OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

AGREEMENT

33512

THIS AGREEMENT is made and entered, in duplicate, as of September 3, 2014, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on September 2, 2014, by and between KLEINFELDER, INC., a California corporation ("Consultant"), with a place of business at 5015 Shoreham Place, San Diego, California 92122, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City requires specialized services requiring unique skills to be performed in connection with as-needed airport pavement evaluation consulting and related services; 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 generally furnish specialized services more particularly described in (i) RFQ No. AP13-030 dated May 20, 2013, and Task Order 001 dated May 23, 2014, each attached as Exhibit "A-1" to this Agreement and incorporated herein by this reference, and (ii) Consultant's response to such RFQ attached as Exhibit "A-2" 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 Seven Hundred

Fifty Thousand Dollars ($750,000), at the rates or charges shown in Exhibit "B". Consultant shall specifically furnish specialized services on as-needed basis more particularly described in individual scopes of work to be prepared by City staff and delivered to Consultant respecting discreet projects to be completed hereunder (each, a "Project"). Consultant's Designated Employee (as defined in Section 3.B) shall negotiate with City's representative (as defined in Exhibit "C") in order to determine specific terms applicable to each Project. Upon successful negotiation of the terms of each Project to be completed hereunder, Consultant's Designated Employee shall approve of such terms in writing, and subsequently move forward with each Project only after written direction to do so from City's representative.

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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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.

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 City.

G. Consultant understands that this Agreement does not grant Consultant exclusive rights to perform airport pavement evaluation consulting and related services on behalf of City, and acknowledges that City may enter into similar agreements with other consultants during the term hereof.

2. TERM. The term of this Agreement shall commence at midnight on September 3, 2014, and shall terminate at 11:59 p.m. on September 2, 2016, unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner. The City shall have two (2) options to extend the term hereof for a period of one (1) year each, exercisable upon advance written notice from City to Consultant.

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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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, Kash Hadipour ("Designated Employee"). City shall have the right to approve any person proposed by Consultant to replace that key employee.

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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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:

(a) 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. 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 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.

(b) 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.

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

(d) 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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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

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

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

E. Consultant shall require that all subconsultants or contractors that 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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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, 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 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 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.

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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. 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, 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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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 City.

11. CONFIDENTIALITY. Consultant shall keep all 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 without breach of this Agreement by Consultant; or (c) a third party who has a right to disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

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

B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.

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

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

16. PREVAILING WAGES.

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

B. In all bid specifications, contracts and subcontracts for any

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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

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

18. 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, 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 Agreement, including any obligations arising from the Project's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

this Agreement (collectively "Claims" or individually "Claim").

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

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

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

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

20. NONDISCRIMINATION.

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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

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

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

A. During the performance of this Agreement, the Consultant 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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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 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.

22. 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 City at 333 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.

23. 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

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

any ownership interest Consultant may have in the Data to 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 attorney's fees) whether or not reduced to judgment, arising from any breach or alleged breach of this warranty.

24. 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.

25. 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.

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

27. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation to pay Consultant until Consultant provides one of these numbers.

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

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

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

///

///

///

///

///

///

///

///

///

///

///

///

///

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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.

KLEINFELDER, INC., a California corporation

September 3, 2014

By _____
Name Houman Makarechi
Title Senior Vice President

_____, 2014

By _____
Name KASH HADIPOUR
Title Vice President - Aviation

"Consultant"

CITY OF LONG BEACH, a municipal corporation

September 12, 2014

By _____
City Manager

Assistant City Manager

EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER.

"City"

This Agreement is approved as to form on September 10, 2014.

CHARLES PARKIN, City Attorney

By _____
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

RFA:bg A14-01409 (9/3/14)
L:\Apps\CtyLaw32\WPDocs\D023\P021\00471587.DOC

EXHIBIT "A-1"

Request for Qualifications AP 13-030

&

Task Order 001

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

City of Long Beach

Request for Qualifications Number AP 13-030
For
Architectural, Engineering, Planning, Construction Management, and Specialized Professional Consultant Services
For Various On-Call Projects

At

The Long Beach Airport

Release Date: May 20, 2013

Due Date: June 26, 2013 at 11:00 am

For additional information, please contact:
Erik Sund, Purchasing, 562-570-6663
This RFQ is available in an alternative format by calling 562-570-6200

See Page 12, for instructions on submitting qualifications.

Services Offered: ___ Architectural ___ Engineering ___ Planning
___ Construction Management ___ Other: _____

Company Name _____ Contact Person _____

Address _____ City _____ State _____ Zip _____

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

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

Signed _____

Print Name & Title _____

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

TABLE OF CONTENTS

1. OVERVIEW OF SERVICES 3
2. ACRONYMS/DEFINITIONS 4
3. SCOPE OF SERVICES 6
4. SUBMITTAL INSTRUCTIONS 12
5. EVALUATION AND SELECTION PROCESS 14
6. SERVICES SPECIFICATIONS 18
7. WARRANTY/MAINTENANCE AND SERVICE 19
8. COMPANY BACKGROUND AND REFERENCES 20
9. COST 22
10. ADDITIONAL REQUIREMENTS FROM FUNDING SOURCE 23
11. TERMS, CONDITIONS AND EXCEPTIONS 24
12. DISADVANTAGED-, MINTORITY- OR WOMEN-OWNED BUSINESS ENTERPRISES 26

ATTACHMENTS

A CERTIFICATION OF COMPLIANCE 28
B STATEMENT OF NON-COLLUSION 29
C DEBARMENT CERTIFICATION 30
D W-9 FORM 32
E EQUAL BENEFITS FORM 34
F PRO-FORMA AGREEMENT 39

APPENDICIES

Appendix A 5-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM
Appendix B FAA - DESIGN AND ENGINEERING STANDARDS
Appendix C FAA - AIRPORT CONSTRUCTION STNDARDS
Appendix D FAA - AIRPORT ENGINEERING BRIEFS
Appendix E SCOPE OF SERVICES SAMPLES
Appendix F CONSULTANT SERVICES FEE SAMPLE
Appendix G AIRFIELD GEOMETRY RECONFIGURATION PROJECTS
Appendix H PASSENGER EXPERIENCE PROGRAM

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

The City will not be held responsible for qualifications envelopes mishandled as a result of the envelope not being properly prepared. Facsimile or telephone qualifications will NOT be considered unless otherwise authorized; however, qualifications may be modified by fax or written notice provided such notice is received prior to the opening of the qualifications.

1. OVERVIEW OF SERVICES

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) 150/5100-14D 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 150/5100-14D, the more stringent requirement shall take precedence.

The City of Long Beach ("City"), sponsor for the Long Beach Airport ("Airport"), invites Consultants to submit Statements of Qualifications (SOQ) for Architectural, Engineering, Planning, Construction Management, and Specialized Professional Consultant services for various on-call projects. The City desires to enter into multiple on-call agreements to develop a comprehensive roster of available Consultants. The on-call agreements will be for a period of two (2) years with two, one (1) year renewal options. Awarded Consultants will be assigned tasks for various projects at the sole discretion of the Airport. For projects funded under Federal grant programs, the Airport will issue subsequent requests for general project proposals to a select number of Awarded Consultants.

The development of some projects may involve activities or studies outside the scope of the basic design services routinely performed by the Consultant. These specialized professional services may vary greatly in scope, complexity, and timing and may involve a number of different disciplines and fields of expertise. Consultants performing special services may be employed directly by the City to implement one or more phases of a project or may be employed by the Principal Consultant via a subcontract agreement. In certain instances, the Consultant may perform these services. Some examples of specialized professional services that might be employed for airport projects include, but are not limited to, the following:

Feasibility Studies	Resident Engineer	Grant Applications
Geotechnical Engineering	Construction Inspection	Community Outreach
Soil Investigations / Analysis	Special Inspections	Record Drawings
Laboratory Tests / Analysis	Mill / Shop / Laboratory Inspection	ALP Updates
Environmental Studies / Analysis	Quality Control Plans	Safety Plans
Land Surveys	Field / Construction Surveys	Final Reports
Photogrammetry Surveys	Property maps	Expert Witness
Financial Planning	Cost Estimation	PFC Analysis
Labor Compliance	Pavement Management Surveys	Benefit / Cost Analysis

2. ACRONYMS/DEFINITIONS

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

Architectural/ Engineering Services	Professional services of an architectural or 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 architectural and 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.
Awarded Consultants	The organizations/individuals that are awarded and have an approved 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.
Division	Long Beach Airport, Engineering Division
Engineer	The Airport Engineer of the City of Long Beach and designated representatives
Evaluation Committee	An independent committee comprised solely of representatives of the City established to review qualifications submitted in response to this RFQ, score the SOQ, score interview presentations, and select Consultant(s).
FAA	Federal Aviation Administration
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.
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.
Planning Services	Professional services of a planning firm include: airport master and system plan studies, airport noise compatibility plans (14 CFR part 150 studies), and environmental assessments and related studies.
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 service subcontracts.
RFQ	Request for Qualifications.
Shall / Must	Indicates a mandatory requirement. Failure to meet a mandatory requirement may result in the rejection of the SOQ as non-responsive.
Should	Indicates something that is recommended but not mandatory. If the Consultant fails to provide recommended information, the City may, at its sole option, ask the Consultant 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.
Subcontractor	Third party not directly employed by the Consultant who will provide services identified in this RFQ.

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

3. SCOPE OF SERVICES

Background

The Airport is a department of the City. The slot-regulated Airport is centered between the major business and tourism areas of Orange and Los Angeles Counties. The Airport presently covers 1,166 acres and has five runways, the longest being 10,000 feet.

The Airport is an important part of the community. Over the years, the Airport has played a major role in the development of the City and continues to serve as an economic engine for the region. The City wishes to maintain the historical look and feel of the Airport while providing an enjoyable experience to passengers, employees, and visitors with a focus on sustainability, safety, and security.

The Airport's primary air service area consists of Los Angeles and Orange counties. The Airport currently serves approximately 3.2 million passengers annually. The Airport has been in operation since the early 1920's. The present Long Beach Airport terminal building ("Terminal") was constructed in 1941 and was declared a local historic landmark in 1990.

As part of the recently completed Airport Modernization Program, the temporary boarding lounges located directly behind the Terminal were replaced by a 34,750 square-foot passenger concourse ("Concourse") and an 8,940 square-foot passenger security-screening checkpoint ("SSCP"). The Concourse and SSCP will be certified under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. The Concourse was designed to accommodate a rooftop solar powered electric generation array, anticipated to offset 13 percent of the Concourse power demand. For more information about the City and the Airport, you may visit the City's web site at www.longbeach.gov and the Airport's web site at www.lgb.org.

Scope

3.1 **General.** The City desires to engage the services of professional consulting firms to provide all aspects of Architectural, Engineering, Planning, Construction Management, and Specialized Professional Consultant services for various on-call 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, possible airfield geometry reconfiguration projects provided in Appendix G, and the Airport's Passenger Experience Program (PEP) provided in Appendix H. The ACIP was submitted to the FAA December 28, 2012 and revised May 1, 2013. Appendix G contains projects that may become eligible for discretionary AIP funding as a result of the Airport's ongoing airfield geometry study. The work funded under Federal grant programs, are expected to be accomplished during the course of several grant projects.

3.2 **Basic Services.** There are two predominant categories of Consultant services that are utilized for projects conducted under airport grant programs. The first category involves planning services. The second involves Architectural / Engineering (A/E) services for the design and construction administration / inspection of airport projects. These two categories of basic services are discussed below.

3.2.1 **Aviation 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:

a. Design study to establish the framework and detailed work program.

b. Airport data collection and facility inventories.

c. Aeronautical activity forecasts and demand / capacity analyses.

d. Facility requirements determination.

e. Airfield modeling for capacity and delay.

f. Airport layout and terminal area plan development.

g. Airport noise studies under 14 CFR parts 150 and 161.

h. Compatible land-use planning in the vicinity of airports.

i. Airport site selection studies.

j. Airport development schedules and cost estimates.

k. Airport financial planning and benefit cost analysis.

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

m. Environmental assessments (EA), environmental impact statements (EIS), Categorical Exclusions (Extraordinary Circumstances submissions), and other studies in accordance with FAA Orders 5050.4 and 1050.1.

n. Airspace analysis.

3.2.2 **Architectural / Engineering services for airport development projects.** This category includes the basic A/E services normally required for airport development projects. It involves services generally of an architectural, civil, geotechnical, structural, mechanical, and electrical engineering nature. In addition, there may be some services outside those normally considered basic that are discussed in section 3-3. 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, those 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.

6. Preparing construction phasing plans.

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

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.

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

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

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

7. Preparing and negotiating change orders and supplemental agreements.

8. Observing or reviewing performance tests required by specifications.

9. Determining amounts owed to contractors and assisting the City in the preparation of payment requests for amounts reimbursable from grant projects and/or PFC projects.

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

11. Reviewing operations and maintenance manuals.

3.3 **Special Services.** The development of some projects may involve activities or studies outside the scope of the basic design services routinely performed by the Consultant. These special services may vary greatly in scope, complexity, and timing and may involve a number of different disciplines and fields of expertise. Consultants performing special services may be employed directly by the City to implement one or more phases of a project or may be employed by the Principal Consultant via a subcontract agreement. In certain instances, the Consultant may perform these services. Some examples of special services that might be employed for airport projects include, but are not limited to, the following:

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

3.3.2 Detailed mill, shop, and/or laboratory inspections of materials and equipment.

3.3.3 Land surveys and topographic maps.

3.3.4 Field and/or construction surveys.

3.3.5 Photogrammetry surveys.

3.3.6 Onsite construction inspection and/or management involving the services of a full-time resident engineer(s), inspector(s), or manager(s) during the construction or installation phase of a project. This differs from the periodic inspection responsibilities included as part of the basic services.

3.3.7 Special environmental studies and analyses.

3.3.8 Solar project studies in accordance with the FAA *Technical Guidance for Evaluating Selected Solar Technologies on Airports.*

3.3.9 Preparation and submission of the Notice of Intent (NOI) to comply with the State Water Resources Control Board General Permit.

3.3.10 Expert witness testimony in litigation involving specific projects.

3.3.11 Project feasibility studies.

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

3.3.13 Preparation of record drawings.

3.3.14 Preparation and submission of the Notice of Termination (NOT) to the State Water Resources Control Board.

3.3.15 Preparation and submission of the Notice of Completion to the Office of the Los Angeles County Recorder.

3.3.16 Assisting the City in the preparation of necessary applications for local, State, and Federal grants.

3.3.17 Preparation of or updating of the airport layout plan.

3.3.18 Preparation of property maps.

3.3.19 Construction management.

3.3.20 Preparation of quality control plan.

3.3.21 Preparation of final report.

3.4 **Division of Responsibility and Authority.** It is common to have one firm provide the basic services and one or more firms provide special services. In these cases, the firm providing the basic consultant services is considered the primary engineer or principal consultant as defined above. As such, the principal consultant represents the City in coordinating and overseeing the work of other engineering / consultant firms and has the overall responsibility to coordinate the work and to review the work products for general conformance to the requirements of the City. The subsequent task order assignments shall clearly specify the division of responsibility and authority between all parties involved in carrying out elements of the project.

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

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

4. SUBMITTAL INSTRUCTIONS

4.1 Mandatory pre-submittal conference

Date: June 5, 2013

Time: 10:00 am

Location: Long Beach Airport
Airport Information Center
Conference Room
4135 Donald Douglas Drive
Long Beach, CA 90808

Attendees are encouraged to park in one of the Airport parking structures. Parking will be validated upon request. Valet will NOT be validated. Following the pre-submittal conference, the Purchasing Division will accept questions in writing. Please submit all questions via email to RFPPurchasing@longbeach.gov by June 12, 2013 at 4:30 pm. Responses will be posted on the City's website: purchasing.longbeach.gov by June 19, 2013 at 4:30 pm. All Consultants are recommended to visit the abovementioned City website on a regular basis as the responses may be posted earlier.

4.2 RFQ Timeline

TASK	***DATE / TIME***
Pre-Submittal Conference	June 5, 2013 at 10:30 am
Deadline for submitting questions	June 12, 2013 at 4:30 pm
Answers to all questions submitted available	June 19, 2013 at 4:30 pm
Deadline for submission of SOQ	**June 26, 2013 at 11:00 am**
Invitation for Interview Presentations	Week of July 1, 2013
Interview Presentations	Week of July 15, 2013
Selection of Consultant	July 2013

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 Consultants.

4.3 Consultants shall submit one (1) original SOQ marked "ORIGINAL", five (5) identical copies marked "COPY", and one (1) electronic copy as follows:

City of Long Beach
Purchasing Division
Attn: Erik Sund
333 W. Ocean Blvd./7th Floor
Long Beach CA 90802

SOQ shall be clearly labeled in a sealed envelope or box as follows:

RFQ-AP-13-030 Architectural, Engineering, Planning, Construction Management, and Specialized Professional Consultant Services for Various On-Call Projects

4.4 The SOQ must be received no later than **11:00 am local time, June 26, 2013**. SOQ's 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.

4.5 The SOQ should be presented in a format that corresponds to and references sections outlined in this RFQ and shall be presented in the same order. Responses to each section and subsection should be labeled so as to indicate which item is being addressed. For ease of evaluation, the SOQ should be presented in the format described within this RFQ.

4.6 The SOQ is to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFQ. Expensive bindings, 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 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 informative documents that are appropriately marked.

4.8 The SOQ must be signed by an individual(s) legally authorized to bind the Consultant.

4.9 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.

4.10 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.***

5. EVALUATION AND SELECTION PROCESS

5.1 SOQ shall be consistently evaluated based upon the following criteria:
- Demonstrated competence;
- Experience in performance of comparable engagements;
- Expertise and availability of key personnel;
- Conformance with the terms of this RFQ.

5.2 The SOQ shall be kept confidential until a contract is awarded.

5.3 The City may contact references provided in response to Section 8.3; contact any Consultant to clarify any portion of the SOQ; contact any current users of a Consultant's services; solicit information from any available source concerning any aspect of the SOQ; and seek and review any other information deemed pertinent to the evaluation process. Qualifications based procedures require that a contract for A/E services be awarded pursuant to a fair and open selection process based on the qualifications of the firms. The fees for such services are established following selection of a firm through a negotiation process to determine a fair and reasonable price. The City will make an award, based on qualifications, in the best interests of the City of Long Beach and the Long Beach Airport.

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.

5.7 **Federal Procedures for Selection of Consultants.** The procedures included in Chapter 2 of FAA AC 150/5100-14D are hereby incorporated by reference into this RFQ. Should any conflict arise between this RFQ and FAA AC 150/5100-14D, 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 one Consultant versus another.

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. *(15 points)*

5.9.3 Demonstrated understanding of project implementation, potential problems and the City's special concerns. *(15 points)*

5.9.4 Quality of projects previously undertaken and capability to complete projects without having major cost escalations or overruns. *(10 points)*

5.9.5 Current workload and demonstrated ability to meet scheduled deadlines. *(10 points)*

5.9.6 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)*

5.9.7 Ability to furnish qualified inspectors for construction inspection. *(5 points)*

5.9.8 Qualifications and experience of outside consultants (including key personnel, similar to 5.9.2) regularly engaged by the Consultant under consideration. *(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)*

5.9.10 Capability to incorporate and blend aesthetic and architectural concepts with the project design while accomplishing the basic requirements that transportation facilities be functional, safe, and efficient. *(5 points)*

5.9.11 Evidence that the Consultant has made good faith efforts in meeting Disadvantaged Business Enterprise (DBE) goals (49 CFR, § 26.53). *(5 points)*

5.9.12 Capability to conduct a Value Engineering (VE) study for projects that are particularly complex or have unique features. *(5 points)*

5.9.13 **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. Individual short lists will be based on the rankings, not individual scores, of the prospective firms and will be categorized by services offered.

5.11 **Interview Presentations.** Consultants from the short lists will be invited to present their general approach to providing professional services. 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 **Basic Services.** Consultants from the basic services 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 (See Appendix A). 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 general project proposal shall include the following:

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

b. 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)*

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

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

e. 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)*

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

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

h. **Total Possible Basic Services Interview Score** ***(100 Points)***

5.11.2 **Special Services.** Consultants from the special services short list will be invited to present their capabilities to provide the specialized professional services offered. The presentation shall include the following:

a. A detailed description of the specialized scope of services offered along with a typical project for which the services may benefit the City. (10 points)

b. Team members, other key personnel, previous experience, and the role they would fill providing the specialized services. Qualifications and time commitment of the proposed project manager. (20 points)

c. Current workload of team members, key personnel, and project manager. (20 points)

d. Technical approach – a brief discussion of the tasks or steps that the Consultant would take to accomplish the work described in the specialized scope of services. *(25 points)*

e. Communication / interpersonal skills, including responses to questions. *(25 points)*

f. **Total Possible Specialized 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 from each category of services offered. 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 subcontractors), and the complete DBE list.

6. SERVICES SPECIFICATIONS

6.1 **Project Scope Definition.** It is important for the City and Consultant to reach a complete and mutual understanding of the scope of services to be provided. The general scope of services developed during the RFQ process is of necessity too broad to serve as the basis for a contractual agreement. A well-defined project description and scope of services shall be developed between the City and Consultant prior to negotiating a project design fee. This may be accomplished in a scoping meeting with the Engineer or separate investigation or study to clearly define the extent of the project. The scoping meeting offers the opportunity for refinement, amendment, and complete definition of the services to be rendered.

6.2 The scope of service(s) must be sufficiently detailed so that the Consultant can make a reasonable fee estimate (see Advisory Circular 150/5100-14, Appendix F, "Consultant Services Fee / Costs Sample"). Although the scope of service(s) will vary from project to project (see Advisory Circular 150/5100-14, Appendix E, "Scope of Services Samples"), the following items are typical of those that should be considered in developing the scope of services:

6.2.1 Nature, extent, and character of the project, the location thereof, and time imitations.

6.2.2 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.

6.2.3 List of meetings the Consultant is expected to attend.

6.2.4 Design schedule.

6.2.5 Special services required.

6.2.6 Complexity of design.

6.2.7 Safety and operational considerations.

6.2.8 Environmental considerations.

6.2.9 Survey and geotechnical testing requirements.

6.2.10 Inspection services during construction.

6.2.11 Delineation of the duties and responsibilities of the resident engineer / inspector.

6.2.12 Preparation of a Quality Control / Quality Assurance Plan.

6.2.13 Quality Control / Quality Assurance during construction.

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

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

6.2.16 Airport Layout Plan updates.

6.2.17 Property map preparation and updates.

6.2.18 Quality control during design.

6.2.19 Coordination with other consultants and agencies.

6.2.20 Deliverables.

6.2.21 Data and material furnished by the City.

6.2.22 Testing and commissioning requirements.

6.2.23 City / County requirements.

6.2.24 Number of bid packages.

6.2.25 Complexity of construction phasing to minimize impacts on airport operations.

7. 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.

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

8. COMPANY BACKGROUND AND REFERENCES

8.1 PRIMARY CONTRACTOR 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. Identify corporate headquarters.
- Location of the office servicing any California account(s).
- Number of employees both locally and nationally.
- 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.

8.2 SUBCONTRACTOR INFORMATION

8.2.1 Does the SOQ include the use of subcontractors?

Yes _____ No _____ Initials _____

If "Yes", Consultant must:

8.2.1.1 Identify specific subcontractors and the specific requirements of this RFQ for which each proposed subcontractor will perform services.

8.2.1.2 Provide the same information for any subcontractors as is indicated in Section 8.1 for the Consultant as primary consultant.

8.2.1.3 References as specified in Section 8.3 below must also be provided for any proposed subcontractors.

8.2.1.4 The City requires that the awarded Consultant provide proof of payment of any subcontractors used for this project. The contract resulting from this RFQ shall include a plan by which the City will be notified of such payments.

8.2.1.5 Primary consultant shall not allow any subcontractor to commence work until all insurance required of subcontractor is obtained.

8.3 REFERENCES

Consultants should provide a minimum of three (3) 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.

8.4 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.

9. COST

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).

9.1 The terms of agreement for services on an on-call basis vary widely. Upon selection of the successful Consultant(s) 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. At that time, the Consultant(s) shall submit a proposed general fee and supporting cost breakdown. The proposed general fee will be used to establish the overall contract value.

9.2 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.

9.3 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 150/5100-14D.

9.4 The Consultant shall submit invoices accompanied by a detailed written narrative for each billing period professional services are provided. The narrative must provide a description of services provided during the billing period along with justification for the requested funds.

9.5 **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 150/5100-14D contains examples of typical expenses allowable under the above regulations.

9.6 **Non-allowable Costs.** The expenses listed below are not allowable for reimbursement under an airport grant:

9.6.1 Costs of amusement and social activities and incidental costs such as meals, lodging, rentals, transportation, and gratuities.

9.6.2 Contributions and donations.

9.6.3 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.

9.6.4 Dividend provisions or payments and, in the case of sole proprietors and partners, distributions of profit.

9.6.5 Interest on borrowed capital.

9.6.6 Bonus payment for early completion of work.

10. ADDITIONAL REQUIREMENTS FROM FUNDING SOURCE

10.1 **Mandatory Federal Contract Provisions.** Federal laws and regulations prescribe that certain provisions be included in federally funded contracts. For purposes of this section, the term "contract" includes subcontracts. The type of contract must be appropriate for the particular procurement. The provisions that pertain to consultant contracts, including the source of each requirement are listed in Table 10-1. Specific wording of Federal contract provisions is available on the FAA website at http://www.faa.gov/airports/aip/procurement/.

Table 10-1. Mandatory Federal Contract Provisions for Professional Services (A/E) Contracts

Provision	Law/Statute
Provisions for all A/E Contracts	
Civil Rights Act of 1964, Title VI - Contractor Contractual Requirements	49 CFR part 21
Airport and Airway Improvement Act of 1982, Section 520	49 USC § 47123
Disadvantaged Business Enterprise	49 CFR part 26
Lobbying and Influencing Federal Employees	49 CFR part 20
Access to Records and Reports	49 CFR § 18.36
Breach of Contract Terms	49 CFR § 18.36
Rights to Inventions	49 CFR § 18.36
Trade Restriction Clause	49 CFR part 30
Additional Provisions for A/E Contracts Exceeding $10,000	
Termination of Contract	49 CFR § 18.36
Additional Provisions for A/E Contracts Exceeding $25,000	
Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion	49 CFR part 29

10.2 **Mandatory Federal Contract Provisions for Construction Contracts**. Consultants shall be familiar with all Federal contract provisions required to be incorporated into construction specifications, including, but not limited to, the following:

- Buy American Preferences - Title 49 U.S.C., Chapter 501
- Civil Rights Act of 1964, Title VI - Contractor Contractual Requirements - Title 49 CFR Part 21
- Airport and Airway Improvement Act of 1982, Section 520 - Title 49 U.S.C. 47123

- Lobbying and Influencing Federal Employees - Title 49 CFR Part 20
- Access to Records and Reports - Title 49 CFR Part 18.36
- Disadvantaged Business Enterprise - Title 49 CFR Part 26
- Energy Conservation - Title 49 CFR Part 18.36
- Breach of Contract Terms - Title 49 CFR Part 18.36
- Rights to Inventions - Title 49 CFR Part 18.36
- Trade Restriction Clause - Title 49 CFR Part 30
- Veteran's Preference - Title 49 U.S.C 47112

11. TERMS, CONDITIONS AND EXCEPTIONS

11.1 This contract will be for a period of two (2) years with two, one (1) year renewal options at the option of the City. The renewal option will be executed ONLY for continuation of a project initiated within the initial two years.

11.2 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.

11.3 The City reserves the right to waive informalities and minor irregularities in SOQ received.

11.4 The City reserves the right to reject any or all SOQ received prior to contract award.

11.5 The City shall not consider price when evaluating SOQ, but will make an award in the best interests of the City of Long Beach after all factors have been evaluated.

11.6 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.

11.7 The SOQ must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance / service agreements, license agreements, and lease purchase agreements. 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. The omission of these documents may render the SOQ non-responsive.

11.8 Alterations, modifications or variations to the SOQ may not be considered unless authorized by the RFQ or by addendum or amendment.

11.9 Any SOQ, which appears 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.

11.10 The SOQ may be withdrawn by written, facsimile, or e-mail notice received prior to the deadline for submission of the SOQ.

11.11 The information contained within the SOQ must be arrived at independently and without consultation, communication, agreement or disclosure with or to any other contractor, Consultant or prospective Consultant.

11.12 No attempt may be made at any time to induce any firm or person to refrain from submitting SOQ or to submit any intentionally misleading SOQ. All SOQ must be prepared in good faith and without collusion.

11.13 Services offered by Consultants in the SOQ are an irrevocable offer for the term of the contract and any contract extensions. The awarded Consultant agrees to provide the services at the costs, rates and fees as subsequently agreed to following selection, in accordance with section 9 of this RFQ. No other costs, rates or fees shall be payable to the awarded Consultant for implementation of their services.

11.14 The City is not liable for any costs incurred by Consultants prior to entering into a formal contract. Costs of developing the SOQ 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.

11.15 The SOQ will become public record after the award of a contract unless the SOQ or specific parts thereof can be shown to be exempt by law. Each Consultant may clearly label all or part of the SOQ as "CONFIDENTIAL" or "PROPRIETARY" 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.

11.16 The SOQ submitted in response to this RFQ must identify any subcontractors, and outline the contractual relationship between the awarded Consultant and each subcontractor. An official of each proposed subcontractor must sign, and include, as part of the SOQ submitted in response to this RFQ, a statement to the effect that the subcontractor has read and will agree to abide by the awarded Consultant's obligations.

11.17 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 subcontractors.

11.18 The awarded Consultant must maintain, for the duration of the contract, insurance coverage 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 coverage.

11.19 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.

11.20 Each Consultant must include in the 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.

11.21 The City will not be liable for Federal, State, or Local excise taxes.

11.22 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 F contract form and all terms and conditions therein.

11.23 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.

11.24 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.

11.25 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.

11.26 Consultants are advised that any contract awarded pursuant to this procurement process shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 et seq, the **Equal Benefits Ordinance**. Consultants shall refer to Attachment E for further information regarding the requirements of the ordinance.

All Consultants shall complete and return, with their SOQ, the Equal Benefits Ordinance Compliance form contained in Attachment F. Unless otherwise specified in the procurement package, Consultants do not need to submit with their SOQ supporting documentation

proving compliance. However, supporting documentation verifying that the benefits are provided equally shall be required if the Consultant is selected for award of a contract.

12. DISADVANTAGED-, MINTORITY- OR WOMEN-OWNED BUSINESS ENTERPRISES

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.

The current DBE goal is 9.2% for Federal Aviation Administration (FAA) funded projects. Firms should include in the SOQ a list of subcontractors they intend to use to meet this goal. After the selection of successful Consultant(s), the required DBE list shall include the following information from each subcontractor:

12.1 Name, address and telephone number of the firm.

12.2 Type of work to be performed.

12.3 Dollar amount of work to be performed.

12.4 Number of years in business.

12.5 Annual gross receipts from the previous complete business year.

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

Attachment A
CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFQ

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

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

YES _____ NO _____ SIGNATURE _____

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

EXCEPTION SUMMARY FORM

RFQ SECTION NUMBER	RFQ PAGE NUMBER	EXCEPTION (PROVIDE A DETAILED EXPLANATION)

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

Attachment B

Statement of Non-collusion

The qualifications is submitted as a firm and fixed request valid and open for 90 days from the submission deadline.

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

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

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

Attachment C

Debarment, Suspension, Ineligibility Certification

(Please read attached *Acceptance of Certification* and *Instructions for Certification* before completing)

This certification is required by federal regulations implementing Executive Order

1. The potential recipient of Federal assistance funds certifies, by submission of qualifications, that:
   - Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
   - Have not within three (3) year period preceding this bid/agreement/qualifications had a civil judgment rendered against them for commission of fraud or been convicted of a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
   - Are not presently or previously indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in the above paragraph of this certification; and
   - Have not within a three (3) year period preceding this bid/agreement/qualifications had one or more public (Federal, State, or local) transactions terminated for cause of default.
2. 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/qualifications.

_____
Signature of Authorized Representative

_____
Title of Authorized Representative

_____ _____
Business/Contractor/ Agency Date

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

Acceptance of Certification

1. This bid/agreement/qualifications 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/Consultant 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," "qualifications," 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/qualifications 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 Excluded Parties List System at *www.epls.gov* to make sure that Consultants who are awarded City contracts and/or purchase orders are not debarred or suspended. Prospective contractors should perform a search on this website for your company and or persons associated with your business. The finding that "Your search returned no results" is an indicator of compliance.
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/qualifications/agreement.
4. If at anytime, your business or persons associated with your business become debarred or suspend, 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 City of Long Beach, Business Relations, Purchasing Division at 562-570-6200

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

Attachment D

W-9 Request for Taxpayer Identification Number and Certification

[Form must be signed and dated]

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

Attachment D

Form **W-9** (Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

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

Print or type See Specific Instructions on page 2.

Name (as shown on your income tax return)

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☐ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ► .....
☐ Other (see instructions) ►

☐ Exempt payee

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

Requester's name and address (optional)

City, state, and ZIP code

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 your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 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).

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 on page 4.

Sign Here — Signature of U.S. person ► Date ►

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. *Partnerships that conduct a* trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Cat. No. 10231X — Form **W-9** (Rev. 10-2007)

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

ATTACHMENT E

Equal Benefits Ordinance Compliance Form

[Disclosure and Compliance forms must be signed and dated]

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

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 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,

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

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:_____

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

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

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

_____ 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._____

COMPLETED FORM - ON FILE WITH CITY OF LONG BEACH

City of Long Beach
Purchasing Division
333 W Ocean Blvd/7th Floor
Long Beach CA 90802

ATTACHMENT F

PRO-FORMA AGREEMENT

REPLACED BY AGREEMENT - REMOVED FOR CLARITY

City of Long Beach
Department of Financial Management
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, California 90802
562.570.6200

LONG BEACH AIRPORT
Building a Better Way to Fly

4100 E. Donald Douglas Drive, Floor 2
Long Beach, CA 90808
Tel 562.570.2619
Fax 562.570.2601
www.lgb.org

May 23, 2014

RFQ No. AP13-030
Architectural, Engineering, Planning, Construction Management, and Specialized Professional Consultant Services for Various On-Call Projects at the Long Beach Airport

Notice to Selective Qualified Firms:

The City of Long Beach (City) and Long Beach Airport (Airport) hereby invites qualified firms to present a general approach to providing the professional services identified in Attachment A. The general project proposal for the scope of work described in Attachment A shall be prepared in accordance with Section 5.11.1 of Request for Qualifications (RFQ) AP 13-030. As a reminder, **the general project proposal must NOT include cost or pricing information**.

In accordance with Section 5.11 of the RFQ, your team is invited to present its proposal at an interview to be scheduled during the week of June 16, 2014. Prior to 06/11/2014, please contact Sharon Morrison at (562) 570-6195 to schedule. Interviews will be held at the Airport Information Center at 4135 Donald Douglas Drive, Long Beach.

Presentations will be limited to twenty (20) minutes and should include the proposed Project Manager, Pavement Evaluation Specialist, and other Key Staff Position(s) identified by the Consultant. Presenters must participate in the interview to a degree commensurate with their role in the firm's performance of the professional services offered. Presentation staff shall be limited to no more than six (6) individuals, including presentation technical assistants.

The presentation will be evaluated in accordance with Section 5.11 of the RFQ document. The presentation will be followed by a question and answer period with the Technical Evaluation Committee (TEC).

Five (5) hard copies and one (1) electronic copy of the general project proposal and presentation material shall be left with the TEC at the conclusion of the presentation. If you have any questions regarding the selection process please feel free to contact Jeff Sedlak, Senior Civil Engineer, at (562) 570-2623.

LONG BEACH AIRPORT
Building a Better Way to Fly

4100 E. Donald Douglas Drive, Floor 2
Long Beach CA 90808
Tel 562.570.2619
Fax 562.570.2601

www.lgb.org

RFQ AP 13–030 **TASK ORDER 001**

ATTACHMENT A

GENERAL

The City of Long Beach, Long Beach Airport (Airport) is selectively soliciting general project proposals to retain the professional services of an Airport Consultant with expertise in developing and updating the Long Beach Airport's Pavement Maintenance and Management System (PMMS). In addition to the PMMS update, the Consultant shall develop the Aircraft Classification Number – Pavement Classification Number (ACN-PCN) for Runway 7L-25R, Runway 7R-25L, and Runway 12-30.

PROJECT DESCRIPTION AND TASK OVERVIEW

The most recent pavement condition survey was completed in 2011. The pavement condition survey will cover all of the airport's 1.3 million square yards of airside pavement including runways, taxiways, Air Carrier ramp, and the perimeter road and shall be done in accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5380-7A (or current version) using MicroPaver 6.5 software. Newly constructed pavement will not be a part of this condition survey. However, mapping of the air carrier ramp will be updated to reflect the new configuration.

In order to receive financial assistance from the FAA for construction, reconstruction or repair of pavement, the Airport must have an effective airport pavement maintenance-management program in place. A pavement management system enables the Airport to store pavement condition and maintenance information in a database that is used to determine the most cost-effective solution for pavement maintenance issues using the program's resources. In order to take full advantage of a pavement management system, pavement condition information must be collected and periodically updated.

In addition to the PMMS Update, the Consultant shall develop the Aircraft Classification Number – Pavement Classification Number (ACN-PCN) for Runway 7L-25R, Runway 7R-25L, and Runway 12-30 in accordance with FAA Advisory Circular 150/5335-5B (or current version) using the Technical Evaluation method.

The ACN is a number that expresses the relative effect of an aircraft at a given configuration on a pavement structure for specified standard subgrade strengths. The PCN is a number that expresses the load-carrying capacity of a pavement for unrestricted operations. The ACN-PCN system is structured so a pavement with a particular PCN value can support an aircraft that has an ACN value equal to or less than the pavement's PCN value.

LONG BEACH AIRPORT
Building a Better Way to Fly

4100 E. Donald Douglas Drive, Floor 2
Long Beach CA 90808
Tel 562.570.2619
Fax 562.570.2601

www.lgb.org

OBJECTIVE:

I. Pavement Maintenance and Management System Update

The City is seeking the services of a Consultant to update its existing pavement management program as follows:

A. Update the existing MicroPaver database with the latest construction and rehabilitation history of the pavements.

B. Updating the branch, section and sample unit identification map.

C. Visually inspecting airfield pavement including paved shoulders and the perimeter road.

D. Import the previous MicroPaver database into the latest reliable version of MicroPaver (Version 6.5) and run error check.

E. Enter the new condition survey data into the converted MicroPaver database.

F. Update family curves for functional condition prediction.

G. Report visual Condition Survey results.

H. Determination of present and future network/branch/section condition.

I. Run budget scenarios to maintain the Airport's average PCI at 70 for runways and taxiways.

J. Present the pavement condition index and budget scenarios in an executive summary and report format.

K. MicroPaver mapping including the newly constructed air carrier ramp.

L. Training of City of Long Beach staff.

LONG BEACH AIRPORT
Building a Better Way to Fly

4100 E. Donald Douglas Drive, Floor 2
Long Beach CA 90808
Tel 562.570.2619
Fax 562.570.2601

www.lgb.org

II. Aircraft Classification Number-Pavement Classification Number

The City is seeking the services of a Consultant to determine the ACN-PCN for three of the Airport's runways as follows:

A. Determine the ACN for Runway 7L-25R, Runway 7R-25L, and Runway 12-30.

B. Determine the PCN for Runway 7L-25R, Runway 7R-25L, and Runway 12-30 using the Technical Evaluation Method in accordance with FAA Advisory Circular 150/5335-5B (or current version).

C. Perform borings and obtain soil samples for testing.

D. Perform non-destructive testing in accordance with FAA Advisory Circular 150/5370-11B (or current version).

E. Determine structural capacity of existing pavements in accordance with FAA Advisory Circular 150/5320-6E (or current version).

F. Present results of all tests and calculations in a report format.

EXHIBIT "A-2"

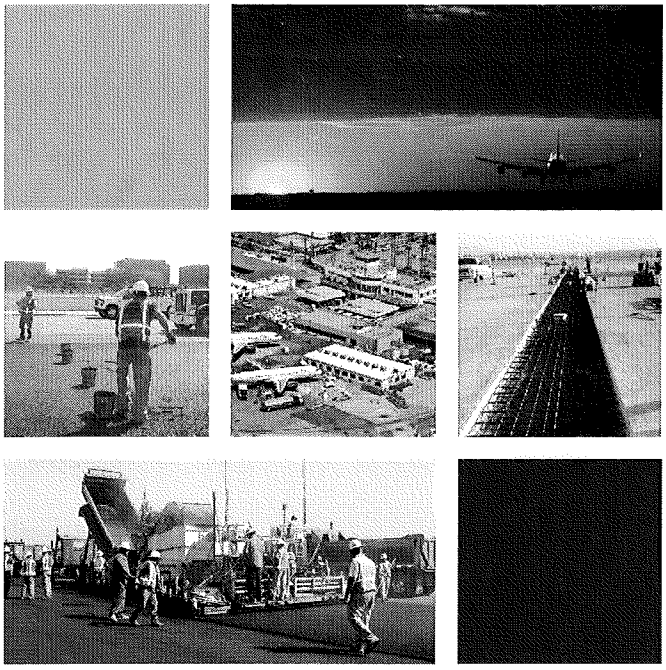
Consultant's Response to

Request for Qualifications AP 13-030

Task Order 001

RFQ-AP-13-030
Task Order 001: Pavement Maintenance and Management System

City of Long Beach, Purchasing Division
June 18, 2014



KLEINFELDER
Bright People. Right Solutions.

620 West 16th Street, Unit F
Long Beach, California 90813
562.432.1696 phone
562.432.1796 fax

KLEINFELDER
Bright People. Right Solutions.

June 18, 2014

Mr. Jeff Sedlak, PE
Senior Civil Engineer
City of Long Beach
Department of Financial Management
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Subject: Architectural, Engineering, Planning, Construction Management, and Specialized Professional Consultant Services for Various On-Call Projects at the Long Beach Airport, RFQ No. AP13030, Task Order 001 - Pavement Maintenance and Management System

Dear Mr. Sedlak:

Kleinfelder, Inc. (Kleinfelder) is pleased to present our task order proposal to provide professional services for the Long Beach Airport's Pavement Maintenance and Management System (PMMS), and develop the Aircraft Classification Number – Pavement Classification Number for Runway 7L-25R, Runway 7R-25L, and Runway 12-30. Kleinfelder has extensive experience performing the services required for numerous airports, local agencies and cities throughout Southern California. We have the necessary capabilities and experience to successfully provide the services requested.

We have structured our proposal to correspond to the items identified in Attachment A of Task Order 001. Kleinfelder is highly qualified for this contract because we offer:

- Depth of experience in providing pavement engineering and management services in California since 1961; over 30 years of related project experience in Los Angeles County;
- Extensive experience in the development and implementation of pavement PMSS as a tool for planning and budgeting pavement work for predicted long-term performance;
- Our extensive experience with several PMMS programs including: Micro PAVER, MTC Streetsaver, CarteGraph, GBAMS, IMS's PavePro and more;
- Our commitment to Quality Control and Quality Assurance in both design and construction;
- Our experience working with the FAA, TSA, the Department of Homeland Security, as well as our knowledge of and experience with the FAA's Advisory Circulars and other related PMS guidelines;
- Substantial and readily available Project Team resources;
- Our familiarity with Long Beach Airport; and
- Local office and laboratory in the City of Long Beach within 6 miles from the Airport.

We look forward to working with you on this interesting and challenging project. If you have any questions or require additional information, please contact either of the undersigned.

Respectfully submitted,

KLEINFELDER, INC.

K. Hadipour

Kash Hadipour, PhD, PE
Project Manager

Dany Hanna, PE
Quality Manager

TABLE OF CONTENTS

SECTION ***PAGE***

EXECUTIVE SUMMARY 1

SECTION 1: KLEINFELDER QUALFICATIONS 3

SECTION 2: PROJECT TEAM AND ORGANIZATION CHART 5

SECTION 3: RELEVANT PROJECT EXPERIENCE 11

SECTION 4: SCOPE OF WORK 17

SECTION 5: QUALITY ASSURANCE/QUALITY CONTROL PROGRAM 25

SECTION 6: VALUE-ADDED SERVICES 28

Appendix A: Resumes

EXECUTIVE SUMMARY

Our Vision

Our vision for the future is to be a legacy company for our employees, provide value for our clients, and contribute to our communities.

Kleinfelder, Inc.

Airport agencies strive to provide the most efficient use of their funding to not only provide new infrastructure, but also to maintain their existing infrastructure. It is crucial to have a good understanding with as much information of the current pavement network, its condition (surface, structural, and ride), its cross section (layer thickness and material types) and subgrade soil properties. This will assist the staff and stakeholders to better assess the necessary actions and justify the appropriate annual funding needed to achieve the long-term goals of maintaining or improving pavement condition levels and accommodate changes to air traffic volumes and loadings. Kleinfelder has served airports, local and state agencies in implementing their pavement management system including performing condition survey, database analysis, evaluate structural capacity and developing capital improvement plan development. In addition, our registered professional engineering staff provide oversight, review, and reporting services throughout the duration of the project.

Kleinfelder appreciates the opportunity to submit this proposal in response to the RFQ No. AP13-030 dated May 23, 2014 to perform pavement maintenance and management system update and structural pavement evaluation for the airfield pavements at the Long Beach Airport (Airport) in Long Beach, California. The purpose of this study is to provide the Long Beach Airport with an assessment of the existing condition of the airside pavements including runways, taxiways, Air Carrier ramp and perimeter road. In addition, structural condition of the airfield pavements will be evaluated through non-destructive deflection testing using Heavy Weight Deflectometer (HWD) to develop Aircraft Classification Number – Pavement Classification Number (ACN-PCN) for Runway 7L-25R, Runway 7R-25L, and Runway 12-30. We are also requested to recommend areas for rehabilitation/reconstruction through back-calculation analysis to determine pavement strength and remaining life.

Kleinfelder has successfully completed similar projects locally and across the United States. We believe our experience with the project, client and condition of the site will bring a significant value to the execution and successful completion of this project. Our Project Manager, Mr. Kash Hadipour, PhD, PE brings extensive experience in managing similar deliverables. He will share some of our discoveries, proven and tested solutions to the challenges associated with pavement evaluation efforts. Our personnel are comprised of pavement engineers with advanced degrees, licensed engineers, Project Managers, and experienced professionals in database analysis, system implementation, Geographic Information System (GIS), programmers, and pavement evaluation equipment operators. With this complement of diverse and highly qualified staff, we can assure the Airport a successful and innovative project delivery.

The proposed team for this study includes Kleinfelder as the prime consultant and Dynatest, AP Engineering and Testing, Inc., Martini Drilling and GEOVision, Inc. as the subconsultants. Kleinfelder selected the proposed team based on its past experience with the subconsultants on several airport pavement evaluation and pavement design projects. Dynatest will assist Kleinfelder in the non-destructive HWD testing and pavement strength aspects of the project. Martini Drilling will provide assistance in the pavement coring and geotechnical soil boring sampling operation. AP Engineering and Testing, Inc. will provide laboratory testing of the sampled material, while GEOVision, Inc. may perform geophysical services (as required) to provide information to supplement data obtained from pavement coring and soil borings.

An integral part of the pavement evaluation project is to implement a pavement management system in accordance with FAA AC 150/5380-7A *Airport Pavement Management Program*. The activities will include the review of available reports and record drawings including existing and future air traffic information. Pavement assessments will be performed following Federal Aviation Administration (FAA) specifications and Advisory Circulars (AC). The pavement condition survey to identify pavement distresses will be conducted according to ASTM D5340-12 *Standard Test Method for Airport Pavement Condition Survey*. Our personnel have regularly conducted surveys in accordance with ASTM standards.

The structural capacity of the pavements will be evaluated according to FAA Advisory Circular (AC) 150/5370-11B *Use of Nondestructive Testing in the Evaluation of Airport Pavements* through pavement deflection testing using a Heavy Weight Deflectometer (HWD). Pavement strength in accordance with FAA AC 150/5335-5C *Standardized Method of Reporting Airport Pavement Strength* – PCN will also be discussed in the report. The information gathered from the record review, field condition survey and testing, including laboratory test results will be summarized and used in the analysis. Kleinfelder will determine the structural capacity of the existing pavement in accordance with FAA AC 150/5320-6E *Airport Pavement Design and Evaluation*.

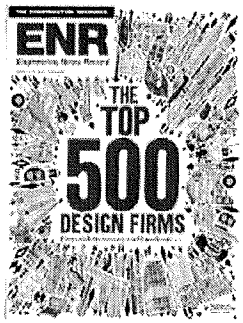
The Kleinfelder team will analyze the remaining service life of the existing pavement and identify existing airfield pavement deficiencies due to expected traffic. Furthermore, based on the results of the analysis, recommendations can be provided on pavement improvement projects and associated project cost estimates including Capital Improvement Plans for a predetermined multi-year implementations.

Kleinfelder personnel and team are experienced with FAA pavement evaluation software such as the FAA accepted software ELMOD for backcalculating layer moduli from deflection data, COMFAA 3.0 for developing ACN/PCN for design, FAARFIELD 1.305 for pavement thickness design, and the Corps of Engineers MicroPAVER 6.5.7 pavement management program. Kleinfelder proposes a Project Execution Plan (Section 4) which describes the means and methods for addressing the scope of services to meet project requirements.

SECTION 1: KLEINFELDER QUALIFICATIONS

Kleinfelder is currently under contract with the City and Airport to provide architectural, engineering, planning, construction management, and specialized professional consultant services for various on-call projects. Kleinfelder has demonstrated appropriate qualifications and experience with airport pavement engineering. A summary of Kleinfelder's qualifications and key staff are included in the following pages.

Legal Name	Kleinfelder, Inc.
Legal Form of Company	Corporation
Number of Years in Business	Established in 1961 (53 years)
Principal Office/Lab Location	5015 Shoreham Place San Diego, CA 92122
Contractor's State License	467252 California



Kleinfelder is a nationwide engineering consulting firm specializing in environmental engineering, environmental planning and permitting, geotechnical engineering, engineering geology, materials engineering and testing, pavement engineering and construction management. We have been solving complex problems for industrial, commercial and government clients since 1961. Over the years, Kleinfelder has grown into a leading southern California consulting firm with the capacity and qualified diverse staff to provide comprehensive science and engineering services. Currently, Kleinfelder is ranked 39th in *Engineering News Record's* list of top 500 design firms.

Since its inception in 1961, Kleinfelder has performed pavement engineering, evaluation and management for projects that range from local, low traffic impact roads to freeways, and airports. Kleinfelder personnel have performed various aspects of pavement related services including pavement engineering, design, evaluation, management systems, surface/subsurface investigations, forensic studies, and construction quality assurance/quality control.

Headquartered in San Diego, California, Kleinfelder has over 60 offices located throughout the United States and overseas. With nearly 2,000 personnel in regional offices, Kleinfelder is well suited to effectively perform multiple tasks under an on-call contract and to mobilize quickly to meet large-scale project requirements. In addition, Kleinfelder's regional approach to project management enables us to provide personal local attention and detail to our clients' projects. In southern California, we have offices in Long Beach, Irvine, Los Angeles, Ontario, Riverside, and San Diego. We will manage/staff this contract from our local Long Beach office.

Pavement Management Services

Kleinfelder has extensive experience in the development and implementation of pavement management systems (PMS) as a tool for planning and budgeting pavement work for predicted long-term performance. Our staff members are experienced with several PMS programs including: MicroPAVER, MTC Streetsaver, CarteGraph, GBAMS, PaverPro, and more. Kleinfelder professionals have extensive experience and expertise in PMS network development, GIS linkage, network performance analysis, life-cycle cost analysis, maintenance and rehabilitation (M&R) programs, capital improvement plan (CIP) development, and providing pavement management training for end users.

Kleinfelder has provided a wide range of pavement engineering services on projects for local municipalities throughout California in many different transportation sectors. Some recent clients include:

Ports	Cities	Counties	Airports	Rail
• Port of Long Beach • Port of Oakland • Port of San Diego	• Long Beach • Anaheim • Blythe • Carson • Indio • Rancho Mirage • Santa Ana	• Los Angeles • Orange • Riverside • San Diego • San Bernardino	• Long Beach • Los Angeles International • San Diego International • John Wayne • Ontario • Victorville	• BNSF • Union Pacific

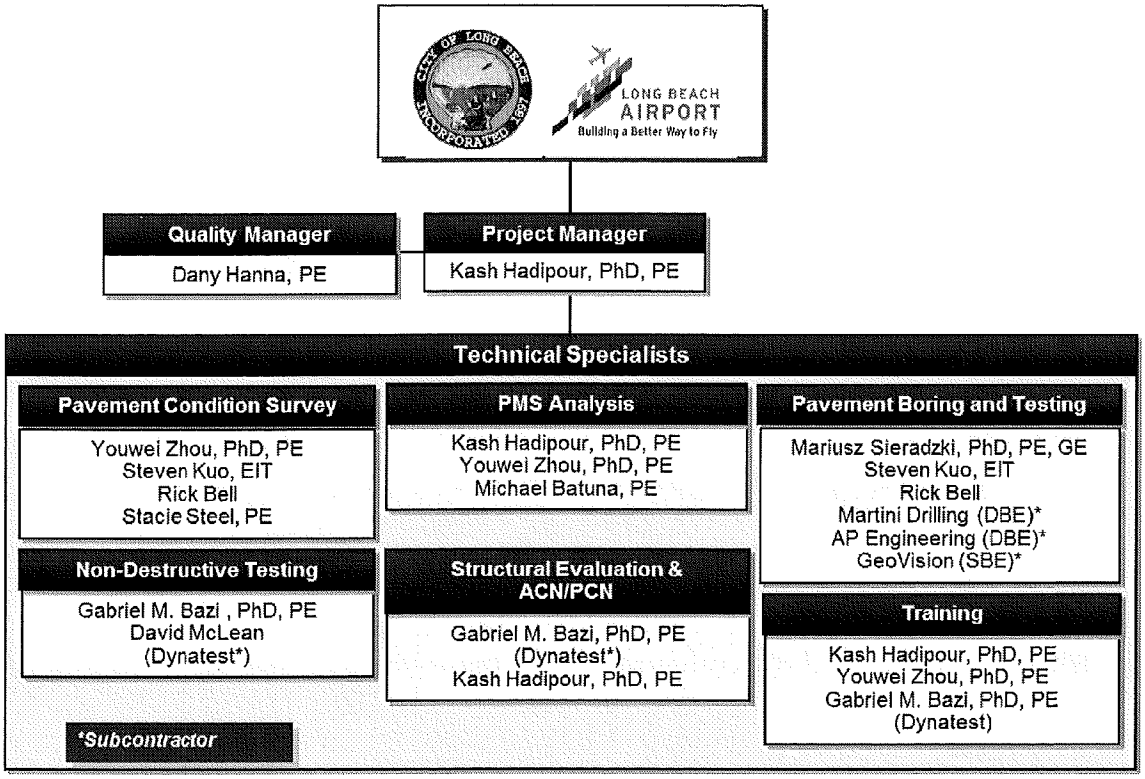
Kleinfelder has the capabilities to provide pavement management implementations. Recently we implemented a pavement management system for the County of Los Angeles Department of Public Works for five general aviation airports. This included visual observation of the pavement condition, distress types and severity levels, assignment of Pavement Condition Indices (PCI), and setup of a database using Micropaver software. Kleinfelder also provided similar services statewide for general aviation airports under purview of Caltrans.

SECTION 2: PROJECT TEAM AND ORGANIZATION CHART

Organization Chart

Kleinfelder has formed a project team with the qualifications and experience required to successfully perform the requirements of this contract. We emphasize consistency in our staffing assignments, and will strive to maintain the same personnel for the duration of the project. The *Organization Chart* provides a graphic illustration of the key members of our proposed project team, their roles and responsibilities, and how they will interact.

Kleinfelder's extensive capabilities and staff size allow us to meet tight project schedules and concurrently perform our services for multiple tasks. We have a proven record of successfully delivering numerous projects, both high and low profile in nature. The size of our firm, with multiple offices located throughout California, allows us to supplement our local staff on short notice, if needed, to meet the Airport's project needs.



Project Team

When selecting the members of a proposed Project Team, Kleinfelder first determines the expertise and skills required to meet the demands and goals identified for the project. Once these requirements were identified, we determined which of our professionals can best meet these goals. We considered each individual's background, credentials, work history, and related experience, including their histories of having worked together in the past on similar assignments. A list of our key team members and their qualifications are listed below. Detailed resumes are included in *Appendix A* of this submittal.

Project Team Member/Role

Kash Hadipour, PhD, PE: Project Manager/ /PMS Analysis/ACN/PCN/Training
BS, Civil Engineering, University of Sussex; MS, Civil Engineering, University of Sussex, PhD, Civil Engineering, University of Alberta; Professional Engineer, No.C63855, CA
Dr. Hadipour has more than 33 years of experience as a civil engineer specializing in roadway, port and airfield engineering, with particular expertise in pavement engineering and management. He has worked on numerous roadway, port and airfield pavement design, construction and management projects around the world. His projects have required close work with and for federal, state, county, city and provincial governmental agencies, including California counties and cities, airport agencies, FAA, FHWA, AASHTO, and municipal agencies. Representative experience includes:

- Project Manager for developing and implementing MicroPAVER Pavement Management System for the County of Los Angeles Department of Public Works for the five airports, California;
- Technical Reviewer for pavement condition survey and implementing MicroPAVER Pavement Management System for statewide general aviation airports under Caltrans;
- MicroPaver Trainer for 11 jurisdictions within the Coachella Valley, Coachella Valley Association of Governments (CVAG), California;
- Project Manager in charge of Pavement Evaluation and Management System for the arterial roads in the Coachella Valley, CVAG, California;
- Project Manager and Pavement Designer in charge of Pavement Evaluation, Design and Management System, City of Blythe, City of Indio, City of Carson, City of Lynwood, City of Diamond Bar, City of South Gate, California; and
- Pavement Specialist for a 3-year flexible pavement program, Caltrans Flexible Pavement Contract, California.

Dany Hanna, PE: Quality Manager
BE, Civil Engineering, Notre Dame University, Lebanon; MS, Civil Engineering, University of Nevada, Reno; Professional Engineer, No. 70996, CA
Mr. Hanna has 13 years of experience in materials and transportation engineering, specializing in the areas of pavement engineering, roadway construction, design, and related aspects of materials and geotechnical engineering. Mr. Hanna has provided pavement evaluation services and special studies for several local and county agencies in Southern California. He has been responsible for analysis and review of pavement deflection testing results with the falling weight deflectometer (FWD) and using the results in overlay design. Mr. Hanna has experience in the use of the following pavement design software: ELSYM5, ILLIPAVE and MJSlab, as well as AutoCAD. His responsibilities include project management, preparation of proposals, coordination of field and laboratory work, submittal review, engineering analyses, and report preparation for various types of projects. In addition, he supervises staff engineers and field technicians for materials testing and inspection projects. Representative experience includes:

- Pavement Engineer assisting in developing and implementing MicroPAVER pavement management system for the County of Los Angeles Airports, California;
- Project Manager for the on-call materials contract; Port of Long Beach, California;
- Quality Assurance Manager for the Taxiways Lima and Charlie reconstruction project at the Long Beach Airport; Long Beach Airport, Long Beach, California; and
- Quality Assurance Assistant Manager for the Long Beach Runway 12-30; Taxiway Kilo Phase I, II, & III at the Long Beach Airport, Long Beach, California.

Youwei Zhou, PhD, PE: Pavement Condition Survey/Training
BS, Civil Engineering, Tongji University, China; MS, Civil Engineering, Tongji University, China; PhD, Civil Engineering, University of California System : Irvine, California; Professional Engineer, No. 72384, CA
Mr. Zhou has 10 years' experience in civil engineering. His experience encompasses various aspects of pavement and geotechnical engineering, including field exploration program planning, conducting field exploration, pavement condition survey, sampling and inspection, lab testing, coordinating projects, performing routine to complex

engineering analysis, pavement management analysis, life cycle cost analysis and preparing reports and proposals. The projects he has been involved in include airport facilities, highways, walls and roadways and other transportation infrastructure. Representative experience includes:

- Project Engineer in charge of collecting data and conducting pavement condition surveys for the pavements on the east side of Pier G, Port of Long Beach, California;
- Project Engineer providing a comprehensive PMS written report and professional pavement management services for the City of Indio, California;
- Geotechnical Engineer for the pavement rehabilitation of Runway and adjacent taxiway. Staff Engineer responsible for performing field investigation, lab assignment and report writing, Hawthorne Municipal Airport, Hawthorne, California; and
- Project Engineer for the development and implementation of a pavement management system (PMS) for the County' of Los Angeles' five general aviation airports: Brackett Field, Compton/Woodley Airport, El Monte Airport, General William J. Fox Field, and Whiteman Airport.

Michael Batuna, PE: Pavement Condition Survey/PMS Analysis

MS, Geotechnical Engineering, University of Colorado; BS, Civil Engineering, Colorado State University; Professional Engineer: TX # 92147, CO # 37190

Mr. Batuna has 17 years of experience in technical and management leadership in geotechnical and pavement engineering. His expertise includes pavement engineering and distress investigation for tollway authorities, government entities, comprehensive development agreement consortium, and private facilities. He is responsible for completing the pavement engineering for four North Texas Tollway Authority (NTTA) tollway projects covering 35 miles of pavement with an estimated total construction cost of $6 billion. In addition, Mr. Batuna has also conducted studies and assisted agencies with pavement design procedures and manuals. Representative experience includes:

- Project Manager for field operations and engineering evaluations; provided pavement rehabilitation and design recommendations, San Marcos Municipal Airport, San Marcos, Texas;
- Project Manager responsible for performing evaluation on all airfield pavements for structural capacity, through non-destructive deflection testing (HWD), coring and laboratory testing data. Provided pavement rehabilitation and design recommendations by utilizing back calculation results of FWD data and remaining life analysis - Dallas Executive Airport, Dallas, Texas;
- Project Manager for field operations and engineering evaluations; provided pavement rehabilitation and design recommendations, Beauregard Regional Airport, DeRidder, Louisiana;
- Project Manager for field operations and engineering evaluations; provided pavement design and subbase/subgrade treatment recommendations, Addison Airport, Addison, Texas;
- Project Manager, Haltom City Pavement Management Implementations, Haltom City, Texas;
- Project Manager responsible for pavement engineering and subsurface investigation including embankments and slopes for Trinity Parkway Tollway, Dallas County, Texas;
- Project Manager responsible for pavement engineering, subsurface investigation and construction management oversight for President George Bush Turnpike Eastern Extension Tollway, Dallas County, Texas;
- Project Manager responsible for pavement engineering, subsurface investigation and plans and specifications for Dallas North Tollway Extension – Phase 3, Frisco, Texas; and
- Co-Author of High-Performance Pavement Design Manual for the North Texas Tollway Authority (NTTA), Plano, Texas.

Steven Kuo, EIT: Pavement Condition Survey/Pavement Boring and Testing

BS, Civil and Environmental Engineering. California State Polytechnic University, San Luis Obispo, California; MS, Civil Engineering. California State Polytechnic University, San Luis Obispo, California; Engineer-in-Training (E.I.T./F.E.), No.136243, CA

Mr. Kuo has over two years of geotechnical engineering experience. He has performed and managed several subsurface exploration programs. He is familiar with right-of-way and well permits application procedures, exploration location selection, field investigation program coordination, site reconnaissance, sample laboratory testing assignment, and project management. He has experience preparing geotechnical investigation reports and proposals, cost estimates, checking grading and foundation plans, performing slope stability and settlement analyses, and designing retaining structures. Representative experience includes:

- Performed geotechnical investigation for reconstruction of Runway 3/21 at Southern California Logistics Airport;
- Performed pavement and geotechnical investigation and analysis for the West Aircraft Maintenance Area at Los Angeles International Airport;
- Performed environmental field investigation at Qantas site at Los Angeles International Airport;
- Responsible for obtaining DEH permits for upcoming geotechnical investigation for the Mid-Coast Corridor Transit, San Diego, California; and
- Performed geotechnical exploration, construction observation of tie-back anchor walls, and engineering calculations for retaining wall design evaluation and slope stability analysis for the I-405 Sepulveda Pass HOV Widening Design Built Project, Los Angeles, California.

Stacie Steel, PE: PMS Analysis
AA, Business. Green River Community College, Washington; BS, Civil & Environmental Engineering. University of Washington, Washington; Professional Engineer, No.PE-43366, CO, No.84581PE, OR
Ms. Steel offers pavement management experience gained working at challenging sites in Colorado, Washington, Oregon, Arizona, Nevada, Wyoming, Nebraska and West Virginia. Her experience includes highways, roads, bridges, light rail, public and private projects in remote, urban, industrial and government areas, subject to various environmental conditions. Her clients include State Departments of Transportation, Municipalities, regional governing entities, contractors, engineering firms, owner representatives, site developers and private owners. Ms. Steel demonstrates the ability to quickly understand the standards of practice and technical requirements associated with pavement management. Representative experience includes:

- Led visual data collection efforts for the Caltrans Airport Pavement Management System contract which included 85 airports across California;
- Performed pavement management optimization for the City of San Antonio roadway network;
- Identified the distresses and select core locations and assisted with assigning testing and the evaluation of the results, City of Murray, Utah;
- Evaluated the traffic, subgrade, and construction requirements to design flexible and rigid pavements for mainlanes, frontage roads, ramps and intersections. Alternative Technical Concepts were designed and proposed to increase the schedule and save money, Dallas-Ft. Worth Connector, Tarrant County, Texas; and
- Project manager for non-destructive testing services on all five segments of the Phoenix Light Rail, Arizona.

Mariusz Sieradzki, PhD, PE, GE: Pavement Boring and Testing
BS, Civil Engineering. Technical University of Gdansk, Poland; PhD, Civil Engineering. Technical University of Gdansk, Poland; MS, Civil Engineering. Technical University of Gdansk, Poland; Professional Engineer, No. C56925; Geotechnical Engineer, No.2864, CA
Dr. Sieradzki has over 33 years of extensive experience in soil mechanics and foundation engineering, including design, testing and analysis. Dr. Sieradzki is involved in various geotechnical/pavement design and construction projects, including: bridges, roads and highways, railways, airports, new landfill development, ports and harbors, subgrade improvements, and commercial/industrial development. His responsibilities include project management, evaluation of geotechnical data and reviewing engineering analyses related to foundation design, subsurface soil conditions, and stability of soil under static and seismic loads. Representative experience includes:

- Principal Engineer for preliminary geotechnical/geologic site assessment at the proposed Consolidated Rent–A Car (ConRAC) development within the LOT C and the Manchester Square sites, Los Angeles International Airport (LAX), Los Angeles, California;
- Principal Engineer for geotechnical and pavement engineering for the following projects at Long Beach Airport, Long Beach, California: proposed Terminal Area Improvements project; Air Carrier Ramp reconstruction; Taxiway J2 Extension and Taxiway D upgrades;
- Project Manager for geotechnical and pavement engineering services for cargo aircraft apron project, 3000 lineal feet runway extension and approximately 10,000 lineal feet runway upgrades at Southern California Logistics Airport, Victorville, California;
- Project Engineer for geotechnical study related to design and construction of access ways, fill embankments and driven piles at the John Wayne Airport, Costa Mesa, California;
- Project Engineer for geotechnical investigation and evaluation of soil conditions along the proposed runway and taxiway., Santa Monica Airport, Santa Monica, California;
- Project Manager for evaluation of subgrade and pavement conditions, Thermal Airport, Thermal, Riverside County, California; and
- Project Manager during design and construction of runway extension and improvements, Chino Airport, San Bernardino County California.

Rick Bell: Pavement Boring and Testing/Pavement Condition Survey
NICET Engineering Technician, Materials Testing Asphalt II, Materials Testing Concrete I, Materials Testing Soils II and Engineering Technology/Laboratory I; Nuclear Gauge/Troxler; OSHA 40-Hour HAZWOPER; American Concrete Institute (ACI)- Field Testing Technician, Level II; National Ready Mix Concrete Association (NRMA), 1984
Mr. Bell has more than 32 years of experience with field and laboratory quality assurance/quality control, including construction inspection; shop fabrication inspection; materials testing, batch plant inspection; and office engineering. His duties include inspection and materials testing for various aspects of roadway, highway, bridge, railway and airport projects; including pavement, drainage, structures, subgrades, and embankments. His materials testing experience includes soils, aggregate, asphalt and concrete, and he is experienced with various aspects of inspection, including implementation of project plans and specifications, documentation, and processing of change orders and pay estimates during the construction process. He is knowledgeable with the requirements of the FHWA, AASHTO and ASTM, and is experienced with the design of pavements, and sampling and field testing according to FAA Standards and Caltrans specifications. Representative experience includes:

- Lead Technician in charge of collecting data and conducting pavement condition surveys for the pavements on the east side of Pier G, Long Beach, California;

- Lead Technician (Asphalt/Caltrans) for a multi-year contract to provide on-call testing and inspection services for public works projects; Port of Long Beach Materials Testing, Long Beach, California;
- Lead Technician for pavement survey analyses, visual observation of existing asphalt, information plotting and data logging; Airport Pavement Management Surveys, Caltrans, Numerous Locations throughout California;
- Quality Assurance Manager for on-call materials sampling and testing for highway and pavement rehabilitation projects throughout Riverside and San Bernardino Counties; District 8, Department of Transportation, San Bernardino, California; and
- Lead Inspector for 18-mile pavement rehabilitation project; Highway 58 Pavement Rehabilitation, Caltrans District 8.

Gabriel M. Bazi , PhD, PE (Dynatest*): Non-Destructive Testing/ACN/PCN/Training

PhD, Civil Engineering, University of Nevada, Reno; MS, Civil Engineering, University of Nevada, Reno; MS, Civil Engineering, University of Balamand, Lebanon; BS, Civil Engineering, University of Balamand, Lebanon; Professional Engineer, CA: 72700; AK: 13204

Dr. Bazi has been actively involved in pavement and materials research, consulting and teaching in the USA since 2001. Since joining Dynatest in 2007, Dr. Bazi has focused on pavement evaluation involving nondestructive testing (NDT) for road and airfield pavements and has completed numerous road and airport projects. He is also involved in developing and teaching mechanistic pavement design and deflection back calculation workshops for Dynatest in a number of states and countries. Dr. Bazi also managed the functional and structural evaluation for several airports including profiling, skid resistance, F/HWD testing, back calculation, and PCN and load rating evaluation. Representative experience includes:

- Project Manager for HWD testing on all airside operations areas was performed at Los Angeles International Airport (LAX), Van Nuys Airport (VNY) and Ontario Airport (ONT);
- Project Manager for structural evaluation & PCN (HWD testing completed), all runways (RWYs 13L/31R, 13R/31L, 17C/35C, 17L/35R, 17R/35L, 18L/36R & 18R/36L), Dallas-Fort Worth International Airport (DFW);
- Project Manager for structural evaluation & PCN (HWD testing completed), RWY 16/34, and TWYs A, B, C, D, E & F, Arlington Municipal Airport (GKY);
- Project Manager for structural evaluation & PCN (HWD testing completed), RWY 18/36, Denton Municipal Airport (DTO);
- Project Manager for nondestructive deflection testing and analysis on Runway 7/25 at Wiley Post/Will Rogers Barrow Airport, Alaska; and
- Project Manager for nondestructive deflection testing and analysis on Runway 4/22 and 11/29 at Winslow-Lindbergh Regional Airport, Winslow, Arizona.

David McLean (Dynatest*): Non-Destructive Testing

State of Minnesota - High School, 1959

Mr. McLean is based in Dynatest's California office and is responsible for FWD/HWD and profile testing performed nationwide. He routinely tests both asphalt concrete (AC) and Portland cement concrete (PCC) pavements on both airfields and roadways. Mr. McLean has performed tests using both the Dynatest FWD and HWD units. He has also assisted in several PAVER pavement condition index (PCI) surveys for both the U.S. Army and Navy at various military bases throughout the country. His versatility is evident in his ability to accomplish field equipment repairs and "stay on schedule". Representative experience includes:

- HWD Operator for nondestructive deflection testing and analysis on Runway 7/25 at Wiley Post/Will Rogers Barrow Airport, Alaska; and
- HWD Operator for HWD testing on all airside operations areas was performed at Los Angeles International Airport (LAX), Van Nuys Airport (VNY) and Ontario Airport (ONT).

Subconsultants

As we stated in our original proposal, Kleinfelder is committed to using Disadvantaged Business Enterprise (DBE) businesses when contracting our projects, whether they are project goals or not. Kleinfelder is committed to providing equal opportunity outreach to qualified firms to participate in this contract. We are familiar with the City's outreach requirements and it is our corporate policy to give preference to the use of qualified, socially, and economically disadvantaged subconsultants wherever possible. We have selected the following firms to provide specialized services to this contract:

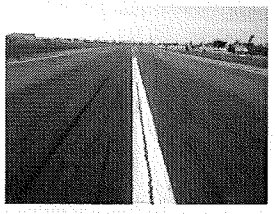
Subconsultant Name	Role
Martini Drilling Corporation (DBE). Established in 2000, Martini has become the one stop solution for geotechnical and environmental drilling. Martini has been an integral part of the infrastructure growth in southern California for over 10 years, its core business is environmental and geotechnical drilling, and have been providing "on-call" and project-based drilling services to municipal and private clients throughout southern California. Their current equipment permits Martini to operate up to 3 Hollow Stem Auger drilling crews and 1 Geoprobe or AirVac crews simultaneously.	Perform field work consisting of coring of the airfield pavements, and geotechnical drilling and sampling of the base, subbase and subgrade material below the pavements.
AP Engineering and Testing, Inc. (DBE). AP Engineering and Testing, Inc. is a California Corporation established on January 9, 1998. Their office is located at 2607 Pomona Boulevard, in the city of Pomona, California. They are an independent laboratory that specializes in geotechnical and materials testing for the geotechnical engineering, environmental engineering and construction industries. The firm has completed numerous geotechnical engineering and testing projects for ports, grade separation, highway widening, buildings, retaining structures, soundwalls, bridges, street improvement and rehabilitation, levees and dams, and landfills. In addition to testing services, the company has also performed pavement inspection, analysis and design of street rehabilitation.	Perform select laboratory testing on base, subbase and subgrade material obtained from the soil borings.
Dynatest is a world-renowned pavement consulting engineering firm. The firm has the staff, expertise, and state-of-the-art equipment required to provide structural evaluation services. Dynatest has completed hundreds of similar projects in the past. In addition to the structural evaluation, Dynatest is capable of offering additional services such as runway friction testing, roughness measurements, condition surveys (semi-automated and manual) and pavement management systems setup.	Perform non-destructive deflection testing (HWD) on airfield pavements and backcalculate layer moduli to be used in determining PCN values and remaining life analysis.
GEOVision, Inc. (SBE). GEOVision, a small California Corporation, offers state-of-the-art geophysical services using the most modern techniques and instrumentation to provide cost effective solutions to engineering and environmental problems. GEOVision offers a full range of high-quality geophysical data acquisition, analysis, and imaging services. GEOVision specializes in non-invasive methods of investigation for engineering, environmental, groundwater, mining, and archaeological applications.	Perform geophysical services (as required) to provide information to supplement data obtained from pavement coring and soil borings.

SECTION 3: RELEVANT PROJECT EXPERIENCE

Following are a few projects completed by our staff, both while working for Kleinfelder and before joining the firm. Please feel free to contact our references to obtain first-hand evidence of our qualifications, responsiveness to clients and depth of experience.

Reference
Mr. Patrick Di Leva, Airport Project Coordinator
County of Los Angeles
Department of Public Works
Aviation Division
900 South Fremont Avenue,
A-9 East, Alhambra, CA 91803
(626) 300-4602

Dates of Service
October 1, 2010 to September 30, 2012



Compton Airport

Brackett Field, Whiteman Airport, Fox Airfield, Compton/Woodley Airport, and El Monte Airport Pavement Management Systems

County of Los Angeles
Various Locations, California

Kleinfelder was retained by the County of Los Angeles Department of Public Works Aviation Division to assist the County with the preparation of a grant application to the FAA for maintenance of the County's five general aviation airports: Brackett Field, Compton/Woodley Airport, El Monte Airport, General William J. Fox Field, and Whiteman Airport. The objective of the project was to develop and implement a pavement management system (PMS) for the County for five general aviation airports. The implemented pavement management system was capable of developing strategic goals, inventorying and evaluating the existing airfield pavement network, quantitatively measuring condition and performance, and developing maintenance and rehabilitation requirements and budget needs.

Kleinfelder's scope of work included:

- **Pavement Management System Selection**. Kleinfelder examined the suitability of the existing PMS programs and recommend the optimum software to be used for this project.
- **Preliminary Research and Investigation**. The Kleinfelder team researched and reviewed the existing pavement records of County airports in order to establish a pavement network inventory of the existing taxiways and runways that contains construction histories, pavement ages, cross-sections, maintenance and rehabilitation activities, and geometric information.
- **Develop Pavement Inventory**. Kleinfelder developed a pavement inventory for the County based on the information collected during the research phase. The entire airfield pavement network within the limits of the five County airports comprises a total pavement area of greater than 16.1 million square feet.
- **Survey Airfield Pavement Condition**. Kleinfelder performed a visual Pavement Condition Index (PCI) distress identification survey to assess the pavement surface condition.
- **Determine Pavement Condition Index (PCI).** Kleinfelder reviewed the findings of the pavement condition inspections and input the data into the pavement management computer program.
- **Maintenance and Rehabilitation Plan - Capital Improvement Program**. Kleinfelder used unit costs to identify all the pavement maintenance and rehabilitation (M&R) needs for the airport pavement network. Once the M&R needs were identified, a multi-year Capital Improvement program was developed that included the M&R plan to determine the yearly budgets required to bring the local airport pavements to an acceptable PCI level.
- **GIS Linkage**. Kleinfelder staff implemented a Pavement-GIS link between the selected PMS software and the County's GIS system.
- **Reports and Presentation**. Kleinfelder provided the County with comprehensive PMS written reports describing the tasks performed and the results of the pavement inspections, the PMS program, and recommendations for future updates and for continuing use of the program.
- **In-House Training**. Kleinfelder provided training to cover PMS overview, pavement evaluation, software utilization, data entry, analysis and reporting.

Update of Pavement Management Surveys for Airports Statewide

California Department of Transportation
Division of Aeronautics
Various Locations, California

Reference
Mr. Lee Provost, PE, MS
California Department of Transportation
Division of Aeronautics
1120 N. Street, MS-40
Sacramento, CA 95814
(916) 654-3775
Dates of Service
April 2006 to April 2007

Kleinfelder was selected by Caltrans to collect data and conduct visual pavement condition surveys to update the previous Airport Pavement Management System (APMS) surveys for the State of California, Department of Transportation, Division of Aeronautics, first accomplished in 1987/88 and updated in 1994/95. The pavement management process includes updating the system inventory, conducting a condition assessment of the pavement, data analysis, and development of pavement maintenance and rehabilitation strategy recommendations. In addition, airport layout drawings for each airport surveyed were prepared. Of the approximately 200 airports in the California system, Kleinfelder was tasked to survey 50 airports. The pavement management system development was conducted using the Micro PAVER pavement management software developed by the US Army Corps of Engineers. Kleinfelder developed and provided to Caltrans a performance report for each airport.

MicroPAVER Pavement Management System

City of Blythe
Blythe, California

Reference
Mr. Jim Rodkey, Director of Public Works
City of Blythe
440 S. Main Street, Blythe, CA 92225
(760) 922-6611
Dates of Service
May 2007 to October 2008

Kleinfelder implemented a pavement management program for the City of Blythe. The work included the review of construction and design records to obtain pavement condition histories, cross sections, construction materials, maintenance and rehabilitation performed through the years. The pavement network was identified and pavements were divided into branches and sections, based on pavement use, rank, traffic, cross section, age and other factors. A visual condition inspection was then performed and the PCI for each pavement section was calculated. At least one sample in each City block was visually inspected. Knowing the pavement conditions, a 5-year maintenance and rehabilitation plan was developed using appropriate construction unit costs and estimated available budgets for the City. The 5-year plan and a description of the work performed were summarized in a report and presented to the City. Kleinfelder linked the pavement database to the City's existing GIS so the pavement data could be viewed graphically. Kleinfelder also provided training on the MicroPAVER program to the City personnel.

MicroPAVER Pavement Management System Implementation

City of Indio - Dept. of Public Works
Indio, California

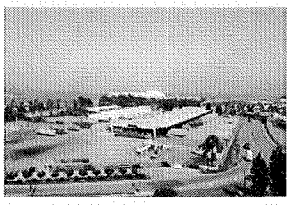
Reference
Mr. Tom Rafferty, Principal Engineer, Public Works
City of Indio - Dept. of Public Works
100 Civic Center Mall, Indio, CA 92202
(760) 391-4017
Dates of Service
November 1, 2006 to October 25, 2008

Kleinfelder implemented the MicroPAVER pavement management program for all City of Indio streets. Tasks included:

- MicroPAVER implementation
- Records review

- Pavement network identification for 280 centerline roadway miles
- Visual inspection of entire City at 10% area coverage
- Data input
- PCI calculation
- Maintenance policies
- Local costs
- Five-year maintenance and rehabilitation plan
- Report preparation
- Training

Reference
Mr. Nicholas Kozma
Construction Management Section
Port of Long Beach
925 Harbor Plaza Long Beach, CA 90802
(562) 590-4172
Dates of Service
June 2006 to October 2007



Pier G Facilities Assessment (East and West Side)

Port of Long Beach
Long Beach, California

The purpose of the project was to collect data and conduct pavement condition surveys on the east and west sides of Pier G at the Port of Long Beach, California in order to identify the overall condition of the pavement area for the development of possible maintenance and rehabilitation alternatives for pavement improvement.

Kleinfelder staff conducted data collection and analysis of the pavement management study. The project included data collection, GIS linkage, and delivery of a pavement condition report. Kleinfelder conducted the visual pavement survey using MicroPAVER methodologies developed by the US Army Corps of Engineers. Kleinfelder collected global positioning data for the GIS linkage using hand-held units. Kleinfelder was able to use tools and methods that allowed for safe and efficient collection of data during normal port operations.

Reference
Mr. Allyn Waggle
Coachella Valley Association of Governments
73-710 Fred Waring Drive, Suite 200 Palm Desert, CA 92260
(760) 346-1127
Dates of Service
October 2006 to March 2007

Pavement Evaluation and Management System Training

Coachella Valley Association of Governments
Palm Desert, California

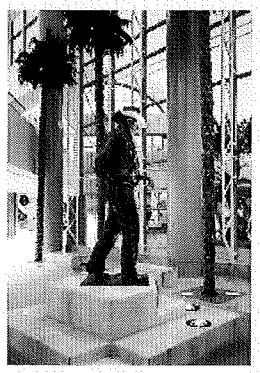
Kleinfelder, led by Dr. Hadipour, provided MicroPAVER pavement management system training to municipalities within CVAG jurisdictions. The training covered the following topics:

- Reviewing pavement condition survey and assessment methods including the pavement condition index (PCI) and identifying pavement distress types and severity levels
- Performing pavement condition analysis
- Teaching the use of prediction models for pavement condition analysis and budget planning
- Developing network-level work plans and analyzing consequences of different budget scenarios
- Using GIS to review pavement inventory and condition
- Hands-on experience in workshops using MicroPAVER for Windows.

Reference
Mr. William D. Mohler, A-E Project Manager, (949) 252-5129 or Mr. Eric Mimosa, Airport Engineer, 949-252-6036

John Wayne Airport, Eddie Martin Administration Building, 3160 Airway Avenue, Costa Mesa, CA 92626

Dates of Service
September 2000 - 2006



On-Call Geotechnical/Materials Testing Services for John Wayne Airport

John Wayne Airport
Costa Mesa, California

Kleinfelder was selected as John Wayne Airport's On-Call Materials Inspection and Testing Consultant for various facility maintenance and improvement projects for six years. As part of the contract, Kleinfelder provided geotechnical design, soil observation and testing services, inspection and testing during concrete and asphalt concrete paving, special inspection of concrete placement, welding, installation and pull testing of embedded anchors, evaluation of subsidence areas, performance of geophysical surveys, performance of air monitoring during demolition, and other construction project support. Throughout the duration of the contract, Kleinfelder has executed the following task orders including:

- Materials testing and inspection for reconstruction of the Transient Apron;
- Update of Pavement Management System;
- Geotechnical design and materials testing and inspection services for the Explosive Magazine Facility;
- Soils observation and materials testing and inspection services for the Canine Facility;
- Materials testing and inspection for construction of Fire Station #33;
- Materials testing and inspection for installation of Terminal Security Checkpoint;
- Geophysical survey for Fire Station #33 Sewer Line;
- Geotechnical, environmental and deputy inspection services for Baggage Screening Facility;
- Soils observation and testing services during paving of former Fire Station #27 parking lot;
- Geophysical survey for the Perimeter Access Road; and
- Materials testing and inspection services during paving related to the T-Hangar Parking Area.

Kleinfelder's Project Manager and Operations Manager worked directly with the various JWA Project Managers to efficiently staff the various projects and perform the required inspections with as little as four hours' notice. Kleinfelder technicians and inspectors worked during both daytime and nighttime shifts as required by JWA based on the location of the work

Reference
Mr. Mahmoud Anjomshooa
City of South Gate
8650 California Avenue
South Gate, CA 90280
(323) 563-9578

Dates of Service
August 2004

MicroPAVER Pavement Management System

City of South Gate
South Gate, California

While with another firm, Dr. Kash Hadipour implemented a MicroPAVER pavement management program for all the City of South Gate streets and alleys. Tasks included:

- MicroPAVER implementation
- Total of 115 miles
- Records review
- Pavement network identification
- Visual inspection of entire City at 10% area coverage
- Data input
- PCI calculation
- Maintenance policies

- Local costs
- GIS interface
- Five-year maintenance and rehabilitation plan
- Report preparation
- Training

Subconsultant Experience

The following projects illustrate the project experience of our subconsultant, Dynatest.

Los Angeles World Airports HWD Testing

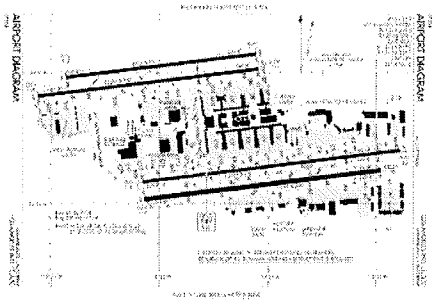
Los Angeles, Van Nuys and Ontario, California

Reference
Ms. Barbara Urban,
Touchdown Engineering
805 649-5099

Dates of Service
2011

ONT Runway 8L Station 18+00 (10-ft left)

HWD testing on all airside operations areas was performed at Los Angeles International Airport (LAX), Van Nuys Airport (VNY) and Ontario Airport (ONT). The HWD data was used by the client to evaluate the pavement structural bearing capacity, which is used to complement the recommendations by the Pavement Management System.



A total of about 9500, 2200 and 2500 HWD tests were performed at LAX, VNY and ONT airports, respectively covering all runways, taxiways, aprons and gates. The airport features at LAX and ONT consisted of Portland Cement Concrete (PCC) surfaces, which is similar to Arlington Municipal Airport, where the slab centers and joints were tested. The joints testing provide an indication of the load transfer efficiency.

In addition to the HWD testing, a limited survey was performed during HWD testing through digital photographs that are automatically collected at 25-ft interval. The photos show the condition of the pavement during HWD testing.

Wiley Post/Will Rogers Barrow Airport Nondestructive Deflection Testing and Analysis

Barrow, Alaska

Reference
Mr. Bruce T Dianoski
Alaska DOT&PF
907 451-2227

Dates of Service
2012

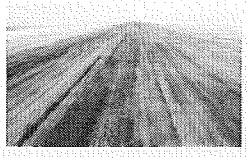


Photo from the 12-ft Right Test Line at Approximately Station 26+50

Dynatest performed nondestructive deflection testing and analysis on Runway 7/25 at Wiley Post/Will Rogers Barrow Airport. The objectives of this project were to determine the structural capacity, Pavement Classification Number (PCN) and load rating of Runway 7/25 for a design period of twenty years subject to the proposed aircraft traffic mix.

HWD testing was performed by Dynatest in October 2011 and by Alaska Department of Transportation and Public Facilities (ADPT&PF) in September 2009.

The Dynatest HWD was folded and shipped by air. The Dynatest testing was performed on six test lines for a total of 320 test points.

The analysis was performed using the ELMOD (Evaluation of Layer Moduli and Overlay Design) software considering a 20-year analysis period. The analysis was also verified using the Federal Aviation Administration (FAA) FAARFIELD and COMFAA 3.0 software. A newly developed mechanistic-empirical (ME) procedure was used for the PCN calculation.

The backcalculated layer moduli from the two testing periods were very helpful in the determination of the unbound layers seasonal modular ratios. Asphalt concrete cores were sampled from the runway and tested for dynamic modulus in accordance with AASHTO PP62; the laboratory test results were used to determine the temperature sensitivity of the P-401 mix.

An asphalt concrete overlay was recommended and the PCN and load rating were reported for the existing runway and after placement of the overlay.

Reference
Mr. Jeffrey D. May
(JMay@mbakercorp.com),
Michael Baker Jr., Inc., Tel +1
228 818-2839

Trent Lott International Airport

Moss Point, Missouri

Dynatest performed nondestructive deflection testing and structural analysis on Runway 17/35 at Trent Lott International Airport. The objective of this project was to determine the overlay required for a design aircraft mix and to perform a PCN analysis using the ELMOD software. Analysis was also performed using the FAA FAARFIELD and COMFAA software.

Reference
Mr. Armando De La Rocha
(armando.dlr@wt-us.com),
Western Technologies, Inc. +1
602 437-3737

Winslow-Lindbergh Regional Airport

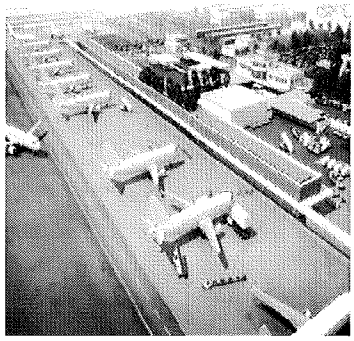
Winslow, Arizona

Dynatest performed nondestructive deflection testing and analysis on Runway 4/22 and 11/29 at Winslow-Lindbergh Regional Airport. The objective of this project was to determine the overlay required for a design aircraft mix using the ELMOD software.

SECTION 4: PROJECT EXECUTION PLAN

Project Description

The Long Beach Airport (LGB) is a public airport owned by the City of Long Beach in Los Angeles County, California. The Airport was formerly known as Daugherty Field. Currently, the Airport is categorized as a primary commercial service airport. LGB is the west coast hub for JetBlue Airways which catered to the bulk of the 1.45 million passengers travel per year as reported in 2010. The Airport also serves air cargo carriers for FedEx and UPS. At the end of 2010, the airport had about 330,000 aircraft operation with an average of 900 per day consisting of 87% general aviation, 10% scheduled commercial, 3% air taxi and <1% military. The Airport consists of five runways which include Runway 12-30 (10,000 lf.), Runway 7L-25R (6,192 lf.), Runway 7R-25L (5,423 lf.), Runway 16R/34L (3,975 lf.) and Runway 16L/34R (4,470 lf.). The runway surface consists of Asphalt pavement.



Project Objectives

The objective of the proposed project is to develop and update the Long Beach Airport Pavement Maintenance and Management System (PMMS) for the airside Airport pavements in accordance with FAA Advisory Circular (AC) 150/5380-7A *Airport Pavement Management Program*. The pavement condition survey to identify pavement distresses will be conducted according to ASTM D5340-12 *Standard Test Method for Airport Pavement Condition Survey*. The implemented pavement management system will be capable of developing strategic goals, inventorying and evaluating the existing airfield pavement network (runways, taxiways, Air Carrier ramp and the perimeter road), quantitatively measuring condition and performance, and developing maintenance and rehabilitation requirements and budget needs.

In addition to the PMMS update, the Airport requested a structural pavement evaluation through non-destructive testing in accordance to FAA AC 150/5370-11B *Use of Nondestructive Testing in the Evaluation of Airport Pavements* for Runway 7L-25R, Runway 7R-25L and Runway 12-30. The results will be used to develop Aircraft Classification Number – Pavement Classification Number (ACN-PCN) in accordance to FAA AC 150/5335-5C *Standardized Method of Reporting Airport Pavement Strength* – PCN. The information gathered from the record review, field condition survey and testing, including laboratory test results will be summarized and used in the analysis to determine the structural capacity of the existing pavement in accordance with FAA AC 150/5320-6E *Airport Pavement Design and Evaluation*.

A PMMS program is a tool that provides a way to schedule and plan maintenance and rehabilitation. Typically, a PMMS provides the following:

• Pavement Inventory • Pavement Performance Models • Multi-Year Maintenance and Rehabilitation Planning Based on Available Budgets • Additional Fields for Other Features • Ability to Combine or Divide Pavement Section	• Pavement Condition Reports • Maintenance and Rehabilitation Needs • Multi-Year M&R Planning Based on a Desired Minimum Network Condition Level • Priority Table • Database link to GIS/Mapping Capabilities

A pavement structural capacity evaluation program typically encompasses the following:

• Non-destructive deflection testing (HWD) • Pavement coring • Geotechnical soil borings and sampling • Geotechnical laboratory testing	• Pavement and subgrade moduli • ACN and PCN values • Remaining life analysis • Rehabilitation/reconstruction areas

Project Execution Plan

The success of this project relies on working in conjunction with the Airport staff to assure the final project meets or exceeds the Airport's expectations. During the kick-off meeting, we will review the Airport's existing inventory information sources and associated documentation with the Airport in order to integrate salient requirements into our existing data collection and quality control manuals, thereby saving time and money. Using information gathered during the project kick-off meeting, Kleinfelder will prepare and finalize a detailed workscope, schedule, and budget plan for the Airport to review and approve before any field data collection begins.

"Kleinfelder has set the new standard for professionalism in delivering services to the Airport."
Mr. Abrahim Barhoumi,
AB Engineering, Inc.
Re: San Diego County Regional Airport Authority
Project Management

We have prepared the following project execution plan for the successful execution of the project based on the requested items identified in the RFQ No. AP13-030 dated May 23, 2014. The project scope of work by task includes:

TASK I. Pavement Maintenance and Management System Update

Kleinfelder will implement a pavement management system in accordance with FAA AC 150/5380-7A *Airport Pavement Management Program* utilizing MicroPAVER 6.5.7 pavement management software. The pavement maintenance and management system implementation will include developing strategic goals, updating inventory and evaluating the existing airfield pavement network (runways, taxiways, Air Carrier ramp and the perimeter road), measuring condition and performance, developing maintenance and rehabilitation requirements and budget needs, and mapping of the airfield pavements. Kleinfelder will customize the Airport PMMS to more accurately reflect the conditions and policies under which the Long Beach Airport operates. The customization will include updating database fields, refining pavement performance models, updating prioritization guidelines, maintenance and rehabilitation (M&R) policies, and unit cost information for maintenance and rehabilitation actions.

Subtask A. Updating the existing MicroPAVER database. The Kleinfelder team will research, collect and review the existing pavement records of the airport in order to update the pavement network inventory of the existing facilities that contains construction histories, layer thicknesses, material types, pavement ages, cross-sections, maintenance and rehabilitation activities, and geometric information. At this stage, the MicroPaver database will have all latest maintenance, rehabilitation and reconstruction history. The review of inventory data will be conducted in consultation with Airport staff. If any discrepancies in the data sets of the airport are found or identified as missing, Kleinfelder will discuss them with the airport for further direction.

Subtask B. Updating branch, section and sample unit identification map. Kleinfelder will develop a pavement inventory for the Airport based on the information collected during the research phase. We will meet with the Airport staff to verify the collected information and concur with their recommendations. All the data collected will be summarized and input into the Airport's PMMS database.

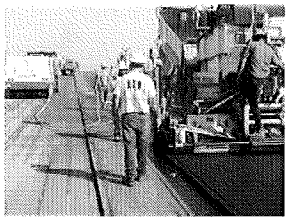
The pavement inventory will include pavements and section data such as:

• Network name and ID number	• Functional Classification or Pavement Rank
• Branch name and ID	• Last construction date
• Branch use (Runway, Apron, Taxiway)	• Section coordinates
• Pavement section length, width, area	• Surface type

An inventory report will then be generated from the pavement management program. An inventory map will be developed and submitted to the Airport for future use.

Subtask C. Visually survey airfield pavement condition. Kleinfelder will perform a visual Pavement Condition Index (PCI) distress identification survey to assess the pavement surface condition including

paved shoulders and perimeter road. The pavement condition assessment is one of the primary decision variables in any pavement management program. Pavement condition inspections provide the functional condition of the pavement surface, since most problems within a pavement structure will eventually reflect to the pavement surface.



To establish a strong basis for this implementation of a pavement management system, Kleinfelder will perform visual pavement condition surveys in accordance with ASTM D5340-12 (Standard Test Method for Airport Pavement Condition Index Surveys) which uses the Pavement Condition Index (PCI) methodology. The PCI methodology is a visual pavement distress survey procedure that identifies pavement distresses, severity and extents; and uses standard deduct curves to calculate PCIs. The PCI is a rating that ranges from 100 for a brand new pavement to zero for a totally failed pavement. The PCI is an internationally recognized indicator of apparent structural condition and functional condition, and it is being recognized as the most common means to rate and communicate pavement conditions throughout the United States and abroad.

Safety while operating in an airport environment is a vital concern. The Kleinfelder Team understands the safety protocols and procedures for working in an active airfield environment. All inspection teams will be outfitted with the proper vehicle marking, lighting, and radio equipment. The teams will work with the airport to coordinate access to the field. If an airport escort is not provided or required for the inspection team, they are capable of operating on the airfield and communicating with ATCT personnel to gain access to all areas identified for inspection. Airport can rest assured that the Kleinfelder inspection teams have the experience and knowledge to operate on all project airports in a safe and appropriate manner.

During the PCI survey, visible signs of deterioration within a selected sample unit are recorded and analyzed in accordance with *FAA AC 150/5380-6B* and *ASTM D5340-12*. Additionally, inspection crews will make note of any non-quantifiable pavement deterioration for consideration in determining an overall pavement condition. These may be comprised of pavement distresses not severe enough to record at the time of inspection or defects not identified in the procedures as distresses, such as slippage in a pavement's surface without the presence of cracking. Visual verification of existing pavement inventory and pavement condition assessments will be conducted at each site.

While conducting the PCI surveys, the inspection teams will use pen-based handheld computers to directly enter distress data into the pavement management program. The use of these computers significantly accelerates the processing of the collected data and also increases data accuracy because of the built-in error-checking capabilities. One further advantage of using this technology is that processed PCI data become immediately available for analysis upon completion of the pavement inspection. In addition to the collection of PCI data using handheld computers, Kleinfelder will use GPS to identify the centroid of each sample unit inspected as well as the corners of all runways surveyed. The Team's experience in the PCI procedure and utilization of technology will facilitate the safe, accurate, and cost-effective completion of the PCI surveys.

Kleinfelder will perform the pavement condition survey on all identified pavement sections with close coordination with airport personnel. The Kleinfelder team will review the pavement inventory with airport staff and confirm the number of sections to be analyzed. Dr. Hadipour, PE will supervise all operations, review all completed data, prepare and sign the final reports, and facilitate the work. Kleinfelder will use experienced engineers and technicians to complete the pavement condition surveys within the specified timeframe. Our extensive experience in pavement condition surveys has shown that a two-person crew is most effective. Two-person crews improve safety and allow inspectors to divide responsibilities, optimize schedules, discuss unusual situations, and keep better track of distressed areas.

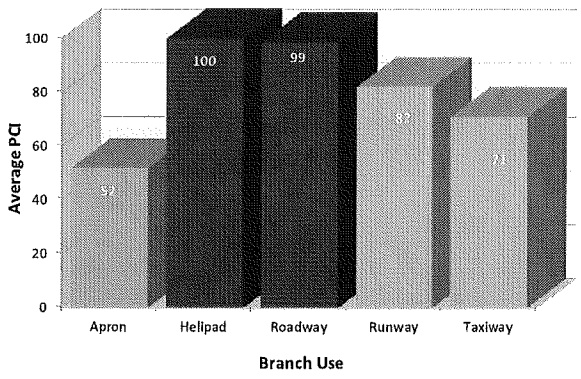
Safety is always of great concern for Kleinfelder. Pavement inspectors will have periodic meetings to discuss safety issues and address any potential safety problems.

Subtask D. Import previous MicroPAVER database into MicroPAVER 6.5.7 and run error check. The existing MicroPaver database will be converted to the latest version of MicroPaver 6.5.7. Database Verification Tools will be used to check for errors after importing the data to the latest version of MicroPaver. As a first level of QA, the overall Pavement Condition Index (PCI) values for the historic data will be run after the data is imported to the latest MicroPAVER software system to confirm that consistency is achieved. The goal in this aspect of the QA is to ensure that anomalies are identified and can be explained or corrected. The PCI serves as a quick, effective way to review overall network health and also as a QA tool.

Subtask E. Enter new condition survey data into MicroPAVER database. This task involves the update and the upload of the condition data to the airport's MicroPAVER database. All the data collected during the pavement condition inspections will be double checked and reviewed by Kleinfelder engineers and quality review manager. Kleinfelder will upload the data to the airport's MicroPAVER software and calculate a PCI for each pavement section. The data entered will be verified through a process of basic data entry and verification checks followed by "reality" checks. The "reality" checks consist of a review of items such as last construction dates versus pavement condition, the standard deviation of the PCI values of the sample units within each section, and the change in PCI since the pavements were last inspected.

Subtask F. Update family curves for functional condition prediction. The family curves for pavement condition prediction will be updated using the most current PCI data set in conjunction with historical PCI data set of the airport PMS. The prediction models will provide better deterioration curves and rates to be used to determine the type of maintenance treatments, the areas requiring treatments, and the timing of the maintenance actions.

Subtask G. Report visual conditions survey results. Once the pavement distress data are entered in the computer, the program will be used to calculate the PCI for each sample inspected and for the corresponding pavement section. Reports will be generated and checks performed to verify that the database is complete. Several different PCI presentations will be developed similar to the one shown below.

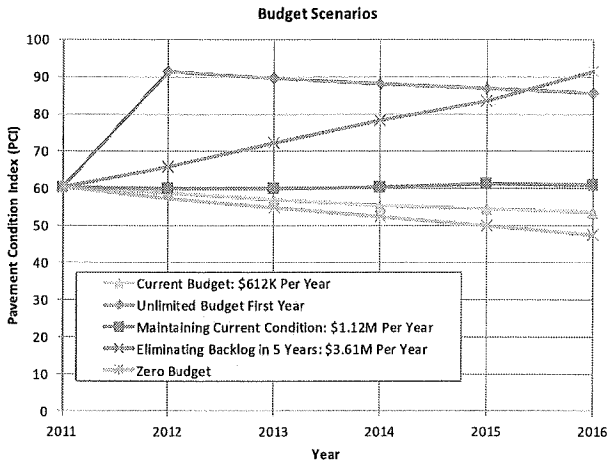


Subtask H. Determination of present and future pavement conditions. As a primary component of a PMS, prediction models are crucial for maintenance planning, budgeting, life-cycle analysis, multi-year optimization of maintenance works program, and authentication of design alternatives. A pavement deterioration model or prediction model is a "mathematical description of the expected values that a pavement attribute will take during a specified analysis period." Kleinfelder will develop prediction models for the Airport pavement network based on pavement types, traffic and usage. The prediction models enable us to predict the future condition of the pavement, determine the type of maintenance treatment to be adopted, the portions of the network requiring treatment, and the timing of the maintenance actions.

Subtask I. Run budget scenarios to maintain runways and taxiways at average PCI of 70. Kleinfelder will use unit costs to identify all the pavement maintenance and rehabilitation (M&R) needs for the airport pavement network. Not all the sections will be reconstructed or overlaid; the program will evaluate the PCI and determine the action needed. Those sections requiring localized maintenance, not rehabilitation, will be subjected to the maintenance policy activities and the extrapolated distress quantities will be used for estimating maintenance costs. The needs analysis will assist engineers and planners in developing yearly budgets and/or determining the pavement M&R funding backlog or shortfall.

Once the M&R needs are identified, a multi-year Capital Improvement Program will be developed that will include the M&R plan to determine the yearly budgets required to bring the local street pavements to an acceptable PCI level. Scenarios will be run to maintain the Airport's average PCI at 70 for runways and taxiways. An average PCI will be set for other facilities based on consultation with the Airport.

A long-term Capital Improvement Plan will be developed by using not-to-exceed yearly budgets. Using yearly budgets provided by the Airport, the program will sort the pavement sections for each year in the analysis period, based on the assigned priority. By performing a multi-year analysis with at least three budgets and with unlimited budgets, the total backlog or needs of maintenance and repairs will be identified. A sample budget analysis is shown below.



Subtask J. Present PCI and budget scenarios in an executive summary and report. Kleinfelder will provide the Airport with comprehensive PMS report. The reports will have an executive summary and describe the tasks performed and the results of the pavement inspections, the PMS program, and recommendations for future updates and for continuing use of the program. The report will include the airport pavement network inventory and map, PCIs for all facilities, needs analysis, the multi-year Capital Improvement Program for three budget levels, and recommendations for improvements.

Kleinfelder will have a kickoff meeting and progress meetings with Airport staff during the course of the project. Kleinfelder will also provide a presentation to Airport staff of the work performed, as well as findings and recommendations.

Subtask K. MicroPAVER mapping including the newly constructed air carrier ramp. As an enhancement and proactive approach to this project, our staff will implement a Pavement-GIS link between the selected PMS software and the Airport's GIS system. Once the Airport has approved the Pavement Condition Report, we will develop the necessary Pavement-GIS linkages. By using the unique ID's within the PMS and the Airport's ESRI shapefile ID's, we will create a one-to-one match for each pavement section in the GIS. As new pavement inspections and edits are entered into the PMS, the link that we have created will display the most current PMMS data through the Airport's GIS.

Subtask L. Training for City of Long Beach airport staff. Kleinfelder will provide Airport staff with training and technical support after the completion of the project and the acceptance of the final report. The training will cover PMMS overview, pavement evaluation, software utilization, data entry, analysis and reporting. In addition to the office training, Kleinfelder will provide Airport staff the opportunity to observe and participate in the inspection process. It is our feeling that the more involved Airport staff are, the more benefit they will receive from the results of the study. For example, during the PCI inspections the lead engineer can take the opportunity to not only point out the type of deterioration observed, but also discuss possible causes and mitigation alternatives.

TASK II. Aircraft Classification Number-Pavement Classification Number (ACN-PCN)

Kleinfelder will develop the Aircraft Classification Number – Pavement Classification Number for Runway 7L-25R, Runway 7R-25L, and Runway 12-30 in accordance with FAA AC 150/5335-5C *Standardized Method of Reporting Airport Pavement Strength.* The structural capacity of the pavements will be

evaluated according to FAA Advisory Circular (AC) 150/5370-11B *Use of Nondestructive Testing in the Evaluation of Airport Pavements* through pavement deflection testing using a Heavy Weight Deflectometer (HWD). The information gathered from the record review, field condition survey and testing, including laboratory test results will be summarized and used in the analysis. Kleinfelder will determine the structural capacity of the existing pavement in accordance with FAA AC 150/5320-6E *Airport Pavement Design and Evaluation.*

HWD testing will be performed in accordance with *Table 5* of the FAA AC 150/5370-11B at the project level for a total of six (6) test lines.

Test type	Jointed PCC and HMA overlaid PCC				HMA			
	Project level		Network level		Project level		Network level	
	Offset, ft. (m)	Spacing, ft. (m)	Offset, ft. (m)	Spacing, ft. (m)	Offset, ft. (m)	Spacing, ft. (m)	Offset, ft. (m)	Spacing, ft. (m)
Center	10 (3) 30 (9) 65 (20)	100 (30) 100-200 (30-60) 400 (120)	10 (3)	200-400 (60-120)	10 (3) 20 (6) 65 (20)	100 (30) 100-200 (30-60) 200-400 (60-120)	10 (3)	200-400 (60-120)
Transverse Joint	10 (3) 30 (9) 65 (20)	100-200 (30-60) 200-400 (60-120) 400 (120)	10 (3)	400 (120)				
Longitudinal Joint	20 (6) 40 (12) 60 (18)	200 (60) 400 (120) 400 (120)						
Corner	20 (6) 40 (12) 60 (18)	200 (60) 400 (120) 400 (120)						

NOTE: For each centerline offset, there are two NDT passes, one to the left and one to the right; spacing is staggered between adjacent NDT passes; and a minimum of two NDT tests should be conducted per pavement section.

An alternative testing plan can be used to produce double the coverage during the same testing period. This alternative assumes that a test line at a given offset from the centerline has the same damage as the test line to the other side of the centerline for the same offset; for example, 6-ft to the right of the centerline is equivalent to 6-ft to the left of the centerline, therefore it is recommended to only test one of those lines. *Table 1* shows the recommended test frequency.

Table 1 – Recommended HWD Testing Frequency

Feature	Testing Interval	Centerline Offset (ft)	Notes
Runway	100-ft	6-ft right, 9-ft left and 12-right	• 18-ft left test line can be added on runways for commercial airports • Exact offset from centerline can be modified based on traffic mix gears locations • Runways shoulders testing to be performed only where taxiways connect to runways

Kleinfelder will also analyze the remaining service life of the existing pavement and identify existing airfield pavement deficiencies due to expected traffic. Furthermore, based on the results of the analysis, recommendations can be provided on pavement improvement projects and associated project cost estimates including Capital Improvement Plans for a predetermined multi-year implementations.

Subtask A. Determining the ACN for Runway 7L-25R, Runway 7R-25L, and Runway 12-30. The Kleinfelder team will review the aircraft fleet mix data, current annual operations and future air traffic projections for Runways 7L-25R, 7R-25L and 12-30 at the Airport. The aircraft traffic data will be used to determine ACN for the three runways listed above.

Subtask B. Determining the PCN for Runway 7L-25R, Runway 7R-25L, and Runway 12-30. Kleinfelder team will perform the PCN analysis using COMFAA 3.0 in accordance with the technical evaluation method of the FAA AC 150/5335-5C *Standardized Method of Reporting Airport Pavement Strength – PCN.* The PCN will be calculated using the Dynatest newly developed mechanistic-empirical PCN procedure; with this procedure the F/HWD backcalculated layer moduli can be used while considering all failure criteria. The PCN will be calculated for the existing structure and after the application of an overlay, if needed. The results from both methods will be evaluated and recommendations will be made.

The Dynatest ME PCN procedure was presented at the 2012 FAA Airport Pavement Working Group meeting and as presented through the following link:
http://www.airporttech.tc.faa.gov/conference/2012.asp [Mechanistic-Empirical PCN Procedure, Bazi, Dynatest].

The results will be reported for each pavement section in the pavement management system. The remaining life of the pavement sections may be provided as well as any structural improvements required with the rehabilitation recommendation and thickness design.

Subtask C. Perform borings and obtain soil samples for testing. Pavement coring, material sampling and testing will be performed for determining pavement thickness and to assess the properties of the asphalt concrete surface, base layer and subgrade materials throughout the airfield. The information will be used in the analysis of the HWD data. Samples of the underlying base and subgrade materials will be sampled continuously to termination typically at depths of 5 to 10 feet from the surface of the pavement. Kleinfelder anticipates performing laboratory tests to determine material properties such as moisture content, Atterberg Limits and sieve analysis for the unbound materials. Swell/consolidation tests can be performed to evaluate the potential for subgrade movements. Standard or modified Proctors may also be performed to establish the moisture density relationship of the subgrade soil and for soil stabilization purposes.

Based on the results from deflection testing and other supporting information, locations will be identified for destructive material sampling through pavement coring and soil borings. The sampling effort will be aimed at determining the materials properties as well as pavement layer structure, which will be used in the backcalculation process for the deflection data to determine layer moduli. Kleinfelder will review available historical information from the airport and the results will be used to minimize the amount of material sampling and testing required for this project, which will reduce the cost to the Airport. The information will be evaluated and used to effectively locate any additional borings needed for the pavement evaluation. Where possible, Kleinfelder will collect soils samples adjacent to the runways and taxiways to minimize the amount of destructive testing and minimize the impact on air traffic operations.

Subtask D. Perform non-destructive testing in accordance with FAA AC 150/5370-11B. The purpose of the deflection test program is to determine the structural response characteristics of the pavement structure and underlying subgrade materials to wheel loads as well as variability of the structural properties along the pavement facilities. Changes in the magnitude of the measured deflections will indicate changes in the structural capacity of the pavement. The deflection data will allow us to assess the areas of strength and weakness where moisture infiltration or changes in material properties may exist.

A deflection-testing program will be outlined following the guidelines provided in FAA AC 150/5370-11B. The non-destructive deflection testing is typically performed using a Falling Weight Deflectometer (FWD). A Heavy Weight Deflectometer (HWD) is suitable for airfield pavements to simulate heavier load from aircraft. Testing loads depend on the existing pavement structures. Consideration should be given to avoid damage of thin pavement structure. Test loads will be determined upon records review, aircraft mix and discussion with the Airport.

The existing airfield runways (Runway 7L-25R, Runway 7R-25L, and Runway 12-30) are indicated to have an asphalt pavement. Runways 7L-25R and 7R-25L are 150 feet wide, while runway 12-30 is 200 feet wide. The number of HWD passes and spacing per pass will follow the FAA guidelines. If a higher resolution is desired by the airport, smaller test spacing may be conducted. After a seating drop has been performed, two drops will be performed and recorded at the specified load level. The geophones are used to measure the surface deflections. The testing program will be developed upon review of the plans, aircraft traffic and discussion with the Airport.

A limited survey will be performed during HWD testing through digital photographs that are automatically collected at a pre-set interval (typically 25-ft). The photos will show the condition of the pavement during HWD testing. If the HWD testing was performed at night, then we will collect the pavement images during the day.

Subtask E. Determine structural capacity of existing pavements in accordance with FAA AC 150/5320-6E. The deflections measured during HWD testing are used to calculate layer moduli and the Pavement Classification Number (PCN) for the pavement structure in accordance with the FAA Advisory 150/5335-5B. Deflection profiles indicating pavement areas with varying structure/support characteristics (weak/strong) will complement other information used to optimize the selection of core/bore locations for materials sampling and testing to verify pavement layer structure and subgrade information. The deflection data will be processed through back calculation processes to determine the layer moduli or stiffness of the pavement structure including base, subbase and subgrade support characteristics. The resulting layer moduli will be used to determine remaining life of pavements, which may then be used to determine areas for pavement rehabilitation or reconstruction.

The structural analyses will be performed using the Dynatest ELMOD (Evaluation of Layer Moduli and Overlay Design) package that provides backcalculated layer moduli, and structural overlay requirements for the remaining life of pavements that are less than the design/analysis period. The layer moduli provide an indication of material condition in the pavement structure.

ELMOD is accepted for use by the FAA as shown in the FAA AC 150/5370-11B and it is used by 300+ public and private agencies nationwide and overseas. For every HWD test point collected along each airport feature, Kleinfelder team will calculate the remaining life and the overlay requirements for the provided traffic mix over the analysis period.

Pavement rehabilitation recommendations will be provided for every uniform section based on the calculated overlays within that section, the existing layer thicknesses and the pavement condition in addition to any other constraints. The possible rehabilitation recommendations will be discussed with Airport staff.

The results of the structural evaluation will be verified using the FAA software FAARFIELD in accordance with the FAA AC 150/5320-6E *Airport Pavement Design and Evaluation.*

Subtask E. Present results of all tests and calculations in a report format. A pavement strength report in accordance with FAA AC 150/5335-5B Standardized Method of Reporting Airport Pavement Strength – PCN will also be provided. The report will include the layer moduli, ACN-PCN, overlay recommendations and the other appropriate maintenance and rehabilitation alternatives. All test results generated by the various software used in this analysis will be included with the report.

The report generated will help the Airport determine the structural bearing capacity for the tested features over the analysis period using the aircraft mix. If the features are not structurally adequate, rehabilitation recommendations will be provided. The calculated PCNs may be used to update the FAA Form 5010-3.

SECTION 5: PROJECT MANAGEMENT AND QUALITY CONTROL

Project Management Approach

Kleinfelder is committed to providing strong project management to the Airport so that technical, quality, budgetary, and scheduling targets are consistently achieved. Specific features of our approach are outlined in the following sections.

Project Management Approach and Methodology.. Our local pavement specialists' staff and Project Manager will allow for field work, client meetings and site-related activities to be performed with local forces. The Project Manager will serve as the local liaison between the Airport and the project team. The Project Manager will be available for all project meetings at the Airport's office, and will include the necessary project team staff via teleconference or in-person, at the Airport's request. Throughout the duration of the contract, the Project Manager will make work assignments, and facilitate internal teleconferences with project staff throughout the project life cycle. The Project Manager will exercise control of each project using the following procedures:

"Kleinfelder's staff continually has demonstrated a commitment to high quality services, while maintaining a high standard of professionalism and ethics. Kleinfelder's services are provided with a high degree of care and personal attention, with the objective of producing quality projects on time and in a cost effective manner. Kleinfelder's deliverables met the City's high expectations for completeness and readability, and could not have been achieved without your staff's hard work and sometimes long hours."

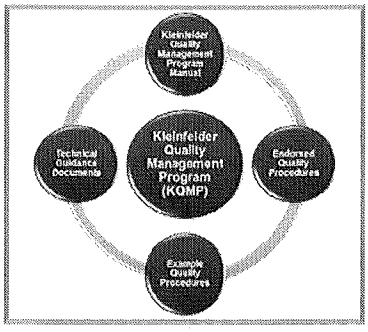
Gillis Monroe
Chief Construction Officer
City of Long Beach
Long Beach Airport

- Kickoff Meeting. A meeting will be held between the Airport's Project Manager and Kleinfelder's key task personnel to verify that all associated parties have a clear vision of the project issues and goals, deliverables, and permits required from the outset.
- Workplan. A workplan will be prepared for each directive that will consist of Kleinfelder internal documents but will be available for the Airport's review, if desired. The plans will comprise a manpower-loaded schedule indicating all major milestones.
- Communication. Kleinfelder's work plan is centered on clear, concise communication between the Airport's representatives and our staff, both in the office and in the field. We have designated Dr. Kash Hadipour to be the point-of-contact for this project. Communication will be prompt; oral and written instructions and requests will be acted upon immediately, and written follow-up will be distributed for filing.
- Quality Control Officer. All of our services will be performed in accordance with Kleinfelder's Quality Management Program, and as described under "Schedule, Quality and Cost Control Procedures." Qualified staff will review the technical adequacy and cost effectiveness of our proposed approach, conduct over-the-shoulder reviews during execution of the task order work, and check compliance of our deliverables with the project scope and contract prior to submittal to the Airport.

Quality Control

The foundation of quality is established in experience, qualifications, and focus of the staff assigned to this project. We insist on high standards and individual accountability, and it is our Program Manager's responsibility to assure that staff assignments are properly aligned with their qualifications.

The internal auditing of field and office activities is a standard practice in Kleinfelder, as it heightens awareness of both quality and safety. Such audits are used as an internal quality control mechanism to verify proper application of condition survey method, materials testing, pavement analysis and conformance with Airport and FAA procedures. Internal auditing provides quality and safety checks of our activities to assure that questionable issues or practices by our staff are addressed and resolved.



As part of our internal loss prevention and safety program, Kleinfelder engineers and management staff routinely observe coworkers performing work tasks in order to identify undesirable behaviors that may lead to injury or loss. The observations are documented and discussed among our team as lessons learned so that the undesirable behaviors are not repeated.

Kleinfelder's successful corporate quality approach includes the following key components on all projects:

- Technical Services Review. Kleinfelder uses an in-house, well-established review process for all technical reports, design drawings, specifications, and bidding documents. This review process is performed by senior technical staff and Task Managers assigned to the project for Quality Control/Quality Assurance.
- Project and Task Management. Kleinfelder assigns experienced Task Managers to oversee and execute the work. The key to a successful project is to manage and perform the services in a competent, cost-effective manner, and with complete communication with the Airport.
- Management Tools. Kleinfelder uses a Deltek-based management information system to track weekly project labor and work element progress in terms of projected and actual costs.

The Project Manager will implement our corporate quality approach on all Airport assignments. The team's Quality Manager will proactively review project progress and verify that the project tracks with the Airport's expectations.

Kleinfelder uses a web-based computer software system, created by Deltek, to efficiently and effectively track project and task budgets of any size, firm-wide. Each Kleinfelder professional has access to updates of project budget and expenditure information from their desktop terminal. A work breakdown structure is established, dividing projects into tasks that are allotted budgets. Each task order on this project will be assigned a task number and all labor and subcontract charges to each task will be rolled up automatically for review every Tuesday. The Kleinfelder Project Manager will use this information to assess the budget expended on a particular task versus actual work completed, and predict the budget remaining to complete the defined tasks, taking corrective actions, whenever necessary.

Project Tracking and Performance Monitoring Procedures. Work progress will be monitored on a weekly basis and discussed with the Airport's Project Manager. Monthly progress reports will be prepared for longer duration assignments and submitted along with our monthly invoice to the Airport. We envision the monthly reports will include at least the following key elements for each task order:

• Project (directive) name • Contract number (Airport reference numbers, and Kleinfelder internal project and task numbers) • Billing period • Budget modifications, including increases and/or decreases • Original budget (per task)	• Percent of budget expended (per task) • Percent of schedule expended (per task) • Work completed during the billing cycle (per task) • Work anticipated during the next billing cycle (per task) • Budget status, including anticipated problems or concerns • Spreadsheet breakdown of billing cycle costs

Significant deviations from budget or schedule will require a written update to the Airport.

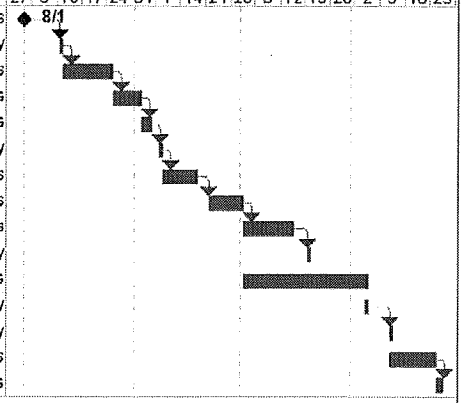
Project Schedule

Kleinfelder will develop and monitor project schedules using computerized scheduling software that allows comparison of individual task progress with defined schedules. Kleinfelder regularly uses Microsoft Project and internally developed Excel® spreadsheets to monitor schedule compliance. In order to minimize the impact on airport operation, Kleinfelder will perform all field activities on active runways and taxiways at night. The preliminary Project Schedule for the Airport PMMS is shown on the following page.

LONG BEACH AIRPORT

RFQ No. AP 13 030, PMMS and ACN PCN

ID	Task Name	Duration
1	NTP from Long Beach Airport	0 days
2	Project kick-off meeting	1 day
3	Review existing information	10 days
4	Updating database	5 days
5	Field survey and testing plan	3 days
6	Project meeting to start field activities	1 day
7	Pavement Condition Survey during day	8 days
8	Pavement Condition Survey, Coring/Boring and HWD testing at night	8 days
9	Lab testing (soil properties)	10 days
10	Project meeting to discuss field results	1 day
11	Data analysis and reporting	25 days
12	Draft report submittal	1 day
13	Project meeting to discuss draft report	1 day
14	Final report preparation and submittal	9 days
15	Training for City of Long Beach staff	2 days



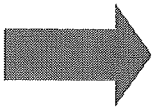
Project: Long Beach Airport

Task | Summary | Deadline

Milestone | Progress

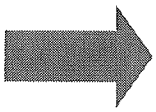
SECTION 6: VALUE-ADDED SERVICES

The work scope listed in the RFQ is straightforward and very similar to the work scope Kleinfelder has completed on many airport PMMS projects. We have the proper staff, expertise and qualified team members to perform the work efficiently, on time, and within budget. The Kleinfelder team offers the Airport the following benefits:



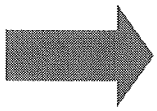
Interactive Pavement Management Data Access Program

Many states have found the implementation of a web-based, interactive pavement management data access program to significantly improve the accessibility of the information and substantially increase the benefits of their statewide PMMS activities. These interactive programs combine the use of maps, photographs, and hypertext links to provide a tool that conveniently displays the current airport pavement conditions, the types of distresses found at each facility, and photographs of the types of deterioration that were identified. Color-coded condition maps are also provided to allow the user to quickly identify areas of concern. All of the pavement data is extracted directly from a MicroPAVER database, greatly reducing the effort required to develop such a program.



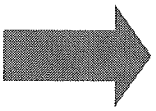
GIS Data Base

The Kleinfelder Team has a robust GIS capability. We can provide all field data in digital form using either ArcView or ArcInfo formats. Presentation of field data using a GIS platform will allow Airport to include PMMS data as separate layers in their own GIS facility management databases.



Pavement Engineering Services

We are first and foremost pavement engineers. We bring several hundred years of combined professional pavement experience and expertise to the Airport. We can provide technical support beyond the PMMS scope should any unusual or complex pavement conditions be encountered in the field.



"Why Kleinfelder?"

Simply put, you can expect no surprises with the Kleinfelder Team. We have completed many similar assignments in the past, on time and on budget. We bring to you many of the same staff and all of the skills that will assure you the same performance on this assignment.

APPENDIX A - RESUMES

Education
BS, Civil Engineering, University of Sussex
MS, Civil Engineering, University of Sussex
PhD, Civil Engineering, University of Alberta

Licenses/Registrations
Professional Engineer, No.C63855, CA

Experience
33

Kash Hadipour, PhD, PE

Project Manager/Pavement Condition Survey/PMS Analysis/ACN and PCN/Training

Dr. Hadipour is a civil engineer specializing in roadway, port and airfield engineering, with particular expertise in pavement engineering. He has worked on numerous roadway, port and airfield pavement design, construction and management projects around the world. His projects have required close work with and for federal, state, county, city and provincial governmental agencies, including California counties and cities, FAA, FHWA, AASHTO, and municipal agencies.

Project Experience

Pavement Management System, Los Angeles County, Five General Aviation Airports, California. Dr. Hadipour served as Project Manager providing pavement Management Services for the development and implementation of MicroPAVER pavement management system for the Los Angeles County's five general aviation airports: Brackett Field, Compton/Woodley Airport, El Monte Airport, General William J. Fox Field, and Whiteman Airport. The implemented pavement management system will be capable of developing strategic goals, inventorying and evaluating the existing airfield pavement network, quantitatively measuring condition and performance, and developing maintenance and rehabilitation requirements and budget needs. '

Pavement Evaluation and Design for the Pier D Street at the Port of Long Beach, Long Beach, California. Dr. Hadipour served as Project Manager in charge of the geotechnical/pavement investigation of the Pier D Street and preparation of pavement design report for the rehabilitation/reconstruction of the Pier D street. The investigation involved subsurface investigation as well as deflection testing using FWD. Several design options were considered and an optimum alternative was recommended.

Paver Pavement Management System, Blythe, California. Dr. Hadipour served as Project Manager for developing and implementing MicroPAVER Pavement Management System. The work included the review of construction and design records to obtain pavement condition histories, cross sections, construction materials, maintenance and rehabilitation performed through the years. The pavement network was identified and pavements were divided into branches and sections, based on pavement use, rank, traffic, cross section, age and other factors. Kleinfelder also provided training on the PAVER program to the City personnel.

Pavement Management System, Indio, California. Dr. Hadipour served as Project Manager for developing and implementing the City's MicroPAVER Pavement Management System.

Pavement Evaluation, Design and Management System, Coachella Valley Association of Governments (CVAG), California. Dr. Hadipour served as Project Manager/ Pavement Designer and Pavement Management System specialist in charge of developing and implementing the MicroPAVER pavement management system for 11 jurisdictions within the Coachella Valley. Professional services completed in 2005.

On-call Materials Testing, Special Inspection, Geotechnical Engineering and Environmental Services, San Diego International Airport, Lindbergh, San Diego, California. Dr. Hadipour served as Pavement Engineering Manager for the $3.5M contract with the San Diego County Regional Airport Authority (SDCRAA), Facilities Development Department (FDD) to provide a wide range of services including Materials Testing, Inspection, Pavement Engineering, Geotechnical Engineering and Environmental Services. These services are being provided on an as needed basis to support capital improvements undertaken by the FDD. To date Kleinfelder has received two task authorizations under this contract.

Education
BE, Civil Engineering, Notre Dame University, Lebanon
MS, Civil Engineering, University of Nevada, Reno

Licenses/Registrations
Professional Engineer, No. 70996, CA

Experience
13

Dany Hanna, PE

Quality Manager

Mr. Hanna is experienced in materials and transportation engineering, specializing in the areas of pavement engineering, roadway construction, design, and related aspects of materials and geotechnical engineering. Mr. Hanna has provided pavement evaluation services and special studies for several local and county agencies in Southern California. He has been responsible for analysis and review of pavement deflection testing results with the falling weight deflectometer (FWD) and using the results in overlay design. Mr. Hanna has experience in the use of the following pavement design software: ELSYM5, ILLIPAVE and MJSlab, as well as AutoCAD.

Project Experience

Pavement Management Services for Brackett Field, Compton/Woodley, El Monte, General William J. Fox Field, and Whiteman Airport, Los Angeles County, California. Pavement Engineer assisting in developing and implementing MicroPAVER pavement management system for the above airports.

Taxiway Delta (D-7) Widening and Service Road Burbank Airport, Burbank, California. Quality Assurance Assistant Manager for taxiway D-7 rehabilitation at the Burbank airport. The project involved providing materials testing and inspection services. Services included compaction testing of subgrade and aggregate base, field and laboratory testing of asphalt concrete materials per FAA requirements.

Port of Long Beach, Pier G Facilities Assessment, Long Beach, California. Pavement Engineer providing field pavement condition survey, collecting data and assisting in pavement management report preparation for the Pier G, Port of Long Beach, California.

Runway 12-30, Long Beach Airport, Long Beach, California. Quality Assurance Assistant Manager for Runway 12-30 at the Long Beach airport. The project involves providing materials testing and inspection services. Services include field and laboratory testing of asphalt concrete, soils and Portland cement concrete materials testing per FAA requirements.

Taxiway Delta, Long Beach Airport, Long Beach, California. Assistant Quality Assurance Manager for taxiway Delta at the Long Beach Airport. The project involved providing materials testing and inspection services. Services included field and laboratory testing of asphalt concrete, soils/lime-treated subgrade and Portland cement concrete materials.

Taxiways Fox & Bravo, Long Beach Airport, Long Beach, California. Quality Assurance Manager for taxiway Fox and Bravo rehabilitation at the Long Beach airport. The project involved providing materials testing and inspection services. Provided geotechnical inspection and materials testing services for improvements to Runway F and B consisting of removing bituminous surfaces, cold milling bituminous pavement, constructing lime-treated subgrade, constructing asphalt concrete on crushed aggregate base and asphalt-concrete overlay. The scope of work for this project consisted of: Laboratory testing of soil samples for moisture content, dry density and percent lime treatment of subgrade; Performance of field compaction testing on lime-treated subgrade and base; Laboratory testing or lime-treated materials for moisture content, maximum dry density, and compressive strength; Sampling and temperature monitoring of hot mixed asphalt concrete; Laboratory testing and hot mixed asphalt concrete for stability, flow, air voids, oil content, gradation and maximum dry density; and Laboratory testing of cores for bulk specific gravity and percent relative compaction. All services performed per FAA requirements.

Taxiway Delta, Long Beach Airport, Long Beach, California. Assistant Quality Assurance Manager for taxiway Delta at the Long Beach airport. The project involved providing materials testing services. Services included field and laboratory testing of asphalt concrete, soils/lime-treated subgrade and Portland cement concrete materials.

Education
BS, Civil Engineering. Technical University of Gdansk, Poland
PhD, Civil Engineering. Technical University of Gdansk, Poland
MS, Civil Engineering. Technical University of Gdansk, Poland

Licenses/Registrations
Professional Engineer, 56925, CA
Geotechnical Engineer, No.2864, CA

Experience
36

Mariusz Sieradzki, PhD, PE, GE

Pavement Boring and Testing

Dr. Sieradzki has over 36 years of extensive experience in soil mechanics and foundation engineering, including design, construction consultation and testing services. Dr. Sieradzki is involved in various geotechnical design and construction projects including: bridges, roads and highways, railways, airports, new landfill development, ports, subgrade improvements, and commercial/industrial developments. His responsibilities include project management, evaluation of geotechnical data, engineering analyses, and construction support consultation services.

Project Experience

Long Beach Airport, Long Beach, California. Project Manager for preliminary geotechnical investigation related to design and construction of the proposed parking structure.

Long Beach Airport, Long Beach, California. Project Manager for geotechnical, pavement and materials investigation within the proposed Taxiway K rehabilitation project.

Long Beach Airport, Long Beach, California. Project Manager for geotechnical and pavement engineering for the proposed Air Carrier Ramp Reconstruction project.

Long Beach Airport, Long Beach, California. Principal Engineer for geotechnical study at the proposed Terminal Area Improvements project.

Long Beach Airport, Long Beach, California. Principal Engineer for preliminary seismic evaluation, Lakewood Boulevard and Spring Street Underpasses in the vicinity of Runway 30.

Long Beach Airport, Long Beach, California. Principal Engineer and Project Manager for geotechnical investigation related to the proposed Perimeter Road Rehabilitation Project.

Los Angeles International Airport (LAX), Los Angeles, California. Principal Geotechnical Engineer for geotechnical site investigation and pavement design for the proposed West Aircraft Maintenance and Aircraft Parking Area.

Los Angeles International Airport (LAX), Los Angeles, California. Principal Geotechnical Engineer for preliminary geotechnical site assessment and pavement design for the proposed Southwest Remain Overnight Parking Apron.

Los Angeles International Airport (LAX), Los Angeles, California. Principal Engineer for preliminary geotechnical/geologic site assessment at the proposed Consolidated Rent–A Car (ConRAC) development within the LOT C and the Manchester Square sites.

John Wayne Airport, Costa Mesa, California. Project Engineer for geotechnical study related to design and construction of access ways, fill embankments and driven piles at the John Wayne Airport.

Santa Monica Airport Runway Studies, Santa Monica, California. Project Engineer for geotechnical investigation and evaluation of soil conditions along the proposed runway and taxiway.

Thermal Airport, Thermal, Riverside County, California. Project Manager for evaluation of subgrade and pavement conditions.

Licenses/Registrations
NICET Engineering Technician
Materials Testing Asphalt II
Materials Testing Concrete I,
Materials Testing Soils II and
Engineering Technology/Laboratory I
Nuclear Gauge/Troxler
OSHA 40-Hour HAZWOPER
American Concrete Institute (ACI)-
Field Testing Technician, Level II
National Ready Mix Concrete
Association

Experience
32

Rick Bell

Pavement Boring and Testing

Mr. Bell has more than 32 years of experience with field and laboratory quality assurance/quality control, including construction inspection; shop fabrication inspection; materials testing, batch plant inspection; and office engineering. His duties include inspection and materials testing for various aspects of roadway, highway, bridge, railway and airport projects; including pavement, drainage, structures, subgrades, and embankments. His materials testing experience includes soils, aggregate, asphalt and concrete, and he is experienced with various aspects of inspection, including implementation of project plans and specifications, documentation, and processing of change orders and pay estimates during the construction process. He is knowledgeable with the requirements of the FHWA, AASHTO and ASTM, and is experienced with the design of pavements, and sampling and field testing according to FAA Standards and Caltrans specifications.

Project Experience

Airport Pavement Management Surveys, Caltrans, Numerous Locations throughout California. Lead Technician for pavement survey analyses, visual observation of existing asphalt, information plotting and data logging

Taxiways L & C Reconstruction, Long Beach, California. Field Project Manager. The improvements of Taxiways C and L at the Long Beach Airport consisted of removing existing bituminous surfaces; cold milling of bituminous surfaces, doing all necessary excavation and grading, constructing storm drains, constructing Portland cement concrete and asphalt concrete layers on recycled cement treated and untreated aggregate base over cement treated subgrade.

Taxiway D Extension & Widening, Burbank, California. Field Project Manager providing quality assurance services during the construction of Taxiway D extension, Taxiway D-7 widening and construction of service roads. The planned taxiways and new service road included construction of various structural sections. The planned sections included removal and re-compaction of subgrade soils (P-152) at various depths followed by placement of crushed aggregate base rock (P-209), Plant Mixed Bituminous Pavement (P-401) and (P-501) Portland Cement Pavement.

Taxiway G Phase II Construction, Jacqueline Cochran Regional Airport, Thermal, California. Project manager/technical reviewer during construction of new PCC aprons and (asphalt concrete) taxiway rehabilitation and construction. Responsible for contractor submittal reviews, quality assurance testing oversight and pay factor calculations. Provided Portland cement concrete and asphalt concrete mix design reviews and recommendations. Assisted with laboratory preparation of job mix formulas for subgrade stabilizations, utilizing cement and lime. Services included maintaining construction files, scheduling and overseeing construction meetings and preparation of monthly pay requests.

Pier G Facilities Assessment-East, City of Long Beach, California. Senior onsite field representative during the Pier G and access roadway assessment activities. The purpose of the project was to collect data and conduct pavement condition surveys on the east and northwest sides of Pier G at the Port of Long Beach, California, in order to identify the overall condition of the pavement area for the development of possible maintenance and rehabilitation alternatives for pavement improvement. The project included data collection, GIS linkage, and delivery of a pavement condition report. Our services included the visual pavement survey using Micro PAVER methodologies developed by the US Army Corps of Engineers. Kleinfelder collected global positioning data for the GIS linkage using hand-held units and with methods that allowed for safe and efficient collection of data during normal port operations.

Education
MS, Geotechnical Engineering, University of Colorado
BS, Civil Engineering, Colorado State University

Licenses/Registrations
Professional Engineer: TX # 92147, CO # 37190

Experience
17

Michael Batuna, PE

Pavement Condition Survey/PMS Analysis

Mr. Batuna has 17 years of experience in technical and management leadership in geotechnical and pavement engineering. His expertise includes pavement engineering and distress investigation for tollway authorities, government entities, comprehensive development agreement consortium, and private facilities. He is responsible for completing the pavement engineering for four North Texas Tollway Authority (NTTA) tollway projects covering 35 miles of pavement with an estimated total construction cost of $6 billion. In addition, Mr. Batuna has also conducted studies and assisted agencies with pavement design procedures and manuals. He co-authored the High Performance Tollway Pavement Design Manual for the NTTA. Mr. Batuna is knowledgeable in expansive soils and has conducted extensive pavement related studies on subgrade treatment of expansive soils and subgrade stabilization.

Project Experience

San Marcos Municipal Airport, San Marcos, Texas. Project Manager for field operations and engineering evaluations. Services provided included structural capacity testing of runway and taxiway pavements through non-destructive deflection testing (FWD) and engineering evaluation to determine the remaining life of pavements. Provided pavement rehabilitation and design recommendations.

Dallas Executive Airport, Dallas, Texas. Project Manager responsible for performing evaluation on all airfield pavements for structural capacity, through non-destructive deflection testing (HWD), coring and laboratory testing data. Provided pavement rehabilitation and design recommendations by utilizing back calculation results of FWD data and remaining life analysis.

Addison Airport, Addison, Texas. Project Manager for field operations and engineering evaluations; provided pavement design and subbase/subgrade treatment recommendations.

Beauregard Regional Airport, DeRidder, Louisiana. Project Manager for field operations and engineering evaluations; provided pavement rehabilitation and design recommendations.

Haltom City Pavement Management Implementations, Haltom City, Texas. Project Manager; implemented pavement and asset management systems based on automated pavement condition surveys. Provided pavement condition index and recommended appropriate and cost effective maintenance and rehabilitation procedures.

Trinity Parkway Tollway, Dallas County, Texas. Project Manager; services provided include a report addressing pavement structure, subgrade, slope stability, and high embankments. Evaluated 5,000 lbs. of proposed embankment fill material from the Trinity floodplain for its strength, swelling, consolidation, and sulfate characteristics.

President George Bush Turnpike Eastern Extension, Dallas County, Texas. Project Manager; completed pavement engineering report and provided construction management oversight to address subgrade moisture treatment and lime stabilization, and retaining wall issues affecting pavement structure.

High Performance Tollway Pavement Design Manual, Texas. Co-authored pavement design manual and special specifications for the North Texas Tollway Authority (NTTA).

Dallas North Tollway Extension, Phase 3, Frisco, Texas. Project Manager; completed pavement engineering report and review of plans and specifications. Provided construction management oversight.

Education
AA, Business. Green River Community College, Washington
BS, Civil & Environmental Engineering. University of Washington, Washington

Licenses/Registrations
Professional Engineer, No.PE-43366, CO, No.84581PE, OR

Experience
22

Stacie Steel, PE

PMS Analysis

Ms. Steel offers pavement management experience gained working at challenging sites in Colorado, Washington, Oregon, Arizona, Nevada, Wyoming, Nebraska and West Virginia. Her experience includes highways, roads, bridges, light rail, public and private projects in remote, urban, industrial and government areas, subject to various environmental conditions. Her clients include State Departments of Transportation, Municipalities, regional governing entities, contractors, engineering firms, owner representatives, site developers and private owners. Ms. Steel demonstrates the ability to quickly understand the standards of practice and technical requirements associated with pavement management.

Project Experience

Pavement Evaluation, City of Murray, Murray, Utah. Kleinfelder was selected to assist the City of Murray in evaluating three sections of roadways that were experiencing premature distress after rehabilitation efforts the previous year. Ms. Steel was on-site to identify the distresses and select core locations. Ms. Steel also assisted with assigning testing and the evaluation of the results.

Dallas-Ft. Worth Connector, Tarrant County, Texas. The Dallas-Ft. Worth Connector project is comprised of 12 miles of roadway improvements, complete with four major and 12 minor interchanges plus two exit ramp structures. Within these interchanges and ramps are a total of 69 bridge structures. Ms. Steel evaluated the traffic, subgrade, and construction requirements to design flexible and rigid pavements for mainlanes, frontage roads, ramps and intersections. Alternative Technical Concepts were designed and proposed to increase the schedule and save money.

North Tarrant Express, Tarrant County, Texas. The North Tarrant Express project consists of reconstructing IH 820 between IH 35W and US 377. Ms. Steel conducted evaluations of subgrade soil data throughout the project area to provide the most economical pavement sections.

Shoppes at Castle Rock, Castle Rock, Colorado. Kleinfelder performed a pavement evaluation on a newly constructed parking lot that was showing signs of distress. Ms. Steel performed the pavement evaluation, assigned and reviewed laboratory testing, and summarized our findings and recommendations in a letter report.

Costco Wholesale, Denver Metro Area, Colorado. Kleinfelder performed pavement evaluations on multiple Costco Wholesale Warehouses in the Denver Metro Area and provided recommendations for repair. Ms. Steel was the project manager during the rehabilitation efforts and assisted in the delineation of distressed areas.

Education
BS, Civil Engineering, Tongji University, China
MS, Civil Engineering, Tongji University, China
PhD, Civil Engineering, University of California System : Irvine, California

Licenses/Registrations
Professional Engineer, No. 72384, CA

Experience
10

Youwei Zhou, PhD, PE

Pavement Condition Survey/Training

Mr. Zhou has eight years experience in civil engineering. His experience encompasses various aspects of geotechnical engineering, including field exploration program planning, conducting field exploration, sampling and inspection, lab testing, coordinating projects, performing routine to complex engineering analysis, and preparing reports and proposals. He is experienced in settlement, seepage, slope stability, seismic hazard, liquefaction, foundation, finite element, and engineering risk and probabilistic analyses. The projects he has been involved in include airport facilities, low to high-rise residential and commercial buildings, highway bridges, walls and roadways, public schools, levees, and energy facilities.

Project Experience

Airport Terminal Area Expansion, Long Beach Airport, Long Beach, California. Staff engineer performing a comprehensive seismic hazard evaluation with development of site-specific response spectrum for new seismic design and seismic retrofit.

Port of Long Beach - Pier G Facilities Assessment, Long Beach, California. Project Engineer in charge of inventory data collection, pavement condition survey/inspection and condition evaluation for the pavements on the east side of Pier G, Port of Long Beach, California.

Pavement Management Services for Five General Aviation Airports: Brackett Field, Compton/Woodley Airport, El Monte Airport, General William J. Fox Field, and Whiteman Airport; County of Los Angeles, California. Project Engineer for the development and implementation of a pavement management system (PMS) for the County's five general aviation airports: Brackett Field, Compton/Woodley Airport, El Monte Airport, General William J. Fox Field, and Whiteman Airport. The implemented pavement management system will be capable of developing strategic goals, inventorying and evaluating the existing airfield pavement network, quantitatively measuring condition and performance, and developing maintenance and rehabilitation requirements and budget needs.

Geotechnical Investigation for Pavement Rehabilitation, Hawthorne Municipal Airport, Hawthorne, California. Pavement Rehabilitation of runway 25-9 and adjacent taxiway Staff engineer responsible for performing field investigation, lab assignment and report writing.

John Wayne Airport Expansion, Costa Mesa, California. Expansion of existing Terminal. Staff engineer involved in lab assignment and testing, subsurface profile development and engineering analysis including evaluation of the performance of existing piles, new pile design, seismic hazard evaluation and liquefaction potential

Caltrans Airport Pavement Management System Update. Staff engineer involved in evaluating pavement condition index, identifying future maintenance needs and associated cost, and recommending different pavement rehabilitation/maintenance options, for municipal airports throughout California.

Monterey Avenue Improvements, Rancho Mirage, California. Staff engineer evaluating structural capacity of the existing 2-mile pavements using field survey/inspection data and recommending pavement rehabilitation and widening design options, for City of Rancho Mirage, California

Pavement Management System, Indio, California. Project Engineer providing a comprehensive PMS written report and professional pavement management services for the City of Indio, California.

Education
BS, Civil and Environmental Engineering. California State Polytechnic University, San Luis Obispo, California
MS, Civil Engineering. California State Polytechnic University, San Luis Obispo, California

Licenses/Registrations
Engineer-in-Training, No.136243, CA

Experience
2

Steven Kuo, EIT

Pavement Condition Survey /Pavement Boring and Testing

Mr. Kuo has over two years of geotechnical engineering experience. He has performed and managed several subsurface exploration programs. He is familiar with right-of-way and well permits application procedures, exploration location selection, field investigation program coordination, site reconnaissance, sample laboratory testing assignment, and project management. He has experience preparing geotechnical investigation reports and proposals, cost estimates, checking grading and foundation plans, performing slope stability and settlement analyses, and designing retaining structures. Mr. Kuo has also performed a variety of geotechnical construction observations, including drilled piers installation, soil-nail wall installation, and tie-back wall installation and load testing. In addition, he is also familiar with utilizing monitoring equipment such as inclinometer for lateral ground movements and water level meter for groundwater monitoring. He is proficient in the use of the following programs for geotechnical analysis and design: ArcGIS, AutoCAD, gINT, LPile, MSEW, RetainPro, RocScience SLIDE, and SHAKE.

Project Experience

Southern California Logistics Airport Runway 3/21 Improvement, Victorville, California. Performed geotechnical investigation for reconstruction of Runway 3/21 at Southern California Logistics Airport. Data entry and prepared boring logs for the report.

Clay St. Grade Separation for UPRR, Riverside, California. Performed settlement and bearing capacity analyses for proposed retaining wall and overpass structures. Assisted with report preparation.

I-405 Sepulveda Pass Expansion Post Design, Los Angeles, California. Conduct post-design services respond to construction issues for I-405 Sepulveda Pass project in Los Angeles, CA. Duties included slope stability analysis, construction observation, data evaluation, and addressing client and agency review comments.

I-405 Sepulveda Pass HOV Widening Design Built Project, Los Angeles, California. Conduct geotechnical exploration & design 12-mile alignment of widening I-405 between I-10 & Ventura Blvd. Performed geotechnical exploration, construction observation of tie-back anchor walls, and engineering calculations for retaining wall design evaluation and slope stability analysis.

Northeast Interceptor Sewer (NEIS) Phase 2A, Southern Section, Los Angeles, California. Assisted in report preparation by preparing boring logs and appendices.

Mid-Coast Corridor Transit, San Diego, California. Responsible for obtaining DEH permits for upcoming geotechnical investigation.

I-215/SR 60 East Junction HOV, Riverside, California. Performed engineering calculation to evaluate the foundation load distribution on a proposed pipeline located below the footing.

Capistrano Pedestrian Over-cross, San Juan Capistrano, California. Project coordinator for field investigation. Obtained all necessary permits for a beach front pedestrian over-cross renovation project. Conducted geotechnical investigation and subsequent data entry and report preparation.

Education
PhD, Civil Engineering, University of Nevada, Reno
MS, Civil Engineering, University of Nevada, Reno
MS, Civil Engineering, University of Balamand, Lebanon
BS, Civil Engineering, University of Balamand, Lebanon

Licenses/Registrations
Professional Engineer, CA: 72700; AK: 13204

Experience
14

Gabriel M. Bazi, PhD, PE

Non-Destructive Testing/ACN/PCN/Training

Dynatest®

Dr. Bazi has been actively involved in pavement and materials research, consulting and teaching in the USA since 2001. Since joining Dynatest in 2007, Dr. Bazi has focused on pavement evaluation involving nondestructive testing (NDT) for road and airfield pavements and has completed numerous road and airport projects. He is also involved in developing and teaching mechanistic pavement design and deflection back calculation workshops for Dynatest in a number of states and countries. Gabriel also managed the functional and structural evaluation for several airports including profiling, skid resistance, F/HWD testing, back calculation, and PCN and load rating evaluation.

Project Experience

Los Angeles World Airports, Los Angeles, Van Nuys and Ontario, California. Project Manager for HWD testing on all airside operations areas was performed at Los Angeles International Airport (LAX), Van Nuys Airport (VNY) and Ontario Airport (ONT). The HWD data was used by the client to evaluate the pavement structural bearing capacity, which is used to complement the recommendations by the Pavement Management System. A total of about 9500, 2200 and 2500 HWD tests were performed at LAX, VNY and ONT airports, respectively covering all runways, taxiways, aprons and gates. The airport features at LAX and ONT consisted of Portland Cement Concrete (PCC) surfaces, which is similar to Arlington Municipal Airport, where the slab centers and joints were tested. The joints testing provide an indication of the load transfer efficiency. In addition to the HWD testing, a limited survey was performed during HWD testing through digital photographs that are automatically collected at 25-ft interval.

Dallas-Fort Worth International Airport (DFW), Texas. Project Manager for structural evaluation & PCN (HWD testing completed), all runways (RWYs 13L/31R, 13R/31L, 17C/35C, 17L/35R, 17R/35L, 18L/36R & 18R/36L), Dallas-Fort Worth International Airport (DFW).

Arlington Municipal Airport (GKY), Texas. Project Manager for structural evaluation & PCN (HWD testing completed), RWY 16/34, and TWYs A, B, C, D, E & F, Arlington Municipal Airport (GKY).

Denton Municipal Airport (DTO), Texas. Project Manager for structural evaluation & PCN (HWD testing completed), RWY 18/36, Denton Municipal Airport (DTO).

Wiley Post/Will Rogers Barrow Airport, Barrow, Alaska. Project Manager for nondestructive deflection testing and analysis on Runway 7/25 at Wiley Post/Will Rogers Barrow Airport, Alaska. The objectives of this project were to determine the structural capacity, Pavement Classification Number (PCN) and load rating of Runway 7/25 for a design period of twenty years subject to the proposed aircraft traffic mix.

Winslow-Lindbergh Regional Airport, Winslow, Arizona. Project Manager for nondestructive deflection testing and analysis on Runway 4/22 and 11/29 at Winslow-Lindbergh Regional Airport, Winslow, Arizona. The objective of this project was to determine the overlay required for a design aircraft mix using the ELMOD software.

Education
State of Minnesota - High School, 1959

Experience
25

David McLean
Non-Destructive Testing

Dynatest®

Mr. McLean is based in our California office and is responsible for FWD/HWD and profile testing performed nationwide. He routinely tests both asphalt concrete (AC) and Portland cement concrete (PCC) pavements on both airfields and roadways. Mr. McLean has performed tests using both the Dynatest FWD and HWD units. He has also assisted in several PAVER pavement condition index (PCI) surveys for both the U.S. Army and Navy at various military bases throughout the country. His versatility is evident in his ability to accomplish field equipment repairs and "stay on schedule".

Project Experience

Los Angeles World Airports, Los Angeles, Van Nuys and Ontario, California. HWD Operator for HWD testing on all airside operations areas was performed at Los Angeles International Airport (LAX), Van Nuys Airport (VNY) and Ontario Airport (ONT). The HWD data was used by the client to evaluate the pavement structural bearing capacity, which is used to complement the recommendations by the Pavement Management System. A total of about 9500, 2200 and 2500 HWD tests were performed at LAX, VNY and ONT airports, respectively covering all runways, taxiways, aprons and gates. The airport features at LAX and ONT consisted of Portland Cement Concrete (PCC) surfaces, which is similar to Arlington Municipal Airport, where the slab centers and joints were tested. The joints testing provide an indication of the load transfer efficiency. In addition to the HWD testing, a limited survey was performed during HWD testing through digital photographs that are automatically collected at 25-ft interval.

Wiley Post/Will Rogers Barrow Airport, Barrow, Alaska. HWD Operator for nondestructive deflection testing and analysis on Runway 7/25 at Wiley Post/Will Rogers Barrow Airport, Alaska. The objectives of this project were to determine the structural capacity, Pavement Classification Number (PCN) and load rating of Runway 7/25 for a design period of twenty years subject to the proposed aircraft traffic mix.

EXHIBIT "B"

Rates or Charges

KLEINFELDER 2014-2017 FEE SCHEDULE FOR
City of Long Beach Department of Financial Management
Agricultural, Engineering, Planning, Construction Management and Specialized Professional Consultant Services for Various On-Call Projects at the Long Beach Airport for Contract RFQ AP 13-030 Task Order 001

PROFESSIONAL STAFF RATES*

Employee/Category	Current Unburdened Hourly Rate	Fringe Benefit Rate 57.0500%	Overhead Rate 126.2100%	Subtotal	Profit 10%	Fully Burdened 2014 Hourly Rate	2015 Hourly Rate	2016 Hourly Rate	2017 Hourly Rate
Sr. Principal Professional	$76.92	$43.88	$97.08	$217.88	$21.79	$240	$247	$254	$262
Registered Geotechnical Engineer	$72.16	$41.17	$91.07	$204.40	$20.44	$225	$232	$239	$246
Principal Professional	$61.42	$35.04	$77.52	$173.98	$17.40	$191	$197	$203	$209
Registered Civil Engineer	$44.58	$25.43	$56.26	$126.28	$12.63	$139	$143	$147	$152
Staff Professional	$32.00	$18.26	$40.39	$90.64	$9.06	$100	$103	$106	$109
GIS Analyst II	$31.76	$18.12	$40.08	$89.96	$9.00	$99	$102	$105	$108
CADD Operator	$30.01	$17.12	$37.88	$85.01	$8.50	$94	$96	$99	$102
Administrative	$25.91	$14.78	$32.70	$73.39	$7.34	$81	$83	$86	$88

Kleinfelder reserves the right to adjust the fee schedule on projects not completed within 180 days from the contract signature date.

Rates will be escalated at 3% per year beginning 08/01/2015.

Public works projects or projects receiving public funds may be subject to Prevailing Wage laws. The above rates do not apply to projects subject to prevailing wages. Hourly rates for those projects will be supplied separately.

* Applies to all professional rates including but not limited to civil, mechanical, chemical, electrical, geotechnical and environmental engineers; industrial hygienists; geologists; hydrogeologists; hydrologists; and computer specialists.

Hourly rates assume that other direct costs will be billed and reimbursed by the client. Kleinfelder reserves the right to adjust the fee schedule on projects where other direct costs are not reimbursed.

EXHIBIT "C"

City's Representative:

Jeffrey A. Sedlak, P.E.

Senior Civil Engineer

EXHIBIT "D"

Materials/Information Furnished: None