

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

669A



FROM: TLMA – Transportation Department

SUBMITTAL DATE:
September 28, 2015

SUBJECT: Engineering Services Agreement by and Between the County of Riverside and Kleinfelder Group, Inc. to Perform Preliminary Engineering and to Prepare the Environmental Documentation for the Replacement of the Mission Boulevard Bridge at Santa Ana River. 2nd District; [\$1,694,939]; Federal Funds 88.53%, City of Jurupa Valley 4.93% and City of Riverside 6.54%

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the Engineering Services Agreement by and between the County of Riverside and Kleinfelder Group, Inc. for the Replacement of the Mission Boulevard Bridge at Santa Ana River; and
2. Authorize the Chairman of the Board to execute the same.

Patricia Romo

Patricia Romo
Assistant Director of Transportation

Juan C. Perez

Juan C. Perez
Director of Transportation and Land Management

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (Per Exec. Office)
COST	\$ 380,000	\$ 565,000	\$ 1,694,939	\$ 0	Consent <input type="checkbox"/> Policy <input checked="" type="checkbox"/>
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0	

SOURCE OF FUNDS: Federal Highway Bridge Program funds (88.53%); cities of Jurupa Valley and Riverside funds (11.47%). There are no General Funds used in this project. **Budget Adjustment:** No
For Fiscal Year: 15/16-18/19

C.E.O. RECOMMENDATION:

APPROVE

County Executive Office Signature

BY: *Tina Grandjean*
Tina Grandjean

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Ashley, seconded by Supervisor Benoit and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Tavaglione, Washington, Benoit and Ashley
Nays: None
Absent: None
Date: November 3, 2015
xc: Transp.

Kecia Harper-Ihem
Clerk of the Board
By: *Kecia Harper-Ihem*
Deputy

Prev. Agn. Ref.: 12/14/2010, Item 3-57
09/01/2015, Item 3-26

District: 2

Agenda Number:

3-23

FORM APPROVED COUNTY COUNSEL
BY: *GREGORY P. PRIAMOS*
DATE: 10/19/15

Departmental Concurrence

- A-30
- Positions Added
- 4/5 Vote
- Change Order

SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
FORM 11: Engineering Services Agreement by and Between the County of Riverside and Kleinfelder Group, Inc. to Perform Preliminary Engineering and to Prepare the Environmental Documentation for the Replacement of the Mission Boulevard Bridge at Santa Ana River. 2nd District; [\$1,694,939]; Federal Funds 88.53%, City of Jurupa Valley 4.93% and City of Riverside 6.54%

DATE: September 28, 2015

PAGE: 2 of 3

BACKGROUND:

Summary

The existing Mission Boulevard Bridge over the Santa Ana River is located near Mount Rubidoux in the County of Riverside (County) within the City of Jurupa Valley and the City of Riverside. The Mission Boulevard Bridge carries four lanes of traffic (2 lanes in each direction) and is 1104 feet in length. This project proposes to replace the existing Mission Boulevard Bridge. The existing bridge was originally slated for seismic retrofitting under the State Local Agency Seismic Retrofit Program; however, based on subsequent geotechnical studies that identified site soils with high liquefaction potential, total bridge replacement was determined to be the more appropriate strategy due to the high cost of the required foundation improvements.

On December 14, 2010 (Agenda Item 3-57), the Board of Supervisors approved the Engineering Services Agreement between the County of Riverside and Simon Wong Engineering to prepare a limited feasibility study for the Mission Boulevard Bridge at Santa Ana River.

The California Department of Transportation (Caltrans) required that a "Limited Feasibility Study and Final Retrofit Strategy Report" be developed to assess and to document a seismic retrofitting alternative versus an in-kind bridge replacement in order to justify the total bridge replacement as the adopted retrofit strategy and to establish the level of participation for the matching State Seismic Bond (Prop. 1B) funds.

On September 1, 2015 (Agenda Item 3-26), the Board of Supervisors approved the Service Agreement between the County of Riverside, the City of Jurupa Valley, and the City of Riverside for Mission Boulevard Bridge Improvements at Santa Ana River. The project is located within the jurisdictional boundaries of the cities and the agencies desire the County to be the lead agency for the project, since the County has extensive experience in the development and implementation of complex bridge projects involving federal and state agencies. The County will, therefore, provide the administrative, technical, managerial, and support services for the development and implementation of the project, and the cities will be responsible for the project funding that is needed, in addition to the federal funding the project will receive. The bridge replacement project is expected to cost \$38,485,000 and will be funded by the Federal Highway Bridge Program (HBP) funds, State Seismic Bond (Prop. 1B) funds, and City funds.

The County ran a request for technical proposals to select three consulting firms for providing engineering and environmental services to replace the Mission Boulevard and the Market Street Bridges at Santa Ana River, and for the County-Wide Bridge Program. Twelve engineering firms submitted technical proposals and eight of these firms were invited for an interview by a panel including County of Riverside Transportation Department and the City of Riverside staff members to select the top three firms for the project assignments. Kleinfelder Group (formerly Simon Wong Engineering) was selected as one of the final three firms to provide the necessary environmental and engineering services for the Mission Boulevard Bridge.

The scope and the negotiated fee for performing preliminary engineering and environmental documentation to clear the bridge replacement project are provided in detail in Appendices "A" and "C" of the subject agreement.

Impact on Residents and Businesses

The Mission Boulevard Bridge crosses the Santa Ana River and currently carries 17,600 vehicles per day between the City of Jurupa Valley and the City of Riverside. The bridge replacement project will benefit commuters by providing a reliable connection over the Santa Ana River that meets the latest engineering standards and seismic design criteria. The replacement bridge will be designed in accordance with the latest state of the art seismic design criteria. The replacement bridge will be designed to incorporate the historical aesthetic elements for the current structure.

SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
FORM 11: Engineering Services Agreement by and Between the County of Riverside and Kleinfelder Group, Inc. to Perform Preliminary Engineering and to Prepare the Environmental Documentation for the Replacement of the Mission Boulevard Bridge at Santa Ana River. 2nd District; [\$1,694,939]; Federal Funds 88.53%, City of Jurupa Valley 4.93% and City of Riverside 6.54%

DATE: September 28, 2015

PAGE: 3 of 3

SUPPLEMENTAL:

Additional Fiscal Information

The consultant's proposed fee for preliminary engineering and environmental documentation is \$1,694,939. It will be funded primarily using federal HBP funds (88.53%) with 11.47% matching funds from the City of Jurupa Valley and the City of Riverside funding sources (City of Jurupa Valley 4.93% and City of Riverside 6.54% respectively). The Agreement shall be completed by November 2, 2019.

The cost breakdown by fiscal year is:

- FY15/16 \$380,000
- FY16/17 \$565,000
- FY17/18 \$565,000
- FY18/19 \$184,939

Total Budget: \$1,694,939

Work Order No.: B3-0528

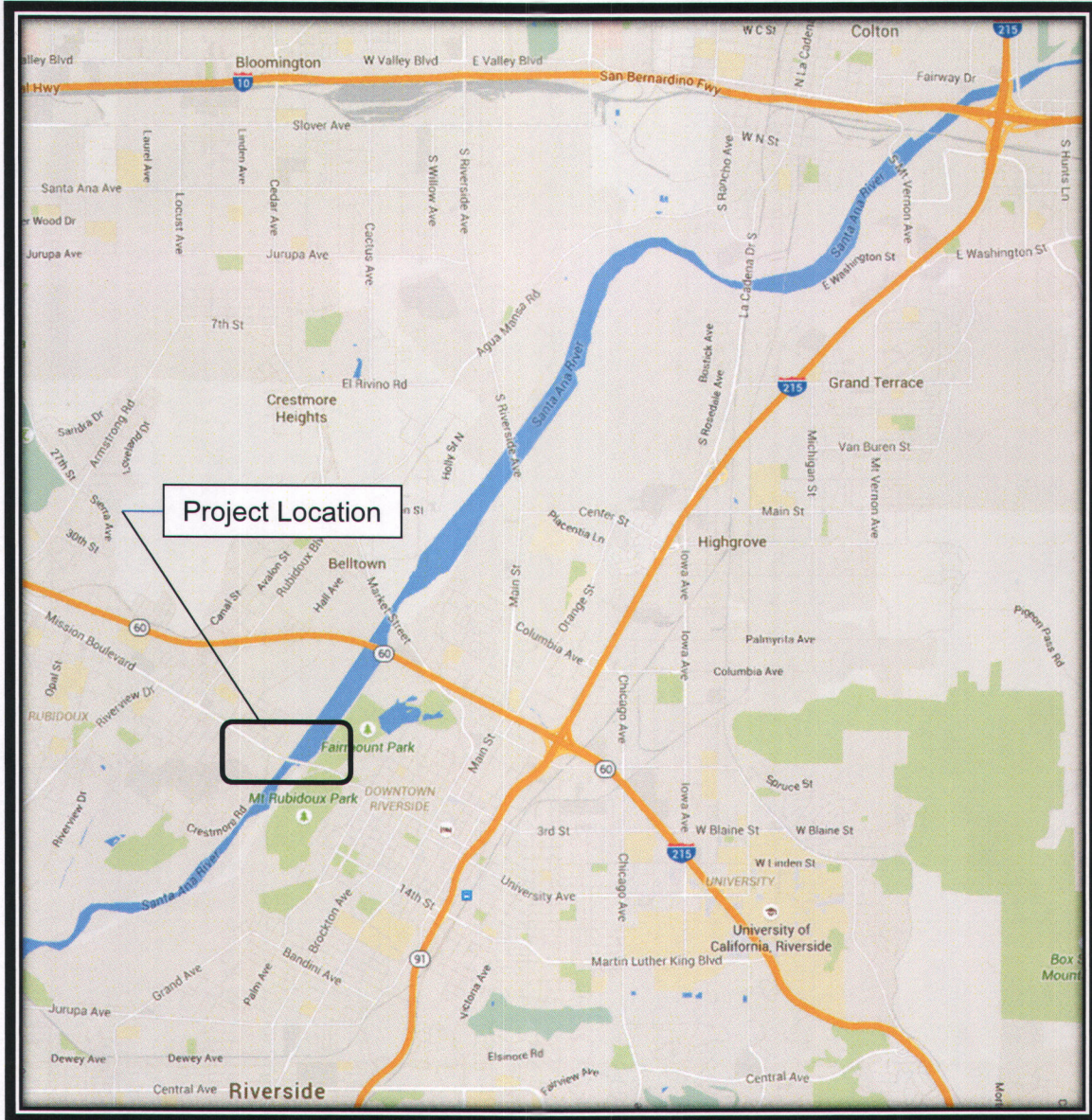
Contract History and Price Reasonableness

The consultant's original fee proposal of \$2,094,000 has been negotiated down to \$1,694,939, including optional environmental tasks in the amount of \$250,000 for unforeseen environmental conditions that might arise during the performance of technical studies.

ATTACHMENTS

Vicinity Map
Engineering Services Agreement

Mission Boulevard Bridge Improvements at Santa Ana River



VICINITY MAP

Federal Project No. **BRLSZ-5956(192)**
Caltrans EA No. **08-925179**

Contract No. 13-11-005
Riverside County Transportation

ENGINEERING SERVICES AGREEMENT

for

**Replacement of the Mission Boulevard Bridge at Santa Ana River
(BR. No. 56C-0071)**

between

County of Riverside • Transportation Department

and

Kleinfelder Group, Inc.



NOV 03 2015 323

Table of Contents

ARTICLE I • DESIGNATED CONTACTS..... 1

ARTICLE II • PROJECT DEFINITION..... 1

ARTICLE III • COOPERATIVE AGENCIES 1

 A. Lead Agency..... 1

 B. Cooperative Agencies 1

 C. COUNTY/AGENCIES Standards 2

ARTICLE IV • CONDITIONS 2

 A. Notifications 2

 B. Assignment..... 2

 C. Subcontracts..... 2

 D. Modifications..... 3

 E. COUNTY Directives..... 3

 F. Liability..... 3

 G. Indemnification and Defense..... 4

 H. Quality Control..... 5

 I. Value Engineering 6

 J. Extra Work..... 6

 K. Disputes..... 7

 L. Termination Without Cause..... 7

 M. Termination for Lack of Performance 8

 N. Insurance..... 8

 O. Conflict of Interest..... 11

 P. Legal Compliance..... 11

 Q. Nondiscrimination..... 11

 R. Labor Code and Prevailing Wages..... 12

 S. Review and Inspection 13

 T. Record Retention / Audits..... 13

 U. Rebates, Kickbacks, or Other Unlawful Consideration 13

 V. Prohibition of Expending Local Agency, State, or Federal Funds for Lobbying..... 14

 W. Ownership of Data..... 15

 X. Confidentiality of Data 15

 Y. Funding Requirements 16

ARTICLE V • PERFORMANCE..... 16

 A. Performance Period..... 16

 B. Time Extensions 17

 C. Reporting Progress..... 17

 D. Evaluation of ENGINEER 17

ARTICLE VI • COMPENSATION 18

 A. Work Authorization 18

 B. Basis of Compensation..... 18

 C. Progress Payments 19

ARTICLE VII • GIS INFORMATION 20

ARTICLE VIII • APPROVALS 22

APPENDICES

1. Scope of Services.....	A1
2. Schedule of Services.....	B1
3. Budget.....	C1

ENGINEERING SERVICES AGREEMENT

COUNTY OF RIVERSIDE, hereinafter referred to as "COUNTY", and Klinfelder Group Inc., hereinafter referred to as "ENGINEER", located at the following addresses:

County of Riverside • Transportation Department	Klinfelder Group Inc.
4080 Lemon Street, 8 th Floor	550 West C Street, Suite 1200
Riverside, CA 92502	San Diego, CA 92101

do hereby agree as follows:

ARTICLE I • DESIGNATED CONTACTS

Coordination of ENGINEER, and COUNTY activities shall be accomplished through an ENGINEERING PROJECT MANAGER, and a COUNTY PROJECT MANAGER.

The ENGINEERING PROJECT MANAGER for ENGINEER shall be:

Jim Frost

The COUNTY PROJECT MANAGER for COUNTY shall be:

Tayfun Saglam

ARTICLE II • PROJECT DEFINITION

ENGINEER shall furnish all technical and professional services including labor, material, equipment, transportation, supervision, and expertise to fully and adequately perform and complete the covenants set forth in Appendix A, Scope of Services, which is attached hereto and incorporated herein by reference. All services and deliverables associated with the performance and accomplishment of the covenants described in the Scope of Services is hereinafter collectively referred to as the "PROJECT".

ARTICLE III • COOPERATIVE AGENCIES

A. Lead Agency

COUNTY is designated as the lead agency for PROJECT and is working cooperatively with other agencies in the effort to complete PROJECT.

B. Cooperative Agencies

The cooperating agencies are listed below and will hereinafter be collectively referred to as the "AGENCIES".

Federal Highway Administration (FHWA)

CALTRANS

1 Riverside County Departments

2 City of Riverside

3 City of Jurupa Valley

4 Utility Companies

5 Regulatory Agencies including:

6 U.S. Army Corps of Engineers (USACE)

7 U.S. Fish and Wildlife Service (USFWS)

8 California Department of Fish and Game (CDFG)

9 Regional Water Quality Control Board (RWQCB)

10 Riverside County Flood Control & Water Conservation District (RCFC & WCD)

11 **C. COUNTY/AGENCIES Standards**

12 All deliverables shall be prepared in accordance with the current COUNTY and AGENCIES practices,
13 regulations, policies, procedures, manuals and standards where applicable. All deliverables are subject
14 to review and approval by COUNTY.

15 **ARTICLE IV • CONDITIONS**

16 **A. Notifications**

17 All notices hereunder and communications regarding interpretation of the terms of this contract and
18 changes thereto shall be effected by the mailing thereof by registered or certified mail, return receipt
19 requested, postage prepaid and addressed to the attention of the ENGINEERING PROJECT MANAGER
20 or the COUNTY PROJECT MANAGER at the respective addresses provided on page one of this
21 contract.

22 **B. Assignment**

23 Without written consent of COUNTY, this contract is not assignable by ENGINEER either in whole or in
24 part.

25 **C. Subcontracts**

26 1. ENGINEER shall perform the services contemplated with resources available within its own organization.

27 No portion of the services pertinent to this contract shall be subcontracted without written authorization by
28 the COUNTY PROJECT MANAGER, except that which is expressly identified in this contract.

29 2. In the event ENGINEER subcontracts any portion of ENGINEER's duties under this contract, ENGINEER

1 shall require its subcontractors to comply with the terms of this contract in the same manner as required
2 of ENGINEER including, but not limited to; indemnification of the COUNTY, requiring the same insurance
3 of Subcontractors as required of ENGINEER, and having Subcontractor's insurance name the COUNTY
4 as Additional Insured for each type of insurance where this Agreement requires ENGINEER's insurance
5 to name COUNTY as Additional Insured.

6 **D. Modifications**

- 7 1. This contract may be amended or modified only by mutual written agreement of the parties. No alteration
8 or variation of the terms of this contract will be valid unless made in writing and signed by the parties
9 hereto and no oral understanding or agreement not incorporated herein, will be binding on any of the
10 parties hereto.
- 11 2. Minor modifications are changes that do not substantially affect the Scope of Service. Minor
12 modifications may be: a shift of funds between tasks within a budget category; the shifting of work
13 and/or funding from one phase to another; use of contingency pursuant to Article VI.B.1. All requests for
14 minor modifications must be approved in writing by the Director of Transportation and Land Management
15 Agency, or his designee, prior to implementing the change.
- 16 3. There shall be no change in the ENGINEERING PROJECT MANAGER or key members of the PROJECT
17 team without prior written approval by the COUNTY PROJECT MANAGER.
- 18 4. All modifications that do not fit within the definition of a minor modification to the contract shall be
19 considered a major change and must be approved in writing by the ENGINEER and COUNTY Board of
20 Supervisors prior to implementing the major change.

21 **E. COUNTY Directives**

22 ENGINEER shall receive contract directions and interpretations from the COUNTY PROJECT
23 MANAGER.

24 **F. Liability**

- 25 1. ENGINEER has total responsibility for the accuracy and completeness of all data, reports, plans,
26 specifications and estimates prepared for this PROJECT and shall check all such material
27 accordingly. COUNTY will review all work product deliverables. The responsibility for accuracy and
28 completeness of such items remains solely that of ENGINEER. Neither COUNTY'S review or
29 approval shall give rise to any liability or responsibility on the part of COUNTY, or waive any of

COUNTY'S rights, or relieve ENGINEER of its professional responsibilities or obligations under this contract.

2. The plans, designs, estimates, calculations, reports and other documents furnished in accordance with the Scope of Services shall meet the criteria for acceptance and be a product of neat appearance, well organized, technically and grammatically correct, checked and having the preparer and checker identified. The minimum standard of appearance, organization and contents shall be of similar types produced by COUNTY and AGENCIES. If any work product submitted is not complete and ready for use by COUNTY, it shall be marked "Draft" or similar designation to indicate it is not ready for use by COUNTY. COUNTY expects that all work product not so designated is ready for and can be used on PROJECT.
3. The page identifying preparers of engineering reports, the title sheet for specifications and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of the certificate, and signature of the professional engineer(s) responsible for their preparation.
4. COUNTY and ENGINEER agree that plans, drawings or other work products prepared by ENGINEER are for the exclusive use of COUNTY and will be used by COUNTY for the project for which they were specifically designed. ENGINEER shall not be responsible for use of such plans, drawings or other work products if used on a different project without the written authorization or approval by ENGINEER.
5. ENGINEER acknowledges that the plans, drawings and/or other work products may be used by COUNTY for the PROJECT regardless of any disputes that may develop between ENGINEER and COUNTY. All plans, drawings, or other work product shall be deemed the sole and exclusive property of COUNTY and ownership thereof is irrevocably vested in COUNTY whether the PROJECT is executed or not.
6. ENGINEER, and the agents and employees of ENGINEER, in the performance of this contract, shall act in an independent capacity and not as officers, employees or agents of COUNTY.

G. Indemnification and Defense

1. The ENGINEER agrees to and shall indemnify and hold harmless the County of Riverside, its Agencies, Districts, Departments and Special Districts, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents and representatives (hereinafter individually and

1 collectively referred to as "Indemnitees") from all liability, including, but not limited to loss, suits, claims,
2 demands, actions, or proceedings caused by any alleged or actual negligence, recklessness, willful
3 misconduct, errors or omissions of ENGINEER, its directors, officers, partners, employees, agents or
4 representatives or any person or organization for whom ENGINEER is responsible, arising out of or from
5 the performance of services under this Agreement. To the extent a loss, suit, claim, demand, action, or
6 proceeding is based on actual or alleged acts or omissions of ENGINEER which are not design
7 professional services, ENGINEER shall indemnify Indemnitees whether or not ENGINEER is negligent.

8 2. The duty to indemnify does not include loss, suits, claims, demands, actions, or proceedings caused by
9 actual negligence of Indemnitees; however, any actual negligence of Indemnitees will only affect the duty
10 to indemnify for the specific act found to be negligence, and will not preclude a duty to indemnify for any
11 act or omission of ENGINEER.

12 3. ENGINEER shall defend and pay, at its sole expense, all costs and fees, including but not limited to
13 attorney fees, cost of investigation, and defense, in any loss, suits, claims, demands, actions, or
14 proceedings based or alleged to be based on any act or omission of ENGINEER arising out of or from the
15 performance of services under this contract. The duty to defend applies to any alleged or actual
16 negligence, recklessness, willful misconduct, error or omission of ENGINEER. The duty to defend shall
17 apply whether or not ENGINEER is a party to the lawsuit, and shall apply whether or not ENGINEER is
18 directly liable to the plaintiffs in the lawsuit. The duty to defend applies even if Indemnitees are alleged or
19 found to be actively negligent, unless the act or omission at issue was caused by the sole active
20 negligence of Indemnitees.

21 4. The specified insurance provisions and limits required in this contract shall in no way limit or circumscribe
22 ENGINEER'S obligations to indemnify and hold harmless Indemnitees from third party claims.

23 5. In the event there is conflict between the indemnity and defense provisions and California Civil Code
24 Sections 2782 and 2782.8, the indemnity and defense provisions shall be interpreted to comply with Civil
25 Code sections 2782 and 2782.8.

26 **H. Quality Control**

27 ENGINEER shall implement and maintain the following quality control procedures during the preparation
28 of the plans and documents relating to PROJECT. ENGINEER shall have a quality control plan in effect
29 during the entire time services are being performed under this contract. The plan shall establish a

1 process whereby calculations are independently checked, plans checked, corrected and back-checked,
2 and all job related correspondence and memoranda routed and received by affected persons and then
3 bound in appropriate job files. Where several drawings show different work in the same area, means
4 shall be provided to avoid conflicts and misalignment in both new and existing improvements. Evidence
5 that the quality control plan is functional may be requested by the COUNTY PROJECT MANAGER. All
6 plans, calculations documents and other items submitted to the COUNTY PROJECT MANAGER for
7 review shall be marked clearly as being fully checked and that the preparation of the material followed the
8 quality control plan established for the work.

9 **I. Value Engineering**

- 10 1. Elements of PROJECT may be considered for Value Engineering Studies. To this end, the COUNTY
11 PROJECT MANAGER may direct the ENGINEER to examine the various elements of a design segment
12 and submit an informal written statement or memorandum addressing those elements where it appears
13 significant savings and other advantages can be realized. The statement shall be sufficiently informative
14 to enable COUNTY to determine whether to direct a detailed Value Engineering Study or possibly direct
15 immediate design changes where the value of the change is apparent without the need of detailed study
16 and analysis.
- 17 2. ENGINEER or its subcontractors shall not incorporate in the design materials or equipment of single or
18 sole source origin without written approval of COUNTY. Proprietary names of material or equipment shall
19 not be used in the plans and specifications.

20 **J. Extra Work**

- 21 1. ENGINEER shall not perform Extra Work until receiving written authorization from the COUNTY
22 PROJECT MANAGER.
- 23 2. In the event that COUNTY directs ENGINEER to provide services constituting Extra Work, COUNTY shall
24 provide extra compensation to the ENGINEER. Allowable compensation for approved extra work will be
25 based on the provisions of Appendix C, Budget, which is attached hereto and incorporated herein by
26 reference.
- 27 3. An amendment to this contract providing for such compensation for Extra Work shall be issued by
28 COUNTY to ENGINEER. Such Amendment shall not be effective until executed by both parties.
29

K. Disputes

1. In the event ENGINEER considers any work demanded of him to be outside the requirements of the contract, or if he considers any order, instruction, or decision of COUNTY to be unfair, he shall promptly upon receipt of such order, instruction or decision, ask for a written confirmation of the same whereupon he shall proceed without delay to perform the work or to conform to the order, instruction, or decision; but unless ENGINEER finds such order, instruction, or decision satisfactory, he shall within 20 days after receipt of same, file a written protest with COUNTY stating clearly and in detail his objections and reasons therefore. Except for such protests or objections as are made of record in the manner specified and within the time stated herein, and except for such instances where the basis of a protest could not reasonably have been foreseen by ENGINEER within the time limit specified for protest, ENGINEER hereby waives all grounds for protests or objections to the orders, instruction, or decisions of COUNTY and hereby agrees that, as to all matters not included in such protests, the orders, instructions and decisions of COUNTY will be limited to matters properly falling within COUNTY's authority.
2. Any controversy or claim arising out of or relating to this contract which cannot be resolved by mutual agreement may be settled by arbitration in accordance with the rules of the American Arbitration Association, provided that the parties mutually agree to submit to arbitration.
3. Neither the pendency of a dispute nor its consideration by arbitration will excuse ENGINEER from full and timely performance in accordance with the terms of the contract.

L. Termination Without Cause

1. COUNTY reserves the right to terminate this contract at COUNTY's discretion and without cause, upon thirty (30) calendar days written notice to ENGINEER.
2. In the event of termination of the Agreement, upon demand, ENGINEER shall deliver to COUNTY all field notes, surveys, studies, reports, plans, drawings, specifications, and all other materials and documents prepared by or provided to ENGINEER in the performance of this contract. All such documents and materials shall be property of COUNTY.
3. In the event that this contract is terminated, ENGINEER is entitled to full payment for all services performed up to the time written notice of contract cancellation is received by ENGINEER. Payment shall be made for services performed to date based upon the percentage ratio that the basic services performed bear to the services contracted for, less payments made to date; plus any amount for

1 authorized, but unpaid, extra work performed and costs incurred.

2 **M. Termination for Lack of Performance**

3 COUNTY may terminate this contract and be relieved of the payment of any consideration to ENGINEER
4 should ENGINEER fail to perform the covenants herein contained at the time and in the manner herein
5 provided. In the event of such termination, COUNTY may proceed with the work in any manner deemed
6 proper by COUNTY. In such event, ENGINEER shall be paid only for work completed and delivered to
7 COUNTY in a timely and successful manner.

8 **N. Insurance**

9 Without limiting or diminishing the ENGINEER'S obligation to indemnify or hold the COUNTY harmless,
10 ENGINEER shall procure and maintain or cause to be maintained, at its sole cost and expense, the following
11 insurance coverage's during the term of this Agreement. As respects to the insurance section only, the
12 COUNTY herein refers to the County of Riverside, its Agencies, Districts, Special Districts, and Departments,
13 their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents or
14 representatives as Additional Insureds.

15 1. Workers' Compensation:

16 If the ENGINEER has employees as defined by the State of California, the ENGINEER shall maintain
17 statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of
18 California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with
19 limits not less than \$1,000,000 per person per accident. The policy shall be endorsed to waive
20 subrogation in favor of The County of Riverside.

21 2. Commercial General Liability:

22 Commercial General Liability insurance coverage, including but not limited to, premises liability,
23 unmodified contractual liability, products and completed operations liability, personal and advertising
24 injury, and cross liability coverage, covering claims which may arise from or out of ENGINEER'S
25 performance of its obligations hereunder. Policy shall name the COUNTY as Additional Insured. Policy's
26 limit of liability shall not be less than \$1,000,000 per occurrence combined single limit. If such insurance
27 contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2)
28 times the occurrence limit.

29 3. Vehicle Liability:

1 If vehicles or mobile equipment are used in the performance of the obligations under this Agreement, then
2 ENGINEER shall maintain liability insurance for all owned, non-owned or hired vehicles so used in an
3 amount not less than \$1,000,000 per occurrence combined single limit. If such insurance contains a
4 general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the
5 occurrence limit. Policy shall name the COUNTY as Additional Insureds.

6 4. Professional Liability

7 ENGINEER shall maintain Professional Liability Insurance providing coverage for the ENGINEER's
8 performance of work included within this Agreement, with a limit of liability of not less then \$1,000,000 per
9 occurrence and \$2,000,000 annual aggregate. If ENGINEER's Professional Liability Insurance is written
10 on a claims made basis rather than an occurrence basis, such insurance shall continue through the term
11 of this Agreement and ENGINEER shall purchase at his sole expense either 1) an Extended Reporting
12 Endorsement (also, known as Tail Coverage); or 2) Prior Dates Coverage from new insurer with a
13 retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through
14 Certificates of Insurance that ENGINEER has Maintained continuous coverage with the same or original
15 insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

16 5. General Insurance Provisions - All lines:

17 a. Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of
18 California and have an A M BEST rating of not less than A: VIII (A:8) unless such requirements are
19 waived, in writing, by the County Risk Manager. If the County's Risk Manager waives a requirement
20 for a particular insurer such waiver is only valid for that specific insurer and only for one policy term.

21 b. The ENGINEER must declare its insurance self-insured retention for each coverage required herein.
22 If any such self-insured retention exceed \$500,000 per occurrence each such retention shall have the
23 prior written consent of the County Risk Manager before the commencement of operations under this
24 Agreement. Upon notification of self-insured retention unacceptable to the COUNTY, and at the
25 election of the Country's Risk Manager, ENGINEER'S carriers shall either; 1) reduce or eliminate
26 such self-insured retention as respects this Agreement with the COUNTY, or 2) procure a bond which
27 guarantees payment of losses and related investigations, claims administration, and defense costs
28 and expenses.

29 c. ENGINEER shall cause ENGINEER'S insurance carrier(s) to furnish the County of Riverside with

1 either 1) a properly executed original Certificate(s) of Insurance and certified original copies of
2 Endorsements effecting coverage as required herein, and 2) if requested to do so orally or in writing
3 by the County Risk Manager, provide original Certified copies of policies including all Endorsements
4 and all attachments thereto, showing such insurance is in full force and effect. Further, said
5 Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that thirty
6 (30) days written notice shall be given to the County of Riverside prior to any material modification,
7 cancellation, expiration or reduction in coverage of such insurance. In the event of a material
8 modification, cancellation, expiration, or reduction in coverage, this Agreement shall terminate
9 forthwith, unless the County of Riverside receives, prior to such effective date, another properly
10 executed original Certificate of Insurance and original copies of endorsements or certified original
11 policies, including all endorsements and attachments thereto evidencing coverage's set forth herein
12 and the insurance required herein is in full force and effect. ENGINEER shall not commence
13 operations until the COUNTY has been furnished original Certificate (s) of Insurance and certified
14 original copies of endorsements and if requested, certified original policies of insurance including all
15 endorsements and any and all other attachments as required in this Section. An individual authorized
16 by the insurance carrier to do so on its behalf shall sign the original endorsements for each policy and
17 the Certificate of Insurance.

18 d. It is understood and agreed to by the parties hereto that the ENGINEER'S insurance shall be
19 construed as primary insurance, and the COUNTY'S insurance and/or deductibles and/or self-insured
20 retention's or self-insured programs shall not be construed as contributory.

21 e. If, during the term of this Agreement or any extension thereof, there is a material change in the scope
22 of services; or, there is a material change in the equipment to be used in the performance of the
23 scope of work; or, the term of this Agreement, including any extensions thereof, exceeds five (5)
24 years; the COUNTY reserves the right to adjust the types of insurance and the monetary limits of
25 liability required under this Agreement, if in the County Risk Manager's reasonable judgment, the
26 amount or type of insurance carried by the ENGINEER has become inadequate.

27 f. ENGINEER shall pass down the insurance obligations contained herein to all tiers of subconsultants
28 working under this Agreement.

29 g. The insurance requirements contained in this Agreement may be met with a program(s) of self-

1 insurance acceptable to the COUNTY.

2 h. ENGINEER agrees to notify COUNTY of any claim by a third party or any incident or event that may
3 give rise to a claim arising from the performance of this Agreement.

4 **O. Conflict of Interest**

5 ENGINEER warrants, by execution of this contract, that no person or selling agency has been employed
6 or retained to solicit or secure this contract upon an agreement or understanding for a commission,
7 percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established
8 commercial or selling agencies maintained by ENGINEER for the purpose of securing business. For
9 breach or violation of this warranty, COUNTY has the right to annul this contract without liability, pay only
10 for the value of the work actually performed, or in its discretion to deduct from the contract price or
11 consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or
12 contingent fee. ENGINEER may be requested to complete a Conflict of Interest Statement prior to,
13 during, or after execution of this contract. ENGINEER understands that as a condition of this contract
14 ENGINEER agrees to complete the Conflict of Interest Statement when requested to do so by COUNTY.

15 **P. Legal Compliance**

16 ENGINEER shall comply with all Federal, State and local laws, statutes, ordinances, rules and
17 regulations, and the orders and decrees of any courts or administrative bodies or tribunals currently in
18 effect and in any manner affecting the performance of this contract, including, without limitation, workers'
19 compensation laws and licensing and regulations.

20 **Q. Nondiscrimination**

21 1. During the performance of this contract, ENGINEER and its Subcontractors shall not act unlawfully
22 against any employee or applicant for employment because of race, religion, color, national origin,
23 ancestry, physical handicap, medical condition, marital status, age or sex. ENGINEER and
24 Subcontractor shall comply with the provisions of the Fair Employment and Housing Act (Government
25 Code, Section 12900 et seq.) and applicable regulations promulgated thereunder (California
26 Administrative Code, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment
27 and Housing Commission implementing Government Code, Section 12900, set forth in Chapter 5 of
28 Division 4 of Title 2 of the California Administrative Code are incorporated into this contract by reference
29 and made a part hereof as if set forth in full. ENGINEER and its Subcontractors shall give written notice

1 of their obligations under this clause to labor organizations with which they have a collective bargaining or
2 other agreement.

3 2. ENGINEER will provide all information and reports required by the Regulations, or orders and instructions
4 issued pursuant thereto, and will permit access to its books, records, accounts, other sources of
5 information, and its facilities as may be determined by COUNTY or AGENCIES to be pertinent to
6 ascertain compliance with such Regulations, orders and instructions. Where any information required of
7 ENGINEER is in the exclusive possession of another who fails or refuses to furnish this information,
8 ENGINEER shall so certify to COUNTY, or the Federal Highway Administration as appropriate and shall
9 set forth what efforts he has made to obtain the information.

10 3. In the event of ENGINEER's noncompliance with the nondiscrimination provisions of this contract,
11 COUNTY shall impose such contract sanctions as it determines to be appropriate, including, but not
12 limited to:

- 13 • Withholding of payments to ENGINEER under the contract until ENGINEER complies;
- 14 • Cancellation, termination, or suspension of the contract in whole or in part.

15 4. ENGINEER shall include the nondiscrimination and compliance provisions of this clause in all
16 subcontracts to perform work under this contract.

17 5. ENGINEER shall comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, 49 CFR
18 21 through Appendix H and 23 CFR 710.405(b) are applicable to this contract by reference.

19 **R. Labor Code and Prevailing Wages**

- 20 1. Certain Classifications of Labor under this contract may be subject to prevailing wage requirements.
- 21 2. Reference is made to Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with
22 Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here
23 set forth in full. The parties recognize that said Chapter 1 deals, among other things with discrimination,
24 penalties and forfeitures, their disposition and enforcement, wages, working hours, and securing worker's
25 compensation insurance and directly effect the method of prosecution of the work by ENGINEER and
26 subject it under certain conditions to penalties and forfeitures. Execution of the contract by the parties
27 constitutes their agreement to abide by said Chapter 1, their stipulation as to all matters which they are
28 required to stipulate as to by the provisions of said Chapter 1, constitutes ENGINEER's certification that
29 he is aware of the provisions of said Chapter 1 and will comply with them and further constitutes

1 ENGINEER's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor
2 Code which require every employer to be insured against liability for worker's compensation or to
3 undertake self-insurance in accordance with the provisions of that Code, and I will comply with such
4 provisions before commencing the performance of the work of this contract."

- 5 3. Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates, including the per diem
6 wages applicable to the work, and for holiday and overtime work, including employer payments for health
7 and welfare, pension, vacation, and similar purposes, in the county in which the work is to be done have
8 been determined by the Director of the California Department of Industrial Relations. These wages are
9 available from the California Department of Industrial Relations' Internet website at <http://www.dir.ca.gov>.
- 10 4. Should a portion of the project contain Federal funding, Federal minimum wages shall be used. The
11 Federal minimum wage rates for this project as determined by the United States Secretary of Labor are
12 available from the U.S Department of Labor, Employment Standards Administration, Wage and Hour
13 Division's Internet website at <http://www.access.gpo.gov/davisbacon>. If there is a difference between the
14 minimum wage rates determined by the Secretary of Labor and the general prevailing wage rates
15 determined by the Director of the California Department of Industrial Relations for similar classifications of
16 labor, the ENGINEER and subcontractors shall pay not less than the higher wage rate. The Department
17 will not accept lower State wage rates determinations. This includes "helper" (or other classifications
18 based on hours of experience) or any other classification not appearing in the Federal wage
19 determinations. Where Federal wage determinations do not contain the State wage rate determination
20 otherwise available for use by the ENGINEER and subcontractors, the ENGINEER and subcontractors
21 shall pay not less than the Federal minimum wage rate which most closely approximates the duties of the
22 employees in question.

23 **S. Review and Inspection**

24 ENGINEER and any Subcontractors shall permit COUNTY and/or AGENCIES to review and inspect
25 PROJECT activities including review and inspection on a daily basis.

26 **T. Record Retention / Audits**

- 27 1. ENGINEER's and subconsultants' contracts, including cost proposals and indirect cost rates (ICR), are
28 subject to audits or reviews such as, but not limited to, a Contract Audit, an Incurred Cost Audit, an ICR
29 Audit, or a certified public accountant (CPA) ICR Audit Workpaper Review. If selected for audit or review,

1 the contract, cost proposal and ICR and related workpapers, if applicable, will be reviewed to verify
2 compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR
3 Audit Workpaper Review, it is ENGINEER's responsibility to ensure federal, state, or local government
4 officials are allowed full access to the CPA's workpapers. The contract, cost proposal, and ICR shall be
5 adjusted by ENGINEER and approved by COUNTY contract manager to conform to the audit or review
6 recommendations. ENGINEER agrees that individual terms of costs identified in the audit report shall be
7 incorporated into the contract by this reference if directed by COUNTY at its sole discretion. Refusal by
8 ENGINEER to incorporate audit or review recommendations, or to ensure that the Federal, State, or local
9 governments have access to CPA workpapers, will be considered a breach of contract terms and cause
10 for termination of the contract and disallowance of prior reimbursed costs.

11 2. ENGINEER, Subcontractors, and COUNTY shall maintain all books, documents, papers, accounting
12 records, and other evidence pertaining to the performance of the contract, but not limited to, the costs of
13 administering the contract. All parties shall make such materials available at their respective offices at all
14 reasonable times during the contract period and for ten years from the date of final payment under the
15 contract or ten years from project closeout, whichever is later.

16 3. COUNTY, Caltrans, the State Auditor General, FHWA or any duly authorized representative of the
17 Federal Government shall have access to any books, records, and documents of ENGINEER that are
18 pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be
19 furnished if requested.

20 **U. Rebates, Kickbacks, or Other Unlawful Consideration**

21 ENGINEER warrants that this contract was not obtained or secured through rebates kickbacks or other
22 unlawful consideration, either promised or paid to any COUNTY employee. For breach or violation of this
23 warranty, COUNTY shall have the right in its discretion; to terminate the contract without liability; to pay
24 only for the value of the work actually performed; or to deduct from the contract price; or otherwise
25 recover the full amount of such rebate, kickback or other unlawful consideration.

26 **V. Prohibition of Expending Local Agency, State, or Federal Funds for Lobbying**

27 1. ENGINEER certifies to the best of his or her knowledge and belief that:
28 a. No state, federal or local agency appropriated funds have been paid, or will be paid by-or-on behalf of
29 ENGINEER to any person for influencing or attempting to influence an officer or employee of any

1 state or federal agency; a Member of the State Legislature or United States Congress; an officer or
2 employee of the Legislature or Congress; or any employee of a Member of the Legislature or
3 Congress, in connection with the awarding of any state or federal contract; the making of any state or
4 federal grant; the making of any state or federal loan; the entering into of any cooperative agreement,
5 and the extension, continuation, renewal, amendment, or modification of any state or federal contract,
6 grant, loan, or cooperative agreement.

7 b. If any funds other than federal appropriated funds have been paid, or will be paid to any person for
8 influencing or attempting to influence an officer or employee of any federal agency; a Member of
9 Congress; an officer or employee of Congress, or an employee of a Member of Congress; in
10 connection with this federal contract, grant, loan, or cooperative agreement; ENGINEER shall
11 complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with
12 its instructions.

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

18 3. ENGINEER also agrees by signing this document that he or she shall require that the language of this
19 certification be included in all lower-tier subcontracts, which exceed \$100,000, and that all such sub
20 recipients shall certify and disclose accordingly.

21 **W. Ownership of Data**

22 Ownership and title to all reports, documents, plans, specifications, and estimates produced as part of
23 this contract will automatically be vested in COUNTY and no further agreement will be necessary to
24 transfer ownership to COUNTY.

25 **X. Confidentiality of Data**

26 1. All financial, statistical, personal, technical or other data and information which is designated confidential
27 by COUNTY or AGENCIES, and made available to ENGINEER in order to carry out this contract, shall be
28 protected by ENGINEER from unauthorized use and disclosure.

29 2. Permission to disclose information on one occasion for a public hearing held by COUNTY or AGENCIES

1 relating to the contract shall not authorize ENGINEER to further disclose such information or disseminate
2 the same on any other occasion.

3 3. ENGINEER shall not comment publicly to the press or any other media regarding the contract, including
4 COUNTY or Agencies actions regarding this contract. Communication shall be limited to COUNTY,
5 Agency or ENGINEER's staff that are involved with the project, unless ENGINEER shall be requested by
6 COUTY to attend a public hearing or respond to questions from a Legislative committee.

7 4. Each subcontract shall contain provisions similar to the foregoing related to the confidentiality of data and
8 nondisclosure of the same.

9 5. ENGINEER shall not issue any news release or public relations item of any nature whatsoever regarding
10 work performed or to be performed under this contract without prior review of the contents thereof by
11 COUNTY and receipt of COUNTY's written permission.

12 **Y. Funding Requirements**

13 1. All obligations of COUNTY are subject to appropriation of resources by various Federal, State and local
14 agencies.

15 2. This contract is valid and enforceable only if sufficient funds are made available to COUNTY for the
16 purpose of this PROJECT. In addition, this contract is subject to any additional restrictions, limitations,
17 conditions or any statute enacted by Congress, State Legislature or COUNTY that may affect the
18 provisions, terms or funding of this contract in any manner.

19 3. It is mutually agreed that if sufficient funds for the program are not appropriated, this contract will be
20 amended or terminated to reflect any reduction in funds.

21 **ARTICLE V • PERFORMANCE**

22 **A. Performance Period**

23 1. This contract shall begin upon notification to proceed by the COUNTY PROJECT MANAGER.

24 2. ENGINEER is advised that any recommendation for contract award is not binding on COUNTY until the
25 proposed contract is fully executed and approved by COUNTY.

26 3. ENGINEER shall perform PROJECT services in accordance with the provisions set forth in Appendix B,
27 Schedule of Services, which is attached hereto and incorporated herein by reference.

28 4. Where ENGINEER is required to prepare and submit studies, reports, plans, etc., to COUNTY, these
29 shall be submitted in draft as scheduled, and the opportunity provided for COUNTY to offer comments

1 prior to final submission.

2 5. When COUNTY determines that ENGINEER has satisfactorily completed the PROJECT services,
3 COUNTY may give ENGINEER a written Notice of Final Acceptance. ENGINEER shall not incur any
4 further costs hereunder unless so specified in the Notice of Final Acceptance. ENGINEER may request a
5 Notice of Final Acceptance determination when, in its opinion, it has satisfactorily completed all covenants
6 as stipulated in this contract.

7 6. Time is of the essence in this contract.

8 **B. Time Extensions**

9 1. Any delay in providing PROJECT services required by this contract occasioned by causes beyond the
10 control and not due to the fault or negligence of ENGINEER, shall be the reason for granting an extension
11 of time for the completion of the aforesaid work. When such delay occurs, ENGINEER shall promptly
12 notify COUNTY in writing of the cause and of the extent of the delay whereupon COUNTY shall ascertain
13 the facts and the extent of the delay and grant an extension of time for the completion of the work when,
14 in COUNTY's judgment, their findings of fact justify such an extension of time.

15 2. COUNTY's findings of fact shall be final and conclusive to the parties hereto. However, this is not
16 intended to deny ENGINEER it's civil legal remedies in the event of a dispute.

17 **C. Reporting Progress**

18 1. As part of the monthly invoice ENGINEER shall submit a progress report in accordance with COUNTY
19 Engineering Services Progress Reporting Guidelines. Progress Reports shall indicate the progress
20 achieved during the previous month in relation to the Schedule of Services. Submission of such progress
21 report by ENGINEER shall be a condition precedent to receipt of payment from COUNTY for each
22 monthly invoice submitted.

23 2. To ensure understanding and performance of the contract objectives, meetings between COUNTY,
24 AGENCIES, and ENGINEER shall be held as often as deemed necessary. All work objectives,
25 ENGINEER's work schedule, the terms of the contract and any other related issues will be discussed
26 and/or resolved. ENGINEER shall keep minutes of meetings and distribute copies of minutes as
27 appropriate.

28 **D. Evaluation of ENGINEER**

29 ENGINEER's performance will be evaluated by COUNTY for future reference.

ARTICLE VI • COMPENSATION

A. Work Authorization

ENGINEER shall not commence performance of any work or project services until so directed by the County Project Manager. No payment will be made prior to approval of this contract.

B. Basis of Compensation

1. PROJECT services as provided under this contract and as described in the Scope of Services, shall be compensated for as defined in Appendix C, Budget, which is attached hereto and incorporated herein by reference. The total amount of the contract is not to exceed \$1,694,939.00 and reimbursement is to be made at actual cost plus fixed fee for the following contractors:

• Kleinfelder Group, Inc	\$522,414.00
• Kimley-Horn & Associates	\$372,030.00
• LSA Associates	\$627,192.00
• Chang Consultants	\$35,503.00
•Tatsumi & Partners	\$51,594.00
• Diaz Yourman & Associates	\$46,409.00
• Value Management Strategies	\$39,796.00

If a contingency budget is provided, COUNTY shall hold such contingency in reserve for unforeseen Extra Work that may arise during the performance of this agreement. Contingency budget shall only be used at the discretion of the COUNTY PROJECT MANAGER, and with prior written authorization by the COUNTY PROJECT MANAGER.

No additional compensation for Extra Work will be paid except upon the issuance of an Extra Work Order by COUNTY.

2. Prior authorization in writing by the COUNTY PROJECT MANAGER will be required before ENGINEER enters into any non-budgeted purchase order or subcontract exceeding \$500 for supplies, equipment or consultant services. ENGINEER shall provide an evaluation of the necessity or desirability of incurring such costs.

3. For purchase of any item, service or consulting work not covered in ENGINEER's proposal and exceeding \$500, with prior authorization by the COUNTY PROJECT MANAGER, three competitive quotations shall be submitted with the request, or the absence of bidding shall be adequately justified.

1 4. Any equipment purchased as a result of this contract is subjected to the following: ENGINEER shall
2 maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a
3 useful life of at least two years and an acquisition cost of \$500 or more. If the purchased equipment
4 needs replacement and is sold or traded in, COUNTY shall receive a proper refund or credit. At the
5 conclusion of the contract or if the contract is terminated, ENGINEER may either keep the equipment and
6 credit COUNTY in an amount equal to its fair market value or sell such equipment at the best price
7 obtainable at a public or private sale in accordance with established COUNTY procedures and credit
8 COUNTY in an amount equal to the sales price. If ENGINEER elects to keep the equipment, fair market
9 value shall be determined, at ENGINEER's expense, on the basis of a competent independent appraisal
10 of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable by COUNTY, and
11 ENGINEER. If it is determined to sell the equipment, the terms and conditions of such sale must be
12 approved in advance by COUNTY and AGENCIES.

13 5. The consideration to be paid ENGINEER, as provided herein, shall be in compensation for all of
14 ENGINEER's expenses incurred in the performance hereof, including travel and per diem, unless
15 otherwise expressly so provided.

16 6. ENGINEER agrees that the Contract Cost Principles and Procedures, CFR 48, Federal Acquisition
17 Regulations Systems, Chapter 1, Part 31, shall be used to determine the allowability of individual items of
18 cost.

19 7. ENGINEER also agrees to comply with Federal procedures in accordance the Code of Federal
20 Regulations Section 49, Part 18, Uniform Administrative Requirements for Grants and Cooperative
21 Agreements to State and Local Governments.

22 8. In the event of errors or omissions in the plans for PROJECT, ENGINEER shall perform the necessary
23 engineering services required to correct such errors and omissions without additional charge to COUNTY.

24 **C. Progress Payments**

25 1. ENGINEER shall submit monthly invoices for PROJECT Services in accordance with Appendix C,
26 Budget, and in accordance with COUNTY Engineering Services Invoicing Procedures.

27 2. ENGINEER shall submit an invoice each month for PROJECT services performed during the preceding
28 month. Invoices shall be submitted to the COUNTY PROJECT MANAGER and shall be included with a
29 Progress Report covering the same period as the submitted invoice.

- 3. Progress payments will be based on PROJECT services provided and actual costs incurred. Payments made prior to the completion of each phase will not exceed the amount allowed in ENGINEER's cost proposal for the completion of that phase and prior phases, unless approved in writing by the COUNTY PROJECT MANAGER..
- 4. Progress payments will be made as promptly as fiscal procedures will permit upon receipt by the COUNTY PROJECT MANAGER of itemized invoices.
- 5. COUNTY will withhold the last 10 percent of the budget for preparation of PS&E documents. The 10 percent retainage is to be held after 90% of the PS&E phase has been billed and is not to be deducted from each invoice. The amount retained will be paid to ENGINEER after COUNTY has approved ENGINEER's plans, specifications and estimate.

ARTICLE VII • GIS INFORMATION

- A. "GIS Information" shall include GIS digital files (including the information or data contained therein) and any other information, data, or documentation from County GIS (regardless of medium or format) that is provided pursuant to this contract.
- B. ENGINEER acknowledges that the unauthorized use, transfer, assignment, sublicensing, or disclosure of the GIS information, documentation, or copies thereof will substantially diminish their value to COUNTY. ENGINEER acknowledges and agrees that COUNTY GIS information is a valuable proprietary product, embodying substantial creative efforts, trade secrets, and confidential information and ideas. COUNTY GIS information is and shall remain the sole property of COUNTY; and there is no intention of COUNTY to transfer ownership of COUNTY GIS information.
- C. COUNTY GIS information is made available to ENGINEER solely for use in the normal course of ENGINEER's business to produce reports, analysis, maps and other deliverables only for this PROJECT and as described within the Scope of Services.
- D. ENGINEER agrees to indemnify and hold harmless COUNTY, its officers, employees and agents from any and all liabilities, claims, actions, losses or damages relating to or arising from ENGINEER's use of COUNTY GIS information.
- E. GIS information cannot be used for all purposes; and GIS information may not be complete for all purposes. Additional investigation or research by ENGINEER into other sources will be required. GIS information is intended only as an information base and is not intended to replace any legal records. COUNTY has used

1 and will continue to use its best efforts to correctly input into COUNTY GIS the information contained in
2 various legal and other records; but COUNTY accepts no responsibility for any conflict with actual legal
3 records or for information not transferred from legal records to COUNTY GIS. COUNTY has attempted to
4 update GIS information as often as is practically feasible. However, ENGINEER should be aware that GIS
5 information may not be current and changes or additions to the information contained in COUNTY GIS may
6 not yet be reflected in COUNTY GIS.


7 F. COUNTY accepts no responsibility for the use of GIS information; and COUNTY provides no warranty for the
8 use of COUNTY GIS or COUNTY GIS information by ENGINEER. THE WARRANTIES SPECIFICALLY SET
9 FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED,
10 INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE;
11 AND SUCH OTHER WARRANTIES ARE HEREBY EXCLUDED.

12 G. Final plans, drawings or PROJECT work products will be provided in an electronic format suitable for
13 inclusion within the COUNTY GIS or CADD Systems by ENGINEER and will contain the appropriate meta
14 data and will be geographically registered using a appropriate coordinate system such as the California State
15 Plane Coordinate System NAD 83.

ARTICLE VIII • APPROVALS

COUNTY Approvals

RECOMMENDED FOR APPROVAL:

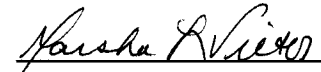
 Dated: 10/12/15

JUAN C. PEREZ

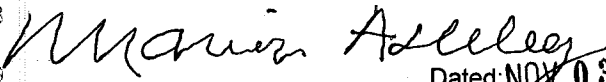
Director of Transportation and Land Management

APPROVED AS TO FORM:

GREGORY P. PRIAMOS, COUNTY COUNSEL

 Dated: 10/19/15
By Deputy

APPROVAL BY THE BOARD OF SUPERVISORS

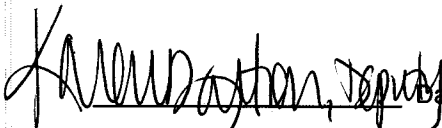
 Dated: NOV 03 2015

MARION ASHLEY

PRINTED NAME

Chairman, Riverside County Board of Supervisors

ATTEST:

 Dated: NOV 03 2015

KECIA HARPER-IHEM

Clerk of the Board (SEAL)

ENGINEER Approvals


ENGINEER:

 Dated: 7-16-15

Mark Creveling
PRINTED NAME

Vice President
TITLE

ENGINEER:

 Dated: 7/16/15

James Frost
PRINTED NAME

Senior Principal Professional
TITLE

APPENDIX A • SCOPE OF SERVICES

SCOPE OF SERVICES • TABLE OF CONTENTS

ARTICLE AI • INTRODUCTION 1

A. PROJECT DESCRIPTION 1

B. LOCATION 2

C. COORDINATION 2

D. PHASES 3

E. STANDARDS 4

F. KEY PERSONNEL 5

G. COUNTY RESPONSIBILITIES 5

ARTICLE AII • PROJECT ADMINISTRATION 6

A. PROJECT MANAGEMENT 6

B. BUDGETING 6

C. COST ACCOUNTING 6

D. SCHEDULING 7

E. PROGRESS REPORTING 7

F. CONTRACT ADMINISTRATION 7

G. DELIVERABLES 7

ARTICLE AIII • PLANNING AND PROJECT DEVELOPMENT 10

A. RESEARCH AND DATA GATHERING 10

B. PROJECT DEVELOPMENT TEAM 10

C. PERMITS 10

D. DESIGN SURVEYS 11

E. PRELIMINARY DESIGN DRAINAGE AND HYDROLOGY/BRIDGE HYDRAULICS REPORTS 11

F. PRELIMINARY WATER QUALITY MANAGEMENT PLAN 12

G. PRELIMINARY GEOTECHNICAL DESIGN REPORT 13

H. PLANNING STUDIES 13

I. ENVIRONMENTAL DETERMINATION AND ENVIRONMENTAL ISSUES 15

J. TECHNICAL REPORT 41

K. GEOMETRIC APPROVAL DRAWINGS 42

L. PRELIMINARY GEOTECHNICAL INVESTIGATION AND DESIGN 43

M. PRELIMINARY RIGHT OF WAY REQUIREMENT EXHIBITS 46

N. AGREEMENTS 46

O. UTILITY COORDINATION 46

P. MISCELLANEOUS DESIGN SUPPORT 48

ARTICLE AIV • STRUCTURES	50
STRUCTURE TYPE SELECTION AND BRIDGE GENERAL PLANS	50
ARTICLE AV • COMPUTER FACILITIES	51
COMPUTER AIDED DRAFTING AND DESIGN (CADD).....	51
ARTICLE AVI • VALUE ENGINEERING	51
ARTICLE AVII • QUALITY CONTROL PLAN	53

APPENDIX A – SCOPE OF SERVICES

ARTICLE AI • INTRODUCTION

A. PROJECT DESCRIPTION

This project proposes to replace the existing Mission Boulevard Bridge (Br. No. 56C-0071) over the Santa Ana River near Mount Rubidoux in Riverside County. The existing bridge was slated for seismic retrofitting by Riverside County in cooperation with the California State Department of Transportation (CALTRANS) under the Local Agency Seismic Retrofit Program. An as-built seismic assessment of the existing bridge was performed and a retrofit strategy was developed to seismically strengthen the structure in April 1997. CALTRANS approved changing the retrofit strategy to total replacement based on the results and recommendations of a subsequent geotechnical study, which assessed the bridge site for liquefaction potential. Due to the findings of high liquefaction potential for the site soils, significant ground improvements and foundation retrofit measures were necessary. Total replacement of the bridge was approved considering the relatively high cost of proposed foundation improvements and other retrofit measures.

The ENGINEER is to prepare the necessary environmental documentation to clear the project and initiate the permits applications for construction of the new bridge. The ENGINEER will prepare a technical report documenting all preliminary engineering work performed supporting the environmental documentation. The ENGINEER will also be responsible for utility coordination support during preliminary engineering.

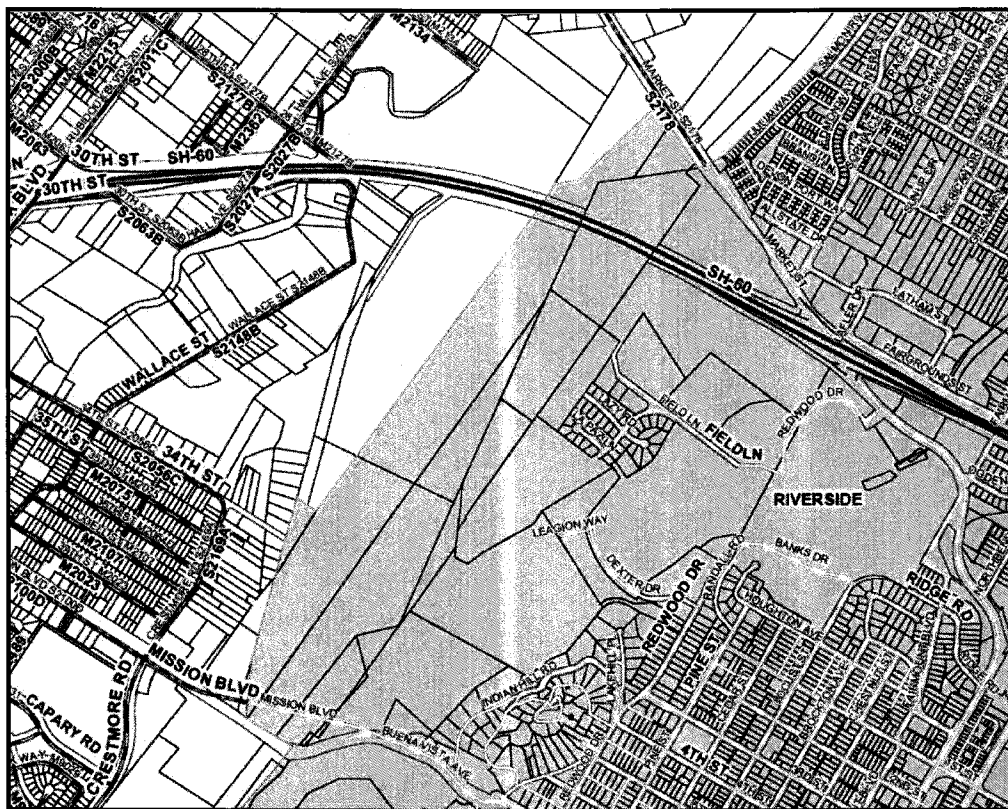
The existing Mission Boulevard Bridge carries four lanes of traffic over the Santa Ana River (two lanes in each direction). It is an 11-span bridge supported on precast/pre-stressed I-Girders with a total length of 1104 feet. The General Plan Classification of the road is Arterial Highway. The bridge is on the eligible bridge list for the Local Seismic Safety Retrofit Program (LSSRP). The project is programmed to receive Highway Bridge Program (HBP) federal funds and qualifies for seismic bond funds.

The scope of work is based on a 4-lane facility with a total width of approximately 84 feet. The western edge of deck for the replacement bridge is expected to be held close to the current position with the widening (for shoulders and sidewalks) occurring to the east as depicted in the three

structural alternatives that were studied in the “Limited Feasibility Study and Final Strategy Report” for the Mission Boulevard Bridge at the Santa Ana River, dated April 26, 2011. The bridge shall also accommodate a Class I bike path.

B. LOCATION

The project site is located on Mission Boulevard at the Santa Ana River approximately 1.5 miles west of State Route 91 and one mile south of State Route 60 in Riverside County. Below is a vicinity map of the proposed project.



C. COORDINATION

ENGINEER shall coordinate with other involved agencies for compatible design and phasing of construction with existing conditions. Coordination may include, but will not necessarily be limited to, the following:

Federal Highway Administration (FHWA)

CALTRANS

Riverside County Departments

City of Riverside

City of Jurupa Valley

Utility Companies

Regulatory Agencies including:

U.S. Army Corps of Engineers (USACE)

U.S. Fish and Wildlife Service (USFWS)

California Department of Fish and Game (CDFG)

Regional Water Quality Control Board (RWQCB)

Riverside County Flood Control & Water Conservation District (RCFC & WCD)

CALTRANS may exercise review and approval function through the COUNTY PROJECT MANAGER at key points in the development process. All contacts with CALTRANS will be directed through the COUNTY. Milestone PROJECT design reviews will be performed for the specific products and deliverables listed herein. The COUNTY PROJECT MANAGER will conduct these reviews in addition to the monthly project status reports and meetings. All meetings with other outside agencies will be scheduled by ENGINEER with approval of COUNTY.

D. PHASES

The services performed by ENGINEER will be accomplished in four phases:

Phase I – Preliminary Engineering/Environmental Clearance/Technical Report

Phase II – Plans, Specifications, and Estimates (PS&E) (future agreement)

Phase III – Construction Bidding and Award Support (future agreement)

Phase IV - Design Support during Construction (future agreement)

The current scope of services covers only Phase I which will commence upon written notice to proceed. The subsequent phases will not proceed until the scope of services and the pertinent fee for each phase are negotiated and authorized in writing by COUNTY.

E. STANDARDS

The preliminary plans/technical report and the environmental document shall be prepared in accordance with current CALTRANS regulations, policies, procedures, manuals, and standards including compliance with FHWA requirements and/or COUNTY standards as appropriate. The technical report prepared to support of the environmental document will follow the format for CALTRANS Project Reports to the extent applicable for a facility off of the state highway system. Improvements of local roads may be prepared in accordance with COUNTY standards in lieu of CALTRANS standards as directed by the COUNTY PROJECT MANAGER. ENGINEER will prepare fact sheets for COUNTY approval, documenting the exceptions to mandatory and advisory design standards. All documents shall be prepared using English Standard Units and dimensions. The Engineering documents are not expected to be reviewed by or be under the purview of CALTRANS. However, considering the amount of federal funds authorized for the project, responding to one-cycle of comments from CALTRANS Local Assistance is included with the scope of work.

1. Environmental

The procedures to be followed and the content of the environmental surveys, environmental technical reports, and environmental documents are set forth in CALTRANS Project Development Procedures Manual (PDPM), CALTRANS Environmental Handbook, CALTRANS Transportation Laboratory technical manuals for environmental studies, FHWA's Technical Advisory T6640.8A and CALTRANS Standard Environmental Reference (SER) on the CALTRANS website.

Federal and state requirements for environmental analysis and impact assessment, as set forth in the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), and other applicable federal and state regulations, must be satisfied.

2. Preliminary Survey/Aerial Topographical Mapping

All preliminary surveys and aerial mapping shall be performed by COUNTY.

3. Design

Roadway design shall be in accordance with the current CALTRANS Highway Design Manual and its revisions and/or COUNTY Road Standards as appropriate. Traffic design shall be in

accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and the California Supplement.

4. Project Files

Project files shall be indexed in accordance with CALTRANS Project Development Uniform File System. Items 1 through 4 are not all-inclusive but are intended only to illustrate types of sources.

F. KEY PERSONNEL

The ENGINEER has represented to the COUNTY that certain key personnel will perform the services and if one or more of such personnel should become unavailable, ENGINEER may substitute other personnel of at least equal competence only after prior written approval by the COUNTY PROJECT MANAGER has been secured. The key personnel for performance of this PROJECT are:

Project Manager	James Frost
Senior Roadway Engineer	Darren Adrian
Senior Structures Engineer	Craig Shannon
Environmental Team Leader	Wendy Davis
Traffic Engineer	Jean Fares

G. COUNTY RESPONSIBILITIES

The following includes tasks to be completed by the COUNTY:

- Provide all current standards, existing plans, and manuals (at ENGINEER's cost)
- Attend project meetings
- Prepare topographic mapping in CALTRANS format
- Obtain orthorectified aerial photograph in digital format
- Prepare existing right of way and parcel mapping in CALTRANS format
- Perform field design surveys as requested by the CONSULTANT
- Coordinate permits for right of entry with property owners
- Select preferred alternative

ARTICLE AII • PROJECT ADMINISTRATION

A. PROJECT MANAGEMENT

This task includes the day-to-day management of the PROJECT. Project Development Team (PDT) meetings with the COUNTY PROJECT MANAGER, CALTRANS staff, and other representatives from affected agencies will be held at least once a month. The environmental team leaders and/or subconsultants will attend PDT meetings as appropriate. The ENGINEER shall prepare meeting notes for each meeting and have these available for review at least two weeks prior to each succeeding meeting. The ENGINEER shall document project submittals, key project decisions, and direction in a project chronology matrix.

The ENGINEER's Project Management Plan will include a Communication Plan. The Communication Plan will consist of a roster of staff involved in the PROJECT and multiple forms of contact for each team member (address, telephone number, e-mail, etc.). The Communication Plan will also identify lines of communication with levels of responsibility/authority for development of the PROJECT.

Deliverable:

- Project Management Plan

B. BUDGETING

The ENGINEER will prepare budgets for each task and milestone for the PROJECT. Such budgets will be entered in to the ENGINEER's Management Information System along with actual costs incurred and used as a basis for cost monitoring and control.

C. COST ACCOUNTING

The ENGINEER will prepare monthly reports of expenditures for the PROJECT by task and milestone. Expenditures will include direct labor costs, other direct costs, and subconsultant costs. These reports will be included as supporting data for invoices presented to the COUNTY every month.

D. SCHEDULING

Within one month from the Notice to Proceed (NTP), the ENGINEER will provide a detailed project schedule, which indicates milestones, major activities and deliverables, to the COUNTY for review and comments. This schedule will reflect assumed review times necessary by all of the agencies involved. Review of the schedule will occur at subsequent trend meetings. Adjustments will be made, if necessary, due to changing circumstances.

E. PROGRESS REPORTING

Progress reports and invoices shall be prepared in accordance with COUNTY guidelines. Reports providing actual physical progress will be required monthly and shall be accompanied by an invoice.

F. CONTRACT ADMINISTRATION

The ENGINEER's PROJECT MANAGER shall maintain ongoing liaison with the COUNTY PROJECT MANAGER, AGENCY contacts, and utility companies to promote effective coordination during the course of project development.

Progress meetings with ENGINEER's staff, subconsultants, and the COUNTY PROJECT MANAGER shall be held regularly.

G. DELIVERABLES

The primary deliverables listed below shall be submitted to the COUNTY by ENGINEER. All deliverables will be provided in hard copy format (as identified in the scope for each identified deliverable in this scope of work) unless otherwise noted in this scope of work and in electronic format.

- Project Management Plan
- Quality Control/Quality Assurance Plan
- Preliminary On-Site Drainage Report
- Preliminary Hydrology and Bridge Hydraulics Report
- Draft Preliminary Water Quality Management Plan (PWQMP)

- Concept Storm Water Pollution Prevention Plan (SWPPP)
- Geotechnical Design Report
- Roadway Concept Layouts and Presentation Exhibits
- Preliminary Plans and Profiles including Roadway Geometrics
- Structural Advance Planning Study (APS)
- Preliminary Environmental Study (PES) Form
- Air Quality Conformity Analysis Letter Report and Checklist
- Noise Study Memorandum
- Summary Floodplain Encroachment Report
- Location Hydraulic Study
- Natural Environment Study (NES)/Report
- USFWS Listed Species Coordination Letter
- Burrowing Owl Letter Report
- Jurisdictional Delineation Report
- Historic Property Survey Report (including Area of Potential Effects Map and Archeological Survey Report)
- Paleontological Identification Report (PIR)
- Section 4(f) Evaluation (De Minimis) Finding
- Initial Site Assessment Report
- Visual Impact Technical Memorandum
- Initial Study/Mitigated Negative Declaration/Notice of Intent
- Final Initial Study/Mitigated Negative Declaration/Notice of Determination
- Categorical Exemption Checklist and Environmental Commitments Record

- Categorical Exemption/Categorical Exclusion for Geotechnical Borings
- Permitting for Geotechnical Borings
- Bridge Replacement Technical Report
- Geometric Approval Drawings (GAD)
- Revised Preliminary Bridge Foundation Report (RPFR)
- Preliminary Right of Way Requirement Exhibits
- Utility Notification Letters
- Utility Potholing Summary
- Design Exceptions Fact Sheet
- Traffic Analysis Report and Preliminary Traffic Management Plan
- Structures Type Selection Report
- Value Analysis Report

Optional Deliverables:

- PM2.5/PM10 Hot-Spot Analysis Form, Air Quality Conformity Analysis, and Noise Study Report
- Noise Abatement Decision Report
- Focused Surveys for Sensitive Plants
- Nighttime Bat Assessment Letter Report
- Historical Resources Evaluation Report (as an attachment to the Historic Property Survey Report)
- Paleontological Evaluation Report (Combined with PIR)
- Community Impact Assessment
- Relocation Impact Study

- Initial Study/Environmental Assessment
- Draft Mitigated Negative Declaration/ FONSI/Notice of Determination
- Final Mitigated Negative Declaration/ FONSI/Notice of Determination
- Hazardous Materials Testing Report

ARTICLE AIII • PLANNING AND PROJECT DEVELOPMENT

A. RESEARCH AND DATA GATHERING

Existing topographic mapping, photos, reports, maintenance reports, right of way maps, "as-built" plans, record maps and surveys, study reports, assessor maps, contract documents, utility index maps, local street improvement/development plans, and other pertinent data will be obtained and reviewed.

ENGINEER will obtain readily available data related to their scope of work. Anticipated agencies are the COUNTY, CALTRANS, City of Riverside, County Flood Control, and impacted utility companies.

B. PROJECT DEVELOPMENT TEAM

A PDT including representatives from the COUNTY, CALTRANS, and other relevant agencies shall be established within 15 days after NTP.

PDT meetings shall be held monthly to resolve issues and to apprise the affected agencies of the progress of the PROJECT. A kick-off meeting with the PDT (PDT Meeting No. 1) shall be held as soon as possible after NTP.

Project administration and PDT meetings shall be allotted to support completion of an environmental document and preliminary engineering.

C. PERMITS

ENGINEER shall identify locations outside the roadway right of way where it will be necessary to obtain specific rights of entry from affected property owners. The listing of the candidate locations will be furnished to the COUNTY. The COUNTY will contact property owners. ENGINEER will be informed if their support is required to obtain rights of entry.

D. DESIGN SURVEYS

COUNTY shall perform field surveys, ground control, photogrammetric mapping, and digital terrain modeling.

E. PRELIMINARY DESIGN DRAINAGE AND HYDROLOGY/BRIDGE HYDRAULICS REPORTS

A Preliminary Design Drainage Report will be prepared to document hydrologic and hydraulic calculations necessary to complete drainage improvement plans related to the project. ENGINEER will evaluate the on-site flows along Mission Boulevard on the bridge and the adjacent approach roads. Specific limits are along Mission Boulevard between Mount Rubidoux Drive and Crestmore Road. Prior to developing hydrology calculations, a thorough field reconnaissance will be conducted. Available documents pertinent to this Design Drainage Report will be obtained from the COUNTY for review. The ENGINEER's analysis will be closely coordinated with the affected agencies, including the RCFC & WCD. The Design Drainage Report will quantify the magnitude and frequency of design flows from adjacent areas to the PROJECT area, as well as the volumes attributable to the proposed improvements.

For the Santa Ana River, an Off-Site Hydrology and Bridge Hydraulics Report will be prepared. The following tasks will be performed:

- Conduct field review of the site as well as upstream and downstream reaches in order to observe the physical conditions and obtain the necessary hydraulic modeling parameters.
- Obtain and review existing hydrologic and hydraulic data including flow rates, aerial photographs, topographic data, FEMA studies, other recent studies, etc. Copies of relevant studies will be obtained from the RCFC & WCD for the review.
- Prepare a hydraulic evaluation of up to three bridge alternatives (as developed for the Technical Report section of this scope of work) using HEC-RAS. The analyses will be based on the accepted 100-year flow rates and topographic mapping provided by the client. A debris factor will be applied to the bridge piers, if appropriate. Coordination will be performed with team members to develop alternatives that will minimize flood inundation, channel erosion, environmental impacts, and construction costs. The hydraulic analyses will be used

to provide the bridge opening dimensions, low chord elevation with consideration given to freeboard requirements, and the bridge alignment.

- Perform preliminary design of the preferred bridge alternative. The design will include tasks necessary to finalize the HEC-RAS analysis of the preferred alternative. In addition, local scour analyses of the piers will be performed to determine additional protection required for these structures.
- Prepare a report summarizing the analyses results and recommendations. A comparison of the alternatives will be included along with identification of the preferred alternative.
- Prepare a sediment transport analysis to determine the general scour at the bridge. This will ensure that the bridge piers and appurtenances are adequately designed for channel bed scour. A FLUVIAL-12 analysis will be performed to determine the general scour and a summary of the FLUVIAL-12 analysis results will be included in the report. The FLUVIAL-12 analysis will be based on the 100-year and flood series events. Soil gradations will be provided at three locations in the stream bed.
- Up to six coordination meetings are assumed for these tasks.

Deliverables:

- Preliminary On-Site Drainage Report – 3 copies
- Preliminary Hydrology and Bridge Hydraulics Report – 3 copies

F. PRELIMINARY WATER QUALITY MANAGEMENT PLAN

ENGINEER shall prepare a Preliminary Water Quality Management Plan (PWQMP) in complete compliance with the latest COUNTY guidelines. The plan will discuss watershed characteristics, groundwater hydrology, regulatory requirements, pollutants of concern, and receiving waters conditions, objectives, and beneficial uses. The plan will also discuss design pollution prevention Best Management Practices (BMPs), construction site BMPs, and treatment BMPs that are applicable to the project alternatives. Information for each alternative on proposed BMPs, disturbed soil area, new impervious surface area, and potential for dewatering during construction, will be incorporated into

the PWQMP. The plan will include a concept SWPPP outlining construction BMPs as well as recommendations for operational BMPs.

Deliverable:

- PWQMP/Concept SWPPP – 4 copies

G. PRELIMINARY GEOTECHNICAL DESIGN REPORT

The preliminary Geotechnical Design Report is intended for use in the preliminary plans and environmental documents. ENGINEER shall collect existing subsurface information that is available for the project area including geological maps published by the California Division of Mines and Geology, geological maps published by the United States Geological Survey, and ground water well information.

ENGINEER will review available, relevant geotechnical literature, reports, seismic hazards maps, geologic maps, groundwater data, and historic aerial photographs available from ENGINEER'S in-house library, Riverside County Flood Control, and CALTRANS as-built records. Based on the literature review, a preliminary assessment of the potential relevant geologic, geotechnical and seismic hazards ("geohazards") will be performed. Geohazards reviewed will include faulting and seismicity, liquefaction potential, slope instability and landslides, earthquake-induced settlements and lateral spreading, tsunami, and land subsidence. Preliminary mitigation measures will be provided for hazards that are identified. These findings will be documented in a report to be reviewed and approved by the COUNTY.

Deliverable:

- Geotechnical Design Report – 3 copies

H. PLANNING STUDIES

ENGINEER shall identify appropriate alternatives for development and analysis. The analyses will include traffic operations, costs, constructability, environmental impacts, and maintenance of traffic. Preliminary cost estimates will be developed for each alternative as soon as practical and furnished to the COUNTY.

Planning studies that will be furnished will include those necessary to complete the Technical Report and will include:

- Purpose and Need
- Initial Alternative Development
- Conceptual Alternative Analysis
- Right of Way Data Sheets
- Utility Relocation Requirements
- Structure Advance Planning Studies (Arch Bridge Study)
- Traffic Forecast/Modeling
- Traffic Capacity Analysis
- Traffic Report
- Preliminary Traffic Management Plan
- Construction Cost Estimates
- Design Exceptions Memorandum
- Landscape Design Concept

The team will develop up to three alternatives demonstrating concepts in plan view with typical sections. Profiles and superelevation diagrams will be developed to demonstrate constraints. ENGINEER will develop APS's for three bridge alternatives. ENGINEER will provide estimates of construction costs.

The team will participate and provide input for the constructability review meetings. Limits of alternatives along Mission Boulevard are from approximately 1,000 feet east of the bridge to Crestmore Road with roadway tapers beyond Crestmore Road.

Deliverables:

- Roadway Concept Layouts and Presentation Exhibits

- Preliminary Plans and Profiles including Roadway Geometrics
- Structural Advance Planning Study

I. ENVIRONMENTAL DETERMINATION AND ENVIRONMENTAL ISSUES

Mission Boulevard Bridge will be funded with federal funds; therefore, NEPA compliance will be required through CALTRANS District 8 Office of Local Assistance. Under NEPA delegation CALTRANS will be the lead agency for NEPA compliance. The COUNTY will be the lead agency for CEQA compliance. Tasks include the preparation of a Preliminary Environmental Study (PES) Form, technical studies, and the preparation of the environmental document.

The detailed scope of services is based on an anticipated Initial Study (IS) leading to a Mitigated Negative Declaration (MND) for the CEQA process and a Categorical Exclusion (CE) for the NEPA process. This assumption is based on the baseline bridge replacement alternative that is a four-lane facility replacing the current bridge in approximately the same location but with a slight alignment shift to the east.

The level of effort is based on preparing the technical analyses listed below in support of the IS/MND and CE. All technical studies and documentation will be prepared pursuant to the CALTRANS Project Development Procedures and Workflow Tasks Manuals (including the Project Report [PR] Guidelines) and the CALTRANS Standard Environmental Reference (SER). CALTRANS guidelines for the technical studies or the environmental document will follow the guidance available as of contract date.

The following items will be prepared by the ENGINEER prior to preparation of the technical studies and the preliminary Draft IS/MND and CE:

- Project plans (digital files) suitable for use as a base for preparation of the Area of Potential Effects (APE) map for the project. These plans should be on a topographical or aerial photo base and must clearly show the existing and proposed rights of way and the proposed project improvements.
- 11" x 17" CALTRANS format concept plans (clean PDF file or clean hard copy) for the build alternatives suitable as an attachment to the technical studies. These plans must

clearly show the existing and proposed rights of way and the proposed project improvements. The plans will be required prior to submittal of the first draft technical studies to CALTRANS for review.

- Topographical mapping (digital files) showing existing and proposed right of way and existing and proposed elevations for the entire project site, including all areas within the APE.
- Rights of entry to all public and private properties that may be required for environmental field surveys.

Environmental Task 1: Environmental Task Coordination, Meetings, and Project Initiation

This task includes coordination of the environmental tasks and attendance at meetings related to environmental issues. Included in this task are PDT meetings, a project kick-off meeting, and an initial field investigation meeting with consultant team, the COUNTY, and CALTRANS. Any additional meetings that may be required for other technical studies are included in the scope for those studies.

This task also includes research and investigation activities necessary to develop an understanding of the proposed project and potential environmental issues. The task also includes conducting a preliminary site survey, gathering preliminary data, and developing a draft project description and preliminary mapping to define the project footprint of disturbance.

Environmental Task 2: Field Review Meeting and Preliminary Environmental Study

ENGINEER will prepare a PES Checklist (using the standard CALTRANS form) for the project to determine the appropriate type of NEPA environmental document and supporting technical studies. Once the build alternatives are identified, a maximum area of potential impact, including construction access and staging areas, will be defined for use in determining the field survey area.

The PES will then be submitted to the COUNTY first and then to CALTRANS for review. The PES will be revised following CALTRANS review.

Deliverable:

- Preliminary Environmental Study Form

Environmental Task 3: Environmental Technical Studies

All technical studies will meet the requirements of CEQA and NEPA, as well as those of related environmental statutes and regulations. The technical studies will be prepared to cover both related statutory documentation requirements and to support preparation of a joint NEPA/CEQA document required for project approval.

Preparation of all technical analyses and reports will follow local, state, and federal environmental guidelines, primarily consisting of the CALTRANS SER website, CALTRANS Local Assistance Procedures Manual, local and state CEQA Guidelines, and FHWA Technical Advisory 6640.81, Guidance on Preparing and Processing Environmental and Section 4(f) Documents. The formats to be used for the technical studies will follow the guidance available on the CALTRANS SER website as of contract date.

Unless otherwise noted, the deliverables for the following technical studies will be a separate bound report including a standardized project description, a methodology relevant to each topic area, description of the affected environment, impact assessment, and mitigation measures. Each screencheck technical study will be submitted to the COUNTY (two copies) for review. Following COUNTY review the document will be revised and a screencheck technical study will be provided to CALTRANS for review. Following CALTRANS review, a draft of each technical study will be submitted to the COUNTY and to CALTRANS for concurrent review (all reviews following the screencheck review are assumed to be concurrent). Following CALTRANS and COUNTY review, a second draft of each technical study will be submitted to the COUNTY and CALTRANS. Following CALTRANS and COUNTY review of the second draft, it is assumed that a revisions workshop will be held to address any outstanding comments, if any comments remain. Following the revisions workshop, a final version of each report will be prepared. The final technical studies will be submitted following the workshop for final concurrence (no additional comments are assumed to be received associated with the final concurrence review). If the revisions are required due to the quality of the submittal made by CONSULTANT, then these revisions would not be considered out of scope.

Deliverables:

- Screencheck technical studies (submitted to COUNTY first, then to CALTRANS) digital copy to COUNTY
- Draft technical studies
- Second draft technical studies
- Final technical studies for concurrence
- Final approved technical studies

Environmental Task 3.1: Air Quality Analysis (Exempt from Conformity Requirements)

ENGINEER will prepare an air quality analysis per CALTRANS and the South Coast Air Quality Management District's (SCAQMD) CEQA regulations for the South Coast Air Basin. As the proposed project is a bridge replacement project with no increase in capacity, it is exempt from all conformity requirements. Therefore, no PM2.5 or PM10 hot-spot analysis or long-term mobile source air toxics (MSAT) analysis will be conducted.

Air quality impacts from demolition, grading, and other construction activities will be calculated based on construction information. In addition, the analysis will discuss the proposed project's construction emission impacts related to global warming and climate change in a letter report.

Deliverable:

- Air Quality Conformity Analysis Letter Report and Checklist

Environmental Task 3.2: Noise Study Memorandum

ENGINEER will prepare a noise study memorandum consistent with the most current CALTRANS Traffic Noise Analysis Protocol. The memorandum will include an analysis on construction noise impacts in terms of maximum levels (L_{max}) and the frequency of occurrence at adjacent noise-sensitive locations. Analysis requirements will be based on the sensitivity of the area and the County's Noise Ordinance specifications.

Deliverable:

- Noise Study Memorandum

Environmental Task 3.3: Floodplain Encroachment Summary

ENGINEER will prepare a Summary Floodplain Encroachment Report based on a Location Hydraulic Study. This scope of work presumes that the proposed alternatives will not cause a significant floodplain encroachment as defined by 23 CFR 650.105 and is consistent with existing watershed and floodplain management programs. The report will discuss potential impacts for each alternative and recommend mitigation measures related to floodplain encroachment, flood-related hazards, natural or beneficial floodplain values, access interruption, and the community floodplain development plan.

Deliverable:

- Summary Floodplain Encroachment Report

Environmental Task 3.4: Natural Environment Study

The biological resources technical study, referred to as the Natural Environment Study or NES, includes the following subtasks:

Environmental Task 3.4.1: Literature and Database Search

ENGINEER will determine the existence or potential occurrence of sensitive plant and animal species within and in the vicinity of the project area. ENGINEER will accomplish this by conducting a review of federal and state lists of sensitive species and current database records, using Rarefind 3 (California Department of Fish and Game, Natural Diversity Data Base 2012) and Electronic Inventory of Rare and Endangered Vascular Plants of California (California Native Plant Society 2012), Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP; Riverside County Transportation and Land Management Agency, 2003), and other available environmental reports.

Environmental Task 3.4.2: U.S. Fish and Wildlife Service Listed Species Coordination Letter

In accordance with CALTRANS guidelines, ENGINEER will prepare a letter to be submitted to the USFWS requesting a list of threatened and endangered species known within the project area. The

results of the records search will be summarized in a table and included in the NES including any critical habitats that have the potential to be affected by the proposed project.

Deliverable:

- USFWS Listed Species Coordination Letter

Environmental Task 3.4.3: NES Report

ENGINEER will prepare an NES report suitable for use in NEPA and CEQA review. ENGINEER will coordinate with the project team to identify appropriate mitigation measures. Mitigation requirements shall be preapproved by the project team prior to incorporating such mitigation into the draft and final NES.

Deliverable:

- NES Report

Environmental Task 3.4.4: Sensitive Species Focused Surveys

The NES will include the following sensitive species focused surveys:

- **Vegetation Mapping and Field Surveys.** Field surveys will be conducted in accordance with the requirements of the applicable survey protocols of the USFWS and the CDFG. A site survey will be conducted by qualified biologists to map vegetation communities in order to address any potential biological resources in the study area and to satisfy CEQA and NEPA requirements.
- **Burrowing Owl Focused Surveys.** A focused survey will be conducted in accordance with the Burrowing Owl Survey Instructions for the Western Riverside MSHCP area. ENGINEER will prepare a final report documenting the focused survey results that will be included in the NES.
- **Bat Assessment.** ENGINEER will conduct a bat assessment at the bridge structure over the Santa Ana River in order to address potential project effects on bats, as well as to identify any appropriate mitigation measures. A qualified consultant biologist will conduct a daytime inspection of the bridge structure for evidence of use by bats. Evidence of bats includes the

presence of guano, urine staining, bat vocalizations, and the presence of bats themselves. If bats are present, efforts will also be made to identify the types of bats utilizing the project site. The results of the bat assessment, including potential project impacts and mitigation measures, will be included in the NES. Although a bat assessment is not required under the MSHCP, it is recommended by the COUNTY in order to satisfy CEQA requirements for special-interest species.

- **Santa Ana Sucker Habitat Suitability Assessment.** ENGINEER will conduct a Habitat Suitability Assessment (HSA) for the Santa Ana Sucker (SAS) as a part of the CEQA analysis for the NES. However, impacts to the SAS are covered by the MSHCP and no focused surveys are required. The project is located in an area currently designated as critical habitat for the SAS (December 2010). The MSHCP does not require any focused surveys or specific mitigation for the SAS, other than complying with BMPs and Construction Guidelines, as outlined in the MSHCP.
- **Jurisdictional Delineation.** ENGINEER will prepare a wetlands/jurisdictional delineation of potential jurisdictional waters of the U.S. and State (i.e., Santa Ana River and its tributaries) that are present within the project study area. A routine wetland delineation will be conducted and areas of potential jurisdiction will be evaluated according to the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Environmental Laboratory, 2008), USACE guidance for Clean Water Act Jurisdiction Following the Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*, and CDFG guidelines. ENGINEER will prepare a Wetlands Delineation and Assessment of Jurisdictional Waters Report documenting the results of the delineation that will include mapping of the jurisdictional areas. The report results will be included in the NES. This scope includes attending field review meetings with regulatory agencies for verifying the delineation and for making adjustments to the delineation as directed by the USACE. Note that all findings should be considered preliminary until verified by the USACE. This scope includes three separate meetings with regulatory agencies.

Deliverables:

- Burrowing Owl Letter Report
- Jurisdictional Delineation Report

Environmental Task 3.4.5: MSHCP Consistency

The project is a Covered Activity under the MSHCP and is specifically called out as a Planned Facility in Table 7-4 of the MSHCP. The project is not located within Criteria Cells designated for conservation by the MSHCP because it is already located within designated Public/Quasi-Public (PQP) conserved lands along the Santa Ana River.

The MSHCP Consistency Assessment will be included as an appendix to the NES.

Determination of Biologically Equivalent or Superior Preservation Report

Section 6.1.2 of the MSHCP describes procedures that ensure the riparian/riverine habitat functions and values in the plan area are maintained. A Determination of Biologically Equivalent or Superior Preservation (DBESP) will be prepared to demonstrate consistency with the Riparian/Riverine Guidelines of the MSHCP. The DBESP will be included as an appendix to the NES.

MSHCP Consistency Finding

ENGINEER will prepare information required for an MSHCP Consistency Finding from the USFWS and CDFG (CALTRANS will be the lead federal agency for this consultation); This task will include a Joint Project Review (JPR) checklist.

Environmental Task 3.4.6: Endangered Species Act and Section 7 Consultation

Section 7 consultation with the USFWS will be required since the project is within designated critical habitat for the SAS. The consultation will also address presence of threatened and endangered species, including least Bell's vireo or SAS within the biological study area. ENGINEER will be available to provide assistance including preparation of summary documentation, attendance at two meetings, coordination with the project team, and responding to information requests from the USFWS.

Environmental Task 3.5: Cultural Resources

Stipulations of this scope of work include the following:

- Mission Boulevard Bridge is not eligible for the National Register of Historic Places (based on review of CALTRANS Bridge Inventory, Local Agency Bridges, accessed online on July 28, 2009)
- No additional research, field visits, or meetings will be required to respond to any concerns raised during Native American consultation
- No archaeological resources will be identified, documented, or evaluated
- No archaeological Extended Phase I or Phase II Test Excavation (archaeological evaluation), will be required for this project

If any archaeological resources are located within the APE, additional tasks may be required.

ENGINEER will inform COUNTY if recommendations for further studies are warranted.

Environmental Task 3.5.1: CALTRANS APE Map

In consultation with CALTRANS, ENGINEER will develop an APE map on a base map. The map identifies the entire area that is archaeologically and architecturally surveyed for the project. This map will be submitted to CALTRANS as a draft study area map for approval and attachment to the Historic Property Survey Report (HPSR).

Environmental Task 3.5.2: Research

A cultural resource records search will be conducted at the Eastern Information Center (EIC), and ENGINEER will complete limited and general research in order to characterize the historic setting of the project. No property-specific research is included.

Environmental Task 3.5.3: Coordination/Consultation with COUNTY, CALTRANS, Native Americans, and Other Parties

ENGINEER will contact the Native American Heritage Commission (NAHC). The NAHC will provide a list of Native American groups to contact regarding this project. ENGINEER will coordinate with CALTRANS to consult with the tribes. ENGINEER will also consult with other interested parties,

including non-federally recognized Native American groups via certified mail; after 30 days, follow-up will be made via telephone with those groups that have not commented. ENGINEER will attempt to contact each group up to two times and will document all efforts to consult with each group.

Environmental Task 3.5.4: Field Survey

ENGINEER will conduct a systematic field survey of portions of the APE that are not obscured by asphalt/concrete. The ground surface will be visually examined by an archaeologist for evidence of prehistoric (Native American) or historic (non-Native American) archaeological materials. If necessary, an architectural historian will survey the project for built environment historic period resources (e.g., buildings, bridges, power lines, railroads, mines, or canals).

Environmental Task 3.5.5: Historic Property Survey Report

ENGINEER will prepare a HPSR that includes an APE Effects Map and an Archaeological Survey Report (ASR). The reports will describe (1) the results of Native American Consultation, (2) research and field methods used in identifying cultural resources, and (3) the results of the record search.

Deliverable:

- Historic Property Survey Report (including APE Map and Archeological Survey Report)

Environmental Task 3.6: Paleontological Identification Report Research

Paleontological local searches will be requested and may provide information on known paleontological resources within a one-mile radius of the project area. The paleontological resource literature review will be conducted with available maps and references to determine if significant nonrenewable fossil specimens are known from sediments on or around the project parcels.

ENGINEER will review both geologic mapping in the project area and results of the geotechnical report for the project. These geologic data may be used in the paleontological evaluation report to indicate the potential for subsurface paleontological resources.

Field Survey

ENGINEER will conduct a systematic paleontological field survey of portions of the project that are not obscured by asphalt or concrete. The ground surface will be visually examined for evidence of paleontological resources or outcrops of sedimentary formations that may have potential to contain significant, nonrenewable paleontological resources. Paleontological resources will be recorded on fossil locality forms. If resources are identified, additional budget will be required for their documentation.

Paleontological Identification Report

ENGINEER will prepare a Paleontological Identification Report (PIR) according to CALTRANS specifications.

Deliverable:

- Paleontological Identification Report

Environmental Task 3.7: Section 4(f) Evaluation (De Minimis)

For the Mission Boulevard Bridge project, the Santa Ana River bike trail and City of Riverside's Carlson dog park are the Section 4(f) properties that have the potential to be affected by the project. Based upon an initial field review, it appears that, if these Section 4(f) properties cannot be fully avoided, adverse effects would be minimal and that a Section 4(f) de minimis finding pursuant to SAFETEA-LU Section 6009 would apply. ENGINEER will prepare draft letters between the COUNTY and the agencies with jurisdiction of the Section 4(f) property to document the de minimis findings. Once the agencies concur, ENGINEER will circulate the de minimis finding for public review as a stand-alone document, since the CE proposed for NEPA compliance would not be circulated for public review.

Deliverable:

- Section 4(f) Evaluation (De Minimis) Finding

Environmental Task 3.8: Initial Site Assessment

ENGINEER will perform an Initial Site Assessment (ISA) to check for historical evidence of potential site contamination and to comply with CEQA and NEPA. The ISA will be performed in general accordance with ASTM Designation E 1527. Findings will be summarized in an ISA report.

This scope of services specifically excludes any investigation or testing needed to evaluate the presence or absence of hazardous or toxic materials at the site in the soil, surface water, or groundwater.

Deliverable:

- Initial Site Assessment Report

Environmental Task 3.9: Visual Impact Assessment

The following tasks are included as part of the Visual Impact Assessment:

Environmental Task 3.9.1.

ENGINEER will attend a kick-off meeting at the RCTD office. It is anticipated that the purpose of this meeting will be to refine project expectations, discuss project requirements/parameters, receive additional RCTD direction, and develop lines of communications.

Environmental Task 3.9.2.

ENGINEER will conduct a site visit investigation to assess the existing, above-ground physical conditions (including the plant materials, surrounding buildings, and other visible characteristics). This investigation will include a preliminary photographic record of the site area. No mapping of any plant materials will be performed. If possible, this site visit will be conducted with CALTRANS, COUNTY and the adjacent cities to gain any additional insight to the area. Information gathered from this site visit will form the basis for the selection of the Key Observation Points (KOPs) for the Visual Impact Assessment (VIA). Relevant information gathered through this site investigation will be incorporated into the visual studies.

Environmental Task 3.9.3.

Review the proposed concepts/designs for the new bridge at Mission Boulevard from the Project Study Report (PSR) for use as the foundation for the visual studies. Additional research of available materials will be performed to gain insight to existing utilities, local geology, specific federal, state, county, and city restrictions for this site, any additional input from county and city staff, and as-built data of planting and irrigation.

Environmental Task 3.9.4.

Prepare the visual studies based on the information gathered during the site investigation and research stages.

Environmental Task 3.9.4.1.

The KOP selections will be forwarded to COUNTY for approval prior to commencement of the computer simulations and writing of the sections of the memorandum involving the KOPs.

Environmental Task 3.9.4.2.

One computer simulated graphic will be created for each KOP – they will be illustrative in format and colored for clear interpretation. These computer simulations may also be used for presentation purposes. Mitigation measures will be proposed where appropriate.

Deliverables:

- Visual Impact Technical Memorandum Draft Submittal (one hard copy)
- Visual Impact Technical Memorandum (one hard copy)
- Visual Impact Technical Memorandum (CD and PDF Version)

Environmental Task 4: Prepare Administrative Draft IS/MND

The results of the technical studies will be presented in an Administrative Draft IS/MND prepared pursuant to the COUNTY'S guidelines for implementing CEQA.

Environmental Task 5: Prepare Second Administrative Draft IS/MND

ENGINEER will revise the second Administrative Draft IS/EA based on comments received from the COUNTY and will submit the second Administrative Draft IS/MND (including a matrix

documenting responses to comments on the first Administrative Draft IS/MND) to the COUNTY for review (up to 10 copies).

Environmental Task 6: Prepare Draft IS/MND for Approval to Circulate (One Copy for Signature)

ENGINEER will revise the second Administrative Draft IS/MND per comments received from the COUNTY and will prepare the Draft IS/MND for COUNTY signature for approval to circulate the document for public review (up to 5 copies).

Environmental Task 7: Public Review of the Draft IS/MND

ENGINEER will prepare a draft public distribution list per input from the COUNTY. The Draft IS/MND will be circulated for public review and submitted to the Office of Planning and Research (OPR) (up to 50 copies; CDs of the IS/MND may be used instead of hard copies as appropriate). ENGINEER will prepare a Notice of Intent (NOI) to be published in a local newspaper by the COUNTY. This task includes up to \$500 for translating the public notice into Spanish, if required by COUNTY. ENGINEER will prepare all materials necessary (including presentation boards, comment cards, etc.), coordinate and conduct a public information meeting during the public review period or a public hearing to be coordinated and conducted by others, if the COUNTY determines that a public information meeting or hearing is required.

Deliverable:

- Draft IS/MND/NOI

Environmental Task 8: Prepare Draft Response to Comments

The Draft Response to Comments will be prepared for submittal to the COUNTY (up to 10 copies) for review and comment. The Draft Response to Comments will be revised per the COUNTY'S comments.

Environmental Task 9: Prepare Administrative Final IS/MND

ENGINEER will prepare a Final IS/MND including revisions based on responses to comments received during the public review period, for submittal to the COUNTY for review (10 copies).

Environmental Task 10: Prepare Final IS/MND

A Final IS/MND will be prepared for submittal to the COUNTY for use in its public hearings if required. As part of the process for the Final IS/MND, ENGINEER will prepare response letters to agencies that submitted comments on the Draft IS/MND and prepare a Notice of Determination (NOD). The COUNTY is responsible for the CDFG NOD filing fee and any other filing fees.

ENGINEER will prepare a Notice of Availability of the Final IS/MND to be published by the COUNTY.

ENGINEER will provide up to 20 copies of the approved Final IS/MND.

Deliverable:

- Final IS/MND/NOD

Environmental Task 11: CE Checklist and Environmental Commitments Record

ENGINEER will prepare a draft and a final CE Checklist and Environmental Commitments Record (ECR). The draft ECR will be submitted to the COUNTY and CALTRANS for review and comment, and the final ECR will be provided to CALTRANS along with the CE Checklist for approval.

CALTRANS will then prepare and sign the CE for the project.

Deliverable:

- CE Checklist and Environmental Commitments Record

Environmental Task 12: Categorical Exemption/Categorical Exclusion and Permits for Geotechnical Borings

Environmental documents and permits for field geotechnical studies will be required. The following tasks will be included:

Environmental Task 12.1: Categorical Exemption/Categorical Exclusion for Geotechnical Borings

To provide information needed for preliminary design, geotechnical borings activities will need to be conducted as an early task in the engineering effort. ENGINEER will prepare a Class 6 Categorical Exemption pursuant to Section 15306 of the CEQA Guidelines for COUNTY approval and

a Federal Categorical Exclusion pursuant to SAFETEA-LU Section 6004 for approval by CALTRANS. ENGINEER will provide the COUNTY and CALTRANS 10 copies of the CE/CE.

Exploratory geotechnical borings will involve compliance with Sections 401 and 404 of the Clean Water Act (CWA) and Section 1602 of the CDFG Code, which are expected because borings will be required within the jurisdictional areas of the Santa Ana River.

Permits required for this project will include a Nationwide Permit (NWP) authorization from the USACE to satisfy Section 404 of the CWA, a Water Quality Certification from the RWQCB to satisfy Section 401 of the CWA, and a Lake or Streambed Alteration Agreement from the CDFG to satisfy Section 1602 of the CDFG Code. ENGINEER will obtain any necessary permits for geotechnical borings.

Deliverable:

- Categorical Exemption/Categorical Exclusion for Geotechnical Borings

Environmental Task 12.2: CWA Section 404 Nationwide Permit Authorization for Geotechnical Borings

ENGINEER anticipates that NWP 6 is the appropriate NWP for the proposed boring activities. A formal Preconstruction Notification Form for the proposed geotechnical boring activities is not required but due to the potential presence of endangered species in the project area, ENGINEER will prepare a concise notification letter that will include pertinent information, including project description, locations of the borings, and a discussion of the biological resources expected to be in the vicinity of the borings, including an explanation of measures to avoid impacts to listed species. Additionally, permit applications copies of the notification packages submitted to the RWQCB and CDFG will also be included.

Deliverable:

- Permitting for Geotechnical Borings

Environmental Task 12.3: CWA Section 401, Water Quality Certification for Geotechnical Borings

The geotechnical boring activities may affect “waters of the U.S.,” triggering RWQCB involvement and requiring a Water Quality Certification.

Receipt of a Water Quality Certification is required prior to issuance of the USACE NWP Authorization. On April 19, 2012, the RWQCB granted Water Quality Certifications for 13 Nationwide Permits. NWP 6 (Survey Activities) is included in the list of previously certified NWPs, which includes core sampling, seismic exploration, and plugging of exploration bore holes. ENGINEER will prepare the required RWQCB notification. The application fee will be provided by the ENGINEER and submitted with the application. The notification form and supporting documentation is required to be submitted at least 45 days prior to the commencement of geotechnical boring activities.

Environmental Task 12.4: California Fish and Game Code Section 1602, Lake or Streambed Alteration Agreement for Geotechnical Borings

The geotechnical boring activities may alter the banks of the Santa Ana River and any other potential tributaries, which are subject to CDFG jurisdiction and would trigger CDFG involvement and require a Notification of Lake or Streambed Alteration. The CDFG may issue a letter of no substantial effect in lieu of a Lake or Streambed Alteration Agreement, depending on the magnitude of impacts to CDFG jurisdictional areas.

The Notification of Lake or Streambed Alteration Agreement application package will include a complete permit application; documentation of CEQA compliance; other supporting documentation; copies of notifications submitted to the USACE and RWQCB; and an application fee. The application fee is determined pursuant to the cost of construction pursuant to CDFG jurisdiction. The application fee will be provided by the ENGINEER and submitted with the notification.

Environmental Task 13: Optional Environmental Tasks

If needed, the following environmental tasks shall be performed only upon written authorization by the County Project Manager:

Optional Environmental Task 13.1: Community Outreach Meeting

The ENGINEER will assist the COUNTY with a community outreach meeting to inform local residents and project stakeholders about the proposed improvements and construction phase

impacts. We anticipate that the meeting will be held in the evening with an “open house” format at a location determined by the COUNTY. The ENGINEER will provide key consultant staff for the meeting including the Project Manager, Senior Structures Engineer, Senior Roadway Engineer, and Environmental Task Leader. The ENGINEER will lead the planning effort; however, a formal presentation is not anticipated. The following tasks are anticipated:

- Coordinate with the COUNTY to develop a list of affected property owners and agency stakeholders. The ENGINEER will prepare and send out mailings to notify the public. Website and newspaper notices will be provided by the COUNTY.
- Develop a list of potential questions expected from the public and prepare answers.
- Maintain a sign-in list for attendees and document all public comments.
- Prepare several presentation boards including the project alignment and aerial mapping, bridge rendering, staging and traffic detours, and environmental maps. The boards will be placed at key “stations” manned by the project team for direct questions and answers with the community.
- Spanish translation will be provided by the COUNTY.

Optional Environmental Task 13.2: Air PM2.5/PM10 Hot-spot Analysis Form, Air Quality Conformity Analysis, and Checklist

If the proposed project is not exempt from conformity, the following tasks will be required:

- ENGINEER will conduct the screening analyses specified in the CO protocol and, if required, conduct CALINE4 modeling for CO hot spots for up to 20 receptor locations for the Existing, Future No Build, and each of the Build Alternatives.
- ENGINEER will prepare a qualitative particulate matter (PM) hot-spot analysis to be submitted to and reviewed by the Southern California Association of Governments’ (SCAG) Transportation Conformity Working Group (TCWG). Coordination with EPA, CALTRANS, and FHWA through SCAG’s TCWG will be necessary to ensure that the proposed project would not violate/exacerbate air quality in the South Coast Air Basin (SCAB).

- ENGINEER will calculate the regional Mobile Source Air Toxics (MSAT) and criteria pollutant emissions for the existing, opening year, and build-out year conditions for the no build and each of the build alternatives.
- ENGINEER will prepare the “Conformity Analysis Documentation for Project-Level Conformity Determinations in Metropolitan Nonattainment/Maintenance Areas” required for NEPA delegation.

Deliverable:

- PM2.5/PM10 Hot-Spot Analysis Form, Air Quality Conformity Analysis, and Noise Study Report

Optional Environmental Task 13.3: Noise Study Report/Noise Abatement Decision Report

Noise Study Report (NSR): If the project is considered a Type 1 project, as defined in 23 CFR 772 (a substantial project including any vertical or horizontal alteration and/or the addition of through-traffic lanes shift of alignment), the ENGINEER will proceed with Optional Task No. 2 to prepare a Noise Study Report (NSR) and Noise Abatement Decision Report (NADR). ENGINEER will prepare a NSR consistent with the most current CALTRANS Traffic Noise Analysis Protocol and Technical Noise Supplement (TeNS) to address traffic noise impacts on receptors under Activity Categories B through G. Noise standards regulating noise impacts, including the Noise Abatement Criteria (NAC) and applicable local noise ordinances, will be discussed for land uses located adjacent to the project. A discussion of any existing sensitive uses and approved future residences in the project vicinity will be included.

Ambient noise level measurements will be conducted to establish the existing noise environment at representative receptors within the project area. Short-term (20-minute) noise level measurements will be made at up to six (6) locations with concurrent traffic counts to document the existing noise environment and to calibrate the traffic noise model. Observations of other noise sources, barriers, terrains, building heights, and other site-specific information will be noted during each measurement period.

The construction noise impact will be evaluated in terms of maximum levels (L_{max}) and the frequency of occurrence at adjacent noise-sensitive locations. Analysis requirements will be based on the sensitivity of the area and the COUNTY'S Noise Ordinance specifications.

The FHWA Traffic Noise Model (TNM) Version 2.5 will be used to evaluate the traffic noise levels associated with the existing, future no build, and two build alternatives. Model input data include peak hour traffic volumes, vehicle mix among autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway configurations. Existing roadway traffic noise will be calculated as baseline conditions, using concurrent traffic counts obtained during ambient noise level measurement. The future traffic conditions will assume either the worst-case traffic condition or the projected traffic volumes provided in the traffic study.

Noise abatement measures (sound barriers) designed to reduce long-term traffic noise impacts by 5 dBA or more, as required to be feasible, will be evaluated. The total reasonable allowance will be calculated for each sound barrier.

Noise Abatement Decision Report: ENGINEER (as an optional task) will prepare an NADR, as defined in the most current CALTRANS Traffic Noise Analysis Protocol upon receipt of the estimated sound barrier construction cost and the information on non-acoustical factors related to feasibility from the project engineer. The report will summarize the preliminary reasonableness determination from the NSR, present the engineer's cost estimate for the evaluated abatement, evaluation of non-acoustical factors related to feasibility, preliminary noise abatement decision, and secondary effects of abatement (impacts on cultural resources, scenic views, hazardous materials, and biology).

Deliverable:

- Noise Abatement Decision Report

Optional Environmental Task 13.4: Sensitive Plant Species Focused Surveys

The project is within Narrow Endemic Plant Species Survey Area (NEPSSA) #7 for the following species: San Diego ambrosia, Brand's phacelia, and San Miguel savory. ENGINEER will conduct focused sensitive plant surveys to identify the presence or to determine the potential for occurrence of the sensitive plant species identified in the literature search. Focused surveys for these plant species

will be conducted according to the standard focused plant survey methodology unless otherwise directed. These surveys will be conducted by biologists who are familiar with the habitat requirements and techniques for field identification of the subject species. Two focused plant surveys will be conducted in spring/summer (one in March/April with a second in May/June) during the blooming season for these species.

The results of the focused plant survey will be documented in a letter report, which will include a species list, species table, and graphics (if applicable). If any of the NEPSSA # 7 plant species are discovered on site, the number of individual species will be quantified, if possible.

Deliverable:

- Focused Surveys for Sensitive Plants

Optional Environmental Task 13.5: Nighttime Bat Focused Surveys

If the daytime HSA determines that the bridge structure contains suitable habitat for nighttime roosting bats, a nighttime bat survey will be required. A bat survey will consist of one to two nighttime surveys to be conducted during the summer months to verify occupancy and to determine the numbers and species present. Acoustic and visual techniques will be used during nighttime surveys and vocalizations of bats present will be recorded. The results of the nighttime bat surveys will be documented in a letter report that will include a species list and graphics (if applicable).

Deliverable:

- Nighttime Bat Assessment Letter Report

Optional Environmental Task 13.6: Historical Resources Evaluation Report

If it is determined that a Historical Resources Evaluation Report (HRER) is required, ENGINEER (as an optional task) will prepare an HRER. The HRER will describe: 1) the results of Historic Outreach, 2) research and field methods used in identifying cultural resources, and 3) the historic resources identified in the project vicinity. This scope stipulates that research and reporting will be conducted for up to two cultural resources.

If it is determined that an HRER is required, ENGINEER will complete the following tasks:

ENGINEER will complete research at various repositories and archives for the properties within the APE to determine dates of construction for any buildings and structures. In addition, ENGINEER will conduct research that will lead to the preparation of a historic context and recommendation of eligibility for the National and California Registers. Local historical societies and similar groups will also be consulted as part of this process. This is based on preliminary map review and research that indicates the segments of Mission Inn Avenue and Mission Boulevard date to the historic-period.

An architectural historian will survey the built environment resources (e.g., buildings, bridges, power lines, railroads, mines, or canals) in the APE. To meet state standards, any previously unrecorded resources identified during the survey will be recorded on State of California DPR 523 forms.

Deliverable:

- Historical Resources Evaluation Report (as an attachment to the Historic Property Survey Report)

Optional Environmental Task 13.7: Paleontological Evaluation Report/Paleontological Identification Report

If the project area has a potential for containing paleontological resources (as determined during the development of the PES), CALTRANS may require the development of a Paleontological Evaluation Report (PER) that addresses the potential significance of any fossil resources and addresses project-specific mitigation that may be required. If CALTRANS determines that the PER will be required, based on the results of the PIR studies, ENGINEER will prepare a combined PER/PIR according to CALTRANS specifications. The PER will include an extensive discussion of project vertical and horizontal impacts and a discussion of the potential significance and importance of any resource identified through the PIR.

Deliverable:

- Paleontological Evaluation Report (Combined with PIR)

Optional Environmental Task 13.8: Community Impact Assessment

If the project includes an alternative that would result in relocations or other community impacts, ENGINEER will prepare a Community Impact Assessment (CIA) that will identify the community impacts on neighborhoods, businesses, and minority and low-income populations, as well as the project's compatibility with the existing and future land uses and consistency with local land use plans, including municipal and COUNTY general plans, regional transportation plans, and habitat conservation plans. The CIA will provide a description of existing land use, housing, employment, and population conditions in the vicinity of the project site. The CIA will consider residential and business acquisitions and relocations; changes in access/circulation, community cohesion characteristics, demographic characteristics and growth; and demand for new or expanded community facilities. Data from the 2010 United States Census will be used to identify characteristics of populations within census block groups traversed by or adjacent to the proposed project. Community profiles will also be collected for the City, the COUNTY, and the State to help identify regional and local trends in regard to demographics, local industry, occupations, and tax base. Property tax and sales tax revenue issues will be identified and discussed. The CIA will include an analysis of potential growth-related effects.

Deliverable:

- Community Impact Assessment

The CIA will include documentation on Environmental Justice issues pursuant to Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. The Environmental Justice documentation will include information on demographic and economic characteristics of the project area population and will identify the presence of any minority and low-income population groups. Potential adverse effects on the project area population, including minority and low-income population groups, and disproportionately high and adverse effects on minority and low-income population groups will be analyzed.

Optional Environmental Task 13.9: Relocation Impact Report

If the project includes an alternative that would result in relocations, ENGINEER will prepare a Relocation Impact Report. The study will include the following items:

- Number and type of residential and nonresidential displacements
- Current and anticipated availability of relocation resources
- A discussion of any relocation problems specific to this project, along with suggested solutions to those problems

This task includes a site visit, research, and preparation of the Relocation Impact Study.

Interviewing the affected owners and tenants and appraising the displaced properties, or portions thereof, are not included in this scope of service.

Deliverable:

- Relocation Impact Assessment

Optional Environmental Task 13.10: Initial Study/Environmental Assessment

In the event that NEPA compliance requires an EA instead of a CE, ENGINEER will include the following tasks to prepare a combined IS/EA.

Optional Environmental Task 13.10.1: Prepare Administrative Draft IS/EA

The results of the technical studies will be presented in an Administrative Draft IS/EA prepared pursuant to the IS/EA Annotated Outline on the CALTRANS SER web site. ENGINEER will prepare an administrative Draft IS/EA incorporating the findings of the technical studies for submittal to the COUNTY and CALTRANS for review (up to 15 copies).

Optional Environmental Task 13.10.2: Prepare Second Administrative Draft IS/EA

ENGINEER will revise the first Administrative Draft IS/EA based on comments received from the COUNTY and CALTRANS and will submit a second Administrative Draft IS/EA (including a matrix documenting responses to comments on the first Administrative Draft IS/EA) to the COUNTY and CALTRANS for review (up to 15 copies).

Optional Environmental Task 13.10.3: Prepare Draft IS/EA for Approval to Circulate (One Copy for Signature)

ENGINEER will revise the Draft IS/EA per comments and will prepare the Draft IS/EA for CALTRANS signature and for approval to circulate the document for public review (up to 15 copies).

Deliverable:

- Initial Study/Environmental Assessment

Optional Environmental Task 13.10.4: Public Review

ENGINEER will prepare a draft public distribution list per input from the COUNTY and CALTRANS. The Draft IS/EA will be circulated for public review and submitted to the Office of Planning Research; CDs of the IS/EA may be used instead of hard copies (as appropriate) per the distribution list, once the list has been approved by the COUNTY and CALTRANS. ENGINEER will prepare an Notice of Availability and Opportunity for Public Hearing to be published in a local newspaper by the ENGINEER or the COUNTY. This task includes up to \$500 for translating the public notice into Spanish, if required by CALTRANS. ENGINEER will attend a public information meeting during the public review period or a public hearing to be coordinated and conducted by others if CALTRANS determines that a public hearing is required.

Optional Environmental Task 13.10.5: Prepare Draft Response to Comments

The Draft Response to Comments will be prepared for submittal to the PDT (up to 15 copies) for review and comment. The Draft Response to Comments will be revised per the PDT's comments and submitted to CALTRANS for approval. ENGINEER will prepare responses for its areas of responsibility and will coordinate with the COUNTY and CALTRANS to prepare responses for their respective areas of responsibility.

Optional Environmental Task 13.10.6: Prepare Draft MND/FONSI

ENGINEER will prepare a Draft MND/Finding of No Significant Impact (FONSI), including revisions based on responses to comments received during the public review period, for submittal to the COUNTY and CALTRANS for review (up to 15 copies).

Deliverable:

- Final Mitigated Negative Declaration/FONSI/Notice of Determination

Optional Environmental Task 13.10.7: Prepare Final MND/FONSI

A Final MND/FONSI will be prepared for submittal to CALTRANS for review and approval. As part of the process for the Final MND/FONSI, ENGINEER will prepare response letters to agencies that submitted comments on the Draft IS/EA and prepare and file a NOD. The COUNTY is responsible for the CDFG NOD filing fee and any other filing fees. ENGINEER will prepare an NOA of the Final MND/FONSI to be published by the ENGINEER or the COUNTY. ENGINEER will provide up to 20 copies of the approved MND/FONSI.

Deliverable:

- Final Mitigated Negative Declaration/FONSI/Notice of Determination

Optional Environmental Task 13.10.8: Environmental Commitments Record

ENGINEER will prepare a draft and a final ECR in accordance with the guidelines on the SER web site for use in ensuring implementation of the mitigation measures for the project. The ECR will be used in the design and construction of the proposed project for the selected alternative. The ECR will incorporate the mitigation measures from the environmental document. For each mitigation measure, the ECR will include a list of the following items: a description of the mitigation measure, the timing of implementation, the performance objectives, the requirements for verification of compliance, and the party responsible for verifying compliance. The draft ECR will be submitted to the COUNTY and CALTRANS for review and comment, and the final ECR will be provided to CALTRANS along with the Final IS/EA for approval.

Optional Environmental Task 13.11: Hazardous Materials Sampling and Testing

As an optional task, ENGINEER shall provide hazardous materials sampling and testing for asbestos, lead based, paint and aerially deposited lead. The results will be summarized in a Hazardous Materials Testing Report as an appendix to the ISA.

Deliverable:

- Hazardous Materials Testing Report

J. TECHNICAL REPORT

The first step in the project development process will be to evaluate the existing Mission Boulevard Bridge and formulate various alternatives to replace the existing structure in-kind as a minimum. Those elements to be considered will include:

- Environmental Issues (noted above)
- Traffic Requirements (Existing and Future)/Maintenance of Traffic
- Staged Construction
- Seismic Conformance for Existing Bridge Structures
- Bridge Hydraulics and Scour Assessment
- Advance Planning Studies
- Utility Impacts
- Existing Topography
- Horizontal and Vertical Geometric Requirements
- Design Exceptions Fact Sheet
- Right of Way Requirements
- Project Costs

Initial Alternatives will be developed and distributed to the PDT members for review, discussion, and critiquing. Following this process, Conceptual Alternative Analysis will be prepared for the initial alternatives identified by the PDT as feasible and reasonable. Another round of review discussion and critiquing will take place on the Conceptual Alternatives with each alternative being evaluated for cost, environmental impacts, traffic level of service, and construction schedule. After completion of these initial steps, the COUNTY will review the recommendation of the PDT and make a decision as to which alternatives best satisfy the project requirements and should be carried to the next step in the project development process -- preparation of the environmental document.

The Technical Report is the engineering document that supports the environmental documentation, summarizing the major features of work associated with the project such as alternatives that substantially lessen or avoid environmental impacts, number of lanes (current and future), and most efficient bridge type. Additional items that need to be considered are roadway and bridge drainage systems, impacts to both existing and future utilities and cost. All alternatives discussed in the PDT meetings will be documented in the technical report and will include a description of the alternative, cost and impacts associated with the alternative, and a summary of why it was or was not chosen as the preferred alternative.

Seismic conformance of the existing bridge will be based on a review of the existing seismic strategy report, Limited Feasibility Study and Final Strategy Report (SWE April 26, 2011) and determinations by the COUNTY and CALTRANS that replacement is the best retrofit alternative. A revised as-built seismic analysis is not included in the baseline scope of services.

ENGINEER will prepare the Traffic Analysis for the Environmental Document. The following scenarios will be evaluated in the study: existing conditions, opening year conditions, and Year 2035. This scope includes analyzing up to four intersections and four roadway segments for level of service and volume-to-capacity ratio (V/C). Future roadway traffic volumes in the study area will come from Riverside County's traffic model. The traffic analysis will verify the necessary lane configuration through the bridge crossing to facilitate future traffic volumes.

Morning and evening peak hour traffic counts will be obtained at up to four intersections. Twenty-four-hour counts will be obtained along up to four street segments.

Deliverable:

- Preliminary and Final Bridge Replacement Technical Report – 8 copies each

K. GEOMETRIC APPROVAL DRAWINGS

Geometric Approval Drawings (GAD) of the preferred alternative shall be prepared in accordance with CALTRANS District 8 GAD requirements near the end of the Environmental Document phase of the project. It is assumed that only the preferred alternative will be refined to the level of GAD. These will include plans, typical cross sections, profiles and superelevation diagrams. The GAD will include

appropriate signature blocks and traffic volume data shown on large sheets to clearly present the overall geometric design rather than on 11" x 17" sheet breakouts with matchlines.

The drawings will reflect CALTRANS and COUNTY standards and criteria for this type of facility. Any nonstandard design elements will be documented in the appropriate design exceptions fact sheets.

Deliverable:

- GADs – 5 copies

L. PRELIMINARY GEOTECHNICAL INVESTIGATION AND DESIGN

ENGINEER shall perform preliminary field investigation and geotechnical analyses in support of preliminary engineering and type selection for the replacement bridge. This work will be commensurate with a 30 percent design level. The work will be summarized in a revision to the Preliminary Foundation Report that was prepared by Kleinfelder and dated April 20, 2011. Additional subsurface investigation, geotechnical engineering and reporting will be performed later in the PS&E phase of the project. The preliminary geotechnical investigation work is detailed in the following paragraphs:

Geotechnical Task 1 – Literature Review

ENGINEER will begin the investigation by reviewing available geologic and geotechnical literature pertaining to the project site. The review will include published soil and geologic data in ENGINEER'S files and as available from appropriate public agencies. This will include a review of reports and geologic maps prepared by the California Geological Survey and the U.S. Geological Survey. ENGINEER will also review CALTRANS reports and documents, including as-built plans of the existing structures.

Geotechnical Task 2 – Site Reconnaissance

A geologic/geotechnical reconnaissance by a California Certified Engineering Geologist and/or a California Registered Geotechnical Engineer will be performed along the full length of the proposed bridge alignment, to observe and check for geological conditions and features that could impact design, construction, and cost of the proposed improvements.

Geotechnical Task 3 – Permitting for Field Exploration Activities

ENGINEER will obtain permits for the geotechnical field exploration (drilling) activities from relevant environmental regulatory agencies, which are anticipated to include the City of Jurupa Valley, City of Riverside, RCTD, RCFC and WCD, USACE, USFWS, CDFG, and RWQCB. To support this effort, ENGINEER will prepare the following:

- Field Exploration Map showing the locations of proposed explorations along the alignment
- A brief explanation of the work to be performed and equipment to be used
- Health and Safety Plan for the fieldwork in accordance with California State OSHA regulations
- Traffic Control Plan that meets the requirements of Manual for Uniform Traffic Control Devices (MUTCD)

ENGINEER will mark exploration locations and notify Underground Service Alert (USA) so that known public or private underground utilities can be identified in the proposed exploration areas. ENGINEER will subcontract a private utility locator to help locate and mark existing utilities and reduce the risk of damaging underground utilities during subsurface exploration. Two survey methods will be used to locate and identify underground utilities, namely, electromagnetic line locating equipment (Heath All-Pro Multi-Frequency) and Ground-Penetrating Radar (GPR) equipment.

Locating the CPTs accurately is important. Each CPT will be located and marked in the field by ENGINEER so that it can be surveyed by the project surveyor. After completion of exploratory drilling, logging, and sampling operations, boreholes will be abandoned by backfilling with Volclay grout or equivalent in accordance with California Department of Water Resources standards.

Geotechnical Task 4 – Preliminary Field Exploration

ENGINEER will perform five CPTs to evaluate subsurface conditions in the areas of the proposed improvements. One CPT will be conducted at each of the abutments and three CPTs will be performed at potential bent locations within the river channel. The CPTs will be pushed to a depth of 120 feet or to refusal if it is encountered first.

Exploration locations will be marked and USA will be notified so that known public or private underground utilities can be identified in the proposed exploration areas. ENGINEER will subcontract

a private utility locator to locate and mark existing utilities and reduce the risk of damaging underground utilities during subsurface exploration. Available as-built utility information will be mapped prior to performing field explorations.

Planned CPT locations will be surveyed and staked in the field by the COUNTY. If field adjustments to the planned CPT locations become necessary, the COUNTY will survey the as-built locations and provide that data to the ENGINEER.

Shear wave velocity measurements will be performed at 10-foot intervals at three of the CPTs. The shear wave velocity data will be used to aid in the assessment of site conditions for development of seismic design parameters. Pore water pressures dissipation tests will be performed at one to two depth locations within each CPT.

The CPTs will augment the very limited subsurface data that is currently available for the site. Data from the CPTs will be particularly useful for the evaluation of liquefaction and lateral spreading susceptibility of the site soils for use in preliminary engineering and foundation type selection. The CPTs will also be very useful for scoping additional field investigations that would be required to support final design and construction.

Prior to the field investigation, ENGINEER shall prepare a plan showing the proposed CPT locations. This plan will be submitted to COUNTY and the Cities of Riverside and Jurupa Valley for approval and for obtaining encroachment permits to perform the CPTs. The bent CPTs will be performed in the river channel and the abutment CPTs will be performed off of the roadway, so traffic control will not be necessary.

Geotechnical Task 5 – Preliminary Geotechnical Engineering

ENGINEER will perform preliminary engineering geology and geotechnical engineering evaluations noted in the bullets below. The level of effort for these evaluations will be commensurate with 30% design and type selection.

- Seismic hazards including strong ground shaking, liquefaction, lateral spreading, seismic slope stability, seismic settlements.
- Static slope stability for approach embankments.

- The effects of seismic hazards on proposed bridge foundations and approach embankments, including liquefaction and lateral spreading effects on foundations.
- Foundation type selection and preliminary axial capacity analyses.
- Provide parameters for lateral spreading evaluations and lateral pile analyses using LPILE.

Geotechnical Task 6 – Report Preparation

The preliminary geotechnical field and engineering evaluations described above will be summarized in a Revised Preliminary Bridge Foundation Report.

Deliverable

- Preliminary Bridge Foundation Report – 4 copies.

M. PRELIMINARY RIGHT OF WAY REQUIREMENT EXHIBITS

All right of way exhibit preparation will follow the current COUNTY procedures. The ENGINEER shall coordinate with the COUNTY to ensure that all requirements are followed.

The ENGINEER shall prepare preliminary right of way requirement exhibits based on the approved GAD and submit three sets to the COUNTY for review and comment. The COUNTY will provide title reports and other necessary data containing information necessary for the exhibits.

Right of way acquisition is anticipated along the bridge and adjacent approaches up to Crestmore Road to the west and up to approximately 1,000 feet east of the bridge.

Deliverable:

- Preliminary Right of Way Requirement Exhibits – 3 copies (plus electronic copies)

N. AGREEMENTS

The ENGINEER will provide technical and administrative support to the COUNTY as required for obtaining cooperative agreements.

O. UTILITY COORDINATION

The intent of the COUNTY is that the services of the ENGINEER shall be complete and "turn-key" with respect to all utility coordination matters, except for those procedures that must be performed by

COUNTY. This project is proposed to be funded mainly by state and federal funds and must therefore conform to process and procedures of the CALTRANS Office of Local Programs.

ENGINEER shall coordinate with utility owners and COUNTY utility coordination staff with respect to all utility related matters. ENGINEER shall provide copies of all correspondence with utility companies and other utility related information to the COUNTY. Correspondence, as described herein, shall be prepared by ENGINEER for either ENGINEER or COUNTY signature, as appropriate, and as directed by the COUNTY'S Project Manager.

ENGINEER shall coordinate with COUNTY staff to obtain record copies of utility maps from each utility owner within the project limits for existing and/or proposed utility facilities. ENGINEER shall include mapping and/or exhibits that clearly define the project limits as part of the requests for utility information.

ENGINEER shall identify utility companies affected by the project and delineate utilities within the project's sphere of influence on the plans. ENGINEER shall prepare preliminary plans, which shall include all existing utilities (above ground and below ground) identified by location, size, type, and owner, as appropriate. ENGINEER shall check horizontal and vertical clearances for utilities and coordinate design with the various utility companies to address conflicts. In addition to information provided by the owning utility companies and through research of other record maps, field surveys shall be used to locate utility features such as manholes, valves, fire hydrants, poles, risers, etc., which shall be reflected on the plans.

If it is necessary to pothole existing utilities at critical locations, ENGINEER shall coordinate with COUNTY staff to arrange with the respective utility owner to pothole its facility (at utility owner or COUNTY cost). ENGINEER shall coordinate the use of field survey crews to locate potholed utilities by coordinates and elevations based on the project's survey controls.

The following shall be conducted to the extent of identifying conflicts, prior rights, relocation needs and cost impacts:

Known utility conflicts shall be shown on the plans with construction notes indicating action to be taken and by whom. Inventory numbers of poles, vaults, and other surface facilities shall be shown

on the plans for those facilities that have such numbers attached to the facility and as provided on the owner's inventory maps.

ENGINEER shall send preliminary design plans through COUNTY staff to owning utility companies within the project limits with requests for review and comments on the plans relevant to their respective facilities, and with requests for other project specific information.

ENGINEER shall monitor responses of utility notices received and make recommendations for mitigating conflicts. ENGINEER, through COUNTY staff, shall request and obtain a written acknowledgement of any conflicts from the respective utility owners.

ENGINEER shall conduct utility coordination meetings, as needed, regarding adjustments and relocations, to resolve conflict issues.

Specific issues and utility company requirements may result in deviation from the procedures outlined herein.

The ENGINEER will show utilities according to readily available information. The COUNTY will provide field surveys with surface utility features shown and labeled. The COUNTY will provide field surveys to locate utility potholing determined to be necessary. Utility potholing, if required, will be performed by others.

Utility relocations are anticipated to include adjustments to surface features (raising or lowering manholes and valves). Separate utility relocations designs are not anticipated.

Deliverables:

- Utility Relocation Letters
- Utility Potholing Summary
- Preliminary Utility Plans

P. MISCELLANEOUS DESIGN SUPPORT

Design Exceptions

If design exceptions are deemed necessary, these will be identified early in the PROJECT and the ENGINEER will coordinate with COUNTY to receive approval as a part of the GAD approval.

Design exceptions will be described in a fact sheet presenting the exception with reason and necessary justification. Design exceptions will be processed through the COUNTY with necessary justification and documentation.

Deliverable:

- Design Exceptions Fact Sheets

Preliminary Traffic Management Plan

The ENGINEER shall prepare and submit a Preliminary Traffic Management Plan (TMP) for COUNTY review and approval. The Preliminary TMP will address traffic during the construction phase. Morning and evening peak hour traffic counts will be obtained at up to 20 intersections. Twenty-four-hour counts will be obtained along up to 13 street segments. This information, along with additional field observations, will be used to create a Synchro software traffic model within the area including but not limited to the following arterials:

- Mission Boulevard
- Mission Inn Avenue
- Rubidoux Boulevard
- 24th Street
- Market Street

The model will evaluate the existing AM and PM peak hour traffic volumes, along with up to three traffic diversion scenarios to address project detours and/or alternative routes. The Preliminary TMP will summarize this analysis with recommendations for traffic routing along with discussion for other mitigation measures to be implemented during construction to maintain adequate levels of service along the detour routes. Mitigation measures to be implemented during construction are unknown at this time. Design elements related to the mitigation measures are not included within this scope of work. Suggested items the Preliminary TMP may include are:

- Identification of neighboring construction projects that may affect detours or alternative routes
- Public Awareness Measures, ways to relay project information to the surrounding community

- On-Site Measures such as Street Patrol Service or Mobile Changeable Message Signs
- Off-Site Measures such as ridesharing and encouraging the use of vanpooling programs

Deliverable:

- Preliminary TMP – 4 copies

ARTICLE AIV • STRUCTURES

STRUCTURE TYPE SELECTION AND BRIDGE GENERAL PLANS

The culmination of preliminary design work will lead to the submittal and presentation for review and approval of a type selection report including a General Plan, Foundation Plan, Design Memo, Design Checklist, and a General Plan estimate for the proposed structures. Only one alignment alternative will be considered for the bridge type selection. This process will be considered the "Structure Type Selection" process and no further design work shall be performed until written approval of the structure type is received from COUNTY. A type selection review meeting shall be held in Riverside County with the COUNTY in which the ENGINEER shall be prepared to discuss and provide information on foundation requirements, hydrological requirements, falsework requirements, seismic and aesthetic considerations, traffic handling, construction cost, and other pertinent information that is needed to determine the proper structure type.

The ENGINEER will consider context sensitive bridge alternatives as part of the type selection process. A "signature bridge" alternative with arch spans will be evaluated during the APS phase considering the original bridge (based on historic photos) and pending technical feasibility and bridge cost. Hand sketches for specialized bridge components such as non-standard barrier rail details and pilasters will be provided with the Type Selection Report. Bridge renderings will be part of the VIA portion of this scope. If technically feasible, the "signature bridge" alternative will be included in the Structures Type Selection Report along with a cost estimate, technical discussion, and recommendations.

Eight copies of the Type Selection Report including the proposed General Plan, Foundation Plan, General Plan Estimate, Type Selection Memo, and a Vicinity Map shall be submitted for review four

weeks prior to the Structure Type Selection Review Meeting. The results of the meeting will be summarized in writing by the ENGINEER within two weeks following the meeting.

Within two weeks after receiving written approval of the proposed General Plan and the structure type, ENGINEER shall furnish COUNTY with 8 copies of the approved General Plan.

Deliverable:

- Structures Type Selection Report – 4 copies

ARTICLE AV • COMPUTER FACILITIES

COMPUTER AIDED DRAFTING AND DESIGN (CADD)

All plans will be prepared using MicroStation format in conformance with the latest CALTRANS CADD User's Manual and the CALTRANS Drafting Manual as modified by the current COUNTY CADD Guidelines to assure complete compatibility.

ARTICLE AVI • VALUE ENGINEERING

A value engineering exercise will be conducted during Phase I of the project development in complete compliance with the current CALTRANS and federal guidelines. ENGINEER will make the necessary arrangements to retain the services of a moderator. The scope of the work shall include but is not limited to the following:

- Provide a qualified, independent Certified Value Specialist (CVS) team leader to lead a Value Analysis (VA) study in accordance with CALTRANS value methodology.
- Provide VA study documentation in accordance with the CALTRANS VA Report Guide and this task order.
- Facilitate the VA team meetings.
- Comprise a technical team consisting of members of CALTRANS and COUNTY staff. An independent senior bridge engineer will be provided. A conference room will be provided by the COUNTY.

The VA team leader will provide the following deliverables:

- Develop the draft VA study charter (Attachments A, B and C per the CALTRANS Team Guide).
- Lead the VA Study. Participants should include the Project Manager and ENGINEER, project development team staff, and key outside project stakeholders (local transportation agencies, local government, and permitting agencies).
- Complete the Preliminary VA Report with input/review of VA team and technical reviewers in accordance with the VA Report Guide, Third Edition, and with the following items:
 - A distribution list for the VA reports must be developed with the Project Manager
 - Submit Preliminary VA Report as an electronic copy no more than two weeks following initial VA presentation to ENGINEER and the CALTRANS District Value Analysis Coordinator (DVAC) for further distribution. The preliminary report will be in electronic format.
- Coordinate with ENGINEER on the project stakeholders' responses to the preliminary VA report and prepare for an implementation meeting to resolve the disposition of the VA alternatives and finalize the VA study reportables (costs, performance and value indices).
- Submit Final VA Report as specified in CALTRANS VA Report Guide, Third Edition. Report should be submitted no more than three weeks following the VA Implementation Meeting. Final VA Report will be an electronic copy in PDF format of the entire report and three printed copies each for ENGINEER, CALTRANS District 8, and the COUNTY.
- If all VA alternatives are not resolved at the Implementation Meeting, an Implementation Action Memo will be submitted within three working days detailing what work needs to be completed in order to develop final disposition of the VA alternatives , who is responsible for this action, and when it is due. The team leader will follow up with ENGINEER's Project Manager and other responsible parties to resolve these open items. Once all items have been resolved, the Final Report will be completed.
- Provide CALTRANS HQ VA Program Manager an electronic copy of the Preliminary and Final Reports and the VASSR so that they can include the study in their annual reports to FHWA.

Deliverable:

- Value Analysis Report

ARTICLE VII • QUALITY CONTROL PLAN

A Quality Control Plan will be established for this PROJECT in accordance with the provisions of Article IV, Section H of the Agreement. It will be provided to the COUNTY within two (2) weeks after NTP for review and approval.

Deliverable:

- Quality Control/Quality Assurance Plan

APPENDIX B - SCHEDULE

ARTICLE BI • INTRODUCTION

The Engineer shall perform the covenants set forth in Appendix A, Scope of Services in accordance with the performance requirements of Article V of this agreement and with the following Schedule of Services. All Covenants set forth in this agreement shall be completed by November 2, 2019, unless extended by supplemental agreement.

A. PHASES

The Schedule is divided into the following 4 phases:

Phase I – Preliminary Engineering / Environmental Clearance / Technical Report

Phase II – Plans, Specifications and Estimates (PS&E) (future)

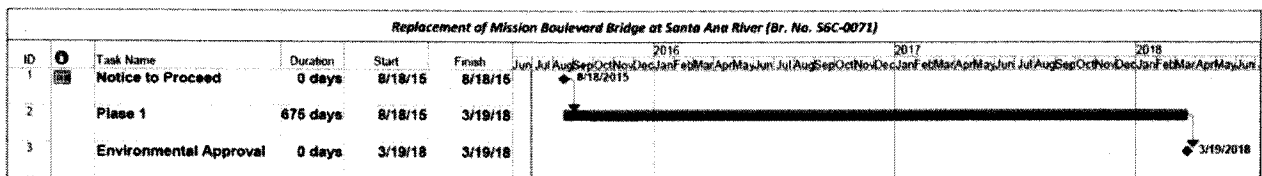
Phase III – Construction Bidding and Award Support (future)

Phase IV - Design Support during Construction (future)

The current scope of servies covers only Phase I which will commence upon written notice to proceed. The subsequent phases will not proceed until authorized in writing by County.

B. GANTT CHART

A Gantt chart is provided below that graphically illustrates the sequencing and completion time for the project phases.



Satisfactory performance and completion of the Services under this Agreement shall be compensated based upon actual costs plus a fixed fee. COUNTY will reimburse ENGINEER for actual costs (including labor costs, overhead, and other direct costs) incurred by ENGINEER in performance of the work, exclusive of any fixed fee. A prorata portion of ENGINEER's fixed fee shall be included in the progress payments. Actual costs shall not exceed the estimated costs without prior written agreement between COUNTY and ENGINEER.

APPENDIX C • ARTICLE CI • ELEMENTS OF COMPENSATION

Compensation for the Services will be comprised of the following elements: DIRECT LABOR COSTS, FEES, OTHER DIRECT COSTS and OUTSIDE SERVICES.

A. DIRECT LABOR COSTS

Direct Labor costs shall be paid in an amount equal to the Direct Salary Costs plus the product of the Direct Salary Costs and the Multiplier which are defined as follows:

1. Direct Salary Costs

Direct Salary Costs are the base salaries and wages actually paid to the ENGINEER's personnel directly engaged in performance of the Services under the Agreement. Salary rates for specific employees shall be provided on the Fee Proposal Worksheets included in ARTICLE CV • COST PROPOSAL. All Salary rates shall be in effect for three years following the effective date of the Agreement. Thereafter, ENGINEER may request adjustments to individual rates on an annual basis. ENGINEER shall notify COUNTY in writing requesting a change in the rates included herein. All adjustments to rates shall be subject to approval by the Director of Transportation and Land Management Agency, or his designee.

2. Multiplier

The Multiplier to be applied to the Direct Salary Costs to determine the Direct Labor Costs is the sum of the following components:

PAYROLL ADDITIVES

The decimal ratio of Payroll Additives to Direct Salary Costs. Payroll Additives include all employee benefits, allowances for vacation, sick leave, and holidays, and company portion of employee insurance and social and retirement benefits, all federal and state payroll taxes, premiums for insurance which are measured by payroll costs, and other contributions and benefits imposed by applicable laws and regulations.

OVERHEAD COSTS

The decimal ratio of allowable Overhead Costs to ENGINEER firm's total direct salary costs. Allowable Overhead Costs include general, administrative and overhead costs of maintaining and operating established offices, and consistent with established firm policies, and as defined in the Federal Acquisitions Regulations, Part 31.2.

TOTAL MULTIPLIER 175.46%

(Sum of Payroll Additives and Overhead Costs)

B. FIXED FEE

1. The Total Fixed Fee payable to the ENGINEER is \$44,227.80 (PRIME CONSULTANT Profit)
2. A pro-rata share of the Fixed Fee shall be applied to the total Direct Labor Costs expended for services each month, and shall be included on each monthly invoice.

C. OTHER DIRECT EXPENSES

Additional Direct Costs, directly identifiable to the performance of the services of this Agreement, shall be reimbursed at the rates below, or at actual invoiced cost.

Rates for identified Additional Direct Costs are as follows:

Item	Rate	Unit
Reproduction	actual cost	each
Board Mounting	actual cost	each
Mileage	\$0.56	miles
Deliveries	actual cost	each
Records Search	actual cost	each
Field Survey Supplies	actual cost	each
Mailings / Legal Notices	actual cost	each
GPS / Electronic Equipment	\$75.00	each
CD's	actual cost	each
Cone Penetrometer Test	actual cost	each
Underground Utility Locator	actual cost	hour
Environmental Database	actual cost	LS

Cert. Industrial Hyg.	actual cost	LS
Laboratory Testing	actual cost	LS
Field Drilling	actual cost	LS

Travel by air and travel in excess of 100 miles from ENGINEER's office nearest to COUNTY's office must have COUNTY's prior written approval to be reimbursed under this Agreement.

D. OUTSIDE SERVICES

Outside services shall be paid in accordance with the cost proposals submitted by each Subconsultant. Billings for Outside Services shall be submitted along with the Prime Consultant's monthly Progress Report/Billing submittals and shall be in conformance with the COUNTY Engineering Services Invoicing Procedures.

ARTICLE CII • DIRECT SALARY RATES

Direct Salary Rates, which are the range of hourly rates to be used in determining Direct Salary Costs, are given below and are subject to the following:

A. PREMIUM OVERTIME

Direct Salary Rates shall be applicable to both straight time and overtime work, unless payment of a premium for overtime work is required by law, regulation or craft agreement, or is otherwise specified in this Agreement. In such event, the premium portion of Direct Salary Costs will not be subject to the Multiplier.

B. SALARY RATES

All Salary rates shall be in effect for three years following the effective date of the Agreement. Thereafter, ENGINEER may request adjustments to individual rates on an annual basis. ENGINEER shall notify COUNTY in writing requesting a change in the rates included herein. All adjustments to rates shall be subject to approval by the Director of Transportation and Land Management Agency, or his designee.

POSITION OR CLASSIFICATION MAXIMUM HOURLY RATES

Project Manager	\$86.71	hour
Senior Engineer	\$72.94	hour
Senior Structural Engineer	\$72.31	hour
Associate Engineer	\$45.67	hour
Senior Technician	\$59.55	hour

The above rates are for ENGINEER only. All rates for subconsultants to ENGINEER will be in accordance with the subconsultants cost proposal.

ARTICLE CIII • INVOICING

ENGINEER shall submit invoices in accordance with the Engineering Services Agreement ARTICLE VI • COMPENSATION and with the following requirements.

1. Charges shall be billed in accordance with the terms and rates included herein, unless otherwise agreed in writing by the County Contract Administrator.
2. Base Work and Extra Work shall be charged separately, and the charges for each Phase listed in Appendix B, Schedule of Services, shall be listed separately. The charges for each individual assigned under this Agreement shall be listed separately.
3. Charges of \$500.00 or more for any one item of Additional Direct Costs shall be accompanied by substantiating documentation such as invoices, telephone logs, etc.
4. Each invoice shall indicate payments to DBE subconsultants or supplies by dollar amount and as a percentage of the total invoice and shall state the DBE goals as a percentage of Total Agreement Value.
5. Each invoice shall bear a certification signed by the Engineering Contract Manager or an officer of the firm which reads as follows:

I hereby certify that the hours and salary rates charged in this invoice are the actual hours and rates worked and paid to the employees listed.

ARTICLE CIV • PAYMENT

Progress payments shall be made in accordance with the Engineering Services, Agreement ARTICLE VI • COMPENSATIONS.

ARTICLE CV • COST PROPOSAL

The following cost proposal reflects the negotiated targeted contract amount. The cost proposal will serve as a guideline and reference document during the execution of this contract. ENGINEER shall be compensated in accordance with the rates provided. The total amount of the contract is not to exceed \$1,694,939. Reimbursement is to be made at actual cost plus fixed fee. However, billing shall not exceed the rates provided in Section B above or the rates provided in the attached Fee Proposal Worksheets below.

Fee Proposal Summary: Replacement of Mission Boulevard Bridge at Santa Ana River (Br. No. 56C-0071)						
	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	TOTALS
Kleinfelder	\$522,414					\$522,414
Kimley-Horn & Associates	\$372,030					\$372,030
LSA Associates	\$627,192					\$627,192
Chang Consultants	\$35,503					\$35,503
Tatsumi & Partners	\$51,594					\$51,594
Diaz Yourman & Associates	\$46,409					\$46,409
Value Management Strategies	\$39,796					\$39,796
TOTALS	\$1,694,939					\$1,694,939

Phase I: Preliminary Engineering/Environmental Clearance/Technical Report

Phase II:

Phase III:

Phase IV:

COMPANY: Kleinfelder	SCOPE OF WORK Project Summary	DATE: 5/5/2015	REV: 1
PROJECT: Replacement of Mission Boulevard Bridge at Santa Ana River (Br. No. 56C-0071)		MILESTONE/PHASE/PROJ SUMMARY: All Phases	

DIRECT LABOR

PERSONNEL	Function	HOURS		RATE	AMOUNT
James Frost	Project Manager	627	@	\$86.71	\$54,367.17
Craig Shannon	Senior Structural Engineer	812	@	\$72.31	\$58,715.72
Andrew Sanford	Senior Engineer			\$72.94	
Keith Gazaway	Senior Engineer/QA/QC	4	@	\$60.89	\$243.56
NganHa Vu	Associate Engineer	142	@	\$45.67	\$6,485.14
Lise Muco	Associate Engineer	162	@	\$40.22	\$6,515.64
Ty Brittain	Senior Technician	198	@	\$59.55	\$11,790.90
Karibia Baillargeon	PM Assistant	273	@	\$35.23	\$9,617.79
Mark Creveling	Principal Engineer	40	@	\$113.58	\$4,543.20
Robert Torres	Technical Peer Reviewer	6	@	\$72.50	\$435.00
Paul Guptil	Principal Geologist/Reviewer	4	@	\$83.19	\$332.76
James Gingery	PM/Principal Geotechnical Engr	39	@	\$59.51	\$2,320.89
Michael Cook	Senior Geologist	34	@	\$48.80	\$1,659.20
Hua Liu	Senior Engineer	24	@	\$39.56	\$949.44
Adam Williams	Staff Engineer II	58	@	\$34.98	\$2,028.84
Michelle Garde	Staff Geologist II			\$32.27	
	Word Processing/Admin.	6	@	\$22.00	\$132.00
Dean Fahrney	Draftsperson	12	@	\$30.08	\$360.96
Joyce Hua	Project Administrator/Admin	1	@	\$24.10	\$24.10
Caroll Wagner	Billing Administrator/Admin	1	@	\$37.49	\$37.49
TOTAL HOURS		2443		TOTAL DIRECT LABOR	\$160,559.80

MULTIPLIERS

ESCALATION @	(Rate)	
OVERHEAD @	175.46% (of Total Direct Labor + Escalation)	\$281,718.23
PAYROLL ADDITIVES @	(of Total Direct Labor + Escalation)	
TOTAL MULTIPLIERS		\$281,718.23

OTHER DIRECT EXPENSES * Billed at Actual Cost *****

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Reproduction	1	LS	@	\$12,000.00	\$12,000.00
Board mounting	15	EA	@	\$60.00	\$900.00
Mileage	9600	miles	@	\$0.56	\$5,328.00
Deliveries	40	EA	@	\$75.00	\$3,000.00
Misc Office					
CPT	1	LS	@	\$13,680.00	\$13,680.00
Private Underground Utility Locator	5	HOUR	@	\$200.00	\$1,000.00
TOTAL OTHER DIRECT EXPENSES					\$35,908.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Kimley-Horn & Associates	\$110,778.57	\$213,603.24	\$15,283.60	\$339,665.41
LSA Associates	\$182,674.78	\$339,939.50	\$52,316.48	\$574,930.75
Chang Consultants	\$14,799.76	\$17,019.72	\$501.60	\$32,321.08
Tatsumi & Partners	\$15,915.42	\$28,488.60	\$2,750.00	\$47,154.02
Diaz Yourman & Associates	\$10,652.15	\$22,974.56	\$9,419.35	\$43,046.05
Value Management Strategies	\$10,803.22	\$21,066.28	\$4,740.00	\$36,609.50
TOTAL OUTSIDE SERVICES				\$1,073,726.82

FEES

OUTSIDE SERVICES ADMIN FEE @	(of Total Outside Services & Outside Services Fees)	
KLEINFELDER @	10.0% (of Total Direct Labor + Total Multipliers)	\$44,227.80
OUTSIDE SERVICES @	(of Total Labor + Total Multiplier for Outside Services)	\$98,798.47
TOTAL FEES		\$143,026.27
TOTAL COST		\$1,694,939.11

COMPANY: Kleinfelder	SCOPE OF WORK Preliminary Engineering/Environmental Clearance/Technical Report	DATE: 5/5/2015	REV: 1
PROJECT: Replacement of Mission Boulevard Bridge at Santa Ana River (Br. No. 56C-0071)		MILESTONE/PHASE/PROJ SUMMARY: Phase I	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
James Frost	Project Manager	627	@	\$86.71	\$54,367.17
Craig Shannon	Senior Structural Engineer	812	@	\$72.31	\$58,715.72
Andrew Sanford	Senior Engineer			\$72.94	
Keith Gazaway	Senior Engineer/QA/QC	4	@	\$60.89	\$243.56
NganHa Vu	Associate Engineer	142	@	\$45.67	\$6,485.14
Lise Muco	Associate Engineer	162	@	\$40.22	\$6,515.64
Ty Brittain	Senior Technician	198	@	\$59.55	\$11,790.90
Karibia Baillargeon	PM Assistant	273	@	\$35.23	\$9,617.79
Mark Creveling	Principal Engineer	40	@	\$113.58	\$4,543.20
Robert Torres	Technical Peer Reviewer	6	@	\$72.50	\$435.00
Paul Guptil	Principal Geologist/Reviewer	4	@	\$83.19	\$332.76
James Gingery	PM/Principal Geotechnical En	39	@	\$59.51	\$2,320.89
Michael Cook	Senior Geologist	34	@	\$48.80	\$1,659.20
Hua Liu	Senior Engineer	24	@	\$39.56	\$949.44
Adam Williams	Staff Engineer II	58	@	\$34.98	\$2,028.84
Michelle Garde	Staff Geologist II			\$32.27	
	Word Processing/Admin.	6	@	\$22.00	\$132.00
Dean Fahrney	Draftsperson	12	@	\$30.08	\$360.96
Joyce Hua	Project Administrator/Admin	1	@	\$24.10	\$24.10
Caroll Wagner	Billing Administrator/Admin	1	@	\$37.49	\$37.49
TOTAL HOURS		2443		TOTAL DIRECT LABOR	\$160,559.80

MULTIPLIERS

ESCALATION @	(Rate)	
OVERHEAD @	175.46% (of Total Direct Labor + Escalation)	\$281,718.23
PAYROLL ADDITIVES @	(of Total Direct Labor + Escalation)	
TOTAL MULTIPLIERS		\$281,718.23

OTHER DIRECT EXPENSES * Billed at Actual Cost *****

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Reproduction	1	LS	@	\$12,000.00	\$12,000.00
Board mounting	15	EA	@	\$60.00	\$900.00
Mileage	9600	miles	@	\$0.56	\$5,328.00
Deliveries	40	EA	@	\$75.00	\$3,000.00
CPT	1	LS	@	\$13,680.00	\$13,680.00
Private Underground Utility Locator	5	HOUR	@	\$200.00	\$1,000.00
TOTAL OTHER DIRECT EXPENSES					\$35,908.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Kimley-Horn & Associates				
LSA Associates				
Chang Consultants				
Kleinfelder				
Tatsumi & Partners				
Diaz Yourman & Associates				
Value Management Strategies				
TOTAL OUTSIDE SERVICES				

FEES

OUTSIDE SERVICES ADMIN FEE @	(of Total Outside Services & Outside Services Fees)	
KLEINFELDER @	10.00% (of Total Direct Labor + Total Multipliers)	\$44,227.80
OUTSIDE SERVICES @	(of Total Labor + Total Multiplier for Outside Service)	
TOTAL FEES		\$44,227.80
TOTAL COST		\$522,413.83

COMPANY: Kleinfelder	SCOPE OF WORK Subconsultants	DATE: 5/5/2015	REV: 1
PROJECT: Replacement of Mission Boulevard Bridge at Santa Ana River (Br. No. 56C-0071)		MILESTONE/PHASE/PROJ SUMMARY: Phase 1	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
James Frost	Project Manager		\$86.71	
Craig Shannon	Senior Structural Engineer		\$72.31	
Andrew Sanford	Senior Engineer		\$72.94	
Keith Gazaway	Senior Engineer/QA/QC		\$60.89	
NganHa Vu	Associate Engineer		\$45.67	
Lise Muco	Associate Engineer		\$40.22	
Ty Brittain	Senior Technician		\$59.55	
Karibia Baillargeon	PM Assistant		\$35.23	
Mark Creveling	Principal Engineer		\$113.58	
Robert Torres	Technical Peer Reviewer		\$72.50	
Paul Guptil	Principal Geologist/Reviewer		\$83.19	
James Gingery	PM/Principal Geotechnical Engr		\$59.51	
Michael Cook	Senior Geologist		\$48.80	
Hua Liu	Senior Engineer		\$39.56	
Adam Williams	Staff Engineer II		\$34.98	
Michelle Garde	Staff Geologist II		\$32.27	
	Word Processing/Admin.		\$22.00	
Dean Fahrney	Draftsperson		\$30.08	
Joyce Hua	Project Administrator/Admin		\$24.10	
Caroll Wagner	Billing Administrator/Admin		\$37.49	

TOTAL HOURS TOTAL DIRECT LABOR

MULTIPLIERS

ESCALATION @ (Rate)

OVERHEAD @ 175.46% (of Total Direct Labor + Escalation)

PAYROLL ADDITIVES @ (of Total Direct Labor + Escalation)

TOTAL MULTIPLIERS

OTHER DIRECT EXPENSES ... Billed at Actual Cost ...

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Reproduction		LS	\$12,000.00	
Board mounting		EA	\$60.00	
Mileage		miles	\$0.56	
Deliveries		EA	\$75.00	
Misc				
Office				
CPT		LS	\$13,680.00	
Private Underground Utility Locator		HOUR	\$200.00	

TOTAL OTHER DIRECT EXPENSES

OUTSIDE SERVICES (w/fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Kimley-Horn & Associates	\$110,778.57	\$245,968.31	\$15,283.60	\$372,030.48
LSA Associates	\$182,674.78	\$392,200.93	\$52,316.48	\$627,192.18
Chang Consultants	\$14,799.76	\$20,201.67	\$501.60	\$35,503.03
Tatsumi & Partners	\$15,915.42	\$32,929.00	\$2,750.00	\$51,594.42
Diaz Yourman & Associates	\$10,652.15	\$26,337.23	\$9,419.35	\$46,408.72
Value Management Strategies	\$10,803.22	\$24,253.23	\$4,740.00	\$39,796.45

TOTAL OUTSIDE SERVICES \$1,172,525.29

FEES

OUTSIDE SERVICES ADMIN FEE @ (of Total Outside Services & Outside Services Fees)

KLEINFELDER @ 10.00% (of Total Direct Labor + Total Multipliers)

OUTSIDE SERVICES @ (of Total Labor + Total Multiplier for Outside Service)

TOTAL FEES

TOTAL COST \$1,172,525.29

COMPANY: Kimley-Horn & Associates	SCOPE OF WORK	DATE: 5/5/2015	REV: 1
PROJECT: Replacement of Mission Boulevard Bridge at Santa Ana River (Br. No. 56C-0071)		MILESTONE/PHASE/PROJ SUMMARY: Phase I	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
Darren Adrian, PE	Sen Rdwy Engineer	309	@	\$79.34	\$24,516.06
Jean Fares, TE	Traffic Engineer	126	@	\$75.00	\$9,450.00
Dennis Landaal, PE	QC/Senior Engineer	36	@	\$99.04	\$3,565.44
	Proj Engr Civil	397	@	\$62.75	\$24,911.75
Jason Melchor, PE	Proj Engr Traffic	200	@	\$52.66	\$10,532.00
	Surveyor	68	@	\$54.01	\$3,672.68
	Engineer	414	@	\$46.69	\$19,329.66
	Assist. Engr / Technician	126	@	\$36.67	\$4,620.42
	CADD Designer	195	@	\$46.64	\$9,094.80
	Admin Support	36	@	\$30.16	\$1,085.76

TOTAL HOURS 1907 TOTAL DIRECT LABOR \$110,778.57

MULTIPLIERS

ESCALATION @	(Rate)	
OVERHEAD @	192.16% (of Total Direct Labor + Escalation)	\$212,872.10
FCCM @	0.66% (of Total Direct Labor + Escalation)	\$731.14
**Overhead = Fringe/G&A 192.16% + FCCM = 0.66%		
TOTAL MULTIPLIERS		\$213,603.24

OTHER DIRECT EXPENSES * Billed at Actual Cost *****

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Reproduction	1	LS	@	\$1,500.00	\$1,500.00
Travel/Per Diem	1	LS	@	\$1,000.00	\$1,000.00
Mileage	3640	miles	@	\$0.49	\$1,783.60
Deliveries	1	LS	@	\$1,000.00	\$1,000.00
Office Expenses	1	LS	@	\$10,000.00	\$10,000.00

TOTAL OTHER DIRECT EXPENSES \$15,283.60

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL

TOTAL OUTSIDE SERVICES

FEES

OUTSIDE SERVICES ADMIN FEE @	(of Total Outside Services & Outside Services Fees)	
KIMLEY-HORN & ASSOCIATE:	10.00% (of Total Direct Labor + Total Multipliers)	\$32,365.07
OUTSIDE SERVICES @	10.00% (of Total Labor + Total Multiplier for Outside Services)	
TOTAL FEES		\$32,365.07

TOTAL COST \$372,030.48

