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TRANSPORTATION MEASURE I

■ San Bernardino County Transportation Commission ■ San Bernardino County Transportation Authority
■ San Bernardino County Congestion Management Agency ■ Service Authority for Freeway Emergencies

Minute Action

AGENDA ITEM: 13

Date: October 7, 2009

Subject: Contract Amendment No. 1 to Contract C09092 with RMC Inc. (RMC) for I-10 Tippecanoe Plans, Specifications, & Estimates (PS&E) Phase engineering services

Recommendation:* Approve Amendment No. 1 to Contract C09092 with RMC Inc. for PS&E engineering services for an additional $3,947,981 plus $352,300 for contingencies, increasing the total contract value to $5,498,765.

Background: **This is an amendment to an existing contract.** In November 2008, the SANBAG Board of Directors approved a contract with RMC for professional services to complete the preliminary design and environmental studies for the I-10 Tippecanoe Avenue Interchange Project. The contract contained a provision to allow the addition of PS&E services at a later date. The total amount for the original contract was $1,198,484 including a contingency amount.

In August 2009, the Geometric Approval Drawings (GAD) was approved and both draft Project Report and draft Environmental Document were submitted to Caltrans for review. Typically, the PS&E phase follows the PA&ED phase, however, since there is only one build alternative proposed, and considerable progress has been made on the project, SANBAG staff recommends proceeding with the PS&E activities in parallel with the current Project Approval and Environmental Document (PA/ED) phase to save time and deliver the project as soon as possible.

*

Approved
Board of Directors

Date: *October 7, 2009*

Moved: *Second:*

In Favor: *Opposed:* *Abstained:*

Witnessed: _____

BRD0910e-gc
TN 84210000
Attachment: A09092-01, BRD0910e1-gc

The completion of the Project Approval and Environmental Document (PA/ED) phase for the project is planned for April 2010 and PS&E approval/Right of Way certification is planned for February 2012.

A scope of work and cost proposal was submitted to SANBAG by RMC for PS&E professional services. After reviews and subsequent negotiations, SANBAG staff is recommending the attached scope of work and cost proposal for SANBAG board approval. The contract amount for PS&E services is $3,947,981 plus a contingency amount of $352,300.

Total contract amount being requested in this amendment is $4,300,281, which includes the PS&E services and contingency.

Financial Impact: This item is consistent with the FY 2009/2010 budget. PS&E professional services will be funded by Measure I and federal TEA-21 funds.

Reviewed By: This item was reviewed and unanimously recommended for approval by the Major Projects Committee on September 10, 2009. SANBAG Counsel has reviewed and approved the amendment as to form.

Responsible Staff: Garry Cohoe, Director of Freeway Construction

BRD0910e-gc
TN 84210000
Attachment: A09092-01, BRD0910e1-gc

SANBAG Contract No. C09092-1
by and between
San Bernardino County Transportation Authority
and
RMC, Inc.
for
Engineering and Environmental Professional Services for the I-10/Tippecanoe Interchange

FOR ACCOUNTING PURPOSES ONLY

☒ Payable ☐ Receivable	Vendor Contract # Vendor ID RMCI	Retention: ☐ Yes ____ % ☒ No	☐ Original ☒ Amendment

Notes:

Original Contract:	$ 1,198,484	Previous Amendments Total:	$ 0
		Previous Amendments Contingency Total:	$ 0
Contingency Amount:	$ 108,953	Current Amendment:	$ 3,947,981
		Current Amendment Contingency:	$ 352,300

Contingency Amount requires specific authorization by Task Manager prior to release.

Contract TOTAL ➔ $ 5,498,765

↓ Please include funding allocation for the original contract or the amendment.

Task	Cost Code	Funding Sources	Grant ID	Amounts
842	5553	Measure I	i300	$913,500
842	5553	TEA-21 DEMO	TBD	$3,386,781

Original Board Approved Contract Date: 11/5/08 Contract Start: 11/5/08 Contract End: 11/5/10
New Amend. Approval (Board) Date: 10/7/09 Amend. Start: 10/7/09 Amend. End: 10/5/12

If this is a multi-year contract/amendment, please allocate budget authority among approved budget authority and future fiscal year(s)-unbudgeted obligations:

Approved Budget Authority ➔	Fiscal Year: 09/10 $ 1,453,500	**Future Fiscal Year(s) – Unbudgeted Obligation ➔**	$ 2,846,781

Is this consistent with the adopted budget? ☒Yes ☐No
If yes, which Task includes budget authority? 842
If no, has the budget amendment been submitted? ☐Yes ☐No

CONTRACT MANAGEMENT

Please mark an "X" next to all that apply:

☐ Intergovernmental ☒ Private ☐ Non-Local ☐ Local ☐ Partly Local

Disadvantaged Business Enterprise: ☒No ☐Yes ____%

Task Manager: **Garry Cohoe**	Contract Manager: **Khalil Saba**
Garry Cohoe 9/24/09 Task Manager Signature Date	Khalil Saba 9-24-09 Contract Manager Signature Date
9/24/09 Chief Financial Officer Signature Date	

A09092-1
TN 84210000

AMENDMENT NO. 1

CONTRACT NO. C09092

Agreement By And Between

SAN BERNARDINO ASSOCIATED GOVERNMENTS/
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY

and

RMC, Inc.

This AMENDMENT No. 1 to CONTRACT No. C09092 entered into this 7th day of October, 2009 by and between the firm of RMC, Inc. (hereafter called CONSULTANT) and the San Bernardino Associated Governments/San Bernardino County Transportation Authority (hereafter called AUTHORITY):

WITNESSETH,

WHEREAS, AUTHORITY, under Contract No. C09092, has engaged the services of CONSULTANT to provide environmental and engineering services including preparation of environmental document and the project report; and

WHEREAS, the parties hereto desire to amend the aforesaid Contract to include additional work preparing plans, specifications, and estimates.

NOW, THEREFORE, in consideration of the terms and conditions set forth herein, CONSULTANT and AUTHORITY do hereby agree as follows:

1. The Contract scope of services is hereby amended to include additional work preparing plans, specifications, and estimates as described in Attachment "A", Scope of Service, of this Amendment which is hereby incorporated into the Contract.
2. The not-to-exceed cost of Contract No. C09092 shall be increased by $3,947,981 , plus $352,300 for contingencies, for a new not-to-exceed total Contract amount of $5,498,765. The costs shall include all work performed by subconsultants, and all overhead costs and fees for CONSULTANT and subconsultants, as detailed in Attachment "B", Total Estimated Contract Cost, of this Amendment.
3. Article 2 Performance Schedule and Force Majeure Paragraph 2.1 shall be amended to extend the Period of Performance by CONSULTANT to terminate on October 5, 2012 to allow completion of additional work preparing plans, specifications, and estimates.
4. Except as amended by this Amendment, all other provisions of Contract No. C09092 remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the day and year below written, but effective as of the day and year first set forth above.

RMC, Inc.

By: _____
Jamal Salman, P.E.
Principal

Date: _____

San Bernardino Associated Governments

By: _____
Paul M. Eaton, President
SANBAG Board of Directors

Date: _____

APPROVED AS TO LEGAL FORM:

By: _____
Jean-Rene Basle
SANBAG Counsel

Scope of Services

OVERVIEW

The San Bernardino Associated Governments (SANBAG), in cooperation with the California Department of Transportation (CALTRANS), will utilize the services of CONSULTANT to perform professional services for Plans, Specifications, and Estimates (PS&E) for the I-10/Tippecanoe Avenue Interchange Project (PROJECT) in the Cities of Loma Linda and San Bernardino in San Bernardino County.

Coordination of SANBAG, CALTRANS, and CONSULTANT will be accomplished through a SANBAG Contract Manager or his designee, a CONSULTANT Project Manager, and a CALTRANS Project Manager.

The SANBAG Contract Manager for this contract shall be:

Mr. Garry Cohoe
Director of Freeway Construction

CONSULTANT shall be required to perform all professional and technical services necessary to complete the PS&E phase for the PROJECT.

APPLICABLE STANDARDS

All documents shall be prepared in accordance with current CALTRANS and Federal Highway Administration (FHWA) regulations, policies, procedures, manuals, and standards. This includes the State of California Department of Transportation State Standard Special Provisions and Standard Specifications (SSPs) and the "CALTRANS Highway Design Manual".

SERVICES PERFORMED BY CONSULTANT

CONSULTANT shall be responsible for the Services outlined in this Scope of Services. CONSULTANT services shall conform to the standards, criteria, and requirements of this Scope of Services, and shall include the studies, reports, drawings, plans, specifications, estimates, and special provisions necessary to complete the project.

General Description of Required Services

A. CONSULTANT shall carry out the directions as received **only** from SANBAG'S Contract Manager or designee. In addition, CONSULTANT shall cooperate with CALTRANS, the County, Cities, other agencies, and other CONSULTANTs providing services for this project and for adjacent projects, as necessary.

B. It is not the intent of the foregoing paragraph to relieve CONSULTANT of professional responsibility during the performance of this Scope of Services. In those instances where CONSULTANT believes a better design or solution to a problem is possible, CONSULTANT shall promptly notify SANBAG's Contract Manager of these concerns, together with reasons therefore.

C. CONSULTANT shall have sole responsibility for the accuracy and completeness of the reports, plans, specifications, estimates, and related material prepared by CONSULTANT for the Project. CONSULTANT shall independently check and identify the engineer and checker for all such material prior to any submittal. The plans, concepts, reports, and documentation will be reviewed by CALTRANS, SANBAG, and/or SANBAG's designee for overall project consistency.

D. The exhibits, studies, estimates, calculations, reports and other documents furnished under this Scope of Services shall be of a quality acceptable to SANBAG and CALTRANS. The criteria for acceptance shall be a product of neat appearance, well organized, technically and grammatically correct, checked and having the maker and checker identified. The appearance, organization and content of the drawings shall be to applicable standards.

E. The title sheet for reports, each plan sheet, and calculations shall bear the professional seal certificate number, registration classification, expiration date of the certificate, signature of the professional engineer, registered in the State of California, responsible for their preparation.

F. The CONSULTANT shall maintain a set of project files that are indexed in accordance with CALTRANS' Project Development Uniform File System.

G. SANBAG reserves the right to approve all project scope of services changes. Any changes resulting from the addition, deletion, or revisions to the Scope of Services will not be made without prior written approval from SANBAG. The CONSULTANT shall not be compensated for making any changes to the project Scope of Services other than those approved in writing by SANBAG.

H. CONSULTANT shall not suspend performance of this contract during the negotiations of any change orders except as they may be directed by SANBAG. CONSULTANT shall perform all changes in accordance with the terms and conditions of this contract.

I. At the completion of this Scope of Services all electronic files and correspondence relating to the Project shall be turned over to SANBAG who will then forward said files to CALTRANS. This includes all working data, field data, and background information used in creating the deliverables listed in the Scope of Services.

J. CONSULTANT shall submit all final plans on CD using MicroStation (.dgn) file format in accordance with CALTRANS standards. The electronic files shall include the engineer's electronic signature and seal. CONSULTANT shall verify the latest version of software used prior to submittal. CONSULTANT will also provide plot parameter (.par) files in accordance with CALTRANS standards.

K. CONSULTANT shall obtain, at its expense, all applicable Manuals and Standard Plans.

L. In the event that non-standard features are necessary, CONSULTANT shall prepare the necessary Fact Sheets for Design Exceptions following CALTRANS guidelines.

M. CONSULTANT shall employ quality control procedures that identify potential risks and uncertainties related to construction of the Project. Risks that may be encountered include, but are not limited to, soil conditions, constructability, factors of safety, impacts to adjacent properties, public safety, and environmental considerations. If at any time during the performance of this Scope of Services, CONSULTANT observes, encounters, or identifies any circumstance that could pose potential risk, CONSULTANT shall notify SANBAG.

N. CONSULTANT shall coordination with County, Cities, and all other agencies involved or potentially impacted by the Project. CONSULTANT shall inform SANBAG prior to all contacts, meetings, and correspondence. CONSULTANT shall also be required to coordinate activities with adjacent projects.

I-10/Tippecanoe Avenue Interchange Improvements Project
Preparation of Plans, Specifications, and Estimates
SCOPE OF SERVICES

TASK 100 – PERFORM PROJECT MANAGEMENT

This task covers project management services including the requirements for meetings, schedules, progress reports, invoicing, and administration of the RMC, Inc. team work on the I-10/Tippecanoe Avenue Interchange PS&E.

100.15 PROJECT MANAGEMENT – PS&E COMPONENT

100.15.10.1 Coordination/Administration

The RMC, Inc. team will meet with affected parties to discuss issues pertinent to the analysis, design, and effects of the I-10/Tippecanoe Avenue Interchange Improvements Project. During these meetings, SANBAG and Caltrans may provide direction for development of the PS&E.

The RMC, Inc. team shall participate in the following meetings:

Project Development Team (PDT) Meetings with SANBAG and Caltrans will be held to discuss policy, procedural and freeway-specific issues. The team will bring progress plans as appropriate. No special presentation materials will be required.

Agency Coordination/Technical Workshop Meetings will be held to discuss technical issues with specific agencies. The team shall participate in meetings with specific agencies as requested by SANBAG. The team will bring progress plans as appropriate. No special presentation materials will be required. Collateral material may be black and white.

Deliverables:

PDT meeting materials including:

- Notices;
- Agendas;
- Handouts,
- Minutes.

Administration shall include the following elements of the work:

- Supervise, coordinate, and monitor work for conformance with Caltrans standards and policies;
- Apply for and obtain Caltrans encroachment permits necessary for the RMC, Inc. team to be on the jobsite, with the assumption that SANBAG will apply for the initial permit.
- Apply for and obtain City approvals and permits as required;
- Prepare, circulate, and file correspondence and memoranda as appropriate;
- Maintain project files using the Caltrans Uniform File System.
- Thirty days after Notice to Proceed, the RMC, Inc. team shall submit the Project Master Schedule to the SANBAG and Caltrans Project Managers. Section 100.10.10.2 contains the description of the Master Schedule.

100.15.10.2 Schedules

The RMC, Inc. team shall submit an initial Project Master Schedule following Notice to Proceed. Following approval by SANBAG, this schedule will become the Project Target Schedule. The approved Project Target Schedule shall be displayed on the Project Master Schedule updates. The following elements must be included:

- Work items and deliverables identified in accordance with a Work Breakdown Structure (WBS) developed by the RMC, Inc. team and approved by SANBAG;
- Work items of agencies and other third parties that may affect or be affected by the RMC, Inc. team activities;

Additional considerations for the project schedule include:

- The Project Master Schedule shall include all data necessary to represent the total Project and the critical path shall be clearly identified;
- The order, sequence, and interdependence of significant work items shall be reflected on the Project Master Schedule;
- The list of major tasks that shall be used to develop the Project Master Schedule will be coordinated with SANBAG staff after Notice to Proceed. Major tasks will be broken down into subtasks as warranted.

The RMC, Inc. team shall submit a copy of the Project Master Schedule to the SANBAG Project Manager for review and approval and a copy to Caltrans for their records. Monthly schedule updates will be part of the Progress Report and will be in accordance with the requirements shown in Section 100.15.10.3.

Deliverables:

- Project Master Schedule

100.15.10.3 Progress Reports

Progress Reporting shall be consistent with the requirements in the Contract between RMC, Inc. and SANBAG.

100.15.10.4 Quality Assurance/Quality Control (QA/QC) Plan

The RMC, Inc. team shall maintain a Quality Assurance/Quality Control Plan throughout performance of the services for the I-10/Tippecanoe Avenue Interchange Project. The QA/QC Plan is intended to ensure that the reports, plans, studies, estimates, and other documents submitted under this Scope of Services are complete, accurate, checked, and proofread to meet professional engineering practices in effect at the time of execution of the Contract.

The following quality control elements are required for the major milestones for the preparation of plans, specifications, and estimates for the project.

1. Provide independent checking and verification of all calculations.
2. Provide independent checking, correction, and back checking for all plans. Plans shall be marked clearly as being checked, signifying that the preparation of the material followed the QA/QC Plan established for the project.
3. Route pertinent project related correspondence and memoranda to affected personnel and bind in appropriate project files.
4. Establish appropriate means to avoid conflicts and misalignments between both new and existing improvements, particularly where several drawings show different elements of work in the same area.
5. RMC, Inc. shall identify critical QA reviews within the Project Master Schedule.

Within seven (7) days of receiving the Notice to Proceed on the PS&E phase, the RMC, Inc. team shall submit a complete copy of the QA/QC Plan to both the SANBAG Project Manager and Caltrans for review.

Deliverables:

- QA/QC Plan

100.15.10.5 Update Project Management Plan (PMP)

The RMC, Inc. team will update the Project Management Plan (PMP) that was prepared for the PA/ED phase. The PMP will be developed with input from the members of the

PDT. The PMP will be a "living document" that is reviewed and, if necessary, updated at each PDT meeting.

Within thirty (30) days of receiving Notice-to-Proceed, RMC, Inc. will submit a complete copy of the PMP to both the SANBAG Project Manager and Caltrans for review.

Deliverables:

- Updated Project Management Plan

TASK 185 – PREPARE BASE MAPS AND PLAN SHEETS DURING PS&E DEVELOPMENT

185.15 30% PLANS

185.20.99 Geotechnical Exploration Plan

The RMC, Inc. team will prepare and submit a geotechnical review and exploration plan for SANBAG and Caltrans review. The team shall obtain right-of-entry permits prior to exploration. The team shall conduct subsurface investigation and evaluate the results in accordance with Caltrans testing criteria. The team shall analyze the results and present them in the geotechnical report.

Deliverables:

- Geotechnical Exploration Plan

185.15.05 Roadway Plans

The RMC, Inc. team will prepare 30 percent level layouts, profiles, superelevation diagrams, typical sections, and ROW requirements per the GADs and field survey.

Deliverables:

- 30% Plans including title sheet, layouts plans, profiles and superelevation diagrams, typical sections, and ROW requirements map.

240.65 Preliminary Foundation Report

To assist in Type selection, the RMC, Inc. team will prepare a Preliminary Foundation Report, in accordance with Caltrans Office of Structural Foundations requirements. This report shall include a summary of the exploration program, description of the site geotechnical issues, and recommendations for foundation design and construction including retaining walls, if appropriate.

Deliverables:

- Preliminary Foundation Report

185.30.10 Bridge Type Selection

The RMC, Inc. team will prepare the Structure Type Selection documents and Bridge General Plan to comply with the most current Caltrans guidelines. A report will be prepared for two bridges: Tippecanoe Avenue Undercrossing Widening and San Timoteo Creek Bridge Widening.

Based on the results of analysis documented in the APS, the scope for type selection and PS&E includes a seismic assessment of both Tippecanoe Avenue UC and San Timoteo Creek Bridge and assumes that retrofit design is required only for San Timoteo Creek Bridge. The seismic retrofit strategy meeting is assumed to be held at the same time as the Type Selection Meeting.

The Type Selection Report will address the following:

- Foundation recommendation
- Falsework requirements
- Seismic considerations and retrofit strategy
- Construction issues
- General Plan cost estimate
- Utilities carried through the bridge
- Aesthetic Treatments
- Other pertinent information needed to justify the proposed structure type

Deliverables:

- Bridge Type Selection Report

185.30.99 Bridge Type Selection Meeting and Approval

The RMC, Inc. team will attend a Type Selection review meeting at Caltrans office in Sacramento to finalize structure type, foundations, seismic design, aesthetics and construction issues.

Following the meeting, we will resolve any comments from the Type Selection Meeting and will revise the Type Selection Report accordingly. The General Plan and GP estimate will also be updated as required.

Deliverables:

- Type Selection Review Meeting Summary

- General Plan
- General Plan Estimate

185.25.30 Utilities

The RMC, Inc. team will coordinate and work closely with the Cities and utility companies to determine the need to relocate impacted facilities, using Caltrans policy for high- and low-risk utilities. It is assumed that the base map derived from plans received from the utility companies during the PA/ED phase will be sufficient for the PS&E phase and that no additional utility company plan fees will be required. It is assumed that the utility companies will perform relocation design for their own facilities. Any necessary utility relocation plans will not be part of the PS&E package developed by the RMC, Inc. team. The RMC, Inc. team will prepare and distribute utility base maps to affected utilities.

Field surveys will be performed to locate the estimated twenty (20) utility potholes proposed for this project.

Deliverables:

- Utility base maps and plans

185.15.99 Landscape Concept Plan

The RMC, Inc. team will prepare a landscaping concept plan for the project. Workshop meetings with the City of Loma Linda, City of San Bernardino, and Caltrans District 8 need to be conducted to discuss the project goals, guidelines, opportunities and constraints. The Landscape Conceptual Plan and exhibits will be prepared to reflect the I-10 Corridor Planting Master Plan and the ideas and concerns generated during meetings with Caltrans and the Cities. Early coordination between the Cities and State will be crucial in obtaining timely design approval of the Landscape Concept Plan which will reduce delays during subsequent future plan submittals.

Deliverables:

- Landscape Concept Plan

185.10.60 Design Surveys

Conventional ground surveys and 3D Laser Scanning (HDS) methods will be utilized to complete the cross sections and detailed topographic surveys requested. These surveys will include the edge of pavement and concrete, top of curb, flowline, sidewalks, striping, traffic and street signs, bridge clearances and other surface visible features within the requested project area.

HDS does not impact the traffic and in contrast to conventional topographic surveys, should not require any shoulder or lane closures. HDS is more efficient than traditional surveys and will help to maximize the safety of the survey crew and motoring public. Traditional ground surveys may take up to four times longer to complete, collecting less information, and require shoulder and lane closures.

With the use of HDS, surface information such as edge of pavement, edge of traveled way, curb and gutter and other surface visible features in the roadway are safely captured in the scan data without impacting traffic. Once the scans are completed, they will be registered and tied to the existing Interstate 10 corridor control. Digital Terrain Model (DTM) and topographic feature extraction will be completed for the roadway, including edge of shoulder, edge of traveled way, lane striping, top of curb, flowline and other surface visible features such as bridge structures, road signs. The DTM created during the PA/ED phase will be updated with the new topographic survey data.

Visible indications of City and Caltrans drainage systems within the proposed design areas listed under Deliverables will also be located and detailed. Ground shots will be taken along the north side of the proposed alignment for Soundwall #2 and on both sides of the proposed alignment for Soundwall #3. Since the properties are still occupied by residents, assistance will be required from SANBAG to gain the necessary access to collect the required topographic data. Surveys will only be conducted where access is granted.

The topographic survey information will be downloaded, processed and plotted at a scale of 1"=50' and incorporated with the aerial mapping obtained.

Deliverables:

The topographic survey data will be delivered in Microstation v8 and InRoads v8 formats. Survey cross-sections at 50' intervals will be provided for:

- Eastbound I-10, Waterman Avenue to Tippecanoe Avenue
- San Timoteo Creek, 100' beyond each side of I-10
- Westbound I-10, WB on-ramp to Tippecanoe Avenue Undercrossing
- Tippecanoe Avenue/Anderson Street between Court Street and Lee Street
- Intersections along realigned Laurelwood Drive
- Redlands Boulevard – 500' west of and 800' east of Anderson Street

TASK 230 - DRAFT PS&E (60 PERCENT) SUBMITTAL

230.05 Roadway Plans

The RMC, Inc. team will incorporate all reviewing agency comments into the roadway plans. Where it is not possible or desirable to incorporate certain comments, the RMC, Inc. team shall provide an explanation.

Deliverables:

- Title Sheet;
- Key Map and Line Index;
- Typical Cross Sections;
- Layout Plans;
- Profiles and Superelevation Diagrams;
- Contour Grading
- Construction Details; and
- Summary of Quantities

230.05.45 Soundwall Plans

The RMC, Inc. team will prepare plans, details, and estimate for the two proposed soundwalls in the NE quadrant of the interchange. Each soundwall is anticipated to be approximately 710' in length.

Soundwall plans will be in accordance with Caltrans requirements. Details and construction specifications will also be prepared in accordance with Caltrans Standard Plans, Standard Specifications, and Standard Special Provisions.

Deliverables:

- Soundwall plans;
- Draft special provisions;
- Cost estimates for soundwalls

230.25 Utility Plans

The RMC, Inc. team will prepare utility conflict maps as a result of the coordination done during the PA/ED phase. Utilities that are found in potential conflict will be potholed, if not done so during the PA/ED phase, in accordance with Caltrans policy for high- and low-risk utilities and plotted. Conflict maps will be sent to impacted utility companies for confirmation and determination of any need for relocation. Again, it is assumed the utility companies will perform relocation design for their own facilities. Any necessary

utility relocation plans will not be part of the PS&E package developed by the RMC, Inc. team.

Deliverables:

- Utility conflict maps with pothole information

230.30 Drainage Plans

The RMC, Inc. team will prepare a drainage report that evaluates on-site and off-site hydrology and hydraulics to define the required drainage improvements. The analysis will consider City of San Bernardino, City of Loma Linda and County of San Bernardino Drainage Master Plans. The report will follow Caltrans standards and will be submitted to Caltrans for review and approval. The report will serve as the basis for preparing drainage plans for the project.

We will prepare drainage plans, profiles, details and quantities in conformance with Caltrans standards. Drainage facilities outside the proposed Caltrans Right of Way will be prepared in conformance with City and County standards. Drainage design will be performed in concert with water quality requirements to meet State and Federal law. The RMC, Inc. team will update the SWDR based on the current drainage design.

We have assumed that a total of 37 drainage drawings will be required. Scour analysis of the bridge at San Timoteo Creek will not be required since the channel has a concrete bottom. Any required box culverts will be based on Caltrans standard plans; non-standard culverts are not included in this scope.

Deliverables:

- Drainage Report
- Drainage Plans, Profiles, Details, and Quantities
- Temporary Drainage Plans

230.30 Water Pollution Control Plans

The RMC, Inc. team will prepare water pollution control plans, details, and quantities in conformance with Caltrans standards. The Storm Water Data Report will serve as the basis for preparing the water pollution control plans for the project. We have assumed that a total of 13 water pollution control drawings will be required.

Deliverables:

- Water Pollution Control Plans, Details, and Quantities

230.30.99 Storm Water Data Report

The RMC, Inc. team will update the PA/ED Storm Water Data Report (SWDR) to meet the PS&E requirements and incorporate its recommendations into the project's PS&E.

Deliverables:

- Draft PS&E SWDR

230.15.10, 230.20 Stage Construction, Traffic Handling, Detour Plans, and Transportation Management Plan (TMP)

The objective of the TMP is to provide continuous traffic circulation and access, with adequate space for safe and efficient construction. The RMC, Inc. team shall make sure that the TMP is coordinated with the Cities of Loma Linda and San Bernardino, Caltrans, and other stakeholders, including the CHP. Stage Construction and Detour Plans will include construction detour routes. A maximum of six stages of construction is assumed.

Deliverables:

- Transportation Management Plan;
- Stage construction and traffic handling/detour plans;
- Detour layouts, profiles, and superelevation diagrams, as required;
- Construction area signs; and
- Quantity sheets

230.15.05 Pavement Delineation Plans

The RMC, Inc. team will prepare pavement delineation plans to identify locations of painted and thermoplastic stripes and markings, pavement markers, and delineators.

Deliverables:

- Pavement Delineation Plans;
- Pavement Details; and
- Quantity Sheets

230.15.05 Sign Plans

The RMC, Inc. team will prepare Sign Plans to show existing and proposed new signs, which include a maximum of four (4) new overhead sign structures designed per Caltrans standard plans. The plans will include sign details and quantity sheets.

Deliverables:

- Sign Plans;
- Sign Details; and
- Quantity Sheets

230.15.15 Lighting, Signal Plans, and Electrical Ramp Metering and Traffic Monitoring

The RMC, Inc. team shall prepare Lighting and Signal Plans for the project including safety lighting, permanent signals, and ramp metering plans for Tippecanoe Avenue and the I-10 ramps. This scope assumes one new ramp metering location at the new WB loop on-ramp and a total of four (4) signal modifications or removals including:

Signal Modification: Anderson Street/Redlands Boulevard
Tippecanoe Avenue/EB Ramps
Tippecanoe Avenue/Harriman Place/WB Ramps (New)

Signal Removal: Tippecanoe Avenue/WB Ramps (Existing)

The RMC, Inc. team will coordinate with Caltrans to ensure that ramp meter and electrical designs will accommodate future I-10 traffic monitoring features within the project limits.

Deliverables:

- Lighting, Signal Plans, and Details; and
- Ramp Metering Plans

230.10 Planting and Irrigation Plans

The RMC, Inc. team will prepare a replacement landscaping theme for the project limits.

Deliverables:

- Planting and Irrigation Plans

220.15 Right-of-Way Plans and Engineering

The Caltrans Right of Way Engineering process will be followed to complete the right of way acquisition documents for this project. Throughout this process a Hard Copy Map, Appraisal Maps and Legal Descriptions and plats will be prepared for the proposed acquisition. The survey team will also prepare a Record of Survey to document and record the established boundary lines required for acquisition.

Additional boundary surveys will be performed to locate the limits of property boundaries for those parcels affected by right of way takes and easements.

The final ultimate Right of Way limits will be required for the completion of the following Right of Way engineering process. If the ultimate Right of Way is revised after the process begins, this proposal may be revised to reflect the same.

Hard Copy Map: The Hard Copy Map is an overall base map for the boundary analysis necessary to complete the right of way acquisition. This map will include the street centerlines and rights of way, existing Caltrans right of way, proposed Caltrans and street rights of way, full and partial fee takes and proposed temporary construction easements within the project area. The map will also include found monuments and record cadastral information used to establish property boundaries and any pertinent information necessary to prepare final acquisition documents.

Preliminary Title Reports will be obtained for the estimated 70 affected parcels. The costs associated with the Preliminary Title Reports will be passed along to the client as a reimbursable expense. The survey team will review the preliminary title reports and plot record easements onto the Hard Copy map within the areas of proposed right of way takes. Parcel numbers will be requested from Caltrans. This Hard Copy Map will be submitted along with supporting documentation to Caltrans for review and approval. The Hard Copy Map will be signed and sealed by a licensed land surveyor.

Right of Way Requirements Map: The Right of Way requirements map will be prepared from the land net base established for the Hard Copy Map and the provided final right of way Requirements. This map will delineate the proposed acreage takes and property ownership of the affected parcels. This map will be submitted to Caltrans for review and approval.

Record of Survey: During this phase of the project, a Record of Survey will be prepared and filed with the San Bernardino County Surveyor's Office. The purpose of the Record of Survey will be to document the establishment of the properties being affected by the proposed acquisition. Many of the parcels affected have been established by deed document only and no map exists to document the property boundaries. During the course of the Right of Way engineering process, deed lines will be analyzed and established to delineate the affected parcels. The Record of Survey will provide a recorded document as to how the lines were established and their relationship to the adjoining parcels. This record of Survey will also document the centerline monumentation and control used for the project, thus creating a controlling document for the project as it moves into construction.

The Record of Survey will be prepared in accordance with the California Land Surveyor's Act 8762 (b) (4) & (5) and will be filed with the San Bernardino County Surveyor's Office. The agency fees associated with the map recordation will be passed through to the client as a reimbursable expense.

Appraisal Maps: Upon Caltrans approval of the Hard Copy Map, Appraisal Maps will be prepared for the project area affected by fee and easement acquisition. The Appraisal

Maps will be prepared to Caltrans District 8 Right of Way Engineering standards and will be submitted to Caltrans for review. The appraisal maps will be signed and sealed by a licensed land surveyor.

Legal Descriptions and Plats: Once the Appraisal Maps are completed, reviewed and approved by Caltrans, legal description and plat maps will be prepared for the proposed parcel take (full and partial) and the proposed temporary construction easement. For the purpose of this proposal, sixty-eight (68) legal descriptions and plats have been included for fee parcels and thirty (30) legal descriptions and plats have been included for possible temporary construction easements. Any additional legal descriptions and plats required will be provided for an additional fee on a time and materials basis.

Vacation Documents: Two streets have been identified, Rosewood and Laurelwood, that will be vacated in part during the acquisition of property for this project. Legal Descriptions and plats will be prepared in support of the Street Vacation Process with the City of San Bernardino. The agency fees associated with the Street Vacation will be passed through to the client as a reimbursable expense.

Deliverables:

The topographic survey data will be delivered in Microstation v8 and InRoads v8 formats.

Hard Copy Base Map	Hard copy – Signed Hard Copy Map Microstation DGN file Adobe PDFs
Right of Way Req. Map	Hard copy - R/W Requirements Map Microstation DGN File, Adobe PDFs
Record of Survey	Hard Copy - Record of Survey 1st Check County Submittal Hard Copy - Recorded Record of Survey from County
Appraisal Maps	Hard Copy – Signed Appraisal Maps Microstation DGN Files, Adobe PDFs
Legal Descriptions/Plats	Hard Copy – Signed Legal Descriptions / Plats Adobe PDF copy of Signed Legal Descriptions/Plats
Vacation Documents	Hard Copy – Signed Legal Descriptions / Plats Adobe PDF copy of Signed Legal Descriptions/Plats

Assumptions:

It is assumed that appraisal and acquisition will be completed by Caltrans.

240.80 Geotechnical, Materials, and Foundation Reports

240.80.1 Geotechnical Design Report (GDR)

The RMC, Inc. team will prepare a report discussing the geotechnical design basis of the project and recommendations for design and construction of cut slopes, embankments, earthwork, and retaining walls. This report shall be submitted to Caltrans for review. The RMC, Inc. team will address any comments stemming from this review and prepare a final draft. All calculations supporting the design recommendations will be included as an appendix to the GDR.

Deliverables:

- Draft/Final Geotechnical Design Reports

240.80.2 Materials Report

The RMC, Inc. team will prepare a report discussing the pavement structure recommendations and/or pavement studies for the project. This report shall be submitted to Caltrans for review. RMC, Inc. team will address any comments stemming from this review and prepare a final draft. All calculations supporting the recommendations shall be included as an appendix to the Materials Report.

Deliverables:

- Draft/Final Materials Reports

240.80.3 Foundation Report

The RMC, Inc. team will prepare a Foundation Report based upon Type Selection comments and additional information from the GDR analyses. Logs of test borings shall be included as 11-inch by 17-inch plans.

Deliverables:

- Draft Foundation Report

230.55 Bridge Plans

Unchecked Details (60% Submittal)

The RMC, Inc. team will prepare plans for the Tippecanoe Avenue UC widening and the San Timoteo Creek Bridge widening. All structural analysis and component

design will be completed in the Unchecked Details task. All work will be conducted in accordance with current AASHTO Load and Resistance Factor Design (LRFD) bridge design procedures including Caltrans Amendments.

Manual calculations will be documented neatly on initialed, fully indexed calculation forms. Each calculation package will contain a summary that states the purpose of the calculations, references and sources of input information, relevant codes and

This submittal shall include comments, reviews, coordination efforts, and updated information. The RMC, Inc. team will update Roadway Plans, Stage Construction/Traffic Handling Plans, Soundwall Plans, Drainage Plans, Water Pollution Control Plans, Sign Plans, Electrical Plans, and will provide Quantity Sheets with updated Special Provisions and BEES estimate. Any Revised and/or New Standard Plans developed by Caltrans will be included with the Roadway Plan submittal.

Deliverables:

- 95 percent Roadway PS&E

230.55 Bridge and Retaining Wall Plans

Initial & Intermediate PS&E (95% Submittal)

Typical Caltrans submittals require Initial PS&E and Intermediate PS&E submittals. Based on our past experience we recommend combining the Initial and Intermediate PS&E into a single submittal, resulting in a significant reduction in the design schedule.

The combined Initial & Intermediate PS&E task consists of Quality Control of the structural design and plans, interdisciplinary review of the plans, computation of quantities, cost estimate, and draft specifications. The 65% structure plans will be furnished to the independent checker, tasked with independently developing calculations for all components and details and checking their presentation in the plans. If discrepancies are found, the checker and designer will meet to compare their work and determine whether corrections are required. The checker will deliver a set of structural check calculations and a red-lined set of plans to the designer. The plans will then be updated accordingly.

Based on the final plans, two sets of quantity calculations will be developed. These original and check calculations will agree within the limits specified for individual items in the Caltrans Bridge Design Aids. An Engineer's Estimate will be produced utilizing the most recent Caltrans Cost Data book and other available, relevant cost data. The Specifications and Special Provisions will be independently reviewed to assure accuracy, completeness, and conformance to Caltrans standards.

Deliverables:

- Checked Structure Plans
- Edited structures special provisions
- Design calculations
- Independent check calculations
- Quantity and check calculations

- Marginal estimate and item list

230.30.99 Update Storm Water Data Report

The RMC, Inc. team will update the PA/ED Storm Water Data Report (SWDR) based on comments received from Caltrans and SANBAG.

Deliverables:

- Final PS&E SWDR

230.25, 220.15 Utility and ROW Update

The RMC, Inc. team will verify and update utility and ROW engineering data, as necessary.

The RMC, Inc. team will also coordinate work for the identification, protection, adjustment, relocation or removal of utility facilities to clear the project for construction, including both physical conflicts and policy violations in accordance with State and Federal laws and regulations as well as CALTRANS policies, procedures, standards and practices. We will act as a liaison between SANBAG and the utility owners in all contract matters.

We have assumed that Caltrans will offer assistance and direction to SANBAG and/or the RMC, Inc. team and provide oversight of the project to ensure that State and Federal laws and regulations as well as CALTRANS policies, procedures, standards and practices are followed.

The RMC, Inc. team will prepare any required notices to owners and relocation agreements and will work with all parties to facilitate the utility relocation process. We have assumed that five utility agreements will be required. Utility relocation plans will be prepared by others.

Deliverables:

- Report containing all updated utility and ROW engineering data with changes clearly identified
- Utility relocation agreements as required to certify the right of way.

230.10 Planting and Irrigation Plans

The RMC, Inc. team will update the planting and irrigation plans based on Caltrans review comments.

Deliverables:

- Planting and Irrigation Plans

235.05.99 Jurisdictional Permits

The scope of work listed below will be conducted for impacts to jurisdictional waters.

- Approval to operate under Nationwide Permit 14 will be obtained through the ACOE prior to obtaining grading permits, pursuant to Section 404 of the CWA.
- Approval to operate under Nationwide Permit 33 will be obtained through the ACOE prior to obtaining grading permits pursuant to Section 404 of the CWA.
- A certification or waiver from the Region 8 RWQCB will be obtained pursuant to Section 401 of the CWA.
- Letter of nonjurisdiction or a Section 1602 Streambed Alteration Agreement will be obtained through CDFG prior to obtaining grading permits pursuant to the California Fish and Game Code.

235.40 Environmental Commitment Record (ECR)

The RMC, Inc. team will update the ECR based on changes during final design provided by the project engineer.

235.05.15 MBTA Compliance

The RMC, Inc. team will conduct surveys prior to any vegetation clearance to determine if migratory birds are actively nesting. Any active bird nests will be mapped and a buffer zone will be established.

235.05.25 Paleontological Mitigation Plan (PMP) and Paleontological Resources Monitoring

The RMC, Inc. team will prepare a Paleontological Mitigation Plan consistent with Caltrans and County requirements. The PMP will be implemented during excavation activities. After excavation activities are completed, a monitoring report will be prepared and submitted to Caltrans. This scope of work specifies 40 hours of monitoring time. If paleontological resources are found, additional hours may be necessary.

TASK 255 - FINAL PS&E (100 PERCENT) SUBMITTAL

255.20 Roadway Plans, Bridge Plans, Special Provisions, Cost Estimates, and Working Day Schedules

The RMC, Inc. team will submit the Final PS&E package to Caltrans District Office Engineer and Office of Special Funded Projects (OSFP) for final approval. The submittal shall incorporate review comments from all involved agencies.

Deliverables:

- Final Roadway PS&E;
- Bridge four–scale plans;
- Final structures special provisions;
- Prints of final structure plans;
- Cost estimates;
- Working day schedules; and
- Original/checked quantity calculations

In addition, the team shall provide electronic version of all plans, special provisions, estimates and schedules.

255.30 Materials Handouts

The RMC, Inc. team will prepare materials handout information per Caltrans HDM, Section 111.3 Materials Information Furnished to Prospective Bidders.

Deliverables:

- Material Handouts

255.40 Resident Engineer File

The RMC, Inc. team will meet with the Resident Engineer (RE) and functional units and provide the following information for the RE file. This list is not comprehensive and the RMC, Inc. team will provide additional information as appropriate:

- Permits;
- Surveying Notes;
- Geotechnical (GDR) and Foundation (FDR) Reports;
- Hydrology/Hydraulics Report and calculations;
- Relevant correspondence and memoranda;
- Engineering calculations (horizontal and vertical alignments, earthwork quantities, etc.);
- Environmental Agreements and Reports

- Summary and discussion of Environmental issues;
- Traffic Management Plan and supplements;
- Material Handouts;
- Storm Water Data Report
- Right-of-Way Maps & Agreements
- List of Project Personnel; and
- Cooperative Agreements

Deliverables:

- RE file

The team will provide an electronic version of all RE file information.

TASK 265 – CONSTRUCTION BIDDING PHASE

Bidding procedures will be the responsibility of Caltrans or SANBAG. In addition, Caltrans or SANBAG will:

- Advise the RMC, Inc. team of listing dates;
- Inform the RMC, Inc. team of all issues and inquiries list and responses;
- Provide the RMC, Inc. team with bid results and summary sheets for their review.

During bid advertisement of the project, the RMC, Inc. team will refer all questions concerning the intent to Caltrans or SANBAG for resolution. In the event that items requiring interpretation of the drawings or specifications are discovered during the bidding period, the RMC, Inc. team will inform Caltrans or SANBAG. Caltrans or SANBAG will advise the RMC, Inc. team regarding the proper procedure required for analysis of said items. Any necessary corrective action will either be in the form of an addendum prepared by the RMC, Inc. team and issued by Caltrans or SANBAG, or via a covering change order after the award of the construction contract.

265.55 Pre-Bid Meeting

The RMC, Inc. team will attend the pre-bid meeting.

265.55 Respond to Inquiries

The RMC, Inc. team will draft responses to bidders' inquiries as requested by the District Office Engineer. All such responses will be routed through the District Engineer.

Deliverables:

- Draft Bidder Inquiry Responses (hard copy and electronic in ms word)

265.55 Prepare Addenda

The RMC, Inc. team will prepare addenda as requested by District Engineer.

Deliverables:

- Copies of Addenda

TASK 270 – CONSTRUCTION SUPPORT PHASE

Construction of the I-10/Tippecanoe Avenue Interchange Project will be the responsibility of Caltrans and SANBAG. During the construction phase, the RMC, Inc. team shall work closely with Resident Engineer (RE) within the budget allotted to assist and advise the RE in order to minimize construction conflicts and to expedite project completion.

270.25.15 Pre-Construction Meeting

The RMC, Inc. team will attend the pre-construction meeting.

270.20 Additional Drawings at Caltrans Request

If requested by Caltrans, the RMC, Inc. team will prepare additional drawings and change order-supporting documents. Any such additional drawings constitute extra work; therefore, prior approval from SANBAG is required. Any such additional engineering services, drawings, or change order documentation prepared prior to receiving the required approval will be at RMC, Inc.'s risk and expense.

270.30 Site Visits

The RMC, Inc. team will visit the job site periodically and in coordination with the RE.

270.20.35 Shop Drawing and Submittal Review

The RMC, Inc. team will review all submittals and shop drawings. The review of shop drawings shall include bridge working drawing submittals, construction contractor's submittals for substitutions, construction contractor's alternative construction approval,

steel layout for structures, independent check of construction contractor's falsework submittal and others as requested by the Resident Engineer.

270.25.45 Respond to Inquiries/RFIs

The RMC, Inc. team will draft responses to contractor inquiries and RFIs as requested by the Resident Engineer.

285.05 Change Order Preparation and Review

The RMC, Inc. team will review proposed change orders, draft change order language and make recommendations as requested by Resident Engineer. If said changes are necessary as a direct result of design errors and omissions, the RMC, Inc. team will prepare and/or review contract change orders at no additional cost.

Caltrans Responsibility:

- Provide advice on any issues raised and inquiries made by Resident Engineer;
- Inform Design Consultants of all field changes and Contract Change Orders (CCOs);
- Prepare and maintain as-built mark-ups in the field.

295.15 As-Builts

The RMC, Inc. team will be responsible for incorporating as-builts into the PS&E.

ATTACHMENT "B"

Total Estimated Contract Cost

FOR

AMENDMENT NO. 1

CONTRACT NO. C09092

Agreement By And Between

SAN BERNARDINO ASSOCIATED GOVERNMENTS/
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY

and

RMC, Inc.

COST PROPOSAL	
I-10/Tippecanoe Avenue Interchange Improvements Project	
PA/ED and PS&E Preparation	
San Bernardino Association of Governments	
Total Contract Summary	
ORIGINAL CONTRACT AMOUNT INCLUDING CONTINGENCY (PA/ED)	**$ 1,198,484**
AMENDMENT 1	
Additional PA/ED Services	**$ 100,357**
PS&E	**$ 3,847,624**
PS&E Contingency	**$ 352,300**
CONTRACT GRAND TOTAL	**$ 5,498,765**

COST PROPOSAL

RMC

I-10/Tippecanoe Avenue Interchange Improvements Project

San Bernardino Association of Governments

Amendment 1

ADDITIONAL PA/ED SERVICES

RMC, INC.		
LABOR		
Task 100 - Project Management	$ -	
Task 160 - Engineering Services	$ 21,993	
Task 165 - Environmental Services	$ 13,894	
	SUBTOTAL	**$35,887**
OTHER DIRECT COSTS		
Expenses	$ -	
Travel/Per Diem	$ -	
Outside Services	$ 3,100	
	SUBTOTAL	**$3,100**
SUBCONSULTANTS		
DMJM Harris	$ -	
LSA Associates	$ 61,370	
David Evans & Associates	$ -	
Earth Mechanics, Inc.	$ -	
Global Environmental Network, Inc.	$ -	
LDP Design Group	$ -	
PQM, Inc.	$ -	
	SUBTOTAL	**$61,370**
	GRAND TOTAL	**$100,357**

COST PROPOSAL

RMC

I-10/Tippecanoe Avenue Interchange Improvements Project

San Bernardino Association of Governments

Amendment 1

PREPARATION OF PLANS, SPECIFICATIONS, AND ESTIMATES

RMC, INC.		
LABOR		
Task 100 - Project Management	$ 240,424	
Task 185 - Prepare Base Maps and Plan Sheets	$ 131,319	
Task 230 - Draft (60%) PS&E	$ 837,727	
Task 230 - Initial (95%) PS&E	$ 429,596	
Task 235 - Mitigate Environmental Impacts/Hazardous Waste	$ 2,491	
Task 240 - Draft Structures PS&E	$ 1,815	
Task 255 - Final PS&E	$ 158,693	
Task 265 - Awarded and Approved Construction Contract	$ 37,103	
Task 270 - Construction Engineering and General Contract Admin.	$ 66,379	
Task 285 - Contract Change Order Administration	$ 23,751	
Task 295 - Final Construction Estimates and Final Report	$ 29,743	
	SUBTOTAL	**$ 1,959,041**
OTHER DIRECT COSTS		**$ 42,270**
SUBCONSULTANTS		
AECOM	$ 923,556	
ACT Consulting	$ 119,339	
David Evans & Associates	$ 347,721	
Earth Mechanics, Inc.	$ 203,918	
LDP Design Group	$ 149,176	
LSA Associates	$ 62,460	
PQM, Inc.	$ 40,143	
	SUBTOTAL	**$1,846,313**
	TOTAL	**$ 3,847,624**
CONTINGENCY		**$ 352,300**
	GRAND TOTAL	**$ 4,199,924**

A09092-1 (Attachment B- Cost Proposal)
TN 8421000

WBS	DESCRIPTION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	PERFORM PROJECT MANAGEMENT																			
100.10	PROJECT MANAGEMENT - PA/ED COMPONENT																			
100.10.10.1	Coordination and Administration								0	$ -									$ -	$ -
100.10.10.2	Schedules								0	$ -									$ -	$ -
100.10.10.3	Progress Reports								0	$ -									$ -	$ -
100.10.10.4	Quality Assurance/Quality Control Plan								0	$ -									$ -	$ -
100.10.10.5	Project Management Plan								0	$ -									$ -	$ -
SUB TOTAL TASK 100		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL COST - TASK 100		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
160	PERFORM PRELIMINARY ENGINEERING STUDIES AND DRAFT PROJECT REPORT																			
160.05	Data Collection								0	$ -									$ -	$ -
160.05.99	Permit Applications								0	$ -									$ -	$ -
160.10.05	Design Surveys								0	$ -									$ -	$ -
160.10.15	Geometric Development	8	8	24					40	$ 7,064.00									$ -	$ 7,064.00
160.10.65	Structure Advanced Planning Studies								0	$ -									$ -	$ -
160.15.05	Cost Estimates								0	$ -									$ -	$ -
160.10.40	Right-of-Way and Utility Identification								0	$ -									$ -	$ -
160.10.99	Drainage								0	$ -									$ -	$ -
160.10.25	Storm Water Data Report								0	$ -									$ -	$ -
160.10.95	Construction Staging / Traffic Handling / TMP								62	$ 14,929.20									$ -	$ 14,929.20
160.10.60	Geotechnical Investigation	16	24		42				0	$ -									$ -	$ -
160.15	Draft Project Report and Fact Sheets								0	$ -									$ -	$ -
160.05	Final Project Report																			
SUBTOTAL TASK 160		24	32	24	42	0	0	0	122	$ 21,993.20									$ -	$ 21,993.20
TOTAL COST - TASK 160		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
165	PERFORM ENVIRONMENTAL STUDIES AND PREPARE DRAFT ENVIRONMENTAL DOCUMENT																		$ -	$ -
165.05.10	NOP/NOI & Scoping Meeting Notices											$ 3,190.00							$ 3,190.00	$ 3,190.00
165.20.25.05	APE Map/Records Search																		$ -	$ 13,533.50
165.10.50	Floodplain Evaluation Report	16	20		40				76	$ 13,533.50									$ -	$ -
165.10.35	Water Quality Analysis																		$ -	$ -
165.10.30	Air Quality Report											$ 24,405.00							$ 24,405.00	$ 24,405.00
165.10.35	Traffic Analysis Report																		$ -	$ -
165.10.50	Hazardous Materials/Waste																		$ -	$ -
165.10.20	Visual Impact Assessment Report											$ 3,205.00							$ 3,205.00	$ 3,205.00
165.10.25	Noise Study											$ 21,230.00							$ 21,230.00	$ 21,230.00
165.20	Cultural Resources (HPSR, HRER, and ASR)											$ 3,840.00							$ 3,840.00	$ 3,840.00
165.20.05.10	Native American Consultation											$ 2,260.00							$ 2,260.00	$ 2,260.00
165.15	Biological Resources (NES)											$ 1,720.00							$ 1,720.00	$ 1,720.00
165.10.55	Relocation Impact Report											$ 1,720.00							$ 1,720.00	$ 1,720.00
165.10.15	Community Impact Assessment																		$ -	$ -
165.10.45	Topography/Geology/Soils/Seismic Analysis																		$ -	$ -
165.10.61	Growth Inducement and Cumulative Impacts																		$ -	$ -
165.10.62	Jurisdictional Delineation Report																		$ -	$ -
165.10.63	Final Technical Studies																		$ -	$ -
165.25.05	Draft Initial Study/Environmental Assessment																		$ -	$ -
175.10	Public Outreach Support and IS/EA Public Meetings																		$ -	$ -
175.15	Prepare Response to Comments Matrix																		$ -	$ -
180.10.05	Final IS/EA																		$ -	$ -
180.15.10, 180.20	Prepare NOI/FONSI																		$ -	$ -
SUB TOTAL TASK 165		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL COST - TASK 165		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL PA/ED HOURS		24	32	24	42	0	0	0	122											
TOTAL PA/ED COST		$ 6,082.00	$ 5,811.84	$ 3,594.24	$ 6,581.92	$ -	$ -	$ -		$ 35,587.00	$ -	$ 61,370.00	$ -	$ -	$ -	$ -	$ -	$ -	$ 61,370.00	$ 97,257.00

TOTAL ODCs	$ 3,100.00
TOTAL PA/ED COST	$ 100,357.00

ODC's to be billed monthly at cost not markup.

WBS	CLASSIFICATION	PRINCIPAL	ASSOCIATE	SENIOR SPECIALIST/ PLANNER	SPECIALIST/ PLANNER	ASST. SPECIALIST/ PLANNER	ASSISTANTS	WORD PROC.	OFFICE ASST.	PROJECT TOTAL HOURS	SUBTOTAL LABOR COSTS
		$ 185.00	$ 135.00	$ 125.00	$ 95.00	$ 90.00	$ 115.00	$ 75.00	$ 65.00		
165	PERFORM ENVIRONMENTAL STUDIES AND PREPARE DRAFT ENVIRONMENTAL DOCUMENT										
165.20.25.05	APE Map/Records Search	2	4	4	8		8			26	$ 3,190.00
165.10.60	Floodplain Evaluation Report									0	$ -
165.10.35	Water Quality Analysis									0	$ -
165.10.30	Air Quality Report									0	$ -
160.10.35	Traffic Analysis Report	20	70		100			4	1	195	$ 24,405.00
165.10.50	Hazardous Materials/Waste									0	$ -
165.10.20	Visual Impact Assessment Report									0	$ -
165.10.25	Noise Study	1	2	8	8		8			27	$ 3,205.00
165.20	Cultural Resources (HPSR, HRER, and ASR)	6	8	80	40	24	16	12		186	$ 21,230.00
160.20.05.10	Native American Consultation				22	16				38	$ 3,640.00
165.15	Biological Resources (NES)				6	10	4	4		24	$ 2,260.00
165.10.55	Relocation Impact Report				8		8			16	$ 1,720.00
165.10.15	Community Impact Assessment				8		8			16	$ 1,720.00
TOTAL LABOR COST - TASK 165		$ 8,954.00	$ 2,430.00	$ 11,000.00	$ 20,900.00	$ 9,360.00	$ 2,990.00	$ 1,800.00	$ 65.00	508	$ 60,970.00

Other Direct Costs

Traffic Counts	$2,900
Reproduction	$200
TOTAL COST	$ 64,470.00

Total Direct Costs $ -

ATTACHMENT 'B'

RMC, Inc.

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 25, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
Project Manager	$89.14	996	$88,783.44
Roadway Engineer	$63.00	2,002	$126,126.00
Roadway Engineer	$55.29	1,270	$70,218.30
Senior Engineer	$59.42	905	$53,775.10
Project Engineer	$73.20	2,244	$164,260.80
Junior Engineer	$30.70	1,986	$60,970.20
Junior Engineer	$28.85	2,024	$58,392.40
CADD	$30.00	2,469	$74,070.00
Clerical/Admin Assistant	$19.00	232	$4,408.00
	Subtotal Hours & Direct Labor Costs	14,128	$701,004.24
	Anticipated Salary Increases		$47,103.93
	Total Direct Labor Costs		$748,108.17 (1)

II. INDIRECT COSTS

INDIRECT RATE 138.06 % x $ 748,108.17 (Subtotal (1)) = Subtotal $1,032,838.14 (2)

III. FEE (PROFIT)

10 % x $ 1,780,946.31 (Total (1) + (2)) = Subtotal $178,094.63 (3)

IV. OTHER DIRECT COSTS

Item	Amount
Car Mileage	$1,982.20
WBS 185 - Reprographics (11x17 B&W Plans)	$1,050.00
WBS 185 - Reprographics (11x17 B&W Various)	$600.00
WBS 185 - Reprographics (Large Exhibits)	$1,764.00
WBS 230 (60%) - Reprographics (11x17 B&W Plans)	$4,590.00
WBS 230 (60%) - Reprographics (11x17 B&W Specifications)	$900.00
WBS 230 (95%) - Reprographics (11x17 B&W Plans)	$8,606.25
WBS 230 (95%) - Reprographics (11x17 B&W Specifications)	$1,050.00
WBS 255 - Reprographics (11x17 B&W Draft Plans)	$7,437.50
WBS 255 - Reprographics (11x17 B&W Draft Specifications)	$1,200.00
WBS 255 - Reprographics (11x17 B&W Final Plans)	$8,500.00
WBS 255 - Reprographics (11x17 B&W Final Specifications)	$1,600.00
Lead Based Paint Surveys	$2,990.00
Subtotal $	$42,269.95 (4)

V. SUBCONSULTANTS COST

AECOM	$923,556.15
ACT	$119,338.62
DEA	$347,721.31
EMI	$203,918.47
LDP	$149,175.76
LSA	$62,459.51
PQM	$40,143.06
Subtotal $	$1,846,312.88 (5)

VI. TOTAL AMOUNT

$3,847,624 (Total 1-5)

RMC, Inc.

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 25, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
Project Manager	Jamal Salman	$72.12	$94.56	998	$89.14	$88,783.44	$5,965.80	$94,749.24	$130,810.80	$22,556.00	$248,116.04	$249.11
Roadway Engineer	Michael Han	$62.40	$67.50	2,002	$63.00	$126,126.00	$8,475.03	$134,601.03	$185,830.18	$32,043.12	$352,474.33	$176.06
Roadway Engineer	Jimmy Vuong	$62.40	$67.50	1,270	$55.29	$70,218.30	$4,718.31	$74,936.61	$103,457.49	$17,839.41	$196,233.51	$154.51
Senior Engineer	Carl Sosa	$57.69	$86.54	905	$59.42	$53,775.10	$3,613.41	$57,388.51	$79,230.58	$13,661.91	$150,281.01	$166.06
Project Engineer	Joe Sawtelle	$60.93	$79.89	2,244	$73.20	$164,260.80	$11,037.49	$175,298.29	$242,016.82	$41,731.51	$459,046.63	$204.57
Junior Engineer	Terence Ho	$27.40	$42.95	1,986	$30.70	$60,970.20	$4,096.89	$65,067.09	$89,831.62	$15,489.87	$170,388.58	$85.79
Junior Engineer	Triet Dang	$27.40	$42.95	2,024	$28.85	$58,392.40	$3,923.67	$62,316.07	$86,033.57	$14,834.96	$163,184.61	$80.62
CADD	Courtney Endo	$19.23	$28.85	2,469	$30.00	$74,070.00	$4,977.13	$79,047.13	$109,132.47	$18,817.96	$206,997.55	$83.84
Clerical/Admin Assistant	Staff	$17.00	$21.37	232	$19.00	$4,408.00	$296.20	$4,704.20	$6,494.61	$1,119.88	$12,318.69	$53.10
			TOTAL =	14,128		$701,004.24	$47,103.93	$748,108.17	$1,032,838.14	$178,094.63	$1,959,040.94	

INDIRECT COST	
Overhead	101.92%
General & Admin	36.14%
Total	138.06%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
Car Mileage	$0.550	mi	3604	$1,982.20	100
Travel				$0.00	
Computer Charges				$0.00	
WBS 185 - Reprographics (11x17 B&W	$0.750	Sheets	1400	$1,050.00	185
WBS 185 - Reprographics (11x17 B&W	$0.600	Sheets	1000	$600.00	185
WBS 185 - Reprographics (Large Exhit	$12.000	sq. ft.	147	$1,764.00	185
WBS 230 (60%) - Reprographics (11x1	$0.850	Sheets	5400	$4,590.00	230 (60%)
WBS 230 (60%) - Reprographics (11x1	$0.100	Sheets	9000	$900.00	230 (60%)
WBS 230 (95%) - Reprographics (11x1	$0.850	Sheets	10125	$8,606.25	230 (95%)
WBS 230 (95%) - Reprographics (11x1	$0.100	Sheets	10500	$1,050.00	230 (95%)
WBS 255 - Reprographics (11x17 B&W	$0.850	Sheets	8750	$7,437.50	255
WBS 255 - Reprographics (11x17 B&W	$0.100	Sheets	12000	$1,200.00	255
WBS 255 - Reprographics (11x17 B&W	$0.850	Sheets	10000	$8,500.00	255
WBS 255 - Reprographics (11x17 B&W	$0.100	Sheets	16000	$1,600.00	255
Lead Based Paint Surveys	$2,990.000	Survey	1	$2,990.00	185
a				$0.00	
			TOTAL OTHER DIRECT COSTS	$42,269.95	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	2	1.000	2.000
2010	12	1.030	12.360
2011	12	1.061	12.731
2012	12	1.093	13.113
2013	6	1.126	6.753
2014	0	1.159	0.000
TOTAL	44		46.957
Escalation Factor for Contract			1.067

TOTAL COSTS	$2,001,310.89

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RMC, Inc.

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/25/2009

PHASE	WBS	Staff Classification	Project Manager	Roadway Engineer	Roadway Engineer	Senior Engineer	Project Engineer	Junior Engineer	Junior Engineer	CADD	Clerical/Admin Assistant	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
		Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)	$249.11	$176.06	$154.51	$166.06	$204.57	$85.79	$80.82	$83.84	$53.10		
		Staff Name	Jamal Salman	Michael Han	Jimmy Vuong	Carl Sosa	Joe Sawtelle	Terence Ho	Triet Dang	Courtney Endo	Staff		
	TOTAL FOR PROJECT		996	2002	1270	905	2244	1986	2024	2469	232	14128	$1,959,040.94
3	PLANS SPECIFICATIONS & ESTIMATE (PS&E)		940	1758	1270	865	2088	1874	2024	2333	168	13320	$1,839,167.81
	3.100.15	PROJECT MANAGEMENT - PS&E COMPONENT	624	214	0	0	198	0	0	0	128	1164	$240,423.90
	3.100.15.10.1	Coordination and Administration	480	166			166				100	912	$188,067.91
	3.100.15.10.2	Schedules	60				20				16	96	$19,887.64
	3.100.15.10.3	Progress Reports	24	48			12				12	96	$17,521.60
	3.100.15.10.4	Quality Assurance/Quality Control Plan	20									20	$4,982.25
	3.100.15.10.5	Update Project Management Plan	40									40	$9,964.50
	3.185	PREPARE BASE MAPS & PLAN SHEETS	42	120	80	76	146	128	200	212	0	1004	$131,318.67
	3.185.20.99	Geotechnical Exploration Plan	2									2	$498.22
	3.185.15.05	Typical Sections	2	20		8	12	28		20		90	$11,881.72
	3.185.15.05	Layouts	8	44		20	30	60		48		210	$28,369.65
	3.185.15.05	Profiles/Superelevation	4	24		12	20	40		26		126	$16,917.52
	3.185.15.05	R/W Requirements Maps	6		40	20	30		60	44		200	$25,659.76
	3.185.30.10	Bridge Type Selection	4	4			8					16	$3,337.22
	3.185.30.99	Bridge Type Selection Meeting and Approval	8	4			4					16	$3,515.41
	3.185.25.30	Utilities	8		40	16	30		140	66		300	$33,788.19
	3.185.10.60	Design Surveys		24			12			8		44	$7,350.97
	3.230	DRAFT PS&E (60%)	130	808	730	458	952	1024	1102	1226	0	6430	$837,727.12
	3.230.05.05	Title Sheet	2	4		2	4	6		4		24	$3,374.56
	3.230.05.15	Key Map & Line Index Sheet	2	4		2	4	8		4		24	$3,374.56
	3.230.05.10	Typical Sections	2	20		8	12	28		20		90	$11,881.72
	3.230.05.20	Layouts	4	40		20	30	66		50		210	$27,351.40
	3.230.05.25	Profiles/Superelevation	4	24		12	20	40		26		126	$16,917.52
	3.230.05.35	Contour Grading	4	4	40	16	32		64	50		210	$26,436.22
	3.230.05.30	Construction Details	20	8	150	72	100		270	100		720	$92,133.17
	3.230.05.40	Summary of Quantities	4	28		12	28	60		48		180	$22,818.64
	3.230.05.45	Soundwall Plans	8	80		40	60	120		88		396	$52,667.20
	3.230.25	Utilities	4		20	4	8		48	36		120	$13,275.68
	3.230.30	Drainage Plans (including Temp. Drainage)	4	16			8					28	$5,449.96
	3.230.30	Water Pollution Control	4	100		20	60	120		86		390	$51,703.17
	3.230.15.10	Stage Construction/Traffic Handling	24		480	120	300		720	396		2040	$252,692.28
	3.230.15.10	Detour Plans	2	32		16	20	48		32		150	$19,681.40
	3.230.15.10	Construction Area Signs	2	30		12	16	36		24		120	$16,146.54
	3.230.15.05	Pavement Delineation Plans	8	100		30	60	140		112		450	$58,255.88

RMC, Inc.

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/25/2009

PHASE	WBS	Staff Classification	Project Manager	Roadway Engineer	Roadway Engineer	Senior Engineer	Project Engineer	Junior Engineer	Junior Engineer	CADD	Clerical/Admin Assistant	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
	Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)		$249.11	$178.06	$154.51	$166.06	$204.57	$85.79	$80.52	$83.84	$53.10		
		Staff Name	Jamal Salman	Michael Han	Jimmy Vuong	Carl Sosa	Joe Sawtelle	Terence Ho	Triet Dang	Courtney Endo	Staff		
	3.230.15.05	Sign Plans	8	140		40	80	230		150		648	$81,957.62
	3.230.15.15	Elec. Plans: Light, Sig, Ramp Meter/TMS, Temp Light, Comm.	4	16			8					28	$5,449.96
	3.230.10	Planting and Irrigation Plans	4	16			8					28	$5,449.96
	3.230.20	Transportation Management Plan	4	70		12	30	44				160	$25,225.36
	3.230.30.99	Storm Water Data Report	4	60		20	40	76				200	$29,584.30
	3.220.15	R/W Plans and Engineering	4		40		16					60	$10,450.09
	3.230.55, 3.230.05.45	Bridge and Retaining Wall Plans	4	16			8					28	$5,449.96
	3.230	**DRAFT PS&E (95%)**	74	384	360	219	514	522	542	691	0	3306	$429,596.47
	3.230.05.05	Title Sheet		2			2	4		4		12	$1,439.79
	3.230.05.15	Key Map & Line Index Sheet		2		2	2	4		2		12	$1,604.22
	3.230.05.10	Typical Sections	2	20		8	12	28		20		90	$11,881.72
	3.230.05.20	Layouts	4	40		20	30	66		50		210	$27,351.40
	3.230.05.25	Profiles/Superelevation	4	24		10	20	40		28		126	$16,753.08
	3.230.05.35	Contour Grading	2		24	10	16		32	21		105	$13,480.80
	3.230.05.30	Construction Details	8		72	24	60		130	56		350	$44,553.46
	3.230.05.40	Summary of Quantities		16		4	8	32		30		90	$10,378.33
	3.230.05.45	Soundwall Plans	6	40		16	30	60		46		198	$26,335.28
	3.230.30	Drainage Plans (including Temp. Drainage, WPC)	2	4			8					14	$2,839.00
	3.230.30	Water Pollution Control	2	50		10	30	60		43		195	$25,851.58
	3.230.15.10	Stage Construction/Traffic Handling	12		240	60	150		360	198		1020	$126,346.14
	3.230.15.10	Detour Plans	2	16		8	8	24		17		75	$9,764.52
	3.230.15.10	Construction Area Signs	2	12		4	8	18		16		60	$7,797.44
	3.230.15.05	Pavement Delineation Plans	4	50		15	30	70		56		225	$29,127.94
	3.230.15.05	Sign Plans	8	60		20	48	100		88		324	$41,654.16
	3.230.15.15	Elec. Plans: Light, Sig, Ramp Meter/TMS, Temp Light, Comm.	2	4			4					10	$2,020.73
	3.230.10	Planting and Irrigation Plans	2	4			4					10	$2,020.73
	3.230.20	Transportation Management Plan	2	16		2	12	8				40	$6,788.47
	3.230.30.99	Update Storm Water Data Report	2	16		2	12	8				40	$6,788.47
	3.230.25, 3.220.15	Utility and ROW Update	4		24	4	12		20	16		80	$10,777.73
	3.230.55	Bridge and Retaining Wall Plans	4	8			8					20	$4,041.47
	3.235	**MITIGATE ENVIRONMENTAL IMPACTS & HAZARDOUS WASTE**	10	0	0	0	0	0	0	0	0	10	$2,491.12
	3.235.05.99	Jurisdictional Permits	2									2	$498.22
	3.235.40	Environmental Commitment Record	2									2	$498.22
	3.235.05.15	Biological Monitoring (MBTA)	2									2	$498.22
	3.235.05.25	Paleontological Mitigation Plan	2									2	$498.22
	3.235.05.25	Paleontological Resources Monitoring	2									2	$498.22
	3.240	**DRAFT STRUCTURES PS&E**	4	0	0	0	4	0	0	0	0	8	$1,814.71

RMC, Inc.

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/25/2009

PHASE	WBS	Staff Classification	Project Manager	Roadway Engineer	Roadway Engineer	Senior Engineer	Project Engineer	Junior Engineer	Junior Engineer	CADD	Clerical/Admin Assistant	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
	Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)		$249.11	$176.06	$154.51	$166.06	$204.57	$85.79	$80.62	$83.84	$53.10		
		Staff Name	Jamal Salman	Michael Han	Jimmy Vuong	Carl Sosa	Joe Sewtelle	Terence Ho	Triet Dang	Courtney Endo	Staff		
	3.240.80	Geotechnical, Materials, and Foundation Reports	4				4					8	$1,814.71
	3.255	FINAL DISTRICT PS&E PACKAGE	32	160	100	96	202	200	180	204	20	1194	$158,693.09
	3.255.20	Final District PS&E Package	20	140	100	80	150	180	180	204		1054	$136,110.32
	3.255.30	Materials Information Handout	4			4	12					20	$4,115.47
	3.255.40	Resident Engineer's Pending File	8	20		12	40	20			20	120	$18,467.30
	3.265	AWARDED & APPROVED CONSTRUCTION CONTRACT	24	72	0	16	72	0	0	0	20	204	$37,102.73
	3.265.55	Pre-Bid Meeting	8	8			8					24	$5,037.92
	3.265.55	Respond to Inquiries	8	40		16	40					104	$19,874.90
	3.265.55	Prepare Addenda	8	24			24				20	76	$12,189.91
5	CONSTRUCTION		52	196	0	32	140	32	0	56	24	532	$90,129.65
	5.270	CONSTRUCTION ENGINEERING & GENERAL CONTRACT ADMINISTRATION	40	136	0	16	116	24	0	48	0	380	$66,378.72
	5.270.25.15	Pre-Construction Meeting	8	8			8					24	$5,037.92
	5.270.20	Additional Drawings at Caltrans Request	8	40			20	24		40		132	$18,539.29
	5.270.30	Site Visits	8	24			24					56	$11,127.96
	5.270.20.35	Shop Drawing and Submittal Review	8	24		8	24					64	$12,456.41
	5.270.25.45	Respond to Inquiries/RFIs	8	40		8	40			8		104	$19,217.15
	5.285	CONTRACT CHANGE ORDER ADMINISTRATION	12	60	0	16	24	8	0	8	24	152	$23,750.92
	5.285.05	Contract Change Order (CCO) Process	12	60		16	24	8		8	24	152	$23,750.92
6	CLOSEOUT		4	48	0	8	16	80	0	80	40	276	$29,743.48
	6.295	FINAL CONSTRUCTION ESTIMATES & FINAL REPORT	4	48	0	8	16	80	0	80	40	276	$29,743.48
	6.295.15	As-Built Plans	4	48		8	16	80		80	40	276	$29,743.48
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$248,116.04	$352,474.33	$196,233.51	$150,281.01	$459,046.63	$170,388.58	$163,184.61	$206,997.55	$12,318.69		

ATTACHMENT 'B'

AECOM

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
Project Manager	$82.16	19	$1,561.04
Technical Director	$70.11	125	$8,763.75
Bridge Technical Leader	$79.87	232	$18,529.84
Engineer III	$45.87	1,026	$47,062.62
Senior Bridge Engineer (IV)	$45.73	1,192	$54,510.16
Principal/Project Engineer	$62.01	370	$22,943.70
Engineer II	$33.17	981	$32,539.77
Bridge Engineer	$37.94	1,352	$51,294.88
Engineer I	$30.41	322	$9,792.02
Senior CADD Technician	$42.35	1,523	$64,499.05
Clerical/Admin Assistant	$18.84	99	$1,865.16
Subtotal Hours & Direct Labor Costs		7,241	**$313,361.99**
Anticipated Salary Increases			**$21,056.34**
Total Direct Labor Costs			**$334,418.33** (1)

II. INDIRECT COSTS

INDIRECT RATE 150.00 % x $ 334,418.33 (Subtotal (1)) = Subtotal **$501,627.49** (2)

III. FEE (PROFIT)

10 % x $ 836,045.82 (Total (1) + (2)) = Subtotal **$83,604.58** (3)

IV. OTHER DIRECT COSTS

Item	Amount
Car Mileage	$420.75
Travel, Flight (one way) Type Selection (2Engr)	$400.00
Reproduction Full Size Drawings	$800.00
Reproduction Half Size Drawings	$270.00
Express Mail	$100.00
Travel, Rental Car	$50.00
Copying/Binding Reports (Drainage Rpt)	$675.00
Copying/Binding Calculations	$300.00
Copying/Binding Specifications	$300.00
Copying/Binding Reports	$90.00
Special Delivery	$500.00
Subtotal $	**$3,905.75** (4)

V. TOTAL AMOUNT

$923,556 (Total 1-4)

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AECOM

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
Project Manager	Mario Montes			19	$82.16	$1,561.04	$104.89	$1,665.93	$2,498.90	$416.48	$4,581.32	$241.12
Technical Director	Hiep Bui			125	$70.11	$8,763.75	$588.88	$9,352.63	$14,028.94	$2,338.16	$25,719.73	$205.76
Bridge Technical Leader	Bob Matthews			232	$79.87	$18,529.84	$1,245.11	$19,774.95	$29,662.43	$4,943.74	$54,381.12	$234.40
Engineer III	Brian Smith			1,026	$45.87	$47,062.62	$3,162.37	$50,224.99	$75,337.48	$12,556.25	$138,118.72	$134.62
Senior Bridge Engineer (IV)	Jackie Wang			1,192	$45.73	$54,510.16	$3,662.81	$58,172.97	$87,259.45	$14,543.24	$159,975.66	$134.21
Principal/Project Engineer	Ben Kho			370	$62.01	$22,943.70	$1,541.70	$24,485.40	$36,728.10	$6,121.35	$67,334.85	$181.99
Engineer II	Cristina Guytan			981	$33.17	$32,539.77	$2,186.51	$34,726.28	$52,089.42	$8,681.57	$95,497.26	$97.35
Bridge Engineer	Mike Wise			1,352	$37.94	$51,294.88	$3,446.76	$54,741.64	$82,112.45	$13,685.41	$150,539.50	$111.35
Engineer I	Duc Tran			322	$30.41	$9,792.02	$657.97	$10,449.99	$15,674.99	$2,612.50	$28,737.48	$89.25
Senior CADD Technician	Ed Landas			1,523	$42.35	$64,499.05	$4,334.01	$68,833.06	$103,249.59	$17,208.26	$189,290.91	$124.29
Clerical/Admin Assistant	Sandra Kent			99	$18.84	$1,865.16	$125.33	$1,990.49	$2,985.73	$497.62	$5,473.85	$55.29
			TOTAL =	7,241		$313,361.99	$21,056.34	$334,418.33	$501,627.49	$83,604.58	$919,650.40	

INDIRECT COST	
Overhead	150.00%
General & Admin	0.00%
Total	150.00%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
Car Mileage	$0.550	mi	765	$420.75	
Travel, Flight (one way) Type Selection	$100.000	Flights	4	$400.00	
Computer Charges				$0.00	
Reproduction Full Size Drawings	$5.000	Sheets	160	$800.00	
Reproduction Half Size Drawings	$0.150	Sheets	1800	$270.00	
Commercial Printing				$0.00	
Express Mail	$10.000	Deliveries	10	$100.00	
Travel, Rental Car	$50.000	Days	1	$50.00	
Intersection Traffic Counts				$0.00	
Ramp/Segment Counts				$0.00	
Corridor Speed Surveys				$0.00	
Copying/Binding Reports (Drainage Rp	$0.150	Pages	4500	$675.00	
Copying/Binding Calculations	$0.100	Pages	3000	$300.00	
Copying/Binding Specifications	$0.100	Pages	3000	$300.00	
Copying/Binding Reports	$5.000	Reports	18	$90.00	
Special Delivery	$50.000	Deliveries	10	$500.00	
			TOTAL OTHER DIRECT COSTS	$3,905.75	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	2	1.000	2.000
2010	12	1.030	12.360
2011	12	1.061	12.731
2012	12	1.093	13.113
2013	6	1.126	6.753
2014	0	1.159	0.000
TOTAL	44		46.957
Escalation Factor for Contract			1.067

TOTAL COSTS	$923,556.15

AECOM

I-10/Tippecanoe Avenue Interchange Improvements Project
PS&E Preparation
8/24/2009

PHASE	WBS	Staff Classification	Project Manager	Technical Director	Bridge Technical Leader	Engineer III	Senior Bridge Engineer (IV)	Principal/Project Engineer	Engineer II	Bridge Engineer	Engineer I	Senior CADD Technician	Clerical/Admin Assistant	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
		Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)	$241.12	$205.76	$234.40	$134.62	$134.21	$181.99	$97.35	$111.35	$89.25	$124.29	$55.29		
		Staff Name	Mario Montes	Hiep Bui	Bob Matthews	Brian Smith	Jackie Wang	Ben Kho	Cristina Guytan	Mike Wise	Duc Tran	Ed Landas	Sandra Kent		
		TOTAL FOR PROJECT	19	125	232	1028	1192	370	981	1352	322	1523	99	7241	$919,650.40
3		PLANS SPECIFICATIONS & ESTIMATE (PS&E)	15	112	222	996	1,152	360	931	1,352	322	1,478	99	7039	$891,980.00
	3.100.15	PROJECT MANAGEMENT - PS&E COMPONENT	15	35	0	0	25	10	0	0	0	0	25	110	$17,375.69
	3.100.15.10.1	Coordination and Administration	15				25	10					25	75	$10,174.17
	3.100.15.10.4	Quality Assurance/Quality Control Plan		35										35	$7,201.52
	3.185	PREPARE BASE MAPS & PLAN SHEETS	0	0	83	0	264	0	0	343	0	190	0	880	$116,692.52
	3.185.15	Bridge Type Selection and Retrofit Evaluation			83		264			343		190		880	$116,692.52
	3.230	DRAFT PS&E (60%)	0	0	74	379	436	229	593	527	265	680	16	3199	$394,012.52
	3.230.30	Draft Drainage Plans				379		229	593		265		16	1482	$174,957.04
	3.230.55	Structures Draft PS&E Incorporation			74		436			527		680		1717	$219,055.48
	3.230	DRAFT PS&E (95%)	0	72	45	483	266	106	272	282	0	420	49	1995	$258,161.39
	3.230.25	Draft Utility Plans		30		65		45					40	180	$25,323.98
	3.230.30	Draft Drainage Plans		42		418		61	272				9	802	$102,989.54
	3.230.55	Structures Draft PS&E Incorporation			45		266			282		420		1013	$129,847.88
	3.255	FINAL DISTRICT PS&E PACKAGE	0	5	20	134	161	15	66	200	57	188	9	855	$105,737.88
	3.255.20	Final District PS&E Package		5	20	134	155	15	66	200	57	180	9	841	$103,938.32
	3.255.40	Resident Engineer's Pending File					6					8		14	$1,799.56
5		CONSTRUCTION	4	8	10	30	30	10	0	0	0	0	0	92	$14,839.22
	5.270	CONSTRUCTION ENGINEERING & GENERAL CONTRACT ADMINISTRATION	4	4	0	30	25	10	0	0	0	0	0	73	$11,001.13
	5.270.20	Construction Engineering Work	4	4		30	25	10						73	$11,001.13
	5.285	CONTRACT CHANGE ORDER ADMINISTRATION	0	4	10	0	5	0	0	0	0	0	0	19	$3,838.08
	5.285.05	Contract Change Order (CCO) Process		4	10		5	0						19	$3,838.08
6		CLOSEOUT	0	5	0	0	10	0	50	0	0	45	0	110	$12,831.18
	6.295	FINAL CONSTRUCTION ESTIMATES & FINAL REPORT	0	5	0	0	10	0	50	0	0	45	0	110	$12,831.18
	6.295.15	As-Built Plans		5			10		50			45		110	$12,831.18
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$4,581.32	$25,719.73	$54,381.12	$138,118.72	$159,975.66	$67,334.85	$95,497.26	$150,639.50	$28,737.48	$189,290.91	$5,473.85		

ATTACHMENT 'B'

ACT Consulting

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
Task Manager	$60.60	52	$3,151.20
QC Engineer	$57.00	144	$8,208.00
Staff Engineer	$31.82	328	$10,436.96
Electrical	$54.33	304	$16,516.32
CAD Drafter	$16.00	296	$4,736.00
Subtotal Hours & Direct Labor Costs		1,124	$43,048.48
Anticipated Salary Increases			$3,117.33
Total Direct Labor Costs			$46,165.81 (1)

II. INDIRECT COSTS

INDIRECT RATE 135.00 % x $ 46,165.81 (Subtotal (1)) = Subtotal $62,323.84 (2)

III. FEE (PROFIT)

10 % x $ 108,489.66 (Total (1) + (2)) = Subtotal $10,848.97 (3)

IV. OTHER DIRECT COSTS

Item	Amount
Per Diem	$0.00
Car Mileage	$0.00
Travel	$0.00
Computer Charges	$0.00
Photocopies (Black & White)	$0.00
Photocopies (Color))	$0.00
Commercial Printing	$0.00
Mail/Courier	$0.00
Photographs	$0.00
Intersection Traffic Counts	$0.00
Ramp/Segment Counts	$0.00
Corridor Speed Surveys	$0.00
a	$0.00
b	$0.00
c	$0.00
d	$0.00
e	$0.00

Subtotal $ $0.00 (4)

V. TOTAL AMOUNT

$119,339 (Total 1-4)

BRD0910e1-gc

ACT Consulting

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
Task Manager	Hon Yow, P.E.			52	$80.60	$3,151.20	$228.19	$3,379.39	$4,562.18	$794.16	$8,735.73	$167.99
QC Engineer	Sanfu Yeh, P.E.			144	$57.00	$8,208.00	$594.38	$8,802.38	$11,883.21	$2,068.56	$22,754.15	$158.01
Staff Engineer	Chi-ling Shiao			328	$31.82	$10,436.96	$755.79	$11,192.75	$15,110.21	$2,630.30	$28,933.25	$88.21
Electrical	Kay Hsu			304	$54.33	$16,516.32	$1,196.02	$17,712.34	$23,911.66	$4,162.40	$45,786.40	$150.61
CAD Drafter	Jose Gonzalez			296	$16.00	$4,736.00	$342.95	$5,078.95	$6,856.59	$1,193.55	$13,129.10	$44.36
			TOTAL =	1,124		$43,048.48	$3,117.33	$46,165.81	$62,323.84	$10,848.97	$119,338.62	

INDIRECT COST	
Overhead	135.00%
General & Admin	0.00%
Total	135.00%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
Car Mileage				$0.00	
Travel				$0.00	
Computer Charges				$0.00	
Photocopies (Black & White)				$0.00	
Photocopies (Color))				$0.00	
Commercial Printing				$0.00	
Mail/Courier				$0.00	
Photographs				$0.00	
Intersection Traffic Counts				$0.00	
Ramp/Segment Counts				$0.00	
Corridor Speed Surveys				$0.00	
a				$0.00	
b				$0.00	
c				$0.00	
d				$0.00	
e				$0.00	
			TOTAL OTHER DIRECT COSTS	$0.00	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	0	1.000	0.000
2010	10	1.030	10.300
2011	12	1.061	12.731
2012	12	1.093	13.113
2013	6	1.126	6.753
2014	0	1.159	0.000
TOTAL	40		42.897
Escalation Factor for Contract			1.072

TOTAL COSTS	$119,338.62

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ACT Consulting

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/24/2009

PHASE	WBS	Staff Classification	Task Manager	QC Engineer	Staff Engineer	Electrical	CAD Drafter	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
		Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)	$167.99	$158.01	$88.21	$150.61	$44.36		
		Staff Name	Hon Yow, P.E.	Sanfu Yeh, P.E.	Chi-ling Shiao	Kay Hsu	Jose Gonzalez		
		TOTAL FOR PROJECT	52	144	328	304	296	1124	$119,338.62
3		PLANS SPECIFICATIONS & ESTIMATE (PS&E)	40	136	300	288	240	1004	$108,694.96
	3.100.15	PROJECT MANAGEMENT - PS&E COMPONENT	20	0	0	8	0	28	$4,564.80
	3.100.15.10.1	Coordination and Administration	16			4		20	$3,290.37
	3.100.15.10.4	Quality Assurance/Quality Control Plan	4			4		8	$1,274.43
	3.230	DRAFT PS&E (60%)	8	100	160	160	140	568	$61,567.04
	3.230.15.15	Elec. Plans: Light, Sig, Ramp Meter/TMS, Temp Light, Comm.	8	100	160	160	140	568	$61,567.04
	3.230	DRAFT PS&E (95%)	8	20	100	80	60	268	$28,035.72
	3.230.15.15	Elec. Plans: Light, Sig, Ramp Meter/TMS, Temp Light, Comm.	8	20	100	80	60	268	$28,035.72
	3.255	FINAL DISTRICT PS&E PACKAGE	4	16	40	40	40	140	$14,527.39
	3.255.20	Final District PS&E Package	4	16	40	40	40	140	$14,527.39
5		CONSTRUCTION	8	4	4	8	16	40	$4,243.45
	5.270	CONSTRUCTION ENGINEERING & GENERAL CONTRACT ADMINISTRATION	8	4	4	8	16	40	$4,243.45
	5.270.20.35	Shop Drawing and Submittal Review	4	4	4	4	16	32	$2,969.02
	5.270.25.45	Respond to Inquiries/RFIs	4			4		8	$1,274.43
6		CLOSEOUT	4	4	24	8	40	80	$6,400.21
	6.295	FINAL CONSTRUCTION ESTIMATES & FINAL REPORT	4	4	24	8	40	80	$6,400.21
	6.295.15	As-Built Plans	4	4	24	8	40	80	$6,400.21
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$8,735.73	$22,754.15	$28,933.25	$45,786.40	$13,129.10		

ATTACHMENT 'B'

David Evans & Associates

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 25, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
Survey Manager	$60.00	150	$9,000.00
Senior Survey Analyst	$53.00	332	$17,596.00
Survey Analyst	$45.00	376	$16,920.00
Survey CADD	$35.50	532	$18,886.00
Admin/Accounting	$26.00	74	$1,924.00
PLS Party Chief	$45.40	274	$12,439.60
Certified Party Chief	$44.72	36	$1,609.92
Senior Chainman	$40.23	274	$11,023.02
Chainman	$39.66	80	$3,172.80
	Subtotal Hours & Direct Labor Costs	2,128	$92,571.34
	Anticipated Salary Increases		$2,221.71
	Total Direct Labor Costs		$94,793.05 (1)

II. INDIRECT COSTS

INDIRECT RATE 174.68 % x $ 94,793.05 (Subtotal (1)) = Subtotal $165,584.50 (2)

III. FEE (PROFIT)

10 % x $ 260,377.56 (Total (1) + (2)) = Subtotal $26,037.76 (3)

IV. OTHER DIRECT COSTS

Item	Amount
WBS 185 Car Mileage	$88.00
WBS 185 Survey Crew Vehicle Mileage	$990.00
WBS 185 Deliveries	$100.00
Laser Scanning	$2,600.00
WBS 225 Car Mileage	$88.00
WBS 225 Survey Crew Vehicle Mileage	$440.00
Agency Fees, Record of Survey Costs	$1,000.00
Agency Fees, Vacation Fees	$2,000.00
Preliminary Title Report	$52,500.00
Prints and Deliveries Consisting of:	$1,500.00
Delivery Cost to Engineering Team	
4 Sets of ± 15 Sheet R/S, Twice (18x26)	
1 Final Mylar ± 15 Sheet R/W	
6 Sets of ± 10 Sheet Appraisal Maps (22x34)	
2 Sets of ± 98 Legals and Plats (8.5x11)	
2 Sets of ± 15 Sheet R/S, Twice (18x26)	

Subtotal $ $61,306.00 (4)

V. TOTAL AMOUNT

$347,721 (Total 1-4)

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David Evans & Associates

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 25, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
Survey Manager	Lisa Henstridge			150	$60.00	$9,000.00	$216.00	$9,216.00	$16,098.51	$2,531.45	$27,845.96	$185.64
Senior Survey Analyst	Bob Vasquez			332	$53.00	$17,596.00	$422.30	$18,018.30	$31,474.37	$4,949.27	$54,441.95	$163.98
Survey Analyst	Ryan Versteeg			376	$45.00	$16,920.00	$406.08	$17,326.08	$30,265.20	$4,759.13	$52,350.40	$139.23
Survey CADD	Lisa Hampton			532	$35.50	$18,886.00	$453.26	$19,339.26	$33,781.83	$5,312.11	$58,433.20	$109.84
Admin/Accounting	Nicole Niverson			74	$26.00	$1,924.00	$46.18	$1,970.18	$3,441.50	$541.17	$5,952.85	$80.44
PLS Party Chief	Jerry Woodrow			274	$45.40	$12,439.60	$298.55	$12,738.15	$22,251.00	$3,498.92	$38,488.07	$140.47
Certified Party Chief	Jose Alcantara			36	$44.72	$1,609.92	$38.64	$1,648.56	$2,879.70	$452.83	$4,981.09	$138.36
Senior Chainman	Ed Muniz			274	$40.23	$11,023.02	$264.55	$11,287.57	$19,717.13	$3,100.47	$34,105.17	$124.47
Chainman	Zachary Buren			80	$39.66	$3,172.80	$76.15	$3,248.95	$5,675.26	$892.42	$9,816.63	$122.71
			TOTAL =	2,128		$92,571.34	$2,221.71	$94,793.05	$165,584.50	$26,037.76	$286,415.31	

INDIRECT COST	
Overhead	173.59%
General & Admin	1.09%
Total	174.68%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
WBS 185 Car Mileage	$0.550	mi	160	$88.00	185
WBS 185 Survey Crew Vehicle Mileage	$0.550	mi	1800	$990.00	185
WBS 185 Deliveries	$100.000	ea	1	$100.00	185
Laser Scanning	$520.000	Days	5	$2,600.00	185
WBS 225 Car Mileage	$0.550	mi	160	$88.00	225
WBS 225 Survey Crew Vehicle Mileage	$0.550	mi	800	$440.00	225
Agency Fees, Record of Survey Costs	$1,000.000	ea	1	$1,000.00	225
Agency Fees, Vacation Fees	$1,000.000	ea	2	$2,000.00	225
Preliminary Title Report	$750.000	ea	70	$52,500.00	225
Prints and Deliveries Consisting of:	$1,500.000	ea	1	$1,500.00	225
Delivery Cost to Engineering Team				$0.00	
4 Sets of ± 15 Sheet R/S, Twice (18x26)				$0.00	
1 Final Mylar ± 15 Sheet R/W				$0.00	
6 Sets of ± 10 Sheet Appraisal Maps (22x34)				$0.00	
2 Sets of ± 98 Legals and Plats (8.5x11)				$0.00	
2 Sets of ± 15 Sheet R/S, Twice (18x26)				$0.00	
			TOTAL OTHER DIRECT COSTS	$61,306.00	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	2	1.000	2.000
2010	8	1.030	8.240
2011	0	1.061	0.000
2012	0	1.093	0.000
2013	0	1.126	0.000
2014	0	1.159	0.000
TOTAL	10		10.240
Escalation Factor for Contract			1.024

TOTAL COSTS	$347,721.31

David Evans & Associates

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/25/2009

PHASE	WBS	Staff Name	Lisa Henstridge	Bob Vasquez	Ryan Versteeg	Lisa Hampton	Nicole Niverson	Jerry Woodrow	Jose Alcantara	Ed Muniz	Zachary Buren	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
		Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)	$185.64	$163.98	$139.23	$109.84	$80.44	$140.47	$138.36	$124.47	$122.71		
		Staff Classification	Survey Manager	Senior Survey Analyst	Survey Analyst	Survey CADD	Admin/Accounting	PLS Party Chief	Certified Party Chief	Senior Chainman	Chainman		
	TOTAL FOR PROJECT		150	332	376	532	74	274	36	274	80	2128	$286,415.31
3	PLANS SPECIFICATIONS & ESTIMATE (PS&E)		30	12	136	52	34	154	36	154	80	688	$90,517.13
	3.185	PREPARE BASE MAPS & PLAN SHEETS	30	12	136	52	34	154	36	154	80	688	$90,517.13
	3.185.25.30	Utilities	4	4	8	8	6	16		16		64	$8,273.59
	3.185.10.60	Design Surveys	24	8	122	40	24	130	36	130	80	594	$78,317.13
	3.185.10.60	Design Survery-Soundwall #3 (Optional)	2		8	4	2	8		8		30	$3,926.40
4	RIGHT-OF-WAY		120	320	240	480	40	120	0	120	0	1440	$195,898.18
	4.220	PERFORM RIGHT OF WAY ENGINEERING	120	320	240	480	40	120	0	120	0	1440	$195,898.18
	4.220.	R/W Plans and Engineering	120	320	240	480	40	120		120		1440	$195,898.18
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$27,845.96	$54,441.95	$52,350.40	$58,433.20	$5,952.85	$38,488.07	$4,981.09	$34,105.17	$9,816.63		

ATTACHMENT 'B'

Earth Mechanics Inc.

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
Project Manager	$68.10	88	$5,992.80
Principal Engineer	$53.00	361	$19,133.00
Senior Geologist	$43.00	50	$2,150.00
Project Engineer	$34.75	217	$7,540.75
Staff Engineer	$27.25	85	$2,316.25
Senior Tech	$40.50	240	$9,720.00
Clerical	$21.00	4	$84.00
	Subtotal Hours & Direct Labor Costs	1,045	$46,936.80
	Anticipated Salary Increases		$1,126.48
	Total Direct Labor Costs		$48,063.28 (1)

II. INDIRECT COSTS

INDIRECT RATE 165.00 % x $ 48,063.28 (Subtotal (1)) = Subtotal $79,304.42 (2)

III. FEE (PROFIT)

10 % x $ 127,367.70 (Total (1) + (2)) = Subtotal $12,736.77 (3)

IV. OTHER DIRECT COSTS

Item	Amount
Permit Fees	$0.00
Drill Rig Mob/demob	$2,080.00
Drill Rig Drilling	$23,920.00
LA Drill Mob/demob	$1,125.00
LA Drilling	$3,600.00
CPT	$0.00
Drums/Removal	$0.00
Chemical tests	$0.00
Supplies (cement, etc)	$1,750.00
Subsistence (for LA)	$230.00
Traffic Control	$8,400.00
Moisture & Density	$2,800.00
Moisture	$1,400.00
Passing #200 Sieve	$1,258.00
Sieve Analyses	$3,045.00
Sieve & Hydrometer	$1,860.00
Atterberg Limits	$880.00
Direct Shear	$2,470.00
UC Triaxial	$0.00
UU Triaxial	$550.00
CU Triaxial test	$0.00
Expansion Index	$450.00
Corrosion Suite	$2,106.00
Sand Equivalent	$660.00
R-value	$3,800.00
Consolidation	$650.00
Max Density	$780.00
Subtotal $	$63,814.00 (4)

V. TOTAL AMOUNT

$203,918 (Total 1-4)

BRD0910e1-gc

Earth Mechanics Inc.

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
Project Manager	L. Cheang			88	$68.10	$5,992.80	$143.83	$6,136.63	$10,125.43	$1,626.21	$17,888.27	$203.28
Principal Engineer	A. Korkos			361	$53.00	$19,133.00	$459.19	$19,592.19	$32,327.12	$5,191.93	$57,111.24	$158.20
Senior Geologist	B. Schell			50	$43.00	$2,150.00	$51.60	$2,201.60	$3,632.64	$583.42	$6,417.66	$128.35
Project Engineer	C. Yang			217	$34.75	$7,540.75	$180.98	$7,721.73	$12,740.85	$2,046.26	$22,508.84	$103.73
Staff Engineer	J. Fang			85	$27.25	$2,316.25	$55.59	$2,371.84	$3,913.54	$628.54	$6,913.91	$81.34
Senior Tech	R. Jie			240	$40.50	$9,720.00	$233.28	$9,953.28	$16,422.91	$2,637.62	$29,013.81	$120.89
Clerical	J. Lander			4	$21.00	$84.00	$2.02	$86.02	$141.93	$22.79	$250.74	$62.68
			TOTAL =	1,045		$46,936.80	$1,126.48	$48,063.28	$79,304.42	$12,736.77	$140,104.47	

INDIRECT COST	
Overhead	165.00%
General & Admin	0.00%
Total	165.00%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Permit Fees	$200.000	lump sum	0	$0.00	230
Drill Rig Mob/demob	$260.000	hour	8	$2,080.00	230
Drill Rig Drilling	$260.000	hour	92	$23,920.00	230
LA Drill Mob/demob	$225.000	hour	5	$1,125.00	230
LA Drilling	$300.000	hour	12	$3,600.00	230
CPT	$3,000.000	day	0	$0.00	230
Drums/Removal	$75.000	ea	0	$0.00	230
Chemical tests	$150.000	ea	0	$0.00	230
Supplies (cement, etc)	$500.000	lump sum	3.5	$1,750.00	230
Subsistence (for LA)	$230.000	crew-day	1	$230.00	230
Traffic Control	$1,200.000	day	7	$8,400.00	230
Moisture & Density	$16	ea	175	$2,800.00	230
Moisture	$8	ea	175	$1,400.00	230
Passing #200 Sieve	$37	ea	34	$1,258.00	230
Sieve Analyses	$105.00	ea	29	$3,045.00	230
Sieve & Hydrometer	$155.000	ea	12	$1,860.00	230
Atterberg Limits	$80	ea	11	$880.00	230
Direct Shear	$130	ea	19	$2,470.00	230
UC Triaxial	$53	ea	0	$0.00	230
UU Triaxial	$110.00	ea	5	$550.00	230
CU Triaxial test	$275.000	ea	0	$0.00	230
Expansion Index	$90	ea	5	$450.00	230
Corrosion Suite	$162	ea	13	$2,106.00	230
Sand Equivalent	$55	ea	12	$660.00	230
R-value	$190.00	ea	20	$3,800.00	230
Consolidation	$130.000	ea	5	$650.00	230
Max Density	$130.00	ea	6	$780.00	230
		TOTAL OTHER DIRECT COSTS		$63,814.00	

			Escalation Per Year =	3.00%
Year	# of Months	Esc.	Value	
2009	2	1.000	2.000	
2010	8	1.030	8.240	
2011	0	1.061	0.000	
2012	0	1.093	0.000	
2013	0	1.126	0.000	
2014	0	1.159	0.000	
TOTAL	10		10.240	
		Escalation Factor for Contract	1.024	

TOTAL COSTS	$203,918.47

Earth Mechanics Inc.

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/24/2009

PHASE	WBS	Staff Classification	Project Manager	Principal Engineer	Senior Geologist	Project Engineer	Staff Engineer	Senior Tech	Clerical	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
		Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)	$203.28	$158.20	$128.35	$103.73	$81.34	$120.89	$62.68		
		Staff Name	L. Cheang	A. Korkos	B. Schell	C. Yang	J. Fang	R. Jie	J. Lander		
		TOTAL FOR PROJECT	88	361	50	217	85	240	4	1045	$140,104.47
3		PLANS SPECIFICATIONS & ESTIMATE (PS&E)	88	213	50	217	85	200	4	857	$111,854.81
	3.185	PREPARE BASE MAPS & PLAN SHEETS	12	26	0	0	0	175	0	213	$27,708.49
	3.185.20.99	Geotechnical Exploration Plan	12	26				175		213	$27,708.49
	3.240	DRAFT STRUCTURES PS&E	76	175	50	217	85	25	4	632	$82,247.89
	3.240.65	Preliminary Foundation Reports	16			32				48	$6,571.69
	3.240.80	Foundation Reports	60	175	50	185	85	25	4	584	$75,676.20
	3.265	AWARDED & APPROVED CONSTRUCTION CONTRACT	0	12	0	0	0	0	0	12	$1,898.43
	265.55	Pre-Bid Meeting		8						8	$1,265.62
	265.55	Prepare Addenda		4						4	$632.81
5		CONSTRUCTION	0	148	0	0	0	40	0	188	$28,249.66
	5.270	CONSTRUCTION ENGINEERING & GENERAL CONTRACT ADMINISTRATION	0	128	0	0	0	40	0	168	$25,085.60
	5.270.25.15	Pre-Construction Meeting		8						8	$1,265.62
	5.270.30	Site Visits		40				40		80	$11,163.75
	5.270.20.35	Shop Drawing and Submittal Review		40						40	$6,328.12
	5.270.25.45	Respond to Inquiries/RFIs		40						40	$6,328.12
	5.285	CONTRACT CHANGE ORDER ADMINISTRATION	0	20	0	0	0	0	0	20	$3,164.06
	5.285.05	Contract Change Order (CCO) Process		20						20	$3,164.06
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$17,888.27	$57,111.24	$6,417.66	$22,508.84	$6,913.91	$29,013.81	$250.74		

ATTACHMENT 'B'

LDP Design Group

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
LDP Staff LA level 3	$58.91	478	$28,158.98
LDP Staff LA level 2	$57.14	136	$7,771.04
LDP Admin Officer	$34.36	39	$1,340.04
LDP Staff LA level 1	$31.42	400	$12,568.00

Subtotal Hours & Direct Labor Costs	1,053	**$49,838.06**	
Anticipated Salary Increases		**$3,508.33**	
Total Direct Labor Costs		**$53,346.39**	(1)

II. INDIRECT COSTS

INDIRECT RATE 148.00 % x $ 53,346.39 (Subtotal (1)) = Subtotal **$78,952.66** (2)

III. FEE (PROFIT)

10 % x $ 132,299.06 (Total (1) + (2)) = Subtotal **$13,229.91** (3)

IV. OTHER DIRECT COSTS

Item	Amount
Per Diem	$0.00
Car Mileage	$641.30
WBS 185 - Repro (11x17 B&W)	$780.00
WBS 185 - Repro (11x17 Color)	$157.50
WBS 185 - Repro (Large Format Color)	$1,368.00
WBS 230 (60%) - Reprographics (11x17 B&W Plans)	$130.00
WBS 230 (60%) - Reprographics (11x17 B&W Specifications)	$45.00
WBS 230 (95%) - Reprographics (11x17 B&W Plans)	$130.00
WBS 230 (95%) - Reprographics (11x17 B&W Specifications)	$45.00
WBS 255 - Reprographics (11x17 B&W Draft Plans)	$130.00
WBS 255 - Reprographics (11x17 B&W Draft Specifications)	$45.00
WBS 255 - Reprographics (11x17 B&W Final Plans)	$130.00
WBS 255 - Reprographics (11x17 B&W Final Specifications)	$45.00

Subtotal $ **$3,646.80** (4)

V. TOTAL AMOUNT

$149,176 (Total 1-4)

BRD0910e1-gc

LDP Design Group

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
LDP Staff LA level 3	Brent Praegitzer			478	$58.91	$28,158.98	$1,982.24	$30,141.22	$44,609.01	$7,475.02	$82,225.26	$172.02
LDP Staff LA level 2	Michelle Han			136	$57.14	$7,771.04	$547.04	$8,318.08	$12,310.76	$2,062.88	$22,691.72	$166.85
LDP Admin Officer	Elaine Praegitzer			39	$34.36	$1,340.04	$94.33	$1,434.37	$2,122.87	$355.72	$3,912.97	$100.33
LDP Staff LA level 1	Christine MacDonald			400	$31.42	$12,568.00	$884.72	$13,452.72	$19,910.03	$3,336.27	$36,699.02	$91.75
			TOTAL =	1,053		$49,838.06	$3,508.33	$53,346.39	$78,952.66	$13,229.91	$145,528.96	

INDIRECT COST	
Overhead	148.00%
General & Admin	0.00%
Total	148.00%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
Car Mileage	$0.550	mi	1166	$641.30	100
WBS 185 - Repro (11x17 B&W)	$0.750	ea	1040	$780.00	185
WBS 185 - Repro (11x17 Color)	$1.750	ea	90	$157.50	185
WBS 185 - Repro (Large Format Color	$12.000	sq. ft.	114	$1,368.00	185
WBS 230 (60%) - Reprographics (11x1	$0.250	ea	520	$130.00	230 (60%)
WBS 230 (60%) - Reprographics (11x1	$0.100	ea	450	$45.00	230 (60%)
WBS 230 (95%) - Reprographics (11x1	$0.250	ea	520	$130.00	230 (95%)
WBS 230 (95%) - Reprographics (11x1	$0.100	ea	450	$45.00	230 (95%)
WBS 255 - Reprographics (11x17 B&W	$0.250	ea	520	$130.00	255
WBS 255 - Reprographics (11x17 B&W	$0.100	ea	450	$45.00	255
WBS 255 - Reprographics (11x17 B&W	$0.250	ea	520	$130.00	255
WBS 255 - Reprographics (11x17 B&W	$0.100	ea	450	$45.00	255
b				$0.00	
c				$0.00	
d				$0.00	
e				$0.00	
			TOTAL OTHER DIRECT COSTS	$3,646.80	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	0	1.000	0.000
2010	12	1.030	12.360
2011	12	1.061	12.731
2012	12	1.093	13.113
2013	6	1.126	6.753
2014	0	1.159	0.000
TOTAL	42		44.957
Escalation Factor for Contract			1.070

TOTAL COSTS	$149,175.76

LDP Design Group

I-10/Tippecanoe A venue Interchange Improv ements Project

PS&E Preparation

8/24/2009

PHASE	WBS	Staff Classification	LDP Staff LA level 3	LDP Staff LA level 2	LDP Admin Officer	LDP Staff LA level 1	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
	Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)		$172.02	$166.85	$100.33	$91.75		
		Staff Name	Brent Praegitzer	Michelle Han	Elaine Praegitzer	Christine MacDonald		
	TOTAL FOR PROJECT		478	136	39	400	1053	$145,528.96
3	PLANS SPECIFICATIONS & ESTIMATE (PS&E)		431	136	39	400	1006	$137,444.05
	3.185	PREPARE BASE MAPS & PLAN SHEETS	100	40	8	80	228	$32,018.44
	3.185.15.99	Landscape Concept Plan	100	40	8	80	228	$32,018.44
	3.230	DRAFT PS&E (60%)	160	60	16	200	436	$57,488.98
	3.230.10	Planting and Irrigation Plans	160	60	16	200	436	$57,488.98
	3.230	DRAFT PS&E (95%)	120	36	10	80	246	$34,992.08
	3.230.10	Planting and Irrigation Plans	120	36	10	80	246	$34,992.08
	3.255	FINAL DISTRICT PS&E PACKAGE	40	0	5	40	85	$11,052.34
	3.255.20	Final District PS&E Package	40		5	40	85	$11,052.34
	3.265	AWARDED & APPROVED CONSTRUCTION CONTRACT	11	0	0	0	11	$1,892.21
	3.265.55	Pre-Bid Meeting	4				4	$688.08
	3.265.55	Respond to Inquiries	6				6	$1,032.12
	3.265.55	Prepare Addenda	1				1	$172.02
5	CONSTRUCTION		39	0	0	0	39	$6,708.76
	5.270	CONSTRUCTION ENGINEERING & GENERAL CONTRACT ADMINISTRATION	33	0	0	0	33	$5,676.64
	5.270.25.15	Pre-Construction Meeting	4				4	$688.08
	5.270.20	Additional Drawings at Caltrans Request	3				3	$516.06
	5.270.30	Site Visits	12				12	$2,064.23
	5.270.20.35	Shop Drawing and Submittal Review	8				8	$1,376.15
	5.270.25.45	Respond to Inquiries/RFIs	6				6	$1,032.12
	5.285	CONTRACT CHANGE ORDER ADMINISTRATION	6	0	0	0	6	$1,032.12
	5.285.05	Contract Change Order (CCO) Process	6				6	$1,032.12
6	CLOSEOUT		8	0	0	0	8	$1,376.15
	6.295	FINAL CONSTRUCTION ESTIMATES & FINAL REPORT	8	0	0	0	8	$1,376.15
	6.295.15	As-Built Plans	8				8	$1,376.15
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$82,225.26	$22,691.72	$3,912.97	$36,699.02		

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ATTACHMENT 'B'

LSA Associates

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
Project Principal	$63.56	40	$2,542.40
Associate	$47.26	74	$3,497.24
Senior Specialist or Planner	$40.74	92	$3,748.08
Specialist or Planner	$32.59	171	$5,572.89
Asst. Specialist or Planner	$29.33	60	$1,759.80
GIS/Graphics	$37.48	28	$1,049.44
WP/Editor	$24.45	20	$489.00
Office Asst.	$17.93	2	$35.86
Subtotal Hours & Direct Labor Costs		487	**$18,694.71**
Anticipated Salary Increases			**$1,256.19**
Total Direct Labor Costs			**$19,950.90** (1)

II. INDIRECT COSTS

INDIRECT RATE 178.91 % x $ 19,950.90 (Subtotal (1)) = Subtotal **$35,694.15** (2)

III. FEE (PROFIT)

10 % x $ 55,645.05 (Total (1) + (2)) = Subtotal **$5,564.51** (3)

IV. OTHER DIRECT COSTS

Item	Amount
Car Mileage	$499.95
Photocopies (Black & White)	$500.00
Photocopies (Color))	$250.00
Subtotal $	**$1,249.95** (4)

V. TOTAL AMOUNT

$62,460 (Total 1-4)

BRD0910e1-gc

LSA Associates

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 24, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
Project Principal				40	$63.56	$2,542.40	$170.84	$2,713.24	$4,854.25	$756.75	$8,324.24	$208.11
Associate				74	$47.26	$3,497.24	$235.00	$3,732.24	$6,677.34	$1,040.96	$11,450.54	$154.74
Senior Specialist or Planner				92	$40.74	$3,748.08	$251.85	$3,999.93	$7,156.28	$1,115.62	$12,271.83	$133.39
Specialist or Planner				171	$32.59	$5,572.89	$374.47	$5,947.36	$10,640.42	$1,658.78	$18,246.56	$106.71
Asst. Specialist or Planner				60	$29.33	$1,759.80	$118.25	$1,878.05	$3,360.02	$523.81	$5,761.88	$96.03
GIS/Graphics				28	$37.48	$1,049.44	$70.52	$1,119.96	$2,003.72	$312.37	$3,436.04	$122.72
WP/Editor				20	$24.45	$489.00	$32.86	$521.86	$933.66	$145.55	$1,601.07	$80.05
Office Asst.				2	$17.93	$35.86	$2.41	$38.27	$68.47	$10.67	$117.41	$58.71
			TOTAL =	487		$18,694.71	$1,256.19	$19,950.90	$35,694.15	$5,564.51	$61,209.56	

INDIRECT COST	
Overhead	178.91%
General & Admin	0.00%
Total	178.91%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
Car Mileage	$0.550	mi	909	$499.95	100
Travel				$0.00	
Computer Charges				$0.00	
Photocopies (Black & White)	$0.100	ea	5000	$500.00	235
Photocopies (Color))	$2.500	ea	100	$250.00	235
Commercial Printing				$0.00	
Mail/Courier				$0.00	
Photographs				$0.00	
Intersection Traffic Counts				$0.00	
Ramp/Segment Counts				$0.00	
Corridor Speed Surveys				$0.00	
a				$0.00	
b				$0.00	
c				$0.00	
d				$0.00	
e				$0.00	
			TOTAL OTHER DIRECT COSTS	$1,249.95	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	2	1.000	2.000
2010	12	1.030	12.360
2011	12	1.061	12.731
2012	12	1.093	13.113
2013	6	1.126	6.753
2014	0	1.159	0.000
TOTAL	44		46.957
Escalation Factor for Contract			1.067

TOTAL COSTS	$62,459.51

LSA Associates

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/24/2009

PHASE	WBS	Staff Classification	Project Principal	Associate	Senior Specialist or Planner	Specialist or Planner	Asst. Specialist or Planner	GIS/Graphics	WP/Editor	Office Asst.	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
		Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)	$208.11	$154.74	$133.39	$106.71	$96.03	$122.72	$80.05	$58.71		
		Staff Name	0	0	0	0	0	0	0	0		
		TOTAL FOR PROJECT	40	74	92	171	60	28	20	2	487	$61,209.56
3		PLANS SPECIFICATIONS & ESTIMATE (PS&E)	40	74	92	171	60	28	20	2	487	$61,209.56
	3.100.15	PROJECT MANAGEMENT - PS&E COMPONENT	8	24	16	4	4	0	0	0	56	$8,323.71
	3.100.15.10.1	Coordination and Administration	8	24	16	4	4				56	$8,323.71
	3.235	MITIGATE ENVIRONMENTAL IMPACTS & HAZARDOUS WASTE	32	50	76	167	56	28	20	2	431	$52,885.85
	3.235.05	Environmental Mitigation	8	12	24	16	8	8			76	$10,180.29
	3.235.05.99	Jurisdictional Permits	4	8	20	40		12	4		88	$10,799.11
	3.235.40	Environmental Commitment Record	4	16		12	8		4		44	$5,677.14
	3.235.05.15	Biological Monitoring (MBTA)	2	4	16	16					38	$4,876.67
	3.235.05.25	Paleontological Mitigation Plan	12	8	12	75		8	12	2	129	$15,398.49
	3.235.05.25	Paleontological Resources Monitoring	2	2	4	8	40				56	$5,954.13
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$8,324.24	$11,450.54	$12,271.83	$18,246.56	$5,761.88	$3,436.04	$1,601.07	$117.41		

ATTACHMENT 'B'

PQM Inc.

San Bernardino Associated Governments (SANBAG)

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 21, 2009

I. DIRECT LABOR COSTS

Staff Classification	Initial Direct Hourly Rate	Hours	Total
QA Manager	$77.07	192	$14,797.44
	Subtotal Hours & Direct Labor Costs	192	$14,797.44
	Anticipated Salary Increases		$672.54
	Total Direct Labor Costs		$15,469.98 (1)

II. INDIRECT COSTS

INDIRECT RATE 135.90 % x $ 15,469.98 (Subtotal (1)) = Subtotal $21,023.71 (2)

III. FEE (PROFIT)

10 % x $ 36,493.69 (Total (1) + (2)) = Subtotal $3,649.37 (3)

IV. OTHER DIRECT COSTS

Item	Amount
Per Diem	$0.00
Car Mileage	$0.00
Travel	$0.00

Subtotal $ $0.00 (4)

V. TOTAL AMOUNT

$40,143 (Total 1-4)

BRD0910e1-gc

PQM Inc.

LABOR & OTHER DIRECT COST (ODC) SUMMARY

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

August 21, 2009

STAFF CLASSIFICATION	STAFF NAME	RANGE OF DIRECT HOURLY RATES		TOTAL HOURS	INITIAL DIRECT HOURLY RATE	SUB-TOTAL DIRECT LABOR COST	ANTICIPATED SALARY INCREASES	TOTAL DIRECT LABOR COST	TOTAL INDIRECT COST	FEE (PROFIT)	TOTAL LABOR COST	FULLY LOADED HOURLY RATE
		LOW	HIGH									
QA Manager	Don Archer			192	$77.07	$14,797.44	$672.54	$15,469.98	$21,023.71	$3,649.37	$40,143.06	$209.08
			TOTAL =	192		$14,797.44	$672.54	$15,469.98	$21,023.71	$3,649.37	$40,143.06	

INDIRECT COST	
Overhead	135.90%
General & Admin	0.00%
Total	135.90%

FEE (PROFIT)	10.00%

OTHER DIRECT COSTS (ODC's)	Price Per Unit	Unit	Quantity	Total	WBS
Per Diem				$0.00	
Car Mileage				$0.00	
Travel				$0.00	
Computer Charges				$0.00	
Photocopies (Black & White)				$0.00	
Photocopies (Color))				$0.00	
Commercial Printing				$0.00	
Mail/Courier				$0.00	
Photographs				$0.00	
Intersection Traffic Counts				$0.00	
Ramp/Segment Counts				$0.00	
Corridor Speed Surveys				$0.00	
a				$0.00	
b				$0.00	
c				$0.00	
d				$0.00	
e				$0.00	
			TOTAL OTHER DIRECT COSTS	$0.00	

Escalation Per Year =			3.00%
Year	# of Months	Esc.	Value
2009	0	1.000	0.000
2010	2	1.030	2.060
2011	2	1.061	2.122
2012	0	1.093	0.000
2013	0	1.126	0.000
2014	0	1.159	0.000
TOTAL	4		4.182
Escalation Factor for Contract			1.045

TOTAL COSTS	$40,143.06

PQM Inc.

I-10/Tippecanoe Avenue Interchange Improvements Project

PS&E Preparation

8/21/2009

	Fully Loaded Hourly Rate (Direct Labor, Escalation, overhead, and profit)		$209.08		
PHASE	WBS	Staff Name	Don Archer		
		Staff Classification	QA Manager	TOTAL HOURS	TOTAL FULLY LOADED LABOR COST PER TASK
	TOTAL FOR PROJECT		192	192	$40,143.06
3	PLANS SPECIFICATIONS & ESTIMATE (PS&E)		192	192	$40,143.06
	3.100.15	PROJECT MANAGEMENT - PS&E COMPONENT	192	192	$40,143.06
	3.100.15.10	Quality Assurance/Quality Control Plan	192	192	$40,143.06
		TOTAL FULLY LOADED LABOR COST PER CLASSIFICATION	$40,143.06		

BRD0910e1-gc

Governments SANBAG Working Together

San Bernardino Associated Governments
1170 W. 3rd Street, 2nd Floor San Bernardino, CA 92410-1715
Phone: (909) 884-8276 Fax: (909) 885-4407 Web: www.sanbag.ca.gov

TRANSPORTATION MEASURE I

■ San Bernardino County Transportation Commission ■ San Bernardino County Transportation Authority
■ San Bernardino County Congestion Management Agency ■ Service Authority for Freeway Emergencies

Minute Action

AGENDA ITEM: 14

Date: October 7, 2009

Subject: I-10 Westbound Widening Construction Management Services

Recommendation:* Award Professional Services Contract No. C10019 in an amount not-to-exceed $4,381,583 to Athalye Consulting Engineering Services, Inc. for Construction Management, Materials Testing and Construction Surveying services in support of the I-10 Westbound Widening Project.

Background: **This is a new contract.** SANBAG issued a Request for Qualifications (RFQ) for Construction Management, Materials Testing and Construction Surveying services on July 2, 2009. A Consultant Selection Committee comprised of staff from SANBAG, Caltrans, City of Yucaipa, and San Bernardino County was assembled to participate in reviewing the Statements of Qualifications (SOQs), to select a short list of consultants to participate in an interview process and to conduct the interviews. SANBAG received eight (8) Statements of Qualifications from interested firms on July 28, 2009. Those firms submitting SOQs included (in alphabetical order): Athalye Consulting Engineering Services, Harris & Associates, Inc., Hatch Mott McDonald, HDR, Hernandez, Kroone & Associates, LAN Engineering, Mendoza & Associates and Simon Wong Engineering. On August 12, 2009, the Selection Committee shortlisted Athalye Consulting Engineering Services, Inc., Harris and Associates, HDR, and LAN Engineering for participation in the interview process. Based on interviews of these four firms on August 25, 2009, the Selection Committee recommended Athalye Consulting Engineering Services, Inc. as the firm to provide the CM services on this project.

*

Approved
Board of Directors

Date: *October 7, 2009*

Moved: *Second:*

In Favor: *Opposed:* *Abstained:*

Witnessed: _____

BRD0910g-gc
TN 86210000
Attachment: C10019

SANBAG staff met with Athalye on August 31, 2009 to open and review the sealed cost proposal provided by the consultant during the earlier interview. Staff recommends approval of the draft contract with a not-to-exceed fee of $4,381,583 as negotiated with the consultant.

The total contract amount of $4,381,583 includes $4,036,083 for Construction Management, Materials Testing and Construction Surveying Services and $345,500 in contingencies.

Financial Impact: Approval of Contract No. 10019 is consistent with the 2009/10 Fiscal Year Budget, TN 86210000.

Reviewed By: This item was reviewed and unanimously recommended for approval by the Major Projects Committee on September 10, 2009. SANBAG Counsel has reviewed and approved the contract as to form.

Responsible Staff: Garry Cohoe, Director of Freeway Construction

BRD0910g-gc
TN 86210000
Attachment: C10019

SANBAG Contract No. 10019

by and between

San Bernardino County Transportation Authority

and

Athalye Consulting Engineering Services, Inc.

for

Construction Management, Materials Testing and Construction Surveying Services

FOR ACCOUNTING PURPOSES ONLY

☒ Payable ☐ Receivable	Vendor Contract # TBD Vendor ID TBD	Retention: ☐ Yes ____ % ☐ No	☒ Original ☐ Amendment

Notes:

Original Contract:	$ 4,036,083	Previous Amendments Total:	$ ____
		Previous Amendments Contingency Total:	$ ____
Contingency Amount:	$ 345,500	Current Amendment:	$ ____
		Current Amendment Contingency:	$ ____

Contingency Amount requires specific authorization by Task Manager prior to release.

Contract TOTAL ➔ $ 4,381,583

↓ Please include funding allocation for the original contract or the amendment.

Task	Cost Code	Funding Sources	Grant ID	Amounts
862	5553	Measure I	i300	$ 4,381,583
____	____	____	____	$ ____
____	____	____	____	$ ____
____	____	____	____	$ ____

Original Board Approved Contract Date:	10/07/09	Contract Start: 10/21/09	Contract End: 12/31/11
New Amend. Approval (Board) Date:	____	Amend. Start: ____	Amend. End: ____

If this is a multi-year contract/amendment, please allocate budget authority among approved budget authority and future fiscal year(s)-unbudgeted obligations:

Approved Budget Authority ➔	Fiscal Year: 09/10 $ 300,000	**Future Fiscal Year(s) – Unbudgeted Obligation ➔**	$ 4,081,583

Is this consistent with the adopted budget? ☒Yes ☐No

If yes, which Task includes budget authority? 862

If no, has the budget amendment been submitted? ☐Yes ☐No

CONTRACT MANAGEMENT

Please mark an "X" next to all that apply:

☐ Intergovernmental ☒ Private ☐ Non-Local ☐ Local ☐ Partly Local

Disadvantaged Business Enterprise: ☐No ☐Yes ____%

Task Manager: **Garry Cohoe**	Contract Manager: **Sagar Pandey**
Garry Cohoe 9/3/09	Scott Wolf for S. Pandey 9/3/09
Task Manager Signature Date	Contract Manager Signature Date
9/22/09	
Chief Financial Officer Signature Date	

Filename:
TN 86210000
C 10019

CONTRACT NO: 10019

EFFECTIVE DATE: October 21, 2009

by and between

San Bernardino Associated Governments/San Bernardino County Transportation Authority

And

Athalye Consulting Engineering Services, Inc.

for
Construction Management, Materials Testing and Construction Surveying Services

Interstate 10 Westbound Widening

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CONTRACT

FOR

This Contract, entered into this _____ day of _____ 2009, by the firm of Athalye Consulting Engineering Services, Inc. (hereinafter called CONSULTANT) whose address is:

3200 Guasti Road, Suite 100
Ontario, CA 92410

and San Bernardino Associated Governments/San Bernardino County Transportation Authority (hereinafter called AUTHORITY) whose address is:

1170 W. 3rd Street, 2nd Floor
San Bernardino, California 92410-1715

Whereas AUTHORITY desires CONSULTANT to perform certain technical services as hereinafter described and CONSULTANT desires to do so for the compensation and in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereto agree as follows:

Article 1 Description of Services

CONSULTANT agrees to perform Services set forth in Attachment "A", Scope of Services, which is incorporated herein by reference, in accordance with high professional engineering and land surveying standards which are generally accepted in the State of California, in accordance with the terms and conditions expressed herein and in the sequence, time, and manner defined therein. The word "Services," as used herein, includes without limitation, the performance, fulfillment and discharge by CONSULTANT of all obligations, duties, tasks, and services imposed upon or assumed by CONSULTANT hereunder; and the Services performed hereunder shall be completed to the satisfaction of AUTHORITY, with their satisfaction being based on prevailing engineering standards.

Article 2 Performance Schedule

2.1 The Period of Performance by CONSULTANT under this Contract shall commence on October 21, 2009 and shall continue in effect through December 31, 2011 or until otherwise terminated or canceled as hereinafter directed, or unless extended as hereinafter provided.

Article 3 Contract Price and Cost Principles

3.1 Full compensation to CONSULTANT for full and complete performance of Services, compliance with all the terms and conditions of this contract, payment by CONSULTANT of all obligations incurred in, or application to, CONSULTANT'S performance of Services, and for which CONSULTANT shall furnish all personnel, facilities, equipment, materials, supplies, and services (except as may be explicitly set forth in this Contract as furnished by AUTHORITY), the total compensation to CONSULTANT shall not exceed the amounts set forth in 3.2 below.

3.2 The total cost shall not exceed four million, three hundred eighty-one thousand, five hundred eighty-three dollars ($4,381,583), which includes a contingency of three hundred forty five thousand, five hundred dollars ($345,500). Services to be provided under terms of this contract are to be provided on an as needed basis and compensated for as set forth in Attachment "B" which is incorporated herein by reference. Utilization of the contingency is not permitted unless directed in writing by AUTHORITY Project Manager. CONSULTANT'S fee for services is included in the total estimated contract cost and shall be a specific rate of compensation contract, as agreed upon, and noted in Attachment "B".

3.3 CONSULTANT'S overhead rates will be fixed, as agreed upon in Attachment "B" for the duration. The fixed overhead rate will not be subject to adjustment. Any percentage increase over the direct labor rate in Attachment "B" is not permitted without prior authorization from AUTHORITY.

3.4 Not used.

3.5 The cost principles set forth in Part 31, Contract Cost Principles and Procedures, in Title 48, Federal Acquisition Regulations System of the Code of Federal Regulations (CFR) as constituted on the effective date of this Contract shall be utilized to determine allowableness of costs under this Contract and may be modified from time to time by amendment of the Contract.

3.5.1 The CONSULTANT agrees to comply with Federal Department of Transportation procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

3.5.2 Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowed under 48 CFR, Part 31, Contract Cost Principles and Procedures, or 49 CFR, part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments shall be repaid by CONSULTANT to AUTHORITY.

3.5.3 Any subcontract, entered into as a result of this Contract shall contain all of the provisions of this Section 3.5.

3.6 Any services provided by the CONSULTANT not specifically covered by the Scope of Services (Attachment "A") shall not be compensated without prior written authorization from AUTHORITY. It shall be CONSULTANT'S responsibility to recognize and notify AUTHORITY when services not covered by the Scope of Services have been requested or are required. All changes and/or modifications to the Scope of Services shall be made in accordance with Article 12, Changes.

Article 4 Availability of Funds

This Contract is awarded on the contingency of availability of funds. The obligation of AUTHORITY is conditioned upon the availability of funds which are allocated and available for the payment of such an obligation. If funds are not allocated and available for the continuance of Services performed by CONSULTANT, Services directly or indirectly involved may be suspended or terminated by AUTHORITY at the end of the period for which funds are available. When AUTHORITY becomes aware that any portion of Services which will or may be affected by a shortage of funds, it will immediately so notify CONSULTANT. Nothing herein shall relieve AUTHORITY from its obligation to compensate CONSULTANT for Services performed pursuant to this Contract. No penalty shall accrue to AUTHORITY in the event this provision is exercised.

Article 5 Taxes, Duties, Fees

Except to the extent expressly provided otherwise elsewhere in this Contract, CONSULTANT shall pay when due, and the compensations set forth in "Article 3" shall be inclusive of all a) local, municipal, state, and federal sales and use taxes, b) excise taxes, c) taxes on personal property owned by CONSULTANT, and d) all other governmental fees and taxes or charges of whatever nature applicable to CONSULTANT to enable it to conduct business.

Article 6 Invoicing and Payments (Final Payment)

6.1 The compensation of CONSULTANT as provided herein shall be payable in 4 week billing period payments, forty-five (45) calendar days after receipt by

AUTHORITY of an invoice prepared in accordance with instructions below. Payment shall not be construed to be an acceptance of Services.

6.2 CONSULTANT shall prepare all invoices in a form satisfactory to and approved by AUTHORITY and it shall be accompanied by documentation supporting each element of measurement and/or cost. Each invoice will be for a four week billing period and will be marked with AUTHORITY'S project name, contract number and task order number. Invoices shall be submitted within fifteen (15) calendar says for the period covered by the invoice. Invoices shall include request for payment for Services (including additional Services authorized by AUTHORITY) completed by CONSULTANT during each billing period. Any invoice submitted which fails to comply with the terms of this Contract, including the requirements of form and documentation, may be returned to CONSULTANT. Any costs incurred by CONSULTANT in connection with the resubmission of a proper invoice shall be at CONSULTANT'S sole expense.

6.3 CONSULTANT shall furnish evidence, satisfactory to AUTHORITY, that all labor and materials furnished and equipment used during all periods prior to the period covered by any invoice have been paid in full. AUTHORITY shall not be obligated to make payments to CONSULTANT until CONSULTANT furnishes such evidence. Upon furnishing such evidence, satisfactory to AUTHORITY, AUTHORITY shall pay CONSULTANT the full amount of the invoice less disputed amounts.

6.4 CONSULTANT shall include a statement and release with each invoice, satisfactory to AUTHORITY, that CONSULTANT has fully performed the Services invoiced pursuant to this Contract for the period covered and that all claims of CONSULTANT and its subcontractors for Services during the period will be satisfied upon the making of such payment. AUTHORITY shall not be obligated to make payments to CONSULTANT until CONSULTANT furnishes such statement and release.

6.5 CONSULTANT shall forfeit the fixed fee portion of the progress payment for any billing period that CONSULTANT fails to submit an invoice within sixty (60) calendar days after the cutoff date for the billing period.

6.6 Appearance at Hearings – If and when required by AUTHORITY, CONSULTANT shall render assistance at hearings as may be necessary for the performance of the services.

Article 7 Documentation and Right of Audit

7.1 CONSULTANT shall keep and maintain all books, papers, records, accounting records including but not limited to all direct and indirect costs

allocated to Services, files, accounts, reports, cost proposals with backup data, and all other material relating to Services. Consultant shall upon request, make all such materials available to AUTHORITY or its designee at any reasonable time during the term of the contract and for three (3) years from the date of final payment to CONSULTANT, for auditing, inspection and copying. CONSULTANT shall insert in each of its subcontracts the above requirement.

7.2 The Cost Proposal for this project is subject to a post award audit. After any post award audit recommendations are received the Cost Proposal shall be adjusted by the CONSULTANT and approved by the Contract Manager to conform to the audit recommendations. The CONSULTANT agrees that individual items of cost identified in the audit report may be incorporated into the Agreement (Project Contract) at AUTHORITY'S sole discretion. Refusal by the CONSULTANT to incorporate the audit or post award recommendations will be considered a breach of the Agreement terms and cause for termination of the Contract.

Article 8 Responsibility of the Engineer

8.1 The CONSULTANT shall be responsible for the professional quality, technical accuracy, and the coordination of all deliverables and other services furnished by the CONSULTANT under terms of this Contract.

8.2 In addition to any other requirements of this Contract or duties and obligations imposed on CONSULTANT by law, the CONSULTANT shall, as an integral part of its services, employ quality control procedures that identify potential risks and uncertainties related to scope, schedule, cost, quality and safety of the project and the services performed by CONSULTANT within the areas of CONSULTANT services and expertise. Risks that may be encountered include, but are not limited to, soil conditions, constructability, factors of safety, impact on adjacent properties, public safety, and environmental considerations. At any time during performance of the contracted Scope of Services, should the CONSULTANT observe, encounter, or identify any unusual circumstances or uncertainties which could pose potential risk and uncertainties, CONSULTANT shall immediately document such matters and notify AUTHORITY of said circumstances and related concerns. CONSULTANT shall also similarly notify AUTHORITY in regard to the possibility of any natural catastrophe, potential failure, or any situation that exceeds environmental, design, and/or construction assumptions and could precipitate a failure. Notifications under this paragraph shall be specific, clear and timely, and in a form which will enable AUTHORITY to understand and evaluate the magnitude and effect of the risk and uncertainties involved.

Article 9 Reporting Requirements/Deliverables

All Reports and deliverables shall be submitted in accordance with Attachment "A", Scope of Services.

Article 10 Permits and Licenses

CONSULTANT shall (without additional compensation) keep current all governmental permits, certificates and licenses (including professional licenses) necessary for CONSULTANT to perform Services.

Article 11 Technical Direction

11.1 Performance of Services under this Contract shall be subject to the technical direction of the AUTHORITY Director of Freeway Construction, or his designee, as identified in Attachment "A", Scope of Services, attached to this Contract. The AUTHORITY Director of Freeway Construction will identify his designee, in writing to CONSULTANT, with the notice to proceed and subsequently with any changes during the contract period. The term "Technical Direction" is defined to include, without limitation:

11.1.1 Directions to the CONSULTANT which redirect the contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details or otherwise serve to accomplish the contractual Scope of Services.

11.1.2 Provision of written information to the CONSULTANT which assists in the interpretation of drawings, reports, or technical portions of Service description.

11.1.3 Review and, where required by the contract, approval of technical reports, drawings, specifications and technical information to be delivered by the CONSULTANT to AUTHORITY or Caltrans under the Contract.

11.2 Technical direction must be within the Scope of Services in the Contract. The AUTHORITY Director of Freeway Construction or designee does not have the authority to, and may not, issue any technical direction which:

11.2.1 Constitutes an assignment of additional Services outside the Scope of Services;

11.2.2 Constitutes a change as defined in the Contract clause entitled "Changes";

11.2.3 In any manner causes an increase or decrease in the Contract's estimated cost or price or the time required for contract performance;

11.2.4 Changes any of the expressed terms, conditions or specifications of the Contract; or

11.2.5 Interferes with the CONSULTANT'S right to perform the terms and conditions of the Contract.

11.2.6 A failure of the CONSULTANT and AUTHORITY Contract Manager to agree that the technical direction is within the scope of the Contract, or a failure to agree upon the Contract action to be taken with respect thereto shall be subject to the provisions of Article 30, Disputes.

11.3 All technical directions shall be issued in writing by the AUTHORITY Contract Manager or his designee.

11.4 The CONSULTANT shall proceed promptly with the performance of technical directions duly issued by the AUTHORITY Contract Manager or his designee, in the manner prescribed by this article and within his authority under the provisions of this clause. If, in the opinion of the CONSULTANT, any instruction or direction by the AUTHORITY Contract Manager or his designee, falls within one of the categories defined in 11.2.1 through 11.2.5 above, the CONSULTANT shall not proceed but shall notify the Contract Manager in writing within five (5) working days after receipt of any such instruction or direction and shall request the Contract Manager to modify the contract accordingly. Upon receiving the notification from the CONSULTANT, the Contract Manager shall:

11.4.1 Advise the CONSULTANT in writing within thirty (30) days after receipt of the CONSULTANT'S letter that the technical direction is or is not within the scope of Article 12, Changes;

11.4.2 Advise the CONSULTANT within a reasonable time that AUTHORITY will or will not issue a written change order.

Article 12 Changes

12.1 The Services shall be subject to changes by additions, deletions, or revisions thereto by AUTHORITY. CONSULTANT will be advised of any such changes by written notification from AUTHORITY describing the change.

12.2 Promptly after such written notification of change is given to CONSULTANT by AUTHORITY, CONSULTANT and AUTHORITY will attempt to negotiate a mutually agreeable change in compensation or time of performance and amend the Contract accordingly.

Article 13 Federal and State Mandatory Provisions

13.1 Equal Employment Opportunity/Nondiscrimination

13.1.1 In connection with the execution of this contract, the CONSULTANT shall not discriminate directly or indirectly against any employee or applicant for employment because of race, color, religion, sex, age, or national origin. The CONSULTANT shall take affirmative action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, age, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selections of training, including apprenticeship. The CONSULTANT agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of the Equal Opportunity clause.

13.1.2 The CONSULTANT shall, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, state that all qualified applications shall receive consideration for employment without regard to race, color, religion, sex, age, or national origin.

13.1.3 The CONSULTANT shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers representative of the CONSULTANT's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

13.1.4 The CONSULTANT shall comply with all provisions of Executive Order No 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60), and shall permit access to its books, records, and accounts by AUTHORITY and the Secretary of Labor for purposes of investigation to ascertain compliance

with such rules, regulations, and orders.

13.1.5 In the event of the CONSULTANT'S noncompliance with the Equal Opportunity clause of this contract or any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the CONSULTANT may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order No. 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor Regulations (41 CFR, Part 60).

13.1.6 The CONSULTANT shall include the provisions of paragraph (13.2.1) of this Section in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 112346 as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60), so that such provisions will be binding upon each subcontract or vendor. The CONSULTANT shall take such action with respect to any subcontract or purchase order as AUTHORITY may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event the CONSULTANT becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by AUTHORITY, the CONSULTANT may request AUTHORITY to enter into such litigation to protect the interests of AUTHORITY.

13.2 <u>Affirmative Action for Handicapped Workers</u>

13.2.1 The CONSULTANT will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The CONSULTANT agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

Article 14 Conflict of Interest

14.1 The CONSULTANT agrees that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The CONSULTANT further agrees that in the performance of this Agreement, no person having any such interest shall be employed.

14.2 No portion of the funds received by the CONSULTANT under this Agreement shall be used for political activity or to further the election or defeat of any candidate for public office.

Article 15 Key Personnel

15.1 The personnel specified in 15.2 below are considered to be essential to Services being performed hereunder. Prior to diverting any of the specified individuals to other projects, or reallocation of tasks and hours of Services which are the responsibility of key personnel to other personnel, the CONSULTANT shall notify AUTHORITY reasonably in advance and shall submit justifications (including proposed substitutions) in sufficient detail to permit evaluation of the import on the project. Diversion or reallocation of key personnel shall be subject to written approval by AUTHORITY. AUTHORITY also reserves the right to approve proposed substitutions for key personnel. In the event that AUTHORITY and CONSULTANT cannot agree as to the substitute of key personnel, AUTHORITY shall be entitled to terminate this Agreement.

15.2 Key Personnel are:

David Tiberi, P.E. Structure Representative, Project Manager
Nori Corpuz, P.E., Resident Engineer

Article 16 Representations

CONSULTANT agrees with AUTHORITY that services supplied by CONSULTANT in performance of this Contract shall be supplied by personnel who are careful, skilled, experienced and competent in their respective trades or professions. CONSULTANT agrees that he is supplying professional services, findings, and/or recommendations in the performance of this Contract and agrees with AUTHORITY that the same shall conform to high professional and engineering and environmental principles and standards which are generally accepted in the State of California.

Article 17 Proprietary Rights/Confidentiality

17.1 If, as a part of the Contract, CONSULTANT is required to produce materials, documents data, or information ("Products"), then CONSULTANT, if requested by AUTHORITY, shall deliver to AUTHORITY the original of all such Products which shall become the property of AUTHORITY.

17.2 All materials, documents, data or information obtained from AUTHORITY's data files or any AUTHORITY medium furnished to CONSULTANT in the performance of this Contract will at all times remain the property of AUTHORITY. Such data or information may not be used or copied for direct or indirect use outside of this Project by CONSULTANT without the express written consent of AUTHORITY.

17.3 Except as reasonably necessary for the performance of Services, CONSULTANT and its employees and agents shall hold in confidence the materials and information referred to in this Article 17, PROPRIETARY RIGHTS/CONFIDENTIALITY, which are produced by CONSULTANT for AUTHORITY in the performance and completion of CONSULTANT'S Services under the Contract, until released in writing by AUTHORITY, except to the extent such materials and information become a part of public domain information through no fault of CONSULTANT, or its employees or agents.

17.4 CONSULTANT shall not use AUTHORITY'S name or photographs of the Project in any professional publication, magazine, trade paper, newspaper, seminar or other medium without first receiving the express written consent of AUTHORITY.

17.5 All press releases relating to the Project or this Contract, including graphic display information to be published in newspapers, magazines, and other publications, are to be made only by AUTHORITY unless otherwise agreed to by CONSULTANT and AUTHORITY.

17.6 CONSULTANT agrees that it, and its employees, agents, and subcontractors will hold confidential and not divulge to third parties without the prior written consent of AUTHORITY, any information obtained by CONSULTANT from or through AUTHORITY in connection with CONSULTANT's performance of this Contract, unless (a) the information was known to CONSULTANT prior to obtaining same from AUTHORITY pursuant to a prior contract; or (b) the information was at the time of disclosure to CONSULTANT, or thereafter becomes part of the public domain, but not as a result of the fault or an unauthorized disclosure of CONSULTANT or its employees, agents, or subcontractors, or (c) the information was obtained by CONSULTANT from a third party who did not

receive the same, directly or indirectly, from AUTHORITY and who had, to CONSULTANT'S knowledge and belief, the right to disclose the same.

Article 18 Terminations

18.1 Termination for Convenience. AUTHORITY shall have the right at any time, with or without cause, to terminate further performance of Services by written notice to CONSULTANT specifying the date of termination. On the date of such termination stated in said notice, CONSULTANT shall discontinue performance of Services and shall preserve work in progress and completed work ("Work"), pending AUTHORITY'S instruction, and shall turn over such Work in accordance with AUTHORITY's instructions.

18.1.1 CONSULTANT shall deliver to AUTHORITY, in accordance with AUTHORITY'S instructions, all Products prepared by CONSULTANT or its subcontracts or furnished to CONSULTANT by AUTHORITY. Upon such delivery, CONSULTANT may then invoice AUTHORITY for payment in accordance with the terms hereof.

18.1.2 If CONSULTANT has fully and completely performed all obligations under this Contract up to the date of termination, CONSULTANT shall be entitled to receive from AUTHORITY as complete and full settlement for such termination a pro rata share of the contract cost and a pro rata share of any fixed fee, for such Services satisfactorily executed to the date of termination.

18.1.3 CONSULTANT shall be entitled to receive the actual cost incurred by CONSULTANT to return CONSULTANT's field tools and equipment, if any, to it or its suppliers' premises, or to turn over Work in progress and Products in accordance with AUTHORITY's instructions plus the actual cost necessarily incurred in effecting the termination.

18.2 Termination for Cause. In the event CONSULTANT shall file a petition in bankruptcy, or shall make a general assignment for the benefit of its creditors, or if a petition in bankruptcy shall be filed against CONSULTANT or a receiver shall be appointed on account of its solvency, or if CONSULTANT shall default in the performance of any express obligation to be performed by it under this Contract and shall fail to immediately correct (or if immediate correction is not possible, shall fail to commence and diligently continue action to correct) such default within ten (10) calendar days following written notice thereof, AUTHORITY may, without prejudice to any other rights or remedies AUTHORITY may have, (a) hold in abeyance further payments to CONSULTANT; (b) stop any services of CONSULTANT or its

subcontractors related to such failure until such failure is remedied; and/or (c) terminate this Contract by written notice to CONSULTANT specifying the date of termination. In the event of such termination by AUTHORITY, AUTHORITY may take possession of the Products and finish Services by whatever method AUTHORITY may deem expedient. A waiver by AUTHORITY of one default of CONSULTANT shall not be considered to be a waiver of any subsequent default of CONSULTANT, nor be deemed to waive, amend, or modify any term of this Contract.

18.2.1 In the event of termination CONSULTANT shall deliver to AUTHORITY all finished and unfinished Products prepared by CONSULTANT or its subcontractors or furnished to CONSULTANT by AUTHORITY.

18.3 All claims for compensation or reimbursement of costs under any of the foregoing provisions shall be supported by documentation submitted to AUTHORITY, satisfactory in form and content to AUTHORITY and verified by AUTHORITY. In no event shall CONSULTANT be entitled to any prospective profits or any damages because of such termination.

Article 19 Stop Work Orders

Upon failure of CONSULTANT or its subcontractors to comply with any of the requirements of this Contract, AUTHORITY shall have the authority to stop any Services of CONSULTANT or its subcontractors affected by such failure until such failure is remedied or to terminate this Contract in accordance with Article 18, Termination.

Article 20 Claims

AUTHORITY shall not be bound to any adjustments in the Contract amount or scheduled time for CONSULTANT's claim unless expressly agreed to by AUTHORITY in writing and any such adjustments in the Contract amount so agreed to in writing shall be paid to CONSULTANT by AUTHORITY. No claim hereunder by CONSULTANT shall be allowed if asserted after final payments under this Contract.

Article 21 Insurance

In order to accomplish the indemnification herein provided for, but without limiting the indemnification, CONSULTANT shall secure and maintain throughout the term of the contract the following types of insurance with limits as shown:

21.1 Professional Liability Insurance coverage in an amount not less than $1,000,000, per claim and $2,000,000 in the aggregate. CONSULTANT shall

secure and maintain this insurance or "tail" coverage provided throughout the term of this contract and for a minimum of three (3) years after contract completion.

21.2 Workers' Compensation Insurance or state-approved self-insurance program in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employers Liability with $250,000 limits, covering all persons providing services on behalf of CONSULTANT and all risks to such persons under this Agreement.

21.3 Comprehensive General Liability Insurance or Commercial General Liability Insurance, including coverage for Premises and Operations, Contractual Liability, Personal Injury Liability, Broad-Form Property Damage and Independent Contractors' Liability, in an amount of not less than $1,000,000 per occurrence, combined single limit, and $3,000,000 in the aggregate written on an occurrence form.

For products and completed operations a $2,000,000 aggregate shall be provided.

21.4 Comprehensive Automobile Liability Coverage, including owned, non-owned and hired automobiles, in an amount of not less than $1,000,000 per occurrence, combined single limit, and in the aggregate written on an occurrence form.

21.5 Proof of Coverage. CONSULTANT shall immediately furnish certificates of insurance to AUTHORITY evidencing the insurance coverage required above, prior to the commencement of performance of services hereunder, and such certificates shall include San Bernardino Associated Governments/San Bernardino County Transportation Authority and Parsons Transportation Group (project administration consultant) as additional insured on Comprehensive General Liability Insurance or Commercial General Liability Insurance and auto insurance. The certificates shall provide that such insurance shall not be terminated without thirty (30) days written notice to AUTHORITY, and CONSULTANT shall maintain such insurance from the time CONSULTANT commences performance of services hereunder until the completion of such Services.

21.6 Additional Insured. All policies, except for Workers'' Compensation and Professional Liability policies, shall contain endorsements naming AUTHORITY and its officers, employees, agents, and volunteers as additional insureds with respect to liabilities arising out to the performance of Services hereunder. The additional insured endorsements shall not limit the scope of coverage for AUTHORITY to vicarious liability but shall allow coverage for AUTHORITY to the full extent provided by the policy.

21.7 Waiver of Subrogation Rights. The CONSULTANT shall require the carriers of required coverages to waive all rights of subrogation against AUTHORITY, its officers, employees, agents, volunteers, contractors, and subcontractors. All general auto liability insurance coverage provided shall not prohibit CONSULTANT or CONSULTANT'S employees or agents from waiving the right of subrogation prior to a loss or claim. CONSULTANT hereby waives all rights of subrogation against AUTHORITY.

21.8 All policies required herein are to be primary and non-contributory with any insurance carried or administered by AUTHORITY.

21.9 Insurance shall be written by insurers authorized to do business in the State of California and with a minimum "Best" Insurance Guide rating of "A-VII".

21.10 The AUTHORITY'S contract with its general contractor for each project is to require such contractor to obtain a Builder's Risk or Course of Construction Insurance, insuring on an "All-Risks" basis with a limit of not less than the full insurable replacement cost of the project subject to deductible amounts as selected by Authority, and covering the project and all materials and equipment to be incorporated therein, including property in transit or elsewhere and insuring the interests of AUTHORITY, CONSULTANT and its related entities, contractors and subcontractors of all tiers. The construction contract shall require that such insurance be primary, and shall include coverage for physical damage resulting from the Services and shall include an insurer's waiver of subrogation or right of recourse in favor of each party insured hereunder. Furthermore, the construction contract shall require that such insurance shall remain in effect until the applicable project is completed and accepted by the AUTHORITY. The CONSULTANT, in its role as Project Manager, shall ensure that the requirements of this section are met.

Article 22 Indemnity

CONSULTANT agrees to indemnify, hold harmless, and defend with council approved by AUTHORITY, AUTHORITY and their officers, employees (past and present), agents, and representatives from and against:

22.1 Any claim, cause of action, liability, loss, cost or expense arising from infringement or improper appropriation or use by AUTHORITY of trade secrets, proprietary information, know-how, copyright rights or inventions, arising out of the use of methods, processes, designs, information, or other items furnished or communicated to AUTHORITY by CONSULTANT in connection with performance of Services; and

22.2 Any claim, cause of action, liability, loss, cost or expense, on account of injury to or death of persons or damage to or loss of property which arises out of or is alleged to arise out of the negligence or wrongful acts of CONSULTANT or its subcontractors, employees, or agents, in the performance of Services, and includes any and all expenses, including attorneys' fees, incurred by AUTHORITY for legal action to enforce CONSULTANT'S indemnification obligations hereunder.

Article 23 Damages due to Errors and Omissions

23.1 Architect-Engineer Consultants shall be responsible for the professional quality, technical accuracy, and coordination of all services required under this Agreement. A CONSULTANT may be liable for AUTHORITY costs resulting from errors or deficiencies in designs furnished under its Agreement.

23.2 When a modification to a construction contract is required because of an error or deficiency in the services provided under this Agreement, the contracting officer (with the advice of technical personnel and legal counsel) shall consider the extent to which the CONSULTANT may be reasonably liable.

23.3 AUTHORITY'S contracting officer shall enforce the liability and collect the amount due, if the recoverable cost will exceed the administrative cost involved or is otherwise in the AUTHORITY'S interest. The contracting officer shall include in the Agreement file a written statement of the reasons for the decision to recover or not recover the costs from the CONSULTANT.

Article 24 Ownership of Drawings and Data

All drawings, specifications reports and other data developed by CONSULTANT under this agreement shall become the property of AUTHORITY when prepared, whether delivered to AUTHORITY or not.

Article 25 Subcontracts

25.1 CONSULTANT shall not subcontract performance of all or any portion of Services under this Contract, excepting subcontractors listed in the CONSULTANT'S proposal, without first notifying AUTHORITY of the intended subcontracting and obtaining AUTHORITY'S approval in writing of the subcontracting and the subcontractor. The definition of subcontractor and the requirements for subcontractors hereunder shall include all lower-tier subcontracts.

25.2 CONSULTANT agrees that any and all subcontractors of CONSULTANT will comply with the terms of this Contract applicable to the portion of Services performed by them. If requested by AUTHORITY, CONSULTANT shall furnish AUTHORITY a copy of the proposed subcontract for AUTHORITY'S approval of the terms and conditions thereof and shall not execute such subcontract until AUTHORITY has approved such terms and conditions. AUTHORITY approval shall not be unreasonably withheld.

25.3 Approval by AUTHORITY of any services to be subcontracted and the subcontractor to perform said Services will not relieve CONSULTANT of any responsibility or liability in regard to the acceptable and complete performance of said Services.

25.4 Any substitution of subcontractors must be approved in writing by AUTHORITY'S Contract Manager.

Article 26 Inspection and Access

AUTHORITY shall at all times have access during normal business hours to CONSULTANT's operations and products wherever they are in preparation or progress, and CONSULTANT shall provide sufficient, safe, and proper facilities for such access and inspection thereof. Inspection or lack of inspection by AUTHORITY shall not be deemed to be a waiver of any of their rights to require CONSULTANT to comply with the Contract or to subsequently reject unsatisfactory services or products.

Article 27 Independent Contractor

CONSULTANT is and shall be at all times an independent contractor. Accordingly, all Services provided by CONSULTANT shall be done and performed by CONSULTANT under the sole supervision, direction and control of CONSULTANT. AUTHORITY shall rely on CONSULTANT for results only, and shall have no right at any time to direct or supervise CONSULTANT or CONSULTANT's employees in the performance of Services or as to the manner, means and methods by which Services are performed. All workers furnished by CONSULTANT pursuant to this Contract, and all representatives of CONSULTANT, shall be and remain the employees or agents of CONSULTANT or of CONSULTANT's subcontractor(s) at all times, and shall not at any time or for any purpose whatsoever be considered employees or agents of AUTHORITY.

Article 28 Precedence

28.1 The Contract documents consist of these General Terms and Conditions and Attachment "A", Scope of Services, Attachment"B", Billing Rate Schedule, CONSULTANT's Statement of Qualifications and AUTHORITY's Request

for Qualifications are incorporated herein by reference.

28.2 The following order of precedence shall apply:

28.2.1 This Contract, its General Terms and Conditions, and Attachments
28.2.2 CONSULTANT's Statement of Qualifications
28.2.3 AUTHORITY's Request for Qualifications

28.3 In the event of an express conflict between the documents listed in Article 28.2, or between any other documents which are a part of the Contract, CONSULTANT shall notify AUTHORITY immediately and shall comply with AUTHORITY's resolution of the conflict.

Article 29 Communications and Notices

29.1 Any and all notices permitted or required to be given hereunder shall be deemed duly given (a) upon actual delivery, if delivery is personally made; or (b) upon delivery into the United States Mail if delivery is by postage paid certified mail (return receipt requested), fax or private courier. Each such notice shall be sent to the respective party at the address indicated below or to any other address as the respective parties may designate from time to time by a notice given in accordance with this Article. A change in address may be made by notifying the other party in writing.

For CONSULTANT:

Name: Athalye Consulting Engineering Services, Inc.
Address: 3200 Guasti Road, Suite 100
Ontario, CA 91761
Attn: David Tiberi, P.E.
Phone: (909)456-1460
Fax: (909)456-1461

For AUTHORITY:

Name: San Bernardino Associated Governments
Address: 1170 W. Third Street, 2nd Floor
San Bernardino, California 92410
Attn: Mr. Garry Cohoe
Phone: (909) 884-8276
Fax: (909) 885-4407

28.2 All communications pursuant to or in connection with this Contract shall be marked with AUTHORITY's contract and job numbers.

Article 30 Disputes

30.1 In the event any dispute arises between the parties hereto under or in connection with this Contact (including but not limited to disputes over payments, reimbursements, costs, expenses, services to be performed, Scope of Services and/or time of performance), the dispute shall be decided by the Contract Manager of AUTHORITY or his duly authorized representative within thirty (30) calendar days after notice thereof in writing which shall include a particular statement of the grounds of the dispute. If CONSULTANT does not agree with the decision, then CONSULTANT shall have thirty (30) calendar days after receipt of the decision in which to file a written appeal thereto with the Executive Director of AUTHORITY. If the Executive Director fails to resolve the dispute in a manner acceptable to CONSULTANT, then such appeal shall be decided by a court of competent jurisdiction.

30.2 During resolution of the dispute, CONSULTANT shall proceed with performance of this Contract with due diligence.

Article 31 Gratuities

CONSULTANT, its employees, agents, or representatives shall not offer or give to an officer, official, or employee of AUTHORITY, gifts, entertainment, payments, loans, or other gratuities to influence the award of a contract or obtain favorable treatment under a contract.

Article 32 Review and Acceptance

All Services performed by CONSULTANT shall be subject to periodic review and approval by the representatives of AUTHORITY at any and all places where such performance may be carried on. Failure of AUTHORITY to make such review, or to discover defective Work, shall not prejudice the rights of AUTHORITY at the time of final acceptance. All Services performed by CONSULTANT shall be subject to periodic and final review and acceptance by AUTHORITY upon completion of all Services.

Article 33 Safety

CONSULTANT shall comply strictly with all local, municipal, state, and federal safety and health laws, orders and regulations applicable to CONSULTANT'S operations in the performance of Services hereunder.

Article 34 Assignment

CONSULTANT shall not assign this Contract wholly or in Part, voluntarily, by operation of law, or otherwise without first obtaining the written consent of AUTHORITY. Subject to the foregoing, the provisions of this Contract shall extend to the benefit of and be binding upon the successors and assigns of the parties hereto.

Article 35 Amendments

This Contract may only be changed by an amendment duly executed by CONSULTANT and AUTHORITY except, that changes to the Contract to implement administrative changes such as approved changes in key personnel may be made by administrative amendment signed by CONSULTANT and AUTHORITY's Contracts Manager or other duly authorized representative.

Article 36 Governing Law and Venue

This Contract shall be subject to the law and jurisdiction of the State of California. The parties acknowledge and agree that this agreement was entered into and intended to be performed in whole or substantial part in San Bernardino County, California. The parties agree that the venue for any action or claim brought by any party to this agreement will be the Central District of San Bernardino County. Each party hereby waives any law or rule of court which would allow them to request or demand a change of venue. If any action or claim concerning this agreement is brought by any third party, the parties hereto agree to use their best efforts to obtain a change of venue to the Central District of San Bernardino County.

Article 37 Prevailing Wages

The CONSULTANT is alerted to the requirements of California Labor Code Section 1770 et seq. and agrees to defend, indemnify, and hold harmless AUTHORITY and its officers, employees, consultant, and agents from any claim or liability including, without limitation, attorney's fees, arising from any failure or alleged failure to comply with the California Labor Code Section 1770 et seq.

Article 38 Contingent Fee

The CONSULTANT warrants, by execution of this Contract, that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a Commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the CONSULTANT for the purpose of securing business. For breach or violation of this warranty, AUTHORITY has the right to annul this Contract without liability, pay only for the value of Services actually

performed, or in its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

Article 39 Location of Performance
Not used.

Article 40 Entire Document

40.1 This Contract and its attachments constitute the sole and only agreement governing Services and supersedes any prior understandings, written or oral, between the parties respecting the within subject matter. All previous proposals, offers, and other communications, written or oral, relative to this Contract, are superseded except to the extent that they have been incorporated into this Contract.

40.2 No agent, employee or representative of AUTHORITY has any authority to bind AUTHORITY to any affirmation, representation or warranty outside of, or in conflict with, the stated terms of this Contract, and CONSULTANT hereby stipulates that it has not relied, and will not rely, on same.

40.3 As this Contract was jointly prepared by both parties, the language in all parts of this Contract will be construed, in all cases, according to its fair meaning, and not for or against either party.

Article 41 Attorney's Fees

If any legal action is instituted to enforce or declare any party's rights hereunder, each party, including the prevailing party, must bear its own costs and attorneys' fees. This paragraph shall not apply to those costs and attorneys' fees directly arising from any third party legal action against a party hereto and payable under Article 22, Indemnity.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the day and year below written, but effective as of the day and year first set forth above.

ATHALYE Consulting Engineering Services, Inc.

By: _____
Ashok Athalye
President, ATHALYE Engineering Services, Inc.

Date: _____

San Bernardino Associated Governments

By: _____
Paul M. Eaton
President, AUTHORITY Board of Directors

Date: _____

APPROVED AS TO FORM:

By: _____
Jean-Rene Basley
AUTHORITY Counsel

ATTACHMENT "A"

Scope of Services

By and between

San Bernardino Associated Governments/
San Bernardino County Transportation Authority

And

Athalye Consulting Engineering Services, Inc.

To

Provide Construction Management, Material Testing and Construction Surveying Services

For

I-10Westbound Widening Project

Cities of Redlands and Yucaipa

Contract No. 10019

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A. DESCRIPTION OF SERVICES

The San Bernardino Associated Governments (SANBAG) will utilize the services of CONSULTANT to support the construction activities for the Interstate 10 Westbound Widening Project, which is anticipated to go out to bid in late 2009. CONSULTANT will provide construction management, materials testing and construction surveying for the project. A description of the project is given below.

Interstate 10 Westbound widening project

The I-10 Westbound Widening Project proposes to add a general purpose lane to westbound I-10 from Live Oak Canyon Road in the City of Yucaipa to Ford Street in the City of Redlands. The major project features include pavement widening, retaining wall construction, local street improvements, grading, drainage modifications, signing and striping and traffic handling. SANBAG estimates that construction activities for this project will last approximately 20 months.

CONSULTANT shall provide qualified construction management and inspection, materials testing and construction surveying personnel to perform a wide variety of construction management, support and contract administration duties as outlined in this Scope of Services for the Project.

The SANBAG Contract Manager for this contract will be:

Mr. Garry Cohoe
Director of Freeway Construction

SANBAG has selected Parsons as Program Manager for the Measure I Valley Major Projects. As part of the overall SANBAG/Parsons staff, SANBAG has also designated a Construction Manager to coordinate all construction activities. The CONSULTANT shall report to and receive direction from SANBAG through the Contract Manager, or his designees. The SANBAG Construction Manager is responsible for coordination of all SANBAG construction activities and for coordinating the efforts of the total construction team. The SANBAG Construction Manager will be the main contact and primary source of information between SANBAG, cities, outside agencies, supporting consultants and the public for the construction projects.

B. PERFORMANCE REQUIREMENTS

Construction Management: CONSULTANT shall furnish a Project Manager to coordinate CONSULTANT operations with SANBAG. The Project Manager shall be responsible for all matters related to CONSULTANT personnel and operations. The Project Manager may also serve as the Resident Engineer. The Resident Engineer shall be assigned to direct and coordinate construction activities under this contract. Other Assistant Resident Engineers may be assigned to each specific project responsibilities as needed. The Resident Engineer shall be a Civil Engineer registered in the State of California and shall be in responsible charge of construction management and construction activity within the Project.

The number of CONSULTANT personnel assigned to the project will vary throughout the duration of the contract. CONSULTANT personnel will be assigned, in varying levels of responsibility, as needed by the CONSULTANT to meet the project schedule, project requirements, and construction activities.

Resumes of personnel must be submitted to SANBAG for review and approval prior to assignment to the Project. SANBAG and CONSULTANT will jointly determine the quality and quantity of services that are required by CONSULTANT personnel. Personnel selected for assignment by CONSULTANT shall be made available for personal interviews prior to acceptance by SANBAG. If, in the opinion of SANBAG, an individual lacks adequate experience, the individual may be rejected or may be accepted on a trial basis until such time the individual's ability to perform the required services has been demonstrated. If, at any time, the performance of CONSULTANT personnel is unsatisfactory to SANBAG, SANBAG may release him/her by written notice and may request another qualified person be assigned.

If CONSULTANT personnel are on leave of absence, the Project Manager shall provide approved, equally qualified replacement personnel until the assigned personnel returns to the Project.

The typical workday includes all hours worked by the construction Contractor. If necessary, overtime for CONSULTANT personnel may be required. The construction Contractor's operations may be restricted to specific hours during the week, which shall become the normal workday for CONSULTANT personnel. The Project Manager, with concurrence from SANBAG, shall have the authority to increase, decrease, or eliminate CONSULTANT personnel work hours dependent on the schedule and requirements of the construction Contractor. All overtime required by CONSULTANT personnel shall be approved and authorized by SANBAG prior to each occurrence.

CONSULTANT personnel shall be knowledgeable of and comply with all applicable local, state, and federal regulations. CONSULTANT personnel shall cooperate and consult with SANBAG, State, and City officials during the course of the Project. CONSULTANT personnel shall perform duties as may be required to assure that construction is being performed in accordance with the Project plans and specifications. CONSULTANT personnel shall keep accurate and timely records and document all work performed by the Contractor and CONSULTANT.

CONSULTANT shall monitor for Contractor's compliance with the labor standards provisions of the projects and the related wage determination decisions of the Secretary of Labor.

CONSULTANT personnel shall assist SANBAG and local agencies in obtaining compliance with the safety and accident prevention provisions of the projects. Local agencies will retain jurisdictional control for traffic control.

All services required herein shall be performed in accordance with California Department of Transportation guidelines, regulations, policies, procedures, manuals, and standards, except as noted in the special provisions.

Materials Testing: The number of field testing personnel assigned to the project will vary throughout the duration of the construction contract. CONSULTANT certified materials testing personnel will be assigned as needed by the Resident Engineer to meet the required numbers and frequencies of testing based on schedule of the construction contractor.

Materials Testing Services will be provided on an on-call basis. The duration of assignments could vary from a minimum of a few hours to the full term of the project. CONSULTANT personnel will be available within one (1) day of written notification by SANBAG.

It is the intent of SANBAG to maintain a consistency of material testing quality throughout each phase of each project. CONSULTANT is therefore encouraged to provide, where ever and whenever possible, the same field personnel for the duration of construction of each project.

On days when work is not performed by the construction contractor, such as rainy or unsuitable weather days, CONSULTANT will not provide services unless authorized by the SANBAG Construction Manager.

Resumes of materials testing personnel must be submitted to SANBAG for review and approval prior to assignment to the Project. If, at any time, the level of performance of any testing personnel is below expectations, SANBAG may release that field person and request that another be assigned as needed.

If a member of CONSULTANT's materials testing personnel is on a leave of absence, CONSULTANT's project manager will provide an equally qualified replacement employee until the original member returns to work. The replacement employee will meet all the requirements of a permanently assigned employee.

All CONSULTANT personnel will be knowledgeable of, and comply with, all applicable local, state, and federal regulations. All personnel shall cooperate and consult with SANBAG during the course of the contract; and perform other duties as may be required to assure that the construction is being performed in accordance with the project plans and specifications. CONSULTANT's personnel will keep records and document the work as directed by the Resident Engineer.

All services required herein will be performed in accordance with Caltrans regulations, policies, procedures, manuals, and standards.

Construction Surveying: CONSULTANT will furnish surveying crew(s) to perform construction surveys for the project. The number of survey crew(s) assigned to the project will vary throughout the duration of the construction contract. CONSULTANT personnel will be assigned as needed by the Resident Engineer to meet the schedule of the construction contractor.

Construction surveying services will be provided on an on-call basis. It is the intent of SANBAG to maintain a consistency of construction survey quality throughout each phase of each project. Therefore, CONSULTANT is encouraged to provide the same field personnel for the duration of construction. It is important that the Field Party Chief(s) assigned to a project be completely familiar with the survey requirements and the assignments for the project.

On days when work is not performed by the construction contractor, such as rainy or unsuitable weather days, CONSULTANT will not provide services unless authorized by the Resident Engineer.

Construction surveying will not be performed when conditions such as weather, traffic, and other factors prevent safe and efficient operation.

Resumes of CONSULTANT personnel and certification must be submitted to SANBAG for review. CONSULTANT personnel must be approved by SANBAG prior to assignment to a project. SANBAG and CONSULTANT will have the responsibility of determining the quality and quantity of work performed by CONSULTANT personnel. If, at any time, the level of performance of any

CONSULTANT survey personnel is below expectations, SANBAG may release the survey crew member and request that another be assigned.

If CONSULTANT's survey crew personnel assigned to the project is on a leave of absence, the Project Manager will provide an equally qualified replacement(s) until the original employee(s) returns to work. The replacement(s) will be required to meet all the requirements of the permanently assigned employee(s).

CONSULTANT personnel will:

- Be knowledgeable of, and comply with all, applicable local, Caltrans, state, and federal regulations.
- Cooperate and consult with SANBAG officials during the course of the contract.
- Perform duties as may be required to assure construction is performed in accordance with the project plans and specifications.
- Keep records and document work as directed by the Resident Engineer.

All services required herein will be performed in accordance with Caltrans regulations, policies, procedures, manuals, and standards.

C. DUTIES AND RESPONSIBILITIES

1. Pre-construction Services

a. Schedule

CONSULTANT shall review the proposed Project schedule, compare it to the Project plans and specifications, and provide recommendations to SANBAG, as appropriate, to ensure efficiency of Contractor and CONSULTANT operations and safe and expeditious completion of the Project.

b. Budget

CONSULTANT shall review the Project estimate and provide recommendations to SANBAG, as appropriate, to ensure efficient utilization of funds and control of project costs.

2. Bid Process

a. Bid Documents

CONSULTANT shall assist SANBAG, as requested, with the following tasks:

1. Review of bid documents
2. Preparation of bid tabulations

b. Pre-construction Meetings

CONSULTANT shall assist SANBAG in conducting one, or more, pre-construction meetings with all involved parties on the Project. Parties may include, but are not limited to, the Contractor, the design engineer, County, cities, utility companies, and developers.

c. Contract Award

CONSULTANT shall assist SANBAG, as requested, with the following tasks:

1. Review of bid for completeness and responsiveness

2. Perform bid analysis

3. Development of contractor payment schedules, and other procedural items.

4. Checking Contractor references, licenses, insurance, and sureties.

5. Coordination with prospective Contractor for award of construction contract(s).

All processes will be consistent with procedures outlined by the California Department of Transportation for Special Funded Programs and Local Assistance Procedure Manuals.

3. Project Administration

a. CONSULTANT shall administer project construction contracts using Caltrans Construction Manual as a guideline.

b. CONSULTANT shall conduct regular project coordination meetings with Contractor, SANBAG, local agencies, and design engineer, as appropriate.

c. CONSULTANT shall prepare Contractor progress payments and maintain payment records and supporting documentation. All progress payments shall be reviewed by SANBAG for approval.

d. CONSULTANT shall provide reports as needed to comply with specific funding requirements.

e. CONSULTANT shall establish and maintain Project records in accordance with the Caltrans Construction Manual. Project record keeping shall include, but are not limited to, correspondence, memoranda, contract documents, change orders, claims, SANBAG and engineer directives, meeting minutes, shop drawings, supplementary drawings, and requests for payment. CONSULTANT shall maintain a record of the names, addresses, and telephone and fax numbers of the Contractors, subcontractors, and principal material suppliers.

f. CONSULTANT shall establish and maintain a filing system for each Project using the Caltrans Construction Manual as a guideline.

g. CONSULTANT shall monitor Contractors' construction schedules on an ongoing basis and alert SANBAG to conditions that may lead to delays in completion of the Project.

h. CONSULTANT shall prepare and submit a monthly Activity Summary Report for the Project. The activity report shall include status of SWPPP issues, RFIs, contract change orders, and notice of potential claims; construction activities completed, ongoing, and upcoming; status of project budget and schedule, and other highlights and critical issues

i. CONSULTANT shall review and ensure compliance with environmental requirements.

j. CONSULTANT shall participate in partnering sessions with the Contractor, SANBAG, and Local Agencies, as required.

k. CONSULTANT shall ensure that the Project meets all provisions of the Caltrans Quality Assurance Program Manual.

l. CONSULTANT shall review Contractors' certified payroll records and ensure compliance with the requirements of the construction contract..

m. CONSULTANT shall ensure that the Project meets all provisions of the Storm Water Pollution Prevention Plan (SWPPP).

n. CONSULTANT shall assure that the Project meets all applicable regulations of the Air Quality Management District (AQMD).

o. CONSULTANT shall maintain redlined as-built plans on an ongoing basis throughout the duration of the project. Redlined plans shall show all changes made to the original contract plans, each change identified with the name of the approver, date of change approval , and CCO number, if applicable

4. Construction Coordination

a. CONSULTANT shall provide a minimum of one qualified Resident Engineer to effectivelymanage the Project.

b. CONSULTANT Resident Engineer shall act as a prime point of contact between Contractor, SANBAG, CONSULTANT's construction surveyor, CONSULTANT's materials inspector, and utility companies. CONSULTANT may, when requested by SANBAG, act as point of contact between design engineers, cities, and the public. CONSULTANT shall ensure coordination with property owners adjacent to project right-of-way to ensure timely communication regarding property-condition survey and construction activities and scheduling.

c. CONSULTANT shall maintain regular contact with SANBAG's Construction Manager.

d. CONSULTANT shall coordinate utility relocations with utility companies and their

designees, as well as the utility inspector.

e. CONSULTANT shall proactively review Project plans and special provisions for possible errors and deficiencies prior to construction of any specific element and report such findings to SANBAG. Should SANBAG determine that changes are necessary, CONSULTANT shall assistin implementation and processing of change orders in accordance with contract documents.

f. CONSULTANT shall proactively review Project plans and special provisions; monitor, coordinate, and track construction progress schedule and RFIs; and communicate with various agencies prior to construction of any specific elements to ensure the Project proceeds on schedule and according to the order of work in the plans and special provisions. CONSULTANT shall expedite work, as required, to maintain schedule in conjunction with the overall construction staging program.

g. CONSULTANT shall coordinate review of shop drawings and Requests for Information (RFI) with the Construction Manager. CONSULTANT shall log and track all submittals and requests.

h. CONSULTANT shall provide a qualified SWPPP coordinator who shall review contractor prepared Storm Water Pollution Prevention Plans (SWPPP) and coordinate approval with SANBAG. CONSULTANT shall cooperate with monitoring agency inspections and field reviews.

i. CONSULTANT shall coordinate the implementation of any changes with the Construction Manager and the design engineer.

j. CONSULTANT shall review and approve falsework and shoring plans.

k. CONSULTANT shall review and approve Traffic Control Plans and forward to SANBAG to get City/County approval, as necessary.

l. CONSULTANT shall coordinate all Project construction activities with other on-going projects within and adjacent to the Project limits.

5. Construction Inspection

a. CONSULTANT shall coordinate all required inspections necessary for the Project. CONSULTANT shall ensure that appropriate City and local agencies are notified and present as required throughout the Project. CONSULTANT shall notify SANBAG immediately regarding any directives, recommendations, notices, etc. received from agencies other than SANBAG.

b. CONSULTANT shall perform daily on-site observations of the progress and quality of construction to determine if the work being performed is in general conformance with the contract documents, all applicable laws, codes, and ordinances.

c. CONSULTANT shall exercise reasonable care and diligence to discover and promptly report to SANBAG any and all defects or deficiencies in the materials or

workmanship used in the Project.

d. CONSULTANT personnel assigned to the Project shall be thoroughly familiar with Caltrans Standard Specifications, Caltrans Standard Plans, Caltrans Erosion Control and Highway Planting requirements, and safety standards. CONSULTANT personnel shall have the ability to read and interpret construction plans and specifications. CONSULTANT personnel shall also have knowledge of State of California Construction Safety Orders (CalOSHA) and traffic control practices as specified in the Work Area Traffic Control Handbook (WATCH). In addition, CONSULTANT personnel shall be familiar with the construction requirements of Caltrans' Storm Water Pollution Prevention Program.

e. Assignments to be performed by CONSULTANT personnel shall include, but are not limited to, the following:

1. Paving and subgrade inspection, sub-surface & finish surface drainage inspection, structures and foundation inspection, signing and striping inspection, quantity calculations, checking grade and alignment, construction traffic control, soil amendments and plant material identification & quality control, hardscape inspection, trenching & irrigation inspection and duties that may be required to determine that construction of the Project is being performed in accordance with the contract documents.

2. Identifying actual and potential problems associated with the Project and recommending sound engineering solutions.

3. Identifying common plant diseases and/or pests together with their respective eradication techniques, directing of plant adaptability requirements along with proper planting & pruning techniques, and avoiding potential problems associated with the Project by recommending sound engineering solutions.

4. Perform basic sampling of construction materials in the field per California Test Method 105 and 125 by both the prime and subconsultant personnel.

5. Maintaining awareness of safety and health requirements. Monitoring Contractors' compliance with applicable regulations and construction contract provisions for the protection of the public and Project personnel.

6. Preparing complete and accurate daily reports, calculations, project records, payment quantity documents, reports, and correspondence related to Project activities.

7. Preparing construction sketches, drawings, and cross-sections, as necessary.

8. Assisting in the preparation of as-built plans.

9. Providing inspections for environmental compliance.

10. Maintaining awareness of water discharge requirements. Monitoring Contractors' compliance with applicable regulations and construction contract provisions.

11. Monitoring Contractors' compliance with applicable regulations required by AQMD.

12. Other duties as may be required or reasonably requested.

6. Project Support

a. Construction Surveys

CONSULTANT shall perform construction surveying services, field calculations, and home office calculations to support construction of the Project. CONSULTANT may be requested to review available survey data, construction plans, and right-of-way plans to confirm compatibility and to identify discrepancies prior to and during construction of proposed projects. The Resident Engineer will assign survey work to the CONSULTANT by issuing a "Request for Survey Services". Requests may include, but not be limited to, the following types of surveys and related services:

I. Construction Surveys

CONSULTANT shall assist the Resident Engineer in all phases of construction staking and calculations as needed.

a. Survey calculations and adjustments shall be performed with established and computed coordinates based on the California Coordinate System.

b. Cross-section data collection shall be performed by conventional and terrain line interpolation survey methods.

c. Survey data will include topography, cross-section, and other survey data in computer formats compatible with the Caltrans computer survey and design systems.

d. Prepare and maintain survey documents. Survey documents include survey field notes, maps, drawings, and other survey documents.

e. Perform construction staking, including but not limited to:

- Utility relocations
- Clearing limits
- Slope staking
- Storm drain, sanitary sewer, and irrigation systems
- Drainage structures
- Curbs, gutters, and sidewalk

- Horizontal and vertical control for structures and portions of structures (bents, abutments, wingwalls, etc.)
- Rough grade
- Finish grade

f. Monitor for settlement if required

g. Global Positioning Satellite (GPS) equipment shall be made available if required by SANBAG

II. Grid Grades

Grid grade data shall provide pavement elevations at the station line, the left edge of pavement, the right edge of pavement, and the right edge of travel way at 25 foot intervals for travel lanes.

III. Open Ended Traverses and Profile Data Sheets

Separate open-ended traverse calculations and point maps shall depict plan data for station lines, utility lines, wall layout lines, and abutment/bent alignment. Specific information to be shown will be part numbers, coordinates, bearings, and curve data.

Profile data sheets are required for all profiles shown on the plans identifying vertical design elements such as grade, point of intersection (PI) location, beginning of vertical curve (BVC) location, end of vertical curve (EVC) location, and curve length.

IV. Three Line Profiles

Separate profile plots are required for theleft edge of pavement, the right edge of pavement, and the edge of shoulder for all travel lanes.

V. Right of Way Lines

Existing right of way and easements will be established from Local Agency's record information and existing monumentation.

- Right of way monumentation shall be renewed and restored in accordance with Section 10.4 of the Caltrans "Survey Manual" and the State of California Land Surveyor's Act.

- Corner records and records of surveys shall be prepared and filed in accordance with the applicable standards and the State of California Land Surveyor's Act and the California Subdivision Map Act.

- Perpetuate existing monumentation.

Includes restoring, renewing, referencing, and resetting existing boundary related monumentation. In addition, stake areas where construction disturbs the existing right of way, preparing and filing required maps and records.

New right of way and easements will be established from plans, right of way maps, utility drawings, and Local Agency record information, and existing monumentation.

- Right of Way Surveys

Includes research and preparation filing of required maps and records. In addition, locate and set monuments for right or way and easement lines, staking for right of way and easement fences.

- Final monumentation

Includes setting of centerline points of control upon completion of construction.

VI. Special Design – Data Surveys

Includes drainage, utility, and surveys required for special field studies.

VII. Control Survey

Includes project control surveys, aerial mapping control surveys, horizontal and vertical control surveys. In addition control surveys will include restoration, renewal, reference, relocation, and resetting of existing control monumentation. The CONSULTANT will be required to provide horizontal and vertical control at the end of each bridge.

VIII. Topographic Surveys

Topographic surveys will normally be compiled by ground survey methods only. CONSULTANT will provide all necessary Project related surveys and construction staking, including horizontal and vertical control, right of way, and easements. CONSULTANT shall coordinate all staking and verify accuracy. CONSULTANT shall ensure timely coordination of all staking requests from the Contractor.

b. Materials Testing and Geotechnical Services

CONSULTANT will provide experienced personnel, equipment, and facilities to perform various construction materials sampling and testing. Laboratory and field materials testing will be used to ensure that structure and roadway construction work conforms to California State Department of Transportation (Caltrans) standards, specifications, and special provisions for material quality and workmanship.

All field and laboratory testing is to be performed in accordance with California Test Methods.

CONSULTANT will be responsible for the accuracy and completeness of all test data compilation and results.

c. Public Relations (As Needed)

CONSULTANT may provide some or all of the following Public Relation Services:

Promotion and coordination of a public (neighborhood) meeting in Fall 2009. The purpose of the meeting is to communicate the status of the project, answer specific project-related questions and to provide the meeting participants an opportunity to respond to the project.

Creation of a project facts sheet in both English and Spanish

Creation and dissemination of occasional traffic advisories (as needed).

Refinement and maintenance of the project database

Respond to public inquiries received via e-mail or by telephone

Update/maintain project web page

If necessary, create and disseminate an update on the project to residents and businesses

Create a presentation to be given to Yucaipa and Redlands City Councils and possibly other community/business groups in Yucaipa and Redlands

Coordination of a ground-breaking ceremony prior to construction and ribbon-cutting ceremony at completion of construction dates TBA.

d. Permits

CONSULTANT shall review the project for permit compliance and coordinate with SANBAG and the design engineer to ensure that necessary permits are obtained. CONSULTANT shall assist SANBAG in the coordination, timely processing and verification of approval for all permits. CONSULTANT shall maintain permits and permit documentation on site.

7. Cost and Schedule

a. CONSULTANT shall monitor and track the following:

1. Contract pay item quantities and payments
2. Contract change orders

3. Supplemental work items
4. Agency furnished materials
5. Contingency balance
6. Project budget

b. CONSULTANT shall review and monitor Contractor's schedule and inform SANBAG of any significant changes or deviations in the schedule.

c. CONSULTANT shall provide and maintain a Project staffing plan of field office personnel based on the Contractor submitted baseline schedule update. In cooperation with SANBAG, the staffing plan shall be periodically updated to reflect Project progress and needs.

8. Contract Change Orders and Claims

a. CONSULTANT shall receive and evaluate requests for changes and/or substitutions by the Contractor. Contract Change Orders submitted to SANBAG shall be accompanied by CONSULTANT recommendations. Where applicable, CONSULTANT shall convey proposed changes to design engineer, or other project consultants. If the requested changes are accepted, CONSULTANT shall negotiate and prepare appropriate Contract Change Orders.

b. CONSULTANT shall attempt to avoid all unnecessary Contract Change Orders. When a Contract Change Order is necessary, CONSULTANT shall consult with SANBAG prior to its preparation. Unless directed otherwise by SANBAG, the preferred method of payment for Contract Change Orders should be as follows

1. Agreed Price
2. Adjustment in compensation to a bid item
3. Time and materials or Force Account

CONSULTANT shall perform force account analysis to validate cost submitted by the Contractor for contract change orders with agreed unit price, lump sum price, and adjustment in components. Analysis shall be based on realistic production and resource needs to complete the work.

c. CONSULTANT shall attempt to identify all potential claims, track and monitor unresolved claims. The CONSULTANT shall implement appropriate claims avoidance processes where in the best interests of SANBAG as determined by SANBAG's Construction Manager.

d. CONSULTANT shall assist SANBAG, as requested, in the identification, resolution, and final disposition of claims filed by the Contractor or third parties against SANBAG or the Project.

9. Safety

In addition to the requirements specified elsewhere in this contract, the following shall also apply:

a. CONSULTANT shall implement and conduct a comprehensive safety program including regular tail-gate safety meetings for CONSULTANT personnel. CONSULTANT shall provide SANBAG with monthly status of safety reports.

b. CONSULTANT shall comply with State of California Construction Safety Orders and provisions of the Caltrans Construction Manual.

c. CONSULTANT shall provide appropriate safety training for all CONSULTANT field personnel.

d. CONSULTANT shall provide all necessary safety equipment as required for CONSULTANT personnel.

10. Project Close Out

a. CONSULTANT shall prepare a list of items to be completed and/or corrected by the Contractor for final completion of the Project.

b. CONSULTANT shall collect and furnish as-built information to the design engineer for preparation of as-built drawings including pre-stress drawings and pile logs, as applicable.

c. CONSULTANT shall review and verify completeness of as-built drawings.

d. CONSULTANT shall conduct a final walk-through with SANBAG, Local Agencies, Contractors, and design engineers.

e. CONSULTANT shall prepare final construction reports including the Project Completion Report.

f. CONSULTANT shall prepare and deliver to SANBAG all project files.

g. CONSULTANT shall assist SANBAG and Contractor in obtaining final release of all project permits.

D. <u>DELIVERABLES</u>

1. Inspector daily reports, extra work diaries and Resident Engineers' daily diaries.

2. Monthly Project Activity Summary Reports.

3. Monthly Contractor progress payments, back-up documentation, and Contractor payment records.

4. Contractor final payment documents, delivered to SANBAG no later than ten (10) working days after acceptance by SANBAG of the completed construction project.

5. Project Completion Report.

6. All project files, project reports, correspondence, memoranda, shop drawings, project logs, change order data, claims and claim reports, and Contractor payment records.

7. Certified payrolls and fringe benefit statements for all employees, CONSULTANT and Contractor, who are subject to the State and/or Federal prevailing wage rates.

8. All material test results will be provided in accordance with the applicable Standard Specifications and Special Provisions, and test methods. Failing tests will be immediately reported to the Resident Engineer or Structures Representative. All test results will be recorded on the appropriate forms. The test documents will be legible and show the identity of the tester where appropriate. A notebook containing all test results and reports will be maintained by CONSULTANT throughout the duration of the Project and delivered to SANBAG with the project files.

9. Unless otherwise specified in the survey request, the deliverables shall conform to the following:

   a. Survey points, lines, and monuments shall be established, marked, identified, and referenced as required by survey request and requirements herein.

   b. Survey notes, drawings, calculations, and other survey documents and information shall be completed as requiredby the survey request and the requirements herein.

   c. All original survey documents resulting from this contract, including original field notes, adjustment calculations, final results, and appropriate intermediatedocuments, shall be delivered to the Resident Engineer and shall become the property of SANBAG. A copy of all survey documents furnished by SANBAG shall be retained by CONSULTANT for future reference.

   When the survey is performed with a total station survey system, the original field notes shall be a hard copy in a readableformat of the data (observations) as originally collected and submitted by the survey party. The hard copy shall be signed by the Party Chief. If the Party Chief is not licensed, the person in "responsible charge" will be required to sign.

   d. Deliverables to the Resident Engineer shall follow the format specified below:
      - Horizontal Control
      - Alpha numeric hard copy point listing with adjusted California Coordinate System northing and eastings and the appropriate descriptions.
      - Vertical Control
      - Alpha numeric hard copy benchmark listing with adjusted elevations compatible with the design datum.
      - Topography
      - Alpha numeric hard copy listing, hard copy drawing, and computer aided drawing and design (CADD) digital drawing. The CADD drawing shall be compatible with the systems utilized by Caltrans.

   Data collection method used to collect cross-section data and the coding (feature description)

of terrain data for cross-sections shall conform to the survey request requirements. Deliverables shall depend on the data collection method as follows:

1. Conventional Cross– Sections (each cross– section):
For each cross - section and alpha numeric listing, a hard copy drawing, and a computer formatted file compatiblewith the systems utilized by Caltrans.

2. Terrain Line Interpolation Cross – Section Data (each terrain line interpolation survey):
Terrain line interpolation cross – sections shall include an alpha numeric listing, a hard copy plan view drawing of the terrain lines, and a computer input file. The computer input file shall be provided in a format compatible with the systems utilized by Caltrans

e. Data Collector Data
If specified in the survey request, the raw data from the data collector shall be provided in a format conforming to the survey request requirements

f. Other—As specified in the survey request.

E. <u>EQUIPMENT AND MATERIALS TO BE PROVIDED BY CONSULTANT</u>

1. CONSULTANT shall provide all necessary equipment including software, materials, supplies, miscellaneous tools, and safety equipment required for its personnel to perform the services accurately, efficiently, and safely. Only those items listed in Attachment B, CONSULTANT Cost Proposal, shall be reimbursed by SANBAG.

2. CONSULTANT personnel shall be provided with vehicles suitable for the location and nature of the work involved. Vehicles shall be equipped with flashing yellow lights, either permanently or temporarily affixed.

3. CONSULTANT personnel shall be provided with a mobile radio, cellular phone, or other means to assure full-time communication. If a radio system is to be used, CONSULTANT shall provide a base station at the field office.

4. CONSULTANT personnel shall be provided with all applicable standard plans, specifications, and other standards as appropriate (see item G below).

5. For Materials Testing, CONSULTANT and its staff will be fully equipped at all times to perform the services required, including but not limited to the following:

a. An on-site mobile laboratory or laboratory in close proximity to the project will be required. The type and location of the lab should be such that it can meet the needs of the project in an efficient, time effective manner. The laboratory is to be fully staffed, equipped, and supplied to conduct all required soils, materials, and concrete breaking tests in a timely manner.

b. CONSULTANT's personnel will be provided with radios, mobile phones, or other

means to assure full-time communication. CONSULTANT vehicles will have flashing lights, visible from the rear, with a driver control switch. Vans without side windows in the cargo area shall not be used. SANBAG furnished magnetic logos will be affixed to each side of the vehicle at all times the vehicle is being used for the work under this contract.

Each vehicle is to be fully contained with all necessary equipment and supplies necessary to perform the field sampling and tests required.

c. Field personnel will be provided with all necessary safety equipment to permit work to be performed safely and efficiently within operating highway and construction zone environments.

d. All equipment to be calibrated as per Section 3-10 and 3-11 of Caltrans' Quality Assurance Program Manual.

6. For construction surveying, CONSULTANT and staff shall have adequate equipment and supplies to complete the required survey work. Equipment and supplies shall, include, but not be limited to:

a. Survey vehicles:

Survey vehicles will be suitable to perform the required work in varying terrain and conditions encountered on the project. Vehicles shall be fully equipped with all necessary tools, instruments, supplies, and safety equipment required to perform the work accurately, efficiently, and safely. Vehicles shall be equipped with a flashing yellow beacon light.

b. Data Processing Systems:

Data processing systems shall include hardware and software to:

- Performing survey and staking calculations from the design plans and specifications;
- Reduce survey data collected with conventional and total station survey systems;
- Perform network adjustments for horizontal and vertical control surveys;
- Format survey data to be compatible with the Caltrans computer survey and data system.

c. Drafting equipment and supplies.

d. Digital calculators.

e. Hand tools as appropriate for the requested survey work.

f. Traffic cones (minimum 25). Traffic cones shall be 28 inches in height (minimum).

g. Traffic control devices as required to perform the requested survey work. Traffic control devices include signs, sign bases, flags, and hand held signs.

h. Leveling instruments and equipment:

- Self-leveling level. Precision: standard deviation in one mile of double run leveling 0.005 feet or less.
- Suitable level rods for the work to be performed.

i. Distance measuring instruments and equipment:
- Electronic distance measurer (EDM). Precision: standard deviation 3 mm plus 3 PPM, or less; Range: Minimum one mile under average atmospheric conditions.
- Prisms, sufficient to perform the required work.
- Tapes; steel, cloth.

j. Angle measuring instruments and equipment:
- Theodolite for non-control surveys; Precision: direct circle reading to three seconds, or equivalent, horizontal and vertical.
- Targets as required to perform the work.

k. When required for efficient survey operations, total station survey systems consisting of an electronic angle measuring instrument, EDM, and electronic data collector shall be provided. The angle measuring instruments and EDM shall conform to the requirements for the equipment previously listed.

l. Radio or cellular communications equipment for communication between field office and field crews.

m. Caltrans manuals, standards, forms, and other policies and procedures to be followed to perform the required work.

F. MATERIALS TO BE FURNISHED BY SANBAG

1. SANBAG will provide copies of all Project construction documents including plans, special provisions, reports, designer prepared resident engineer files, and contracts.

2. SANBAG will provide copies of all previously secured permits and Project authorizations.

3. SANBAG will provide office space, telephones, desks, chairs, computers, and appropriate office equipment.

4. Appropriate forms for recording test data in accordance with Caltrans practices and procedures outlined in the "Manual of Test".

5. Magnetic SANBAG logos to be affixed to CONSULTANT vehicles.

G. STANDARDS

All construction inspection, surveys, materials sampling and testing, and contract administration shall be in accordance with the Project bid documents, special provisions, plans, and current Caltrans Manuals including:

1. Construction Manual and its revisions
2. Bridge Construction Records and Procedures Manual
3. Quality Assurance Program Manual
4. Manual of Traffic Controls for Construction and Maintenance Work Zones
5. Caltrans Standard Specifications and Standard Plans
6. Caltrans Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual
7. Manual of Test (3 volumes)
8. Survey Manual
9. District 8 Standard Staking Procedures Manual

Work not covered by the manuals shall be performed in accordance with accepted professional standards.

Surveys performed by CONSULTANT shall conform to the requirements of the Land Surveyor's Act. In accordance with the Land Surveyor's Act, "responsible charge" for the work shall reside with the Licensed Land Surveyor or a pre-January 1, 1982, Registered Professional Civil Engineer in the State of California.

Unless otherwise specified in the survey request, control surveys shall conform to second order (modified) accuracy standards as specified in the Caltrans "Survey Manual".

Additional standards for specific survey work may be included in the applicable request for survey. Such standards supplement the standards specified herein. If additional standards conflict with the standards specified herein, the "Survey Request's" standard shall govern.

The Resident Engineer and SANBAG will decide all questions which may arise as to the quality or acceptability of deliverables furnished and work performed for this contract. Any CONSULTANT employee who does not perform adequately will be replaced if directed by the SANBAG Construction Manager.

H. AVAILABILITY AND WORK HOURS

The typical workday includes all hours worked by SANBAG's construction Contractor. The construction Contractor's operations may be restricted to specific hours during the week, which will

become the normal workday for CONSULTANT's personnel. On days when work is not performed by the construction contractor, such as rainy or unsuitable weather days, CONSULTANT services will not be provided unless authorized by the SANBAG Construction Manager.

Unless otherwise directed by SANBAG, the normal work week will consist of 40 hours. From time to time, overtime may be required. However, overtime will be worked only when approved in writing by SANBAG.

I. LIMITATIONS TO AUTHORITY

CONSULTANT does not have the authority to:

1. Authorize deviations from the contract documents.

2. Approve substitute materials or equipment; except as authorized in writing by SANBAG.

3. Conduct or participate in tests or third party inspections; except as authorized in writing by SANBAG.

4. Assume any of the responsibilities of the Contractors, Contractors' Superintendent, or subcontractors.

5. Exercise control over or be responsible for construction means, methods, techniques, sequences, procedures, or safety precautions.

6. Communicate directly with subcontractors or material suppliers without the prior consent of the Contractor.

7. Verbally authorize or approve change orders or extra work for the Project.

8. Offer or receive incentives, inducements, or other forms of enumeration to or from the Contractor to perform services or work outside the terms of any executed contracts for this Project.

J. THIRD PARTY RELATIONSHIPS

This Contract is intended to provide unique services for a specific project. In the development of the Project, SANBAG has worked closely with various professional consultants, agencies, and others in the preparation of the construction documents and other Project related materials. SANBAG, however, is solely responsible for and will be the sole point of contact for all contractual matters related to the Project. CONSULTANT shall take direction **only** from SANBAG and shall regularly inform **only** SANBAG of Project progress, outstanding issues, and all Project related matters.

During the course of the Project, CONSULTANT may find occasion to meet with City or County representatives, the design engineer, Project consultants, or other third parties who have assisted with the Project. These entities may, from time to time, offer suggestions and/or recommendations regarding the Project or elements of the Project. While SANBAG enjoys a close relationship with

and has considerable confidence in the capabilities of these other parties, CONSULTANT shall not act on any suggestions, solicited or unsolicited, without obtaining specific direction from SANBAG. All oral and written communication with outside agencies or consultants related to the project shall be directed only to SANBAG. Distribution of Project related communication and information shall be at the sole discretion of SANBAG representatives.

K. CONSTRUCTION SITE SAFETY

In addition to the requirements specified elsewhere in this contract, the following also will apply.

1. CONSULTANT will conform to the safety provisions of the Caltrans Construction Manual.

2. CONSULTANT's field personnel will wear white hard hats with proper suspension, orange vests with reflective tape, sleeved shirt, long pants, and leather boots with ankle support and rubber soled shoes at all times while working in the field.

3. CONSULTANT will provide appropriate safety training for all CONSULTANT's personnel, including work on and near highways.

4. All safety equipment will be provided by CONSULTANT.

L. BASIS FOR SURVEY AND MONUMENT STAKING

SANBAG will designate the existing horizontal and vertical control monuments that are the basis of CONSULTANT performed surveys. SANBAG will provide the California Coordinate System values and/or elevation values for these monuments. CONSULTANT shall adjust CONSULTANT performed surveys to be the designated control monuments and the values.

Monuments established by CONSULTANT shall be marked by CONSULTANT with furnished disks, plugs, tags. In addition, CONSULTANT shall identify CONSULTANT established monuments by tagging or stamping the monuments with the license or registration number of CONSULTANT'S surveyor who is in "responsible charge" of the work.

M. PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES

The quantity and qualifications of field personnel to be assigned will be determined by the scope of the Project and the degree of difficulty of required tasks to be performed. All personnel and personnel assignments shall be subject to approval by SANBAG. While some areas of responsibility may overlap, as a guideline, CONSULTANT personnel assigned to the project shall have the following minimum qualifications:

1. Project Manager

Minimum qualifications shall be as follows:

a. Six (6) years project management experience on similar construction projects.

b. Accessible to SANBAG at all times during normal working hours.

c. A thorough understanding of Caltrans construction practices and procedures. The Project Manager will assume the following functional responsibilities:

a. Review, monitor, train, and provide general direction for CONSULTANT personnel.

b. Assign personnel to projects on an as-needed basis.

c. Administer personal leave.

d. Prepare monthly reports for delivery to SANBAG.

2. Resident Engineer

Minimum qualifications shall be as follows:

a. Eight (8) years resident engineer experience on similar construction projects.

b. Licensed Professional Civil Engineer in the State of California.

c. Ability to work independently, make effective decisions concerning construction work in progress, and solve field problems.

d. Accessible to SANBAG at all times including weekends and holidays.

e. Thorough understanding of Caltrans field methods, practices, and construction office procedures.

The Resident Engineer will assume the following functional responsibilities:

a. Monitor and provide daily direction to CONSULTANT Resident Engineers and inspection personnel.

b. Assign field personnel to specific project tasks.

c. Monitor and track Contractor progress.

d. Prepare daily, weekly and monthly reports as required.

e. Coordinate utility relocations with appropriate agencies and the utility inspector.

f. Act as prime field contact between various project Contractors and SANBAG's Construction Manager.

3. Assistant Resident Engineer

Minimum qualifications shall be as follows:

a. Four (4) years experience on similar construction projects.

b. Licensed Professional Civil Engineer in the State of California.

c. Ability to work independently, make effective decisions concerning construction work in progress, and solve field problems.

d. Accessible to SANBAG at all times including weekends and holidays.

e. Thorough understanding of Caltrans field methods, practices, and construction office procedures.

The Assistant Resident Engineer shall act under the direction of the Resident Engineer and will assume the following functional responsibilities:

a. Monitor and provide daily direction to CONSULTANT inspection personnel.

b. Assign field personnel to specific project tasks.

c. Monitor and track Contractor progress.

d. Prepare daily, weekly and monthly reports as required.

e. Coordinate utility relocations with appropriate agencies.

4. Lead Field Inspector

Minimum qualifications shall be as follows:

a. Six years (6) construction inspection experience in public works or similar projects ***or*** a four-year degree in the field of civil engineering, transportation and four years of similar construction experience.

b. Knowledge of Caltrans construction practices, physical characteristics and properties of highway construction materials, and approved methods and equipment used in making physical tests of construction materials.

c. Ability to work independently, make effective decisions concerning construction work in progress, and solve field problems.

d. Ability to direct the efforts of subordinate inspectors.

e. Understanding of Caltrans field and construction office procedures.

f. Ability to use an automatic level and transit for the purpose of verifying line and grade.

The Lead Field Inspector will assume the following functional responsibilities:

a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of construction.

b. Assist in the preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.

c. Coordinate field testing of materials to monitor compliance with Project specifications and Caltrans Quality Assurance Program.

d. Maintain accurate and timely project records. Perform quantity calculations for progress pay estimates.

e. Perform analytical calculations such as basic earthwork, grading, profiles, and special staking procedures.

f. Provide input for the redesign of facilities to fit existing field conditions.

g. Monitor and track Contractor progress. Prepare daily, weekly, and monthly reports as required.

5. Field Inspector

Minimum qualifications shall be as follows:

a. Two years construction inspection experience in public works or similar projects ***or*** a four-year degree in the field of civil transportation engineering.

b. Knowledge of construction practices, physical characteristics and properties of construction materials, and approved methods and equipment used in making physical tests of construction materials.

c. Ability to work independently. Ability to make minor decisions concerning construction work in progress and to solve field and office problems.

d. Understanding of Caltrans construction methods and practices.

e. Ability to use an automatic level and transit for the purpose of verifying line and grade.

The Field Inspector will assume the following functional responsibilities:

a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of project construction.

b. Assist in preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.

c. Coordinate field testing of materials to monitor compliance with Project specifications and Caltrans Quality Assurance Program.

d. Perform quantity calculations for progress pay estimates and maintain Project records.

e. Perform analytical calculations such as basic earthwork, grading, profiles, and special staking procedures.

f. Provide input for the redesign of facilities to fit existing field conditions.

g. Perform construction materials sampling

h. Perform labor compliance interviews of the Contractors' personnel.

6. Structural Representative or Lead Structural Inspector

Minimum qualifications shall be as follows:

a. Six (6) years of bridge or structural construction inspection as related to major public works projects and a four-year degree in civil engineering.

b. Licensed Professional Civil Engineer in the State of California.

c. Knowledge of stress analysis, structural mechanics, and strength of materials.

d. Knowledge of Caltrans construction practices and the physical characteristics and properties of various bridge construction materials including concrete.

e. Experience in the following areas: foundations, pile driving, concrete prestressing, bridge deck construction, cast-in-place and MSE walls construction, falsework, and shoring.

f. Ability to work independently. Ability to perform duties in the construction field office and effectively make decisions concerning construction work in progress and solving field problems.

g. Ability to direct the efforts of subordinate inspectors.

h. Ability to use an automatic level and transit for the purpose of verifying line and grade.

i. Thorough understanding of Caltrans field methods, practices, and construction office procedures.

The Structural Representative shall assume the following functional responsibilities:

a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of structural construction such as bridges, foundations, walls, falsework, shoring, and drainage structures.

b. Make grade, alignment, quantity, falsework, and shoring calculations.

c. Assist in the preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.Coordinate the sampling and testing of construction materials to monitor compliance with contract specifications.

d. Monitor and track Contractor progress. Prepare daily, weekly, and monthly reports as required.

e. Coordinate with Resident Engineer, as well as the Construction Staking and Material Testing consultants.

f. Direct subordinate inspectors.

7. Structural Inspector

Minimum qualifications shall be as follows:

a. A minimum of two (2) years of bridge design or structural construction inspection as related to Caltrans or major public works projects ***or*** a four-year degree in civil or structural engineering.

b. Knowledge of stress analysis, structural mechanics, and strength of materials.

c. Knowledge of construction practices and the physical characteristics and properties of various highway bridge construction materials including concrete.

d. Experience in one or more of the following areas: pile driving, concrete prestressing, bridge deck construction, retaining wall construction, falsework, and shoring.

e. Ability to work independently and make minor decisions concerning construction work in progress and to solve field and office problems.

f. Ability to use an automatic level and transit for the purpose of verifying line and grade.

The Structural Inspector will assume the following functional responsibilities:

a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of structural construction such as bridges,

foundation, walls, falsework, shoring, and drainage structures.

b. Make grade, alignment, quantity, falsework, and shoring calculations.

c. Assist in the preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.

d. Sampling and testing of construction materials to monitor compliance with contract specifications and Caltrans Quality Assurance Program.

8. Office Engineer

Minimum Qualifications shall be as follows:

a. Two years (2) office engineering on similar construction projects.

b. Knowledge of Caltrans Office of Highway Construction forms used to administer construction projects.

c. Knowledge of Caltrans system of document organization.

d. Knowledge of construction records and accounting procedures.

e. Knowledge of documentation, procedures, and reporting for federally funded projects.

f. Knowledge of laws and regulations governing the payment of prevailing wages.

The Office Engineer will assume the following functional responsibilities:

a. Process monthly progress pay estimates, monthly status reports, extra work reports, and weekly statements of working days.

b. Prepare and process contract change orders.

c. Monitor construction budget and schedule.

d. Prepare, maintain, and/or file project documents including labor and equipment records, correspondence, memoranda, meeting minutes, claims, personnel records, labor compliance reports, and daily, weekly, and monthly reports.

e. Perform routine calculations and checking of quantities.

f. Coordinate all office activities and functions with SANBAG representatives.

9. Materials Testing Project Manager

a. Four years project management experience on a similar highway/bridge

construction project.

b. Licensed civil engineer in the State of California.

c. Ability to use typical computer programs including word processing and spreadsheets.

The materials testing project manager will assume the following functional responsibilities:

a. Review, monitor, train, and provide general direction for CONSULTANT's laboratory and field personnel.

b. Assign personnel to projects on an as-needed basis in coordination with the Resident Engineer.

c. Administer personal leave, subject to approval of the Resident Engineer.

d. Prepare monthly reports for delivery to the Resident Engineer.

e. Provide direction, administration, and responsibility for Materials Certification per Caltrans Construction Manual, Section 8-01.

Material testing personnel will be certified by a California Registered Civil Engineer as being experienced and competent in the test procedures required for the work involved (and possess a current certificate of proficiency (Form MR-0111) in accordance with Quality Assurance Program Manual (Section 3-5). Independent certification of Caltrans test procedures may be performed at the discretion of the SANBAG Construction Manager.

10. Materials Technicians

CONSULTANT personnel provided under this contract will have a variety of skills and experience appropriate for the level of tasks to be assigned. Field personnel shall be certified by Caltrans and will have a minimum of two years experience in conducting material sampling and testing of the type required for the projects involved and will possess the following additional capabilities:

a. Have the ability to establish specific locations for appropriate tests when construction contract administration personnel are not available.

b. Be familiar with construction practices and be fully aware of construction activities at the project site.

c. Have knowledge of and comply with safety and health regulations and requirements applicable to the project.

Specific qualifications for technicians are as follows:

CONSTRUCTION TECHNICIAN I

Performs a variety of semi-skilled activities.

Examples of duties assigned to this classification are:

- Conducting quality control tests such as soil densities, sieve analysis tests, operation scales and inspecting spread operations.
- Sampling and transporting produced construction materials from point of application or production to testing laboratory.

Knowledge and Skills Required

- Knowledge of tools, equipment and vehicles utilized in construction.
- Knowledge of standard equipment and materials used for the sampling and testing of construction material.
- Knowledge of basic mathematics used in the computation of a variety of construction items.
- Knowledge of record keeping, preparing of documents and reports.

TECHNICIAN II

Performs a variety of skilled activities

Examples of duties assigned to this classification are:

- Inspecting minor construction items, sampling and inspection of steel reinforcement, sampling and inspection of concrete placing operation.
- Collect and analyze soil samples of construction materials to determine compaction and moisture content.
- Inspection and sampling of all phases of asphalt concrete and PCC paving operation, including plant inspection.
- Confers with construction engineers and contractors regarding construction in progress and is conformance to specifications and construction plans.
- Answers questions and resolves problems.
- Inspects construction in progress to ensure conformance with specification, agreements, and established requirements.
- Keeps daily diary of work progress.
- Prepares reports on all field inspections and submits project quantities on a daily basis.
- Keeps accurate documentation for force accounts and possible claims.

Knowledge and Skill Required:

- All knowledge and skills required of lower classification.
- Knowledge of currently accepted methods, procedures and techniques used in highway construction inspection, survey, materials testing, and quality control equipment.
- Skill in interpersonal relations as applied to contact with contractors, representatives of other governmental jurisdictions, and otherSANBAG/Caltrans staff.

TECHNICIAN III

Exercise considerable independent judgment within general Caltrans standards and guidelines.

Examples of duties assigned to this classification are:

- Inspect project construction on an ongoing basis to assure compliance with contract and in accordance with State and local standards.
- Perform a variety of structural material tests and inspection.
- Reviews construction plans and verified that these are in accordance with designated specifications and other requirements.
- Participates in the preparation of completed work estimates, to calculate compensation due contractor.
- Examines and verifies numeric data and material specifications on project cost source documents, utilizing geometry and trigonometry calculations.
- Supervises all work activities involved in construction projects, laboratory, and quality control work.
- Recommends approval of proposedproject changes.

Knowledge and Skills Required:

- All knowledge and skills required of lower classifications.
- Knowledge of the principles and practices of Civil Engineering as applied to the construction of state highways.
- Skill in analyzing and evaluating a wide variety of highly technical engineering data, including construction plans, field survey and quality control documents.
- Skill in interpreting and implementing Caltrans standards, policies, procedures and regulations.
- Skill in interpersonal relations, as applied to contacts with contractors, representatives of other governmental jurisdictions, and other SANBAG/Caltrans staff.

11. Construction Surveying Project Manager

Minimum qualifications for the position of Project Manager shall be as follows:

- Four (4) years project management experience on similar construction projects
- Licensed Surveyor or pre-January 1, 1982, Registered Professional Engineer in the State of California.
- Accessible to the Resident Engineer and SANBAG at all times during normal working hours as specified in this Scope of Services.

Under the direction of the Resident Engineer, the project manager will be responsible for:

- Review, monitor, train, and provide general direction for CONSULTANT survey personnel.
- Assign personnel to projects on an as-needed basis.
- Administer personal leave, subject to approval of the Resident Engineer.
- Prepare monthly reports for delivery to theResident Engineer.

12. Field Party Chiefs

- Minimum qualifications for the position of Party Chiefshall meet at least one of the following licensing requirements:

1. A licensed Land Surveyor in the State of California.
2. A pre-January 1, 1982, Registered Professional Civil Engineer in the State of California.

3. An experienced surveyor who serves as chief under the direction or supervision of a person who is a licensed Land Surveyor or pre-January 1, 1982, Registered Professional Civil Engineer in the State of California. The direction or supervision shall place the supervisor in "responsible charge" of the work. "Responsible Charge" is defined in Chapter 15 of the Business and Professions Code (the Land Surveyor's Act) and Title 16, Chapter 5, of the California Administrative Code (regulations adopted by the Board of Registration for Professional Engineers and Land Surveyors).
4. Two (2) years surveyexperience on similar construction projects
5. Thorough knowledge of construction survey practices and the ability to read and interpret plans and specifications.
6. Ability to make effective decisions concerning field problems and work in progress.
7. Familiarity with typical coordinate geometry computer programs.
8. Familiarity with safety requirements for surveying near traffic.

The Party Chiefs will assume the following responsibilities:

- Perform construction staking servicesfor project construction.
- Administer day to day activities for the survey party.
- Perform analytical survey calculations for items such as grading, horizontal and vertical control, right of way, and minor infield design.
- Maintain continuous communicationwith the Resident Engineer, field personnel, and construction administration staff.

13. Survey Crews

Minimum qualifications for survey crew members shall be as follows:

- One (1) year survey experience onsimilar construction projects
- Fundamental knowledge of construction survey practices and the ability to read and interpret plans and specifications.
- Ability to assist Party Chiefs and office personnel in all required surveying work.
- One survey crew member must have the ability to assume temporary leadership of the survey party in the absence of the Party Chief.

Under the direction of the Resident Engineer and the Party Chief, the survey crew members will assume the following responsibilities:

- Perform basic calculations to support construction staking.

Maintain continuous communication with Party Chiefs and office personnel.

Attachment "B"

Billing Rate Schedule

By and Between

San Bernardino Associated Governments/San Bernardino County Transportation Authority

And

Athalye Consulting Engineering Services, Inc.

To

Provide Construction Management, Materials Testing and Construction Surveying Services

For

I-10 Westbound Widening Project
Cities of Redlands and Yucaipa
Contract No. 10019

ATHALYE
Consulting Engineering Services, Inc.

3200 Guasti Road, Suite 100, Ontario, CA 91761 • Tel: 909-456-1460 • Fax: 909-456-1461 • Email: aathalye@athalyeinc.com

September 3, 2009

San Bernardino Associated Governments
Attn: Ms. Paula Beauchamp
1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410-1715

Subject: Cost Proposal, Construction Management Services, Materials Testing, and Construction Surveying for the I-10 Westbound Widening, Contract No. C09203, Revision #3

Ms. Beauchamp:

Our Revised Cost Proposal is as follows:

- Athalye Consulting Engineering Services.....$2,524,169
- MARRS Services.....$381,567
- David Evans & Associates.....$634,524
- Converse Consultants.....$436,840
- Arellano Associates.....$58,983

COST PROPOSAL:	$ 4,036,083
RISK MITIGATION:	$ 345,500
TOTAL ESTIMATED PROJECT BUDGET:	$ 4,381,583

Total fees as indicated are based upon the estimated time requirements for a construction period of 520 working days plus pre/post construction activities such as constructability review, bidding support, and landscaping maintenance inspection. The above fees may not be based upon Caltrans audited rates and are considered negotiated rates. The above fees assume that office space and furnishings will be provided by others. Invoicing of fees will be based on the level of effort actually required to property administer and inspect the project. If the level of effort is less than the estimate, SANBAG will be invoiced accordingly. Should additional services be required to accomplish project objectives, said services will be provided following prior notification of and approval by SANBAG. Additional terms are provided in the attached subconsultant quotes from David Evans & Associates, Converse Consultants, Arellano Associates, and MARRS Services, plus the attached spreadsheet break-down for Athalye Consulting Engineering Services and MARRS Services. The cost proposal includes approximately 10% UDBE participation and 76% total DBE participation. The budget includes payment of prevailing wages as required by law. I will be the firm's contact person for this contract, and you can contact me at the address and phone number above or by email at dtiberi@athalyeinc.com or on my cell phone at (714) 713-0804.

Sincerely,
Athalye Consulting Engineering Services

Athalye Consulting Engineering Services
Athalye/MARRS Cost Proposal Spreadsheet
September 3, 2009 Version

Position	Name	Hourly Rate	2009 Sep	Oct	Nov	Dec	2010 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2011 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2012 Jan	Feb	Mar	Apr	May	Jun	June	Jul	Aug	Sep	Jul	Aug	Sep	Oct	Nov	Dec	Total Hours	Total Cost
:p	Tiberi	$216.80	20	20	40	40																																										
ło Charge)	(use $78)	$223.30					40	40	40	40	40	40	40	40	40	40	40	40																													120	$26,016.00
		$230.00																	10	10	10	10	10	10	10	10	10	10	10	10																	480	$107,185.92
ent Eng/CPM	Corpuz	$197.34	20	60	20	20																																									120	$27,600.37
	(use $71)	$203.26					170	170	170	170	170	170	170	170	170	170	170	170																														
		$209.36																	170	170	170	170	170	170	170	170	170	170	170	170																	120	$23,680.80
		$215.64																																													2040	$414,650.81
spector	Mills	$132.03																																													2040	$427,090.33
	(use $47.50)	$135.99					187	187	187	187	187	187	187	187	187	187	187	187													170	170	80	40	40	40	40	40	10	10	10	10	10	10	10	10	700	$150,947.12
		$140.07																																														
		$144.27																	187	187	187	187	187	187	187	187	187	187	187	187																	2244	$305,163.58
tor	Khalili	$132.33																													80	80	80														2244	$314,318.49
	(use $47.61)	$136.30					187	187	187	187	187	187	187	187	187	187	187	187																													240	$34,625.46
		$140.39																																													0	$0.00
		$144.60																	187	187	187	187	187	187	187	187	187	187	187	187																	2244	$305,856.98
tor (MARRS)	Cello	$127.00																																													2244	$315,032.68
		$130.81											187	187	187	187	187	187																														
		$134.73																																														
ıctability	Feist	$134.00		60															187	187	187	187	187	187	187	187	187																				1122	$146,768.82
er (MARRS)																																															1683	$226,757.83
																																															60	$8,040.00

ırs per month is "full time", and 187 hours per month includes 10% for OT reserve. Loaded billing rates for OT is the same as the ST rate for Athalye Employees.
trans Audited Overhead Rate for Athalye in 2007 is 168%. Loaded Hourly Billing Rates above are negotiated rates and are not compliant with Caltrans audit procedures
re no separate charges for vehicles or cell phones for Athalye or MARRS.

ng January, 2010, the full-time field staff will cover all items requested in the SANBAG Scope of Work.
Post Construction Activities will be covered by Part-Time Staff and Include:
Schedule, PS&E Review, Bidding Support & Analysis, Office and Filing Set-Up
Close-Out, Final Estimate, File Delivery, (landscape maintenance inspection separately by DEA)
ak-downs for OEA, Converse, and Arellano are provided separately
Maintenance Items Provides $3,000 per month for 24 months)direct cost to SANBAG, no mark-ups)
Mitigation Fund provides 2100 hours at an average rate of $165 per hour for possible project delays (weather, change orders, etc.) for a total of $346,500 with charges authorized by SANBAG

Athalye Labor:	2,452,169
Office Maint*	72,000
Risk Mit. Fund*	345,500
Athalye Total:	2,869,669
MARRS:	381,567
OEA:	634,524
Converse:	436,840
Arellano:	58,983
Project Total:	4,381,583

C10019

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SANBAG
I-10 Westbound Widening Contract Staffing Plan
David Evans and Associates, Inc.

September 3, 2009

I-10 Westbound Widening	2010				2011				2012									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Total	Rate	Labor	OH (155%)	Fee (9%)	Total
Survey Task Leader/QA QC	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	156	85.00	13,260.00	20,553.00	3,043.17	36,856.17
PLS Party Chief	50%	50%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%	2,080	47.00	97,760.00	151,528.00	22,435.92	271,723.92
Senior Chainman	50%	50%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%	2,080	42.00	87,360.00	135,408.00	20,049.12	242,817.12
Survey Office Support	20%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	208	45.00	9,360.00	14,508.00	2,148.12	26,016.12
Landscape Architect/Inspector	0%	0%	0%	0%	0%	0%	10%	10%	10%	10%	10%	10%	312	50.00	15,600.00	24,180.00	3,580.20	43,360.20
																		620,773.53

Mileage 25,000 at $.55/mile 13,750.00

Summary of Hours:

Project Manager	156
PLS Party Chief	2,080
Senior Chainman	2,080
Survey Office Support	208
Landscape Architect/Inspector	312

Grand Total 634,523.53

David Evans and Associates, Inc. understands this is an on call contract. The percentages and labor classifications used in this document are for budgeting purposes only and may not reflect the actual time or labor classification used in performing the work.
David Evans and Associates, Inc also understand this is a prevailing wage project.
David Evans and Associates, Inc overhead rate to be used for this contract is 155%

d:\sbag\rt30const\Revised 9-3-09 I-10 Widening plan Survey and Landscape CM.xls

Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

August 31, 2009

Mr. David Tiberi, P.E.
Project Manager
Athalye Consulting Engineering Services, Inc.
26457 Rancho Parkway South
Lake Forest, CA 92630

Subject: **COST ESTIMATE TO OBSERVE CAST-IN-DRLLED HOLE (CIDH) PILE INSTALLATION AND PROVIDE MATERIALS TESTING AND INSPECTION SERVICES FOR**
I-10 Westbound Widening Project
Cities of Redlands and Yucaipa, California
RFQ No. 09-203
Converse Project No. 09-81-242-00

Dear Mr. Tiberi:

Attached is our cost estimate to observe CIDH pile installation and perform materials testing and inspections that will be required during construction of the I-10 Widening Project from 0.1 miles east of Ford Street to 0.1 miles west of Like Oak Canyon Road in the cities of Yucaipa and Redlands.

We understand that the construction schedule is approximately 520 calendar days. Our cost estimate is based on the following scope/assumptions.

FIELD SERVICES

Soils

- Sample Highway Materials and Products used in the Roadway - estimated 120 hours
- Test structural backfill compaction behind retaining walls (18, 330 cubic yards) and pavement subgrade testing. Services will be provided on as-needed basis - 50 trips @ 4 hours per trip for a total of 200 hours
- Conduct in-place density tests of untreated/treated soils and aggregate base - 40 trips @ 4 hours per trip for a total of 160 hours

PCC/Asphalt Concrete Pavement

- Batch plant inspection for all concrete work - 100 trips @ 5 hours per trip for a total of 500 hours
- Test quality of fresh concrete and fabricate concrete cylinders and beams - 75 trips @ 4 hours per trip for a total of 300 hours
- Determine in-place density and relative compaction of asphalt concrete pavement - 20 trips @ 4 hours per trip for a total of 80 hours

Concrete – Retaining wall and CIDH piles

- Test quality of fresh concrete and fabricate concrete cylinder and beams - 140 trips @ 5 hours per trip for a total of 700 hours

Cast-in-drilled hole (CIDH) piles

- Installation of about 250, 24" diameter CIDH piles for a total length of 11,466 linear feet (approximately 1,333 cubic yards of concrete). Assumed that 3 piles will be installed each 8-hour day for a total of 96 days - 768 hours total

LABORATORY TESTING SERVICES

Laboratory testing will likely include the following:

- Relative compaction of untreated soils and aggregate
- Sieve analysis of soils and aggregate base
- Sand equivalent
- Cleanness of coarse aggregate
- Preparation of bituminous mixture fro testing
- Specific gravity and density of bituminous mixtures
- R-value
- Tensile and bend test of reinforced steel
- Compressive strength of concrete cylinders
- Flexure strength of concrete (using simple beam with center)

GAMMA GAMMA TESTING
(By EarthSpectives)

Assuming that 15-20 piles are tested per move-in, approximately 15 move-ins are estimated. Move-in includes equipment and operator mobilization, travel to site, and set up.

- 15 move-ins @ $550/move-in = 15 x $550 = $8,250.00
- 11466 x 2 tube ft of tube logging @ $1.25/ft = 22932 x $1.25 = $28,665.00
- Data post processing, analysis, and plotting @ $25/pile = 250 x $25 = $6,250.00
- Report at the end of each session @ $500/report = 15 x $500 = $7,500.00

Total = $50,665.00, which is approximately $200/pile.

OFFICE SUPPORT

Office support will be provided by:

- Office Administrator
- Senior Staff Engineer
- Senior Geologist
- Project Manager
- Principal Engineer

Our cost estimate is enclosed. In general, our fees are based on the following assumptions:

- Maximum eight-hour day at the site. We have not considered any overtime or night shift work. Overtime will be charged at 1.5 times the regularly hourly rate.
- There will be a two-hour minimum charge in case of work cancellation.
- We will assess a minimum four-hour charge for services less than four hours.
- For time in excess of four hours and less than eight hours, we will charge to the nearest corresponding hour above four working hours.
- **It is understood by both contracting parties that this is a prevailing wage project as defined in Labor Code Sections 1770-1780.**
- Our rates will be adjusted if the prevailing wage is adjusted by the Department of Industrial Relations.
- The test locations will be prepared and ready for testing by Converse field personnel upon their arrival at the site. The client and/or contractor will be responsible for the excavation and backfilling of all test locations.
- Additional inspections and laboratory testing outside the agreed-upon scope of work can be provided upon request. Charges for these additional services will be based on our attached *Schedule of Fees.*
- No services will be provided prior to our signature of an agreement with you. No additional work required will be provided without written authorization and a budget amendment from your authorized representative.
- We will receive written notification from the Resident Engineer requesting our work. That notification will be submitted with the invoice.
- Our services will be performed on a time-and-materials basis in accordance with the unit rates indicated, and/or the attached *Schedule of Fees.* Converse uses its standard unit rates indicated in the attached *Schedule of Fees* for many public agencies, including City of Riverside Public Utilities Department and City of Corona.
- Our field representative will not direct, supervise or lay out the work of the contractor. Our services will not include a review or evaluation of the contractor's safety measures on or near the project.
- Any meetings and/or consultation(s) requested by the client will also be charged in accordance with the attached *Schedule of Fees.*
- Testing services outlined in this proposal will be performed at the request of your authorized representative.

- If services are provided on as-needed basis, no comments regarding compaction procedures or observations will be made. Daily field reports indicating work performed and test locations will be provided as the testing is completed.

- We require 24 hours advance notice for our services. We will, however, make every attempt to accommodate requests on shorter notice.

We are looking forward to working with you on this project. If you have any questions or require additional information, please feel free to call the undersigned at (909) 796-0544.

Sincerely,
Converse Consultants

Hashmi Quazi, P.E., G.E.
Principal Engineer/ Regional Manager

CONVERSE CONSULTANTS
10391 Corporate Drive
Redlands, CA 92374
Telephone 909/796-0544
Fax 909/796-7675

I-10 Westbound Widening Project
Cities of Redlands and Yucaipa
Converse Project No. 09-81-242-00

FIELD TESTING SERVICES						
Test No	Title of Test Method	Frequency	Unit	No. of Units	Unit Rate	Cost
126	Sampling Highway Materials and Products Used in the Roadway	As Required	Hour	120	$95.00	$11,400.00
	Concrete Testing - Retaining Walls and CIDH Piles					
533	Ball Penetration in Fresh Portland Cement Concrete	When test specimen is fabricated and when consistency or uniformity is questionable, min 2 per day	Hour	300	$90.00	$27,000.00
539	Sampling of Fresh Concrete	1 set (2 cylinders) for approx. every 250 m3 concrete of as required for acceptance. Min 1 set per job and class of concrete, depending on use. For Miscellaneous Concrete on set per day, when volume exceed 20 cu. m.				
540	Making, Handling and Storing Concrete	1 set (2 cylinders) for approx. every 250 m3 concrete of as required for acceptance. Min 1 set per job and class of concrete, depending on use. For Miscellaneous Concrete on set per day, when volume exceed 20 cu. m.	Hour	400	$90.00	$36,000.00
504	Determining Air Content of Freshly Mixed Concrete by the Pressure Method	As required, min once every 4 hours and when test speciments are fabricated				
518	Unit weight of fresh concrete	As required				
	Concrete Testing - PCC Pavement					
533	Ball Penetration in Fresh Portland Cement Concrete	When test specimen is fabricated and when consistency or uniformity is questionable, min 2 per day	Hour	120	$90.00	$10,800.00
523	Modulus of Rapture Sample beams preparation	1 set of three beams for each 3000 sq. m.	Hour	180	$90.00	$16,200.00
504	Determining Air Content of Freshly Mixed Concrete by the Pressure Method	As required, min once every 4 hours and when test speciments are fabricated				
518	Unit weight of fresh concrete	One for each 4 hours production				
231	Relative Compaction of Untreated/Treated Soils and Aggregates (Area Concept Utilizing Nuclear Gages)	One complete test for every 800 m^3 or more area, or as directed.	Hour	160	$90.00	$14,400.00
375	Determining the In-Place Density and Relative Compaction of AC Pavement	Min 10 sites for each 500 Tons of AC placed	Hour	80	$90.00	$7,200.00
231	Determining the In-Place Density and Relative Compaction of Pavement Subgrade and Retaining Wall Backfill	Per CT 231	Hour	200	$90.00	$18,000.00
100	Batch Plant Inspection	Method for testing of material product in plant	Hour	500	$90.00	$45,000.00
	CIDH Pile Inspection - engineer or geologist	All Piles	Hour	768	$105.00	$80,640.00
Subtotal:						$266,640.00

LABORATORY TESTING SERVICES						
Test No	Title of Test Method	Frequency	Unit	No. of Unit	Unit Rate	Cost
523	Flexural Strength of Concrete (Using Simple Beam with Center)	1 set (3 Beams) for each 3,000 m3	Test	20	$240.00	$4,800.00
202	Sieve Analysis of Fine and Course Aggregates	1 for every 400 m3, 1 per day min, every 1500 cu.m. for aggregate base	Test	30	$85.00	$2,550.00
217	Sand Equivalent	1 for every 400 m3, 1 per day min, or every 1500 cu. m for aggregate base	Test	30	$75.00	$2,250.00
227	Evaluating Cleanness of Course Aggregate	1 for every 400 m3, 1 per day min	Test	30	$100.00	$3,000.00
216	Relative Compaction of Untreated and Treated Soils and Aggregates	As Required	Test	30	$120.00	$3,600.00
304	Preparation of Bituminous Mixtures for Testing	As Required	Test	20	$50.00	$1,000.00
308	Specific Gravity and Density fo Bituminous Mixtures	As Required	Test	10	$75.00	$750.00
301	R-value	every 2500 tonnes or 1500 cu. m. for aggregate base	Test	15	$240.00	$3,600.00
	Reinforcing Steel - tensile and bent	As Required	Test	50	$85.00	$4,250.00
521	Compressive strength of concrete cylinder	As Required	Test	300	$23.00	$6,900.00
Subtotal:						$32,700.00

OFFICE SERVICES				
Task	Unit	No. of Unit	Unit Rate ($)	Cost ($)
Office support	hour	200	$60.00	$12,000.00
Sample Pick Up	hour	60	$50.00	$3,000.00
Staff Engineer	hour	80	$85.00	$6,800.00
Senior Geologist	hour	60	$115.00	$6,900.00
Project Manager/Engineer	hour	320	$115.00	$36,800.00
Subtotal:				$65,500.00

REIMBURSABLE EXPENSES				
Task	Unit	No. of Unit	Unit Rate ($)	Cost ($)
Vehicle	hour	2400	$5.00	$12,000.00
Gamma-Gamma Testing of CIDH piles per CT233	test	250	$200.00	$50,000.00
Subtotal:				$62,000.00

COST ESTIMATE BREAKDOWN FOR MATERIAL INSPECTION AND TESTING

Field Testing Services:	**$266,640.00**
Laboratory Testing Services:	**$32,700.00**
Office Services:	**$65,500.00**
Contingency for Overtime	**$10,000.00**
Reimbursable Expenses:	**$62,000.00**
Total Cost for Material Inspection and Testing:	***$436,840.00***

Interstate 10 Westbound Widening Project
Public Outreach Services
San Bernardino Associated Governments and Athalye, Inc.

Arellano Associates
Submitted: 9/3/09

LABOR COSTS	Cheryl Donahue		Elsa Argomaniz		Raul Velazquez				TOTAL	
	Outreach Manager		Outreach Specialist		Outreach Specialist		Project Support			
Direct Labor Rate:	$ 94.50		$64.00		$62.00		$10.00			
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Task										
1 Stakeholder Database	6	$ 567	48	$ 3,072	-	$ -	8	$ 80	62	$ 3,719
2 Collateral Material - Website, Fact Sheet, Newsletter, Ppt.	20	$ 1,890	8	$ 512	48	$ 2,976	-	$ -	76	$ 5,378
3 Public Neighborhood Meeting (Open House)	10	$ 945	36	$ 2,304	-	$ -	8	$ 80	54	$ 3,329
4 Community Presentations (6x)	30	$ 2,835	24	$ 1,536	8	$ 496	-	$ -	62	$ 4,867
5 Construction Inquiries and Documentation	20	$ 1,890	54	$ 3,456	-	$ -	-	$ -	74	$ 5,346
6 Ground-Breaking and Ribbon-Cutting Ceremonies	36	$ 3,402	54	$ 3,456	-	$ -	24	$ 240	114	$ 7,098
SUB-TOTAL	**122**	**$ 11,529**	**224**	**$ 14,336**	**56**	**$ 3,472**	**40**	**$ 400**	**442**	**$ 29,737**
OVERHEAD AND FRINGE BENEFITS (60% OF AA DIRECT LABOR)		$ 151.20		$102.40		$99.20		$16.00		**$ 47,579**
PROFIT (9% OF LABOR)										**$ 2,676**
ESTIMATED DIRECT COSTS*										
Facility Rental Fee, Public Meeting										$ 200
Public Meeting Supplies and Refreshments										$ 200
Translation, Collateral Material										$ 500
Ceremony Rental Fees (Canopies, Chairs, Tables, etc.)										$ 4,000
Ceremony Supplies, Events, Refreshments, Mementos										$ 800
Mileage ($.55 per mile)										$ 1,600
SUB-TOTAL										**$ 7,300**
TOTAL PROPOSED BUDGET										**$ 57,556**
3% ESCALATION, EFFECTIVE JANUARY 1, 2011 (OVERHEAD AND FRINGE BENEFITS X 3%)										**$ 1,427**
GRAND TOTAL										**$ 58,983**