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

952A

FROM: TLMA - Transportation Department

SUBMITTAL DATE: July 29, 2010

SUBJECT: Engineering and Environmental Services Agreement with Parsons Transportation Group, Inc. for the Avenue 56 (Airport Boulevard) Railroad Grade Separation Project

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the attached engineering and environmental services agreement between The County of Riverside and Parsons Transportation Group, Inc.;

2. and Authorize the Chairman of the Board to execute the same.

BACKGROUND: Avenue 56 is designated in the Riverside County General Plan as a six lane urban arterial highway that serves the Thermal Community of eastern Riverside County, City of

Juan C. Perez
Director of Transportation

(Continued On Attached Page)
JCP:JA

FINANCIAL DATA				
	Current F.Y. Total Cost:	$ 1,945,043	**In Current Year Budget:**	Yes
	Current F.Y. Net County Cost:	$ 0	**Budget Adjustment:**	No
	Annual Net County Cost:	$ 0	**For Fiscal Year:**	2010/11

SOURCE OF FUNDS: TUMF (CVAG 100%)
Project No. A60241

Positions To Be Deleted Per A-30 ☐

Requires 4/5 Vote ☐

C.E.O. RECOMMENDATION:

APPROVE
BY: Tina Grande

County Executive Office Signature

Departmental Concurrence

FORM APPROVED COUNTY COUNSEL
BY: MARSHA L. VICTOR DATE 8/11/10

Dep't Recomm.: ☒ Policy ☐ Consent
Per Exec. Ofc.: ☐ Policy ☐ Consent

Prev. Agn. Ref. 07/29/08, Item 3.146 **District:** 4 **Agenda Number:** 3.85

ATTACHMENTS FILED
WITH THE CLERK OF THE BOARD

Form 11 (Rev 07/2007)

Coachella and City of La Quinta while providing direct access from SH-86S and Grapefruit Boulevard (SH-111) to the Jacqueline Cochran Regional Airport. A Union Pacific Railroad (UPRR) at-grade crossing currently exists on Avenue 56 just south of the City of Coachella paralleling State Route 86S. The UPRR and State Highway 86S are both designated NAFTA freight corridors. The proposed project will grade separate Avenue 56 from the UPRR mainline tracks.

Currently 71 freight trains pass through Riverside County on this line on a daily basis with the number projected to increase to 107 by the year 2030. The proposed grade separated rail crossing will separate surface street traffic from rail lines with the following benefits:

- Increased public safety due to elimination of train/vehicle conflicts.
- Contribute toward achieving uninterrupted freight movement along the ultimate Alameda Corridor East (ACE).
- Emergency vehicle response will be improved at the crossing.
- Reduction of particulate matter from idling vehicles causing a reduction in greenhouse gas emissions.
- Reduction of train noise by eliminating use of horns.

Parsons Transportation Group, Inc. is on the Transportation Department's Pre-Qualified List of Structural Design Firms. The list was established through a request for proposals, which was advertised in the Press Enterprise. Fifteen firms submitted qualifications. Representatives from Caltrans, CVAG and the Riverside County Transportation Department evaluated the written proposals and interviewed the ten top ranked firms.

Parsons Transportation Group, Inc. was selected as the firm to provide the needed services for this project. A not to exceed budget of $1,950,755 (including contingency) was negotiated between Parsons and the Transportation Department. The services to be provided include preliminary engineering, environmental studies and preparation of the environmental document, environmental permitting, final design and construction support.

This project has been identified to receive $10 million for construction from the State's Prop 1B Bonds Goods Movement Program administered though Transportation Corridor Improvement Funds (TCIF). A Project Baseline Agreement with the California Transportation Commission (CTC) identifying the scope and cost of the project was approved by the Riverside County Board of Supervisors on July 29, 2008.

A cooperative funding agreement between the County of Riverside and Coachella Valley Association of Governments (CVAG) will provide that CVAG fund up to an additional $10 million towards project cost and will be on this agenda for approval as a companion item to this agreement.

In addition to the Proposition 1B Bond funding and the CVAG funding, the County of Riverside Transportation Department is currently working with County Economic Development Agency (EDA) on a funding agreement for a $4 million contribution from the Redevelopment Agency (RDA) towards the environmental, design, and construction of this improvement project.

Contract No. 10-02-002
Riverside Co. Transportation

ENGINEERING SERVICES AGREEMENT

for

Avenue 56 (Airport Boulevard) Railroad Grade Separation

between

COUNTY OF RIVERSIDE • TRANSPORTATION DEPARTMENT

and

Parsons Transportation Group, Inc.

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ENGINEERING SERVICES AGREEMENT

COUNTY OF RIVERSIDE, hereinafter referred to as "COUNTY", and Parsons Transportation Group, Inc., hereinafter referred to as "ENGINEER", located at the following addressees:

County of Riverside • Transportation Department	Parsons Transportation Group, Inc.
4080 Lemon Street, 8th Floor	2201 Dupont Drive, Suite 200
Riverside, CA 92502	Irvine, CA 92612

do hereby agree as follows:

ARTICLE I • DESIGNATED CONTACTS

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

The ENGINEERING PROJECT MANAGER for ENGINEER shall be:

Joe Gonzalez, PE

The COUNTY PROJECT MANAGER for COUNTY shall be:

C. Scott Staley, PE

ARTICLE II • PROJECT DEFINITION

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

ARTICLE III • COOPERATIVE AGENCIES

A. Lead Agency

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

B. Cooperative Agencies

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

- CVAG
- Caltrans

C. COUNTY/AGENCIES Standards

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

ARTICLE IV • CONDITIONS

A. Notifications

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

B. Assignment

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

C. Subcontracts

1. ENGINEER shall perform the services contemplated with resources available within its own organization. No portion of the services pertinent to this contract shall be subcontracted without written authorization by the COUNTY PROJECT MANAGER, except that which is expressly identified in this contract.
2. In the event ENGINEER subcontracts any portion of ENGINEER's duties under this agreement, ENGINEER shall require its subcontractors to comply with the terms of this contract in the same manner as required of ENGINEER including, but not limited to; indemnification of the COUNTY, requiring the same insurance of Subcontractors as required of ENGINEER, and having Subcontractor's insurance name the COUNTY as Additional Insured for each type of insurance where this Agreement requires ENGINEER's insurance to name COUNTY as Additional Insured.

D. Modifications

1. This contract may be amended or modified only by mutual written agreement of the parties. No alteration or variation of the terms of this contract will be valid unless made in writing and signed by the parties hereto and no oral understanding or agreement not incorporated herein, will be binding on any of the parties hereto.

2. There shall be no change in the ENGINEERING PROJECT MANAGER or key members of the PROJECT team without prior written approval by the COUNTY PROJECT MANAGER.

E. COUNTY Directives

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

F. Liability

1. ENGINEER has total responsibility for the accuracy and completeness of all data, plans, specifications and estimates prepared for this PROJECT and shall check all such material accordingly. The data and plans will be reviewed by COUNTY. The responsibility for accuracy and completeness of such items remains solely that of ENGINEER.
2. The plans, designs, estimates, calculations, reports and other documents furnished in accordance with the Scope of Services shall meet the criteria for acceptance and be a product of neat appearance, well organized, technically and grammatically correct, checked and having the preparer and checker identified. The minimum standard of appearance, organization and contents shall be of similar types produced by COUNTY and AGENCIES.
3. The page identifying preparers of engineering reports, the title sheet for specifications and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of the certificate, and signature of the professional engineer(s) responsible for their preparation.
4. COUNTY and ENGINEER agree that plans, drawings or other work products prepared by ENGINEER are for the exclusive use of COUNTY and will be used by COUNTY for the project for which they were specifically designed. ENGINEER shall not be responsible for use of such plans, drawings or other work products if used on a different project without the written authorization or approval by ENGINEER.
5. ENGINEER acknowledges that the plans, drawings and/or other work products may be used by COUNTY for the PROJECT regardless of any disputes that may develop between ENGINEER and COUNTY.
6. ENGINEER, and the agents and employees of ENGINEER, in the performance of this agreement, shall act in an independent capacity and not as officers, employees or agents of COUNTY.

G. Indemnification

1. The ENGINEER agrees to and shall indemnify and hold harmless the County of Riverside, its Agencies, Districts, Departments and Special Districts, their respective directors, officers, Board of Supervisors,

elected and appointed officials, employees, agents and representatives (hereinafter individually and collectively referred to as "Indemnitees") from all liability, including, but not limited to loss, suits, claims, demands, actions, or proceedings to the extent caused by any alleged or actual negligence, recklessness, willful misconduct, error or omission of ENGINEER, its directors, officers, partners, employees, agents or representatives or any person or organization for whom ENGINEER is responsible, arising out of or from the performance of services under this Agreement.

2. As respects each and every indemnification herein ENGINEER shall defend and pay, at its sole expense, all costs and fees including but not limited to attorney fees, cost of investigation, and defense and settlements or awards against the Indemnitiees.
3. With respect to any action or claim subject to indemnification herein by ENGINEER, ENGINEER shall, at their sole cost, have the right to use counsel of their own choice and shall have the right to adjust, settle, or compromise any such action or claim without the prior consent of COUNTY; provided, however, that any such adjustment, settlement or compromise in no manner whatsoever limits or circumscribes ENGINEER'S indemnification to Indemnitees as set forth herein.
4. ENGINEER'S obligation hereunder shall be satisfied when ENGINEER has provided to Indemnitees the appropriate form of dismissal relieving Indemnitees from any liability for the action or claim involved.
5. The specified insurance limits required in this Agreement shall in no way limit or circumscribe ENGINEER'S obligations to indemnify and hold harmless Indemnitees from third party claims.
6. In the event there is conflict between this clause and California Civil Code Section 2782, this clause shall be interpreted to comply with Civil Code 2782. Such interpretation shall not relieve the ENGINEER from indemnifying the COUNTY to the fullest extent allowed by law.

H. Quality Control

ENGINEER shall implement and maintain the following quality control procedures during the preparation of the plans and documents relating to PROJECT. ENGINEER shall have a quality control plan in effect during the entire time services are being performed under the contract. The plan shall establish a process whereby calculations are independently checked, plans checked, corrected and back-checked, and all job related correspondence and memoranda routed and received by affected persons and then bound in appropriate job files. Where several drawings show different work in the same area, means shall be provided to avoid conflicts and misalignment in both new and existing improvements. Evidence

that the quality control plan is functional may be requested by the COUNTY PROJECT MANAGER. All plans, calculations documents and other items submitted to the COUNTY PROJECT MANAGER for review shall be marked clearly as being fully checked and that the preparation of the material followed the quality control plan established for the work.

I. Value Engineering

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

J. Extra Work

1. ENGINEER shall not perform Extra Work until receiving written authorization from the COUNTY PROJECT MANAGER.
2. In the event that COUNTY directs ENGINEER to provide services constituting Extra Work, COUNTY shall provide extra compensation to the ENGINEER. Allowable compensation for approved extra work will be based on the provisions of Appendix C, Budget, which is attached hereto and incorporated herein by reference.
3. A supplemental Agreement providing for such compensation for Extra Work shall be issued by COUNTY to ENGINEER. Supplemental Agreements determined acceptable by both parties shall be executed by ENGINEER and be approved by COUNTY.

K. Disputes

1. In the event ENGINEER considers any work demanded of him to be outside the requirements of the contract, or if he considers any order, instruction, or decision of COUNTY to be unfair, he shall promptly upon receipt of such order, instruction or decision, ask for a written confirmation of the same whereupon

he shall proceed without delay to perform the work or to conform to the order, instruction, or decision; but unless ENGINEER finds such order, instruction, or decision satisfactory, he shall within 20 days after receipt of same, file a written protest with COUNTY stating clearly and in detail his objections and reasons therefore. Except for such protests or objections as are made of record in the manner specified and within the time stated herein, and except for such instances where the basis of a protest could not reasonably have been foreseen by ENGINEER within the time limit specified for protest, ENGINEER hereby waives all grounds for protests or objections to the orders, instruction, or decisions of COUNTY and hereby agrees that, as to all matters not included in such protests, the orders, instructions and decisions of COUNTY will be limited to matters properly falling within COUNTY's authority.

2. Any controversy or claim arising out of or relating to this contract which cannot be resolved by mutual agreement may be settled by arbitration in accordance with the rules of the American Arbitration Association, provided that the parties mutually agree to submit to arbitration.
3. Neither the pendency of a dispute nor its consideration by arbitration will excuse ENGINEER from full and timely performance in accordance with the terms of the contract.

L. Termination Without Cause

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

M. Termination for Lack of Performance

COUNTY may terminate this agreement, except as provided in this Article M, and be relieved of the payment of any consideration to ENGINEER should ENGINEER fail to perform the covenants herein

contained at the time and in the manner herein provided. In the event of such termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. In such event, ENGINEER shall be paid only for work completed and delivered to COUNTY in a timely and successful manner.

N. Insurance

Without limiting or diminishing the ENGINEER's obligation to indemnify or hold the COUNTY harmless, ENGINEER shall procure and maintain or cause to be maintained, at its sole cost and expense, the following insurance coverages during the term of this Agreement, or for a term otherwise specified herein.

1. Workers' Compensation:

   Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than $1,000,000 per person per accident. Policy shall be endorsed to waive subrogation in favor of the County of Riverside; and to provide a Borrowed Servant/Alternate Employer Endorsement.

2. Commercial General Liability:

   Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, completed operations, personal and advertising injury covering claims which may arise from or out of ENGINEER's performance of its obligations hereunder. Policy shall name, by endorsement all Agencies, Special Districts and Departments of the County of Riverside, their respective Directors, Officers, Board of Supervisors, employees, agents, elected and appointed officials as Additional Insureds. Policy's limit of liability shall not be less than $1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit.

3. Vehicle Liability:

   ENGINEER shall maintain Liability Insurance for all owned, non-owned or hired vehicles in an amount not less than $1,000,000 per occurrence combined single limit. If ENGINEER's vehicles or mobile equipment are not to be used in the performance of the obligations under this Agreement, ENGINEER shall maintain coverage for non-owned or hired vehicles in an amount not less than $1,000,000 per occurrence combined single limit. Such non-owned or hired vehicle coverage may be included as a part of the Commercial General Liability policy. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall name by

endorsement, all Agencies, Special Districts and Departments of the County of Riverside, their respective Directors, Officers, Board of Supervisors, employees, agents, elected and appointed officials as Additional Insureds.

4. Professional Liability:

ENGINEER shall maintain Professional Liability Insurance providing coverage for performance of work included within this Agreement, with a limit of liability of not less than $1,000,000 per occurrence and $2,000,000 annual aggregate. If ENGINEER's Professional Liability Insurance is written on a claims-made basis rather than an occurrence basis, such insurance shall continue through the term of this Agreement. Upon termination of this Agreement or the expiration or cancellation of the claims made insurance policy ENGINEER shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also known as Tail Coverage); or, 2) Prior Dates Coverage from a new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or, 3) demonstrate through Certificates of Insurance that ENGINEER has maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2) or 3) will continue for a period of five (5) years beyond the termination of this Agreement.

5 General Insurance Provisions - All lines:

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

b. The ENGINEER's insurance carrier(s) must declare its self-insured retentions. If such self-insured retentions exceed $500,000 per occurrence such retentions shall have the prior written consent of the County Risk Manager before the commencement of operations under this Agreement. Upon notification of self insured retentions which are deemed unacceptable to the COUNTY, at the election of the County's Risk Manager, ENGINEER's carriers shall either; 1) reduce or eliminate such self-insured retentions as respect to this Agreement with the COUNTY, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, defense costs and expenses.

c. The ENGINEER shall cause their insurance carrier(s) to furnish the COUNTY with 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein; or, 2) if requested to do so orally or in writing by the County Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. Further, said Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) shall provide no less than thirty (30) days written notice or ten (10) days in the event of cancellation for nonpayment of premium be given to the COUNTY prior to any cancellation of such insurance. In the event of a material modification or cancellation of coverage, this Agreement shall terminate forthwith, unless the COUNTY receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverages and the insurance required herein is in full force and effect. Individual(s) authorized by the insurance carrier to do so on its behalf shall sign the original endorsements for each policy and the Certificate of Insurance. *ENGINEER shall not commence operations until the COUNTY has been furnished original Certificate (s) of Insurance and certified original copies of endorsements or policies of insurance including all endorsements and any and all other attachments as required in this Section.*

d. It is understood and agreed by the parties hereto and the ENGINEER's insurance company(s), that the Certificate(s) of Insurance and policies shall so covenant and shall be construed as primary insurance, and the COUNTY'S insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.

e. If, during the term of this Agreement or any extension thereof, there is a material change in the scope of services or performance of work the Risk Manager of the County of Riverside reserves the right to adjust the types of insurance required under this Agreement and the monetary limits of liability for the insurance coverages required herein, if; in the County Risk Manager's reasonable judgment, the amount or type of insurance carried by the ENGINEER has become inadequate. If ENGINEER incurs any additional cost to provide the additional insurance, such additional cost will be a reimbursable expense.

f. ENGINEER shall pass down the insurance obligations contained herein to all tiers of subcontractors

working under this Agreement.

O. Conflict of Interest

ENGINEER 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 ENGINEER for the purpose of securing business. For breach or violation of this warranty, COUNTY has the right to annul this contract without liability, pay only for the value of the work 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. ENGINEER may be requested to complete a Conflict of Interest Statement prior to, during, or after execution of this contract. ENGINEER understands that as a condition of this contract ENGINEER agrees to complete the Conflict of Interest Statement when requested to do so by COUNTY.

P. Legal Compliance

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

Q. Nondiscrimination

1. During the performance of this agreement, ENGINEER and its Subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age or sex. ENGINEER and Subcontractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.) and applicable regulations promulgated thereunder (California Administrative Code, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12900, set forth in Chapter 5 of Division 4 of Title 2 of the California Administrative Code are incorporated into this contract by reference and made a part hereof as if set forth in full. ENGINEER and its Subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

2. ENGINEER will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by COUNTY or AGENCIES to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of ENGINEER is in the exclusive possession of another who fails or refuses to furnish this information, ENGINEER shall so certify to COUNTY, or the Federal Highway Administration as appropriate and shall set forth what efforts he has made to obtain the information.
3. In the event of ENGINEER's noncompliance with the nondiscrimination provisions of this contract, COUNTY shall impose such contract sanctions as it determines to be appropriate, including, but not limited to:
    - Withholding of payments to ENGINEER under the contract until ENGINEER complies;
    - Cancellation, termination, or suspension of the contract in whole or in part.
4. ENGINEER shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this contract.
5. ENGINEER shall comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, 49 CFR 21 through Appendix H and 23 CFR 710.405(b) are applicable to this contract by reference.

R. Labor Code and Prevailing Wages

1. Certain Classifications of Labor under this contract may be subject to prevailing wage requirements.
2. Reference is made to Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here set forth in full. The parties recognize that said Chapter 1 deals, among other things with discrimination, penalties and forfeitures, their disposition and enforcement, wages, working hours, and securing worker's compensation insurance and directly effect the method of prosecution of the work by ENGINEER and subject it under certain conditions to penalties and forfeitures. Execution of the Agreement by the parties constitutes their agreement to abide by said Chapter 1, their stipulation as to all matters which they are required to stipulate as to by the provisions of said Chapter 1, constitutes ENGINEER's certification that he is aware of the provisions of said Chapter 1 and will comply with them and further constitutes ENGINEER's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for worker's compensation or to

undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract."

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

S. Review and Inspection

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

T. Record Retention / Audits

1. ENGINEER, Subcontractors, and COUNTY shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract.

2. COUNTY, Caltrans, the State Auditor General, FHWA or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of ENGINEER that are pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested. (Government Code Section 105320)

U. Ownership of Data

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

V. Confidentiality of Data

1. All financial, statistical, personal, technical or other data and information which is designated confidential by COUNTY or AGENCIES, and made available to ENGINEER in order to carry out this contract, shall be protected by ENGINEER from unauthorized use and disclosure.
2. Permission to disclose information on one occasion for a public hearing held by COUNTY or AGENCIES relating to the contract shall not authorize ENGINEER to further disclose such information or disseminate the same on any other occasion.
3. ENGINEER shall not comment publicly to the press or any other media regarding the contract, COUNTY or the AGENCIES actions on the same, except to COUNTY or AGENCIES staff, ENGINEER's own personnel involved in the performance of this contract, or at public hearings, or in response to questions from a Legislative committee.
4. Each subcontract shall contain provisions similar to the foregoing related to the confidentiality of data and nondisclosure of the same.
5. ENGINEER shall not issue any news release or public relations item of any nature whatsoever regarding work performed or to be performed under this contract without prior review of the contents thereof by COUNTY and receipt of COUNTY's written permission.

W. Funding Requirements

1. It is mutually understood between the parties that this contract may have been written before ascertaining the availability of congressional or legislative appropriation of funds, for the mutual benefit of both parties in order to avoid program and fiscal delays that would occur if the agreement were executed after that determination was made.

2. This agreement is valid and enforceable only if sufficient funds are made available to COUNTY for the purpose of this PROJECT. In addition, this agreement is subject to any additional restrictions, limitations, conditions or any statute enacted by Congress, State Legislature or COUNTY that may affect the provisions, terms or funding of this contract in any manner.
3. It is mutually agreed that if sufficient funds for the program are not appropriated, this contract will be amended to reflect any reduction in funds.

ARTICLE V • PERFORMANCE

A. Performance Period

1. This Contract shall begin upon notification to proceed by the COUNTY PROJECT MANAGER.
2. ENGINEER is advised that any recommendation for contract award is not binding on COUNTY until the proposed contract is approved by all AGENCIES, and the contract is fully executed and approved by COUNTY.
3. ENGINEER shall perform PROJECT services in accordance with the provisions set forth in Appendix B, Schedule of Services, which is attached hereto and incorporated herein by reference.
4. Where ENGINEER is required to prepare and submit studies, reports, plans, etc., to COUNTY, these shall be submitted in draft as scheduled, and the opportunity provided for COUNTY to direct revisions, prior to final submission.
5. When COUNTY determines that ENGINEER has satisfactorily completed the PROJECT services, COUNTY shall give ENGINEER a written Notice of Final Acceptance. ENGINEER shall not incur any further costs hereunder unless so specified in the Notice of Final Acceptance. ENGINEER may request a Notice of Final Acceptance determination when, in its opinion, it has satisfactorily completed all covenants as stipulated in this Contract.
6. Time is of the essence in this agreement.

B. Time Extensions

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

in COUNTY's judgement, their findings of fact justify such an extension of time.

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

C. Reporting Progress

1. As part of the monthly invoice ENGINEER shall submit a progress report in accordance with COUNTY Engineering Services Progress Reporting Guidelines. Progress Reports shall indicate the progress achieved during the previous month in relation to the Schedule of Services. Submission of such progress report by ENGINEER shall be a condition precedent to receipt of payment from COUNTY for each monthly invoice submitted.
2. To ensure understanding and performance of the contract objectives, meetings between COUNTY, AGENCIES, and ENGINEER shall be held as often as deemed necessary. All work objectives, ENGINEER's work schedule, the terms of the contract and any other related issues will be discussed and/or resolved. ENGINEER shall keep minutes of meetings and distribute copies of minutes as appropriate.

D. Evaluation of ENGINEER

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

ARTICLE VI • COMPENSATION

A. Work Authorization

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

B. Basis of Compensation

1. PROJECT services as provided under this agreement as described in the Scope of Services, shall be compensated for as defined in Appendix C, Budget, which is attached hereto and incorporated herein by reference. The total amount of the Contract is not to exceed $1,745,042.75 and reimbursement is to be made at actual cost plus fixed fee for the following contractors:

• Parsons Transportation Group, Inc	$1,637,283.09
• Earth Mechanics/Geotechnical	$97,619.44
• LSA/Environmental	$10,140.22

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

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

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

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

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

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

6. ENGINEER agrees that the Contract Cost Principles and Procedures, CFR 48, Federal Acquisition

Regulations Systems, Chapter 1, Part 31, shall be used to determine the allowability of individual items of cost.

7. ENGINEER also agrees to comply with Federal procedures in accordance with Office of Management and Budget Circular A-102, Uniform Administrative Requirements for Grants-in-Aid to State and Local Governments.
8. In the event of errors or omissions in the plans for PROJECT, ENGINEER shall perform the necessary engineering services required to correct such errors and omissions without additional charge to COUNTY.

C. Progress Payments

1. ENGINEER shall submit monthly invoices for PROJECT Services in accordance with Appendix C, Budget, and in accordance with COUNTY Engineering Services Invoicing Procedures.
2. ENGINEER shall submit an invoice each month for PROJECT services performed during the preceding month. Invoices shall be submitted to the COUNTY PROJECT MANAGER and shall be included with a Progress Report covering the same period as the submitted invoice.
3. Progress payments will be based on PROJECT services provided and actual costs incurred. Payments made prior to the completion of each phase will not exceed the amount allowed in ENGINEER's cost proposal for the completion of that phase and prior phases, unless approved in writing by the COUNTY PROJECT MANAGER.
4. Progress payments will be made as promptly as fiscal procedures will permit upon receipt by the COUNTY PROJECT MANAGER of itemized invoices.
5. COUNTY will withhold the last 10 percent of the budget for preparation of PS&E documents. The 10 percent retainage is to be held after 90% of the PS&E phase has been billed and is not to be deducted from each invoice. The amount retained will be paid to ENGINEER after COUNTY has approved ENGINEER's plans, specifications and estimate.

ARTICLE VII • GIS Information

A. "GIS Information" shall include GIS digital files (including the information or data contained therein) and any other information, data, or documentation from County GIS (regardless of medium or format) that is provided pursuant to this agreement.

B. ENGINEER acknowledges that the unauthorized use, transfer, assignment, sublicensing, or disclosure of the GIS information, documentation, or copies thereof will substantially diminish their value to COUNTY.

ENGINEER acknowledges and agrees that COUNTY GIS information is a valuable proprietary product, embodying substantial creative efforts, trade secrets, and confidential information and ideas. COUNTY GIS information is and shall remain the sole property of COUNTY; and there is no intention of COUNTY to transfer ownership of COUNTY GIS information.

C. COUNTY GIS information is made available to ENGINEER solely for use in the normal course of ENGINEER's business to produce reports, analysis, maps and other deliverables only for this PROJECT and as described within the Scope of Services.

D. ENGINEER agrees to indemnify and hold harmless COUNTY, its officers, employees and agents from any and all liabilities, claims, actions, losses or damages relating to or arising from ENGINEER's use of COUNTY GIS information.

E. GIS information cannot be used for all purposes; and GIS information may not be complete for all purposes. Additional investigation or research by ENGINEER into other sources will be required. GIS information is intended only as an information base and is not intended to replace any legal records. COUNTY has used and will continue to use its best efforts to correctly input into COUNTY GIS the information contained in various legal and other records; but COUNTY accepts no responsibility for any conflict with actual legal records or for information not transferred from legal records to COUNTY GIS. COUNTY has attempted to update GIS information as often as is practically feasible. However, ENGINEER should be aware that GIS information may not be current and changes or additions to the information contained in COUNTY GIS may not yet be reflected in COUNTY GIS.

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

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

ARTICLE VIII • APPROVALS

COUNTY Approvals

RECOMMENDED FOR APPROVAL:

_____ Dated: 7/9/10

JUAN C. PEREZ

Director of Transportation

APPROVED AS TO FORM:

M A Victor, Deputy Dated: 8/16/10

Marsha L. Victor

PAMELA J. WALLS

County Counsel

APPROVAL BY THE BOARD OF SUPERVISORS

_____ Dated: _____

PRINTED NAME

Chairman, Riverside County Board of Supervisors

ATTEST:

_____ Dated: _____

KECIA HARPER-IHEM

Clerk of the Board (SEAL)

ENGINEER Approvals

ENGINEER:

_____ Dated: 7/20/09

CARLOS CADENA

PRINTED NAME

VICE PRESIDENT

TITLE

ENGINEER:

_____ Dated: 7/22/09

GREGORY V. BROWN

PRINTED NAME

VICE PRESIDENT

TITLE

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APPENDIX A • SCOPE OF SERVICES • TABLE OF CONTENTS I

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ARTICLE AI • GENERAL INFORMATION/REQUIREMENTS

A. PROJECT DESCRIPTION

This project proposes to grade separate the current at-grade crossing of the Avenue 56 (Airport Boulevard) with the Union Pacific Railroad (UPRR). The existing two (2) tracks carry UPRR freight service and passenger service through AMTRAK. Currently, Avenue 56 has one lane of traffic in each direction. It is lined by commercial and light industrial land uses east of the railroad crossing and commercial and residential mixed uses west of the railroad crossing. There is also a United States Post Office building in the northwest quadrant of the intersection of Avenue 56 and the UPRR railroad tracks.

A Preliminary Engineering Study was completed on August 15, 2008 and evaluated two alternatives for the proposed Avenue 56/UPRR Crossing. These alternatives are:

- Alternative 1 - Avenue 56 Overhead structure – 35 MPH design speed
- Alternative 2 – Avenue 56 Overhead structure – 30 MPH design speed – Preferred Alternative

Avenue 56 is designated in the County General Plan as an Urban Arterial Highway. These improvements will be referred to as "The Project." As currently proposed, the Project will require the acquisition of right-of-way on both sides of Avenue 56 east of the crossing. The sides of the highway will be graded towards the adjacent areas and no retaining walls will be required for the project under either alternative.

There are no federal funds involved in this project. The funding sources programmed for this project are Proposition 1B (TCIF) funds and CVAG local funds.

B. LOCATION

The proposed project is located on Avenue 56 (Airport Boulevard) where it currently crosses Highway 111 and Union Pacific Railroad (UPRR) at grade. Avenue 56 traverses in the east-west direction and crosses Whitewater River to the east of UPRR and continues easterly to intersect SR 86S.

The railroad crossing is located 1,900 and 175 feet east of Polk Street and SR 111, respectively, and 4,800 feet west of the SR 86/Avenue 56 intersection. Polk Street provides access to Desert Resorts Regional Airport.

C. COORDINATION

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

Caltrans

Union Pacific Railroad Company

Metrolink (SCRRA)

Utility Companies

County Departments

Regional Water Quality Control Board

California Public Utilities Commission

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

D. PHASES

The services performed by ENGINEER will be accomplished in 4 Phases:

Phase I – Project Report (Equivalent)/ Environmental Clearance

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

Phase III – Construction Bidding and Award Support

Phase IV - Design Support during Construction

Phases I will proceed upon written notice to proceed. The remaining phases will not proceed until authorized in writing by County.

E. STANDARDS

The preliminary plans, environmental document, plans, specifications and estimate (PS&E) shall be prepared in accordance with CALTRANS regulations, policies, procedures, manuals and standards including compliance with Federal Highway Administration (FHWA) and American Railway Engineering and Maintenance-of-Way Association (AREMA) requirements and/or COUNTY Road Standards as appropriate. Improvements of local roads may be prepared in accordance with COUNTY standards in lieu of CALTRANS standards as directed by the COUNTY PROJECT MANAGER. All documents shall be prepared using English standards and dimensions.

F. ENVIRONMENTAL

Pursuant to section 21080.13 of the California Environmental Quality Act (CEQA), the state legislature has determined that railroad grade separations shall be statutorily exempt from CEQA documentation and public disclosure requirements. Accordingly, a CEQA environmental document is not required for this project. However, in certain instances and at the discretion of the sponsoring agency, it is sometimes prudent to undertake certain limited environmental studies in order to better understand and manage the consequences of a particular proposed railroad grade separation. Such is the case for the Avenue 56/UPRR Grade Separation, for which the Riverside County Transportation Department (RCTD) has determined that certain selected studies should be undertaken. This scope of work responds to that decision.

The Avenue 56/UPRR Grade Separation will not receive federal funds and therefore NEPA compliance is not required. Unless otherwise specified, scope of work tasks will be completed by PARSONS staff. Subconsultant activities will be managed by PARSONS.

Biological Studies

Biological studies, documentation and processing will be undertaken by LSA Associates, Inc. (LSA) pursuant to requirements under the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). A separately provided description of the LSA scope of work outlines the details of the work to be undertaken. The elements of this scope of work will be: (a) conduct a literature search, (b) conduct a field review of the project site, (c) evaluate the proposed project in the context of the CVMSHCP (i.e., CVMSHCP conservation

objectives, potential project-related inconsistencies, recommended mitigation measures), and (d) prepare a technical report documenting the above.

Noise Impact Analysis

A single family residential neighborhood is located within the project influence area, in the southwest quadrant of the project site. The first row of houses and an existing church will be acquired and removed to create sufficient right-of-way for the project, leaving the second parallel row of houses exposed to the newly aligned and expanded Avenue 56 roadway. A noise impact analysis will be undertaken by PARSONS and will consist of the following components: (a) ambient noise measurements at up to three locations (including one 24-hour measurement), (b) predictive model runs to project expected future (horizon year to be determined in consultation with RCTD staff) noise conditions as a result of the project, reflecting both highway and railroad contributions, (c) assessment of post-project noise conditions in the context of standard transportation agency abatement criteria (i.e., Leq, Ldn) and Riverside County General Plan requirements (CNEL), (d) calculations of soundwall abatement at various heights to determine if effective mitigation is possible and practicable, and (e) consultation with RCTD staff regarding the consideration of potential mitigation, if any.

Visual Impact Simulations

Before-and-after visual simulations will be conducted by PARSONS at up to two sites within the project influence area (sites and photo view points to be determined in consultation with RCTD staff). Post-project representations will be prepare using engineering plan and profile drawings and will attempt to portray a realistic image of the project to viewers adjacent to the project. The images will be prepared in both in standard report format size and as posters for use in a community information meeting (if needed).

Community Information Meeting

It is expected that one community information meeting will be conducted to describe the project and answer questions. It is unclear if additional policy direction will be forthcoming from the community information meeting. PARSONS will provide staff, displays and hand out materials for the information meeting. It is not expected that a formal presentation will be required. PARSONS will make available its project manager and

key staff (e.g., noise specialist) to assist in addressing questions from the community. A brief summary of the information meeting will be prepared for the administrative record, in a memorandum format.

Environmental Task Management

PARSONS will maintain management over the conduct of the above Tasks, using its in-house QC procedures to ensure delivery of acceptable technical deliverables to RCTD. Monthly activities will be conducted, including management of in-house staff and subconsultants, and progress reports. An allowance is provided in the budget for attendance at up to four project meetings, not including the community information meeting, which is budgeted separately.

G. PRELIMINARY SURVEY/AERIAL TOPOGRAPHICAL MAPPING/DESIGN FIELD SURVEYS

All preliminary Surveys, aerial mapping, and design field surveys shall be performed by COUNTY.

H. DESIGN

Roadway design shall be in accordance with the current CALTRANS Highway Design Manual and its revisions and/or COUNTY Road Standards as appropriate. Traffic design shall be in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and the California Supplement. Basic PS&E design shall be in accordance with the approved Project Report and final Environmental Document including any supplements and/or updates.

I. PS&E

Plans and specifications shall be prepared in conformance with COUNTY requirements. As part of the work involved in the preparation of the PS&E, the ENGINEER shall prepare and furnish to COUNTY special provisions for items of work included in the plans which are not covered in the Standard Specifications or CALTRANS-approved SSPs.

Bridge plans shall be prepared in accordance with the Bridge Design Details Manual, Bridge Design Aids Manual and Bridge Memos to Designers, California Department of Transportation, Division of Structures,

current editions.

Roadway plans shall be prepared electronically in conformance with the CALTRANS Plan Preparation Manual and the CALTRANS CADD Users Manual of Instructions. Roadway plans shall be prepared with MicroStation Version V8i. All Roadway plans shall be on single sheet files. Graphic files shall be two-dimensional and shall conform to the CALTRANS data format as defined in Caltrans CADD Users Manual of Instructions. One set of roadway plans on vellum and one electronic version on compact disc shall be provided with the final PS&E submittal.

Special Provisions shall be prepared using Microsoft Word conforming to CALTRANS format and content. ENGINEER shall coordinate with COUNTY staff regarding procedures for specification and special provision preparation prior to commencing preparation of specifications. COUNTY staff may provide the initial draft of the specifications to be reviewed and modified by ENGINEER.

Bridge specifications shall be prepared in conformance with the Bridge Design Specifications, California Department of Transportation, Division of Structures, current edition.

J. GEOTECHNICAL DESIGN REPORT

A preliminary foundation report shall be prepared to support the APS and Bridge Type Selection. A geotechnical report shall be prepared providing recommendations for all design elements during PS&E.

K. PROJECT FILES

Project Files shall be indexed in accordance with CALTRANS Project Development Uniform File System.

L. KEY PERSONNEL

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

Principal In Charge	Carlos Cadena, P.E.
Project Manager	Joe Gonzalez, P.E.
Senior Structures Engineer	Tom Sardo, P.E.
Environmental Team Leader	Gary Petersen
Traffic Engineer	Joe Harake

ARTICLE AII • PROJECT ADMINISTRATION

A. PROJECT MANAGEMENT

This task includes the day-to-day management of the PROJECT. PDT meetings with the COUNTY PROJECT MANAGER, the California Department of Transportation staff and other representatives from affected agencies will be held at least once a month. Subconsultants will attend PDT meetings as appropriate. The ENGINEER shall prepare meeting notes for each meeting and have these available for review at each succeeding meeting.

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

B. BUDGETING

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

C. COST ACCOUNTING

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

D. SCHEDULING

Within one month from the Notice to Proceed (NTP), the ENGINEER will provide a detailed project schedule, which indicates milestones, major activities and deliverables, to the COUNTY for review and comments. This

schedule will reflect assumed review times necessary by all of the agencies involved. Review of the schedule will occur at subsequent trend meetings. Adjustments will be made, if necessary, due to changing circumstances.

E. PROGRESS REPORTING

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

F. CONTRACT ADMINISTRATION

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

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

ARTICLE AIII • PLANNING AND PROJECT DEVELOPMENT

A. RESEARCH AND DATA GATHERING

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

B. PROJECT DEVELOPMENT TEAM

A Project Development Team (PDT) including representatives from the COUNTY, CALTRANS, and other relevant agencies shall be established within fifteen days after NTP.

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

C. PERMITS

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

D. DESIGN SURVEYS

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

E. DESIGN DRAINAGE REPORT

A Design Drainage Report will be prepared to document hydrologic and hydraulic calculations necessary to complete drainage improvement plans related to the grade separation project. Prior to developing hydrology

calculations, a thorough field reconnaissance will be conducted. Available documents pertinent to this Design Drainage Report will be obtained from the COUNTY, CVAG and CALTRANS for review. The ENGINEER's analysis will be closely coordinated with the affected agencies, including the Riverside County Flood Control & Water Conservation District (RCFC & WCD). The Design Drainage Report will quantify the magnitude and frequency of design flows from adjacent areas to the PROJECT area, as well as the volumes attributable to the proposed improvements. It will also include a description of the proposed on-site drainage improvements and any treatment Best Management Practices (BMPs) to be incorporated into the design in order to satisfy agency water pollution control regulations. It is assumed that the proposed improvements will not affect the adjacent Whitewater River Channel.

F. PRELIMINARY FOUNDATION REPORT

The preliminary foundation report is intended for use in the Advanced Planning Study and Bridge Type Selection. ENGINEER shall collect existing subsurface information that is available for the project area including geological maps published by the California Division of Mines and Geology, and geological maps published by the United States Geological Survey.

ENGINEER shall review available data and shall provide seismic and geologic information and groundwater data for the preliminary plans and environmental documents. ENGINEER shall identify any seismic and geologic hazards that will impact the design and construction of this project. These findings will be documented in a report.

G. PLANNING STUDIES

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

H. ENVIRONMENTAL DETERMINATION AND ENVIRONMENTAL ISSUES

The proposed scope of services will address potential biological resource issues as required for the adequate project review process under the California Environmental Quality Act (CEQA), State and Federal Endangered Species Acts, and the recently adopted Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP).

ENGINEER's biological resources assessment will include a review of literature sources, a field survey of the project site, and preparation of a biological resources report that will emphasize sensitive animal and plant species along with special habitats. The report will identify potential impacts, if any, to sensitive resources, and it will suggest mitigation measures for those impacts.

Literature Search and Records Check

Prior to the field survey, ENGINEER will review previous relevant studies in the project vicinity then conduct a literature review to identify sensitive species known or reported in the project area. The literature under review will include the California Natural Diversity Data Base (CNDDB), the California Native Plant Society (CNPS) Electronic Inventory, and the CVMSHCP.

Field Survey

ENGINEER's biologists familiar with sensitive resources will conduct a general on-site survey that will include the following elements:

- Delineating and mapping habitat types
- A directed search for sensitive plant species that potentially could occur within the project site
- A general inventory of wildlife species
- Evaluating suitability of habitat for sensitive resources (i.e., desert tortoise) and others that may be identified during the literature search

- Preliminary identification of areas that may be considered wetlands, waters of the U.S., or streambeds as defined by the U.S. Army Corps of Engineers and the California Department of Fish and Game
- Noting other pertinent features or conditions of the site and adjacent lands

CVMSHCP

ENGINEER biological resource assessment will determine whether the project will meet the conservation objectives of the CVMSHCP, identify any inconsistencies, and suggest measures to achieve consistency as necessary. All projects covered by the CVMSHCP, whether inside or outside the CVMSHCP Conservation Areas, must be reviewed for consistency with the CVMSHCP objectives for conservation of both plant and animal species.

Report Preparation

ENGINEER will prepare a technical report summarizing the survey methodology and results, and including a description of the project area and methods used during the survey. The report also will include findings on sensitive species, an evaluation of potential sensitive habitat, plant and animal species present, and a general habitat description. The report will include graphics showing site location, sensitive species sightings, and sensitive habitat locations, as needed.

The report will analyze potential impacts of the proposed project on the biological resources and all identified sensitive species, if any. The analysis will include a discussion of the types and amount of habitats present on-site and the importance of these habitats in a regional context. The report will also assess cumulative impacts to these resources based on development in surrounding areas.

ENGINEER will identify any areas that may qualify as wetlands or streambeds. Depending on the configuration of the proposed project, formal wetlands delineation may be necessary for permitting

requirements under applicable regulations. The report will survey these issues; however, this scope of services does not include a formal wetlands delineation, determination of jurisdiction, or processing of related permits.

ENGINEER will recommend mitigation measures for the impacts identified during the study, including those to any sensitive biological elements present.

Water Quality and Erosion

The objective of the water quality and erosion study is to describe the existing water resources within the area, to determine if the potential impacts of the project on the water resources would be adverse based on preliminary project information from the RWQCB Basin Plan, and to identify feasible mitigation measures for protection of water quality. This study will discuss how the project would increase the amount of impervious surface area and potentially increase runoff volumes and the amount of water percolating into the local groundwater basin. It will also discuss beneficial uses of the surface water and groundwater in the area and will evaluate appropriate best management practices for mitigating potential pollutants generated from the project which could adversely affect the beneficial uses of the water resources. A PA/ED level Storm Water Data Report shall also be developed at this stage of the project. This report shall comply with Caltrans, City and County requirements for Permanent Water Pollution Control at the site. Since the project is adjacent to the Whitewater River, special construction BMPs related to sites adjacent to water bodies will be required. Dewatering and site access will also be addressed along with the need for construction, source control, and treatment BMPs that satisfy current NPDES permits for the Coachella Valley region. This region is located within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board, the Coachella Valley Water District and Riverside County Flood Control & Water Conservation District. Requirements of each of these agencies will be addressed during this project phase. A Water Quality Technical Memorandum that describes these project issues shall be prepared.

Floodplain

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting,

supporting, or allowing actions in floodplains unless it is the only practicable alternative. In accordance with E.O. 11988 (May 24, 1977), and DOT Order 5650.2, CONSULTANT will prepare documentation to determine whether any of the alternatives will affect a base floodplain. Base floodplain limits shall be determined by using FEMA floodplain maps, or, if one or more are not available for a particular area, on the best available information. The proposed project is located adjacent to the Whitewater River which is a flood control channel owned and operated by the Coachella Valley Water District (CVWD). The channel has been designed to contain the 100-year flood and the "Standard Project Flood" (SPF) which is the largest flood on record that occurred in the Coachella Valley (equal to a flood with return frequency of approximately 500 years). CVWD requires that the SPF be contained within the channel. This will be analyzed during this project phase. Since the SPF flood water is generally contained within the channel, it is assumed that limited to no floodplain impact will occur as a result of this project (since no construction is proposed within the channel). A floodplain technical memorandum that describes the project hydrologic and hydraulic setting and flood plain issues will be prepared during this project phase.

Permits

Permits from regulatory agencies are not anticipated however, the results from the required technical studies may include a determination that permit(s) are needed. Additionally, permits for the material site(s) and/or disposal/borrow site(s) may be required.

This project is not within the County coastal jurisdiction nor is it within state coastal jurisdiction or within state appealable jurisdiction.

I. PROJECT REPORT (EQ)

ENGINEER will prepare the studies for the Draft Project Report (EQ) and obtain approval from the COUNTY and the UPRR. Alternatives have been prepared in a prior Preliminary Engineering Study dated August 15, 2008 and will be the basis of this project scope. This report will include one additional alternative to be considered for final design. This alternative will investigate realigning Airport Blvd (Avenue 56) to the north in order to provide less impact to the existing residences on the south side of Airport Drive. This alternative may

also include retaining walls in lieu slope embankments at bridge approaches. The alternatives take into consideration the future Whitewater River crossing. It is anticipated that the proposed Whitewater River Bridge will be raised from its existing grade. The alternatives will look into accommodating the proposed grade at the Whitewater River crossing which may increase the design speed of Airport Drive. The Project Report (EQ) will examine the preferred roadway alternative based upon forecast traffic volumes, and existing topography. The previous alignment and improvement alternatives will be examined against the new topographic mapping to identify any additional details that might affect the feasibility of the alternatives. It is anticipated that sufficient data and information will be developed such that a preferred alternative will be selected early in the project.

The first step in the project development process will be to evaluate the previously prepared conceptual alternatives for the grade separation with the updated information and data. Those elements to be considered will include:

- Environmental Issues
- Traffic Requirements (Existing and Future)
- Utility Impacts
- Existing Topography
- Horizontal and Vertical Geometric Requirements
- Crossing Type Selection
- Design Exceptions Fact Sheet(s)
- Updated Right of Way Requirements
- Right of Data Sheet
- Project Costs

After completion of this initial step, the COUNTY will review the conceptual alternatives, the impacts and costs of each alternative and make a decision of which alternatives are feasible and should be carried to the next step in the project development process - preparation of the PR. It is anticipated that a single preferred alternative will be advanced and examined in greater detail.

The Project Report (EQ) is the engineering document that provides the transition between the conceptual plans and the proposed project. At the pre-PR meeting, the engineering specifics of the design scope will be discussed. These will include the major features of work associated with the project such as alternatives that substantially lessen or avoid environmental impacts, number of lanes (current and future), and most efficient crossing type. Additional items that need to be considered are roadway drainage systems, impacts to both existing and future utilities and railroad crossing, and cost.

J. GEOMETRIC APPROVAL DRAWINGS

Geometric drawings of the preferred alternative shall be prepared in accordance with Caltrans District 8 GAD requirements near the end of the Project Report (EQ) and Environmental Document phase of the project. It is assumed that only the preferred alternative will be refined to the level of Geometric Approval Drawings (GAD). These will include plans, typical cross sections, profiles and superelevation diagrams. The GAD will include appropriate signature blocks and traffic volume data shown on large sheets to clearly present the overall geometric design rather than on 11" x 17" sheet breakouts with matchlines.

The drawings will reflect Caltrans standards and criteria for this type of facilities and COUNTY standards and criteria for local facilities. Any nonstandard design elements will be documented in the appropriate Fact Sheet documents.

K. GEOTECHNICAL DESIGN REPORT

Geotechnical Investigations

The goals of this task are to document observations of subsurface conditions and collect soil samples for laboratory testing. ENGINEER shall perform the following boring program:

Design Element	No. of Borings	Approx. Depth (ft)
Bridge	4	100

Palm Street	3	10
Avenue 56	2	50
	2	10

The two 10-foot deep soil borings on Avenue 56 will be located on the paved travel lane near the eastern and western ends of the project, respectively. The Palm Street soil borings will be located as follows: two borings will be drilled along the proposed alignment north of Avenue 56, and one boring will be drilled along the paved roadway, south of Avenue 56.

Large bulk samples will be collected for the near-surface soil. Relatively undisturbed and disturbed samples will be collected at approximately 5-foot intervals. The California sampler will be used alternating with the Standard Penetration Test (SPT) sampler. Three disturbed samples from each of the two deep borings will also be collected for grain-size distribution; results of the grain-size distribution will be used for scour analysis.

Laboratory Testing.

The field boring logs shall be reviewed and analyzed to select bulk and undisturbed samples for laboratory testing. The following laboratory tests shall be performed:

In-place moisture and unit weight	Maximum density
Grain-size analysis	Corrosivity
Collapse potential	Sand Equivalent
Direct Shear	R-Value

Additional tests may be necessary depending on the subsurface conditions. All tests shall be conducted in general accordance with Caltrans Test Methods and/or ASTM Standards.

Engineering Analyses

Results obtained from the field and laboratory testing program shall be used to establish an idealized soil

profile and strength parameters for bridge foundation design, and slope stability and settlement calculations for the approaches. ENGINEER shall provide information on remediation measures if the site soils are corrosive to concrete or steel structures. R-value shall be used to determine composite pavement structural sections using Traffic Indices.

Report Preparation

ENGINEER shall prepare a Geotechnical Report for foundation design of the bridge, and roadway pavement and embankment.

Five copies of the draft version of the report shall be submitted for review. Review comments shall be incorporated into a final report and five copies shall be submitted.

ENGINEER's estimate for geotechnical services is base on the following assumptions:

- All soil borings shall be drilled using a hollow-stem auger drill rig and there is no restriction on time of drilling; traffic control will be required on some of the soil borings.
- No installation of groundwater monitoring well.
- No investigation or testing of hazardous materials. If hazardous materials are encountered during the geotechnical field services, ENGINEER shall terminate work and notify COUNTY.
- No drumming and testing of soil cuttings. Soil cuttings shall be used for backfilling boreholes and cold patch asphalt shall be used to cover the borehole at existing traffic lanes.
- Pavement deflection study and recommendations for the overlay thickness, if required, shall be performed by others.
- Boreholes will be located at least 25 feet from the nearby railroad tracks so that an encroachment permit and railroad liability insurance shall not be required from the railroad company.
- ENGINEER shall secure a no-fee encroachment permit from Riverside County; any other permit(s) if required shall be secured by COUNTY.

- Per AREMA, seismic design is based on 3 return periods. If used, COUNTY to provide the return periods.

L. RIGHT OF WAY MAPS

All right of way map preparation will follow County procedures. The ENGINEER shall coordinate with County Right of Way Department to insure that all requirements are followed.

The ENGINEER shall submit 2 sets each of preliminary right of way requirement maps to the COUNTY for review and comment. It is anticipated that COUNTY will use the approved right of way requirement maps to prepare the Legal Descriptions, Plats and Right of Way Maps to acquire the necessary right of way. The COUNTY will be responsible for completion of land acquisition activities.

M. AGREEMENTS

The ENGINEER will provide technical support to the COUNTY as required for obtaining cooperative agreements, construction and maintenance (C&M) and escrow agreements.

N. UTILITY COORDINATION

The intent of the County of Riverside (COUNTY) is that the services of the ENGINEER shall be complete and "turn-key" with respects to all utility coordination matters, except for those procedures that must be performed by COUNTY. This project is proposed to be partially funded by State funds and must therefore conform to process and procedures of the Caltrans Office of Local Programs.

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

ENGINEER shall coordinate with COUNTY staff to obtain record copies of utility maps from each utility owner

within the project limits for existing and/or proposed utility facilities. ENGINEER shall include mapping and/or exhibits that clearly define the project limits as part of the requests for utility information.

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

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

Known utility conflicts shall be shown on the plans with construction notes indicating action to be taken and by whom. Inventory numbers of poles, vaults and other surface facilities shall be shown on the plans for those facilities that have such numbers attached to the facility and as provided on the owner's inventory maps.

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

ENGINEER shall monitor responses of utility notices received and make recommendations for mitigating conflicts. ENGINEER shall provide written responses to utility companies with regard to stated concerns and conduct design coordination meetings with utility companies as needed. Unresolved issues shall be brought to the attention of the COUNTY PROJECT MANAGER and County utility coordination staff as early as practical. Utility conflict issues shall be resolved prior to the completion of the final design plans as follows:

- ENGINEER, through COUNTY staff, shall request and obtain a written acknowledgement of any conflicts from the respective utility owners.

- Reasonable efforts shall be taken to accommodate utility company requests for minor design changes to accommodate their facilities. ENGINEER understands that the utility companies are generally operating within the COUNTY right-of-way, but may have prior rights to that of the COUNTY in some cases.
- ENGINEER shall coordinate inclusion of special provisions in County's bid documents for adjustments and relocations of utility facilities as alternate bid items, if requested by the owning utility. Said work may require that cooperative agreements be prepared by COUNTY between the County of Riverside and the owning utility companies. Engineer shall provide information and exhibits as required to support the preparation of cooperative agreements, if needed.

ENGINEER shall conduct utility coordination meetings, as needed, regarding adjustments and relocations, to resolve conflict issues, and with respect to performing work for utility companies by COUNTY contractors.

For utility conflicts that require relocating, COUNTY staff will submit the official notice / order to the utility companies to relocate conflicting facilities.

ENGINEER shall make recommendations for special provision language with regard to utility issues, recommendations for construction windows of time for utility relocation activities, recommendations for inclusion of utility bid items, etc.

If new electrical service will be needed, ENGINEER shall provide support as directed by COUNTY. Such support includes, but is not limited to, the following responsibilities:

- Obtain approved electrical service point from the serving electric company for each service equipment enclosure to be installed, and identify requirements that the serving electric company has for the provision of service. Fulfill serving electric company requirements as appropriate, and advise COUNTY of requirements that are beyond the scope of the consultant (e.g.: applications for service).
- Serving electric company shall be notified that Electrical Safety Orders clearance requirements must be met (10' radial clearance between 12kv overhead electrical facilities and signal poles and mast arms, and greater clearance for higher voltage electrical facilities). Show such clearance conflicts on the plans with construction notes.

- Submit plans indicating proposed service connection locations to serving electric company for approval (service equipment enclosure, conduit runs, riser quadrant, pole number, and connections to vaults as appropriate).
- Provide detailed load calculations to serving electric company, with a copy to the COUNTY, which provides calculations of the normal and maximum expected loads.

ENGINEER shall assist with the resolution of utility related issues that may arise during the bidding process and during construction, including design modifications as needed and as approved by the COUNTY PROJECT MANAGER.

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

O. MISCELLANEOUS DESIGN SUPPORT

Design Exceptions

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

Traffic Management Plan

The ENGINEER shall prepare and submit a Traffic Management Plan for COUNTY review and approval.

Retaining Wall Design

The ENGINEER can provide design and construction services for retaining walls if COUNTY deems this necessary, and approves and agreed upon additional scope and budget for providing such services.

ARTICLE AIV • STRUCTURES

A. STRUCTURE TYPE SELECTION AND BRIDGE GENERAL PLANS

The culmination of preliminary design work will lead to the submittal and presentation for review and approval of a General Plan for the proposed structures. This process will be considered the "Structure Type Selection" process and no further design work shall be performed until written approval of the structure types is received

from COUNTY. A Type Selection Review Meeting will be held with the COUNTY in which the ENGINEER shall be prepared to discuss and provide information on foundation requirements, hydrological requirements, falsework requirements, seismic and aesthetic considerations, traffic handling, construction cost and other pertinent information that is needed to determine the proper structure types.

Ten copies of the proposed General Plans, General Plan Estimates, Type Selection Memos and a Vicinity Map shall be submitted for review two weeks prior to the Structure Type Selection Review Meeting. The results of the meeting will be summarized in writing by the ENGINEER within two weeks following the meeting.

Within two weeks after receiving written approval of the proposed General Plan and structure type, the ENGINEER shall furnish the County with 20 reduced (11" x 17") copies of the approved General Plan. These will be distributed for comments as dictated by Bridge Memo to Designers 1-5. Any comments received will be forwarded to the ENGINEER.

B. GEOTECHNICAL COORDINATION AND FOUNDATION REPORT

Foundation Report

Foundation design and construction recommendations shall be included in the geotechnical report as described in Article AIII, Item "K".

C. STRUCTURAL DESIGN AND CALCULATIONS

Following the Type Selection Meeting and approval of the General Plans, structural design calculations shall be prepared in conformance with Caltrans design specifications and procedures. All plans and calculations shall conform to CALTRANS and AREMA requirements and shall be made available for review upon request.

The Bridge Design Specifications, California Department of Transportation, DOS current editions shall be used as design criteria.

Bridge Plans shall be prepared in accordance with the Bridge Design Details Manual, Bridge Design Aids Manual and Bridge Memos to Designers, California Department of Transportation, DOS current editions and

AREMA Manual.

The scope of this work shall include but not be limited to:

- Construction details for each design shall be prepared on DOS format plan sheets. Blank reproducible sample plan sheets will be provided. DOS will supply the COUNTY with the needed standard drawings as shown in Section 20 of the Bridge Design Details Manual and the current Standard Plans. These standard drawings and Standard Plans shall be incorporated into the Contract Plans where applicable.
- Each plan sheet shall be signed and stamped by the responsible design engineer who is registered in the State of California. Each design shall be independently checked by a Professional Engineer registered in the State of California.

D. INDEPENDENT CHECK REVIEW AND QUALITY CONTROL

An Independent Check review shall be conducted as soon as the initial design is complete. Checking shall include the preparation of an independent set of structural design check calculations and review of the plans and details. The checker and the designer will resolve any disagreements and concur on any revisions to the contract plans.

E. STRUCTURE SPECIFICATIONS & ESTIMATES

Special Provisions shall be prepared for items not covered by the CALTRANS Standard Specifications or Standard Special Provisions (SSP's). The ENGINEER shall edit Standard Special Provisions (SSPs) and prepare Structure Special Provisions specific to this project which will be incorporated into the final PS&E. These Structure Special Provisions shall be prepared, signed and stamped by a Professional Engineer registered in the State of California.

The ENGINEER shall prepare quantity calculations for bid items and prepare the bridge cost estimate. All contract items used shall be substantiated by calculations. Quantity calculations shall be neat and orderly and shall show all sketches, diagrams and dimensions necessary to allow them to be independently used by

field inspectors. All quantity calculations shall be independently checked and substantiated with calculations. The Construction Cost Estimate shall be prepared using the latest available Caltrans cost data, COUNTY cost data and actual recent construction costs in the PROJECT area.

F. INITIAL STRUCTURE PS&E (65% UNCHECKED PLANS)

The Initial (65% Unchecked Plans) structure PS&E shall be compiled and submitted for review to the COUNTY, Caltrans DOS and Union Pacific Railroad Company. These documents will be submitted to the County in electronic "pdf" format.

G. INTERMEDIATE STRUCTURE PS&E (90% CHECKED PLANS)

The Intermediate (95% Checked Plans) structure PS&E shall be compiled and submitted for review to the COUNTY, Caltrans DOS and Union Pacific Railroad Company. These documents will be submitted to the County in electronic "pdf" format.

H. DRAFT FINAL STRUCTURE PS&E (95%)

The Draft (95%) structure PS&E shall be compiled and submitted for review to the COUNTY, Caltrans DOS and Union Pacific Railroad Company. This shall include for each bridge:

One set of reproducible and seven sets of "blueline" plans, two copies of design calculations and design check calculations, three sets of quantity calculations and Marginal Estimates and three sets of edited Structure Special Provisions. (One copy of each shall be returned with comments). The package shall be accompanied by a Structures PS&E checklist. These documents will be submitted to the County in electronic "pdf" format.

I. FINAL STRUCTURE PS&E

The Final structure PS&E shall incorporate review comments from the COUNTY, Caltrans DOS, UPRR and other affected agencies. The ENGINEER shall provide all necessary documents in a bid-ready form.

COUNTY shall advertise, award and administer the construction contract for this PROJECT.

The ENGINEER shall deliver the following documents to COUNTY and Caltrans:

1 set of original tracings of final design plans

1 set of vellums of final design plans

1 set of "blue-lines" of final design plans

1 set of final Structure Special Provisions

1 copy of final quantity calculations and estimate

1 copy of final design calculations

1 copy of design check calculations (upon request)

1 vellum and 2 "blue-lines" of bridge full-scale plans in accordance with Memo to Designers 2-2.

2 Resident Engineer's Files (structures information)

2 copies of Environmental Constraint Areas (if required by Environmental Document)

ARTICLE AV • ROADWAY

The title sheet for specifications and reports, and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of the certificate and signature of the Professional Engineer responsible for their preparation. All roadway plans shall also use single sheet files.

The following is a summary listing of drawing types that shall be prepared as part of the roadway PS&E:

A. BASIC ROADWAY PLANS

- Title Sheet
- Street Improvement Plans
- Erosion Control Plan
- Typical Cross Sections
- Construction Details

B. CALCULATIONS

The following calculations shall be provided:

- Geometric Traverse and right of way (ROW)
- Profile
- Other Quantities
- Grid Grades
- Earthwork Quantities

C. DRAINAGE PLANS

CONSULTANT shall perform hydrology and hydraulic studies to obtain and provide design solutions, which will remove surface runoff from the area of the improvements. Studies and designs shall be performed in accordance with Chapter 800 of the current Highway Design Manual, District 8 Project Development Policy Memos and the current CALTRANS Standard Plans. The on-site drainage system shall include appropriate treatment BMPs designed in accordance with the most recent version of the CALTRANS Project Planning and Design Guide (PPDG). A Drainage Report describing the hydraulics and hydrology of the proposed systems and including drainage area maps and drawings shall be developed at the 65% and 95% completion

levels. The Storm Water Data Report will updated at the PS&E level. For the 65% and 95% completion level, the following roadway drainage related drawings shall be developed:

- Storm Drain Plans (estimated 3 sheets)
- Erosion Control Plans (estimated 1 sheet)

D. TRAFFIC PLANS

The following list of drawing types and the number of sheets estimated shall include:

- Street Lighting Plans
- Signal Plan
- Stage Construction and Traffic Handling
- Striping and Signing Plans

E. MISCELLANEOUS PLANS

- Utility Conflict Composite Plan
- Right of Way Requirements

F. INTERMEDIATE REVIEWS

Roadway, drainage, traffic and miscellaneous plans shall be submitted for review to the COUNTY at the 65%, 95% and 100% complete stage. A pre-65% submittal shall be prepared and submitted that consists of "skeletal" layouts at approximately 30% completion to confirm appropriate direction of the designs and plan set. The ENGINEER shall submit the intermediate plans electronic "pdf" format to the County for review. Roadway cross sections, and grid grades shall be submitted only at the 100% complete submittal stage.

G. SPECIFICATIONS AND ESTIMATE

Specifications and Special Provisions shall be prepared for items not covered by the Caltrans Standard Specifications or Standard Special Provisions and submitted to County in electronic "pdf" format for intermediate reviews.

The Roadway Construction Cost Estimate shall be prepared using the latest available Caltrans cost data, COUNTY cost data and actual recent construction costs in the PROJECT area. The cost estimates will be

submitted to the County in electronic "pdf" format for intermediate reviews.

H. QUALITY CONTROL

The Plans, Specifications and Estimate (PS&E) shall be subject to quality control reviews before submittal. These reviews shall assure conformance to Caltrans and COUNTY standards and criteria as well as minimize typographical omissions.

I. DRAFT PS&E (95% COMPLETE)

The roadway plans, revised to incorporate Quality Control review comments, shall be submitted to the COUNTY for review and comment in electronic "pdf" format. These will include:

- Roadway Plans
- Special Provisions
- Design Calculations
- Roadway Quantities and Cost Estimate

One safety/constructability review meeting shall be held at the 95% PS&E stage.

J. FINAL PS&E (100% COMPLETE)

The final PS&E will incorporate applicable comments from the draft PS&E received from the COUNTY, Caltrans and other affected agencies. The ENGINEER will provide the necessary final PS&E documents in a bid-ready form. PROJECT files and the Project Engineer's/Resident Engineer's file will also be submitted with the final PS&E. The entire PROJECT, which will be prepared in MicroStation format, will be submitted upon final approval of the PS&E.

ARTICLE AVI • CONSTRUCTION BIDDING PHASE

Bidding procedures will be the responsibility of COUNTY. While the PROJECT is being advertised for bids, all questions concerning the intent shall be referred to COUNTY for resolution. In the event that the items requiring interpretation in the drawings or specifications are discovered during the bidding period, said items shall be analyzed by the ENGINEER for decision by COUNTY as to the proper procedure required. Corrective action taken will either be in the form of an addendum prepared by the ENGINEER and issued by COUNTY or by covering change order after the award of the construction contract.

ARTICLE AVII • CONSTRUCTION SUPPORT PHASE

A. ENGINEER shall attend the pre-construction meeting with the successful construction contractor upon notification by the COUNTY.

B. Upon award of the construction contract, ENGINEER will proceed with the Construction Support Phase services required by this contract.

C. During construction, the ENGINEER shall furnish all necessary additional drawings for correcting and change orders required by errors and omissions of ENGINEER. Such drawings will be requested in writing from the ENGINEER by COUNTY and shall be at no additional cost to the COUNTY. The original tracing(s) of the drawings and contract wording for change orders shall be submitted to the COUNTY for duplication and distribution.

D. ENGINEER shall review shop drawings and RFI's submitted by the construction contractor (falsework review is not included). ENGINEER shall complete shop plan reviews within two weeks of receipt. Contract change order and RFI reviews shall be completed within two working days of receipt.

E. Drawings and change orders required due to actions of the COUNTY, which are beyond the scope of the ENGINEER's responsibilities, shall be considered extra services.

F. ENGINEER shall be available to visit to the jobsite for on-site review of construction and other visits to the jobsite as requested by the COUNTY to resolve any discrepancies in the contract documents. ENGINEER shall bring to the attention of the County Resident Engineer any defects or deficiencies in the work by the construction contractor, which the ENGINEER may observe. ENGINEER shall have no authority to issue instructions on behalf of the COUNTY or to deputize another to do so. All agreements shall be between the COUNTY and its construction contractor. These provisions shall not be construed as making the ENGINEER responsible for failure of the construction contractor to carry out the work in accordance with the contract documents nor the construction means or methods or techniques, sequences, procedures or safety programs in connection with the work.

G. ENGINEER shall prepare and deliver to the COUNTY the "As-Built" plans within two months of completion of structure construction.

ARTICLE AVIII • COMPUTER FACILITIES

A. CALCULATIONS

All roadway calculations will be performed using COGO PC and InRoads or Road Calc. The structural analyses and design will be performed by using STAADIII, GTSTRUDL, SEISAB, PCBRIDGE, PCYIELD, PCFOOT, PCBENT and PCABUT programs. The data files and the results will be submitted electronically on compact discs along with a hard copy.

B. COMPUTER AIDED DRAFTING AND DESIGN (CADD)

All plans will be prepared using MicroStation format in conformance with the latest Caltrans CADD Users Manual and the Caltrans Drafting Manual to assure complete compatibility.

ARTICLE AIX • VALUE ENGINEERING

A value engineering review may be undertaken as early in the Project Development process as is applicable. This will assist in identifying possible cost reduction measures. The Value Analysis Study effort will involve review by senior staff of the ENGINEER as well as peer review by the COUNTY and other agency staff.

ARTICLE AX • QUALITY CONTROL PLAN

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

APPENDIX B • ARTICLE BI • INTRODUCTION

The Engineer shall perform the covenants set forth in Appendix A, Scope of Services in accordance with the performance requirements of Article V of this agreement and with the following Schedule of Services. All Covenants set forth in this agreement shall be completed by December 2015, unless extended by supplemental agreement.

A. PHASES

The Schedule is divided into the following four phases:

Phase I – Project Report (EQ)/Environmental Document

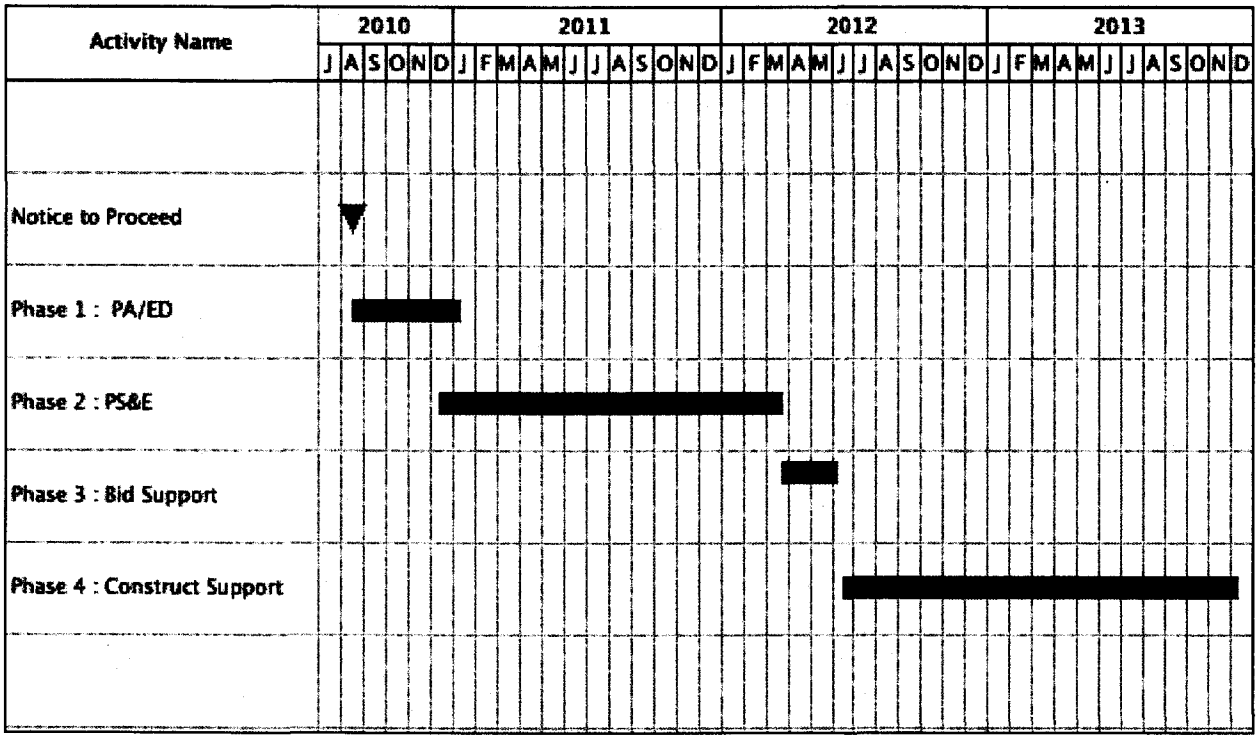
Phase II – Plans, Specifications, and Estimate (PS&E)

Phase III – Bidding and Award Support

Phase IV – Design Support Services During Construction

B. PROJECT SCHEDULE

A project schedule is provided that graphically illustrates the sequencing and completion time for the project phases.



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

APPENDIX C • ARTICLE CI • ELEMENTS OF COMPENSATION

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

A. DIRECT LABOR COSTS

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

1. Direct Salary Costs

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

2. Multiplier

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

   PAYROLL ADDITIVES ..... 62.2 %

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

OVERHEAD COSTS ..... 96.12 %

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

TOTAL MULTIPLIER ..... 158.32 %

(sum of Payroll Additives and Overhead Costs)

B. FIXED FEE

1. The Total Fixed Fee payable to the ENGINEER is $ 145,547.37 (PRIME CONSULTANT Profit)
2. A pro-rata share of the Fixed Fee shall be applied to the total Direct Labor Costs expended for services each month, and shall be included on each monthly invoice.

C. OTHER DIRECT EXPENSES

1. Additional Direct Costs, directly identifiable to the performance of the services of this Agreement, shall be reimbursed at the rates shown in the Engineer's cost proposal, or at actual invoiced cost.

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

D. OUTSIDE SERVICES

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

ARTICLE CII • DIRECT SALARY RATES

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

A. PREMIUM OVERTIME

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

B. SALARY RATES

Direct Salary Range of Rates shown herein are in effect for the duration of the Agreement. In the event ENGINEER desires to adjust the rates as shown; ENGINEER shall notify COUNTY in writing requesting a change. All adjustments to the Range of Rates shall be subject to approval by the County Director of Transportation, or his designee.

POSITION OR CLASSIFICATION	RANGE OF HOURLY RATES			
Project Manager	$73	-	$90	hour
Senior Civil Engineer	$ 45	-	$78	hour
Drainage Engineer	$ 45	-	$70	hour
Civil Engineer	$ 35	-	$55	hour
CADD	$ 35	-	$50	hour
Project Administrator	$ 20	-	$35	hour
Project Control	$ 30	-	$45	hour
Senior Environmental Engineer	$ 45	-	$65	hour
Environmental Planner	$ 25	-	$40	hour
Bridge Engineer	$ 45	-	$70	hour
Bridge Designer	$ 40	-	$65	hour

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

ARTICLE CIII • INVOICING

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

1. Charges shall be billed in accordance with the terms and rates included herein, unless otherwise agreed in writing by the County Contract Administrator.
2. Base Work and Extra Work shall be charged separately, and the charges for each Phase listed in Appendix B, Schedule of Services, shall be listed separately. The charges for each individual assigned under this Agreement shall be listed separately.
3. Charges of $500.00 or more for any one item of Additional Direct Costs shall be accompanied by

substantiating documentation such as invoices, telephone logs, etc.

4. Each invoice shall indicate payments to DBE subconsultants or supplies by dollar amount and as a percentage of the total invoice and shall state the DBE goals as a percentage of Total Agreement Value.

5. Each invoice shall bear a certification signed by the Engineering Contract Manager or an officer of the firm which reads as follows:

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

ARTICLE CIV • PAYMENT

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

ARTICLE CV • COST PROPOSAL

The following cost proposal reflects the negotiated targeted contract amount. The cost proposal will serve as a guideline and reference document during the execution of this contract. ENGINEER shall be compensated in accordance with the rates provided. The Total amount of the contract is not to exceed **$1,745,042.75** (not including contingency), and reimbursement is to be made at actual cost plus fixed fee for the consultants shown in the attached ENGINEER's cost proposal. In addition to ENGINEERS's cost proposal budget, a contingency budget in the amount of **$200,000** will be administered by COUNTY for unforeseen Extra Work that may arise during the performance of this agreement. The contingency budget shall only be used at the discretion of the COUNTY, and with prior written authorization by the COUNTY PROJECT MANAGER.

FEE PROPOSAL SUMMARY							
		PHASE 1	PHASE II	PHASE III	PHASE IV	PHASE V	TOTALS
PARSONS	ROADWAY/DRAINAGE	$200,778.75	$713,525.70	$13,776.71	$61,934.22		$990,015.38
PARSONS	STRUCTURES	$38,280.62	$501,486.42	$11,879.37	$29,159.11		$580,805.52
PARSONS	ENVIRONMENTAL	$66,462.19					$66,462.19
Earth Mechanics, Inc.	GEOTECHNICAL	$10,356.97	$77,299.20		$9,963.27		$97,619.44
LSA	ENVIRONMENTAL	$10,140.22					$10,140.22
	TOTALS	$326,018.74	$1,292,311.33	$25,656.08	$101,056.60		$1,745,042.75

Phase I: Project Report (EQ)/Environmental Document
Phase II: Plans, Specifications, and Estimate (PS&E)
Phase III: Bidding and Award Support (T&M)
Phase IV: Design Support Services During Construction (T&M)
Phase V: Project Closeout (T&M)

8/12/2009

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
PARSONS	Project Summary - Planning and Project Development	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJ SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		All Phases	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT	
C. Cadena	Princpal In Charge	30	@	$95.00	$2,850.00	(*)
J. Gonzalez	Project Manager	1466	@	$73.46	$107,688.69	(*)
J. Zheng	Senior Project Engineer	235	@	$67.50	$15,862.50	
B. Steaffens	Senior Project Engineer	242	@	$62.09	$15,025.78	
E. Diaz	Project Engineer	160	@	$52.79	$8,420.01	
S. Teshale	Project Engineer	322	@	$54.35	$17,473.53	
R. Ong	Project Engineer	1202	@	$50.57	$60,789.69	
L. Law	Engineer	764	@	$39.75	$30,353.10	
L. Hui	Engineer	310	@	$36.46	$11,302.60	
D. Pearman	Drafter	795	@	$42.05	$33,444.89	
K. Strassner	Clerical	61	@	$41.49	$2,530.89	
C. Leavitt	Clerical	288	@	$24.82	$7,145.31	
R. Bottcher	Drainage Manager	158	@	$65.86	$10,405.88	
M. Galvan	Drainage Engineer	141	@	$48.21	$6,797.61	
R. Hansen	Drainage Engineer	166	@	$46.18	$7,665.88	
G. Petersen	Env Proj Mgr	52	@	$88.87	$4,621.24	
G. Ruiz	Sr Planner	98	@	$57.69	$5,653.62	
T. Luc	Sr. Noise Engineer	130	@	$60.24	$7,831.20	
L. Provenzano	Associate Planner	76	@	$29.10	$2,211.60	
Graphics	Graphics Specialist	96	@	$32.00	$3,072.00	
T. Sardo	Bridge Proj Mgr	521	@	$85.00	$44,242.50	
R. Campbell	Bridge Proj Eng	1210	@	$67.31	$81,445.10	
M. Ruvacalva	Bridge Designer	968	@	$44.10	$42,688.80	
P. Johnson	Bridge Drafter	695	@	$44.80	$31,127.67	
C. Administration	Bridge Admin	90	@	$30.98	$2,788.20	
	TOTAL HOURS	10274		TOTAL DIRECT LABOR		$563,438.27

MULTIPLIERS

OVERHEAD @	96.12% (of Total Direct Labor + Escalation)	$541,576.86	
PAYROLL ADDITIVES @	62.20% (of Total Direct Labor + Escalation)	$350,458.60	
		TOTAL MULTIPLIERS	$892,035.47

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Roadway ODCs					
Travel	9,300	miles	@	$0.55	$5,115.00
Plots/Reproduction (11"x17")	12,000	each	@	$1.20	$14,400.00
Exhibits/Reports	52	each	@	$50.00	$2,600.00
Mail	168	each	@	$17.00	$2,856.00
Reproduction	400	each	@	$1.20	$480.00
Shipping Delivery		lump sum			$200.00
Visual Similation Boards		lump sum			$250.00
Structures ODCs					
Travel	4,000	miles	@	$0.55	$2,200.00
Plots/Reproduction (11"x17")	2,000	each	@	$1.20	$2,400.00
Plots/Reproduction/Photos/Commercial Printing	800	each	@	$0.15	$120.00
Mail, overnight mail, courier	52	each	@	$14.00	$728.00
Mylar copies	270	each	@	$2.00	$540.00
				TOTAL OTHER DIRECT EXPENSES	$31,889.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Earth Mechanics, Inc.	$26,524.68	$50,794.76	$20,300.00	$97,619.44
LSA	$3,292.28	$6,847.94		$10,140.22
			TOTAL OUTSIDE SERVICES	$107,759.66

FEES

PARSONS @	10.00% (of Total Direct Labor + Total Multipliers)	$145,547.37	
OUTSIDE SERVICES @	5.00% (of Total Labor + Total Multiplier for Outside Services)	$4,372.98	
		TOTAL FEES	$149,920.36
		TOTAL COST	**$1,745,042.75**

*Note: Principal In Charge hourly salary rate is lower than actual.
Project Manager hourly salary rate is not a "direct salary cost" and is adjusted to meet range of hourly rates in Appendix C.

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
PARSONS	Project Report (EQ)/Environmental Document	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJ SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase I - PR (EQ)/ED	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
C. Cadena	Princpal In Charge	16	@	$95.00	$1,520.00
J. Gonzalez	Project Manager	294	@	$73.46	$21,597.24
J. Zheng	Senior Project Engineer	36	@	$67.50	$2,430.00
B. Steaffens	Senior Project Engineer	86	@	$62.09	$5,339.74
E. Diaz	Project Engineer	20	@	$52.79	$1,055.80
S. Teshale	Project Engineer	46	@	$54.35	$2,500.10
R. Ong	Project Engineer	282	@	$50.57	$14,260.74
L. Law	Engineer	34	@	$39.75	$1,351.50
L. Hui	Engineer	74	@	$36.46	$2,698.04
D. Pearman	Drafter	98	@	$42.05	$4,120.90
K. Strassner	Clerical	3	@	$41.49	$124.47
C. Leavitt	Clerical	103	@	$24.82	$2,556.46
R. Bottcher	Drainage Manager	68	@	$65.86	$4,478.48
M. Galvan	Drainage Engineer	66	@	$48.21	$3,181.86
R. Hansen	Drainage Engineer	46	@	$46.18	$2,124.28
G. Petersen	Env Proj Mgr	52	@	$88.87	$4,621.24
G. Ruiz	Sr Planner	98	@	$57.69	$5,653.62
T. Luc	Sr. Noise Engineer	130	@	$60.24	$7,831.20
L. Provenzano	Associate Planner	76	@	$29.10	$2,211.60
Graphics	Graphics Specialist	96	@	$32.00	$3,072.00
T. Sardo	Bridge Proj Mgr	46	@	$85.00	$3,910.00
R. Campbell	Bridge Proj Eng	88	@	$67.31	$5,923.28
M. Ruvacalva	Bridge Designer	50	@	$44.10	$2,205.00
P. Johnson	Bridge Drafter	32	@	$44.80	$1,433.60
C. Administration	Bridge Admin			$30.98	
	TOTAL HOURS	1940		TOTAL DIRECT LABOR	$106,201.15

MULTIPLIERS

OVERHEAD @	96.12%	(of Total Direct Labor + Escalation)	$102,080.55
PAYROLL ADDITIVES @	62.20%	(of Total Direct Labor + Escalation)	$66,057.12
		TOTAL MULTIPLIERS	$168,137.66

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Roadway ODCs					
Travel	1800	miles	@	$0.55	$990.00
Plots/Reproduction (11"x17")					
Exhibits/Reports	12	each	@	$50.00	$600.00
Mail	12	each	@	$17.00	$204.00
Reproduction	400	each	@	$1.20	$480.00
Shipping Delivery		lump sum			$200.00
Visual Similation Boards		lump sum			$250.00
				TOTAL OTHER DIRECT EXPENSES	$2,724.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Earth Mechanics, Inc.	$3,552.99	$6,803.98		$10,356.97
LSA	$3,292.28	$6,847.94		$10,140.22
			TOTAL OUTSIDE SERVICES	$20,497.19

FEES

PARSONS @	10.00%	(of Total Direct Labor + Total Multipliers)	$27,433.88
OUTSIDE SERVICES @	5.00%	(of Total Labor + Total Multiplier for Outside Services)	$1,024.86
		TOTAL FEES	$28,458.74
		TOTAL COST	**$326,018.74**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
Earth Mechanics, Inc.	Geotechnical Engineering	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJ SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase I	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
Lino Cheang, PE, GE	Project Manager	28	@	$71.51	$2,002.14
A. Korkos, PE, GE	Principal Engineer		@	$55.65	
B. Schell, PG, CEG	Senior Geologist		@	$45.15	
E. Brown, PE	Senior Engineer	32	@	$47.78	$1,528.80
R. Jie	Senior Technician		@	$42.53	
J. Lander	Clerical	1	@	$22.05	$22.05

TOTAL HOURS 61 TOTAL DIRECT LABOR $3,552.99

MULTIPLIERS

OVERHEAD @	165.00%	(of Total Direct Labor + Escalation)	$5,862.43
PAYROLL ADDITIVES @		(of Total Direct Labor + Escalation)	

TOTAL MULTIPLIERS $5,862.43

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT

TOTAL OTHER DIRECT EXPENSES

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL

TOTAL OUTSIDE SERVICES

FEES

OUTSIDE SERVICES ADMIN FEE @		(of Total Outside Services & Outside Services Fees)	
EARTH MECHANICS, INC. @	10.00%	(of Total Direct Labor + Total Multipliers)	$941.54
OUTSIDE SERVICES @	10.00%	(of Total Labor + Total Multiplier for Outside Services	

TOTAL FEES $941.54

TOTAL COST **$10,356.97**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
LSA	Environmental	8/12/2009	1

PROJECT:	MILESTONE/PHASE/PROJ SUMMARY:
AVENUE 56/UPRR GRADE SEPARATION PROJECT	Phase 1

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
Associate		10	@	$48.70	$487.00
Senior Planner		32	@	$38.96	$1,246.72
Planner		48	@	$32.47	$1,558.56

TOTAL HOURS 90 — TOTAL DIRECT LABOR $3,292.28

MULTIPLIERS

ESCALATION @		(Rate)	
OVERHEAD @	180.00%	(of Total Direct Labor + Escalation)	$5,926.10
PAYROLL ADDITIVES @		(of Total Direct Labor + Escalation)	

TOTAL MULTIPLIERS $5,926.10

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT

TOTAL OTHER DIRECT EXPENSES

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL

TOTAL OUTSIDE SERVICES

FEES

OUTSIDE SERVICES ADMIN FEE @		(of Total Outside Services & Outside Services Fees	
LSA @	10.00%	(of Total Direct Labor + Total Multipliers)	$921.84
OUTSIDE SERVICES @	10.00%	(of Total Labor + Total Multiplier for Outside Service	

TOTAL FEES $921.84

TOTAL COST $10,140.22

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
PARSONS	Plans, Specifications, and Estimate (PS&E)	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJ SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase II - PS&E	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
C. Cadena	Princpal In Charge	14	@	$95.00	$1,330.00
J. Gonzalez	Project Manager	994	@	$73.46	$73,015.57
J. Zheng	Senior Project Engineer	199	@	$67.50	$13,432.50
B. Steaffens	Senior Project Engineer	156	@	$62.09	$9,686.04
E. Diaz	Project Engineer	140	@	$52.79	$7,364.21
S. Teshale	Project Engineer	276	@	$54.35	$14,973.43
R. Ong	Project Engineer	800	@	$50.57	$40,460.55
L. Law	Engineer	630	@	$39.75	$25,026.60
L. Hui	Engineer	236	@	$36.46	$8,604.56
D. Pearman	Drafter	617	@	$42.05	$25,959.99
K. Strassner	Clerical	58	@	$41.49	$2,406.42
C. Leavitt	Clerical	185	@	$24.82	$4,588.85
R. Bottcher	Drainage Manager	90	@	$65.86	$5,927.40
M. Galvan	Drainage Engineer	75		$48.21	$3,615.75
R. Hansen	Drainage Engineer	120		$46.18	$5,541.60
G. Petersen	Env Proj Mgr			$88.87	
G. Ruiz	Sr Planner			$57.69	
T. Luc	Sr. Noise Engineer			$60.24	
L. Provenzano	Associate Planner			$29.10	
Graphics	Graphics Specialist			$32.00	
T. Sardo	Bridge Proj Mgr	417	@	$85.00	$35,402.50
R. Campbell	Bridge Proj Eng	1098	@	$67.31	$73,906.38
M. Ruvacalva	Bridge Designer	840	@	$44.10	$37,044.00
P. Johnson	Bridge Drafter	605	@	$44.80	$27,095.67
C. Administration	Bridge Admin	30	@	$30.98	$929.40
	TOTAL HOURS	7578		TOTAL DIRECT LABOR	$416,311.40

MULTIPLIERS

OVERHEAD @	96.12% (of Total Direct Labor + Escalation)	$400,158.52	
PAYROLL ADDITIVES @	62.20% (of Total Direct Labor + Escalation)	$258,945.69	
		TOTAL MULTIPLIERS	$659,104.21

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Roadway ODCs					
Travel	7,500	miles	@	$0.55	$4,125.00
Plots/Reproduction (11"x17")	12,000	each	@	$1.20	$14,400.00
Exhibits/Reports	40	each	@	$50.00	$2,000.00
Mail	156	each	@	$17.00	$2,652.00
Reproduction					
Shipping Delivery					
Visual Similation Boards					
Structures ODCs					
Travel	4,000	miles	@	$0.55	$2,200.00
Plots/Reproduction (11"x17")	2,000	each	@	$1.20	$2,400.00
Plots/Reproduction/Photos/Commercial Printing	800	each	@	$0.15	$120.00
Mail, overnight mail, courier	52	each	@	$14.00	$728.00
Mylar copies	270	each	@	$2.00	$540.00
				TOTAL OTHER DIRECT EXPENSES	$29,165.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Earth Mechanics, Inc.	$19,828.20	$37,971.00	$19,500.00	$77,299.20
LSA				
			TOTAL OUTSIDE SERVICES	$77,299.20

FEES

PARSONS @	10.00% (of Total Direct Labor + Total Multipliers)	$107,541.56	
OUTSIDE SERVICES @	5.00% (of Total Labor + Total Multiplier for Outside Service	$2,889.96	
		TOTAL FEES	$110,431.52
		TOTAL COST	**$1,292,311.33**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
Earth Mechanics, Inc.	Geotechnical Engineering	8/12/2009	1

PROJECT:	MILESTONE/PHASE/PROJ SUMMARY:	
AVENUE 56/UPRR GRADE SEPARATION PROJECT	Phase 2	PS&E

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
Lino Cheang, PE, GE	Project Manager	50	@	$71.51	$3,575.25
A. Korkos, PE, GE	Principal Engineer	66	@	$55.65	$3,672.90
B. Schell, PG, CEG	Senior Geologist	28	@	$45.15	$1,264.20
E. Brown, PE	Senior Engineer	122	@	$47.78	$5,828.55
R. Jie	Senior Technician	128	@	$42.53	$5,443.20
J. Lander	Clerical	2	@	$22.05	$44.10
	TOTAL HOURS	396		TOTAL DIRECT LABOR	$19,828.20

MULTIPLIERS

OVERHEAD @	165.00%	(of Total Direct Labor + Escalation)	$32,716.53
PAYROLL ADDITIVES @		(of Total Direct Labor + Escalation)	
		TOTAL MULTIPLIERS	$32,716.53

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Drilling and Soil Sampling	1		@	$9,500.00	$9,500.00
Traffic Control	1		@	$3,600.00	$3,600.00
Soil Laboratory Testing	1		@	$6,200.00	$6,200.00
Shipping	1		@	$200.00	$200.00
		TOTAL OTHER DIRECT EXPENSES			$19,500.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
			TOTAL OUTSIDE SERVICES	

FEES

OUTSIDE SERVICES ADMIN FEE @		(of Total Outside Services & Outside Services Fees)	
EARTH MECHANICS, INC. @	10.00%	(of Total Direct Labor + Total Multipliers)	$5,254.47
OUTSIDE SERVICES @	5.00%	(of Total Labor + Total Multiplier for Outside Services	
		TOTAL FEES	$5,254.47
		TOTAL COST	**$77,299.20**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
PARSONS	Bidding and Award Support (T&M)	8/12/2009	1

PROJECT:	MILESTONE/PHASE/PROJECT SUMMARY:
AVENUE 56/UPRR GRADE SEPARATION PROJECT	Phase III - Bidding and Award Support

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
C. Cadena	Princpal In Charge			$95.00	
J. Gonzalez	Project Manager	66	@	$73.46	$4,848.36
J. Zheng	Senior Project Engineer			$67.50	
B. Steaffens	Senior Project Engineer			$62.09	
E. Diaz	Project Engineer			$52.79	
S. Teshale	Project Engineer			$54.35	
R. Ong	Project Engineer			$50.57	
L. Law	Engineer			$39.75	
L. Hui	Engineer			$36.46	
D. Pearman	Drafter			$42.05	
K. Strassner	Clerical			$41.49	
C. Leavitt	Clerical			$24.82	
R. Bottcher	Drainage Manager			$65.86	
M. Galvan	Drainage Engineer			$48.21	
R. Hansen	Drainage Engineer			$46.18	
G. Petersen	Env Proj Mgr			$88.87	
G. Ruiz	Sr Planner			$57.69	
T. Luc	Sr. Noise Engineer			$60.24	
L. Provenzano	Associate Planner			$29.10	
Graphics	Graphics Specialist			$32.00	
T. Sardo	Bridge Proj Mgr	14	@	$85.00	$1,190.00
R. Campbell	Bridge Proj Eng	24	@	$67.31	$1,615.44
M. Ruvacalva	Bridge Designer	14	@	$44.10	$617.40
P. Johnson	Bridge Drafter	10	@	$44.80	$448.00
C. Administration	Bridge Admin	10	@	$30.98	$309.80
	TOTAL HOURS	138		TOTAL DIRECT LABOR	$9,029.00

MULTIPLIERS

OVERHEAD @	96.12% (of Total Direct Labor + Escalation)	$8,678.67	
PAYROLL ADDITIVES @	62.20% (of Total Direct Labor + Escalation)	$5,616.04	
		TOTAL MULTIPLIERS	$14,294.71

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Mileage		miles	$0.51	
Exhibits/Reports		each	$50.00	
Mail		each	$17.00	
			TOTAL OTHER DIRECT EXPENSES	

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Earth Mechanics, Inc.				
LSA				
			TOTAL OUTSIDE SERVICES	

FEES

PARSONS @	10.00% (of Total Direct Labor + Total Multipliers)	$2,332.37	
OUTSIDE SERVICES @	5.00% (of Total Labor + Total Multiplier for Outside Service		
		TOTAL FEES	$2,332.37
		TOTAL COST	**$25,656.08**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
PARSONS	Design Support Services During Construction (T&M)	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJ SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase IV - Design Support During Construction	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
C. Cadena	Princpal In Charge			$95.00	
J. Gonzalez	Project Manager	112	@	$73.46	$8,227.52
J. Zheng	Senior Project Engineer			$67.50	
B. Steaffens	Senior Project Engineer			$62.09	
E. Diaz	Project Engineer			$52.79	
S. Teshale	Project Engineer			$54.35	
R. Ong	Project Engineer	120	@	$50.57	$6,068.40
L. Law	Engineer	100	@	$39.75	$3,975.00
L. Hui	Engineer			$36.46	
D. Pearman	Drafter	80	@	$42.05	$3,364.00
K. Strassner	Clerical			$41.49	
C. Leavitt	Clerical			$24.82	
R. Bottcher	Drainage Manager			$65.86	
M. Galvan	Drainage Engineer			$48.21	
R. Hansen	Drainage Engineer			$46.18	
G. Petersen	Env Proj Mgr			$88.87	
G. Ruiz	Sr Planner			$57.69	
T. Luc	Sr. Noise Engineer			$60.24	
L. Provenzano	Associate Planner			$29.10	
Graphics	Graphics Specialist			$32.00	
T. Sardo	Bridge Proj Mgr	44	@	$85.00	$3,740.00
R. Campbell	Bridge Proj Eng			$67.31	
M. Ruvacalva	Bridge Designer	64	@	$44.10	$2,822.40
P. Johnson	Bridge Drafter	48	@	$44.80	$2,150.40
C. Administration	Bridge Admin	50	@	$30.98	$1,549.00
	TOTAL HOURS	618		TOTAL DIRECT LABOR	$31,896.72

MULTIPLIERS

OVERHEAD @	96.12% (of Total Direct Labor + Escalation)	$30,659.13	
PAYROLL ADDITIVES @	62.20% (of Total Direct Labor + Escalation)	$19,839.76	
		TOTAL MULTIPLIERS	$50,498.89

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Roadway ODCs				
Exhibits/Reports		each	$50.00	
Mail		each	$17.00	
Structures ODCs				
Travel		miles	$0.55	
Plots/Reproduction (11"x17")		each	$1.20	
Plots/Reproduction/Photos/Commercial Printing		each	$0.15	
Mail, overnight mail, courier		each	$14.00	
Mylar copies		each	$2.00	
			TOTAL OTHER DIRECT EXPENSES	

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Earth Mechanics, Inc.	$3,143.49	$6,019.78	$800.00	$9,963.27
LSA				
			TOTAL OUTSIDE SERVICES	$9,963.27

FEES

PARSONS @	10.00% (of Total Direct Labor + Total Multipliers)	$8,239.56	
OUTSIDE SERVICES @	5.00% (of Total Labor + Total Multiplier for Outside Services)	$458.16	
		TOTAL FEES	$8,697.72
		TOTAL COST	**$101,056.60**

FEE PROPOSAL WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REV:
Earth Mechanics, Inc.	Geotechnical Engineering	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJ SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase IV	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS		RATE	AMOUNT
Lino Cheang, PE, GE	Project Manager	8	@	$71.51	$572.04
A. Korkos, PE, GE	Principal Engineer		@	$55.65	
B. Schell, PG, CEG	Senior Geologist		@	$45.15	
E. Brown, PE	Senior Engineer	32	@	$47.78	$1,528.80
R. Jie	Senior Technician	24	@	$42.53	$1,020.60
J. Lander	Clerical	1	@	$22.05	$22.05

TOTAL HOURS 65 — TOTAL DIRECT LABOR $3,143.49

MULTIPLIERS

OVERHEAD @	165.00%	(of Total Direct Labor + Escalation)	$5,186.76
PAYROLL ADDITIVES @		(of Total Direct Labor + Escalation)	

TOTAL MULTIPLIERS $5,186.76

OTHER DIRECT EXPENSES ••• Billed at Actual Cost •••

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Traveling	1		@	$800.00	$800.00

TOTAL OTHER DIRECT EXPENSES $800.00

OUTSIDE SERVICES (w/o fee)

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL

TOTAL OUTSIDE SERVICES

FEES

OUTSIDE SERVICES ADMIN FEE @		(of Total Outside Services & Outside Services Fees)	
EARTH MECHANICS, INC. @	10.00%	(of Total Direct Labor + Total Multipliers)	$833.02
OUTSIDE SERVICES @	10.00%	(of Total Labor + Total Multiplier for Outside Services	

TOTAL FEES $833.02

TOTAL COST $9,963.27

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
PARSONS		8/12/2009	1
PROJECT: AVENUE 56/UPRR GRADE SEPARATION PROJECT		MILESTONE/PHASE/PROJECT SUMMARY:	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Project Summary	

PARSONS Summary

	$95.00	$73.46	$67.50	$62.09	$52.79	$54.35	$50.57	$39.75	$36.46	$42.05	$41.49	$24.82	$65.86	$48.21	$46.18	$88.87	$57.69	$60.24	$29.10	$32.00	$85.00	$67.31	$44.10	$44.07	$30.98	
Phase 1 Subtotal	16	294	36	86	20	46	282	34	74	98	3	103	68	66	46	52	98	130	76	96	46	88	50	32		**1,940**
Phase 2 Subtotal	14	994	199	156	140	276	800	630	236	617	58	185	90	75	120						417	1,098	840	605	30	**7,578**
Phase 3 Subtotal		66																			14	24	14	10	10	**138**
Phase 4 Subtotal		112					120	100		80											44		64	48	50	**618**
Phase 5 Subtotal																										
Totals	30	1,466	235	242	160	322	1,202	764	310	795	61	288	158	141	166	52	98	130	76	96	521	1,210	968	695	90	**10,274**

Earth Mechanics, Inc. Summary

	$71.51	$56.65	$45.15	$47.78	$42.53	$22.05																				
Phase 1 Subtotal	28			32		1																				**61**
Phase 2 Subtotal	50	66	28	122	128	2																				**396**
Phase 3 Subtotal																										
Phase 4 Subtotal	8			32	24	1																				**65**

LSA Summary

	$48.70	$38.96	$32.47																							
	10	32	48																							**90**

MANHOUR WORKSHEET

COMPANY: PARSONS	SCOPE OF WORK	DATE:	REVISION:
PARSONS	Project Report (EQ)/Environmental Document	8/12/2009	1
PROJECT: AVENUE 56/UPRR GRADE SEPARATION PROJECT		**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 1 - Project Report (EQ)/ED	

		C. Cadena	J. Gonzalez	J. Zheng	B. Steaffens	E. Diaz	S. Teshale	R. Orig	L. Law	L. Hui	D. Pearman	K. Strassner	C. Leavitt	R. Bottcher	M. Galvan	R. Hansen	Env Proj Mgr G. Petersen	Sr Planner G. Ruiz	Sr. Noise Engineer T. Luc	Associate Planner L. Provenzano	Graphics Specialist Graphics	T. Sardo	R. Campbell	M. Ruvacalva	P. Johnson	TOTAL
		$95.00	$73.46	$67.50	$62.09	$52.79	$54.35	$50.57	$39.75	$36.46	$42.05	$41.49	$24.82	$65.86	$48.21	$46.18	$88.87	$57.69	$60.24	$29.10	$32.00	$85.00	$67.31	$44.10	$44.80	
	Total Manhours	16	294	36	86	20	46	282	34	74	98	3	103	68	66	46	52	98	130	76	96	46	88	50	32	**1,940**
1.0	**Roadway Project Management**																									
1.01	Data Collection and Review		12					12																		**24**
1.02	Encroachment Permits																									
1.03	Site Visits/Photographs		20		12			8																		**40**
1.04	Coordination/Monitor Design		16																							**16**
1.05	Monthly PDT Meetings/Minutes	6	28					16																		**50**
1.06	Prepare/circulate correspondence		12										4													**16**
1.07	Railroad Coordination		12				10																			**22**
1.08	Project Management Plan	2	2																							**4**
1.09	Prepare Master Design Schedule		8																							**8**
1.10	Maintain Master Design Schedule		4																							**4**
1.11	Maintain Project Files												10													**10**
1.12	Meetings and Coordination with Caltrans Local Assistance		2																							**2**
1.13	Subconsultant Coordination and Administration/Contracts		4										8													**12**
1.14	Progress Report/Invoices	2	4									3	9													**18**
2.0	**Preliminary Engineering**																									
2.01	Geometric Calculations		8		16			24																		**48**
2.02	Define ROW Limits		2		8			10																		**20**
2.03	Typical Sections		2		6						18															**26**
2.04	Fact Sheets							32																		**32**
2.05	Finalize Alternatives in Prelim Eng Study		24		20			60			60															**164**
2.06	Draft Project Report (EQ)	2	64				20						40													**126**
2.07	Final Project Report (EQ)	2	40				16						32													**90**
2.08	Cost Estimates/Quantities		6		12				34	34																**86**
2.09	Water Quality Technical Memorandum													8	16	16										**40**
2.10	Storm Water Data Report													20	10	10										**40**
2.11	Drainage Report													20	20	20										**60**
2.12	Floodplain Technical Memorandum													20	20											**40**
2.12	Prepare 1"=100' Plans (GADs)		24	24		20		120		40	20															**248**
2.13	Quality Control			12	12																					**24**

MANHOUR WORKSHEET

COMPANY: PARSONS	SCOPE OF WORK	DATE:	REVISION:
PARSONS	Project Report (EQ)/Environmental Document	8/12/2009	1
PROJECT: AVENUE 56/UPRR GRADE SEPARATION PROJECT		**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 1 - Project Report (EQ)/ED	

																Env Proj Mgr	Sr Planner	Sr. Noise Engineer	Associate Planner	Graphics Specialist					
		C. Cadena	J. Gonzalez	J. Zheng	B. Steaffens	E. Diaz	S. Teshale	R. Ong	L. Law	L. Hui	D. Pearman	K. Strassner	C. Leavitt	R. Bottcher	M. Galvan	R. Hansen	G. Petersen	G. Ruiz	T. Luo	L. Provenzano	Graphics	T. Sardo	R. Campbell	M. Ruvacalva	P. Johnson	
		$95.00	$73.46	$67.50	$62.09	$52.79	$54.35	$50.57	$39.75	$36.46	$42.05	$41.49	$24.82	$65.86	$48.21	$48.18	$89.87	$67.69	$60.24	$29.10	$32.00	$85.00	$67.31	$44.10	$44.80	
	Total Manhours	16	294	36	86	20	46	282	34	74	98	3	103	68	66	46	52	98	130	76	96	46	88	50	32	**1,940**
3.0	**Environmental Documentation**																									
3.01	Project Management, Meetings & Coordination	2															52	52								**106**
3.02	Biological Studies																	16								**16**
3.03	*Noise Impact Analysis*																	10	120							**130**
3.04	Visual Impact Simulations																	10		60	80					**150**
3.05	Community Information Meeting																	10	10	16	16					**52**
4.0	**Structures Project Management**																									
4.01	Project Management and Coordination																					4				**4**
4.02	County Meetings																					10				**10**
4.03	UPRR Coordination Meetings																					4				**4**
4.04	Design Reviews																					4				**4**
5.0	**Advanced Planning Study**																									
5.01	Field Review / Data Collection																						8	10		**18**
5.02	Site Survey																					8	8			**16**
5.03	Coordination Geotechnical Investigations																						8			**8**
5.04	Preliminary Geometrics Coordination																					8	16			**24**
5.05	Utility Identification & Coordination through the bridge																						16			**16**
5.06	Develop the APS																					8	16	24	32	**80**
5.07	Prepare APS Report & Cost Estimate																						16	16		**32**

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
PARSONS	Plans, Specifications, and Estimate (PS&E)	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 2 - PS&E	

		C. Cadena	J. Gonzalez	J. Zheng	B. Steffens	E. Diaz	S. Teshale	R. Ong	L. Law	L. Hui	D. Pearman	K. Strassner	C. Leavitt	R. Bottcher	M. Galvan	R. Hansen	G. Petersen	G. Ruiz	T. Luc	L. Provenzano	Graphics	T. Sardo	R. Campbell	M. Ruvacalva	P. Johnson		TOTAL
		$95.00	$73.46	$67.50	$62.09	$62.79	$54.35	$50.67	$39.75	$38.46	$42.05	$41.49	$24.82	$66.86	$48.21	$46.18	$88.87	$57.69	$60.24	$29.10	$32.00	$85.00	$67.31	$44.10	$44.07	$30.98		
	Total Manhours	14	994	199	156	140	276	800	630	236	617	58	185	90	75	120						417	1,098	840	605	30		7,578
1.0	**Roadway Project Management**																											
1.01	Site Visits/Photographs		40					24																				64
1.02	Monthly PDT Meetings/Minutes	4	160					32				32																228
1.03	Railroad Coordination		32		24																							56
1.04	Utility Coordination - Water Line Relocation Design by others		32				20																					52
1.05	Utility Coordination - Sewer Line Relocation Design by others		32				20																					52
1.06	Utility Composite Map and Coordination						20			32	40																	92
1.07	Maintain Master Design Schedule		32																									32
1.08	Maintain Project Files		25									20	21															66
1.09	Meetings and Coordination with Caltrans Local Assistance	2	28																									30
1.10	Public Outreach		80				24				24																	128
1.11	Progress Report/Invoices	2	64										40															106
1.12	Value Engineering/Analysis	2	32				24		24																			82
2.0	**Preliminary Design**																											
2.01	Geometric Calculations			16				16		16																		48
2.02	Typical Cross Sections		12				16				24																	52
2.03	Roadway Layouts		12			16		16	16		24																	84
3.0	**65% PS&E**																											
3.01	Title Sheet		2			2	2	12	6		8																	30
3.02	Construction Staking and Survey Control Map		4					24	16		32																	76
3.03	Typical Cross Sections		3					22	16		14																	54
3.04	Street Improvement Plans (56th Ave and Palm St)		10					89	59		40																	198
3.05	Representative Cross Sections (11"x17" Binder Set)		2					19	11		11																	43
3.06	Construction Details		1					4	12		7																	24
3.07	Grading Design and DTM Review and Update			24				24		24																		72
3.08	Storm Drain Plans		5											30	45	20												100
3.09	Stage Construction Plans		2	7				14	10		14																	48
3.10	Traffic Handling Plans and Detours			2				16	11		7																	36
3.11	Striping and Signing Plans		3					26	20		17																	66
3.12	Landscape Plans - Not Required																											
3.13	Signal at Avenue 56/Palm St. Intersection				19	19			10																			48
3.14	Street Lighting Plans				13	13			6																			32
3.15	Water Quality and Erosion Study													10		80												90
3.16	Specifications	2	104										40															146
3.17	Right-of-Way Requirements Map		8				40				32																	80
3.18	Quantity Calculations		8						40	32																		80

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
PARSONS	Plans, Specifications, and Estimate (PS&E)	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 2 - PS&E	

3.19	Cost Estimates		12						20	20																	52
3.20	Quality Control			24	24	24	24																				96
4.0	**95% PS&E**																										
4.01	Title Sheet							8	3		5																15
4.02	Typical Cross Sections							14	8		5																27
4.03	Street Improvement Plans (56th Ave and Palm St)		5					45	30		20																99
4.04	Representative Cross Sections (11"x17" Binder Set)							11	6		4																22
4.05	Construction Details							42	25		17																84
4.06	Grading Design and DTM Review and Update			8				24		16																	48
4.07	Storm Drain Plans													40	24	16											80
4.08	Stage Construction Plans		4					38	25		29																96
4.09	Traffic Handling Plans and Detours							36	22		14																72
4.10	Striping and Signing Plans							41	25		17																83
4.11	Signal at Avenue 56/Palm St. Intersection			30					18		12																60
4.12	Street Lighting Plans					20			12		8																40
4.13	Specifications		70				24						40														134
4.14	Quantity Calculations		6						40	20																	66
4.15	Cost Estimates		8						16	16																	40
4.16	Quality Control	1		20	20	20	20																				81
4.17	Incorporate Comments		4					40			40																84
4.18	Milestone Submittals		14										8														22
5.0	**100% PS&E**																										
5.01	Title Sheet							3	2		1																5
5.02	Typical Cross Sections							5	3		2																9
5.03	Street Improvement Plans (56th Ave and Palm St)							17	10		7																33
5.04	Representative Cross Sections (11"x17" Binder Set)							4	2		1																7
5.05	Construction Details							6	4		2																12
5.06	Grading Design and DTM Review and Update			8				8			8																24
5.07	Storm Drain Plans													10	6	4											20
5.08	Stage Construction Plans							8	5		3																16
5.09	Traffic Handling Plans and Detours							6	4		2																12
5.10	Striping and Signing Plans							8	5		3																17
5.11	Signal at Avenue 56/Palm Drive Intersection					6			4		2																12
5.12	Street Lighting Plans					4			2		2																8
5.13	Specifications		58				26						20														104
5.14	Quantity Calculations		16						40	24																	80
5.15	Cost Estimates			8					12	12																	32
5.16	Quality Control	1		16	16	16	16																				65

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
PARSONS	Plans, Specifications, and Estimate (PS&E)	8/12/2009	1
PROJECT:		**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 2 - PS&E	

5.17	Incorporate Agency Comments		8					20			20														**48**
5.18	Milestone Submittal		8									6													**14**
6.0	**FINAL PS&E**																								
6.01	Prepare Final Plans		16	20				40	32	24	80														**212**
6.02	Electronic Roadway Submittal		16					24			20														**60**
6.03	Submit Resident Engineer File		16	16	40			16					16												**104**
7.0	**Structures Project Management**																								
7.01	Project Management and Coordination																					10			**10**
7.02	County Meetings																					16			**16**
7.03	UPRR Coordination Meetings																					8			**8**
7.04	Design Reviews																					16			**16**
7.05	Falsework Analysis for Special Falsework Design																					48			**48**
7.06	Coordination & PUC Application Support																					32			**32**
7.07	Schedule and Monthly Updates																					12			**12**
7.08	Budget																					12			**12**
7.09	Cost Accounting																					8			**8**
8.0	**Bridge General Plan/Type Selection (30%)**																								
8.01	Type Selection Report																					14	60	36	56	12	**178**
8.02	BSDS Submittal																					2	10	8		12	**32**
8.03	Structure Foundation Report (Coordination)																					8	8	8			**24**
8.04	Attend Type Selecting Meeting																					8	8				**16**
8.05	Revise and Finalize Type Selection Report																					8	8	8	16		**40**
9.0	**INTERMEDIATE DESIGN (65% PS&E)**																								
9.01	Structural Analysis, Design & Calcs																					45	320	196	170	6	**737**
9.02	65% PS&E Submittal																					54	260	136	196		**646**
9.03	Special Provisions																					24	96				**120**
9.04	Preliminary Quantities & Cost Estimate																						80	240			**320**
10.0	**PRE-FINAL DESIGN (95% PS&E)**																								
10.01	95% PS&E Submittal (Include Independent Check)																					36	144	108	123		**411**
10.02	Special Provisions																					16	48				**64**
10.03	Final Quantities & Cost Estimates																							48			**48**
11.0	**FINAL PS&E (100% PS&E)**																								
11.01	Update Bridge Plans																					16	24	20	24		**84**
11.02	Submit/Expedite Final PS&E																					16	16	16	12		**60**
11.03	Prepare RE File																					8	16	16	8		**48**

AVENUE 56/UPRR GRADE SEPARATION PROJECT
Sheet Count

ITEM	DESCRIPTION	Scale	# of Sheets	Hrs Per Sheet	65%	95%	100%	TOTAL HOURS
	ROADWAY							
1	Title Sheet	NS	1	50	30	15	5	50
2	Typical Cross Sections	NS	2	45	54	27	9	90
3	Street Improvement Plans (56th Ave and Palm St)	20	6	55	198	99	33	330
4	Representative Cross Sections (11"x17" Binder Set)	100	18	4	43	22	7	72
5	Construction Details	10 & varies	3	40	24	84	12	120
6	Storm Drain Plans	40	4	50	100	80	20	200
7	Stage Construction Plans	100	4	40	48	96	16	160
8	Traffic Handling Plans and Detours	40	3	40	36	72	12	120
9	Striping and Signing Plans	40	3	55	66	83	17	165
10	Retaining Wall Plans, Details and Quantities - **Not Required**							
11	Landscape Plans - **Not Required**							
12	Signal at Avenue 56/Palm St. Intersection	20	2	60	48	60	12	120
13	Street Lighting Plans	40	2	40	32	40	8	80
14	Right-of-Way Mapping (by County)							
		SUBTOTALS	48					1,507
	STRUCTURES							
1	General Plan	1"=100'	1	120	72	36	12	120
2	Deck Contours/Gen Notes/Index to Plans		1	80	48	24	8	80
3	Foundation Plan No. 1	1"=20'	1	100	60	30	10	100
4	Abutment 1 Layout (Plan /Elevation)	Varies	1	100	60	30	10	100
5	Abutment 3 Layout (Plan/Elevation)	Varies	1	100	60	30	10	100
6	Wingwall Layout & Details 1	Varies	1	90	54	27	9	90
7	Abutment Details No. 1, 2	Varies	2	100	120	60	20	200
8	Bent Layout No. 1	1/4"=1'	1	120	72	36	12	120
9	Bent Details No. 1	Varies	1	120	72	36	12	120
10	Typical Section	Varies	1	120	72	36	12	120
11	Girder Layout No. 1	1"=20'	1	100	60	30	10	100
12	Girder Details /Camber	Varies	1	80	48	24	8	80
13	Girder Reinforcement - Top & Bottom	Varies	2	100	120	60	20	200
14	Miscellaneous Details1	Varies	1	60	36	18	6	60
15	Structure Approach Type N(30S)	Varies	1	60	36	18	6	60
16	Structure Approach Drainage Details	Varies	1	60	36	18	6	60
17	Slope Paving - Full Slope	Varies	1	60	36	18	6	60
18	Log of Test Borings No. 1	Varies	1	20	12	6	2	20
		SUBTOTALS	20					1,790
		TOTALS	**68**					**3,297**

IANHOUR WORKSHEET

)MPANY:	SCOPE OF WORK	DATE:	REVISION:
ARSONS	Bidding and Award Support (T&M)	8/12/2009	1
:OJECT: AVENUE 56/UPRR GRADE SEPARATION PROJECT		MILESTONE/PHASE/PROJECT SUMMARY:	
/ENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 3	

	J. Gonzalez	J. Zheng	B. Steaffens	E. Diaz	S. Teshale	R. Ong	L. Law	L. Hui	D. Pearman	K. Strassner	C. Leavitt	R. Bottcher	M. Galvan	R. Hansen	G. Petersen	G. Ruiz	T. Luc	L. Provenzano	Graphics	T. Sardo	R. Campbell	M. Ruvacalva	P. Johnson		TOTAL
	$73.46	$67.50	$62.09	$52.79	$54.35	$50.57	$39.75	$36.46	$42.05	$41.49	$24.82	$65.86	$48.21	$46.18	$88.87	$57.69	$60.24	$29.10	$32.00	$85.00	$67.31	$44.10	$44.07	$30.98	
Total Manhours	66																			14	24	14	10	10	**138**
)nstruction Bid Support																									
Respond to Bidder Questions	40																			6	16	14	10	10	**96**
\ttend Meetings	26																			8	8				**42**

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
PARSONS	Design Support Services During Construction (T&M)	8/12/2009	1
PROJECT: AVENUE 56/UPRR GRADE SEPARATION PROJECT		MILESTONE/PHASE/PROJECT SUMMARY:	
AVENUE 56/UPRR GRADE SEPARATION PROJECT		Phase 4	

	J. Gonzalez	J. Zheng	B. Steffens	E. Diaz	S. Teshale	R. Ong	L. Law	L. Hui	D. Pearman	K. Strassner	C. Leavitt	R. Bottcher	M. Galvan	R. Hansen	G. Petersen	G. Ruiz	T. Luc	L. Provenzano	Graphics	T. Sardo	R. Campbell	M. Ruvacalva	P. Johnson		
	$73.46	$67.50	$62.09	$52.79	$54.35	$50.57	$39.75	$36.46	$42.06	$41.49	$24.82	$65.86	$48.21	$46.18	$88.87	$57.69	$60.24	$29.10	$32.00	$85.00	$67.31	$44.10	$44.07	$30.98	
Total Manhours	112					120	100		80											44		64	48	50	**618**
Respond to Questions (RFIs)	60					80	60																		**200**
Review Changes	40					40	40																		**120**
As-Built Drawings (48)	12								80																**92**
Structures Support Services																									
Review & Approve Contractor Product Data & Shop Drawings (3)																				8		12	12		**32**
As requested, Furnish general on-site observations, and construction work (4)																				8		24	24		**56**
Contract Change Orders (5)																				8		12	12	18	**50**
Site Visit Statement (6)																				6		4			**10**
Final Inspection & Punch List (7)																				8		8			**16**
As-Built Drawings (8)																				6		4		32	**42**

MANHOUR WORKSHEET			
COMPANY: Earth Mechanics, Inc.	SCOPE OF WORK: Geotechnical Engineering	DATE: 8/12/2009	REVISION: 1
PROJECT: AVENUE 56/UPRR GRADE SEPARATION PROJECT	MILESTONE/PHASE/PROJECT SUMMARY: Phase 1 - Project Report (EQ)/ED	MILESTONE/PHASE/PROJECT SUMMARY: All Phases	

Total Manhours	28			32		1									**61**
Preliminary Foundation	28			32		1									**61**

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
Earth Mechanics, Inc.	Geotechnical Engineering	8/12/2009	1
PROJECT:	**MILESTONE/PHASE/PROJECT SUMMARY:**	**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT	Phase 2 - PS&E	All Phases	

Total Manhours	50	66	28	122	128	2											**396**
Preliminary Foundation Report																	
Field Exploration	8				78												**86**
Laboratory Testing	2			24	10												**36**
Engineering Analysis	16	36	12	38													**102**
Geotechnical Report	24	30	16	60	40	2											**172**

MANHOUR WORKSHEET

COMPANY:	SCOPE OF WORK	DATE:	REVISION:
Earth Mechanics, Inc.	Geotechnical Engineering	8/12/2009	1
PROJECT:	**MILESTONE/PHASE/PROJECT SUMMARY:**	**MILESTONE/PHASE/PROJECT SUMMARY:**	
AVENUE 56/UPRR GRADE SEPARATION PROJECT	Phase 4 - Construction Support	All Phases	

Total Manhours	8			32	24	1									**65**
Construction Support	8			32	24	1									**65**