-out design documents that have been thoroughly reviewed and accepted by program stakeholders.

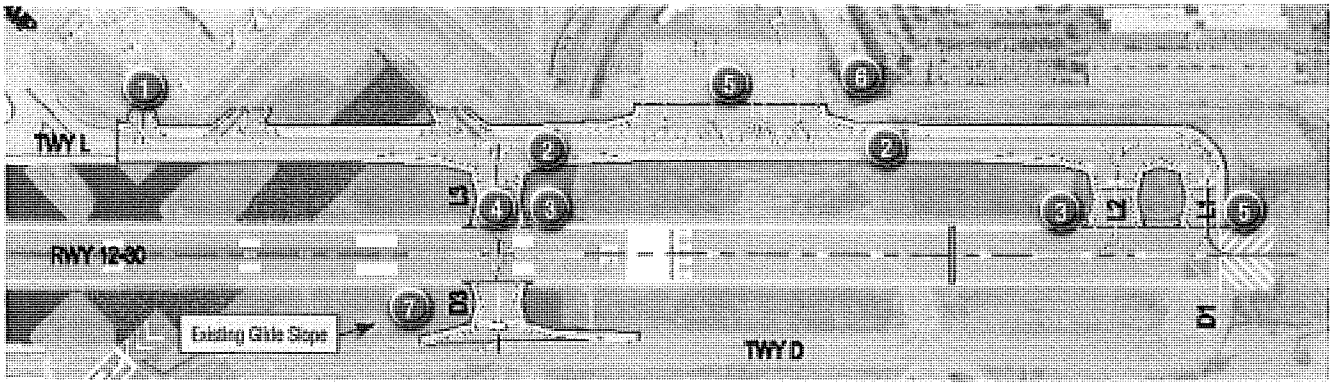
To adhere to the project schedule for Taxiway L Project and have final design plans completed and submitted to the FAA and Airport by April 30, 2021, we will still adhere to our four-phase plan. However, specific tasks will have to be accelerated. Based on our experience, we consider the design schedule aggressive, but achievable.

HNTB is committed to developing a detailed scope and fee for submittal to LGB within three days of selection. This will allow us to negotiate and agree on a task order so that a Notice to Proceed (NTP) can be issued shortly after City Council approval.

PROOF

HNTB has successfully proven that we can accelerate airfield design work at LGB airport. In 2017, this design team accelerated design effort to identify project completing the design in 6 months so that the airport could capture FAA funding on the $14M Runway 25L Reconstruction Project.

EXHIBIT 2. Evaluating potential issues/concerns and added value to the project.



1. Gulfstream Aviation Ingress - Egress during construction
2. Structural load considerations (Lakewood Boulevard and Spring Street underpasses)
3. Construction and phasing challenges within RSA of Runway 12-30
4. Re-alignment of Taxiway L3/D3 off of Spring Street tunnel
5. UPS tenant access to limit impact to their operations
6. Potential Caltrans coordination
7. Impacts to glide slope and critical area

Project Schedule for Taxiway L Improvements

The Taxiway L project will likely be the second project to be designed and constructed under this contract. To complete final design by April 30, 2021, and maximize available FAA AIP funds, the design team will have to carefully craft an aggressive schedule that capitalizes on existing information and streamlines deliverables while still providing ample time for reviews.

HNTB will develop a detailed scope, schedule and fee that will be submitted to the airport staff in early April of 2021 of selection. This will allow HNTB and the City staff to negotiate and agree to a task order for design services in advance of award so that NTP can be issued once approved.

To accelerate the design efforts, we will coordinate with airports project manager to start progressing the 30 percent design in parallel to the detailed survey and geotechnical soil investigations.

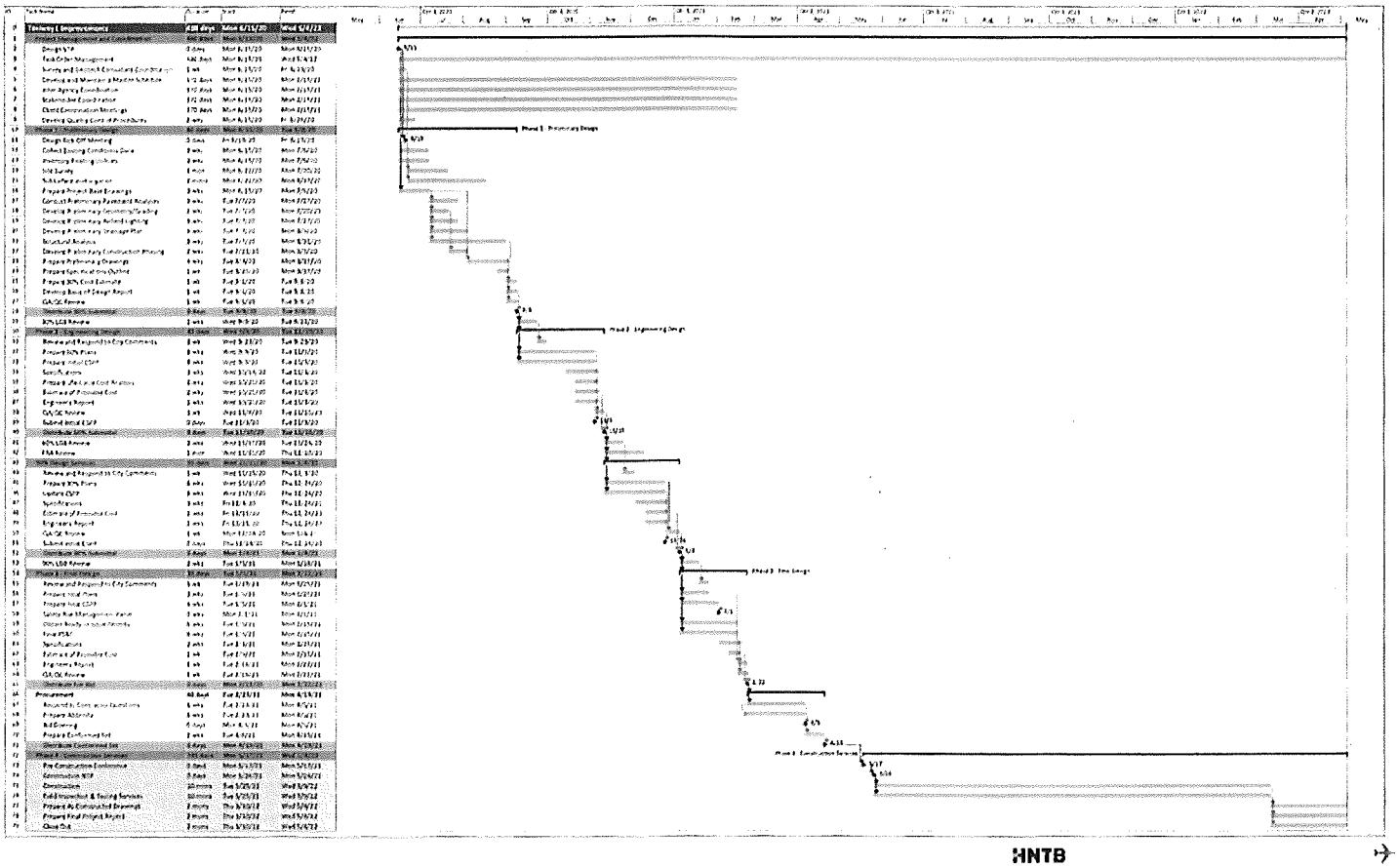
To develop preliminary pavement sections and select preferred alternatives, HNTB will use historical geotechnical data and CBRs from the Taxiway J and Runway 25L projects at LGB. We know from our experience that subgrade soils on the airfield are typically saturated clays that required lime stabilization.

We anticipate that we will receive the detailed field survey and actual geotechnical test results for the project location within 60 days. This information will be seamlessly incorporated into the design set as we progress towards the 30 deliverable. With the project scope confirmed, we will chair meetings with your stakeholders to allow for the development of the phasing plans and the CSPP document. With detailed survey, geotechnical investigations and preliminary phasing, the 30 percent submittal will be made on September 8, 2020.

Early discussions by the City staff and Mark Guan at the FAA, will allow us to develop a detailed initial CSPP document at the 60 percent phase. HNTB has the experience to develop graphics that clearly communicate information such as departure surfaces, designated haul routes for construction and operational procedures. This will allow the different services lines within the FAA to provide a thorough review at the 60 percent level, allowing the design team to confidently move forward with final design. We understand it is critical to have plans approved and ready for advertisement early in the funding cycle in order to maximize available funds, and we are committed to meeting your schedule.

Exhibit 3 on the adjacent page details the project schedule for the Taxiway L Improvements.

EXHIBIT 3 PROJECT SCHEDULE FOR THE FAIRWAY IMPROVEMENTS



Phase 1 - Preliminary Engineering Phase

Research: The objective of this task is to gather the necessary baseline information to understand the current conditions. Data collected from LGB records is the first step to develop existing base mapping. In addition, to develop a comprehensive map of the existing conditions, it is also necessary to conduct extensive field investigations to capture site conditions. The categories of information researched or gathered may include:

- As-built record data
- Survey work (topographic information)
- Focused utility survey
- Geotechnical testing
- Equipment inventories and butterfly diagrams of existing electrical manholes
- Project photos
- Previous studies
- FAA (airports, flight procedures, air traffic and technical operations)

Program Definition: The objective of this task is to coordinate with stakeholders to prepare the preliminary design and further develop project definition. This task will be useful as a road map to identify critical project milestones, project finances and long lead items for implementing the program. Preliminary design work may consist of the following services:

- Developing project definition meetings with City, FAA and other agencies and stakeholders to define critical aspects for each project.
- Developing alternatives matrices that can be quickly reviewed by City staff and stakeholders to identify a preferred alternative.
- Developing a project schedule for the design as well as preliminary construction schedules to make sure engineering and procurement activities are completed on time.
- Developing ROM construction cost estimates with contingency while also confirming anticipated costs are in line with project budgets.

KEY ISSUE

Early data collection activities.

PROVEN APPROACH

Accelerating topographic survey and soil investigation activities will keep the design activities on schedule. HNTB can use topo and contours from the ALP to help accelerate the preliminary engineering efforts and then supplement that data once the field data becomes available.

Stakeholder Coordination Meetings: All stakeholders will be involved early in the detailed engineering phase of each project to have their concerns addressed; a collaborative approach will include obtaining their commitment to the design review schedule. Stakeholders include:

- City of Long Beach
- Consultant Construction Manager (CM)
- FAA (Airport, air traffic, and technical operations)
- FBOs, flight schools and tenants
- Airlines and airline pilot groups

HNTB brings strong credentials working with these important stakeholders. As schedules adjust, it is important to coordinate with the various stakeholders to proactively manage change. Many times, the stakeholders are not engineers or planners; therefore, it is critical to develop graphics that are clear and understandable to people outside the construction industry.

DELIVERABLE

Project definition includes project schedule, 30% design plans, ROM construction costs and list of long lead items. Draft Engineers Report will also include design criteria, code requirements, standards and outline specifications.

Phase 2 - Engineering Design

The detailed design phase results in the preparation of construction-level design documents and typically includes:

Attending Weekly Meetings: In order accelerate design work, it will be critical to establish weekly standing project review meetings at LGB with Airport engineering staff so the team and can work in partnership to review design progress, evaluate options, track actions items and establish schedule milestones.

Prepare Detailed Plans. The design drawings will be prepared in accordance with Airport standard drafting and CADD format.

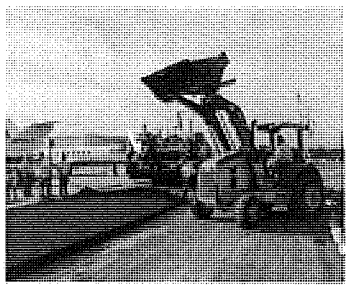
Specifications. FAA-funded projects will use the latest version of the standard specifications found in Advisory Circular 150/5370-10H.

KEY ISSUE

Early engagement of FAA on CSPP Document.

PROVEN APPROACH

Proactive engagement of airport stakeholders on anticipated regions of work and potential impacts. Development of clear, yet thorough CSPP documents that depict phasing limits, contractor and aircraft taxiway routes, barricade locations, temporary signage and marking that will allow for early submittal to the FAA for review and buy-in.



Construction Safety and Phasing Plans/SRMP. Developing a detailed CSPP that captures the input from the design team, airport, the end users and the FAA in a collaborative environment will be a key activity completed during the design phase. The CSPP will have to be submitted to the FAA so that a final determination can be made. Based on the size and complexity of the Taxiway L Improvements project, anticipate that a SRMP will be required. It is important that CSPP is developed early in the design phase. Through our past work with Mark Guan, FAA Project Manager for LGB, we understand his need for multiple submittals to complete a thorough review. It is important to schedule for multiple submittals and allow time for his review before approval.

PROOF

On the Improvements to Taxiway C at Long Beach Airport, HNTB was able to get FAA approval on the CSPP during the design phase. This allowed LGB to move forward into the bid phase knowing that a formal SRMP would not be required.

Engineer's Design Report. The report prepared during the preliminary phase will be updated at each submittal.

Construction Cost Estimate: An estimate of probable construction cost is included will be prepared with each design submittal.

Designing to a Budget: Most funding for the construction will be provided through FAA grants. FAA budgets and program funding are established as part of the airport capital improvement program (CIP) process, so it is important to make sure we have construction cost certainty and scale the projects as necessary during the design phase. HNTB will develop a construction cost estimate with input from our team member Connico, Inc., a firm specializing in airport cost estimating. Connico will provide an independent estimate to evaluate and review against current market conditions so we can develop an actuate, consolidated estimate.

Design Construction Schedule: A proposed design-construction schedule will be prepared for the project and include milestone activities that require coordination between the City and the other stakeholders.

Quality Assurance/Quality Control Reviews (QA/QC): QA procedures include in-house independent peer reviews of drawings, specifications and design concepts prior to each submittal package. Third-party engineers will perform QC reviews on each submittal.

Permit Reviews: This task includes permit submittal reviews with the City of Long Beach planning and building department and other agencies.

DELIVERABLE

Final design, ready-for-bid construction documents consisting of plans and specifications, engineer's report, final engineer's estimate, CSPP and/or SRMP document and reports as required.

Phase 3 - Final Design

KEY ISSUE

Finalize bid quantities and complete through Quality

PROVEN APPROACH

We will engage in independent team to prepare an independent quantity take off on all bid items. HNTB's engineers estimate will be reconciled with Connico's independent estimate.

Prepare Final Plans: The final plans with be prepared along with final coordination between design disciplines so that the design contains a fully coordinated set the is ready to advertise for bid.

Prepare Final Specifications: Technical specifications will be coordinated with the final list of bid items. HNTB will review the front-ends specifications and will work closely with LGB's Engineering Staff to ensure that there is consistency between General provisions, Instruction to bidders and the administrative requirements.

Construction Cost Estimate. A final engineers estimate will be prepared, and a cross checking of bid items will occur to ensure pay items are defined for all items of work. HNTB's estimate will be reconciled with Connico's independent estimate and a final construction cost estimate will be submit to LGB.

Quality Assurance/ Quality Control Reviews: A final Quality Assurance review will be completed on the final plans, Specifications and Engineer's report to ensure delivery a comprehensive and constructible design.

▼ Phase 4 - Construction Phase

The objective of the construction phase is to efficiently support LGB to facilitate quality construction. It is important for designers to understand their role and responsibilities while coordinating with the CM team and providing geotechnical engineer of record soil certification and testing as well as rapid responses to RFIs, submittals and field modifications, if necessary.

KEY ISSUE

Proactive support during construction.

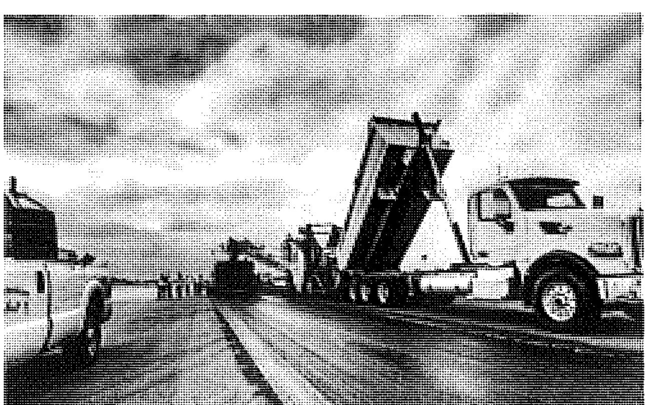
PROVEN APPROACH

HNTB's objective during the Construction Phase is to help the City to efficiently administer the construction contract to promote quality construction and smooth implementation. Having experienced airfield designers who were involved in the design and details will be dedicated to carry the project from start to completion.

Bidding Support: HNTB will provide assistance to the City in advertising the project, providing clarification to contractor questions and prepared design additions.

Preconstruction Conference: HNTB will assist the City with project graphics, phasing exhibits and project material to provide representation for the City at the preconstruction conference.

Submittal Reviews: HNTB will review and coordinate shop drawings, product submittals, contractor work plans and schedules, performance tests, operations and maintenance manuals and other documents as required by the contract specifications.



Site Visits/Inspecting Work: HNTB will visit the site, attend construction meetings and periodically inspect the work, providing appropriate reports to the City. Site visits can be used to perform a visual observation of the work in progress, system acceptance and testing.

Design Clarifications: We will answer contractor requests for information, and clarify the design to the contractor, CM and the City to expedite the installation.

Change Order Negotiations: Our team will prepare and/or review change order documents of unforeseen conditions or as directed by the City.

PROOF

On the Runway 26L-8R Reconstruction Project at LGB, HNTB provided rapid response to RFIs and submittals that allowed the project to be completed on schedule.

▼ Project Closeout Phase

We pride ourselves on closing out the construction phase of a project quickly. Our team will promptly submit documentation to the City, CM and FAA, and close out the FAA AIP grant application as soon as possible. We have learned that the FAA prefers to close out grants as soon as possible after construction so they can get the grant submitted to the airport.

KEY ISSUE

Capturing accurate as-built data for future use.

PROVEN APPROACH

It is important before the contractor's team is demobilized to have all field changed memorialized in redline sets. HNTB will push for the submittal before closeout and will proactively review and develop final record drawings.

This phase includes all basic services rendered after the completion of a construction contract, including, but not limited to the following:

Prepare Final Punch List/Final Inspection: Preforming final inspection and procedures, and preparing and submitting punch list items to be completed.

CADD Record Drawings: Providing electronic files of the record set, which includes contractor redlines and any field refinements.

Grant Amendment Request: Preparing a grant amendment request if applicable. The request must include the purpose and the amount of the amendment as well as a brief narrative that explains the increase

and justifies why it is advantageous to the U.S. government to participate in additional expenses.

Final Project Report: Assisting the City in the preparation of the final project report, including financial summary and completion of FAA form 9550-5.

PROOF

We know from our experience that having accurate record drawings is invaluable asset to the airport when it comes to future maintenance and development. HNTB has developed record drawings at LGB on all projects throughout our long history at the Airport.

QUALITY OF PROJECTS PREVIOUSLY UNDERTAKEN

The HNTB team has extensive experience with on time and budget delivery for runway improvements, taxiway enhancements, airport geometry planning and related services. HNTB has a reputation of excellent product management and quality assurance as evident through our list of satisfied repeat clients.

PROJECT MANAGEMENT

HNTB has built our consulting practice on an expectation of delivering our 4for4 performance: quality work, on-time, within budget and to the client's satisfaction. This requirement forms the basis of our corporate vision, project management approach and employee performance. For projects at LGB, we will hold regularly scheduled coordination meetings to discuss project status, project budget and resolve any project challenges.

QUALITY

The variety of projects we undertake and their increasing complexity make it imperative that a rigorous quality control plan be in place before design begins. The quality program provides the framework to deliver quality services on schedule, within budget and to the City's satisfaction. Our philosophy places responsibility on each member of the team to make certain the structured process produces the desired project outcome.

HNTB's **Quality Control Manager, Robert Millar,** will implement HNTB's Quality Program to ensure success of every project. The Quality Program places final responsibility for implementation on our Project Manager Tony Fermelia. With the size and complexity of the Taxiway L project, it will be important that quality control review and third-party QC staffing is scheduled to complete detailed reviews.

CONSTRUCTION ESTIMATING

HNTB is sensitive to the rising cost of construction and the importance of accurate construction estimates during the design. Especially when working on AIP-funded projects, it is critical that anticipated construction costs regularly be checked throughout the design process against the available funding. **On the Taxiway C Improvement Project at LGB, there were some challenges with the engineers estimate and the bid results received. To address these challenges, HNTB has added Connico, Inc., which specializes in construction cost estimation,** to allow for greater detail and accuracy of estimates during the design. Connico has a wealth of knowledge and experience estimating airfield projects in Southern California's market, and understands the unique material costs associated with some of the FAA-specified materials. HNTB will use our history and work in the region to develop a detailed cost estimate at each stage of the design. An independent estimate will be developed by Connico to check HNTB's estimate before an integrated estimate is developed and submitted to the LGB. Through this process, we will deliver accurate estimates for the Airport to confidently use before we advertise the project for bidding.

COST CONTROL DURING CONSTRUCTION

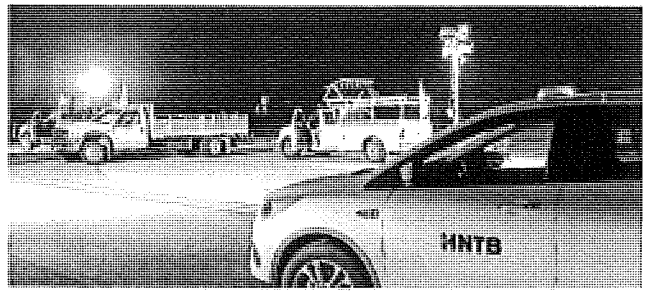
With decades of successfully delivering airfield projects, HNTB has identified several keys to minimizing cost escalation during construction. Our team understands the importance of delivering projects within the available funding and will employ the below approaches to control costs during construction.

Maximize Constructibility Analysis

Constructibility reviews are the first step in the prevention of cost overruns. HNTB's internal CM teams will thoroughly review all the design submittals to not only provide constructibility reviews, but also identify potential changes and assist the design team in preparing the appropriate mitigation and allowances. In addition, HNTB will collaborate with LGB and their CM consultant to review and address constructibility items as part of the design process. We understand that project success requires us to incorporate input from all stakeholders.

Responsiveness During Construction

Contractor claims of delays and the associated costs are a common cause of cost escalation during construction Our design team understands the importance of responding to quickly to all contractor RFIs, submittals, and other requests to maintain the progression of work. This proven team has successfully delivered on similar

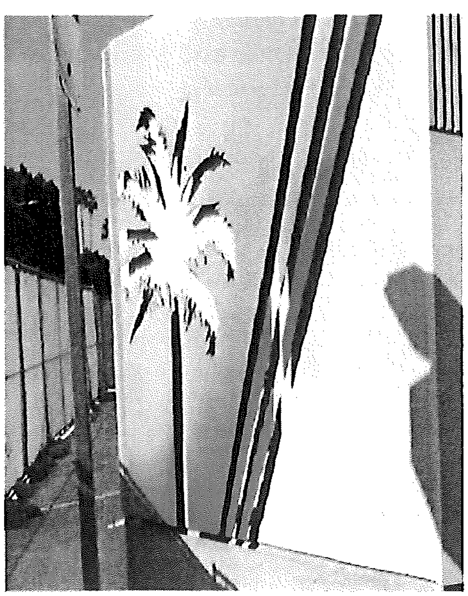


projects at LGB with very aggressive construction schedules that required near instant resolution of field questions. On critical phases of work, our design leads will work closely with the LGB construction manager to confirm the contractor is adequately prepared and the office staff is on call to address any field issues. Our local office prides themselves in keeping close contact with the field issue so they understand the upcoming work and look forward to making regular field visits to observe the installation of key work items.

PROOF

At LGB for Runway 26L-8R, HNTB Engineer's Estimate was within 2% of the low bidder. Throughout the design phase anticipated construction costs were regularly checked against the available funding. HNTB developed a series of additive alternatives that were included in the design documents.

CURRENT WORKLOAD AND DEMONSTRATED ABILITY TO MEET SCHEDULED DEADLINES



Taxiway L Project is a complex assignment, and to deliver the scope of work we have developed a detailed schedule (Exhibit 3). We have developed an aggressive yet realistic schedule to attain FAA compliance, and we developed our staffing plan based on the anticipated deliverables, QC reviews, subconsultant coordination and City review time.

Upon NTP, HNTB will engage Wagner Engineering to begin survey and mapping activities. We will be able to establish horizontal control, profiles and preliminary grading. At the same time start geotechnical field investigations will begin with Converse Consulting as the geotechnical testing is completed. We utilize historical geotechnical and California Bearing Ratio (CBR) data from the nearby Runway 26L and Taxiway J projects as well as data from the LGB Pavement management system report to develop assumptions on subgrade conditions and an initial pavement design for the Taxiway D project. We know from our experience from working at LGB that the existing subgrade material is poor, clayey soils that typically requires stabilization. The FAA requires any subgrade

with strength below a CBR of 5 to be stabilized. Therefore, we will assume stabilization is required during the preliminary design phase. While we develop on preliminary engineering, in-parallel field survey and detail topo and geotechnical soil investigations will be conducted. After this detailed data becomes available, we will be able to quickly integrate the data into our design documents and detailed design.

We will perform a detailed structural analysis of the Spring Street and Lakewood Boulevard underpasses. We will review and evaluate the available as-built drawings, structural evaluation reports and perform a load comparison between current aircraft and the aircraft used in the original design for these underpasses.

We will leverage our relationships to help expedite all reviews within the FAA. In addition to scoped deliverables, we know that instant requests arise throughout the course of a project. HNTB — and specifically this team — excel at rapidly responding to all requests. We understand that the staffing needs of this contract will fluctuate over its duration. HNTB's key personnel are committed to delivering LGB projects.

To reinforce this premise, we have evaluated our current and expected project assignments and estimated the average availability of our key staff personnel over the duration of this contact. Exhibit 4 provides details of our proposed staffing levels.

Our team understands that this is a dynamic project and we must remain flexible to incorporate additions and modifications while adhering to the project schedule. HNTB will hold regular project meetings with LGB to review scope, schedule and action items. Our team has multiple design manager/task leads to tackle simultaneous projects on an accelerated timeline.

EXHIBIT 4. Details of our proposed staffing levels.

Name/Title	Availability	Current Workload
Tony Fermelia, PE Project Manager	80%	• LGB, Taxiway C Improvements • LAX, Secured Area Access Post and Enabling Projects
Justin Bychek, PE Planning Task Lead	70%	• LGB, ALP Updates and Property Map Research • LAS, Runway Incursion Mitigation Study
James Long, PE Design Manager	80%	• LAX, United Airlines Hangar Civil Design • VNY, Taxiway A Improvements
Mark Nadal, PE, SE Structures	70%	• LGB, Phase 2 Terminal Improvements Peer Review • LAX, Intermodal Transportation Facility West
Megan Monticone, PE Airside Task Lead	70%	• LGB, RON Ramp Improvements • LAX, American Airlines T4 & T5 Civil Design
Nicolo Olino Design Task Lead - Grading Vertical Control	80%	• LGB, Taxiway C Improvements • LAX, Secured Area Access Post and Enabling Projects
Taylor Henderson, PE Drainage	80%	• LAX, Delta Hangar Civil Support Services • LAX, United Airlines Hangar Civil Design
Bill Marek Pavement Marking/CADD	85%	• LGB, Ron Ramp Improvements • LAS, SWA T1E Civil Design

CAPABILITY TO CONDUCT A VALUE ENGINEERING (VE) STUDY

The HNTB team has the credentials, capabilities and experience to deliver VE studies. At the preliminary engineering phase, HNTB will facilitate a VE Workshop and engage our design team and Connico. Hosting a VE Workshop will improve the project understanding by focusing the team. Insight into the entire project is gained by bringing all the disciplines together.

Our engineering estimating staff has worked on an array of projects at LGB and have priced a variety of alternative solutions. A detailed Life-Cycle Cost Analysis was completed as part of the preliminary pavement design for the Improvements to Taxiway C project. The results indicate that concrete pavement sees a significant savings over its lifetime when compared to asphalt, which equates to a present value savings over a 40-year lifetime of $4.5M. Additionally, we have a detailed understanding of the intent of the airfield program at Long Beach Airport and can rapidly accommodate changes that may result as part of the VE workshop. For example, on the Runway 8R-26L project at LGB, we developed the pavement design section that included eight inches of lime-treated subgrade. During construction, there were several isolated areas that had very wet existing clay subgrade material that could not be bridged with an eight-inch section and required a deeper section to be stabilized.

We applied this lesson learned, along with our knowledge of existing site conditions during preliminary design for the Taxiway C Improvements. We consulted with the CM team and the LGB staff and collaborated and reviewed VE opportunities to determine that the equipment utilized by lime treatment subcontractor, Pavement Recycling Inc., could stabilize the 12-inch section with the same amount of effort needed to stabilize an eight-inch section; the only difference would be the cost of additional lime-slurry material. This approach would save time and a provide significant cost savings by increasing the lime-treated section to 12-inch in the Taxiway C design bid documents.

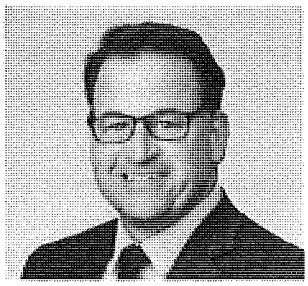
As a firm, HNTB has a well-developed VE process and has provided significant cost savings to our clients without sacrificing performance. HNTB's Southern California Aviation Team was asked by the O'Hare Modernization Program Manager to participate in a VE workshop for the Runway 9C-27C and Associated Taxiways at ORD. Using our experience at LGB, combined with our aviation expertise, we will continue to work closely with you to value engineer every task and reduce costs on every project we deliver to the City.

LOCAL EXPERTISE

- Our Southern California staff have strong working relationships with the FAA Western-Pacific Region and the City.
- The HNTB team has delivered projects of similar scale and complexity across the Southern California.
- HNTB has a 16-year partnership with LGB on aviation projects.
- Through our work on the Long Beach Airfield Geometry Study, HNTB has developed the preliminary geometrics for the projects listed in this RFQ. We understand the intent, opportunities and constraints for these projects.
- Our Team has locally-based civil, electrical and construction engineers to support work at LGB.

KEY PERSONNEL BIOGRAPHIES

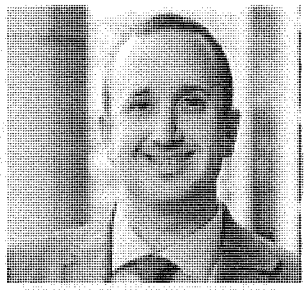
The HNTB team will be led by key professionals who have decades of experience providing a wide variety of similar services at airports throughout the Western United States and nationwide. Summary biographies of select proposed key personnel are provided below.



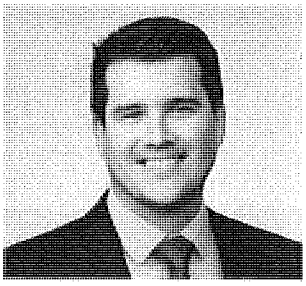
Tony Fermelia, PE | PROJECT MANAGER

Tony knows how to manage complex civil engineering projects in the aviation industry. He has extensive experience in the design of airfield improvements including aprons, taxiways and runways, and other airfield related items that comply with FAA design standards. Many of Tony's projects were performed on aggressive, fast-track schedules to meet FAA requirements and funding deadlines. His capabilities are particularly evident in his ability to manage projects from design through construction. He has led multiphase construction packages, which required him to manage a group of 15 to 20 in-house designers, and as many as 22 subconsultants working as a team to minimize interruption to airport operations and keep construction on schedule and within budget.

Justin Bycheck, PE | PLANNING TASK LEAD



Justin is a senior project manager in HNTB's aviation planning practice and also serves as the West Division Aviation Planning Department Manager. His wide-ranging experience includes projects at more than 40 airports in positions ranging from project manager to task lead. Justin has extensive experience in airside, landside and terminal disciplines, including specialties in preparing Runway Incursion Mitigation (RIM) studies, U.S. Customs and Border Protection (CBP) renovation and expansion plans, capacity planning, data analysis, facilities and terminal planning and airfield and airspace simulation/interaction. Justin has built strong relationships with key staff within the FAA's Los Angeles ADO and Western-Pacific Region.

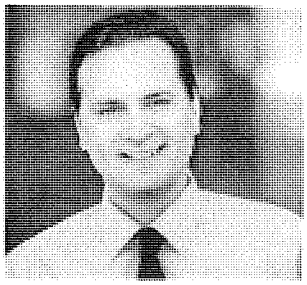


James Long, PE | AIRSIDE TASK LEAD

James is an aviation project manager with a solid understanding of aviation facility planning, design and construction. His airfield project portfolio highlights a strong familiarity with complex construction phasing plans, aircraft gating layouts and extensive stakeholder coordination. As a private pilot, he has a unique perspective on airfield operations and phasing considerations during construction. Often responsible for project phasing, James has been a subject matter expert in several FAA ATO Safety Risk Management Panels, including one for Runway 8L-26R at LGB. James has served as the principal liaison between the client and the design team, responsible for the delivery of high-quality civil engineering services to airports throughout the southwest.

Megan Monticone, PE | AIRSIDE TASK LEAD

Megan brings specialized expertise in airport engineering and planning. She has extensive experience in the design of airfield improvements, including runways, aprons, taxiways and other airfield-related items. Megan develops creative design solutions on projects with rapid construction phases, such as incorporating the use of recycled materials into design specifications. She excels at developing designs for grading that keep future projects in mind, allowing for tie-ins to adjacent and future projects without design rework.



Mark Nadal, PE, SE | STRUCTURES

Mark has developed strong expertise in the design and management of complex projects that span diverse markets, including airports, federal projects and other sensitive environments. He is well-versed in design of airfield ancillary structures, including incorporation of jet blast effects. Mark has provided peer review, oversight, programming and planning assistance to private owners and public agencies, helping his clients realize well-considered, cost-effective, and regulatory-compliant projects. Recently, he has engaged in collaboration with LGB staff to provide structural peer reviews on Phase II of the Terminal Improvement. Mark's airport project experience spans over a decade.

ORGANIZATION CHART

Our team organization chart, Exhibit 1 below, identifies our approach to delivering the projects and reporting responsibilities of our team. This team can be modified or adjusted to best fulfill the needs of each project and provide adequate client focused oversight.

EXHIBIT 1. HNTB's team organization chart.

* KEY PERSONNEL
SUBCONSULTANT LEGEND

CI	Connico Incorporated (DBE)
CC	Converse Consultants
DYA	Diaz•Yourman & Associates, Inc. (DBE)
DIN	Dinter Engineering
IDS	IDS Group, Inc.
KPPF	KPFF Consulting Engineers
WES	Wagner Engineering & Surveying, Inc. (DBE)

long beach airport

Principal In Charge
Louis Rousso, Jr.

Project Manager
Tony Fermelia, PE *

Quality Manager
Rob Millar, PE

Task Leads

Planning
Justin Bychek, PE *

Airside
James Long, PE * Megan Monticone, PE *

Discipline Leads

Planning / Pre-Design	Design	Construction
FAA Coordination Justin Bychek, PE	Airfield Geometry Nicolo Olino	Constructibility Review Robert McAndrews, PE
Simulation Ken Poon, PE	Site Development Gadiel Bautista Mejia	Resident Engineer Taylor Henderson, PE
Airspace Todd Wright	Grading Hao Tu, PE	Submittals & RFIs Nicolo Olino
Airside Eric Gilles	Drainage Taylor Henderson, PE	Document Control Gina Rafel
Landside Jessica Wyatt	Building MEP Walter "Sandy" Maclean, PE, CEM *(IDS)*	Subgrade Certification Mark Schluter, PG, CEG, CHG *(CC)* Clint Isaac Isa, PE *(DYA)*
Terminal Paul Kim, AIA	Pavement Ali Aoude, PE	
Property Laura Blumenfeld	Marking Sierra Allegra, LEED GA	
Stakeholder Coordination James Long, PE	Lighting & Signage Traci Fry *(DIN)*	
Environmental Kim Hughes, PE	Navigational Aids Matt Briggs, PE	
ALP Updates Andy Guan	Power Mohammad Shaikhsaheb, PE	
Forecasting & Financial Pat Kennon	Communications & Security Matthew Briggs, PE	
	Structures Mark Nadal, PE, SE *(KPFF)*	
	Architecture Wayne Johnson, AIA, NCARB, LEED AP	
	CSPP & SRMP James Long, PE	

Support Services

Survey
Stephanie Wagner *(WES)*

Geothechnical Services
Hashmi Quazi, PHD, PE, GE *(CC)*
Clint Isaac Isa, PE *(DYA)*

CADD Support
Bill Marek

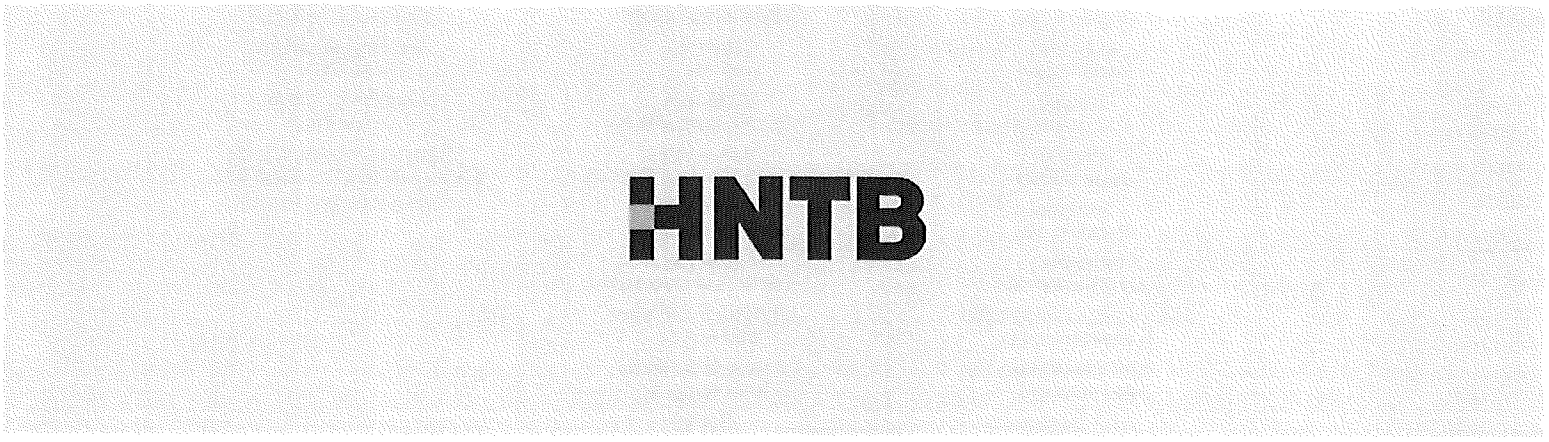
Cost Estimating
David J. Hunley, PE *(CI)*

Scheduling
Sierra Allegra, LEED GA

Aeronautical Survey
Jim James, CPC (WES)

AGIS
Todd Wright

Public Outreach
Joshua Englander


HNTB

long beach
airport

Interview for RFQ: AP19-134

ENGINEERING PLANNING AND DESIGN SERVICES FOR VARIOUS DEVELOPMENT PROJECTS AT LONG BEACH AIRPORT, CITY OF LONG BEACH

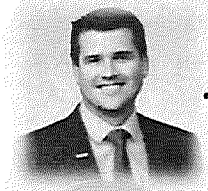
November 22, 2019

HNTB

DEDICATED

Local Team

- ✓ Rapid Mobilization
- ✓ Immediate response



James Long
Airside Task Lead

80% Availability

- Participated as SME in five SRM panels in the FAA's Western-Pacific Region
- Project Manager for $40M taxiway rehabilitation program at VNY

Megan Monticone
Airside Task Lead

70% Availability

- 29 years of experience
- Airfield Design Lead for multiple programs at LGB, LAX, OAK, SFO, SAN, SDM, VNY
- Extensive knowledge of FAA advisory circulars

Tony Fermelia
Project Manager

80% Availability

- 26 years of experience
- Involved as Contract Manager at LGB for the past 3 years
- Project Manager for Taxiway C
- Experience with lines of business in the FAA's Western-Pacific Region

Mark Nadal
Structures

70% Availability

- 23 years of structural engineering experience
- Collaborating with HNTB on structural peer review for Phase II Improvements at LGB
- Extensive collaboration with airport stakeholders

Justin Bychek
Planning Task Lead

70% Availability

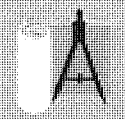
- West Division Aviation Planning Lead
- Developed LGB's Geometry Study/ALP
- Experience with LA ADO and FAA Western-Pacific Region

HNTB

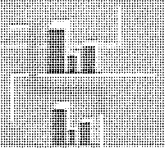
Why HNTB?

HNTB'S *16+ YEARS* OF PROJECT EXPERIENCE AT LGB

History of Delivering Diverse Projects at LGB



ENGINEERING



PLANNING

ARCHITECTURE

UTILITY

2009

- RWY 12-30 Rehabilitation
- Lighting Improvement
- Runway 12-3 MALSR Improvements

2012

- Airport Security System Assessment
- Airport Sidefeet Upgrades
- Final Design of Security System Upgrade
- Airport Terminal Area Improvements

2015

- Ramp Improvement Phase I/II
- Rehabilitation of Access to TWY E&F
- Standard Fence Details

2017

- Airfield Geometry Study (Phase 2 & 3)
- Terminal Signage Improvements
- RWY 30 RSA Improvements

2019

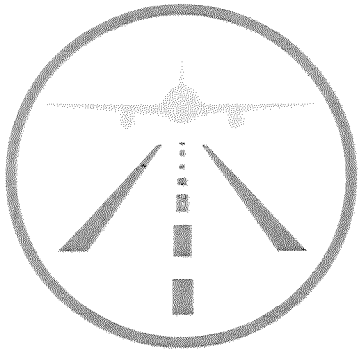
- Runway 26L-8R Reconstruction
- Terminal Pedestrian Canopy
- Mayor's Wall

2021

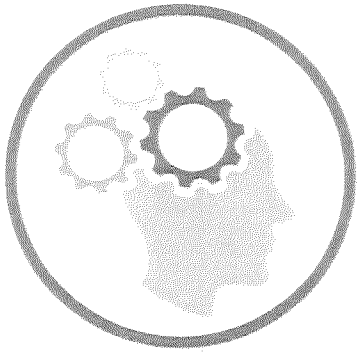
- 2019 ALP Update
- ROIN
- Concept Structural Stab Investigation
- Terminal Improvement Phase II
- Taxiway C
- EA Environmental RFP Support

Why the HNTB Team?

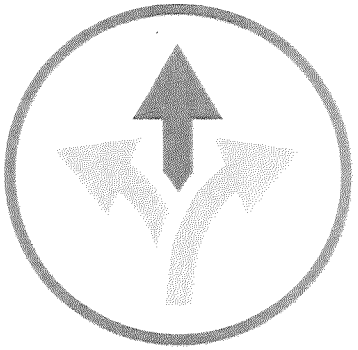
- Extensive Long Beach Airport Experience
- Full-Service Team
- A Flexible, Responsive Team



EXPERIENCE



FULL-SERVICE DESIGN TEAM



FLEXIBILITY

Dedicated Local Team

- Team has delivered together
- Rapidly responsive
- Trusted subconsultants
- 8% DBE participation goal

HNTB

CONRICO INCORPORATED

Converse Consultants

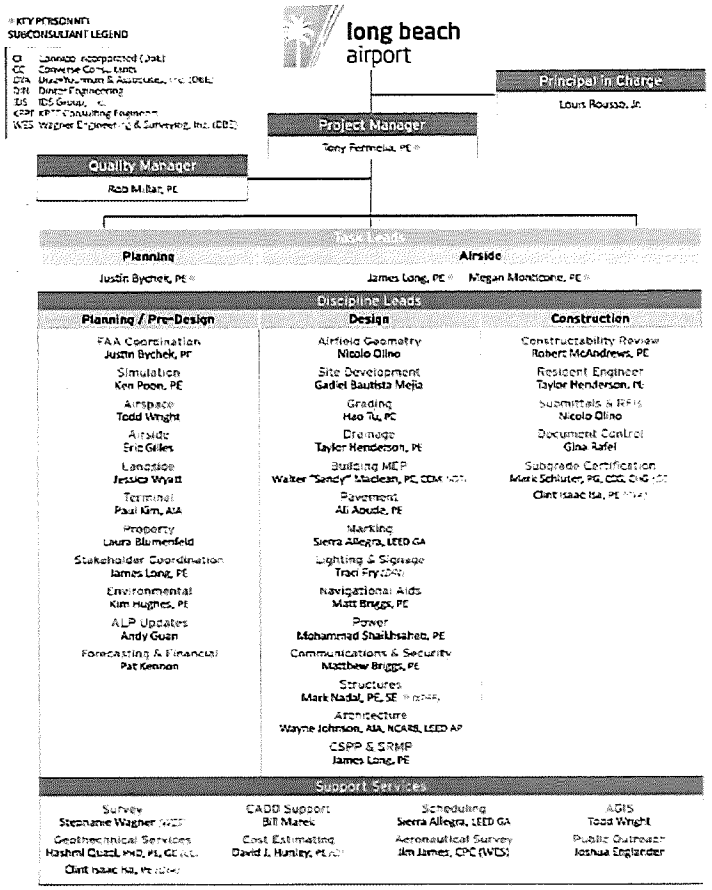
DIAZ·YOURMAN & ASSOCIATES

DINTER

IDS GROUP

kpff

WES WAGNER ENGINEERING & SURVEY, INC.



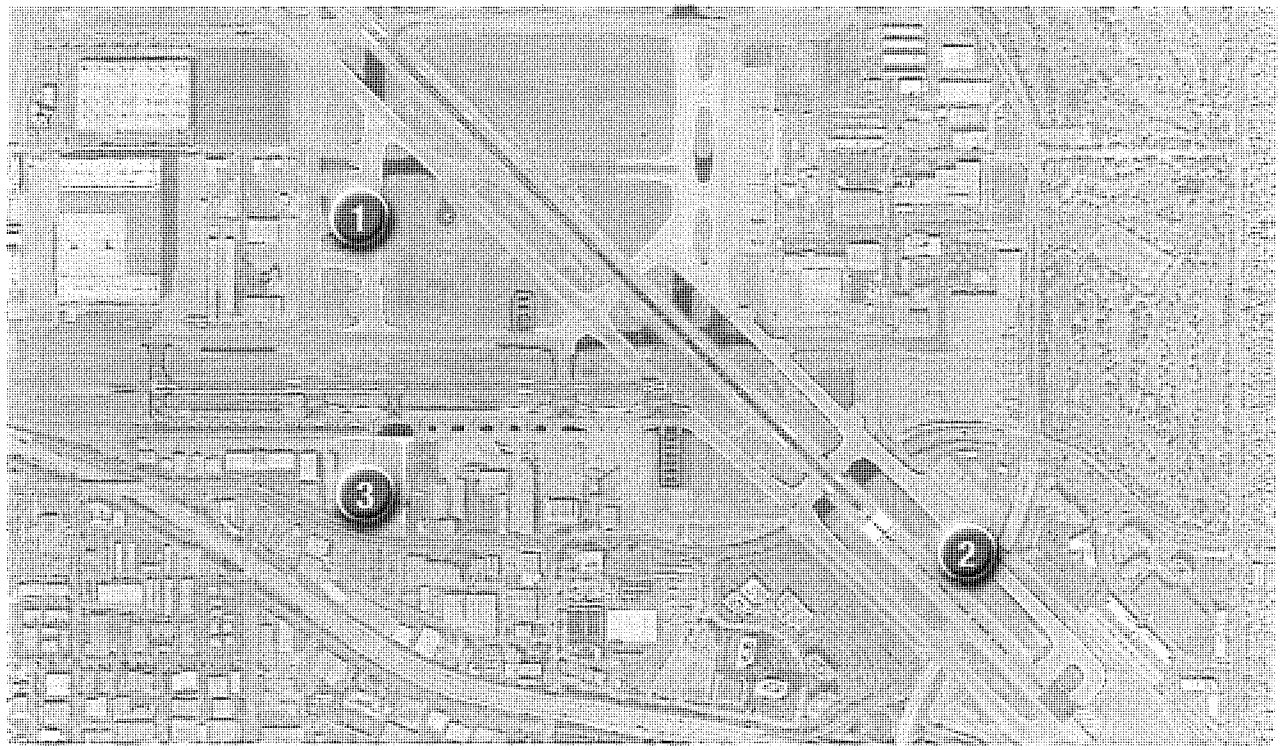
Key Personnel Availability and Current Workload

Name/Title	Availability	Current Workload
Tony Fermelia, PE Project Manager	80%	LGB, Taxiway C Improvements LAX, Secured Area Access Post and Enabling Projects
Justin Bychek, PE Planning Task Lead	70%	LGB, ALP Updates and Property Map Research LAS, Runway Incursion Mitigation Study
James Long, PE Airside Task Lead	80%	LAX, United Airlines Hangar Civil Design VNY, Taxiway A Improvements
Mark Nadal, PE, SE Structures	70%	LGB, Phase 2 Terminal Improvements Peer Review LAX, Intermodal Transportation Facility West
Megan Monticone, PE Airside Task Lead	70%	LGB, RON Ramp Improvements LGB, Taxiway C Improvements Construction Support

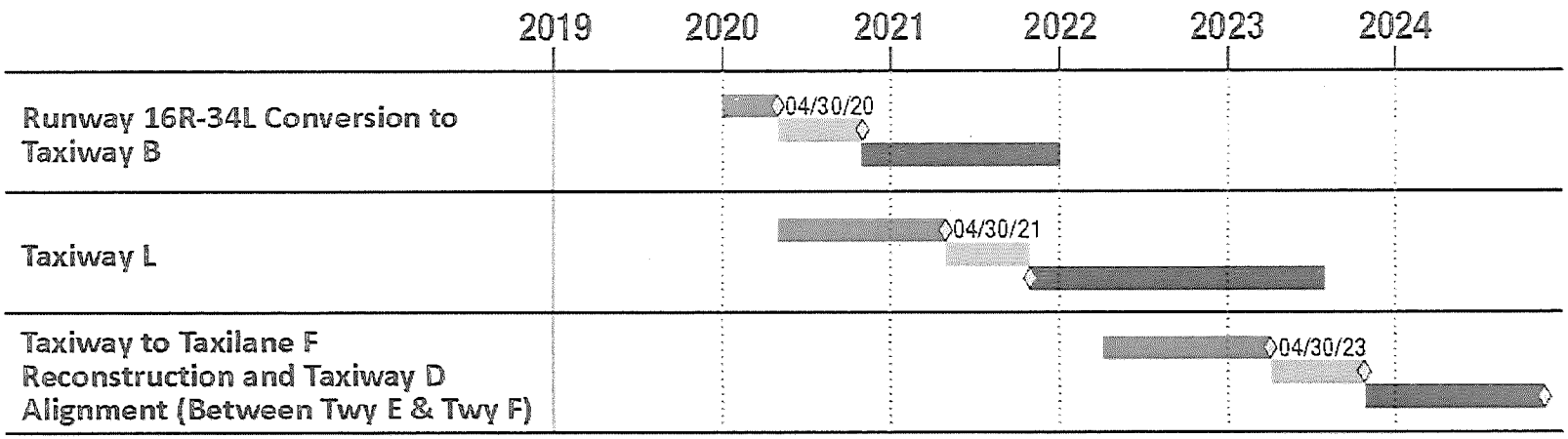
Taxiway L
Presentation

The Three Potential Projects on this Contract

1. Taxiway B
2. Taxiway L
3. Taxiway F



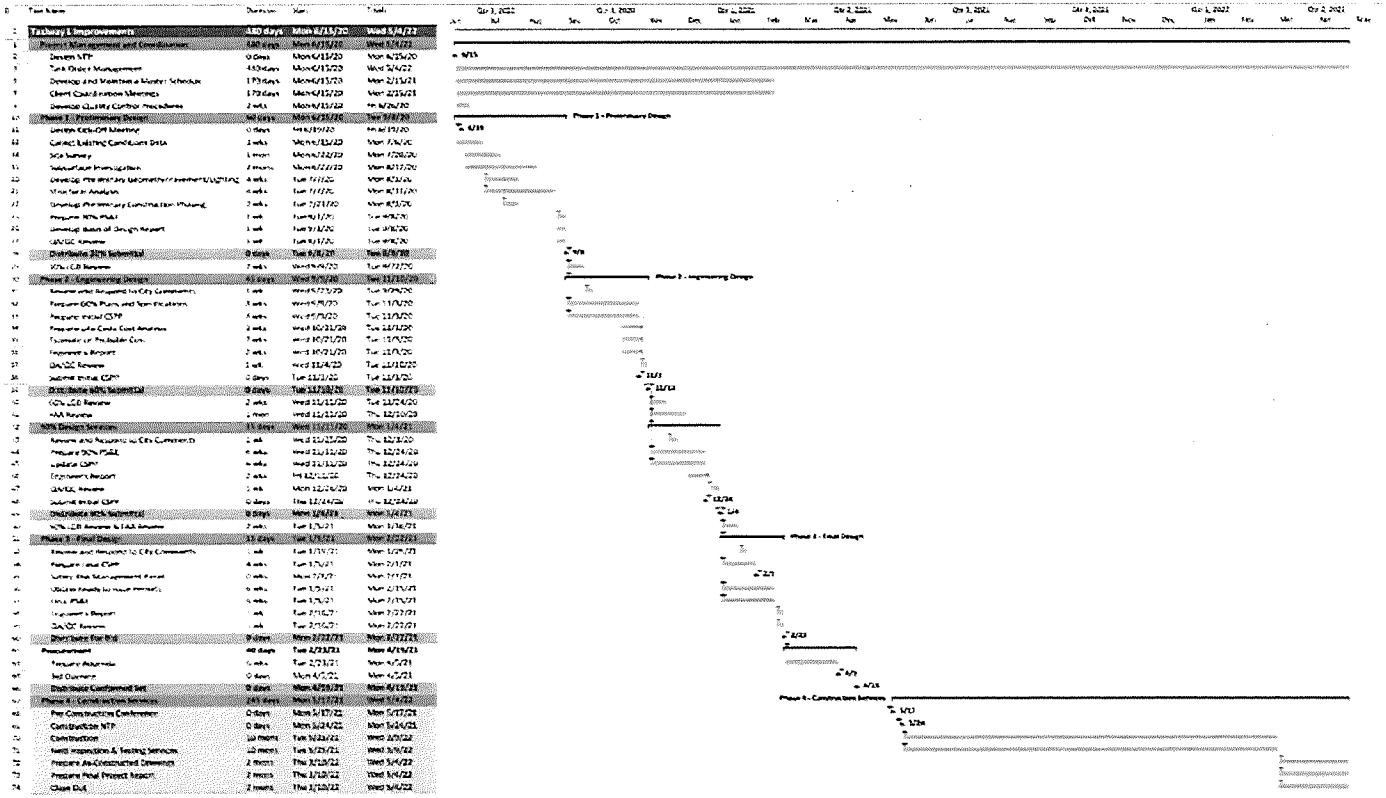
Overall Project Schedule



Legend

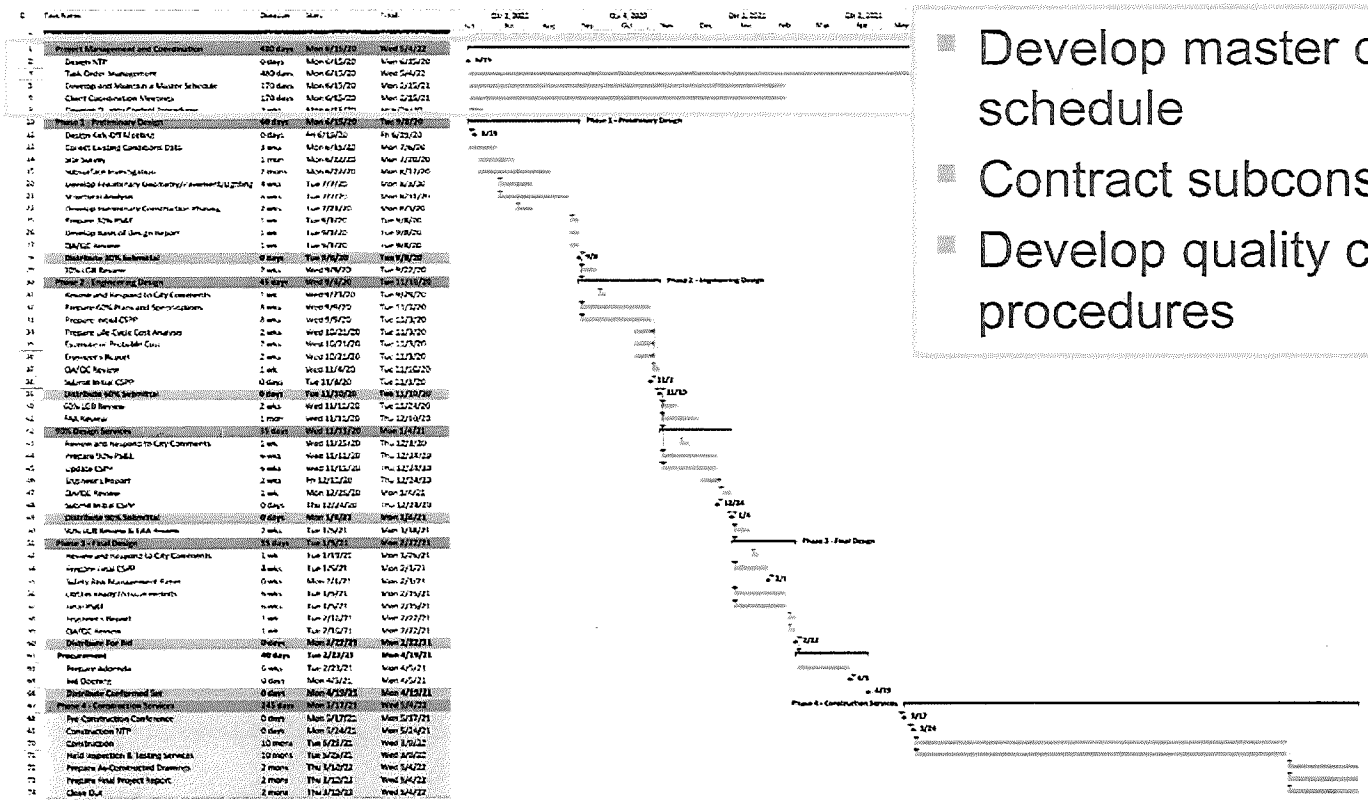
- Design
- Procurement
- Construction
- ◊ Milestone

Taxiway L – Overall Project Schedule



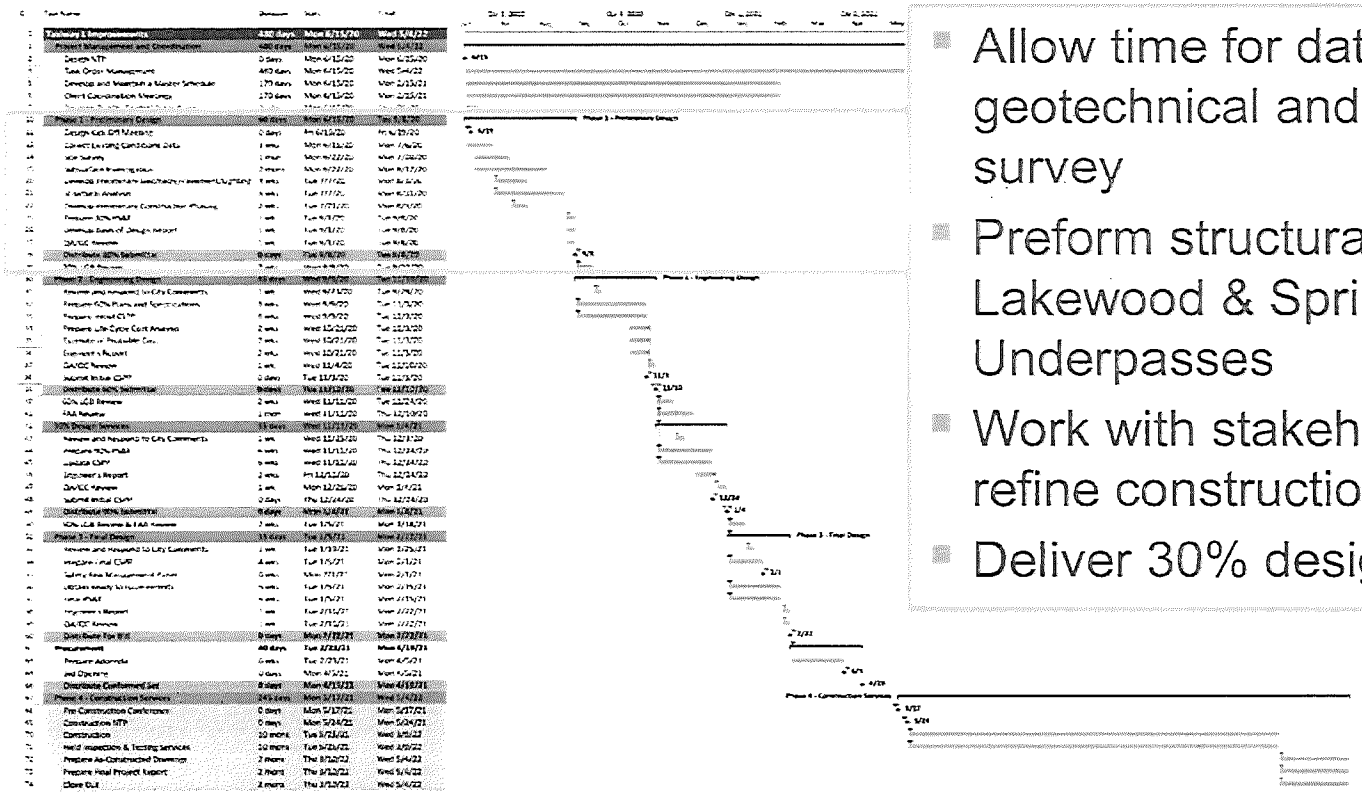
HNTB

Schedule – Project Management



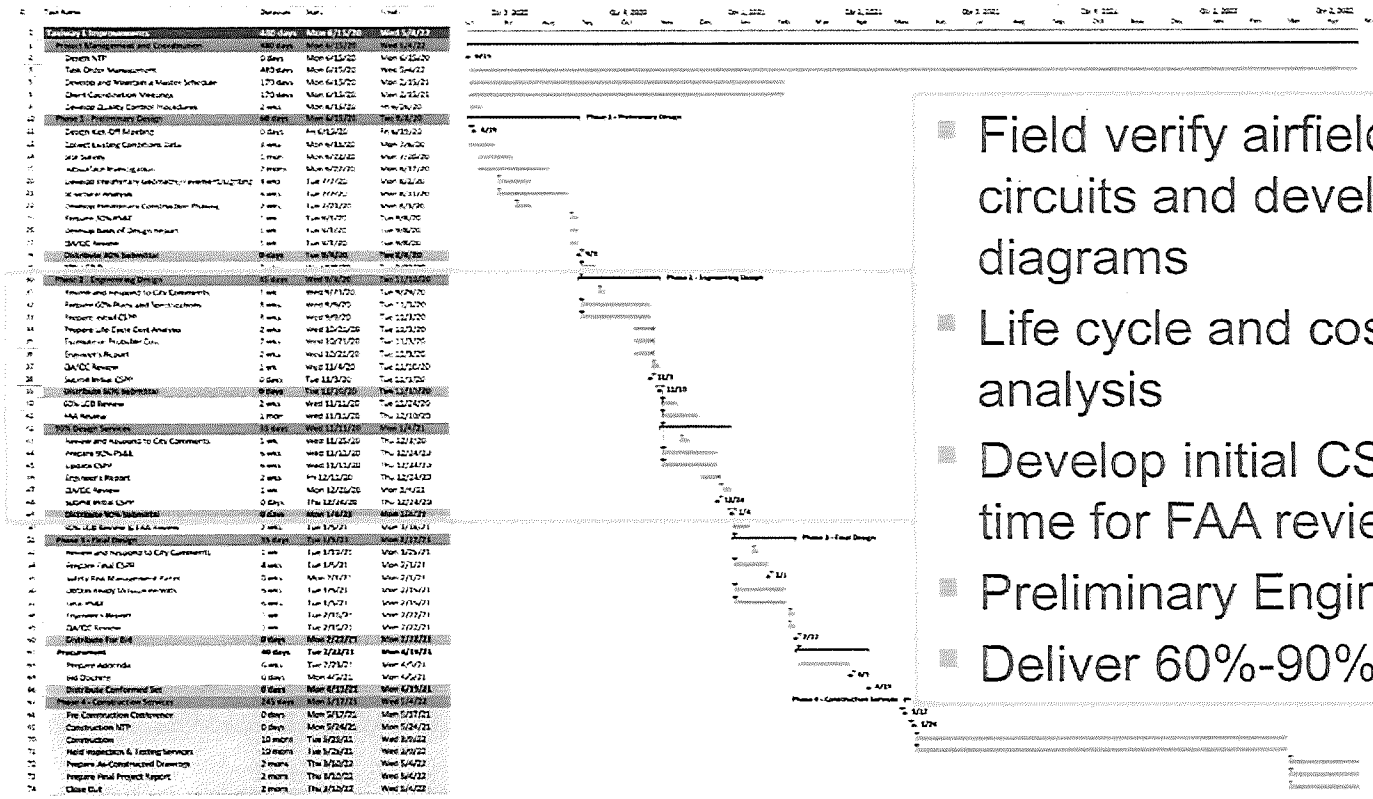
- Develop master design schedule
- Contract subconsultants
- Develop quality control procedures

Schedule – Phase 1: Preliminary Design



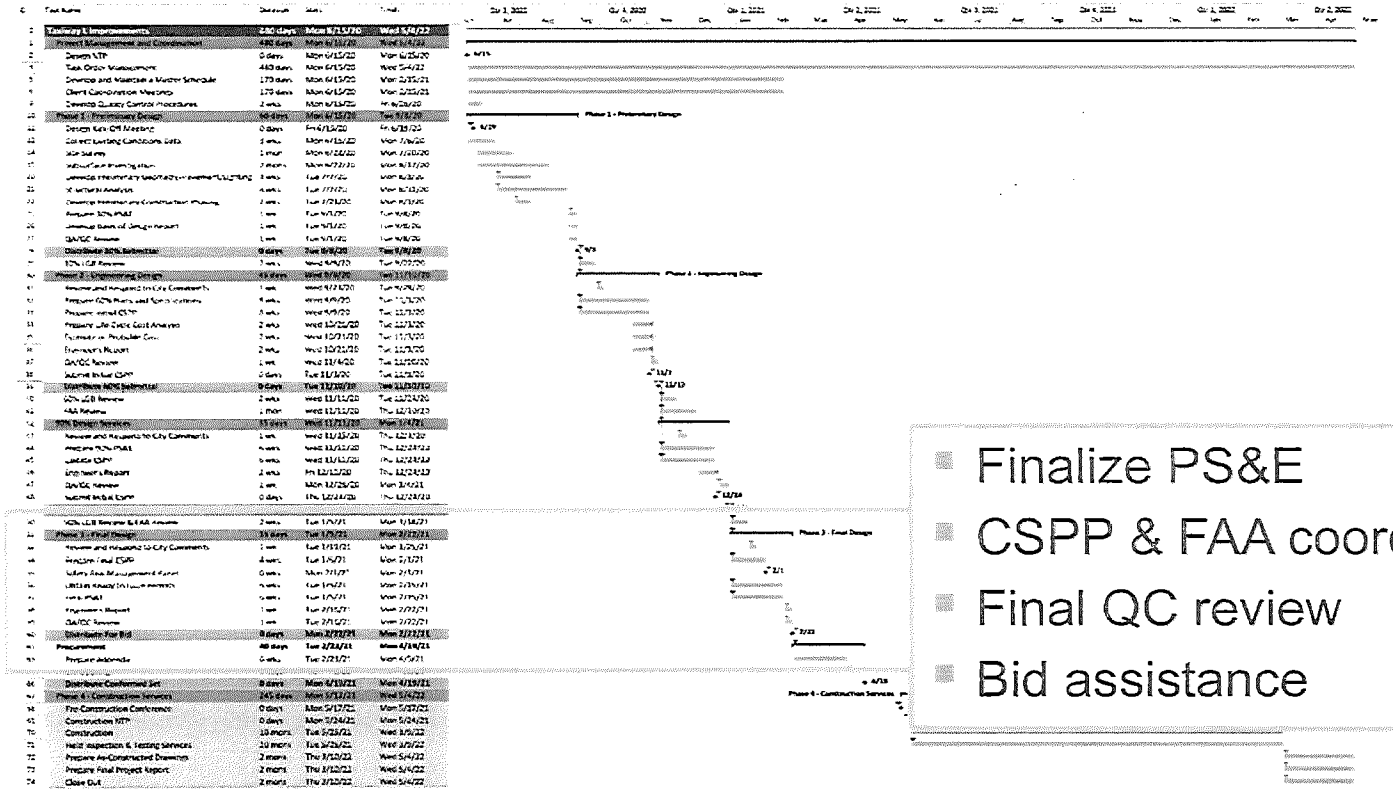
- Allow time for data collection, geotechnical and detailed survey
- Preform structural analysis of Lakewood & Spring St Underpasses
- Work with stakeholders to refine construction phasing
- Deliver 30% design

Schedule – Phase 2: Engineering Design



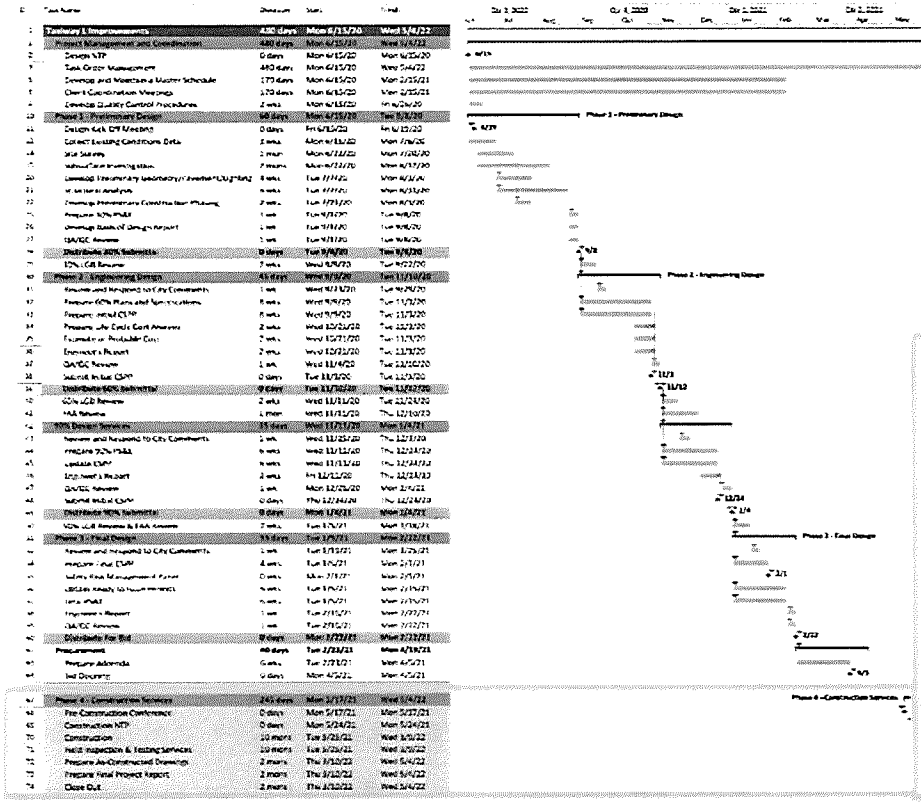
- Field verify airfield lighting circuits and develop butterfly diagrams
- Life cycle and cost benefit analysis
- Develop initial CSPP allowing time for FAA review
- Preliminary Engineers Report
- Deliver 60%-90% design

Schedule – Phase 3: Final Design



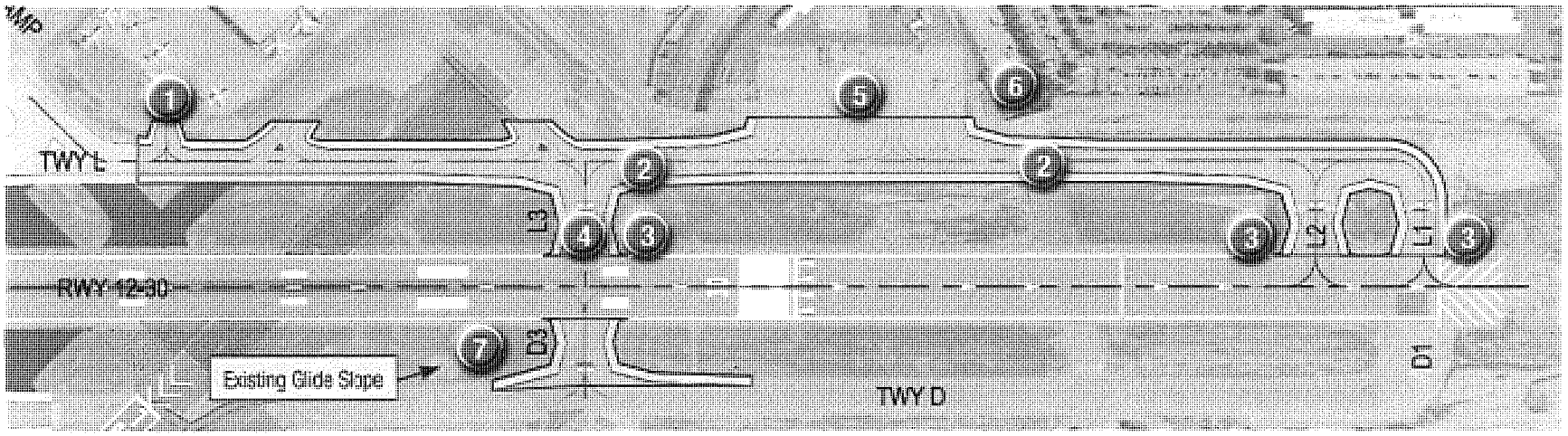
- Finalize PS&E
- CSPP & FAA coordination
- Final QC review
- Bid assistance

Schedule – Phase 4: Construction Services



- Respond to RFIs and Submittals
- Collaborate with CM & airport staff
- Provide subgrade certification by Geotechnical Engineer of Record

Issues Map – Taxiway L



1. Gulfstream Aviation Ingress - Egress during construction
2. Structural load considerations (Lakewood Boulevard and Spring Street underpasses)
3. Construction and phasing challenges within RSA of Runway 12-30
4. Re-alignment of Taxiway L3/D3 off of Spring Street tunnel
5. UPS tenant access to limit impact to their operations
6. Potential Caltrans coordination
7. Impacts to glide slope and critical area

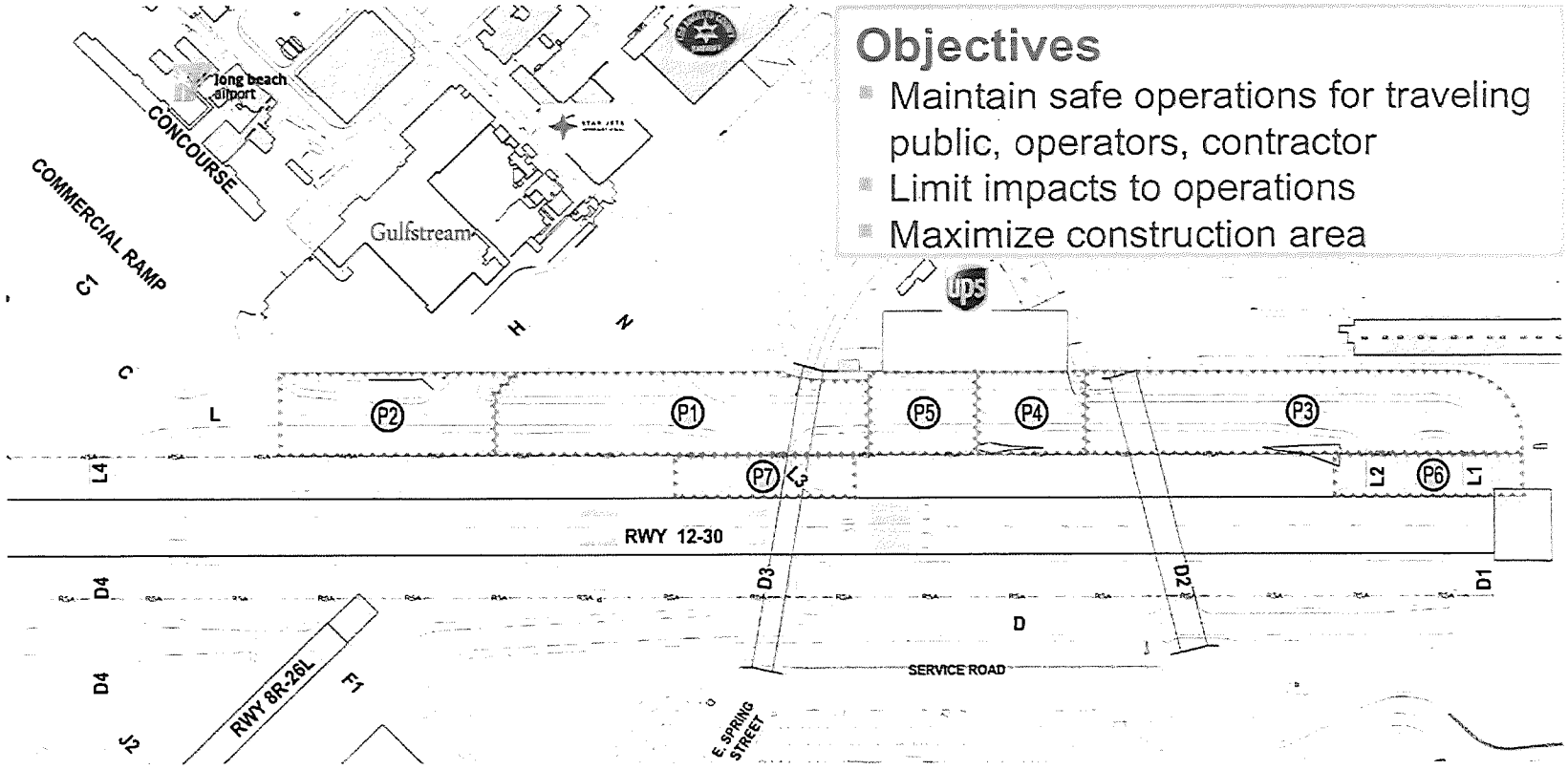
Approach to Construction Phasing

- Safety
- Cost
- Schedule
- Constructability

- Identify constraints
- Vet alternatives
- Drive towards consensus

- Develop CSPP
- FAA/ADO review
- LGB Ops reviews
- ATCT review

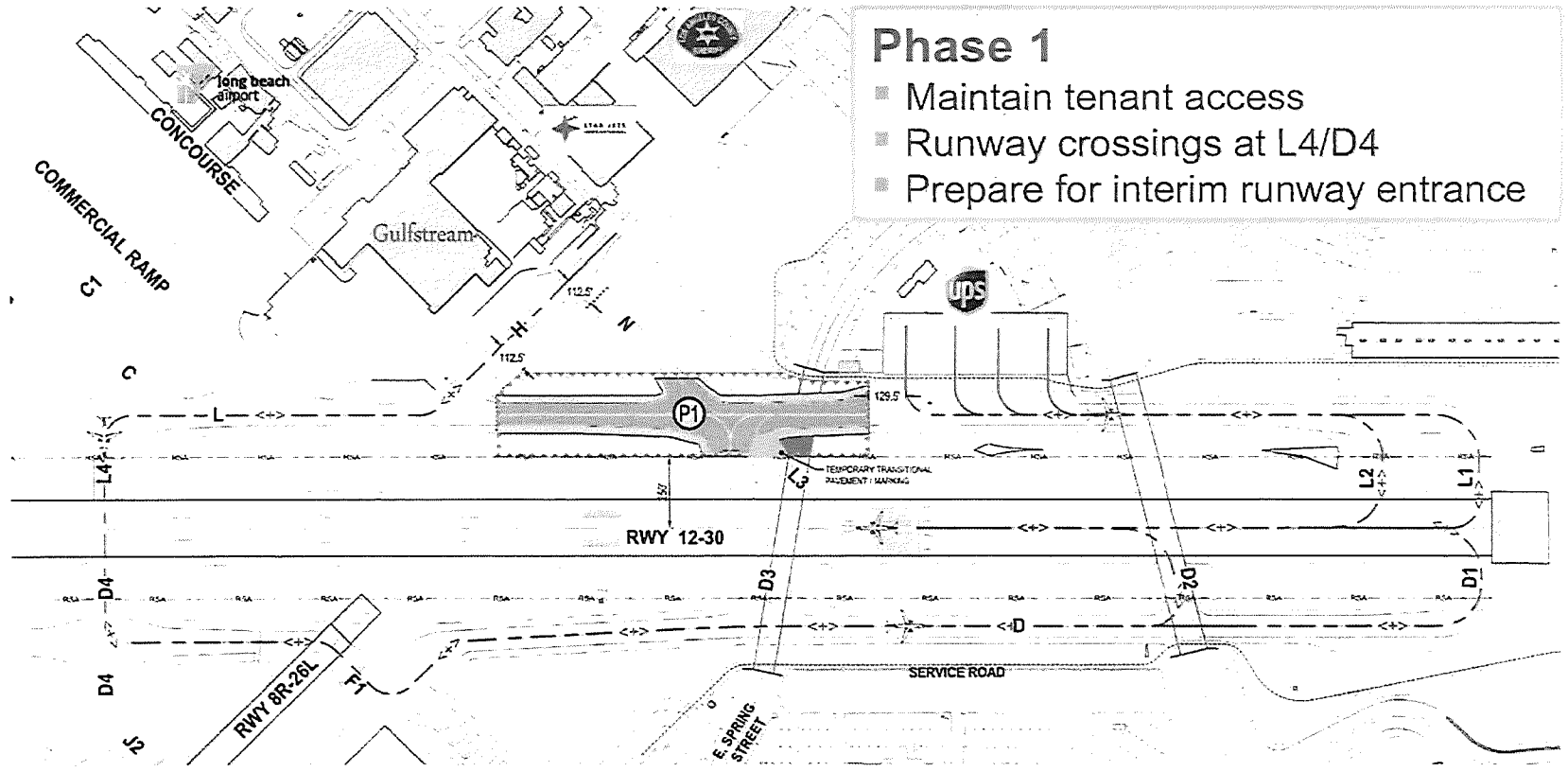
Taxiway L – Phasing Alternative



Objectives

- Maintain safe operations for traveling public, operators, contractor
- Limit impacts to operations
- Maximize construction area

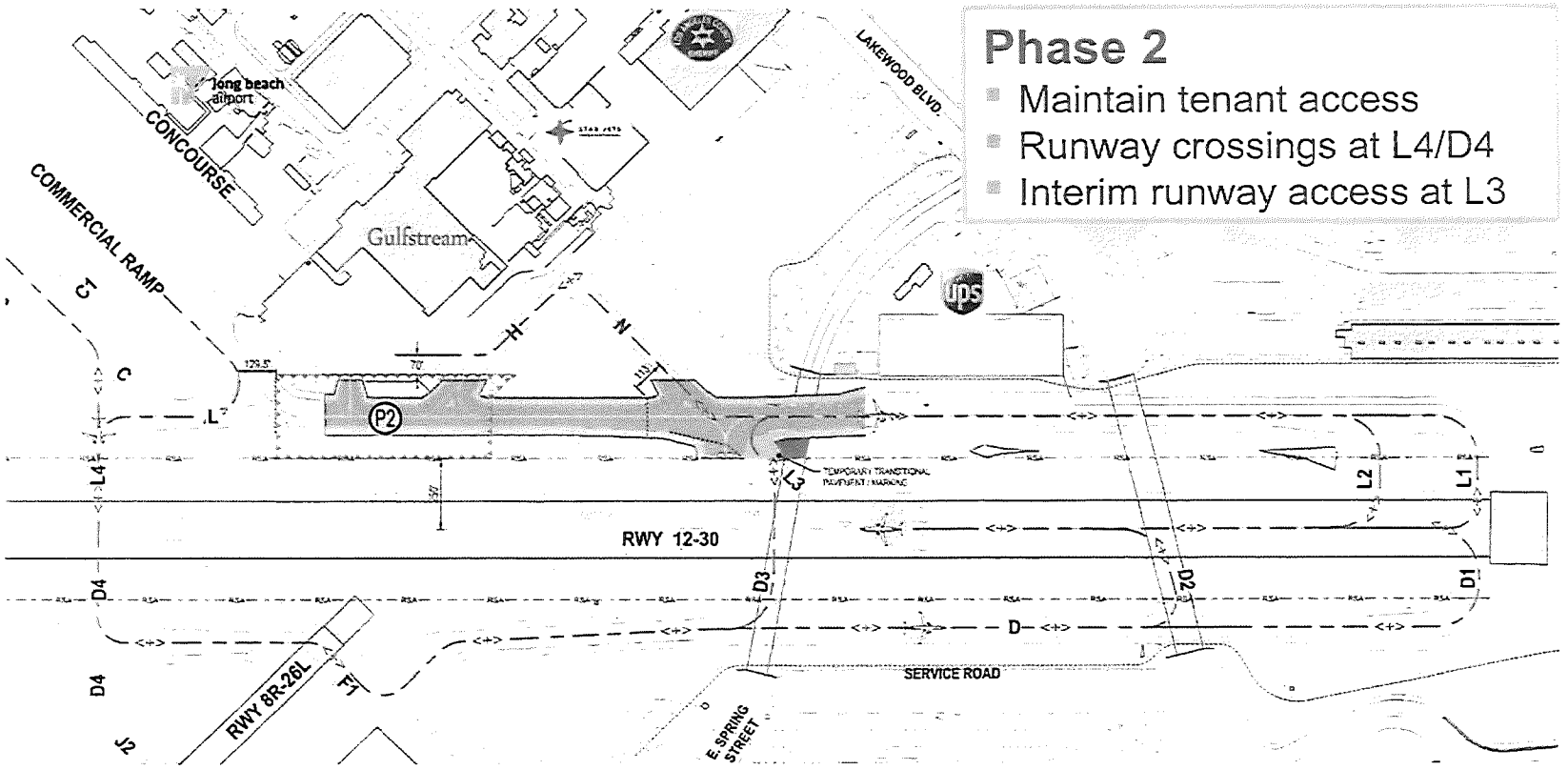
Taxiway L – Phasing Alternative



Phase 1

- Maintain tenant access
- Runway crossings at L4/D4
- Prepare for interim runway entrance

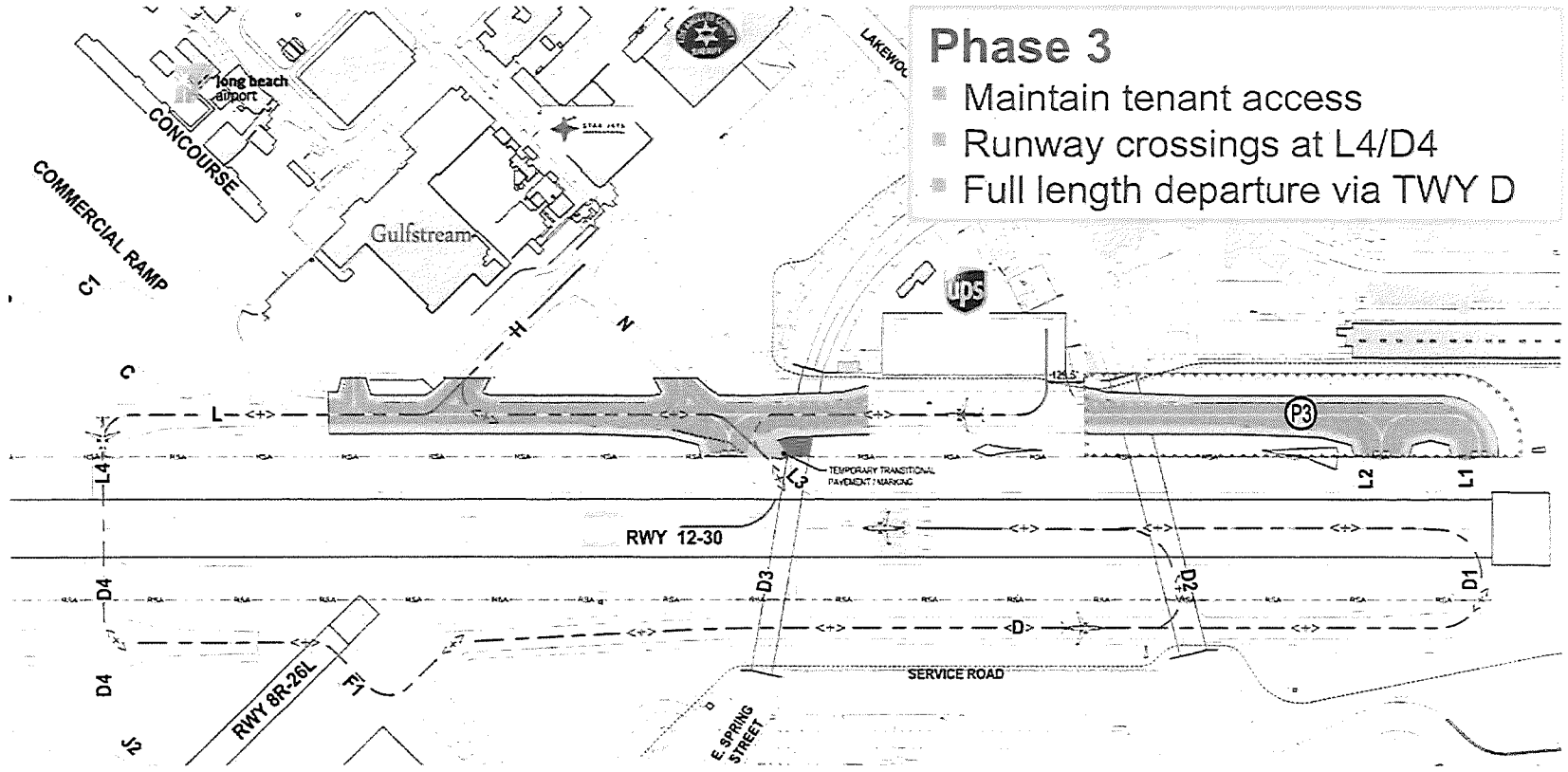
Taxiway L – Phasing Alternative



Phase 2

- Maintain tenant access
- Runway crossings at L4/D4
- Interim runway access at L3

Taxiway L – Phasing Alternative

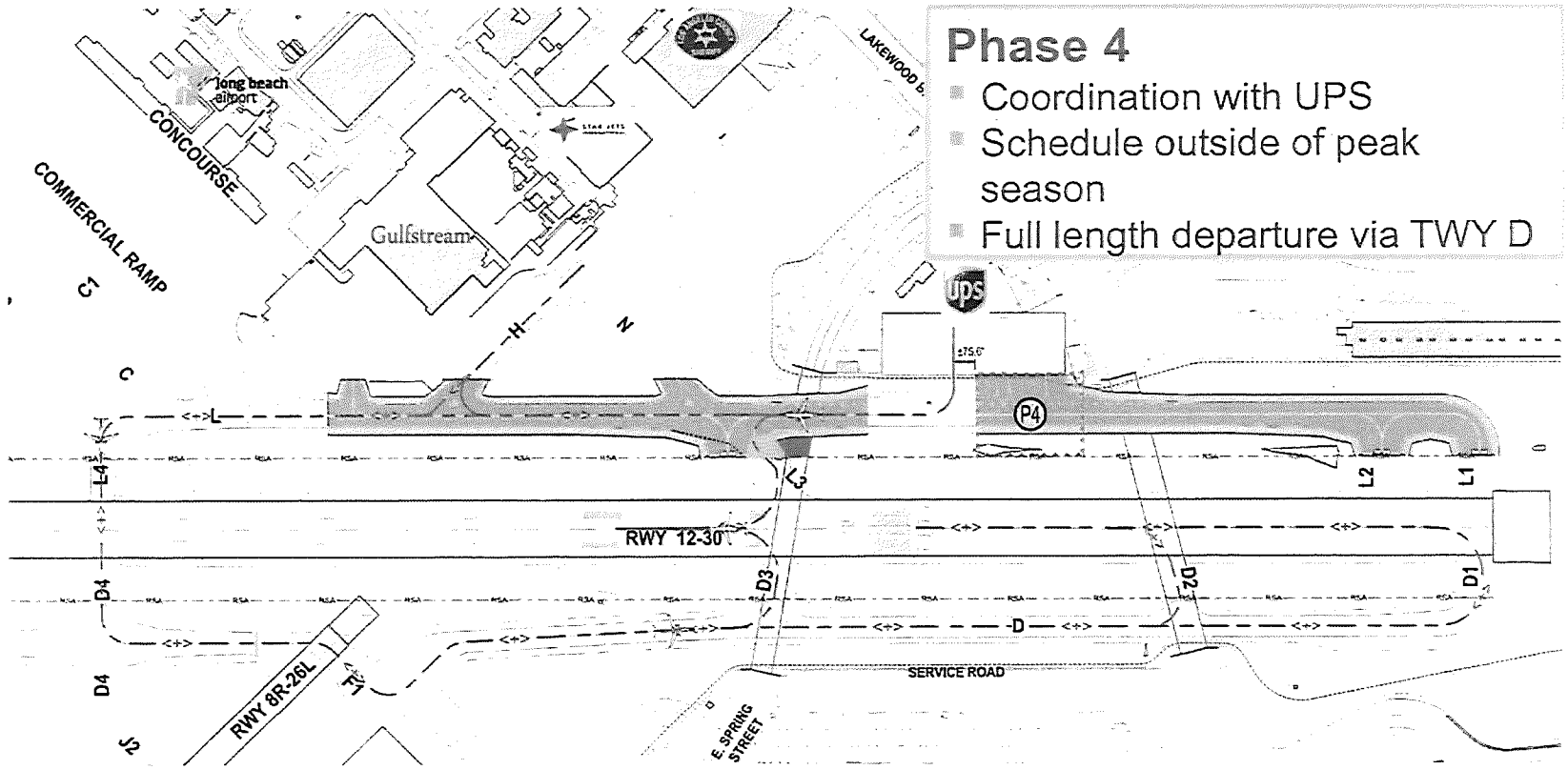


Phase 3

- Maintain tenant access
- Runway crossings at L4/D4
- Full length departure via TWY D

HNTB

Taxiway L – Phasing Alternative



Phase 4

- Coordination with UPS
- Schedule outside of peak season
- Full length departure via TWY D

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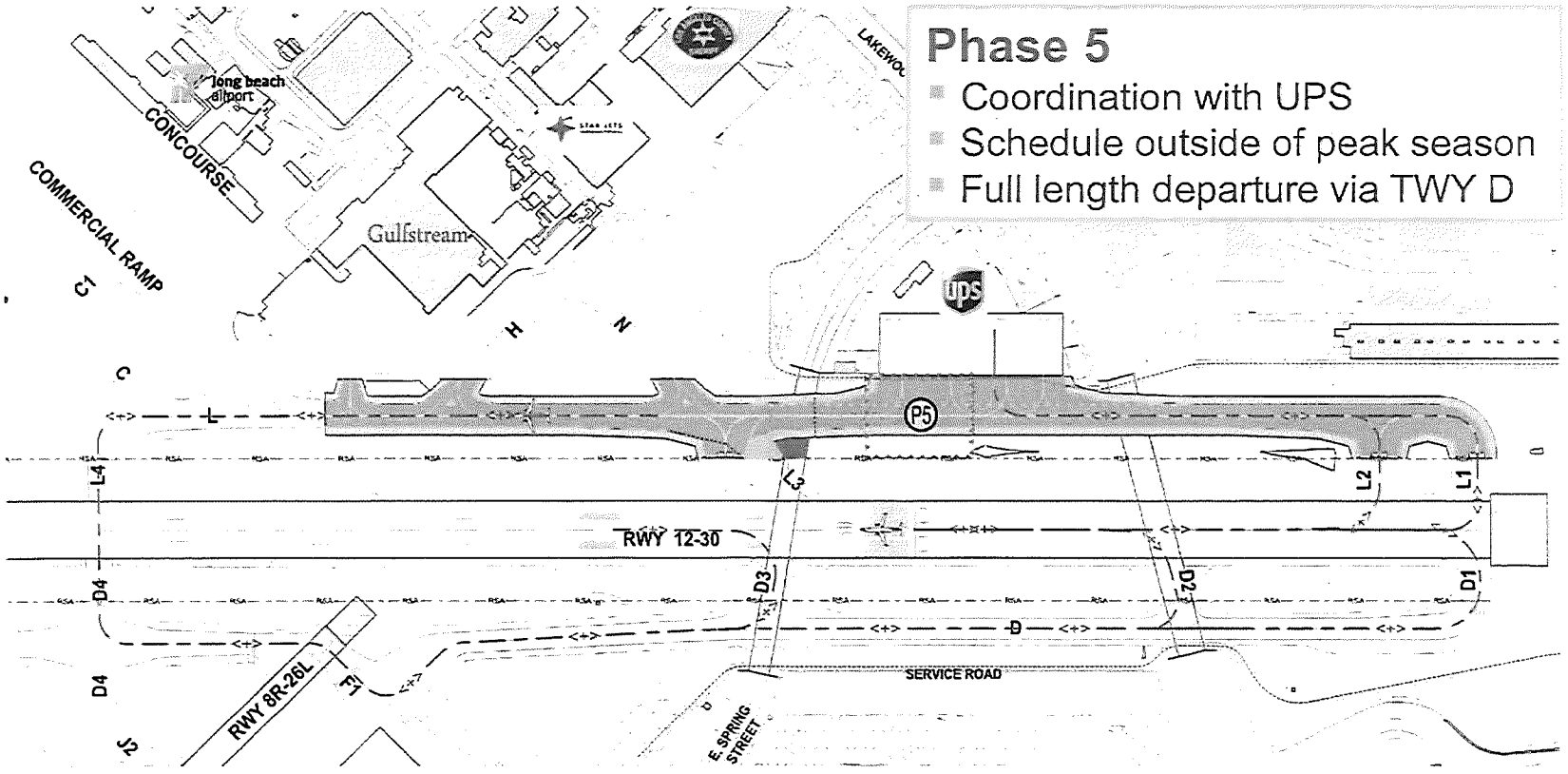
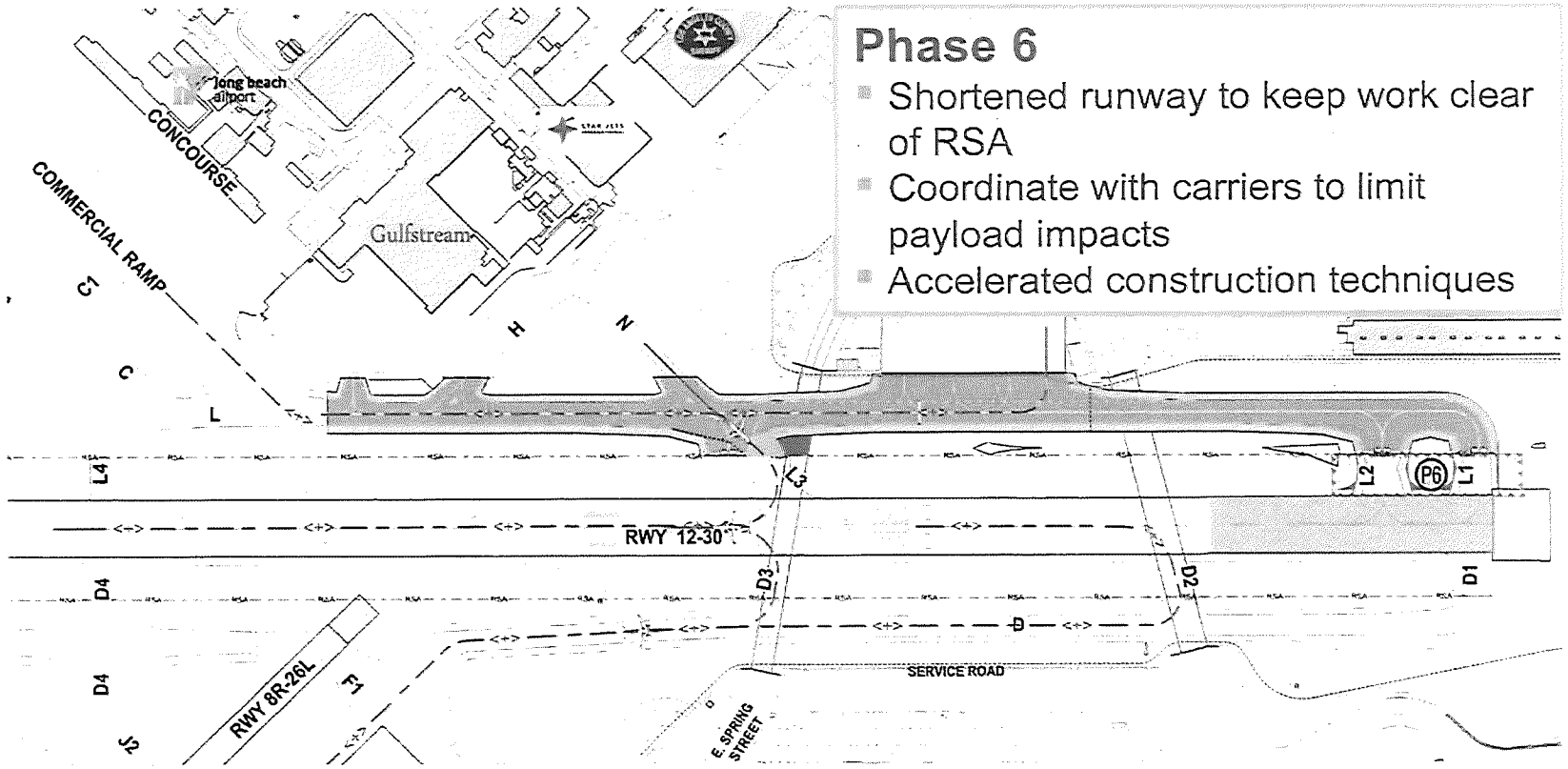
Taxiway L – Phasing Alternative



Phase 5

- Coordination with UPS
- Schedule outside of peak season
- Full length departure via TWY D

Taxiway L – Phasing Alternative

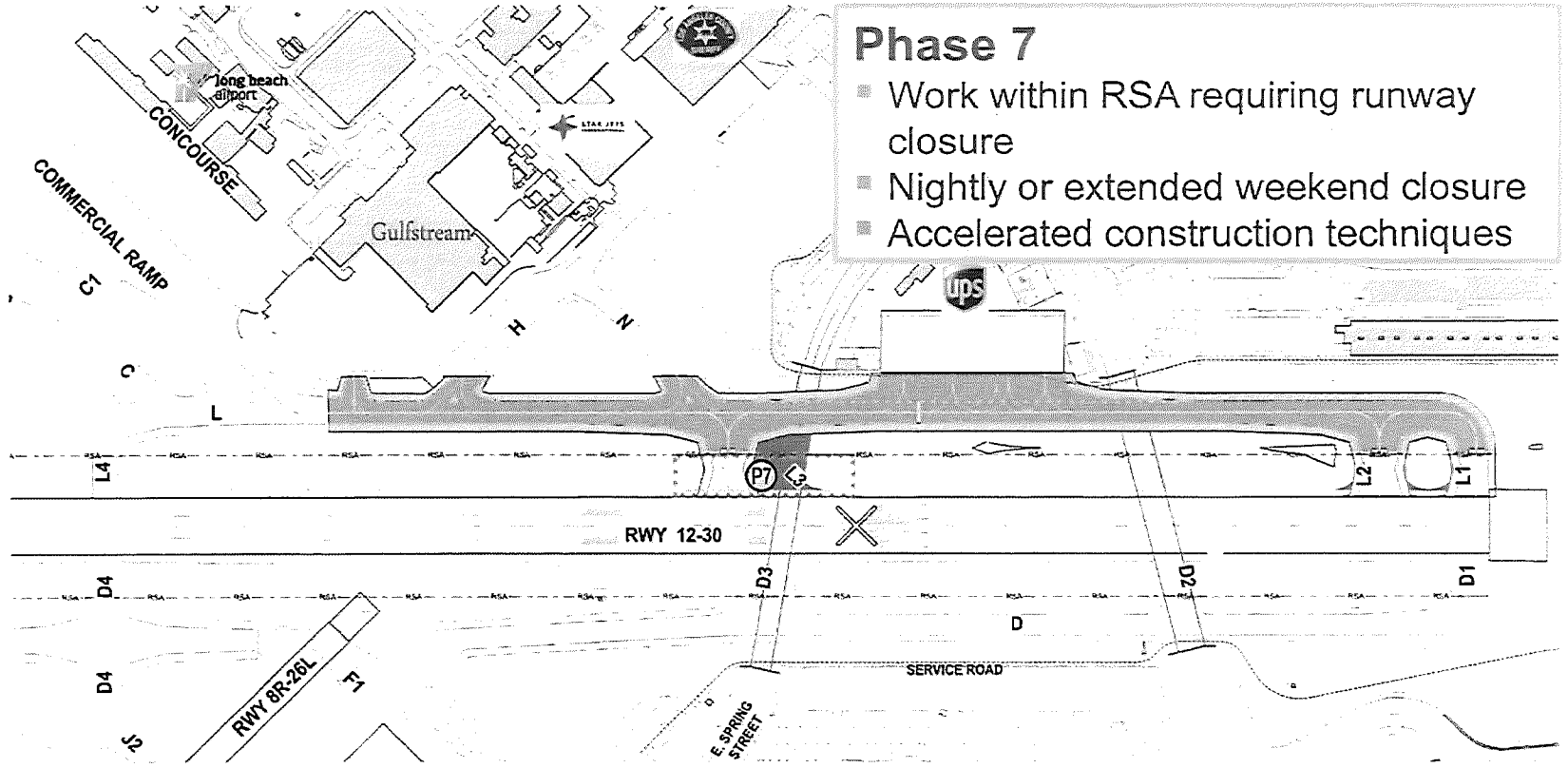


Phase 6

- Shortened runway to keep work clear of RSA
- Coordinate with carriers to limit payload impacts
- Accelerated construction techniques

HNTB

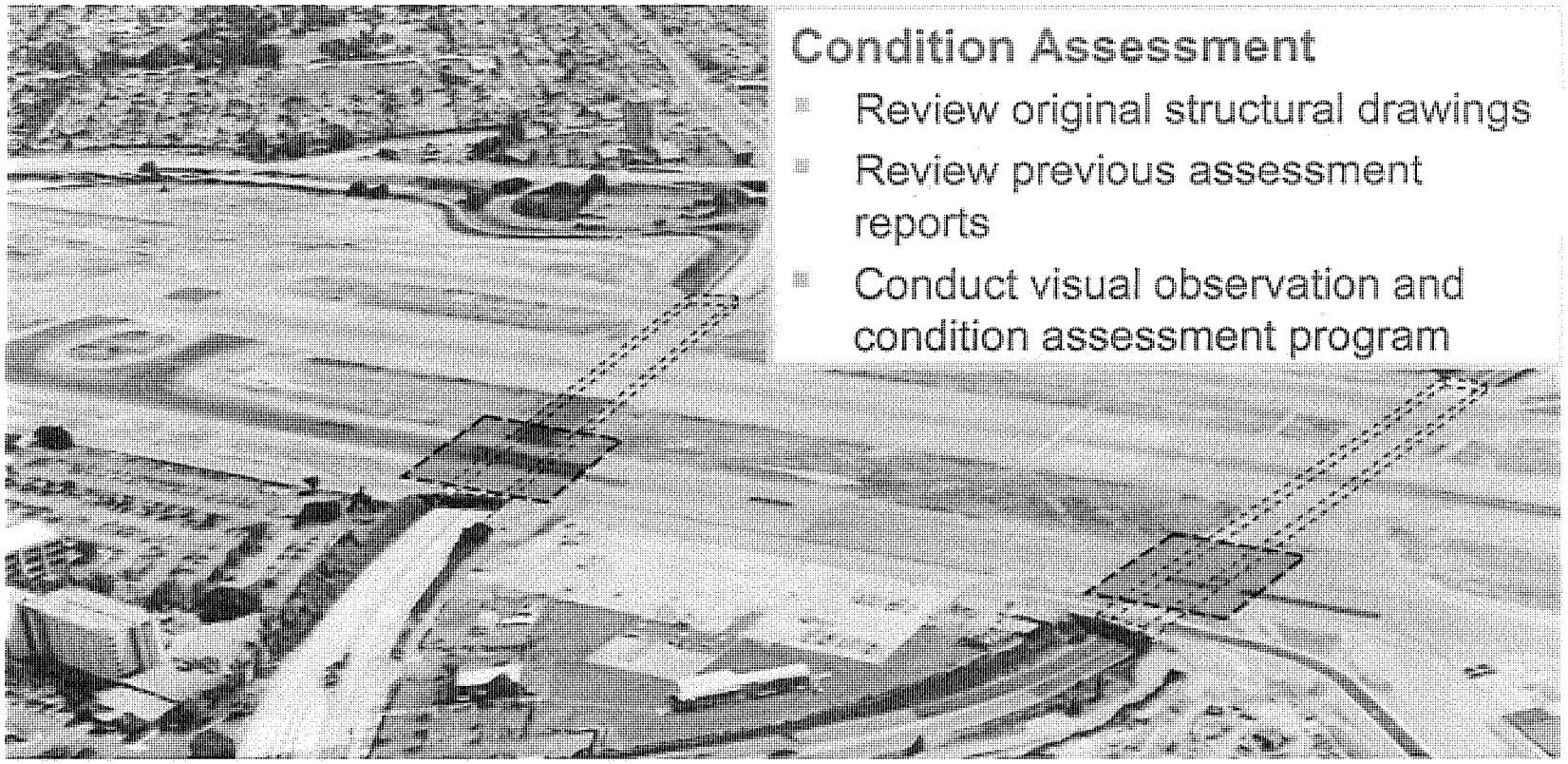
Taxiway L – Phasing Alternative



Phase 7

- Work within RSA requiring runway closure
- Nightly or extended weekend closure
- Accelerated construction techniques

Underpass Structures



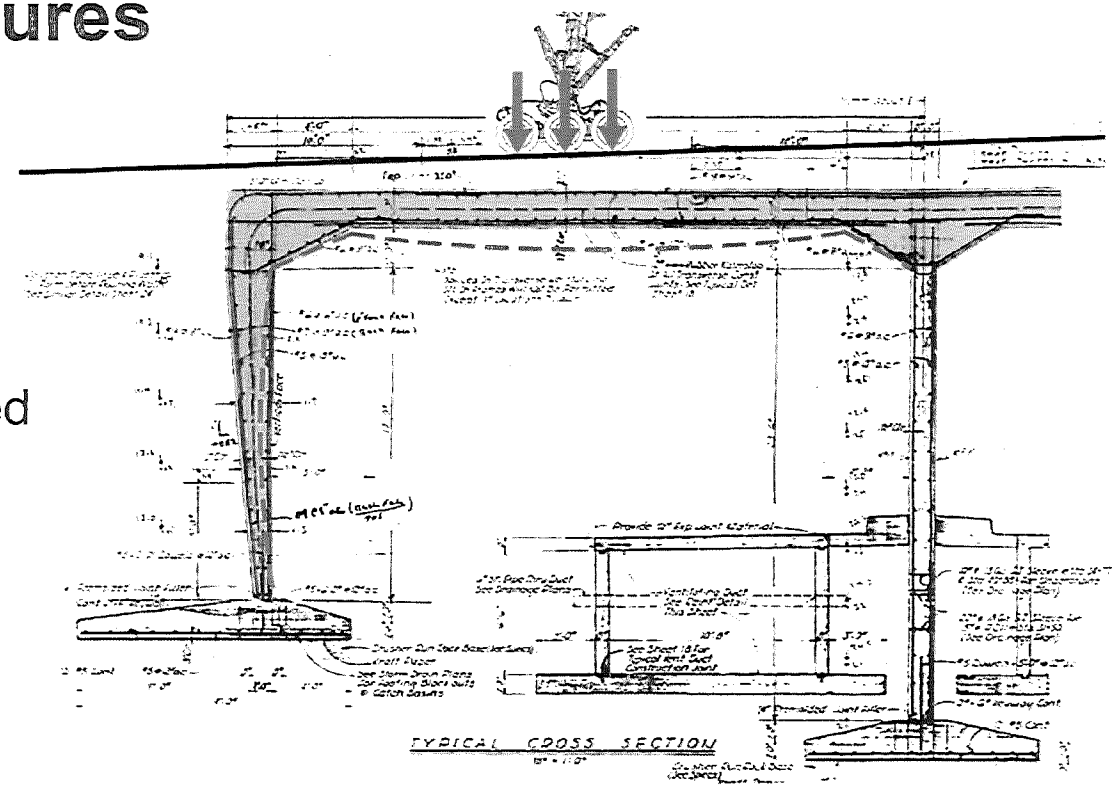
Condition Assessment

- Review original structural drawings
- Review previous assessment reports
- Conduct visual observation and condition assessment program

Underpass Structures

Structural Response

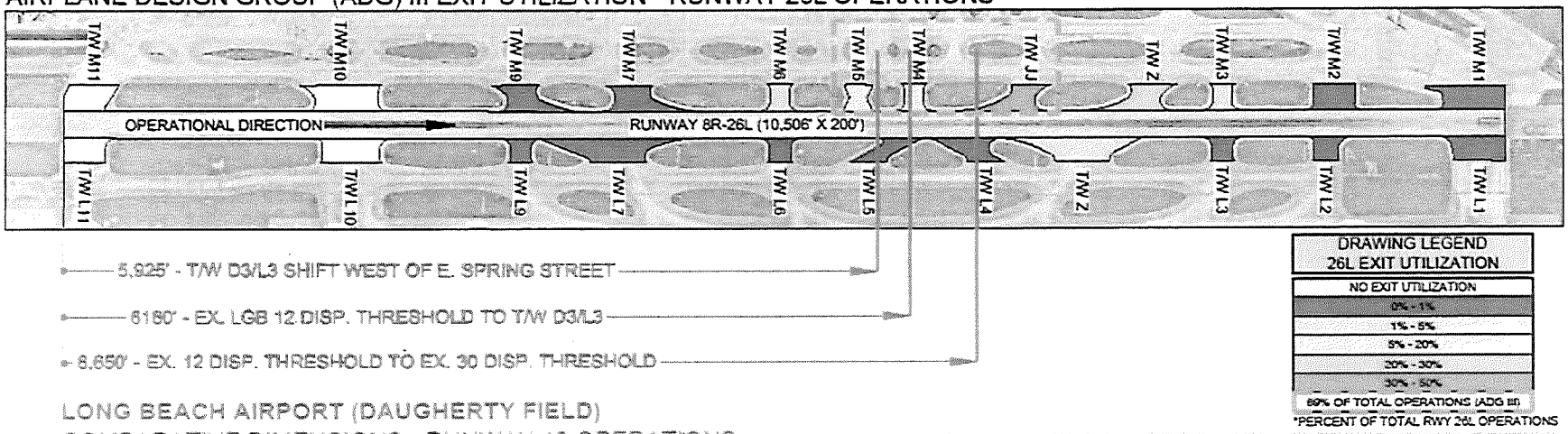
- Evaluate tunnel load rating and deflection
- Advanced analysis software (FEA + cracked element properties)
- Assess rehabilitation and/or strengthening options



Siting Criteria for Taxiway L3

MIAMI INTERNATIONAL AIRPORT

AIRPLANE DESIGN GROUP (ADG) III EXIT UTILIZATION - RUNWAY 26L OPERATIONS



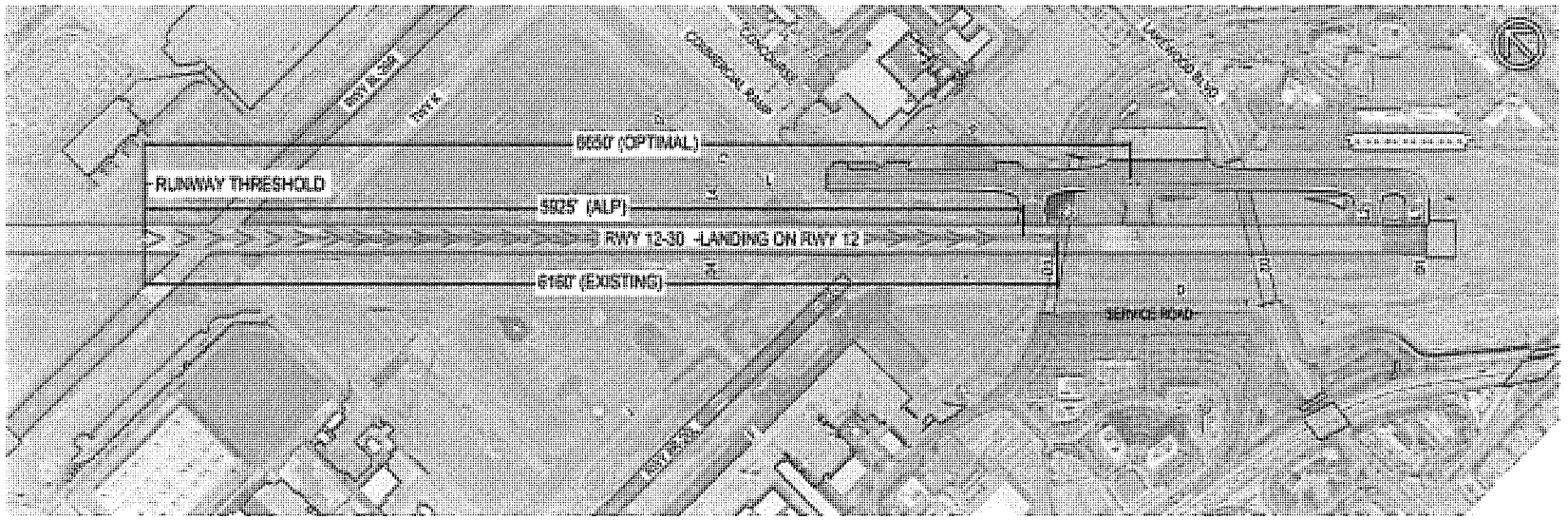
LONG BEACH AIRPORT (DAUGHERTY FIELD)

COMPARATIVE DIMENSIONS - RUNWAY 12 OPERATIONS

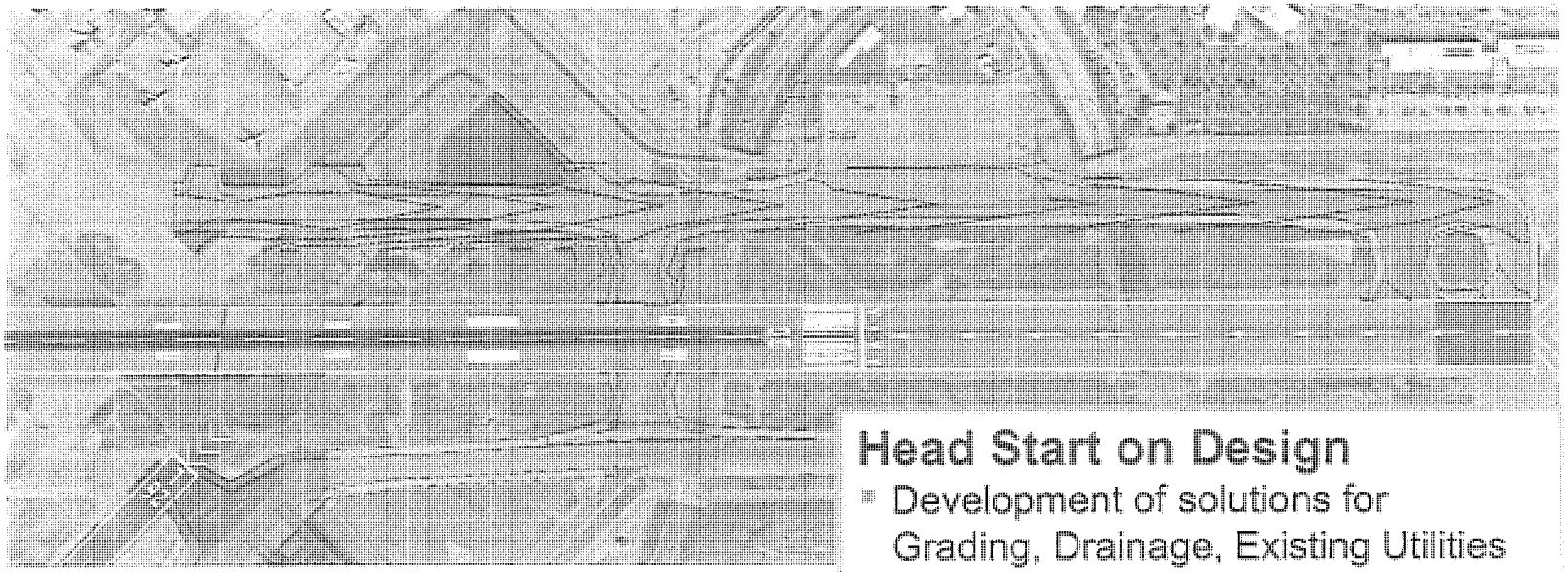
Objectives

- Defensible siting for L3 exit location
- Utilize comparable ASDE-X data
- Minimize runway occupancy/crossing time

Siting Criteria for Taxiway L3



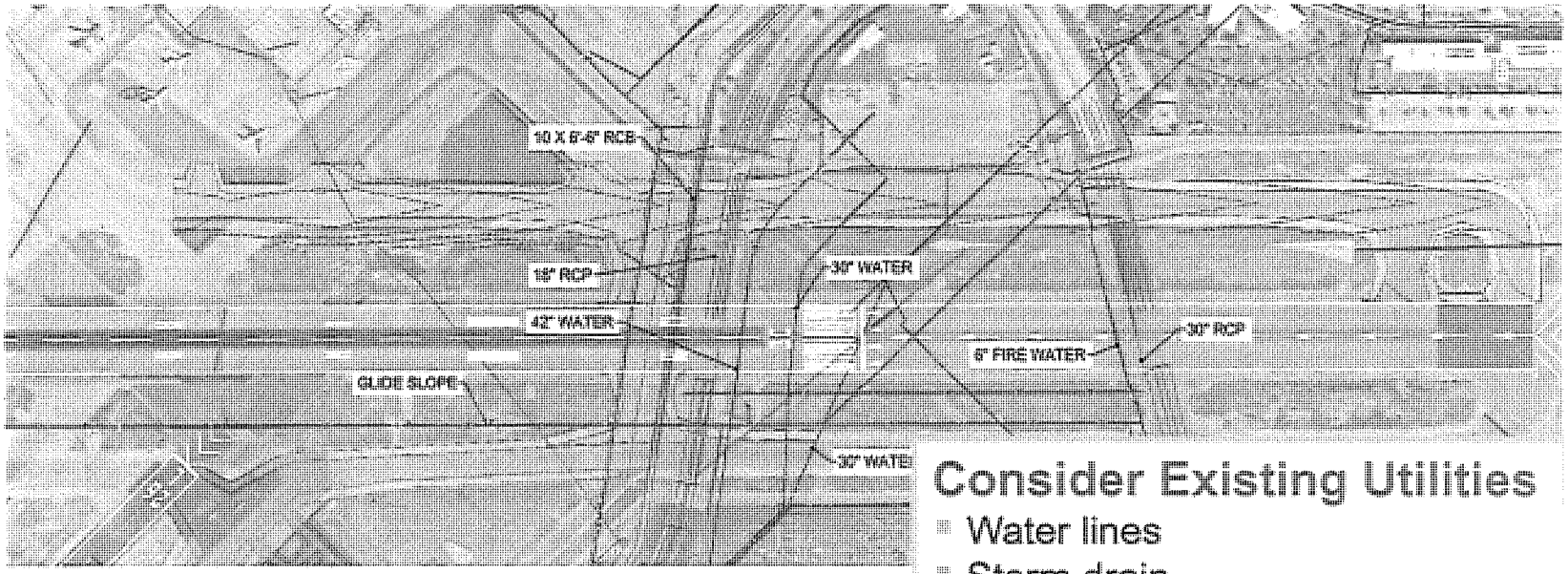
Development of Solutions for Major Design Components of the Entire Project



Head Start on Design

- Development of solutions for Grading, Drainage, Existing Utilities and Oil Lines

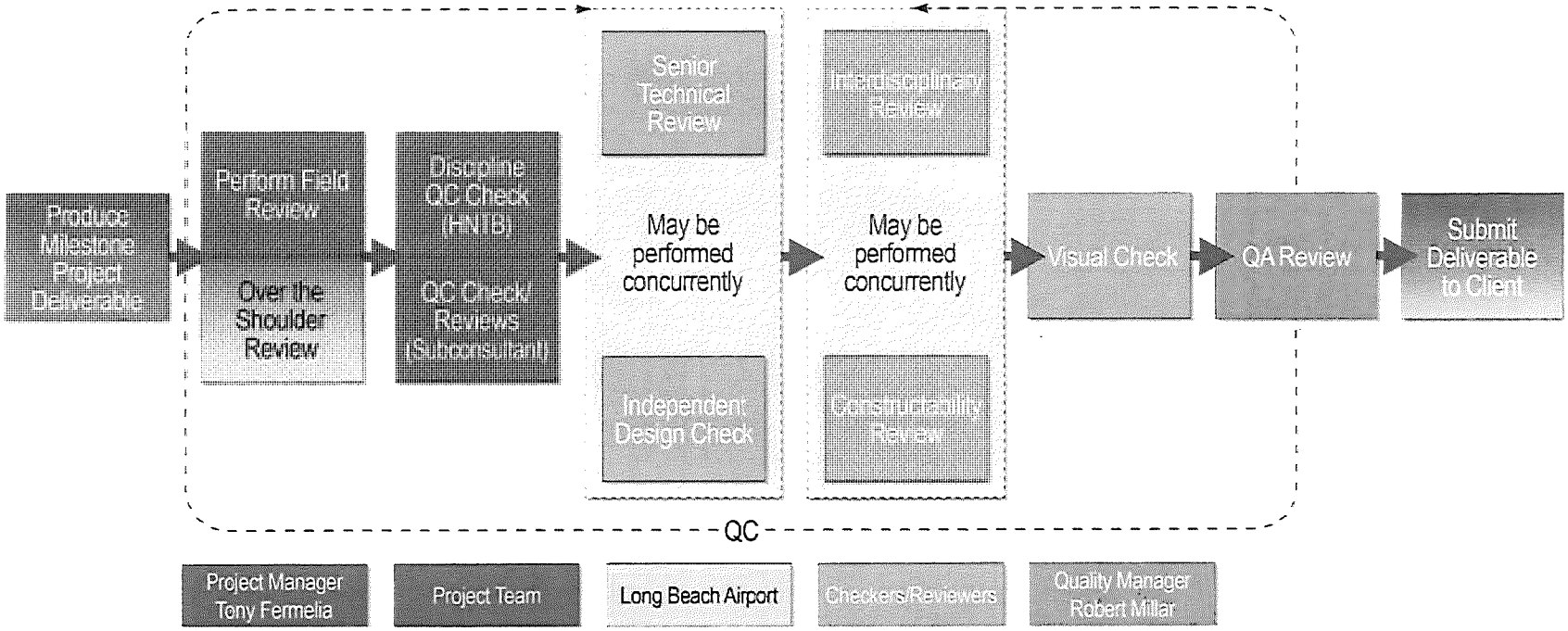
Development of Solutions for Major Design Components of the Entire Project



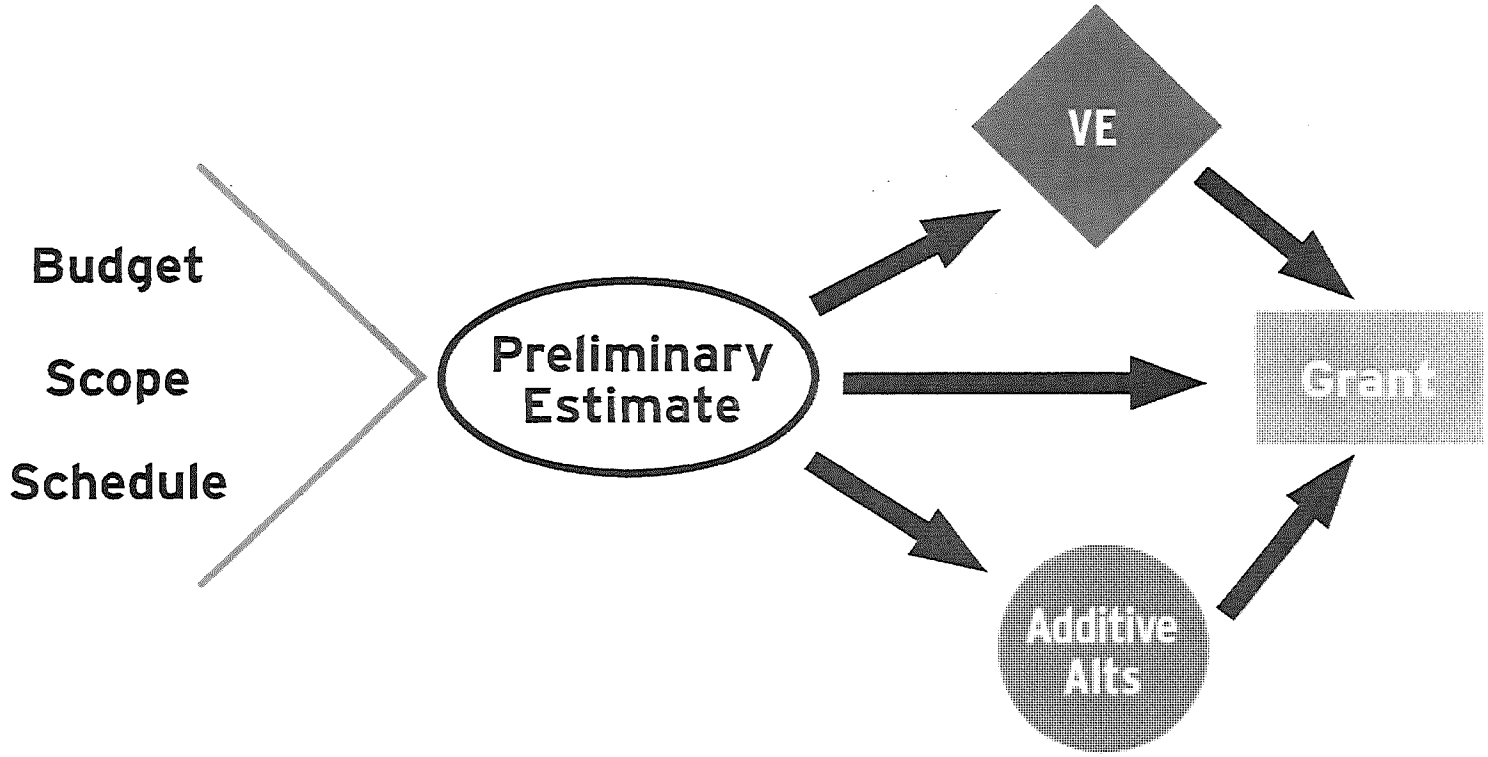
Consider Existing Utilities

- Water lines
- Storm drain
- Oil pipelines

Quality Assurance and Quality Control

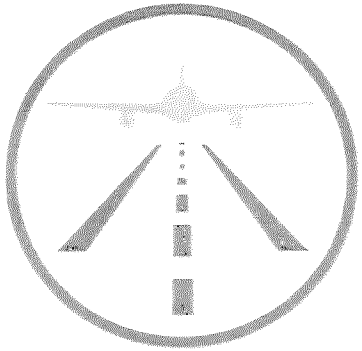


Value Engineering

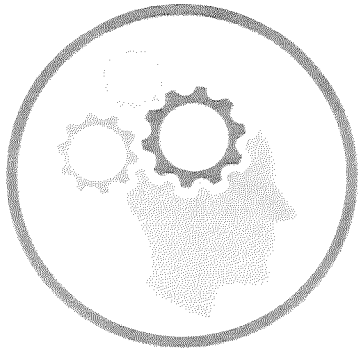


Why the HNTB Team?

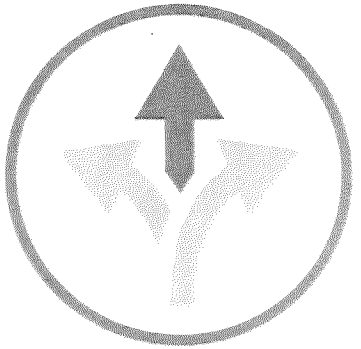
- Extensive Long Beach Airport Experience
- Full-Service Team
- A Flexible, Responsive Team



EXPERIENCE



FULL-SERVICE DESIGN TEAM



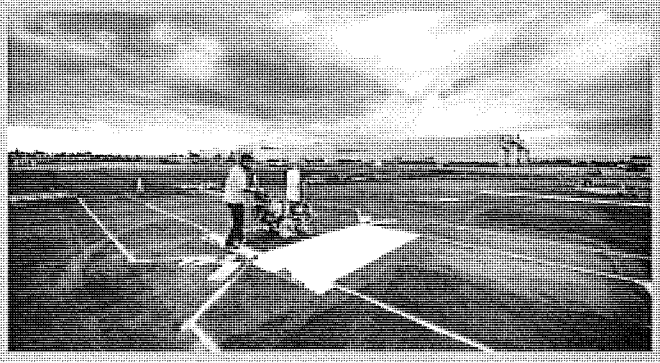
FLEXIBILITY

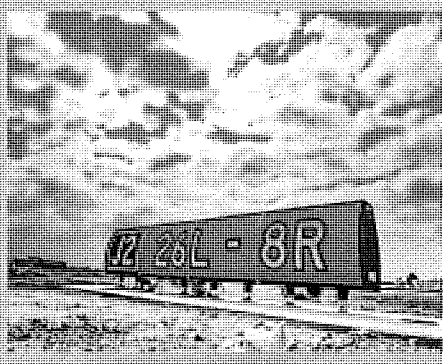
Ready for Questions

EXHIBIT "A-3"

Statement of Qualifications

long beach
airport





ENGINEERING PLANNING AND DESIGN SERVICES FOR VARIOUS DEVELOPMENT PROJECTS AT LONG BEACH AIRPORT, CITY OF LONG BEACH

PART ONE (1) - STATEMENT OF QUALIFICATIONS

RFQ#: AP19-134

NOVEMBER 1, 2019

HNTB

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

City of Long Beach

Request For Qualifications Number AP19-134

For
Engineering Planning and Design Services for Various Development Projects at Long Beach Airport

Release Date:	10/03/2019
Mandatory Pre-SOQ Conference:	10/10/2019
Questions Due to the City:	10/15/2019
Posting of the Q & A:	10/23/2019
Due Date:	10/30/2019

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

See Section 4 for instructions on submitting SOQs.

Company Name HNTB Corporation Contact Person Tony Fermelia

Address 6033 W. Century Blvd. Ste. 1050 City Los Angeles State CA Zip 90045

Telephone (310) 846-1810 Fax ( ) N/A Federal Tax ID No. 43-1623092

E-mail: tfermelia@hntb.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 October 25, 2019

Signed

Print Name & Title Tom Ellis, Senior Vice President

Rev 2016 0919

HNTB Corporation
Engineers Architects Planners

6033 West Century Boulevard
Suite 1050
Los Angeles, CA 90045

Telephone (310) 417-87677
www.hntb.com

HNTB

November 1, 2019

rfppurchasing@longbeach.gov (electronic submittal)
City of Long Beach
333 W. Ocean Blvd., Plaza Level
Long Beach, CA 90802

RE: RFQ AP19-134, Engineering Planning and Design Services for Various Development Projects at the Long Beach Airport

Dear Ms. Kol and Members of the Selection Panel:

Working together with the City and the Long Beach Airport (LGB), HNTB Corporation (HNTB) has completed numerous projects supporting the successful delivery of critical infrastructure projects across the LGB campus. Throughout this partnership, we have provided full-service professional planning, design and architectural services. Notably, our team developed the Airfield Geometry Study that identified many of the geometric enhancements now being implemented under the Engineering Services contracts. On the current Engineering Services contract, our team partnered with you and your stakeholders to successfully deliver the Runway 8R-26L Relocation Project and the Mayor's Wall, and we are currently supporting the design of the RON and construction improvements to Taxiway C.

Our project manager and **Southern California Aviation lead, Tony Fermelia,** has crafted a team that encompasses the same local experts that you already know and trust, while bringing to bear the full-service capabilities of our local and national aviation practices. Understanding that the primary focus of this contract will be airside improvements—and that those improvements need to be delivered on accelerated timelines to capture FAA funding, **Engineering Design Managers James Long and Megan Monticone** will leverage their experience designing and delivering a wide range of projects across LGB's campus to expedite the design of Taxiways B, L and F. **Justin Bychek,** who led the Airfield Geometry Study, will lead the planning effort for this contract and will provide envaluable insight into the upcoming airfield design projects.

HNTB is uniquely positioned to partner with you and ensure successful project delivery on the multitude of projects included within this contract for the following reasons:

FULL-SERVICE DESIGN FIRM

HNTB offers a full suite of aviation professional planning, design and architectural services from our local Southern California offices. In Southern California alone, HNTB has aviation-focused staff spanning all three major disciplines. Our local staff have a proven track record of delivery at LGB and your peer airports throughout the FAA's Western-Pacific Region. As a full-service firm, we are confident we can successfully deliver any of the potential design services arising from this contract. Through our prior work with LGB, we have demonstrated our ability to deliver diverse projects, big or small, within an active airport environment. Supplementing our local experts, we have the full bench of HNTB's national aviation practice, which has been delivering projects successfully for airport clients for more than 80 years.

EXTENSIVE LONG BEACH AIRPORT EXPERIENCE

HNTB has experience delivering projects at Long Beach for more than 16 years; Tony worked on the Runway 12-30 Rehabilitation, James and Megan on the Terminal Ramp Improvements and Justin worked on the Airfield Geometry Study. Our project leaders have a thorough understanding of your objectives and constraints and bring existing relationships with critical stakeholders. Our understanding of your facility and its unique considerations allows us to accelerate design efforts, tailor creative solutions and avoid setbacks. Of importance is the institutional knowledge we bring from our development of the Airfield Geometry Study, which identified the need, approach and objectives of the airfield improvements occurring along Taxiways B, L and F, three of your most critical projects on this contract.

A FLEXIBLE, RESPONSIVE TEAM

Our team is comprised of **local experts who are committed to providing responsive service to LGB.** We have demonstrated our ability to respond quickly to your needs and maintain design progress through stakeholder changes. On the Runway 8R-26L project, Tony led an accelerated design effort in order to meet the FAA AIP funding cycle. This level of responsiveness will be required to successfully deliver Runway 16R-34L Conversion to Taxiway B Project, which will have a similarly aggressive design schedule. On the Improvements to Taxiway C assignment, our team of experts worked closely with Airport Operations, the FAA Air Traffic Control Tower and your airline partners to develop a creative phasing approach for the critical runway work which evolved throughout the design phase. Projects such as Taxiway L Improvements that have runway impacts will require a similar iterative approach to phasing and requires a flexible designer willing to work with your stakeholders, as we have done on multiple recent projects.

QUALIFICATIONS TO MEET PROJECT CHALLENGES

The HNTB team is best qualified to meet the challenges associated with the scope of services and projects for the following reasons:

- Our team is intimately familiar with LGB. We understand the unique challenges of the operations, layout and facilities at this airport and can develop planning and design solutions that address these challenges in a timely and cost-effective manner.
- We have the local experts and necessary resources to mobilize the right team quickly to support project delivery. The history of collaboration among our key personnel, support personnel and subconsultants will enable efficient start-up, coordination, communications and problem solving throughout the contract.
- The HNTB team brings decades of experience working in active airport environments along with a demonstrated ability to design and phase work to minimize operations impacts.
- We have experience developing consensus with LGB stakeholders to progress design efforts, including airport operations, airlines, tenants and the FAA.

The HNTB team is excited to continue our partnership with LGB to deliver the critical projects identified within this contract. We have a personal stake in helping you complete the Engineering Services for Various Development Projects at Long Beach Airport and are eager to continue our tradition of delivering successful projects for you. Should you have any questions regarding our proposal, please contact Tony Fermelia at 714-943-4980, or at tfermelia@hntb.com.

Respectfully submitted,
HNTB CORPORATION

Tom Ellis
Senior Vice President
Southern California District Leader

Tony Fermelia, PE
Project Manager
Aviation Department Manager

Part 1 – Table of Contents

RFQ Required Cover Page

Cover Letter

Page

5.9.1 Proven experience in all aspects of Airport Engineering and capability to perform all or most aspects of the project and recent experience in airport projects comparable to the proposed task 1

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 9

5.9.3 Demonstrated understanding of project implementation, potential problems and the City's special concerns 12

5.9.4 Quality of projects previously undertaken and capability to complete projects without having major cost escalations or overruns 19

5.9.5 Current workload and demonstrated ability to meet scheduled deadlines 20

5.9.6 Capability to conduct a Value Engineering (VE) study for projects that are particularly complex or have unique features 21

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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 22

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Appendix - Resumes

5.9.1 through 5.9.9

(corresponding to Sections 3 and 7)

5.9.1 PROVEN EXPERIENCE IN ALL ASPECTS OF AIRPORT ENGINEERING

HNTB Corporation (HNTB) is an employee-owned infrastructure solutions firm with more than 4,800 staff located in over 60 offices nationwide. We provide planning, architecture, engineering and program and construction management services. We have gained national recognition with aviation clients since 1944, delivering more than $30 billion worth of airport infrastructure projects at airports across the country.

LOCAL EXPERTISE

- Our Southern California staff have strong working relationships with the FAA Western-Pacific Region and the City.
- The HNTB team has delivered projects of similar scale and complexity across the Southern California.
- HNTB has a 16-year partnership with LGB on aviation projects.
- Through our work on the Long Beach Airfield Geometry Study, HNTB has developed the preliminary geometrics for the projects listed in this RFQ. We understand the intent, opportunities and constraints for these projects.
- Our Team has locally-based civil, electrical and construction engineers to support work at LGB.

RECENT EXPERIENCE IN THE WESTERN-PACIFIC REGION

HNTB has been delivering airport engineering projects within the FAA's Western-Pacific Region for decades. Our team of professionals has worked at small, medium and large airports up and down the West Coast, delivering services similar to those requested by Long Beach Airport (LGB). Our diverse project portfolio has given us significant exposure with the Federal Aviation Administration (FAA) staff in the region including the Airport District Office (ADO), Air Traffic Organization (ATO), Flight Standards and the Runway Safety Office. We understand the steps to deliver projects requiring FAA coordination in the Western Region and have the relationships to facilitate delivery.

EXTENSIVE LGB EXPERIENCE

The HNTB team brings not only recent, local aviation design experience, but also direct experience with LGB dating back to 2003 with the successful delivery of Runway 12-30 and the Rehabilitation of Access to Taxiways E and F. We have an excellent understanding of the existing conditions and operations of the airfield and have established professional relationships with your staff. As shown in Exhibit 1 on the following page, HNTB has delivered dozens of airfield projects for LGB over the past 16 years. We are committed to continuing our delivery of quality services and enabling your success.

UNDERSTANDING OF LGB-SPECIFIC CONCERNS

HNTB brings a direct working relationship with stakeholders at LGB through our current on-call contract, and we will continue to bring these relationships to facilitate consensus among stakeholders with different interests. Because we understand the concerns and requirements of FAA ADO, local Airport Traffic Control Tower (ATCT), Ops, Gulfstream, JetBlue and Hawaiian, we will start work without a learning curve and facilitate on-time delivery for LGB.

Our key team members, including Project Manager Tony Fermelia, have direct experience working on projects at LGB, know your facilities and stakeholders and understand current LGB procedures and standards. To successfully deliver critical airside rehabilitation projects such as Runway 16R-34L Conversion to Taxiway B and Improvements to Taxiway D at LGB, the City needs a qualified, local team with proven success on similar runway and taxiway rehabilitation projects. We have built an integrated team to address all aspects of the RFQ. This team has delivered projects of similar scale and complexity as the projects that are listed in this RFQ.

The HNTB team's established relationships with the City and other critical stakeholders will enable streamlined coordination and efficient task order delivery. Tony's management style is grounded in open communication, high-quality deliverables and proactive stakeholder engagement to build a complete picture of project needs. He is highly collaborative, both internally and externally, throughout all project phases. Tony will work with the City, the HNTB team and airport stakeholders to establish early and ongoing communication and produce exceptional project outcomes.

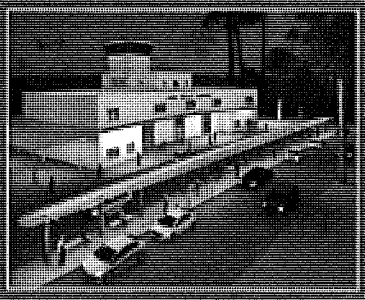
EXHIBIT 1. HNTB project experience at LGB.

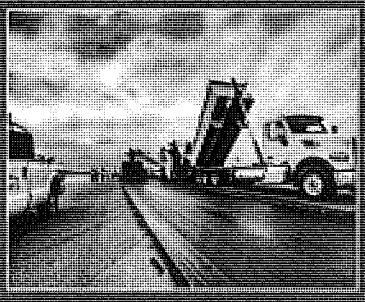
EXPERIENCE IN PERFORMANCE OF COMPARABLE PROJECTS

The HNTB team has an extensive portfolio of local projects and has successfully completed several runway and taxiway projects, as summarized in Exhibit 2 below. Our key staff have provided aviation engineering services for the majority of these projects. We have included detailed project descriptions highlighting our team's experience with comparable projects on the following pages.

EXHIBIT 2. Relevant project experience completed on schedule.

	Project	Airfield Planning	Runway/Taxiway Improvements	Pavement Design/Airfield Geometrics	Construction Sequencing Meeting FAA Standards	Final Design	Grading/Site Preparation	FAA NAVAIDS	Airfield Lighting/Signage/Electrical	Submittal/RFI Review	Schedule Review	Field Bulletin Preparation	Cost Estimating	CSPP/SWPP	As-Built Documents	FAA Coordination	Stakeholder Outreach	Project Controls/Reporting
LONG BEACH AIRPORT	Improvements to Runway 8R-26L, LGB	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈	✈
LONG BEACH AIRPORT	Improvements to Taxiway C, LGB	✈	✈	✈	✈	✈	✈		✈				✈	✈		✈	✈	
LONG BEACH AIRPORT	Rehabilitation of Access to Taxiway E & F, LGB			✈	✈	✈	✈		✈	✈		✈			✈			
LONG BEACH AIRPORT	Runway 12-30 Rehabilitation, LGB		✈	✈	✈	✈	✈	✈	✈	✈		✈	✈		✈	✈	✈	✈
LONG BEACH AIRPORT	Improvements to Air Carrier Ramp Phase 1B, Phase 2 & Phase 3, LGB	✈		✈	✈	✈	✈		✈	✈		✈			✈		✈	
OTHER AVIATION PROJECTS	Taxiways A and B Rehabilitation, VNY	✈	✈	✈	✈	✈	✈		✈	✈	✈	✈	✈		✈	✈	✈	✈
OTHER AVIATION PROJECTS	Taxiway P Improvements, OAK		✈	✈	✈	✈	✈		✈	✈	✈	✈	✈	✈	✈	✈	✈	✈
OTHER AVIATION PROJECTS	Airfield Intersection Improvements, LAX	✈		✈	✈	✈	✈		✈	✈	✈	✈	✈		✈	✈		✈
OTHER AVIATION PROJECTS	Runway 7R-25L Relocation, LAX	✈	✈	✈	✈	✈	✈	✈	✈	✈		✈	✈		✈	✈		
OTHER AVIATION PROJECTS	Taxilane D10 Reconstruction, LAX			✈	✈	✈	✈		✈	✈	✈	✈	✈		✈		✈	
OTHER AVIATION PROJECTS	Tom Bradley International, East Aprons, LAX	✈		✈	✈	✈	✈		✈	✈		✈	✈		✈		✈	
OTHER AVIATION PROJECTS	Runway 25L RON & RSA Improvement, LAX	✈	✈	✈	✈	✈	✈		✈	✈	✈	✈		✈	✈	✈		✈
OTHER AVIATION PROJECTS	Runway 8L-26R Pavement Rehabilitation, Brown Field	✈	✈	✈	✈	✈	✈		✈	✈	✈	✈		✈	✈	✈		✈





- LGB on-call projects for a variety of design tasks
- Airfield planning, airside and landside design
- Architectural design and utility improvements
- Stakeholder coordination
- Bid and construction administration
- Phasing document preparation

LONG BEACH AIRPORT, CITY OF LONG BEACH
Engineering Services for Various Development Projects

Under this contract, HNTB was responsible for a variety of airfield design tasks, such as preparing final design and construction support services for the Improvements to Runway 8R-26L Project, preparing final design for the Conversion of Runway 16L-34R to Taxiway C and preparing final design for the Remain Overnight (RON) Apron Improvements. Each of these airfield projects focused on pavement design and updating the runway and taxiways to current FAA airport geometry and lighting standards, while incorporating decisions derived from the geometry study.

In addition to the runway, taxiway and aircraft parking position final design activities, we have delivered over 34 different task orders for various development projects, including electrical improvements for ramp charging equipment that allow LGB to capture federal funding from the FAA under the Voluntary Airport Low Emission (VALE) Program, structural design for the Airport Air Operations Area (AOA) fencing standards and LGB signature wall as well as architectural, structural, mechanical and electrical peer reviews in support the Phase II Terminal Program. The team also has assisted the airport with cost estimating and scheduling, airport layout plans (ALP), environmental planning and construction management support services.

Improvements to Runway 8R-26L Project

As part of the LGB Airfield Geometry Study, HNTB identified actions and geometric mitigations to significantly reduce the potential and number of surface incidents and runway incursions at the airport. The first project aimed to mitigate runway incursions was the Improvement to Runway 8R-26L. The project included decoupling the runway crossings and updating the runway and associated taxiways to current FAA airport geometry and lighting standards. **Long Beach Airport's DBE goal is 11.4 percent for FAA Airport Improvement Program (AIP) projects between the Fiscal Years 2016 – 2018. HNTB exceeded 20 percent DBE participation under this current contract.**

HNTB provided design and construction support services for this AIP-funded runway reconstruction. HNTB accelerated the runway design to allow the airport to receive bids in time to capture key FAA funding. We mobilized an experienced design team that worked closely with the City to develop quality detailed design documents that were thoroughly reviewed and accepted by all program stakeholders.

The FAA wanted Runway 26L to be narrowed from 150 feet to 100 feet in width, in accordance with the standard width of a B-II runway specified in the FAA Advisory Circular. However, the Airport and stakeholders wanted the additional width to address specific operational factors associated with activity on the runway and to enhance operational safety through an increase in visual acuity of the runway alignment and situational awareness of pilots. During the preliminary design phase, HNTB staff worked closely with Mark Guan and Jaime Duran to brief them on the proposed work and provide justification for the improvements beyond the standard minimums.

Key Staff	Project Dates/Cost	Reference Contact
•Tony Fermelia, PE •James Long, PE •Justin Bychek, PE •Megan Monticone, PE •Nicolo Olino •Bill Marek	2015 – Present Cost varies	Ambi Thurai, PE, Engineering Officer City of Long Beach (562) 570-2623 ambi.thurai@longbeach.gov

Ultimately, the FAA agreed to fund most of the runway project, with LGB utilizing discretionary funds to address the portions of the runway beyond the standard requirements.

The project included re-designation of the two parallel runways (7R-25L and 7L-25R) due to magnetic heading shift. To complete this successful transition, and to make the process seamless to the airport users, HNTB worked closely with FAA NAS Planning team to make sure the MAGVAR change was coordinated and phased to align with the FAA publication cycles.

A future Taxiway F was planned with a 240-foot centerline-to-centerline separation from Runway 26L. As a result, the runway design had to consider both the future taxiway improvements and the existing conditions. HNTB developed a design that coordinated existing geometrics, but also allowed for the future taxiway improvements to be completed without requiring a later closure of the runway.

Throughout the design phase, we anticipated construction costs and regularly checked against the available funding. HNTB developed a series of additive alternatives that were included in the design documents, which allowed the City to maximum funding allocation and award additional improvements.

Added Value:

- Completed CSPP and received FAA approval from Mark Guan FAA ADO without requiring a formal Safety Risk Management Panel (SRMP)
- Complex construction phasing with Taxiway Connections to Runway 12-30, with many similarities to the proposed Taxiway L Improvements
- Design with additive alternatives to capture maximum FAA funding
- Same proven planning, design and construction support team

Improvements to Taxiway C

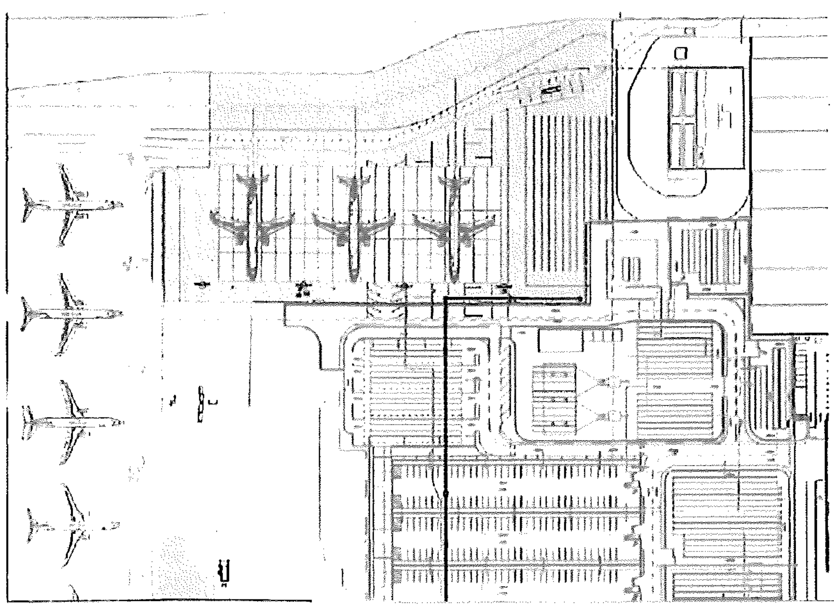
Runway 16L-34R at Long Beach Airport is currently closed and no longer in use. To improve safety and operations, Runway 16L-34R will be converted to Taxiway C. The major goals of the Taxiway C project include rehabilitating the pavement and installing new plain cement concrete (PCC) as well as updating the geometry of Taxiway C and associated taxiways in accordance with the airfield geometry study to meet current FAA design standards and enhance the overall safety of the airfield.

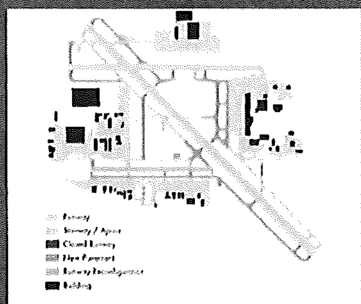
During the design, we studied the challenges early on, which allowed us to develop initial phasing plans to share with project stakeholders. Using this collaborative process, we developed construction safety and phasing plans (CSPP) that always maximized the area available for construction while maintaining safe separations from aircraft operations.

On the Runway 26L construction, the contractor encountered locations where the existing subgrade conditions required additional lime treatment to stabilize the subgrade. Using lessons learned, HNTB developed the Taxiway C pavement sections to allow for rapid construction and limit the amount of additional stabilization required.

Remain Overnight (RON) Improvements

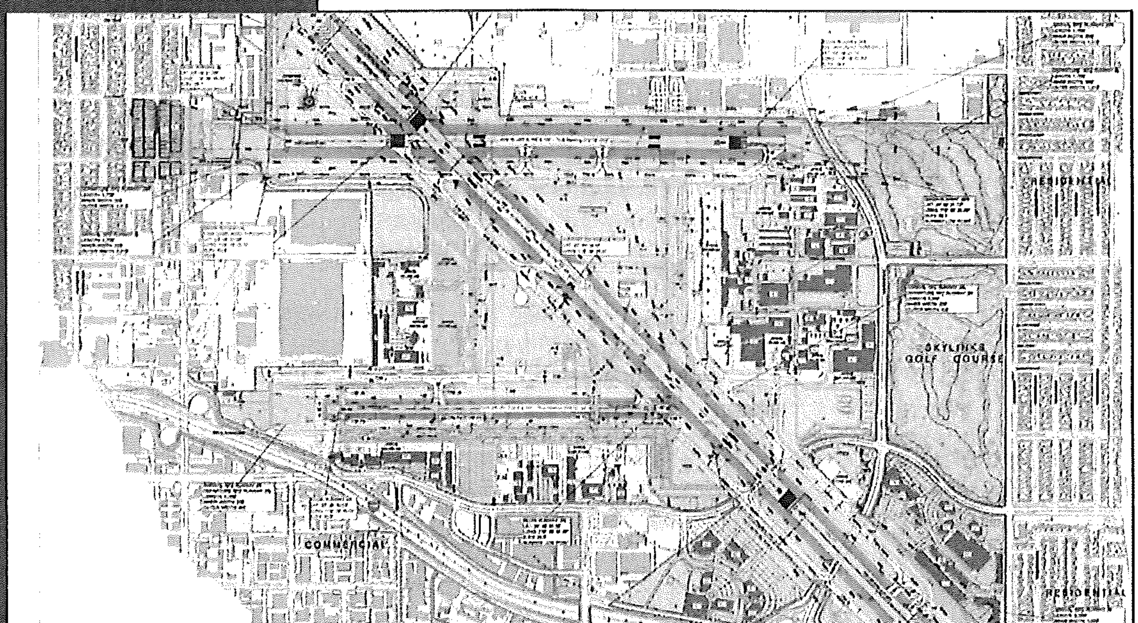
To accommodate the new demand for aircraft parking, HNTB developed a design to provide three additional RON Parking Positions capable of handling Aircraft Design Group III (ADG III) aircraft. The project will also include new high-mast lighting, ground power chargers and Security Identification Display Area (SIDA) gate relocation. HNTB coordinated with stakeholders and the adjacent future consolidated rental car (CONRAC) project so that both projects will be able to be constructed concurrently.





LONG BEACH AIRPORT, CITY OF LONG BEACH
Airfield Geometry Study Phase 1 and 2

With seven identified hot spots on the airfield, the FAA considered LGB one of the five airports in the nation with the highest risk for runway incursions. The goal of this study was to recommend changes to the airfield to improve aircraft safety by reducing the number of runway incursions and surface incidents and mitigate hot spots, while keeping airport stakeholders engaged and informed in the process. HNTB completed this project to identify mitigation actions—education, marking, lighting, procedural and geometric—to significantly reduce the potential for, and number of, surface incidents and runway incursions at the airport.



Phase 1

Phase 1 began with HNTB analyzing past runway incursions and surface incidents based on FAA reports, air traffic control records and various past studies. We conducted interviews with the airport operations group, fixed-based operators (FBO), flight school instructors, recreational and commercial pilots and air traffic controllers to understand airfield operations.

HNTB analyzed the data to find determining factors that caused the incursions and incidents. We formulated specific actions to be taken to mitigate risks at certain areas on the airfield. Though individual in nature, these actions were heavily dependent on each other as part of a whole airfield system: a change in one part of the airfield could have a profound impact on another. From this process emerged the definition of individual and consolidated alternatives and the requisite analytical justification for geometric recommendations. Airport-wide geometry recommendations included realignment of

- Design study to establish the framework and detailed work program
- Airspace analysis
- Participation in public information and community meetings related to airport development and planning programs
- ALP update
- GIS data collection and mapping efforts

Key Staff	Project Dates/Cost	Reference Contact
• Tony Fermelia, PE • Justin Bychek, PE • Bill Marek • Ken Poon	2013 – 2016 (completed) $1.9 million	Stephan Lum, PE, Senior Civil Engineer Long Beach Airport (562) 570-2682 stephan.lum@longbeach.gov

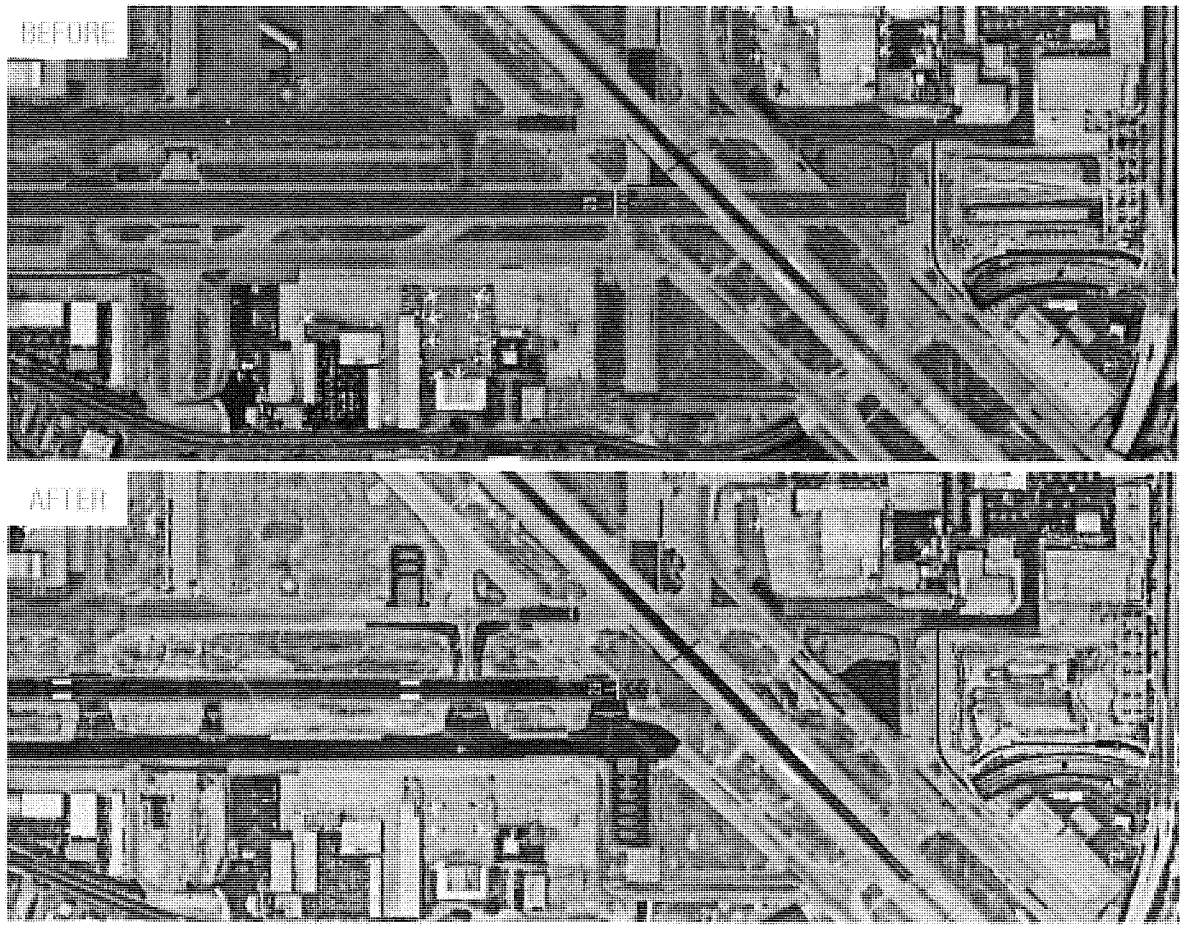
two taxiway crossings of the primary runway, closure of multiple taxiway segments that contributed to pilot confusion and incidents, closure and conversion of two existing runways to replacement taxiways to mitigate design standard deficiencies, construction of new taxiway connectors and two new partial parallel taxiways, GA ramps to physically separate both ramps from adjacent parallel taxiways, reconfiguration/expansion of the terminal, and lighting, signage and marking enhancements. Airport stakeholders, including air traffic control, Airport staff, FAA, the general aviation community, FBOs and commercial carriers were kept informed of the progress through regular meetings and workshops, where they provided input that helped shape the final recommendation.

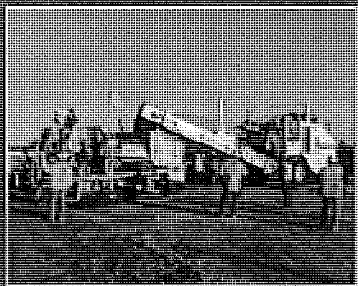
Added Value:

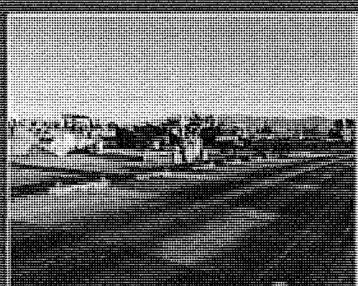
- This project established the methodology for the subsequently announced FAA RIM program.
- Having such a wide-ranging stakeholder program maximized the impact of messaging, and controlled misinformation to enable stakeholders to follow along with and provide input on potential alternatives. The robustness of the stakeholder program allowed the project to be adopted with virtually no discussion.

Phase 2

Phase 2 of the study included a comprehensive reconstruction of the LGB ALP set to meet current Standard Operating Procedures (SOP) 2.00 requirements. HNTB managed the collection of a new aeronautical data according to Airports-GIS survey standards. The set included a robust obstruction analysis and depiction of the first phase of geometry study improvements. The ALP was approved on an expedited basis to facilitate the implementation of the first project, the Runway 8R-26L relocation. Throughout the ALP process, HNTB continued to meet with stakeholders to brief them on development of refinements to the planning. Staff from the FAA Los Angeles ADO continue to use the ALP as a training tool. HNTB demonstrated that we have the experience to implement the conceptual plans originating from the Airfield Geometry Study. In 2017, we completed the design and construction support services of the Runway 26L Relocation Project at LGB that was identified as the number-one priority project in that geometry study.







- The team implemented lean engineering with the pavement design to meet the 20-year FAA standard. Cost and construction time were critical to project completion and drove HNTB's designs.
- We mobilized a team of in-house planners and designers to facilitate responsiveness to airport's dynamic needs.

VAN NUYS AIRPORT, LOS ANGELES WORLD AIRPORTS (LAWA)
Taxiway A&B Rehabilitation Program

This project involves multiple procurement packages over three years to maximize available AIP funds. The first phase of the project, Taxiway B, is currently in construction, and the design of Taxiway A is complete with contractor selection expected fall of 2019.

The program involves the replacement of the two primary taxiways at Van Nuys Airport. **HNTB worked closely with Airport Operations, the tenants and FAA to develop tailored construction sequencing plans, which limited impacts to operations while maximizing the available construction area.**

Unique Phasing Plan

HNTB developed a unique phasing plan that shortened the primary runway to maximize construction area for the contractor. This was coordinated with the tenant operators and local air traffic control to identify the necessary length and ideal construction window for the shortening. The HNTB-developed plan was reviewed by a safety risk management panel (SRMP), which provided a successful flight-check and ultimately implemented the plan in the field with no incidents.

Pavement Designs

In addition to the phasing, HNTB developed efficient pavement designs, which met the FAA pavement design criteria while taking advantage of existing base material already in place. During field investigations, a sizable layer of existing fill was encountered, which if protected, could provide sufficient support for a pavement section. HNTB modeled the fill section in FAARFIELD and received ADO approval for a pavement section utilizing the fill and minimizing the required pavement section. This efficient pavement design allowed LAWA to stretch the available AIP funds and install other improvements in addition to new pavements.

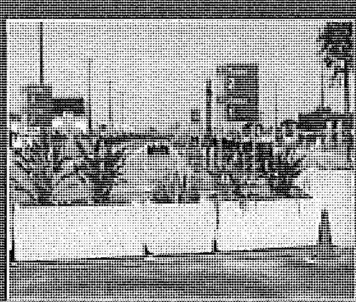
Taxiway A

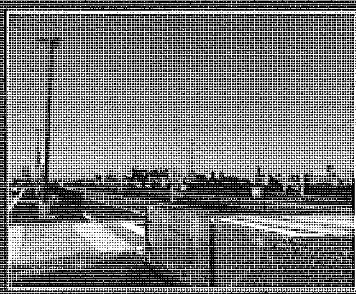
Taxiway A design was completed in Summer of 2019 and put out to bid on schedule to have bids in hand that were eligible for the FAA funding cycle. The HNTB team calibrated pricing for asphalt taxiway projects in Southern California using the most recent FAA Design Standards, resulting in an HNTB-prepared engineer's estimate within 2.5 percent of the low bid. Taxiway A is expected to start construction in early spring 2020, and HNTB will remain actively involved in the construction providing on-site engineering support.

HNTB's design team served as subject matter experts for an SRMP sponsored by ATO . HNTB came prepared to the panel, delivering a presentation that clearly identified project objectives, construction phasing and mitigation measures built into the design to address common concerns. The SRMP was concluded ahead of schedule and with no required additional mitigations.

Key Staff	Project Dates/Cost	Reference Contact
• Tony Fermelia, PE • James Long, PE • Justin Bychek, PE • Megan Monticone, PE • Bill Marek	2017 – Present $4M	Sean Flynn, PE Airport Engineer II LAWA (PDG) (424) 646-5867 sflynn@lawa.org

LOS ANGELES INTERNATIONAL AIRPORT, LAWA
Design Services On-Call Contract





- Diverse on-call engineering and planning contract with multiple task orders for airside, landside and utility design services
- The HNTB team provided accelerated design work on many task orders to support operational modifications at the airport
- Same proven Southern California core design team proposed to provide engineering services at LGB

HNTB has been providing engineering services to LAWA since 1993. The scopes of work for task orders include planning, engineering, architecture and utility services for complex airside, landside and utility projects.

HNTB's completed task orders have ranged in size and complexity from a small $30,000 geotechnical study to a project involving the design of a $30M landside roadway and parking lot improvements for an auxiliary pickup curb project for LAX.

TNC Auxiliary Curb Project

HNTB is both the Engineer and Architect of Record for this improvement project. Our support includes significant roadway and parking lot improvements to consolidate all LAX taxi, Rideshare and Transportation Network Companies (TNC) operations in a single location. The new lot was designed to relieve ride-hailing traffic congestion within the central terminal area roadway loop. Arriving passengers will be picked up at the arrival curb and shuttled to the auxiliary curb site were TNC operators will be able to pick up departing passengers. Once operational, the lot will accommodate all TNCs and taxi pick-up operations 24 hours a day, seven days a week. The lot is designed to accommodate over 1,800 passengers during peak hours.

Recycled Water and Electrical Infrastructure Improvements

In response to the Mayor's Executive Directive to work toward supporting a drought-responsive, Water Wise City, both LAWA and HNTB have been working to develop a plan to provide LAX with a reliable source of advanced treated recycled water to significantly reduce potable water use across the LAX campus.

Los Angeles Department of Water and Power is in the process of building a 1.5 MGD recycled water treatment facility that will produce a consistent high-quality, nitrified-denitrified (NDN) recycled water suitable for all reuse applications at LAX, including makeup water for the Central Utility Plant's (CUP) cooling towers, which have specific requirements for water quality and must avoid corrosion and scaling of the equipment in the plant.

HNTB is designing a 12-inch-diameter conveyance recycled water pipeline from the point of connection at the west property line of the campus at Pershing and World Way West to the west. This pipeline will include the extension of the recycled water connection at the CUP cooling towers and installation of internal plumbing modifications to the Bradley West public restrooms on levels 1, 2 and 4 (12 bathrooms total); these, in turn, will be connected to the existing recycled water infrastructure, and will include installation of a new stainless steel domestic water storage tank with a duplex booster pump set.

Key Staff	Project Dates/Cost	Reference Contact
• Tony Fermelia, PE • James Long, PE • Megan Monticone, PE • Hao Tu, PE • Nicolo Olino	2018–2021 $4.25M Design Contract	John R. Fronda, PE Airport Engineer II LAWA (424) 646-5851 jfronda@lawa.org

5.9.2 KEY PERSONNEL QUALIFICATIONS, EXPERIENCE AND AVAILABILITY

As project manager, Tony Fermelia will be the responsive point of contact for LGB. Tony has carefully selected our team based on experience working together at LGB, in Southern California and on similar projects. Our team members will apply their knowledge of LGB's existing conditions, design processes and past, ongoing and planned projects to deliver task orders that exceed your expectations. HNTB will provide LGB with:

- Local staff to provide LGB with a large, highly qualified team that is readily available to meet, collaborate and develop solutions to project challenges.
- Strong relationships with LGB, the City, airport businesses and other project stakeholders.
- Flexible, committed team that has worked together before.
- Demonstrated ability to manage and deliver multiple projects with overlapping schedules and in dynamic environments.

We bring a full-service team with engineering, planning, architecture and utility design professionals based in our LAX office, making us especially qualified to provide prompt, responsive services for the work identified in the RFQ.

We define project success by the quality of the final constructed product, and we will surpass LGB's expectations by providing QC services at all stages to verify the final product meets LGB's goal of delivering first-class facilities to your customers.

Our team's experience coupled with its LGB institutional knowledge provides you with the assurance that we can efficiently deliver the upcoming projects at your airport. The engineers assembled for these projects represent a team of experts in design management, FAA regulatory knowledge, pavement design, runway layouts and construction management.

KEY PERSONNEL HIGHLIGHTS

The HNTB team will be led by key professionals who have decades of experience providing a wide variety of similar services at airports throughout the Western United States such as LGB, LAX, SFO, OAK, SEA and PDX, in addition to other airports nationwide. The combination of their knowledge, local relationships and practical know-how allows them to lead project delivery with efficiency and expertise. Complete resumes for our key personnel are included in the appendix of this SOQ.

Tony Fermelia, PE | PROJECT MANAGER

Availability: 80% • Years of Experience: 26

Tony is known for assembling teams with the client's specific needs in mind and with team members who understand the project goals and design complexities.

Tony knows how to manage complex civil engineering projects in the aviation industry. He has extensive experience in the design of airfield improvements including aprons, taxiways and runways, and other airfield related items that comply with FAA design standards. Many of Tony's projects were performed on aggressive, fast-track schedules to meet FAA requirements and funding deadlines. His capabilities are particularly evident in his ability to manage projects from design through construction. He has led multiphase construction packages, which required him to manage a group of 15 to 20 in-house designers, and as many as 22 subconsultants working as a team to minimize interruption to airport operations and keep construction on schedule and within budget.

Benefits to LGB:

- Proven airside design delivery at LGB
- Experienced with FAA regulations, policies and procedures
- Strong FAA relationships
- Airfield design expert
- Taxiway design experience
- Ability to manage multiple projects simultaneously
- Scheduling facilitation and acceleration

Justin Bycheck, PE | PLANNING TASK LEAD

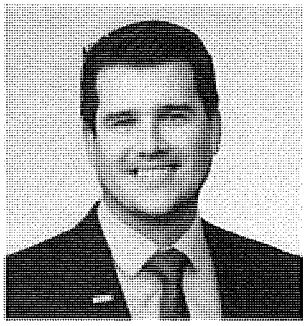
Availability: 70% • Years of Experience: 12

Benefits to LGB:
- Experienced with FAA regulations, policies and procedures
- Strong FAA relationships
- Understands project history and development of preferred alternatives

Justin is a senior project manager in HNTB's aviation planning practice and also serves as the West Division Aviation Planning Department Manager. His wide-ranging experience includes projects at more than 40 airports in positions ranging from project manager to task lead. Justin has extensive experience in airside, landside and terminal disciplines, including specialties in preparing Runway Incursion Mitigation (RIM) studies, U.S. Customs and Border Protection (CBP) renovation and expansion plans, capacity planning, data analysis, facilities and terminal planning and airfield and airspace simulation/interaction. He is a visible thought leader on RIM, having been recognized nationally in industry publications and at major conferences. Justin has built strong relationships with key staff within the FAA's Los Angeles ADO and Western-Pacific Region.

James Long, PE | AIRSIDE TASK LEAD

Availability: 80% • Years of Experience: 11



Benefits to LGB:
- Experienced with FAA regulations, policies and procedures
- Strong FAA relationships
- Experience with SRMP process and documentation
- Extensive stakeholder coordination experience
- Understands how to develop construction phasing plans with clarity and detail

James is an aviation project manager with a solid understanding of aviation facility planning, design and construction. His airfield project portfolio highlights a strong familiarity with complex construction phasing plans, aircraft gating layouts and extensive stakeholder coordination. As a private pilot, he has a unique perspective on airfield operations and phasing considerations during construction. James enjoys working with diverse teams and welcomes stakeholder input to develop tailored solutions to complex airfield design challenges and produce exceptional project outcomes. Often responsible for project phasing, James has been a subject matter expert in several FAA ATO Safety Risk Management Panels, including one for Runway 8L-26R at LGB. James has served as the principal liaison between the client and the design team, responsible for the delivery of high-quality civil engineering services to airports throughout the southwest.

Megan Monticone, PE | AIRSIDE TASK LEAD

Availability: 70% • Years of Experience: 29

Benefits to LGB:
- Experienced with FAA regulations, policies and procedures
- Well versed in FAA advisory circulars for airfield design
- Designed numerous runway, taxiway and apron improvement projects
- Developed apron geometrics for the Air Carrier Ramp Improvements at LGB

Megan brings specialized expertise in airport engineering and planning. She has extensive experience in the design of airfield improvements, including runways, aprons, taxiways and other airfield-related items. Megan develops creative design solutions on projects with rapid construction phases, such as incorporating the use of recycled materials into design specifications. She excels at developing designs for grading that keep future projects in mind, allowing for tie-ins to adjacent and future projects without design rework.

Megan has experience completing the FAA's modifications to standards applications and support documents. Her familiarity with FAA advisory design requirements facilitates rapid development of horizontal and vertical geometry. Megan also has extensive experience providing construction support services in the field. She provides on-site coordination with the client and the construction management team as well as managing responses to submittals, RFIs and changing field conditions.

UNIQUE TEAM ATTRIBUTES

Exhibit 3, our team organization chart identifies our approach to delivering the projects and reporting responsibilities of our team. This team can be modified or adjusted to best fulfill the needs of each project and provide adequate client focused oversight.

EXHIBIT 3. HNTB's team organization chart.

* KEY PERSONNEL

SUBCONSULTANT LEGEND

CI	Connico Incorporated
CC	Converse Consultants
DYA	Diaz•Yourman & Associates, Inc.
DIN	Dinter Engineering
IDS	IDS Group, Inc.
KPPF	
WES	Wagner Engineering & Surveying, Inc.

long beach airport

Principal In Charge
Louis Rousso, Jr.

Project Manager
Tony Fermella, PE *

Quality Manager
Rob Millar, PE

Task Leads

- **Planning:** Justin Bychek, PE *
- **Airside:** James Long, PE * — Megan Monticone, PE *

Discipline Leads

Planning / Pre-Design

- FAA Coordination — Justin Bychek, PE
- Simulation — Ken Poon, PE
- Airspace — Todd Wright
- Airside — Eric Gilles
- Landside — Jessica Wyatt
- Terminal — Paul Kim, AIA
- Property — Laura Blumenfeld
- Stakeholder Coordination — James Long, PE
- Environmental — Kim Hughes, PE
- ALP Updates — Andy Guan
- Forecasting & Financial — Pat Kennon

Design

- Airfield Geometry — Nicolo Olino
- Site Development — Gadiel Bautista Mejia
- Grading — Hao Tu, PE
- Drainage — Taylor Henderson, PE
- Building MEP — Walter "Sandy" Maclean, PE, CEM *(IDS)*
- Pavement — Ali Aoude, PE
- Marking — Sierra Allegra, LEED GA
- Lighting & Signage — Traci Fry *(DIN)*
- Navigational Aids — Matt Briggs, PE
- Power — Mohammad Shaikhsaheb, PE
- Communications & Security — Matthew Briggs, PE
- Structures — Mark Nadel *(KPFF)*
- Architecture — Wayne Johnson, AIA, NCARB, LEED AP
- CSPP & SRMP — James Long, PE

Construction

- Constructability Review — Robert McAndrews, PE
- Resident Engineer — Taylor Henderson, PE
- Submittals & RFIs — Nicolo Olino
- Document Control — Gina Rafel
- Subgrade Certification — Mark Schluter, PG, CEG, CHG *(CC)*; Clint Isaac Isa, PE *(DYA)*

Support Services

- Survey — Stephanie Wagner *(WES)*
- CADD Support — Bill Marek
- Scheduling — Sierra Allegra, LEED GA
- AGIS — Todd Wright
- Geothechnical Services — Hashmi Quazi, PhD, PE, GE *(CC)*; Clint Isaac Isa, PE *(DYA)*
- Cost Estimating — David J. Hunley, PE *(CI)*
- Aeronautical Survey — Jim James, CPC (WES)
- Public Outreach — Joshua Englander

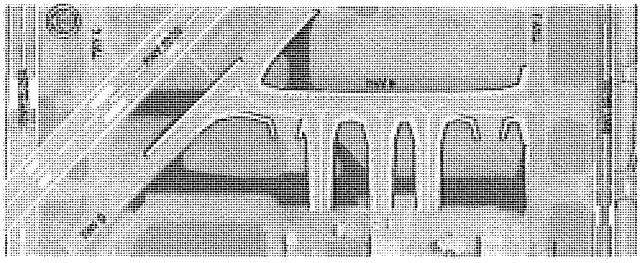
5.9.3 DEMONSTRATED UNDERSTANDING OF PROJECT IMPLEMENTATION, POTENTIAL PROBLEMS AND CITY'S SPECIAL CONCERNS

The HNTB team understands the importance of maintaining and improving LGB so that it continues to meet existing and future demands, facilitates safe and efficient operations and maintains an FAA-compliant airfield.

The HNTB team has established professional relationships with your staff and brings hands-on experience with complete aviation engineering and construction support services. We possess an excellent understanding of the existing conditions and operations of the LGB airfield.

Runway 16R-34L Conversion to Taxiway B

Today, the existing Runway 16R-34L has been officially closed and is not used by the airport. The existing Taxiway B adjacent to Boeing's development experiences large volumes of bi-directional general aviation aircraft taxiing on the west side of Runway 12-30. By reconstructing the former runway as a taxiway, there are numerous opportunities to both meet safety goals and enhance the potential for revenue generation by expanding tenant leaseholds on the west side of the airport.



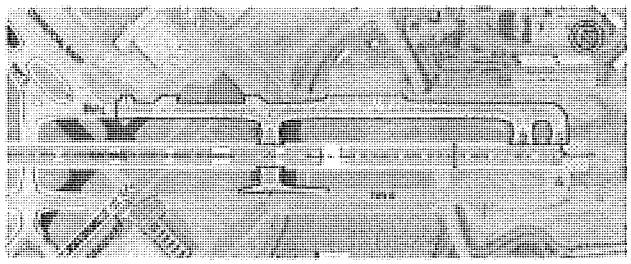
The goals of the Runway 16R-34L conversion to Taxiway B include:

1. REMOVE OLD PAVEMENT TO AVOID PILOT CONFUSION: To avoid pilot confusion and improve safety on the airfield, it is best to remove old runway or taxiway pavements in this very complex portion of the airfield. Closed, but physically existing, runway and taxiway pavements can lead to confusion and loss of situational awareness. Therefore, the conversion of Runway 16R-34L to Taxiway B will help clean up taxiway geometry to improve airfield safety.
2. RECONFIGURE TAXIWAY GEOMETRY TO OPEN ADDITIONAL AREA FOR TENANT DEVELOPMENT: On the west side of the airport, there are several parcels situated near existing Taxiway B, including approximately 90 acres of land owned by the Boeing Company, which was formerly used for the manufacturing of the Boeing C-17 military aircraft. When Taxiway B is reconstructed to the east of its current alignment, this will provide an opportunity for the airport to lease a large area of adjacent property for additional aeronautical development, helping to revitalize the west side of LGB while offsetting the project's capital expenditures.

This airfield modification project is very similar to the Taxiway C Improvements that HNTB recently completed design on the east side of the airport. For the Taxiway C project, the Runway 34R pavement will be removed and a new Taxiway C will be constructed to improve safety on the airfield.

Improvement to Taxiway L

Taxiway L serves as the primary taxiway for all departing commercial aircraft, and is also used by air cargo carriers. Because Taxiway L is the primary taxiway for air carriers to access Runway 30, it has been difficult to close the taxiway for long periods to allow for a complete a reconstruction to occur. During the construction phase on Taxiway L, the project phasing will require departing traffic to cross Runway 12-30 and taxi on Taxiway D to the end of the runway. Taxiway L also crosses over the underpass structures for Lakewood Boulevard and Spring Street.



The goals for the improvements to Taxiway L include:

1. REHABILITATE THE PAVEMENT: The pavement has deteriorated and requires rehabilitation to maintain safety and operational adequacy. The existing pavement is asphalt, and the Airport hopes to install new, more durable PCC pavement that could potentially have a 40-year life.
2. REALIGN TAXIWAY L3/D3 OFF THE SPRING STREET UNDERPASS STRUCTURE: Taxiway L3 is currently aligned directly on top of the Spring Street Underpass. When the taxiway is reconstructed in PCC, this will add more structural dead load on top of the structure. An opportunity exists to realign Taxiway L3 to the

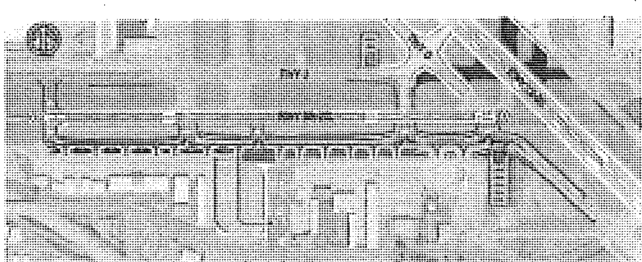
north so the new taxiway is not located on top of the structure. We will help study the optimal location and alignment for Taxiway L3.

3. PHASE WORK TO MINIMIZE IMPACTS TO RUNWAY 12-30: Taxiway L reconstruction will require reconstruction of Taxiways L1 and L2 as well. Construction in the runway safety area (RSA) must be completed during off-peak and nighttime operations, or when Runway 30 is temporarily shortened. HNTB understands accelerated construction techniques, and we have successfully designed taxiway improvements at LGB that allowed for reconstruction activities to occur at night with the runway reopening each morning.

Taxiway and Taxilane F Reconstruction; Taxiway D Realignment Between Taxiway E and Taxiway F

Taxiway F runs parallel to and south of Runway 8R-26L from the Runway 8R threshold to the intersection with Taxiway D (Exhibit 4 on the following page). Taxiway F as a parallel taxiway to a B-II runway needs only to comply with ADG-II standards for the runway-to-taxiway separation design, which calls for a centerline-to-centerline separation of 240 feet. While it is set back at a 300-foot separation from Runway 8R-26L today, the reconstruction will address a multitude of existing nonstandard conditions and RIM geometric criteria challenges. When HNTB designed Runway 8R-26L in 2017, we studied the vertical taxiway profiles so that the Future Taxiway F improvements could be constructed to FAA standards without causing operational impacts to Runway 8R-26L.

Taxiway D is a full length parallel taxiway to Runway 12-30. From the Runway 12 threshold to the Runway 26L intersection, the separation between the Runway and Taxilane centerline is 400 feet, consistent with FAA's standard in AC 150/5300-13A. Between the intersection with Runway 26L and connector Taxiway D3, Taxiway D's centerline shifts east towards the runway, reducing separation to 350 feet between Taxiway D3 and Taxiway D1/Runway 30 Threshold. Taxiway D realignment between Taxiways F and E will increase the separation to 400 feet, in compliance with FAA's geometric standards for Aircraft Design Group IV.



The goals for the improvements to Taxiways F and D include:

1. ADDRESS THE BI-DIRECTIONAL CONGESTION: General aviation congestion on the west side of the taxiway, coupled with a wider-than-standard taxiway width often creates a situation where controllers allow bi-directional traffic to occur simultaneously. Ideally, future improvements would be developed to allow for the controllers to accommodate bi-directional traffic on segregated taxiways/taxilanes. However, HNTB has studied this option, and parallel taxiways cannot be installed without causing severe impacts to the tenant apron south of Taxiway F. The taxiway alignment will need to be studied to determine the optimal configuration to accommodate the proposed fleet mix while also complying with current FAA design criteria. Given that a diverse fleet mix exists south of Taxiway F, it will be important to keep the geometry flexible to avoid impacts to potential business for the tenants.
2. BALANCE SAFETY AND OPERATIONAL FUNCTIONALITY: The design will need to consider and balance the need for safety with operational functionality. With the removal of bi-directional capability, it will be important to work closely with Operations and FAA Air Traffic to discuss operational procedures for accommodating users in this densely populated area of the airfield.
3. CONSTRUCTION PHASING: Phasing will be a critical component of the Taxiway F design effort: with many of the tenants located adjacent to the existing taxiway, organizing stakeholder meetings to review phasing alternatives prior to selecting the preferred phase strategy will be critical.
4. PHASE WORK TO MINIMIZE IMPACTS TO RUNWAY 12-30: The realignment of Taxiway D will be designed with the intent to avoid the RSA for Runway 12-30, thus avoiding the need for closure of the runway. This portion of Taxiway D is within the Glide Slope Critical Area. Construction equipment and personnel are not allowed within the critical area during ILS operations and phasing considerations to minimize the impacts to operations of Runway 12/30 will be implemented.

Exhibit 4 on the following page describes potential issues and the City's special concerns. We provide examples of the added value HNTB can bring to eliminate any issues and any City concerns.

EXHIBIT 4. Evaluating potential issues/concerns and added value to the project.

The below table provides examples of HNTB's value in eliminating issues and concerns.

1 Gulfstream Aviation Ingress – Egress during construction	13 Design to take into consideration future airfield taxiway nomenclature	14 Coordination with tenants and stakeholders	15 Impacts to glide slope and critical area
NEED: Gulfstream is a key tenant at LGB. Access into and out of their facility via Taxiway L is important to limit impacts to their manufacturing and maintenance operations.	**NEED:** Airfield nomenclature will change to improve taxi instructions.	**NEED:** The City of Long Beach has a very active community which will be very interested in the proposed changes to the airfield. Optimizing stakeholder needs will be critical to maintaining project schedule and ensuring a successful project.	**NEED:** Work adjacent to existing, operable instrument landing systems and navigational aids requires special considerations to the phasing of construction.
VALUE: As part of our previous work at LGB, HNTB worked closely with airport operations, tenants and stakeholders to develop construction phasing plans for taxiway improvements. On Taxiway C we detailed a similar phasing requirement with Gulfstream. We know how to efficiently produce phasing alternatives that can be easily reviewed and evaluated by stakeholders.	**VALUE:** HNTB has identified potential nomenclature on the ALP and has implemented airfield nomenclature changes at LAX, OAK and LGB when we redesignated Runway 7-25 to 8-26. We understand the necessity of coordinating the change in nomenclature with publication cycles as well as the physical marking and signage in the field.	**VALUE:** It is important that the stakeholders be involved in the design, such that they understand the project constraints, but are also able to contribute to ensure the final product meets the expectations of all parties involved. HNTB supports open and regular communication throughout design and will leverage our existing relationships with your stakeholders to facilitate consensus and move projects forward.	**VALUE:** HNTB's experience developing the ALP and AGS provide us an existing 3D model of the airspace at LGB which we can leverage quickly to identify challenges and solutions. We have worked with the ADO and ATO to implement tailored phasing plans for airfields which limit impacts to aircraft operations while maximizing constructibility.

PROJECT APPROACH — ENGINEERING SERVICES

Our typical approach to design work includes a four-phase work plan that is described below. This general work plan will be used to guide each of the proposed airfield projects. Each of the four phases are intended to complete specific elements and tasks to efficiently and quickly produce high-quality, well-thought-out design documents that have been thoroughly reviewed and accepted by program stakeholders.

To adhere to the project schedule for Runway 16R-34L Conversion to Taxiway B Project and have final design plans completed and submitted to the FAA and Airport by April 30, 2020, we will still adhere to our four-phase plan. However, specific tasks will have to be accelerated. Based on our experience, we consider the design schedule aggressive, but achievable.

HNTB is committed to developing a detailed scope and fee for submittal to LGB within three days of selection. This will allow us to negotiate and agree on a task order so that a Notice to Proceed (NTP) can be issued shortly after City Council approval.

PROOF

HNTB has successfully proven that we can accelerate airfield design work at LGB airport. In 2017, this design team accelerated design effort to identify project completing the design in 6 months so that the airport could capture FAA funding on the $14M Runway 25L Reconstruction Project.

Project Schedule for Taxiway B Improvements

The Runway 16R-34L Conversion to Taxiway B project will likely be the first project to be designed and constructed under this contract. To complete final design by April 30, 2020, and maximize available FAA AIP funds, the design team will have to carefully craft an aggressive schedule that capitalizes on existing information and streamlines deliverables while still providing ample time for reviews.

It assumed that after selection for the contract, the award will be made in early December 2019, and will then go before City Council for approval in early January 2020. During this time between selection and award, our team will coordinate efforts to hit the ground running. HNTB will develop a detailed scope, schedule and fee that will be submitted to the airport staff within three days of selection. This will allow HNTB and the City staff to negotiate and agree to a task order for design services in advance of award so that NTP can be issued once approved.

To accelerate the design efforts, HNTB will use the topographic information and contours we developed in the ALP to help accelerate the preliminary engineering efforts. We will also leverage our record drawings from our past assignments on other projects across the airfield. This will allow us to progress the 30 percent design in parallel to the detailed survey and geotechnical soil investigations.

To develop preliminary pavement sections and select preferred alternatives, HNTB will use historical geotechnical data and CBRs from the Taxiway J and Runway 25L projects at LGB. We know from our experience that subgrade soils on the west side of the airfield are typically saturated clays that required lime stabilization.

By using record drawings and past geotechnical information, we are confident that we can complete the 30 percent submittal on February 11, 2020.

We anticipate that we will receive the detailed field survey and actual geotechnical test results for the project location shortly after the 30 percent design. This information will be seamlessly incorporated into the design set as we progress towards the next deliverable. With the project scope confirmed, we will chair meetings with your stakeholders to allow for the development of the phasing plans and the CSPP document. With detailed survey, geotechnical investigations and preliminary phasing, the 60 percent submittal will be made on March 17, 2020.

To meet the April 30th deadline, we are proposing to forgo a formal 90 percent submittal as we have done on prior assignment with LGB. We anticipate that the we will have enough detail and definition to skip the 90 percent submittal, and will coordinate with the airport weekly to allow reviews and tailor the plans for delivery of the final design documents on April 20, 2020. This will allow HNTB and the City to finalize any last-minute changes before the project is submitted to FAA and advertised for bid.

HNTB has successfully used a similar approach with projects at LGB as well as other fast-tracked AIP funded assignments within the Western Region. We understand it is critical to have plans approved and ready for advertisement early in the funding cycle in order to maximize available funds, and we are committed to meeting your schedule.

Exhibit 5 on the following page details the project schedule for the Taxiway B Improvements.

EXHIBIT 5. Project Schedule for the Taxiway B Improvements.

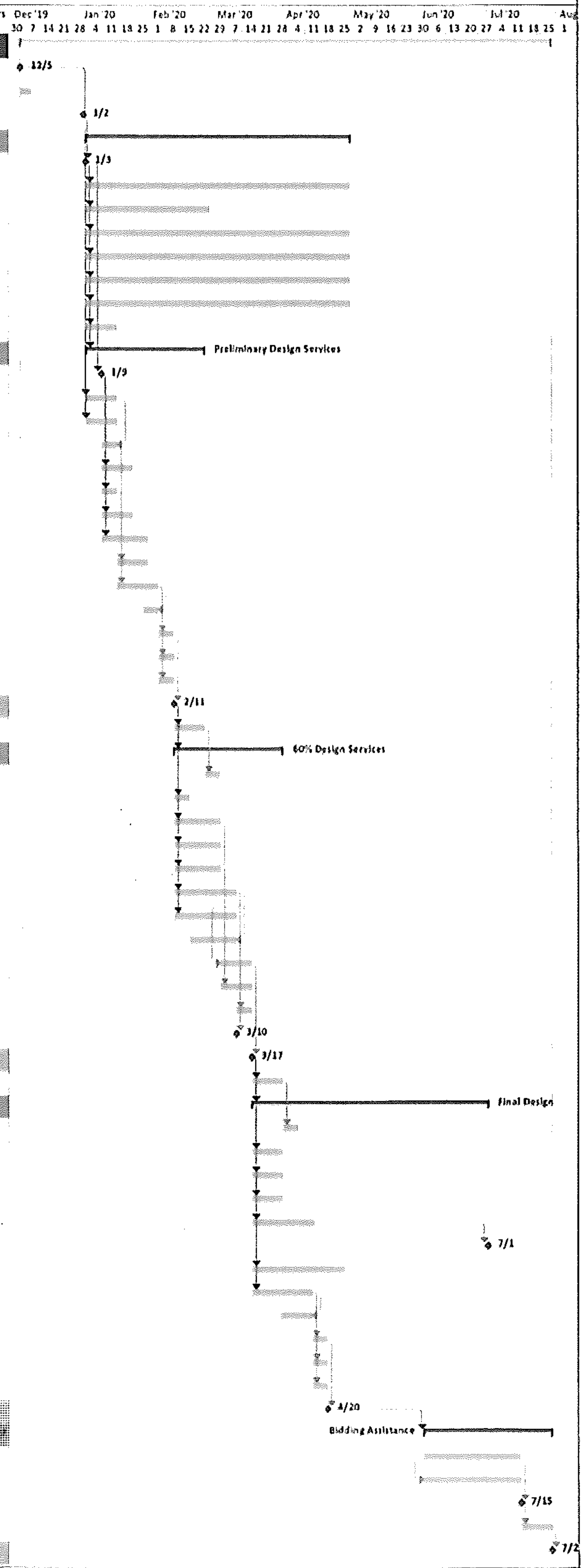
Long Beach Airport

Runway 16R-34L Conversion to Taxiway B

LGB Airside Design Services

long beach airport

ID	Task Name	Duration	Start	Finish	Predecessors
0	**Runway 16R-34L Conversion to Taxiway B**	**165.5 days**	**Thu 12/5/19**	**Wed 7/29/20**	
1	Notice of Selection	0 days	Thu 12/5/19	Thu 12/5/19	
2	HNTB to Prepare Scope and Fee	3 days	Thu 12/5/19	Mon 12/9/19	
3	City Council Approval	0 days	Thu 1/2/20	Thu 1/2/20	
4	Project Management and Coordination	85 days	Fri 1/3/20	Thu 4/30/20	
5	Design NTP	0 days	Fri 1/3/20	Fri 1/3/20	3
6	Task Order Management	85 days	Fri 1/3/20	Thu 4/30/20	5
7	Survey and Geotech Consultant Coordination	40 days	Fri 1/3/20	Thu 2/27/20	5
8	Develop and Maintain a Master Schedule	85 days	Fri 1/3/20	Thu 4/30/20	5
9	Inter-Agency Coordination	85 days	Fri 1/3/20	Thu 4/30/20	5
10	Stakeholder Coordination	85 days	Fri 1/3/20	Thu 4/30/20	5
11	Client Coordination Meetings	85 days	Fri 1/3/20	Thu 4/30/20	5
12	Develop Quality Control Procedures	2 wks	Fri 1/3/20	Thu 1/16/20	5
13	Preliminary Design Services	37.5 days	Fri 1/3/20	Tue 2/25/20	5
14	Design Kick-Off Meeting	0 days	Thu 1/9/20	Thu 1/9/20	5FS+1 wk
15	Collect Existing Conditions Data	2 wks	Fri 1/3/20	Thu 1/16/20	1
16	Inventory Existing Utilities	2 wks	Fri 1/3/20	Thu 1/16/20	1
17	Prepare Project Base Drawings	1 wk	Fri 1/10/20	Thu 1/16/20	15FF,16FF
18	Conduct Preliminary Pavement Analyses	2 wks	Fri 1/10/20	Thu 1/23/20	14
19	Develop Preliminary Geometry/Grading	1 wk	Fri 1/10/20	Thu 1/16/20	14
20	Develop Preliminary Airfield Lighting	2 wks	Fri 1/10/20	Thu 1/23/20	14
21	Develop Preliminary Drainage Plan	3 wks	Fri 1/10/20	Thu 1/30/20	14
22	Develop Preliminary Construction Phasing	2 wks	Fri 1/17/20	Thu 1/30/20	19
23	Prepare Preliminary Drawings	2.5 wks	Fri 1/17/20	Tue 2/4/20	17
24	Prepare Specifications Outline	1 wk	Tue 1/28/20	Tue 2/4/20	23FF
25	Prepare 30% Cost Estimate	1 wk	Tue 2/4/20	Tue 2/11/20	23
26	Develop Basis of Design Report	1 wk	Tue 2/4/20	Tue 2/11/20	23
27	QA/QC Review	1 wk	Tue 2/4/20	Tue 2/11/20	23
28	**Distribute 30% Submittal**	**0 days**	**Tue 2/11/20**	**Tue 2/11/20**	**25,26,27**
29	30% Review	2 wks	Tue 2/11/20	Tue 2/25/20	28
30	60% Design Services	35 days	Tue 2/11/20	Tue 3/31/20	28
31	Review and Respond to City Comments	1 wk	Tue 2/25/20	Tue 3/3/20	29
32	Integrate Ground Survey	1 wk	Tue 2/11/20	Tue 2/18/20	28
33	Storm Drainage Design	3 wks	Tue 2/11/20	Tue 3/3/20	28
34	Electrical Design	3 wks	Tue 2/11/20	Tue 3/3/20	28
35	Civil Design	3 wks	Tue 2/11/20	Tue 3/3/20	28
36	60% Drawings	4 wks	Tue 2/11/20	Tue 3/10/20	28
37	Prepare Initial CSPP	4 wks	Tue 2/11/20	Tue 3/10/20	28
38	Specifications	3 wks	Tue 2/18/20	Tue 3/10/20	36FF
39	Estimate of Probable Cost	2 wks	Tue 3/3/20	Tue 3/17/20	36FS-1 wk
40	Engineer's Report	2 wks	Tue 3/3/20	Tue 3/17/20	33,34,35
41	QA/QC Review	1 wk	Tue 3/10/20	Tue 3/17/20	36
42	Submit Initial CSPP	0 days	Tue 3/10/20	Tue 3/10/20	37
43	**Distribute 60% Submittal**	**0 days**	**Tue 3/17/20**	**Tue 3/17/20**	**39,40,41**
44	60% Review	2 wks	Tue 3/17/20	Tue 3/31/20	43
45	Final Design	74.5 days	Tue 3/17/20	Wed 7/1/20	43
46	Review and Respond to City Comments	1 wk	Tue 3/31/20	Tue 4/7/20	44
47	Storm Drainage Design	2 wks	Tue 3/17/20	Tue 3/31/20	43
48	Electrical Design	2 wks	Tue 3/17/20	Tue 3/31/20	43
49	Civil Design	2 wks	Tue 3/17/20	Tue 3/31/20	43
50	Prepare Final CSPP	4 wks	Tue 3/17/20	Tue 4/14/20	43
51	Safety Risk Management Panel	0 wks	Wed 7/1/20	Wed 7/1/20	50
52	Obtain Ready to Issue Permits	6 wks	Tue 3/17/20	Tue 4/28/20	43
53	Final PS&E	19 days	Tue 3/17/20	Mon 4/13/20	43
54	Specifications	2 wks	Mon 3/30/20	Mon 4/13/20	53FF
55	Estimate of Probable Cost	1 wk	Mon 4/13/20	Mon 4/20/20	53
56	Engineer's Report	1 wk	Mon 4/13/20	Mon 4/20/20	53
57	QA/QC Review	1 wk	Mon 4/13/20	Mon 4/20/20	53
58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	
61	Prepare Addenda	6 wks	Tue 6/2/20	Wed 7/15/20	60SS
62	Bid Opening	0 days	Wed 7/15/20	Wed 7/15/20	60,61
63	Prepare Conformed Set	2 wks	Wed 7/15/20	Wed 7/29/20	60
64	**Distribute Conformed Set**	**0 days**	**Wed 7/29/20**	**Wed 7/29/20**	**63**



HNTB

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Wed 10/23/19

Preliminary Engineering Phase

Research: The objective of this task is to gather the necessary baseline information to understand the current conditions. Data collected from LGB records is the first step to develop existing base mapping. In addition, to develop a comprehensive map of the existing conditions, it is also necessary to conduct extensive field investigations to capture site conditions. The categories of information researched or gathered may include:

- As-built record data
- Survey work (topographic information)
- Focused utility survey
- Geotechnical testing
- Equipment inventories and butterfly diagrams of existing electrical manholes
- Project photos
- Previous studies
- FAA (airports, flight procedures, air traffic and technical operations)

Program Definition: The objective of this task is to coordinate with stakeholders to prepare the preliminary design and further develop project definition. This task will be useful as a road map to identify critical project milestones, project finances and long lead items for implementing the program. Preliminary design work may consist of the following services:

- Developing project definition meetings with City, FAA and other agencies and stakeholders to define critical aspects for each project.
- Developing alternatives matrices that can be quickly reviewed by City staff and stakeholders to identify a preferred alternative.
- Developing a project schedule for the design as well as preliminary construction schedules to make sure engineering and procurement activities are completed on time.
- Developing ROM construction cost estimates with contingency while also confirming anticipated costs are in line with project budgets.

KEY ISSUE

Early data collection activities.

PROVEN APPROACH

Accelerating topographic survey and soil investigation activities will keep the design activities on schedule. HNTB can use topo and contours from the ALP to help accelerate the preliminary engineering efforts and then supplement that data once the field data becomes available.

Stakeholder Coordination Meetings: All stakeholders will be involved early in the detailed engineering phase of each project to have their concerns addressed; a collaborative approach will include obtaining their commitment to the design review schedule. Stakeholders include:

- City of Long Beach
- Consultant Construction Manager (CM)
- FAA (Airport, air traffic, and technical operations)
- FBOs, flight schools and tenants
- Airlines and airline pilot groups

HNTB brings strong credentials working with these important stakeholders. As schedules adjust, it is important to coordinate with the various stakeholders to proactively manage change. Many times, the stakeholders are not engineers or planners; therefore, it is critical to develop graphics that are clear and understandable to people outside the construction industry.

DELIVERABLE

Project definition includes project schedule, 30% design plans, ROM construction costs and list of long lead items. Draft Engineers Report will also include design criteria, code requirements, standards and outline specifications.

Detailed Design Phase

The detailed design phase results in the preparation of construction-level design documents and typically includes:

Attending Weekly Meetings: In order accelerate design work, it will be critical to establish weekly standing project review meetings at LGB with Airport engineering staff so the team and can work in partnership to review design progress, evaluate options, track actions items and establish schedule milestones.

Prepare Detailed Plans: The design drawings will be prepared in accordance with Airport standard drafting and CADD format.

Specifications: FAA-funded projects will use the latest version of the standard specifications found in Advisory Circular 150/5370-10H.

KEY ISSUE

FAA approval of CSPP.

PROVEN APPROACH

Proactive engagement of airport stakeholders on anticipated regions of work and potential impacts. Development of clear, yet thorough CSPP documents that depict phasing limits, contractor and aircraft taxiway routes, barricade locations, temporary signage and marking that will allow for early submittal to the FAA for review and buy-in.

Construction Safety and Phasing Plans/SRMP: Developing a detailed CSPP that captures the input from the design team, airport, the end users and the FAA in a collaborative environment will be a key activity completed during the design phase. The CSPP will have to be submitted to the FAA so that a final determination can be made. Based on the size and complexity of the Runway 16R-34L Conversion to Taxiway B project, we do not anticipate that a SRMP will be required. However, is important that CSPP is developed early in the design phase. Through our past work with Mark Guan, FAA Project Manager for LGB, we understand his need for multiple submittals to complete a thorough review. It is important to schedule for multiple submittals and allow time for his review before approval.

PROOF

On the Improvements to Taxiway C at Long Beach Airport, HNTB was able to get FAA approval on the CSPP during the design phase. This allowed LGB to move forward into the bid phase knowing that a formal SRMP would not be required.

Engineer's Design Report: The report prepared during the preliminary phase will be updated at each submittal.

Construction Cost Estimate: An estimate of probable construction cost is included will be prepared with each design submittal.

Designing to a Budget: Most funding for the construction will be provided through FAA grants. FAA budgets and program funding are established as part of the airport capital improvement program (CIP) process, so it is important to make sure we have construction cost certainty and scale the projects as necessary during the design phase. HNTB will develop a construction cost estimate with input from our team member Connico, Inc., a firm specializing in airport cost estimating. Connico will provide an independent estimate to evaluate and review against current market conditions so we can develop an actuate, consolidated estimate.

Design Construction Schedule: A proposed design-construction schedule will be prepared for the project and include milestone activities that require coordination between the City and the other stakeholders.

Quality Assurance/Quality Control Reviews (QA/QC): QA procedures include in-house independent peer reviews of drawings, specifications and design concepts prior to each submittal package. Third-party engineers will perform QC reviews on each submittal.

Permit Reviews: This task includes permit submittal reviews with the City of Long Beach planning and building department and other agencies.

DELIVERABLE

Final design, ready-for-bid construction documents consisting of plans and specifications, engineer's report, final engineer's estimate, CSPP and/or SRMP document and reports as required.

Construction Phase

The objective of the construction phase is to efficiently support LGB to facilitate quality construction. It is important for designers to understand their role and responsibilities while coordinating with the CM team and providing geotechnical engineer of record soil certification and testing as well as rapid responses to RFIs, submittals and field modifications, if necessary.

KEY ISSUE

Proactive support during construction.

PROVEN APPROACH

HNTB's objective during the Construction Phase is to help the City to efficiently administer the construction contract to promote quality construction and smooth implementation. Having experienced airfield designers who were involved in the design and details will be dedicated to carry the project from start to completion.

Bidding Support: HNTB will provide assistance to the City in advertising the project, providing clarification to contractor questions and prepared design additions.

Preconstruction Conference: HNTB will assist the City with project graphics, phasing exhibits and project material to provide representation for the City at the preconstruction conference.

Submittal Reviews: HNTB will review and coordinate shop drawings, product submittals, contractor work plans and schedules, performance tests, operations and maintenance manuals and other documents as required by the contract specifications.

Site Visits/Inspecting Work: HNTB will visit the site, attend construction meetings and periodically inspect the work, providing appropriate reports to the City. Site visits can be used to perform a visual observation of the work in progress, system acceptance and testing.

Design Clarifications: We will answer contractor requests for information, and clarify the design to the contractor, CM and the City to expedite the installation.

Change Order Negotiations: Our team will prepare and/or review change order documents of unforeseen conditions or as directed by the City.

PROOF

On the Runway 26L-8R Reconstruction Project at LGB, HNTB provided rapid response to RFIs and submittals that allowed the project to be completed on schedule.

Project Closeout Phase

We pride ourselves on closing out the construction phase of a project quickly. Our team will promptly submit documentation to the City, CM and FAA, and close out the FAA AIP grant application as soon as possible. We have learned that the FAA prefers to close out grants as soon as possible after construction so they can get the grant submitted to the airport.

KEY ISSUE

Capturing accurate as-built data for future use.

PROVEN APPROACH

It is important before the contractor's team is demobilized to have all field changed memorialized in redline sets. HNTB will push for the submittal before closeout and will proactively review and comment on the redline set.

This phase includes all basic services rendered after the completion of a construction contract, including, but not limited to the following:

Prepare Final Punch List/Final Inspection: Preforming final inspection and procedures, and preparing and submitting punch list items to be completed.

CADD Record Drawings: Providing electronic files of the record set, which includes contractor redlines and any field refinements.

Grant Amendment Request: Preparing a grant amendment request if applicable. The request must include the purpose and the amount of the amendment as well as a brief narrative that explains the increase and justifies why it is advantageous to the U.S. government to participate in additional expenses.

Final Project Report: Assisting the City in the preparation of the final project report, including financial summary and completion of FAA form 9550-5.

PROOF

We know from our experience that having accurate record drawings is invaluable asset to the airport when it comes to future maintenance and development. HNTB has developed record drawings at LGB on all projects throughout our long history at the Airport.

5.9.4 QUALITY OF PROJECTS PREVIOUSLY UNDERTAKEN

The HNTB team has extensive experience with on time and budget delivery for runway improvements, taxiway enhancements, airport geometry planning and related services. HNTB has a reputation of excellent product management and quality assurance as evident through our list of satisfied repeat clients.

PROJECT MANAGEMENT

HNTB has built our consulting practice on an expectation of delivering our 4for4 performance: quality work, on-time, within budget and to the client's satisfaction. This requirement forms the basis of our corporate vision, project management approach and employee performance. For projects at LGB, we will hold regularly scheduled coordination meetings to discuss project status, project budget and resolve any project challenges.

QUALITY

The variety of projects we undertake and their increasing complexity make it imperative that a rigorous quality control plan be in place before design begins. The quality program provides the framework to deliver quality services on schedule, within budget and to the City's satisfaction. Our philosophy places responsibility on each member of the team to make certain the structured process produces the desired project outcome.

HNTB's **Quality Control Manager, Robert Millar,** will implement HNTB's Quality Program to ensure success of every project. The Quality Program places final responsibility for implementation on our Project Manager Tony Fermelia. With the accelerated nature of the Taxiway B project, it will be important that quality control review and third-party QC staffing is scheduled to complete accelerated reviews.

CONSTRUCTION ESTIMATING

HNTB is sensitive to the rising cost of construction and the importance of accurate construction estimates during the design. Especially when working on AIP-funded projects, it is critical that anticipated construction costs regularly be checked throughout the design process against the available funding. **On the Taxiway C Improvement Project at LGB, there were some challenges with the engineers estimate and the bid results received. To address these challenges, HNTB has added Connico, Inc., which specializes in construction cost estimation,** to allow for greater detail

and accuracy of estimates during the design. Connico has a wealth of knowledge and experience estimating airfield projects in Southern California's market, and understands the unique material costs associated with some of the FAA-specified materials. HNTB will use our history and work in the region to develop a detailed cost estimate at each stage of the design. An independent estimate will be developed by Connico to check HNTB's estimate before an integrated estimate is developed and submitted to the LGB. Through this process, we will deliver accurate estimates for the Airport to confidently use before we advertise the project for bidding.

COST CONTROL DURING CONSTRUCTION

With decades of successfully delivering airfield projects, HNTB has identified several keys to minimizing cost escalation during construction. Our team understands the importance of delivering projects within the available funding and will employ the below approaches to control costs during construction.

Maximize Constructibility Analysis

Constructibility reviews are the first step in the prevention of cost overruns. HNTB's internal CM teams will thoroughly review all the design submittals to not only provide constructibility reviews, but also identify potential changes and assist the design team in preparing the appropriate mitigation and allowances. In addition, HNTB will collaborate with LGB and their CM consultant to review and address constructibility items as part of the design process. We understand that project success requires us to incorporate input from all stakeholders.

Responsiveness During Construction

Contractor claims of delays and the associated costs are a common cause of cost escalation during construction Our design team understands the importance of responding to quickly to all contractor RFIs, submittals, and other requests to maintain the progression of work. This proven team has successfully delivered on similar projects at LGB with very aggressive construction schedules that required near instant resolution of field questions. On critical phases of work, our design leads will work closely with the LGB construction manager to confirm the contractor is adequately prepared and the office staff is on call to address any field issues. Our local office prides themselves in keeping close contact with the field issue so they understand the upcoming work and look forward to making regular field visits to observe the installation of key work items.

PROOF

At LGB for Runway 26L-8R, HNTB Engineer's Estimate was within 2% of the low bidder. Throughout the design phase anticipated construction costs were regularly checked against the available funding. HNTB developed a series of additive alternatives that were included in the design documents.

5.9.5 CURRENT WORKLOAD AND DEMONSTRATED ABILITY TO MEET SCHEDULED DEADLINES

The Runway 16R-34L Conversion to Taxiway B project has a rigorous schedule, and to deliver the scope of work we have developed a detailed schedule (see Section 5.9.3, Exhibit 5). We have developed an aggressive yet realistic schedule to attain FAA compliance, and we developed our staffing plan based on the anticipated deliverables, QC reviews, subconsultant coordination and City review time.

Upon NTP, HNTB will use the existing ALP contours and mapping to beginning preliminary engineering activities. We will be able to establish horizontal control, profiles and preliminary grading. We utilize historical geotechnical and California Bearing Ratio (CBR) data from the nearby Runway 26L and Taxiway J projects as well as data from the LGB Pavement management system report to develop assumptions on subgrade conditions and an initial pavement design for the Taxiway D project. We know from our experience from working at LGB that the existing subgrade material is poor, clayey soils that typically requires stabilization. The FAA requires any subgrade with strength below a CBR of 5 to be stabilized. Therefore, we will assume stabilization is required during the preliminary design phase. While we develop on preliminary engineering, in-parallel field survey and detail topo and geotechnical soil investigations will be conducted. After this detailed data becomes available, we will be able to quickly integrate the data into our design documents and detailed design.

We will leverage our relationships to help expedite all reviews within the FAA. In addition to scoped deliverables, we know that instant requests arise throughout the course of a project. HNTB — and specifically this team — excel at rapidly responding to all requests. We understand that the staffing needs of this contract will fluctuate over its duration. HNTB's key personnel are committed to delivering LGB projects.

To reinforce this premise, we have evaluated our current and expected project assignments and estimated the average availability of our key staff personnel over the duration of this contract. Exhibit 6 provides details of our proposed staffing levels.

Our team understands that this is a dynamic project and we must remain flexible to incorporate additions and modifications while adhering to the project schedule. HNTB will hold regular project meetings with LGB to review scope, schedule and action items. Our team has multiple design managers/task leads to tackle simultaneous projects on an accelerated timeline.

EXHIBIT 6. Details of our proposed staffing levels.

Name/Title	Availability	Current Workload
Tony Fermelia, PE Project Manager	80%	• LGB, Taxiway C Improvements • LAX, Secured Area Access Post and Enabling Projects
Justin Bychek, PE Planning Task Lead	70%	• LGB, ALP Updates and Property Map Research • LAX, Runway Incursion Mitigation Study • LAS, Runway Incursion Mitigation Study
James Long, PE Design Manager	80%	• LAX, United Airlines Hangar Civil Design • VNY, Taxiway A Improvements
Megan Monticone, PE Airside Task Lead	70%	• LGB, RON Ramp Improvements • LAX, American Airlines T4 & T5 Civil Design
Nicolo Olino Design Task Lead - Grading Vertical Control	80%	• LGB, Taxiway C Improvements • LAX, Secured Area Access Post and Enabling Projects
Taylor Henderson, PE Drainage	80%	• LAX, Delta Hangar Civil Support Services • LAX, United Airlines Hangar Civil Design
Bill Marek Pavement Marking/CADD	85%	• LGB, Ron Ramp Improvements • LAS, SWA T1E Civil Design

5.9.6 CAPABILITY TO CONDUCT A VALUE ENGINEERING (VE) STUDY

The HNTB team has the credentials, capabilities and experience to deliver VE studies. At the preliminary engineering phase, HNTB will facilitate a VE Workshop and engage our design team and Connico. Hosting a VE Workshop will improve the project understanding by focusing the team. Insight into the entire project is gained by bringing all the disciplines together.

Our engineering estimating staff has worked on an array of projects at LGB and have priced a variety of alternative solutions. A detailed Life-Cycle Cost Analysis was completed as part of the preliminary pavement design for the Improvements to Taxiway C project. The results indicate that concrete pavement sees a significant savings over its lifetime when compared to asphalt, which equates to a present value savings over a 40-year lifetime of $4.5M. Additionally, we have a detailed understanding of the intent of the airfield program at Long Beach Airport and can rapidly accommodate changes that may result as part of the VE workshop. For example, on the Runway 8R-26L project at LGB, we developed the pavement design section that included eight inches of lime-treated subgrade. During construction, there were several isolated areas that had very wet existing clay subgrade material that could not be bridged with an eight-inch section and required a deeper section to be stabilized.

We applied this lesson learned, along with our knowledge of existing site conditions during preliminary design for the Taxiway C Improvements. We consulted with the CM team and the LGB staff and collaborated and reviewed VE opportunities to determine that the equipment utilized by lime treatment subcontractor, Pavement Recycling Inc., could stabilize the 12-inch section with the same amount of effort needed to stabilize an eight-inch section; the only difference would be the cost of additional lime-slurry material. This approach would save time and a provide significant cost savings by increasing the lime-treated section to 12-inch in the Taxiway C design bid documents.

As a firm, HNTB has a well-developed VE process and has provided significant cost savings to our clients without sacrificing performance. HNTB's Southern California Aviation Team was asked by the O'Hare Modernization Program Manager to participate in a VE workshop for the Runway 9C-27C and Associated Taxiways at ORD. Using our experience at LGB, combined with our aviation expertise, we will continue to work closely with you to value engineer every task and reduce costs on every project we deliver to the City.

5.9.7 QUALIFICATIONS AND EXPERIENCE OF OUTSIDE CONSULTANTS REGULARLY ENGAGED BY HNTB

For this project to succeed, the City needs a team with a proven track record for delivering this specific scope of work and who understand LGB's goals for this assignment. With that in mind, HNTB has developed a team that includes subconsultants that you are extremely familiar with, staff you know and trust from previous projects, and the same people who delivered runway and taxiway reconstruction projects at airports throughout the Western-Pacific Region. Our team is comprised of engineering, construction management and surveying firms that are experts in their respective fields and will provide the specific technical support needed. For additional information about our selected subconsultant specialists please refer to Section 9.2 of this SOQ.

5.9.8 CAPABILITY OF BRANCH OFFICE THAT WILL PERFORM INDEPENDENTLY OF THE HOME OFFICE

Our Los Angeles-based Aviation Center of Excellence will serve as the primary branch office for this project. Our Project Manager, Tony Fermelia ,and his entire staff for this project are based full-time in Los Angeles and have been providing these very same services to airport clients for more than 16 years.

The office is located adjacent to LAX and is a short distance from both LGB and the FAA's LA ADO and Western-Pacific Region offices, allowing us to provide you with a high level of responsiveness. Our Los Angeles office is fully capable of independently managing and producing the work deliverables needed for this project.

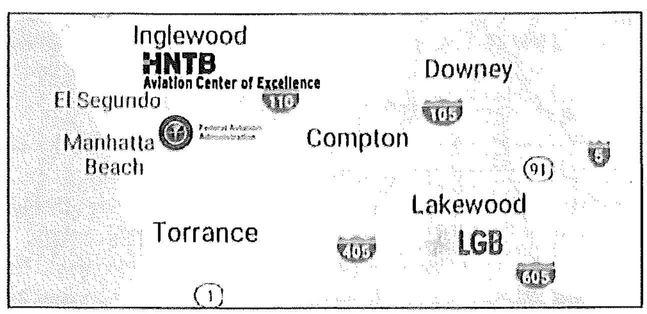
While the Los Angeles office has the capability of managing and producing the work for this project, HNTB is a network organization with more than 200 dedicated aviation staff and more than 4,800 total staff nationwide. This allows us to react quickly to any issue while providing local, hands-on expertise with the reassurance of a nationwide network of the best aviation design.

5.9.9 DEGREE OF INTEREST SHOWN IN UNDERTAKING THE PROJECT AND FAMILIARITY WITH AND PROXIMITY TO THE GEOGRAPHICAL LOCATION

The HNTB team has a personal stake in the successful completion of the projects specified in this engineering and design services development contract at LGB. We led the Airfield Geometry Study (AGS) and Airport Layout Plan Update, and are eager and passionate about bringing this project through the FAA approvals phase to allow it to move into construction.

We are very familiar with the geographic location of the project. We will be managing and producing the majority of the technical work from our Los Angeles offices at LAX and in downtown Los Angeles,which are very close to LGB. We are also close in proximity to the FAA's LA ADO and Western-Pacific Region offices.

We have found it beneficial to have in-person meetings with the FAA to review more complex projects such as runway construction and airfield geometry modifications. These projects will require a SRMP to review project descriptions and project elements in a collaborative environment that will shorten the duration for the FAA review. Our experience with the AGS Phase 1 and 2 studies has provided us an in-depth understanding of the project and established



relationships with the airport and surrounding communities.

In the past, our team has been able to respond quickly to many of the diverse issues that LGB staff could be faced with and were able to act as an extension of staff when needed. We have been able to come down to LGB to assist within the hour. During the construction phase of the project, it is important to have staff on-site to support the contractor and keep the project on schedule. Our construction support staff and material testing personnel are committed to working on site until the construction is completed and the project is closed-out successfully.

9.1 PRIMARY CONSULTANT INFORMATION

Company Ownership

HNTB Corporation is a wholly-owned subsidiary of HNTB Holdings Ltd., which has been in business for 105 years. HNTB Corporation was incorporated as a sub-chapter S-Corporation in 1992 in the state of Delaware.

Location of Company Offices

We will continue to serve LGB from our Los Angeles-based Aviation Center of Excellence located at 6033 West Century Boulevard, Suite 1050, Los Angeles, CA 90045. Our other four Southern California offices are in Downtown Los Angeles, Santa Ana, Inland Empire and San Diego.

Location of Office Servicing California Account(s): Los Angeles (LAX and downtown), Santa Ana, Ontario, San Diego, Oakland, San Francisco and San Jose.

Number of Employees Locally and Nationally: HNTB employs more than 4,800 professionals across the country, including over 265 aviation experts. Our Southern California offices have more than 190 staff. HNTB has nine full-time employees who **reside in Long Beach**. Our core staff for this project resides in Southern California, and each has a personal stake in the continued success of LGB.

Location(s) From Which Employees Will Be Assigned: Los Angeles-based Aviation Center of Excellence. We are prepared to augment the team with national aviation experts should the need arise.

Consultant Point of Contact

The day-to-day point of contact for this contract will be **Project Manager Tony Fermelia.** Tony's contact information is:

(310) 846-1810 (office) / (714) 943-4980 (mobile)
email: tfermelia@hntb.com
6033 West Century Boulevard, Suite 1050
Los Angeles, CA 90045

HNTB Background/History – Qualifications to Provide Services

For more than a century, HNTB has exceeded client expectations in the delivery of infrastructure across the country. Since 1944, our aviation professionals have provided full project lifecycle services to airport clients. From airside to landside, we have a long history of delivering a wide range of services and projects to the largest airports in the country — including terminals, runways, airport systems and planning. Additional information about our relevant experience is included on in Section 5.9.3 of this SOQ.

Length of Time Providing Services to the Public and/or Private Sector

HNTB has been completing aviation engineering, planning, and design for 75 years, primarily to public-sector clients.

HNTB's Range of Expertise and Proven Project Delivery

- Runway, taxiway and apron design
- Construction safety and phasing plans
- Airfield and landside lighting
- Pavement design, rehabilitation and lifecycle cost analysis
- Utility/MEP design (storm drainage, sanitary sewer, water, gas and communications
- Airfield fueling design
- Security system planning and design
- Structural design (foundations, walls, building structures and bridges)
- Architectural services

Financial Stability

HNTB's financial statement can be found in Part 3, Financial Documentation/Statements.

Conflict of Interest Disclosure

Based on the Conflict of Interest information provided in Attachment B, Pro-Forma Agreement, we do not believe our past or current work creates a current conflict of interest on any future projects. **(Reference RFQ #13.19)**

Litigation Disclosure

HNTB is a privately held, employee-owned firm providing engineering, architectural and planning services nationwide. As such, the firm is exposed to the same risk of various legal proceedings and claims as is any firm in our business. Statements regarding such claims must remain confidential on the advice of HNTB's legal counsel and insurance carrier, and is often a requirement of settlement release documents. There are currently no instances of such proceedings or claims that would impede HNTB from providing City of Long Beach with the services requested. HNTB and its insurer will consider requests for specific information regarding litigation or claims directed only through its legal counsel, Mr. Chad Beashore of Shook, Hardy & Bacon, LLP in Kansas City, Missouri, phone number (816) 474-6550. **(Reference RFQ #13.20)**

9.2 SUBCONSULTANT INFORMATION

For this project to succeed you need a team with a proven track record for delivering this specific scope of work; and who understand LGB's goal for this specific assignment. With that in mind, HNTB has developed a team that includes trusted subconsultants that we are completely extremely familiar with, staff you know and trust from previous projects, and are the same people who have delivered runway reconstruction and taxiway reconstruction projects at airports throughout the Western-Pacific Region. A brief decription of each subconsultant follows.

CONNICO INCORPORATED	CONVERSE CONSULTANTS
Company Ownership: Corporation registered in State of Tennessee. Registered and doing business in California.	Company Ownership: Employee-owned Corporation
Location of Company Offices: Nashville, TN, Cincinnati, OH, and Atlanta, GA / Location of the office servicing any California account(s): Nashville, TN, Cincinnati, OH, and Atlanta, GA Number of employees both locally & nationally: 17 / Reside in Long Beach: none Location(s) from which employees will be assigned: Cincinnati, OH	Location of Company Offices: Costa Mesa, Monrovia, and Redlands, CA / Location of the office servicing any California account(s): Costa Mesa, Monrovia, and Redlands, CA Number of employees both locally & nationally: 130 nationally; 50 locally / Reside in Long Beach: 1 Full-Time Location(s) from which employees will be assigned: Costa Mesa, Monrovia, and Redlands
Consultant Point of Contact: David J. Hunley, 2940 Hebron Park Drive, Suite 209, Hebron, KY 41048; 615-758-7474, 859-466-1002 (cell)	Consultant Point of Contact: Carlos V. Amante, 3176 Pullman Street, Suite 108, Costa Mesa, CA 92626; 714-444-9660
Company Background/history & why consultant is qualfied to provide services: Connico's construction experience enables them to understand the many complexities that may influence the cost and schedule of a project.	Company Background/history & why consultant is qualfied to provide services: They have an excellent reputation for the integrity of their firm, the quality of service, and their commitment to clients.
Length of time providing services to the public and/or private sector: Since 1990	Length of time providing services to the public and/or private sector: Since 1946

DIAZ•YOURMAN & ASSOCIATES, INC.	DINTER ENGINEERING
Company Ownership: Privated-owned Corporation. Incorporated in CA in 1992	Company Ownership: S-Corporation in Nevada
Location of Company Offices: Santa Ana, CA / Location of the office servicing any California account(s): Santa Ana, CA Number of employees both locally & nationally: 21 nationally/locally / Reside in Long Beach: 1 Full-Time Location(s) from which employees will be assigned: Santa Ana, CA	Location of Company Offices: Reno, NV / Location of the office servicing any California account(s): Reno, NV Number of employees both locally & nationally: 13 nationally / Reside in Long Beach: none Location(s) from which employees will be assigned: Reno, NV
Consultant Point of Contact: Christopher M. Diaz or Clint Isaac Isa; 1616 East 17th Street, Santa Ana, CA 92705; 714-245-2920	Consultant Point of Contact: Traci L. Frey, 385 Gentry Way Reno, NV 89502; 775-682-4646
Company Background/history & why consultant is qualfied to provide services: They have completed 50 runway/taxiway projects, and more than 75 pavement projects at airports.	Company Background/history & why consultant is qualfied to provide services: They are a nationally recognized airfield electrical design firm who engineered close to 700 airport projects for 141 airports/airfields.
Length of time providing services to the public and/or private sector: Since 1992	Length of time providing services to the public and/or private sector: Since 1961

IDS GROUP, INC.	KPFF
Company Ownership: Incorporated	Company Ownership: C-Corporation in WA
Location of Company Offices: Irvine, Los Angeles, and San Diego, CA / Location of the office servicing any California account(s): Irvine, Los Angeles, and San Diego, CA Number of employees both locally & nationally: 93 nationally/locally / Reside in Long Beach: 1 Full-Time Location(s) from which employees will be assigned: Irvine, Los Angeles, and San Diego, CA	Location of Company Offices: Over 20 offices / Location of the office servicing any California account(s): Los Angeles, Irvine, San Diego, Sacramento, San Francisco and Long Beach, CA Number of employees both locally & nationally: 1224 nationally/390 locally / Reside in Long Beach: 13 Full-Time Location(s) from which employees will be assigned: Long Beach and Los Angeles, CA
Consultant Point of Contact: Said Hilmy, 1 Peters Canyon Road, Suite 130, Irvine, CA 92509; (949) 387-8500 ext. 116	Consultant Point of Contact: Mark Nadal, 700 South Flower Street, Suite 2100, Los Angeles, CA 90017, 213-418-0201
Company Background/history & why consultant is qualfied to provide services: They bring a broad understanding, drive for innovations and sound technical expertise, and apply those skills to each project's unique set of circumstances.	Company Background/history & why consultant is qualfied to provide services: KPFF has an experienced and skilled staff as well as the resources to take on projects of all sizes and deliver on the most constrained schedules.
Length of time providing services to the public and/or private sector: Since 1998	Length of time providing services to the public and/or private sector: Since 1960

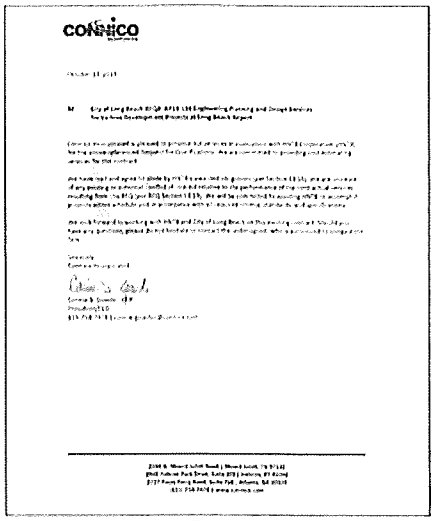
WAGNER ENGINEERING & SURVEY, INC.
Company Ownership: C-Corporation
Location of Company Offices: Northridge, CA / Location of the office servicing any California account(s): Northridge, CA Number of employees both locally & nationally: 21 locally / Reside in Long Beach: none Location(s) from which employees will be assigned: Northridge, CA
Consultant Point of Contact: Stephanie A. Wagner; 17134 Devonshire St, Suite 200, Northridge, CA 91325; 818-892-6565
Company Background/history & why consultant is qualfied to provide services: They possess substantial surveying experience in transportation/airport/ institutional/commercial projects.
Length of time providing services to the public and/or private sector: Since 1990

A snapshot of each subconsultant's Commitment Letter and COI disclosure can be found on the following page as well as complete letters in Part 2.

Financial Stability documents for each subconsultant's are provided in Part 3.

Snapshots of each subconsultant's Commitment Letter

To view in its entirety, please use the zoom tool provided.



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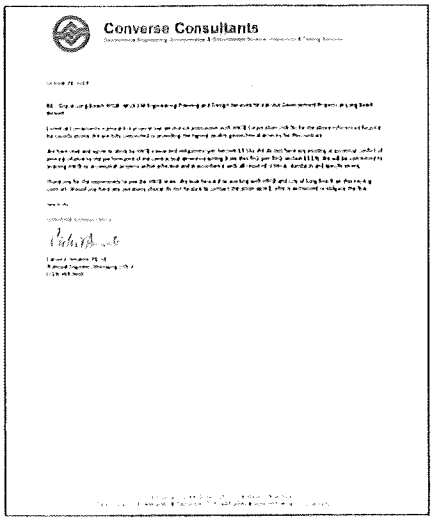

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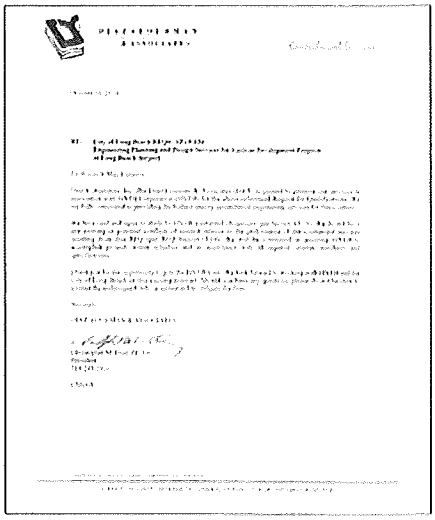

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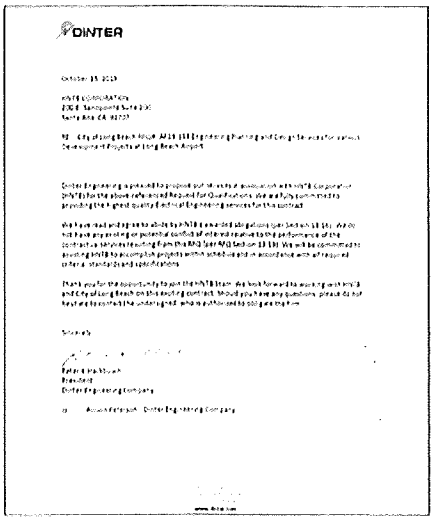

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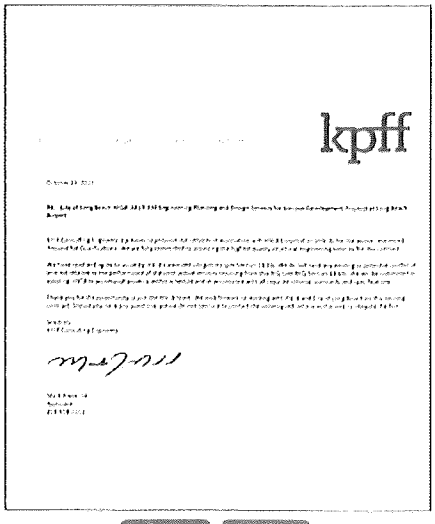

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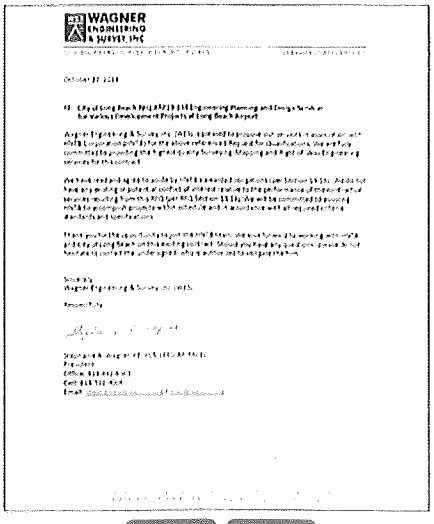

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Section 9
Company Background and References

9.1 Prime Consultant Information
9.2 Subconsultant Information
9.3 References
9.4 Business License

9.3 REFERENCES

Prime Consultant References

We understand this work and have completed numerous projects with similar scope and size. Our key staff assigned to this project are expert aviation planners and will ensure that your project is delivered seamlessly and expeditiously. We encourage you to contact our references who can attest to the quality of our work.

Client Name	Technical Environment	Project Dates	Staff Assigned
City of Long Beach	Operational Airfield	2015 – Ongoing	Tony Fermelia James Long Justin Bychek Megan Monticone Bill Marek
Client Contact	Ambi Thurai, PE, 562-570-2623		
Project Description	**Engineering Services for Various Development Projects, Long Beach Airport**		
HNTB was responsible for preparing final design and construction support services for the Improvements to Runway 8R-26L Project, preparing final design for the Conversion of Runway 16L-34R to Taxiway C, and preparing final design for the Remain Over Night (RON) apron improvements.			

Client Name	Technical Environment	Project Dates	Staff Assigned
City of Long Beach	Operational Airfield	2013 – 2017	Tony Fermelia Justin Bychek Bill Marek
Client Contact	Stephan Lum, 562-570-2682		
Project Description	**Airfield Geometry and Airport Layout Plan (ALP), Long Beach Airport**		
HNTB performed airfield geometrics and an Airport Layout Plan to provide as study for recommended changes to the airfield to improve aircraft safety by reducing the number of runway incursions and surface incidents, mitigating Hot Spots while keeping the airport stakeholders involved, and informed in the process.			

Client Name	Technical Environment	Project Dates	Staff Assigned
Los Angeles World Airports (LAWA)	Operational Airfield	2017 – Ongoing	Tony Fermelia James Long Justin Bychek Megan Monticone Bill Marek
Client Contact	Sean FLynn, PE, (424) 646-5867 office / (310) 877-0337 mobile		
Project Description	**Taxiway A & B Rehabilitation Program, Van Nuys Airport**		
HNTB is providing design and construction support services for the Taxiway A & B Rehabilitation Program at Van Nuys Airport. This project involves multiple procurement packages over three years in order to maximize available Airport Improvement Program (AIP) funds.			

Client Name	Technical Environment	Project Dates	Staff Assigned
Los Angeles World Airports (LAWA)	Operational Airfield Airside and Landside	2018 – Ongoing	Tony Fermelia James Long Justin Bychek Megan Monticone Bill Marek
Client Contact	John R. Fronda, PE, 424-646-5851		
Project Description	**Design Services On-Call Contract, Los Angeles International Airport**		
HNTB has been providing engineering services for LAWA since 1993 and our current contract is for a 3-year term. The scope of the task orders includes planning, engineering, architecture and utility services for complex airside, landside and utility projects.			

Client Name	Technical Environment	Project Dates	Staff Assigned
Port of Oakland	Operational Airfield Airside and Landside	2007 – Ongoing	Tony Fermelia James Long Justin Bychek Megan Monticone Bill Marek
Client Contact	Vincent Chu, PE, 510-627-1232		
Project Description	**Engineering On-Call Contract, Oakland International Airport**		
HNTB has been providing engineering services for multiple projects at Oakland International Airport since 2007 through an on-call contract. The scope of task orders has included planning, design, and construction phase services.			

Subconsultant References

1) Client: Wayne County Airport Authority Client Contact: Barry Ellerholz, Sr. Prj. Sup./Dept. Mgr., 734-955-5647

CONNICO INCORPORATED

Technical Environment: Operational Airfield Project Dates: 2014–2017
Project Description: On-Call Airfield Projects at Detroit Metropolitan Wayne County Airport (DTW), Detroit, MI – Provided resident project representation, cost consulting, scheduling, and constructibility services. Staff Assigned: David Hunley

2) Client: Houston Airport System Client Contact: Robert Barker, 281-233-3000
Technical Environment: Operational Airfield Project Dates: 2017
Project Description: On-Call projects at George Bush International Airport, Houston, TX. Staff Assigned: David Hunley

3) Client: Wayne County Airport Authority Client Contact: Teresa Samosiuk, 734-942-3550
Technical Environment: Operational Airfield Project Dates: 2017 – Ongoing
Project Description: Runway 3L-21R and Associated Taxiways Reconstruction at Detroit Metropolitan Airport – Provided design estimates and construction administration. Staff Assigned: David Hunley

4) Client: Metro Nashville Airport Authority Client Contact: Robert L. Ramsey, 615-275-1461
Technical Environment: Operational Airfield Project Dates: 2018 – 2019
Project Description: Terminal Access Road Improvements (TARI) at Nashville International Airport (BNA) – Provided design estimate. Staff Assigned: David Hunley

5) Client: Susquehanna Area Regional Airport Authority Client Contact: David Spaulding, 717-948-3911
Technical Environment: Operational Airfield Project Dates: 2013 – 2015
Project Description: Master Plan Update at Harrisburg International Airport (MDT) – Provided a rough order of magnitude estimate that included a Building Scope and a Civil/Site Scope. Staff Assigned: N/A

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1) Client: Atkins Client Contact: Daniel Knott 702-990-7141

Converse Consultants

Technical Environment: Operational Airfield Project Dates: 2012 – 2016
Project Description: Los Alamitos Army Airfield Improvements, Los Alamitos, CA – Completed the geotechnical study.
Staff Assigned: Hashmi Quazi, Siva Sivathasan, Mark Schluter

2) Client: Hollywood Burbank Airport aka Bob Hope Int. Airport Client Contact: Aster Seghit, 202-651-2506
Technical Environment: Operational Airfield Project Dates: 2010 – 2016
Project Description: UIS Tower Sustainment Program – Geotechnical observation, material testing and inspection services.
Staff Assigned: Hashmi Quazi

3) Client: Hollywood Burbank Airport aka Bob Hope Int. Airport Client Contact: Nicky Nitichaivorrakul, 818-543-4560
Technical Environment: Operational Airfield Project Dates: 2012 – 2016
Project Description: Hangar 35 – Geotechnical observation, material testing and inspection. Staff Assigned: Hashmi Quazi

4) Client: Big Bear Airport Client Contact: Jake Reade, 909-228-1658
Technical Environment: Operational Airfield Project Dates: 2011 – 2017
Project Description: On-Call Airport Improvements– Geotechnical observation, material testing and inspection services.
Staff Assigned: Various staff

5) Client: Santa Barbara Airport Client Contact: Ed Roa, 310-536-1102
Technical Environment: Operational Airfield Project Dates: 2006 – 2018
Project Description: On-Call Airport Improvements – Geotechncial investigations and inspection services. Staff Assigned: Hashmi Quazi, Mark Shluter

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1) Client: Long Beach Airport (LGB) Client Contact: Ambi Thurai, 562-570-2623

DIAZ·YOURMAN & ASSOCIATES Geotechnical Services

Technical Environment: Operational Airfield Project Dates: 2016 – 2017
Project Description: Runway 7L-25R Improvements. Staff Assigned: Clint Isa

2) Client: LAWA/ConRAC Client Contact: Chris Truong, 424-646-7553
Technical Environment: Operational Airfield Project Dates: 2019 – Ongoing
Project Description: Geotechnical design, review Services DA-5318. Staff Assigned: Clint Isa

3) Client: LAWA Client Contact: Pete Tuccillo, 661-301-1420
Technical Environment: Operational Airfield Project Dates: 2017 – 2018
Project Description: LULEP Task R22&24 Lot C Reconfiguration – Geotechnical design services. Staff Assigned: Clint Isa

4) Client: LAWA Client Contact: Mark Vicelja, 424-646-5500
Technical Environment: Operational Airfield Project Dates: 2017 – 2018
Project Description: C-14 New 3,300-Foot-Long Taxiway to Connect Existing Taxiway B/E – Geotechnical, material testing and inspection services. Staff Assigned: Clint Isa

5) Client: John Wayne Airport Client Contact: Steven Carrillo, 949-252-6020
Technical Environment: Operational Airfield Project Dates: 2015 – 2016
Project Description: Taxiway B Rehabilitation – Pavement rehabilitations. Staff Assigned: Clint Isa

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DINTER

1) Client: Big Piney-Marbleton Airport Client Contact: Kimberly A, Silvester, PE 208-859-0936
Technical Environment: Operational Airfield Project Dates: 2018 – 2019
Project Description: Runway 13-31 – Evaluation of LED lights with heaters vs incandescent fixtures. Staff Assigned: Traci Frey

2) Client: Gooding Municipal Airport Client Contact: Jeremy Gilb, PE, LSIT, 307-587-3411
Technical Environment: Operational Airfield Project Dates: 2018 – 2019
Project Description: Runway 7 Extension - Phase I – Design for underground conduit, cans, pullboxes, counterpoise, basecans and handhole/pullboxes for future design of the Runway. Staff Assigned: Traci Frey

3) Client: Long Beach Airport (LGB) Client Contact: Megan Monticone, PE, 714-329-5673
Technical Environment: Operational Airfield Project Dates: 2018 – Ongoing
Project Description: Runway 16L-34R Conversion to Taxiway C (Task Orders #12 & #26) Staff Assigned: Traci Frey

4) Client: Long Beach Airport (LGB) Client Contact: Henry Monfiero, 562-570-2616
Technical Environment: Operational Airfield Project Dates: 2018 – 2019
Project Description: Runway 8R-26L Improvements, Long Beach, CA. Staff Assigned: Traci Frey

5) Client: Phifer Airfield Client Contact: Josh Morris, PE, 307-587-3411
Technical Environment: Operational Airfield Project Dates: 2018 – 2019
Project Description: Runway 8-26 Reconstruction – Evaluation of existing electrical components. Staff Assigned: Traci Frey

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IDS GROUP

1) Client: John Wayne Airport (JWA) Client Contact: Steve Chaky 949-252-5171
Technical Environment: Operational Airfield Project Dates: 2017 – Ongoing
Project Description: Airport Operation Center Remodel/Upgrades – Planning/programming, architectural, structural, mechanical/plumbing, electrical and security design services. Staff Assigned: Walter Maclean

2) Client: LAWA Client Contact: Bill Dehn, PE, 949-397-0500
Technical Environment: Operational Airfield Project Dates: 2017 – Ongoing
Project Description: Automated People Mover (APM) and ConRAC Facility – Structural Engineering design of stations and pedestrian bridges. Staff Assigned: Various staff.

3) Client: John Wayne Airport (JWA) Client Contact: Kory Hariri, 949-252-6098
Technical Environment: Operational Airfield/Airside/Landside Project Dates: 2017
Project Description: Airside and Landside Exterior Lighting Enhancements. Staff Assigned: Various staff

4) Client: John Wayne Airport (JWA) Client Contact: Arabella Arsenous, 949-252-5218
Technical Environment: Operational Airfield/Landside Project Dates: 2018 – Ongoing
Project Description: Terminal A & B Air Handler Replacement – Mechanical, electrical and structural assessments, design services and preparing construction documents. Staff Assigned: Walter Maclean

5) Client: John Wayne Airport (JWA) Client Contact: James Carson Lawless, 949-252-5214
Technical Environment: Operational Airfield Project Dates: 2018 – Ongoing
Project Description: New Concessions and Convenience Outlets – Mechanical load calculations and Title 24 energy calculation for any new equipment required. Staff Assigned: Walter Maclean

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kpff

1) Client: LAWA Client Contact: Otto Randolph, 424-646-7447
Technical Environment: Operational Airfield Project Dates: 2012 – 2016
Project Description: On-Call Professional Design Services – Structural design consulting services.
Staff Assigned: Mark Nadal

2) Client: LAWA Client Contact: Otto Randolph, 424-646-7447
Technical Environment: Operational Airfield Project Dates: 2014 – 2016
Project Description: Central Terminal Area Curbside Enhancements – Structural engineering services. Staff Assigned: Mark Nadal

3) Client: LAWA Client Contact: Steve Rivers, 310-826-8381
Technical Environment: Operational Airfield Project Dates: 2019 – 2023
Project Description: Alaska Airlines Terminal 6 Redevelopment – Structural design services. Staff Assigned: Mark Nadal

4) Client: Port of Long Beach (POLB) Client Contact: Sean Gamette, 562-283-7363
Technical Environment: Operational Airfield Project Dates: 2006 – Ongoing
Project Description: On-Call Design Review Professional Services – Design reviews and cost estimates. Staff Assigned: Various staff.

5) Client: LAWA Client Contact: Jeff Goodermote, 213-220-0966
Technical Environment: Airfield/Landside Project Dates: 2017 – 2021
Project Description: Intermodal Transportation Facility West – Design reviews and cost estimates for Landside Access Modernization Program. Staff Assigned: Mark Nadal

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WES WAGNER ENGINEERING & SURVEY, INC.

1) Client: LAWA Client Contact: John Martin, 206-438-2211
Technical Environment: Operational Airfield Project Dates: 2014 – 2016
Project Description: Runways 6l-24R – Runway Safety Improvements.
Staff Assigned: Stephanie Wagner

2) Client: Metro Client Contact: Jay Fuhrman, 213-418-3179
Technical Environment: Double Track Project Dates: 2016 – 2017
Project Description: Lone Hill to White Double Track Project – Survey, aerial mapping, engineering and ROW services.
Staff Assigned: Stephanie Wagner

3) Client: Metro Client Contact: Brian Balderrama, 213-407-4215
Technical Environment: Rail Transit Project Dates: 2015 – 2016
Project Description: Gold Line Eastside Light Rail PE Phase I and EIR/EIS Phase II – Land surveying, aerial mapping and ROW engineering for Phase I/II. Staff Assigned: Stephanie Wagner

4) Client: City of Los Angeles, DPW Client Contact: Abdullah Sadozai, 213-485-4652
Technical Environment: Roadway Project Dates: 2017 – 2018
Project Description: Ventura Blvd, Sidewalk Improvements – Land surveying and civil engineering. Staff Assigned: Stephanie Wagner

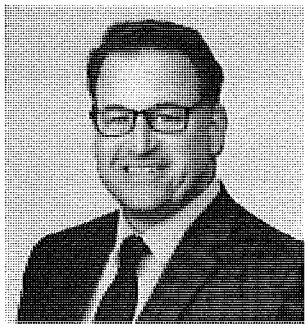
5) Client: LAUSD Client Contact: James T. Shraughan, 818-343-5393
Technical Environment: School/Roadway Project Dates: 2016 – Ongoing
Project Description: ADA Barrier Removal Projects – Land surveying and civil engineering. Staff Assigned: Stephanie Wagner

9.4 BUSINESS LICENSE

HNTB understands the Long Beach Municipal Code (LBMC) requires all businesses operating in the City of Long Beach to pay a business license tax. HNTB is in good standing with the City of Long Beach and holds a current business license (#BU2020729) which can be presented at time of project award.

Appendix

Key Personnel Resumes
Core Team Resumes



Tony Fermelia, PE | Project Manager

Tony knows how to manage complex civil engineering projects in the aviation industry. He has extensive experience in the design of airfield improvements including aprons, taxiways and runways, and other airfield related items that comply with FAA design standards. Many of Tony's projects were performed on aggressive, fast-track schedules to meet FAA requirements and funding deadlines. His capabilities are particularly evident in his ability to manage projects from design through construction. He has led multiphase construction packages, which required him to manage a group of 15 to 20 in-house designers, and as many as 22 subconsultants working as a team to minimize interruption to airport operations and keep construction on schedule and within budget.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 80% Years of Experience: 26	• BS, Civil Engineering • Professional Engineer, CA #C55543	• American Society of Civil Engineers - Air Transportation Technical Group, Los Angeles Section - Acting Treasurer

Long Beach Airport, Runway 8R-26L Relocation, Long Beach, CA: As Project Manager, Tony was responsible for all the design components of the project including contract management, quality control compliance, design schedule management, and engineer of record for civil design elements. The runway is primarily used by light general aviation users including a majority of the airport's fight training operations. Although considered a B-II runway, Runway 7R-25L did not meet current design standards. The major goals included pavement rehabilitation, geometry updates to meet current FAA design standards and enhance the airfield's overall safety, and standard general aviation run-up area development. The project base bid includes Runway 8R-26L relocation and reconstruction; New cross taxiways; Runway and taxiway pavement demolition; Associated drainage improvements; New LED electrical design, new electrical Constant Current Regulators (CCRs) added to existing vault; Runway and taxiway marking and signage, including Runway 7L-25R re-designation; and new precision approach path indicators (PAPI) for Runway 8R-26L.

Long Beach Airport, Improvements to Runway 12-30 and Connecting Taxiways and Runways, Long Beach, CA: As Project Engineer, Tony was responsible for lighting and signage design, storm drain pavement marking, structural analysis, and the airfield lighting control and monitoring system (ALCMS). He also processed RFI and submittals for storm drainage during the construction phase. Tony developed multiple design packages to maximize FAA funding, as well as alternatives to capture funds from additional sources. The project was fast-tracked and designed under an extremely tight schedule to meet the FAA funding deadline. Tony drew upon his proven work history with the City of Long Beach and the FAA, as well as his rapport with the design team, to complete the design on schedule. He coordinated among several disciplines, firms, and office locations to develop an integrated design for the runway improvements. The airport had only one commercial runway, which had to remain operational during the day. To address this challenge, Tony developed a phasing plan that included nighttime construction of the runway.

Los Angeles International Airport Runway 25L Relocation, Center Taxiway, and Intersection Improvements, Los Angeles, CA: As Project Manager, Tony was responsible for relocating Runway 25L and designing a new parallel center taxiway at LAX. From initial planning through construction, Tony provided oversight of the preparation of a drainage study; grading, drainage, utility, and environmental water quality studies; design of drainage structures; and specification writing.

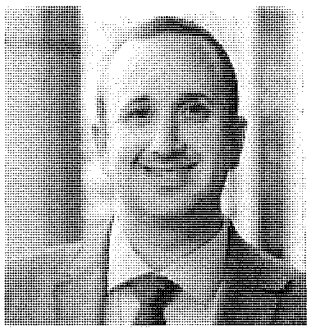
The design of the Runway 25L Relocation and Center Taxiway Improvements involved multiple construction packages and included over 717 plan sheets and construction support services support paperwork with over 1,000 submittals and RFIs. During construction, Tony was the point of contact for the construction documentation for more than 1,000 submittals and RFIs. The project also involved reconstruction of a tunnel over a roadway, and Tony coordinated with various agencies, including Caltrans and the FAA, to design this project element in compliance with the appropriate standards and regulatory requirements. He was also heavily involved in the design of navigational aids (NAVAIDs), and he worked with the electrical engineering lead to make sure the NAVAIDs were thoroughly tested and guaranteed to work at the facility.

Los Angeles International Airport, Design Services for Airfield Projects Related to Runway 7L-25R, Los Angeles, CA: Tony served as Project Manager for the design of Runway 7L-25R RSA Improvements. The project included pavement rehabilitation, strengthening the Sepulveda Tunnel, extending the runway 832 feet to the west and associated taxiway improvements, reconstructing Taxiway B at the east end of the runway. Tony oversaw the engineering studies, design pavement section, prepared horizontal and vertical controls, grading and drainage, utility

improvements, airfield lighting/power/NAVAIDS and developed construction cost estimate. A key challenge of this program was to divide it into smaller component projects that could be constructed separately. To accomplish this Tony documented the preliminary engineering studies in a Preliminary Engineering Report that served as a guide to planning and constructing the program components.

Van Nuys Airport, Runway 16R Reconstruction, Van Nuys, CA: As Design Project Manager, Tony closely worked on phasing, and he studied the construction closure options available, such as full closure vs temporary closure vs. nighttime work. He developed phasing alternatives and worked with PIC and design engineers to develop options. He also participated in stakeholder negotiations. The full reconstruction was too controversial, but Tony was successful getting buy-in for lesser improvements to still get 20-year life out of payment without doing full reconstruction. Due to the project's protracted planning phase, Tony led an accelerated and integrated effort to engage HNTB's dedicated national aviation experts to deliver high-quality bid documents in three months. It was imperative that the team have a comprehensive understanding of project activities due to the tightly constrained funding window. Tony and his team worked with the client and developed a unique phasing approach to minimize runway closures and deliver the project on schedule. To address construction obstacles, the team closed the runway for 16 days and closed runway operations for 16 days, a which controversial because of its impacts to tenants. Tony's clear and frequent communication with the team and project stakeholders led to a solid understanding of the project needs. Ultimately, LAWA obtained 95% funding from state and federal resources.

Los Angeles International Airport, RSA and RON Apron Improvements, Los Angeles, CA: Tony served as Project Manager for airfield projects related to Runway 25L RSA and RON apron Improvements. LAX had a threefold objective for this project. The first objective was to improve Runway 25L RSA to be compliant with the congressional mandate to meet FAA design standards for RSA. This required HNTB to develop design for removal, grading, drainage, and service road modifications. The second objective to relocate critical NAVAID facilities associated with Runway 25R in preparation for a future RSA improvement project. The third goal was to develop additional RON aircraft parking positions. During the preliminary design phase, Tony developed a series of alternative parking layouts at an old abandoned hangar site to accommodate a range of feet mixes. During the design phase, Tony led the initial project planning team, including preliminary engineering and detailed planning studies to advance the project beyond the concept phase and define the project limits. During the initial preliminary engineering studies were completed to design the pavement section, and to prepare preliminary horizontal and vertical controls, preliminary grading and drainage, preliminary utility improvements, preliminary airfield lighting/power/NAVAIDS, and estimate of probable construction cost. A key challenge of this program was to break it into smaller component projects that could be constructed separately. To accomplish this Tony documented the preliminary engineering studies in a Preliminary Engineering Report identifying program segments that could be subdivided into smaller projects for independent construction.



Justin Bycheck, PE | Planning Task Lead

Justin is a senior project manager in HNTB's aviation planning practice and also serves as the West Division Aviation Planning Department Manager. His wide-ranging experience includes projects at more than 40 airports in positions ranging from project manager to task lead. Justin has extensive experience in airside, landside and terminal disciplines, including specialties in preparing Runway Incursion Mitigation (RIM) studies, U.S. Customs and Border Protection (CBP) renovation and expansion plans, capacity planning, data analysis, facilities and terminal planning and airfield and airspace simulation/interaction. He is a visible thought leader on RIM, having been recognized nationally in industry publications and at major conferences. Justin has built strong relationships with key staff within the FAA's Los Angeles ADO and Western-Pacific Region.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 70% Years of Experience: 12	• MS, Transportation Engineering • BS, Civil Engineering • Professional Engineer, CA #C82516	• Airports Consultant Council • American Association of Airport Executives • Airports Council International – North America • American Society of Civil Engineers

City of Long Beach, Long Beach Airport (LGB), On-Call, Long Beach, CA: Justin is the Lead Planner for HNTB's wide-ranging LGB on-call contract. Under this contract, Justin has managed the development of a comprehensive ALP update and has provided planning and airport operations-related services for HNTB's design projects, including the reconstruction and relocation of Runway 7R-25L, Taxiway C conversion, and Remain Over Night (RON) parking positions.

City of Long Beach, Long Beach Airport (LGB), Airfield Geometry Study, Long Beach, CA: Justin was the Project Manager for Phase II of the Geometry study at LGB. Phase II resulted in an approved Airport Layout Plan package for LGB that depicts the geometry improvements planned in Phase I of the study and refined under Phase II. Phase II studied safety, capacity, and efficiency enhancements to the previous planning efforts conducted under Phase I of the study. Justin led the development of refined alternatives for Taxiway F, Taxiway C, and Runway 7R-25L. The approval of the ALP led to the design and construction of a critical runway reconfiguration project to decouple Runways 12-30 and 7R-25L (now re-designated to 8R-26L, as recommended in the study). In addition to the ALP, Justin managed a team of surveyors that conducted the first Airports-GIS and obstruction survey at LGB in accordance with FAA Advisory Circulars 150/5300-16A, -17C, and -18B.

Clark County Department of Aviation, Las Vegas McCarran International (LAS) and North Las Vegas (VGT) Airports Runway Incursion Mitigation (RIM) Studies, Las Vegas, NV: Justin is the Project Manager for the LAS and VGT RIM studies. These critical FAA-grant funded studies include a comprehensively review of the existing conditions of both airfields, development of new FAA-approved aviation activity forecasts, creation of a robust airfield simulation for LAS, development of a wide-range of concepts to mitigate hazards and reduce risk, and includes two airport layout plan updates for each airport. The project will mitigate hot spots, RIM locations, and confusing geometries for both airports while identifying opportunities to enhance operational efficiency and meet twenty-year forecast demand. The project includes a large stakeholder involvement process to ensure that proposals are thoroughly vetted and consensus is achieved to improve safety.

City of San Jose, San Jose International Airport (SJC), Runway Incursion Mitigation Study, San Jose, CA: Justin was the Deputy Project Manager for the first stand-alone airport-wide RIM study. Justin is responsible for the day-to-day management of the technical work. He oversaw the development of SJC's aviation activity forecast used for the airport's master plan amendment, airfield simulation analysis for the existing airfield and three proposed alternative configurations, and the stakeholder engagement process. The study allows SJC to meet current FAA design standards, eliminate hot spots, and reduce the potential for runway incursions and surface incidents. Justin also oversaw the development of SJC's first comprehensive Airport Layout Plan (ALP) set fully compliant with SOP 2.00.

City of Phoenix Aviation Department, On-Call Aviation Planning, Phoenix, AZ: Justin managed multiple task orders during HNTB's ten years of continuous on-call aviation planning contracts with the City of Phoenix, including:

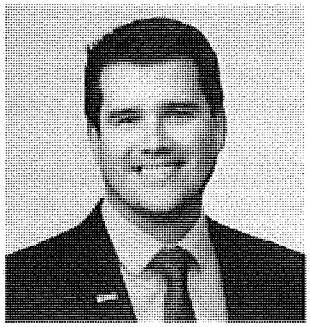
- PHX – Mini-Comprehensive Asset Management Plan (CAMP), Strategic Planning. Justin led the strategic land use planning for a wide range of immediate needs at PHX to address facility relocations impacted by the on-

going Sky Train Phase 2 project. The project included multiple staff and executive presentations, stakeholder interviews and intense strategic planning to determine the highest and best use for key properties at PHX with the understanding that a long-term study would ultimately be conducted. The project also included a task for developing concepts and an operational plan for remote hard-standing aircraft gates and processing and bussing them from an existing terminal.

- DVT – Taxiway A4 RIM Alternatives Study. Justin managed a task order to develop concepts and a recommended plan to mitigate an FAA-identified RIM location at Taxiway A4 and Runway 7L-25R. The project also included the siting and surveying of a replacement compass calibration pad for tenant use.
- PHX - Customs and Border Protection (CBP) Facility, Capacity Analysis and Expansion/Replacement Concepts. The city of Phoenix commissioned HNTB to analyze the capacity of the Customs and Border Protection (CBP) facility at PHX and to develop expansion/replacement concepts for the facility. Justin served as the project manager of this complex, multiple-task order project. He managed the analysis of the existing capacity of PHX's CBP Facility. In consultation with the City of Phoenix's air service division, he developed forecast scenarios for future growth and analyzed the impact on the primary processing by developing an advanced queue model. Additionally, Justin managed the production of the CBP reconfiguration concepts and is serving as the planning liaison through the design-build process. Another critical component of the project was to develop a wide-body aircraft diversion contingency plan accounting for a range of scenarios. The plan included optimal points to hold and contain aircraft, alternative locations to deplane, screen, and process passengers, and identified how to provide coordination among ground handling providers during irregular operations. The successful project led to a follow-on design-build process to implement the planning.
- PHX - Runway 7R-25L RSA Improvement Project EA, Compliance Alternatives. The east-end overrun RSA at PHX abuts the Salt River and there was insufficient area for a standard RSA. Justin developed alternatives using declared distances, fill, and EMAS.
- DVT - Taxiway C Alternatives Study. Justin managed the DVT Taxiway C Alternatives Study which developed and evaluated alternatives to bring DVT's Taxiway C in compliance with FAA design standards. Justin created and presented nine alternatives to the City of Phoenix that address Taxiway C's non-standard geometry. HNTB and the City of Phoenix jointly evaluated the alternatives and opted to present a phased alternative to the FAA for review and comment. Justin led a meeting with the FAA to present the Team's recommended alternative. The FAA concurred with the recommended alternative and asked that a detailed level of analysis be undertaken in the HNTB-led master plan update to refine costs so that grants could be accurately assigned to this project.

Port of Oakland, Oakland International Airport (OAK), On-Call Aviation Services, Oakland, CA: Justin has been involved in multiple on-call aviation projects at OAK, including:

- Remote Hardstand Operations. Justin was a key airside planner for the identification of site concepts for accommodating a hardstand operation for OAK's rapidly increasing international traffic. On an expedited schedule, HNTB created a plan to park widebody aircraft and developed an innovative bussing model to demonstrate how many busses would be needed to serve the hardstand operation under varying assumptions.
- International Arrivals Building (IAB). Justin managed a Customs and Border Protection (CBP) expansion and renovation project for OAK's International Arrivals Building (IAB). Justin led the extensive coordination with CBP coordination leading to an approval of the preferred concept for this project. The project will double the capacity of the existing facility and provide customers with an enhanced level of service.



James Long, PE | Airside Task Lead

James is an aviation project manager with a solid understanding of aviation facility planning, design and construction. His airfield project portfolio highlights a strong familiarity with complex construction phasing plans, aircraft gating layouts and extensive stakeholder coordination. As a private pilot, he has a unique perspective on airfield operations and phasing considerations during construction. James enjoys working with diverse teams and welcomes stakeholder input to develop tailored solutions to complex airfield design challenges and produce exceptional project outcomes. Often responsible for project phasing, James has been a subject matter expert in several FAA ATO Safety Risk Management Panels, including one for Runway 8L-26R at LGB. James has served as the principal liaison between the client and the design team, responsible for the delivery of high-quality civil engineering services to airports throughout the southwest.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 80% Years of Experience: 11	•BS, Civil and Environmental Engineering •MBA, Masters of Business Administration •Professional Engineer, CA # C79258 •Private Pilot, Single-Engine, Land: FAA License #3228927	•American Society of Civil Engineers •Airport Consultants Council •Aircraft Owners and Pilots Association •LAX Coastal Chamber of Commerce

Long Beach Airport, Runway 8R-26L Relocation, Long Beach, CA: James served as Design Manager for the reconstruction of LGB's primary general aviation runway. James led the phasing and pavement design efforts to limit impacts to aircraft operations while allowing for the installation of tailored, high-quality pavement sections. He was responsible for developing a CSPP for a multi-phase construction project impacting all three runways and multiple taxiways. This plan was reviewed and accepted by an FAA SRM Panel. James also tailored FAA-compliant asphalt pavement sections to meet the needs of a diverse aircraft feet, from single-engine general aviation to wide-body cargo aircraft. James coordinated directly with local FAA ADO to vet and ultimately fund safety enhancements requested by LGB staff, including small aircraft run-up areas and a wider-than-standard runway.

Van Nuys Airport, Taxiway A & B Rehabilitation Project, Van Nuys, CA: James serves as Project Manager for this multi-year, AIP-funded taxiway rehabilitation project. James leverages his institutional knowledge of the airfield, existing staff and tenant relationships, and experience with FAA design standards to develop a tailored project that meets VNY's needs while maximizing available funds. James adjusted proposed project limits to capture additional FAA funds while maintaining project deliverable schedule. He vetted a complex, 10-phase construction plan with airport tenants and operators to maintain safe aircraft operations while maximizing available area for the contractor. And he developed a tailored pavement design utilizing the existing stabilized subgrade, limiting excavation and import of materials. The first phase of design was delivered on-time and on-budget and is currently in construction.

Van Nuys Airport, Runway 16R Rehabilitation, Van Nuys, CA: James served as Deputy Project Manager and Airside Design Lead on this $20 million runway rehabilitation program for the world's busiest private jet airport. He worked directly with the critical stakeholders to gain consensus on the project approach and proposed phasing. Through direct collaboration, a highly political project evolved into a favorable project welcomed by the stakeholders.

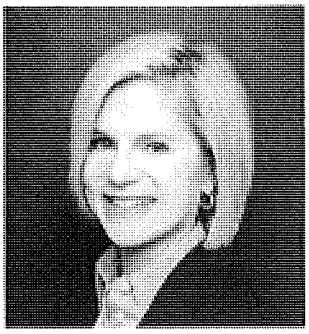
James was responsible for coordinating design efforts between multiple offices and disciplines to ensure the delivery of high-quality construction documents on an accelerated schedule. As Airside Design Lead, he was responsible for developing geometries, pavement sections, and blast fence plans. He crafted three unique pavement sections to reduce the program cost and construction duration while still providing a durable runway surface. For the first time at LAWA, a shortened runway was utilized during construction to minimize total runway closure duration while allowing for efficient construction. Using this approach, full runway closure was limited to 10 days versus the eight weeks originally planned for. As Resident Engineer in the field during construction, he coordinated with the client and the construction manager and orchestrated office staff efforts to efficiently respond to submittals, RFIs, and changing field conditions.

United Airlines, Terminal Redevelopment Program, Los Angeles, CA: James served as Project Manager responsible for coordinating planning and design efforts for modifications to passenger loading bridges, the hydrant fueling system, and apron pavements for the $570M terminal redevelopment program. This project involved close coordination with the architects, contractor, and United Airlines to deliver multiple design packages on accelerated schedules. To limit impacts to the active terminal, the project was sequenced gate by gate, requiring extensive phasing for each

work area to maintain operations and utility connectivity for the rest of the terminal. To align with the accelerated construction schedule, James packaged the civil site improvements to allow for the progression of early demolition and enabling activities while the design continued for the primary work items. By developing multiple, flexible design packages, James and his team maintained the progression of work in the field while providing high-quality design documents and staying within overall program budget.

Los Angeles International Airport, Runway 07L-25R Safety Area Improvements, Los Angeles, CA: James was Airfield and Construction Phasing Design Lead responsible for the development of airfield geometries and pavement sections as well as the sequencing of construction activities for a $50 million improvement project on LAX's longest runway. He developed airfield geometries for the runway extension, new connector taxiways, and a RON parking area. James developed complex phasing plans for multiple design iterations which limited impacts to airport operations while providing ample room for the contractor's operations. He prepared phasing plans for a shortened runway utilizing relocated thresholds on temporary blast fences, which met the demands of most of the fleet, and reduced complete runway closure time. LAX has since implemented the exact same approach on their two runway rehabilitations on the north airfield. In addition, James acted as the project representative in a FAA Safety and Risk Management Panel. James delivered a detailed phasing presentation and addressed stakeholder concerns in SRMP to demonstrate the existing sufficient safety measures and avoided the need to implement any further mitigations.

San Francisco International Airport, Taxilanes H & M Relocation Project Management Support Services, San Francisco, CA: As Project Manager and Project Controls Lead, James provided project management support services to SFO's $32 million taxilane relocation project. He also served as stakeholder engagement manager, responsible for identifying relevant stakeholders, mediating discussions, and recording results. The record of the stakeholder interaction was then provided to the design team for use in their basis of design report. Phasing was a critical concern for the stakeholders; the proposed project site affected direct access to the international and Southwest Airlines terminals and required accelerated construction. James worked with the design team to develop accelerated construction methodologies to allow for nightly construction with limited impacts to operations. During construction, James led a team of inspectors, engineers, and project control staff to support the airport in the delivery of this critical project. He also served as stakeholder engagement manager, responsible for identifying relevant stakeholders, mediating discussions, and recording results. The record of the stakeholder interaction was then provided to the design team for use in their basis of design report. Phasing was a critical concern for the stakeholders; the proposed project site affected direct access to the international and Southwest Airlines terminals and required accelerated construction. James worked with the design team to develop accelerated construction methodologies to allow for nightly construction with limited impacts to operations. During construction, James led a team of inspectors, engineers, and project control staff to support the airport in the delivery of this critical project.



Megan Monticone, PE | Airside Task Lead

Megan brings specialized expertise in airport engineering and planning. She has extensive experience in the design of airfield improvements, including runways, aprons, taxiways and other airfield-related items. Megan develops creative design solutions on projects with rapid construction phases, such as incorporating the use of recycled materials into design specifications. She excels at developing designs for grading that keep future projects in mind, allowing for tie-ins to adjacent and future projects without design rework.

Megan has experience completing the FAA's modifications to standards applications and support documents. Her familiarity with FAA advisory design requirements facilitates rapid development of horizontal and vertical geometry. Megan also has extensive experience providing construction support services in the field. She provides on-site coordination with the client and the construction management team as well as managing responses to submittals, RFIs and changing field conditions.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 70% Years of Experience: 29	•BS, Civil and Environmental Engineering •Professional Engineer, CA #C51716	•WTS International

Long Beach Airport, Improvements to Taxiway C, Long Beach, CA: Megan served as the Design Manager for project to rehabilitate and re-designate Runway 16L-34R to Taxiway C to improve aircraft circulation and enhance safety. Megan managed the design team to prepare and deliver high quality bid documents including plans, specifications, estimate and Engineer's Report on time, on budget and in accordance with applicable technical standards. As design manager, Megan over sought the Quality Control procedures to ensure completeness and compliance with HNTB firm-wide standards. She attended weekly team meetings and worked with LGB staff to coordinate and facilitate the collective project objectives into the bid documents.

Long Beach Airport, Runway 8R-26L Relocation, Long Beach, CA: As Airfield Design Lead, Megan led the civil airside design development for runway and taxiway improvements at LGB. The major goals of the runway improvement project include: rehabilitate the pavement, update the geometry in accordance with the LGB Airfield Geometry Study by HNTB, to meet current FAA design standards, enhance the overall safety of the airfield, and develop standard general aviation (GA) run up areas. In addition to designing the horizontal and vertical improvements for the runway and connecting taxiways, Megan designed the future parallel taxiway improvements to avoid design rework and ensure both sets of improvements would align during future construction of the parallel taxiway.

Los Angeles International Airport, Southside Airfield Improvement Program, Los Angeles, CA: Megan served as Lead Design Engineer for a new parallel taxiway between Runways 7L/25R and 7R/25L, as well as the centerline realignment and rehabilitation of Runway 7R/25L. She was responsible for the design of horizontal and vertical controls, grading, and drainage. Megan was involved in developing the airside geometric standards during the planning and design phases driven by the airplane design group associated with the New Large Aircraft (NLA), including the Airbus A380, to use the facilities. As a critical part of the preliminary design, she led an analysis of how A380 would operate at the airport with the new geometrics. Megan identified FAA standards which could not be met because of physical constraints and existing conditions, such as taxiway separation requirements. Working with the FAA, Megan completed Modification to Standards applications which were submitted, and ultimately approved by the FAA. Megan participated in design progress meetings with LAWA staff to resolve design issues, discuss phasing options with LAWA's operations staff and other stakeholders, and track the general progress of the project. Megan also coordinated with the LAWA staff to develop phasing plans. Originally, the project included two construction packages, however the project was ultimately constructed as one package. As part of the phasing, Megan designed temporary improvements, such as temporary taxiways and vehicle service roads, to make sure the interim construction conditions did not violate safety standards. Due to HNTB's responsiveness to submittals and RFIs and field issues, this $250M the project was completed in record time to meet stringent political and client deadlines.

Los Angeles International Airport, Design Services for Airfield Projects Related to Runway 7L-25R, Los Angeles, CA: As Project Engineer, Megan was responsible for preparation of plans and specifications and the engineer's report for airfield projects related to Runway 7L-25R. The objective of the Runway 7L-25R Improvement Program was to comply with the congressional mandate to meet FAA design standards for runway safety areas and to rehabilitate pavements that has reached the end of its service life on Runway 7L-25R and Taxiway B. Due to input from stakeholders in the

neighboring community, the direction of the design changed several times during the project, which required the design team to be flexible and responsive. By closely coordinating with the client about changes to the design, Megan provided multiple design options within an expedited time frame to help keep project on schedule. Megan also coordinated with the design consultant for an adjacent project (WAMA) that was a few months ahead of the Runway 7L-25R project. She took design files from the adjacent project and superimposed them on HNTB's files to make sure the vertical and horizontal design matched at the points where both projects interfaced.

San Diego International Airport, The Green Build-Terminal 2 West Building and Airside Expansion Design Build Project, San Diego, CA: As Deputy Project Manager for Airside Design, Megan provided design and construction support services for $32 million of airfield improvements. The project involved the development of a new apron totaling approximately 170,000 square yards of Portland Cement Concrete providing 10 additional contact aircraft gates, security walls and fencing, blast fences, high mast floodlighting, apron utility systems, and underground electrical and communications distribution. The Green Build project was awarded Leadership in Energy and Environmental Design (LEED) Platinum certification. Megan implemented "green" design principles such as, recycled materials. Much of the construction material waste from the project, such as concrete, was being recycled and reused on site. This $475 million program which is being delivered using the design-build delivery method included multiple construction packages. Megan led the design efforts for all construction packages including site preparation, apron improvements, new security access gate and the Waste Disposal Facility. The large scale and complexity of the project required Megan to be collocated with the owner, airport, contractor, and architectural team to provided regular coordination, flexibility and rapid responses.

Van Nuys Airport, Taxiway A & B Rehabilitation Project, Van Nuys, CA: As Project Engineer for Phase 1 of the taxiway rehabilitation project, Megan developed airfield geometrics within the existing physical constraints of the airfield. As part of the construction sequencing, Runway 16L-34R was used as a taxiway during certain phases of construction. The westerly edge of the runway as the edge of taxiway and a width of 75 feet established the temporary taxiway. Thus, the westerly limits of construction of the cross taxiways were held at the TOFA of the temporary taxiway plus and additional five-foot buffer. The limits of taxiway pavements are built to match existing geometries at this location. Megan designed the horizontal and vertical controls in AutoCAD Civil 3D with the intention to meet FAA criteria where allowable. New fillet geometry at all intersections was designed to meet the current FAA criteria for the applicable Taxiway Design Group.

Port of Oakland, OAK, Taxiway P Pavement Improvements Oakland, CA: Megan was the Civil Geometrics Lead for the final design services of the rehabilitation of Taxiway P on the North Airfield at Oakland Airport. The Port of Oakland determined that the pavement along Taxiway P was in a state of high distress and is suitable to be milled and overlaid. The vertical and horizontal geometry was limited to the existing edges of shoulder. Taxiway P had a non-standard transverse cross fall. The design of the overlay section provided a standard crown section, which also mitigated drainage problems.

Nicolo Olino | Airfield Geometry

Nicolo is an engineer-in-training who is working towards his professional engineering registration. He has extensive engineering experience at Long Beach Airport, Los Angeles International Airport, as well as additional transportation related projects. Nicolo has a comprehensive understanding of FAA advisory design criteria and specifications, and he excels in the development of horizontal and vertical geometry for airfields. He is highly proficient in AutoCAD and MicroStation to develop plans for multidisciplinary projects.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 80% Years of Experience: 9	• BS, Civil Engineering • Architectural Coursework, Fresno City College • Engineer in Training, CA #138678	• N/A

LGB, Improvements to Taxiway C, Long Beach, CA: Nicolo's role as Project Engineer included the responsibilities for the grading and drainage design for the improvements to Taxiway C. He established the vertical controls in compliance with FAA design criteria within the existing physical constraints of the airfield. Nicolo also researched, and mapped the existing utilities and features within the project limits including electrical, water, storm drainage and other features that were not easily identified. He has a developed a familiarity of the airfield at LGB. Nicolo's duties also included preparation of the project drawings, specifications and Engineer's Report.

LAWA, Airport Police Facility, Los Angeles, CA: Nicolo designed the access driveways and developed the associated civil sheets for the proposed Airport Police Facility as part of the Pre-Bid Project Definition Book (PPDB). Primary and secondary access includes both the addition of a dedicated right turn and a dedicated left turn pocket entering the facility, as well as the realignment of the existing bike lanes due to the proposed entrance access modifications.

LAX, Fire Drill Facility, Los Angeles, CA: Nicolo was the Engineer responsible for the design and sheet creation associated with the HDPE Liner due to the recommissioning of the pipes from the existing Fire Pit to the new Equipment Pad layout. Design of the HDPE Liner, Sections, and Details were developed using AutoCAD Civil 3D. Nicolo also assisted in the development of the utility layout and sheets associated with the civil site improvements.

LAX, Runway 6L-24R Temporary Repairs, Los Angeles, CA: Nicolo was the Engineer responsible for the development of the Pavement Marking Plan and Pavement Detail sheets along the defined Runway 24R temporary repair boundary using the FAA Advisory Circular No. 150/5340-IL. He developed the FAR Part 77 Height Restrictions, Contractor's Access, Staging Area, Survey Control Plan, and Temporary Erosion/Sediment Control Plan sheets utilizing AutoCAD Civil 3D. Nicolo also verified quantity take-offs.

LAX, Taxiway T Phase 2, Los Angeles, CA: Nicolo was the Engineer who assisted in assembling the previously submitted Taxiway T Phase 2 plans to conform to LAWA CAD Standards. Developed the Pavement Marking Plan and Detail, Trench Drain Plan and Detail, and Temporary Erosion Control Plan and Detail sheets in conformance to Project Standards using AutoCAD. Prepared and verified quantity take-offs for the project.

California High-Speed Rail, Fresno to Bakersfield-Locally Generated Alternative, Shafter, CA-Bakersfield, CA: Nicolo was the engineer responsible for creating multiple conceptual horizontal and vertical roadway geometry affected by the high-speed rail alignment using City of Shafter, City of Bakersfield, and Caltrans Standards; roadway geometry includes the design of several access roads, roundabouts, undercrossing, and overcrossings. Engineer tasked to create several alternatives for a bike path facility within the proposed HSR F-St Station using NCHRP15-37 AASHTO Guide for the Development of Bicycle Facilities. Assisted in the layout of the various Traction Power, Communications Systems, and Automatic Train Control Site Plans per the requirements specified in the Project Technical Memorandum. Engineer under the supervision of a Railroad Engineer supported in the development of the Track Plan and Profile sheets. Submitted 15% Plans, alternatives, and exhibits were developed using Microstation V8i and In-Roads SS2.

Taylor Henderson, PE | Drainage

Taylor is an experienced civil engineer with a specialized focus in aviation. His direct experience includes many facets of airport improvements including: runways, taxiways, aprons, terminals, hangars and roadway. He has been involved in numerous projects in all phases of development; from planning to design to construction. Taylor excels in design by providing unique solutions to every project. His familiarity with the latest FAA Advisory Circulars has resulted in quality finished projects throughout California. Taylor has worked alongside clients and contractors to seamlessly cater individual solutions that work for everyone. Taylor enjoys taking on complex, project-specific challenges to produce high quality and thoughtful solutions.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 80% Years of Experience: 14	• BS, Civil Engineering, Emphasis in Geospatial • Professional Engineer, CA #81237	• N/A

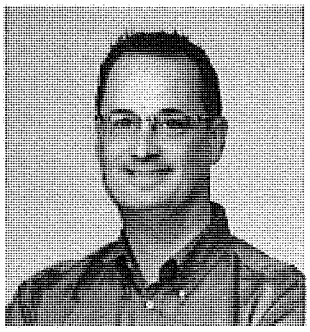
LAWA, Van Nuys Airport, Taxiway A&B Improvement Project, Van Nuys, CA: As Project Engineer, Taylor is responsible for providing demolition, pavement design, and geometry for this multi-phase airfield pavement rehabilitation improvement that will address two parallel taxiways. The project includes a unique pavement design that meets FAA standards, but reuses a portion of the existing base. The cost savings has allowed the client to pave more adjacent taxiways which maximizes the overall benefit from a strict FAA budget.

LAWA, LAX Apron Concourse Demolition, Los Angeles, CA: Taylor served as a Project Engineer and designed phasing, pavement, grading, storm drainage, water, fire water, and demolition. The project includes specialized demolition of existing Tom Bradley International Terminal Concourse and construction of over 10 acres of new apron pavement. The project completes the east aprons and finalizes the new multi-billion-dollar Tom Bradley International Terminal. Special challenges include a vast array of existing and proposed utility and drainage connections that needed to be maintained and phased so that interruptions to existing operations were minimized.

LAX, Runway 7L-25R Safety Area Improvements and Taxiway B Pavement Rehabilitation, Los Angeles, CA: Serving as an Engineer, Taylor designed phasing, pavement, grading, and storm drainage. As the longest and busiest departure Runway at LAX, Taylor designed a complex phasing plan that maximizes contractor efficiency and safety while providing minimal impacts to aircraft operations. The safety area improvements provide an additional 800 plus feet of paved runway with over 270,000 cubic yards of earthwork in safety area. The design updated Runway 7L-25R to meet the latest FAA guidelines. Taylor produced drainage, geometry and phasing plans that worked with the project's own constraint.

NAVFAC, Runway 03-27 Rehabilitation, Point Mugu Naval Base, Ventura, CA: As Project Engineer for grading, pavement, and demolition design, Taylor designed precise grading that met slope requirements and ensure adequate drainage, yet improved existing conditions that were far below standard. He also designed a paving plan in an area where two runway cross which reduced impacts to airport operations. As the construction manager, Taylor provided on site paving and grading solutions to meet NAVFAC's stringent project timeline requirements. The runway rehabilitation included over 20 acres of asphalt concrete overlay and pavement rehabilitation.

Delta Airlines, Hangar Relocation Program, Los Angeles, CA: Taylor was a Project Engineer who was the Drainage and Utility Task Lead for this new hangar at LAX Airfield. This project consisted of a new hangar and GSE building at LAX, the supporting infrastructure, utility relocations, LID requirements, retaining walls, hydrant fueling system, and apron pavements for the hangar relocation project.



Bill Marek | CADD Support

Bill brings more than 19 years of experience as a senior engineering technician in civil, architectural and electrical engineering. He is well-versed in CADD design services supporting construction inspection, documentation and general field work. In addition, he offers expertise and knowledge in duties such as plan preparation, graphic presentations, Information Technology, and programming. He is proficient in such programs as AutoCAD Civil 3D, AviPlan, Autodesk products, MicroStation, Adobe and graphic products. Bill has an extensive knowledge of FAA AC 150/5340-1M, Standards for Airfield Marketing. In addition, he offers expertise and knowledge in duties such as plan preparation, graphic presentations, Information Technology, and some programming. He has also coordinated closely with such organizations and agencies as Caltrans, LAWA, UPS, IDOT and MDOT.

HNTB Corporation	Education & Registrations	Affiliations
Availability: 85% Years of Experience: 19	•AA, Engineering Design	•N/A

Long Beach Airport, Runway 8R-26L Relocation, Long Beach, CA: Bill served as CADD Manager for the reconstruction and relocation of Runway 8R-26L, LGB's primary general aviation runway. Bill managed the plan production of the project, totaling over 200 sheets. Bill's CADD Manger duties included coordination with sub-consultants, knowledge and implementation of LGB CADD standards and file structure and direct communication with LGB staff. Bill worked with contractor redlines to develop and deliver record drawings at the end of construction.

Long Beach Airport, Improvements to Taxiway C, Long Beach, CA: Bill served as CADD Manager for the reconstruction and conversion of Runway 16L-34R to Taxiway C. As CADD Manager, Bill managed the preparation of the project drawings to ensure graphical quality, compliance to LGB CADD standards and complete and accurate depiction of the existing conditions within and beyond the project limits. Bill lead the incorporation of plan revisions into a consolidated conformed set of drawings. In addition to the project drawings, Bill's prepared the necessary graphics and exhibits throughout the project for stakeholder coordination, report figures and the CSPP.

Long Beach Airport, Air Carrier Ramp Rehabilitation Phases 1-3, Long Beach, CA: Bill provided CADD management services, and was responsible for production files to rehabilitate the apron in front of the terminal, construction support, project coordination between sub consultants, terminal production team and client, quality control and quality assurance lead.

Van Nuys Airport, Taxilane A2 Rehabilitation and Improvement of RSA for RWY 16L/34R, Van Nuys, CA: Bill was the CADD Manager responsible for preparing construction documents to meet FAA airfield runway safety area requirements and pavement rehabilitation to Taxilane A2.

Los Angeles International Airport, South Airfield Improvement Program, Los Angeles, CA: Bill provided CADD management support, and was responsible for preparing the plan/design for the Relocation of Runway 25L, which was an estimated $120 million project, which was quickly delivered in an astounding six months. He also provided the plan/design preparation for future development and improvements to the Center Taxiway, which will increase safety and decrease runway incursions. He also supported development of airfield intersection improvements, relocation of service roads and construction of a new electrical vault to supply the airfield. Los Angeles International Airport, Airfield Marking Rehabilitation, Los Angeles, CA: Bill severed as the CADD Manger and Lead Technician for the project which included the rehabilitation of 2.1 million SF of existing airfield marking, including gate modifications, geometric layout, centerline improvements, airfield guidance signs, service road modification as well as capturing as-built conditions. The project was completed in only seven months, and passed all aspects of FAA 139 inspection. Bill worked closely with the client, airport operations and the contractor at an accelerated schedule to minimizing airfield impacts. After successfully completing the revitalization of airfield marking, HNTB was asked to continue efforts in developing a maintenance schedule, program and plans for years to come.

San Diego Terminal Development Program, Apron Construction, San Diego, CA: Bill was the CADD Manager who was responsible for preparing construction documents for underground utilities installation and PCC Pavement construction for RON parking positions prior to the construction of Terminal 2 West. Coordination between corresponding construction projects to implement design-build documents.

6922 West Century Blvd.
Suite 1050
Los Angeles, CA 90045
www.ntlb.com

EXHIBIT "B"

Rates or Charges

Rates for Engineering Planning and Design Services for Various Development Projects at LGB RFQ # AP19-134
Contracting method shall be agreed upon by Consultant and Airport prior to approval of proposal and execution of work.

Rates for Time & Material/Lump Sum Task Orders

HNTB Corporation

Employee Classification	Direct labor Rate	Overhead Rate	Profit	Total Loaded Rate
Project Manager	$117.28	138.34%	10%	$307.00
Environmental Sr. Manager	$114.24	138.34%	10%	$300.00
Environmental Lead	$70.00	138.34%	10%	$184.00
QC Manager	$97.55	138.34%	10%	$256.00
Design Manager	$83.52	138.34%	10%	$219.00
Senior Civil Engineer	$62.13	138.34%	10%	$163.00
Civil Engineer	$58.52	138.34%	10%	$153.00
Jr. Engineer	$36.06	138.34%	10%	$95.00
Senior Planner	$105.12	138.34%	10%	$276.00
Electrical Engineer	$67.68	138.34%	10%	$177.00
Cadd Manager	$51.28	138.34%	10%	$134.00
Cadd Lead	$49.76	138.34%	10%	$130.00
Project Administator	$50.12	138.34%	10%	$131.00

Dinter Engineering

Employee Classification	Direct labor Rate (2019)	Overhead Rate	Profit	Total Loaded Rate
Principal	$75.00	161.14%	10%	$215.00
Project Manager	$60.00	161.14%	10%	$172.00
Senior Electrical Engineer	$57.00	161.14%	10%	$164.00
Staff Engineer	$44.00	161.14%	10%	$126.00
Sr. Designer	$38.50	161.14%	10%	$111.00
Staff Designer	$31.50	161.14%	10%	$90.00
Cadd Tech	$31.50	161.14%	10%	$90.00
Clerical	$22.50	161.14%	10%	$65.00

Wagner Engineering & Survey, Inc.

Employee Classification	Raw Rate/Hr	Overhead Rate	Profit	Fully Loaded Rate
Sr. Project Manager	$95.00	171.97%	10%	$284.21
Project Manager	$85.00	171.97%	10%	$254.29
Survey Manager	$67.00	171.97%	10%	$200.44
Assistant Project Surveyor	$49.00	171.97%	10%	$146.59
CADD Designer III	$43.00	171.97%	10%	$128.64
CADD Designer II	$37.00	171.97%	10%	$110.69
CADD Designer I	$30.00	171.97%	10%	$89.75
ROW/Survey Tech III	$55.00	171.97%	10%	$164.54
ROW/Survey Tech II	$55.00	171.97%	10%	$164.54
PLS, Sr. Party Chief*	$56.21	171.97%	10%	$168.16
Certified Party Chief*	$55.51	171.97%	10%	$166.07
Party Chief*	$53.46	171.97%	10%	$159.93
Instrumentman*	$50.66	171.97%	10%	$151.56

EXHIBIT B

Chainman*	$50.08	171.97%	10%	$149.82
Survey Apprentice G*	$40.34	171.97%	10%	$120.68
Survey Apprentice F*	$37.91	171.97%	10%	$113.41
Survey Apprentice E*	$34.99	171.97%	10%	$104.68
Survey Apprentice D*	$32.07	171.97%	10%	$95.94
Survey Apprentice C*	$28.66	171.97%	10%	$85.74
Survey Apprentice B*	$25.25	171.97%	10%	$75.54
Survey Apprentice A*	$21.85	171.97%	10%	$65.37

*Subject to Prevailing Wage.

Converse Consulting Overhead rate 2018 = 146.61%

Employee Classification	Direct labor Rate (2019)	Overhead Rate	Profit	Total Loaded Rate
Principal	$83.00	146.61%	10%	$225.00
Principal Professional	$77.50	146.61%	10%	$210.00
Senior Professional	$62.50	146.61%	10%	$170.00
Project Manager	$59.00	146.61%	10%	$160.00
Project Professional	$53.50	146.61%	10%	$145.00
Senior Staff Professional	$46.00	146.61%	10%	$125.00
Staff Professional	$44.25	146.61%	10%	$120.00
Soil Technician				

Connico Incorporated Overhead rate 2018 = 158.96%

Employee Classification	Direct labor Rate	Overhead Rate	Profit	Total Loaded Rate
Principal	$110.17	158.96%	10%	$314.00
Associate Principal	$87.13	158.96%	10%	$248.00
Director	$80.76	158.96%	10%	$230.00
Senior Project Specialist	$75.13	158.96%	10%	$214.00
Chief Cost Specialist	$73.05	158.96%	10%	$208.00
Senior Cost Specialist	$62.94	158.96%	10%	$179.00
Senior Cost Specialist	$62.31	158.96%	10%	$177.00
Senior Cost Specialist	$59.42	158.96%	10%	$169.00
Senior Cost Specialist	$56.22	158.96%	10%	$160.00
Senior Project Specialist	$48.08	158.96%	10%	$137.00
Senior Project Specialist	$45.81	158.96%	10%	$131.00
Analyst III	$39.27	158.96%	10%	$112.00
Analyst III	$36.06	158.96%	10%	$103.00
Analyst I	$30.32	158.96%	10%	$86.00
Analyst I	$30.10	158.96%	10%	$86.00
Analyst I	$28.85	158.96%	10%	$82.00
Admin Specialist	$33.80	158.96%	10%	$96.00

Subconsultant: IDS Group, Inc. **Overhead rate** 155.21%

Employee Classification	Direct Labor Rate	Overhead Rate	Profit	Total Loaded Rate
Principal	$119.25	155.21%	10%	$335.00
Associate Principal	$111.89	155.21%	10%	$314.00
Senior Project Manager	$105.06	155.21%	10%	$295.00

EXHIBIT B

Project Manager	$98.23	155.21%	10%	$276.00
Senior Architect or Engineer	$91.93	155.21%	10%	$258.00
Senior Cost Estimator	$85.10	155.21%	10%	$239.00
Project Architect or Engineer	$85.10	155.21%	10%	$239.00
Designer Architect or Engineer	$74.15	155.21%	10%	$208.00
Engineering Designer - BIM	$64.61	155.21%	10%	$181.00
Architectural Job Captain | Designer	$61.46	155.21%	10%	$173.00
CAD Drafting Engineer | Architect	$55.68	155.21%	10%	$156.00
Office Administration	$55.68	155.21%	10%	$156.00

KPFF, Inc. Overhead rate 2018-2019 = 137.21%

Employee Classification	Direct labor Rate	Overhead Rate	Profit	Total Loaded Rate
Principal in Charge	$72.12	137.21%	10%	$188.00
Sr. Project Manager	$60.10	137.21%	10%	$157.00
Project Manager	$52.88	137.21%	10%	$138.00
Project Engineer	$44.00	137.21%	10%	$115.00
Design Engineer	$40.00	137.21%	10%	$104.00
Lead Modeler	$48.08	137.21%	10%	$125.00
Modeler	$40.87	137.21%	10%	$107.00
Administrative	$35.00	137.21%	10%	$91.00

Rates for Cost Plus Fixed Fee Task Orders

HNTB Corporation

Employee Classification	Direct labor Rate	Overhead Rate	Total Rate (without Fee/profit) **
Project Manager	$117.28	138.34%	$279.53
QC Manager	$97.55	138.34%	$232.50
Design Manager	$83.52	138.34%	$199.06
Senior Civil Engineer	$62.13	138.34%	$148.08
Civil Engineer	$58.52	138.34%	$139.48
Jr. Engineer	$36.06	138.34%	$85.95
Senior Planner	$105.12	138.34%	$250.54
Electrical Engineer	$67.68	138.34%	$161.31
Cadd Manager	$51.28	138.34%	$122.22
Cadd Lead	$49.76	138.34%	$118.60
Project Administator	$50.00	147.25%	$123.63

** Total Fix fee will be negociated and agreed upon with the City of Long Beach on each task order. Fix fee will be billed on a percentage complete basis monthly.

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Employee Classification	Direct labor Rate	Overhead Rate	Total Rate (without Fee/profit) **
Principal	$75.00	161.14%	$195.86
Project Manager	$60.00	161.14%	$156.68
Senior Electrical Engineer	$57.00	161.14%	$148.85
Staff Engineer	$44.00	161.14%	$114.90
Sr. Designer	$38.50	161.14%	$100.54
Staff Designer	$31.50	161.14%	$82.26
Cadd Tech	$31.50	161.14%	$82.26

Clerical	$22.50	161.14%	$58.76

** Total Fix fee will be negociated and agreed upon with the City of Long Beach on each task order. Fix fee will be billed on a percentage complete basis monthly.

Converse Consulting Overhead rate 2018 = 146.61%

Employee Classification	Direct labor Rate (2019)	Overhead Rate	Total Rate (without Fee/profit) **
Construction Inspector	$50.50	146.61%	$124.54
Soil Technician	$50.69	146.61%	$125.01
Project Manager	$65.00	146.61%	$160.30
Project Professional	$55.00	146.61%	$135.64
Senior Professional	$65.00	146.61%	$160.30

** Total Fix fee will be negociated and agreed upon with the City of Long Beach on each task order. Fix fee will be billed on a percentage complete basis monthly.

Laboratory Testing Costs	Unit Price
In Place Moisture and Density	$20.00
Grain Size Analysis	$160.00
Expansion Index	$130.00
Attterberg Limits	$100.00
CBR Test	$750.00
R-value	$250.00
Laboratory Compaction	$160.00
Direct Shear	$180.00
Unconfined Compression Test	$200.00
Soil Corrosivity Tests	$180.00

CONVERSE CONSULTANTS
Schedule of Fees – Materials Testing Services

Compensation for laboratory testing services will be based on rates in accordance with this fee schedule which includes test report(s) and engineering time. Costs of tests not on this schedule will be by quote and/or in accordance with our current hourly fee schedule. Our services will be performed in accordance with the General Conditions. This fee schedule is valid through December 31, 2020.

AGGREGATES

Moisture Content, ASTM D2216 ..... 15.00
Particle Size Analysis
- Coarse, ASTM C136, each 100.00
- Coarse and Fine, ASTM C136 & C137), each 180.00

Specific Gravity & Absorption
- Coarse Aggregate, ASTM C127 ..... 85.00
- Fine Aggregate, ASTM C128 ..... 85.00
- Unit Weight per Cubic Foot, ASTM C29 ..... 75.00
- Soundness, Sodium or Magnesium, ASTM C88, each 200.00
- Potential Alkali Reactivity, ASTM D289 ..... 300.00
- Freeze Thaw Soundness 175.00
- Los Angeles Abrasion, per class, ASTM C131, C535 ..... 210.00
- Sand Equivalent, ASTM D2419 ..... 90.00
- Lightweight Particles, ASTM C123, each 85.00
- Clay Lumps & Friable Particles, ASTM C142, each 120.00
- Stripping Test, ASTM D1664, each 85.00
- Organic Impurities, ASTM C40 ..... 75.00
- Durability ..... By Quote

CONCRETE TESTS

Laboratory Trial Batch, ASTM C192 ..... By Quote
Laboratory Mix Design, Historical Data ..... By Quote
Compression Test, 6"x12" Cylinder, ASTM C39, each 35.00
Lightweight Concrete
- Compression 35.00
- Unit Weight 35.00

Specimen Preparation, Trimming or Coring, each 60.00
Bond Strength, ASTM C321
- Prepared by Converse 150.00
- Prepared by Others 80.00

Core Compression Test, ASTM C12, each 60.00
Flexure Test, 6"x6" Beams, ASTM C78, each 110.00
Modulus of Elasticity, Static, ASTM C469, each 150.00
Length Change, ASTM C157, 3 bars, 5 readings each, up to 26 days 320.00
Splitting Tensile, 6"x12" Cylinders, each 80.00
Field Concrete Control (sampling, slump, temperature, cast 4 cylinders, molds, cylinder pick-up, within 10 miles of office, stand-by extra), ASTM/UBC, hourly rate schedule, or each cylinder 95.00
Field Concrete Control (same as above plus air content test), ASTM/UBC, each cylinder 95.00
Hold Cylinder 7.00
Cylinder Mold, sent to job site but not cast by Converse or returned to Converse 5.00

MASONRY (ASTM C140, E447, UBC STANDARD 24-22)

Moisture Content, as received, each 20.00
Absorption, each 50.00
Compression, each 55.00
Shrinkage, ASTM C426, each 100.00
Net Area and Volume, each 25.00
Masonry Blocks, per set of 9 ..... 450.00
Masonry Core Compression, each 55.00
Masonry Core Shear, each 55.00
Masonry Core Trimming, each 55.00
Compression Test, grouted prisms, 8"x8"x16", each 120.00
Compression Test, grouted prisms, 12"x16"x16", each 130.00
Compression Test
- 2"x4" Mortar Cylinder, each 35.00
- 3"x6" Grout Prisms, each 35.00
- 2" Cubes, ASTM C109, each 35.00

Cast by Others 35.00
Mortar or Grout Mix Designs ..... By Quote

FIREPROOFING TESTS

Oven Dry Density, per sample 60.00

MOISTURE EMISSION TEST

Moisture Emission Test Kit 60.00

ASPHALTIC CONCRETE

Stability, Flow, and Unit Weight, ASTM D6927 ..... 200.00
Marshall ASTM D1559, ASTM D2726 ..... 200.00
Measured Maximum Specific Gravity of Mix, ASTM D2041, Rice Method, each 95.00
Void Analysis of Cores or Marshall Specimens, Calculations Only, ASTM D3203, set of 2 or 3 ..... 60.00
Laboratory Mixing of Asphalt & Concrete, per sample 75.00
Complete Asphalt Concrete Mix Design Hveem or Marshall ..... By Quote
Extraction of Asphalt and Gradation, ASTM D2172, Method B, or California 310, including ash correction, each 210.00
Extraction of Rubberized Asphalt & Gradation, each 250.00
Specific Gravity, ASTM D2726 or ASTM D1188
- Uncoated 95.00
- Coated 105.00

Immersion-Compression 400.00
Particle Coating, ASTM D2489 ..... 55.00
Stripping, ASTM D1664 ..... 70.00
Moisture or Volatile Distillates in Paving Mixtures, or Materials Containing Petroleum Products or By-Products 220.00
Retained Strength, ASTM D1074/D1075, 6 specimens ..... By Quote
Retained Stability, Mil, Std, 520A, Method 104, 6 specimens ..... By Quote
CBR, ASTM D1883, including M/D Curve, 1 point 350.00
Asphalt Temperature 15.00

STRUCTURAL STEEL

Tensile Test #9 Bar or Smaller, each 50.00
Bend Test #9 Bar or Smaller, each 50.00
Tensile Test #10 Bar or Greater, each 280.00
Tensile Test #14 Bar, each 310.00
Rebar Coupler Tensile Test 100.00
Tensile Test, Welded #9 Bar or Smaller, each 100.00
Tensile Test, Welded #10 Bar or Greater, each 280.00
Tensile Test, Welded #14 Bar, each 310.00
Tensile Test, Mechanically Spliced, #9 Bar or Smaller, each 180.00
Tensile Test, Mechanically Spliced, #10 Bar or Greater, each 350.00

HIGH STRENGTH BOLT, NUT, AND WASHER TESTING

Wedge Tensile Test, A490 Bolts
- Under 100,000 lbs., each 55.00
- Over 100,000 lbs., each 65.00

Wedge Tensile Test, A325 Bolts
- Under 100,000 lbs., each 60.00

Tensile Test, Anchor Bolts, tested with displacement transducers, each 300.00
Nut Hardness, Proof & Cone Proof Load Test, each 50.00
Washer Hardness, each 35.00
A325 or A490, Bolt Hardness Only, each 35.00
Bolt A325 or A490 Wedge Tensile
- Under 100,000 lbs. & Hardness, each 85.00
- Over 100,000 lbs. & Hardness, each 100.00

Bolt, Nut & Washer, all tests per set with bolts
- Under 100,000 lbs. 300.00
- Over 100,000 lbs. 380.00

See *Schedule of Fees – Geotechnical Laboratory Testing* for soil testing. Hourly rates are available upon request. Field Laboratory rates are available upon request. Listed unit rates are based upon the assumption that samples will be delivered to our laboratory at no cost to Converse.

EXHIBIT "C"

City's Representative:

Stephanie Gunawan-Piraner, Senior Civil Engineer

(562) 570-2613

EXHIBIT "D"

Materials/Information Furnished: None

EXHIBIT "E"

Consultant's Key Employee:

Tony Fermelia

(310) 846-1810