



**PURCHASING ITEM
FOR
COUNCIL AGENDA
Memo No. CA09-018**

1. Agenda Item Number:
22
2. Council Meeting Date:
August 14, 2008

TO: MAYOR & COUNCIL

3. Date Prepared: June 10, 2008

THROUGH: CITY MANAGER

4. Requesting Department: Public Works

5. SUBJECT: Award a design services contract to Dibble Engineering for Railroad Crossing Upgrades, Project No. ST0808-202, in an amount not to exceed \$239,371.

6. RECOMMENDATION: Staff recommends that Council award a design services contract to Dibble Engineering for Railroad Crossing Upgrades, Project No. ST0808-202, in an amount not to exceed \$239,371.

7. BACKGROUND/DISCUSSION: This project will provide design for upgraded Union Pacific Railroad (UPRR) crossings to the ultimate six-lane configuration at Chandler Boulevard (between Arizona Avenue and McQueen Road) and Chandler Heights Road (between Arizona Avenue and McQueen Road). Due to long lead design and permitting requirements set forth by the UPRR and Arizona Corporation Commission (ACC), staff recommends beginning the design process for the railroad crossing upgrades prior to awarding a design contract for the impacted CIP road project. Construction will begin with each CIP road project.

8. EVALUATION: The consultant selection process was conducted in accordance with established City policies and procedures. On December 13, 2007, staff received statements of qualifications from fifteen (15) firms to provide design services for Ocotillo Road (Arizona Avenue to McQueen Road). The Selection Committee consisted of:

- Chris Lamm, Project Manager
- Paul Young, Senior Engineer
- Dan Kuwitzky, Registered Contractor
- Henry Seager, Chandler Resident

Staff recommends awarding a contract to Dibble Engineering. The costs proposed for this project were comparable to staff estimates and historical design services prices.

9. FINANCIAL IMPLICATIONS:

Cost:	\$239,371
Savings:	N/A
Long Term Costs:	N/A

<u>Fund Source</u>	<u>Fund Name</u>	<u>Program Name</u>	<u>CIP</u> <u>Funded:</u>	<u>Amount:</u>
415.3310.0.6517.7ST297	Impact Fees	Chandler Boulevard (Colorado St. to McQueen)	08/09	\$239,371

10. PROPOSED MOTION: Move that Council award a design services contract to Dibble Engineering for Railroad Crossing Upgrades, Project No. ST0808-202, in an amount not to exceed \$239,371, and authorize the Mayor to sign the contract documents.

ATTACHMENTS: Location Map, Contract

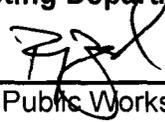
APPROVALS

11. Requesting Department



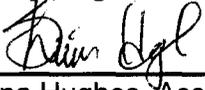
Daniel W. Cook, Deputy Public Works Director

14. Requesting Department



R.J. Zeder, Public Works Director

13. City Engineer



Sheina Hughes, Assistant Public Works
Director/City Engineer

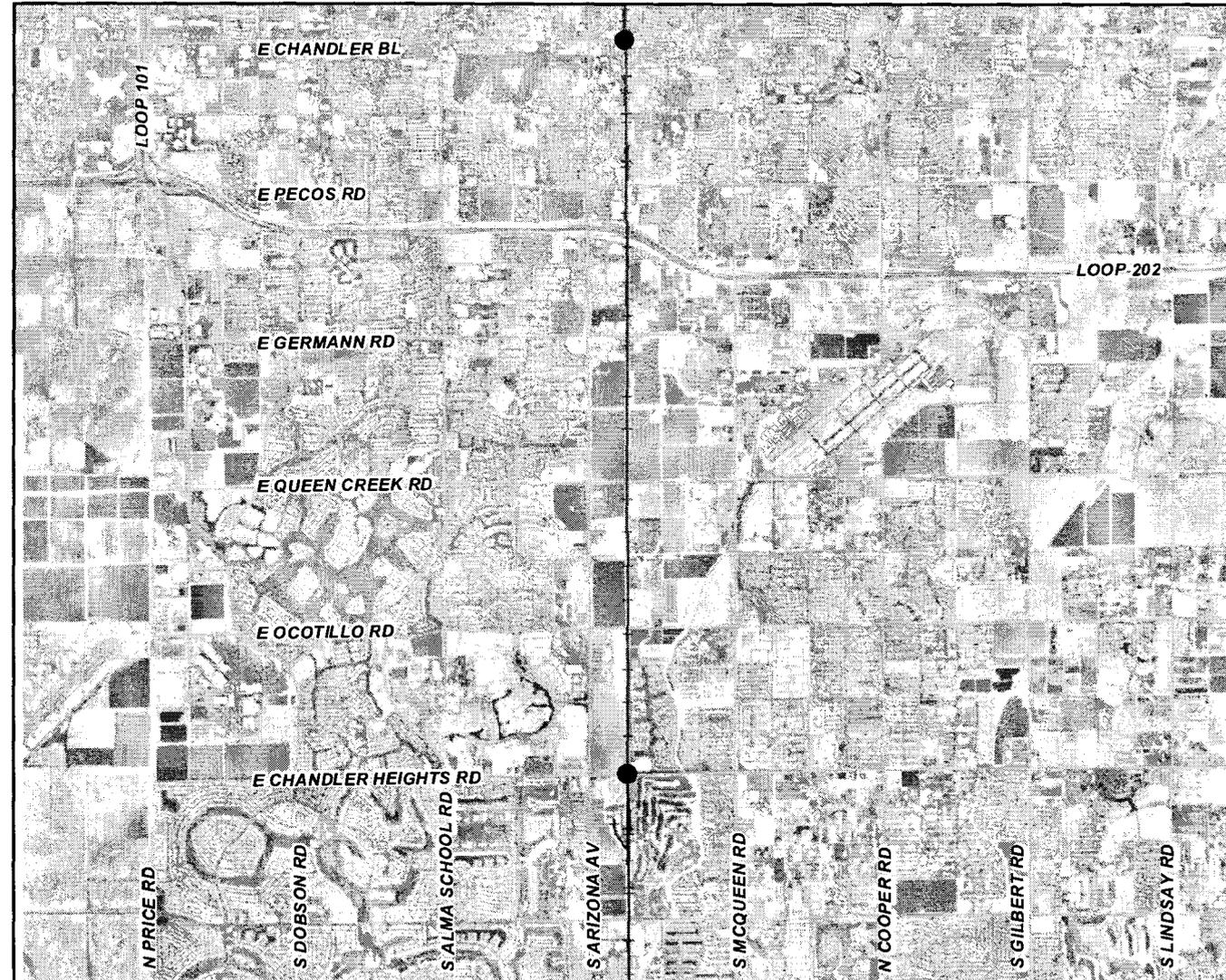
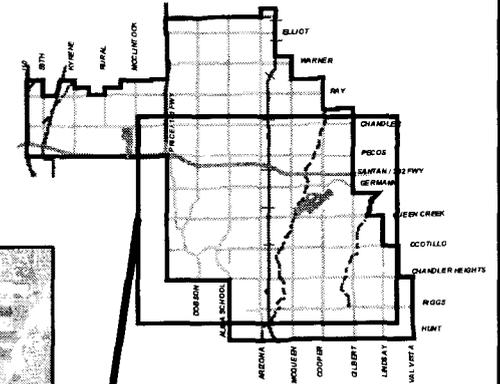
15. City Manager



W. Mark Pentz



UPRR CROSSINGS (CHANDLER BLVD / CHANDLER HEIGHTS RD) PROJECT NO. ST0808-202



MEMO NO. CA09-018

● UPGRADES



**CONSTRUCTION MANAGER AT RISK
DESIGN CONSULTANT CONTRACT**

PROJECT TITLE: **UPRR Crossing (Chandler Boulevard and Chandler Heights Road)**

PROJECT NO: **ST0808-202**

This Agreement is made and entered into by and between the City of Chandler, Arizona, a municipal Corporation, hereinafter called the CITY, and **Dibble & Associates Consulting Engineers, Inc., an Arizona Corporation doing business as Dibble Engineers**, hereinafter called DESIGN CONSULTANT.

WHEREAS, DESIGN CONSULTANT represents DESIGN CONSULTANT has the expertise and is qualified to perform the services described in this Agreement; and

WHEREAS, the Mayor and City Council/City Manager of the City of Chandler are authorized and empowered by the provisions of the City Charter to execute Agreements for Professional Services; and

WHEREAS, the Parties intend to have this Project designed and constructed using a Construction Manager at Risk method with DESIGN CONSULTANT being a part of a Design Team; and

NOW THEREFORE, for and in consideration of the mutual covenants and conditions hereinafter contained, it is agreed by and between the CITY and DESIGN CONSULTANT, as follows:

1. **DESCRIPTION OF PROJECT:** The Project known as the **UPRR Crossing (Chandler Boulevard and Chandler Heights Road)** will include UPRR Crossing Upgrades at Chandler Boulevard and Chandler Heights Road between Arizona Avenue and McQueen Road. The Project is more specifically described in Exhibit A attached hereto and incorporated herein by reference.

2. **DEFINITIONS:** DEFINITIONS: Words used in this Agreement which are defined in CITY's General Conditions for Construction Contracts shall have the meaning stated therein. DESIGN CONSULTANT is the Project Designer as defined in said General Conditions.

3. **SCOPE OF WORK:** DESIGN CONSULTANT shall design the Project all as more specifically described in Attachment A attached hereto and incorporated herein by reference.

4. **DESIGN TEAM:** DESIGN CONSULTANT shall be a part of and participate together with the Design Team and shall attend meetings with, provide information to and cooperate with the person retained by CITY to be the Construction Manager at Risk (CM@RISK).

5. **FEE FOR SERVICES:** For services described in paragraph 3 of this Agreement, the CITY shall pay DESIGN CONSULTANT a fee not to exceed the sum of **Two Hundred Thirty Nine Thousand Three Hundred Seventy One dollars (\$239,371)** at the rates shown in and in accordance with the fee schedule attached hereto as Attachment B-1 and made a part hereof by reference. Payment will be made monthly on the basis of progress reports corresponding with the rates and charges listed on the fee schedule and showing the number of hours or other basis to determine the fee earned to that date. An Application and Certification for Payment Sheet must be provided. In addition, the following must also be included with each application for payment: a clear, detailed invoice reflecting items being billed for, reimbursables; a summary sheet showing percentage of work completed to date; amount/percent billed to date; current status of all tasks within a project; and any/all backup documentation supporting the above items. Work schedule updates shall also be included in the monthly progress payment requests.

6. **PERIOD OF SERVICE:**

A. Following receipt of a "Notice to Proceed" with the design work, DESIGN CONSULTANT shall complete the design and have all documents ready for construction or bidding within **420** calendar days of the date indicated on the Notice to Proceed.

UPRR Crossing (Chandler Boulevard and Chandler Heights Road)

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CM@Risk Design Consultant Agreement

- B. The Design Services for preparation of design and construction document period will be approximately **30** days. Following the "Notice To Proceed" for construction of the Project, DESIGN CONSULTANT shall perform the construction administration portion of this contract for approximately **210** days.
- C. DESIGN CONSULTANT shall prepare and deliver to CITY record documents within **30** days of the date of receipt of the red line drawings from the CM@Risk.
- D. DESIGN CONSULTANT shall complete all services specified herein in accordance with the Production Schedule and progress milestones included in Exhibit A and as discussed with the CM@Risk for meeting schedule attached herein. In the event delays are experienced beyond the control of DESIGN CONSULTANT, the completion date may be extended as mutually agreed upon by CITY and DESIGN CONSULTANT.
7. OPINIONS OF PROBABLE COSTS (ESTIMATES): Any opinions of probable project cost or probable construction cost provided by DESIGN CONSULTANT are made on the basis of information available to DESIGN CONSULTANT and on the basis of DESIGN CONSULTANT's experience and qualifications, and represents its best judgement as an experienced, licensed and qualified professional. However, since DESIGN CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, DESIGN CONSULTANT does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost DESIGN CONSULTANT prepares. The DESIGN CONSULTANT is responsible for advising and consulting with the City on cost. DESIGN CONSULTANT is not responsible for providing for formal estimates, this is the CM@Risk responsibility.
8. REPORTS & APPROVALS: All work shall be subject to the approval by CITY and each phase of the work will be submitted to CITY in accordance with schedule included in Exhibit A and in the format prescribed by CITY. When requested by CITY, DESIGN CONSULTANT will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.
9. STANDARD OF PERFORMANCE:
- A. This design contract has been awarded to DESIGN CONSULTANT based on their proposal that those personnel and consultants listed in Exhibit A attached hereto will perform the portions of the work listed on said Exhibit A. DESIGN CONSULTANT shall not deviate nor substitute any of these team members without prior written approval by CITY.
- B. DESIGN CONSULTANT shall be responsible for the technical accuracy of its services and documents resulting therefrom, and CITY shall not be responsible for discovering deficiencies therein. DESIGN CONSULTANT shall correct any such deficiencies without additional compensation or cost to CITY, except to the extent any such deficiency is directly attributable to deficiencies in CITY-furnished information.
- C. DESIGN CONSULTANT shall be familiar with CITY's Standard Details and Specifications and other relevant CITY regulations. DESIGN CONSULTANT shall ensure there are no conflicts among the Contract Documents including, but not limited to, the CITY's General and Supplementary Conditions for Construction Contracts, the plans and specifications prepared by DESIGN CONSULTANT, any standard details or specifications incorporated therein by reference, and the Construction Contract. The DESIGN CONSULTANT is responsible, along with his designers, for attesting to the design correctness and scaling the design documents.
- D. DESIGN CONSULTANT shall be responsible for the completeness and accuracy of his/her work prepared or compiled under obligation for this project and shall correct, at his/her expense, all errors or omissions therein, which may be disclosed. Correction of errors disclosed and determined to exist during any construction of the project on architectural or engineering drawings and specifications shall be accomplished by the DESIGN CONSULTANT. The cost of the design necessary to correct those errors attributable to the DESIGN CONSULTANT and any damage incurred by the City as a result of additional construction costs caused by such engineering and/or architectural errors shall be chargeable to the DESIGN CONSULTANT. The fact that

the City has reviewed or approved the DESIGN CONSULTANT's work shall in no way relieve the DESIGN CONSULTANT of any of DESIGN CONSULTANT's responsibilities.

10. INDEMNIFICATION

A. For Professional Liability:

To the fullest extent permitted by law, DESIGN CONSULTANT shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature related to, arising out of, or alleged to have resulted from the errors, mistakes or omissions relating to professional services by DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors in the performance of this Contract or of any other person for whose errors, mistakes or omissions DESIGN CONSULTANT may be legally liable. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC (other than DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

B. For all Other Liabilities, Hazards and Exposures:

To the fullest extent permitted by law, DESIGN CONSULTANT shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature, wages or overtime compensation due employees in rendering service under this Contract and whether to any person or property, including natural resources and any claim made under the Fair Labor Standards Act or any other federal or state laws, related to, arising out of, or alleged to have resulted from the actions of DESIGN CONSULTANT and alleged to have been caused in whole or in part by any act or omission of DESIGN CONSULTANT, anyone directly or indirectly employed by them or anyone for whose acts DESIGN CONSULTANT may be legally liable, and from any claims or amounts arising or recovered under Workers' Compensation laws or any other law, bylaw, or ordinance, order or decree or any failure on the part of DESIGN CONSULTANT, its agents, employees or representatives to fulfill DESIGN CONSULTANT's obligations under this Contract. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC, (other than DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

C. Consequential Damages:

The parties intend that damages and/or costs and all other terms implying an amount tied to liability shall include consequential damages and loss of productivity limited to the total value of this contract in dollars as payable by the City of Chandler or twice the amount of aggregate insurance required by this Contract, whichever is greater.

D. Insurance does not limit liability:

The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

11. INSURANCE REQUIREMENTS:

11.1 General Requirements:

- A. DESIGN CONSULTANT, at its own expense, shall purchase and maintain insurance of the types and amounts required in this section, with companies possessing a current A.M. Best, Inc. rating of B++6, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to CITY.

- B. With the exception of professional liability policies, policies written on a "Claims made" basis are not acceptable without written permission from the City's Risk Manager
- C. All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement is satisfactorily completed and formally accepted. Failure to do so may, at the sole discretion of CITY, constitute a material breach of this Agreement and may result in termination of this contract.
- D. If any of the insurance policies are not renewed prior to expiration, payments to the DESIGN CONSULTANT may be withheld until these requirements have been met, or at the option of the City, the City may pay the Renewal Premium and withhold such payments from any monies due the DESIGN CONSULTANT.
- E. All insurance policies, except Workers' Compensation and Professional Liability required by this Agreement, and self-insured retention or deductible portions, shall name, to the fullest extent permitted by law for claims arising out of the performance of this contract, the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insureds.
- F. DESIGN CONSULTANT's insurance shall be primary insurance over any insurance available to the CITY and as to any claims resulting from this contract, it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for any and all losses covered by the described insurance.
- G. The insurance policies, except Workers' Compensation and Professional Liability, shall contain a waiver of transfer rights of recovery (subrogation) against CITY, its agents, representatives, officers, directors, officials and employees for any claims arising out of DESIGN CONSULTANT's acts, errors, mistakes, omissions, work or service.
- H. The insurance policies may provide coverage which contain deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall be assumed by and be for the account of, and at the sole risk of DESIGN CONSULTANT. DESIGN CONSULTANT shall be solely responsible for the deductible and/or self-insured retention. The amounts of any self-insured retentions shall be noted on the Certificate of Insurance. CITY, at its option, may require DESIGN CONSULTANT to secure payment of such deductibles or self-insured retentions by a Surety Bond or an irrevocable and unconditional letter of credit. Self-insured retentions (SIR) in excess of \$25,000 will not be accepted except with permission of the Management Services Director/designee.
- I. All policies and certificates shall contain an endorsement providing that the coverage afforded under such policies shall not be reduced, canceled or allowed to expire until at least thirty (30) days prior written notice has been given to CITY.
- J. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the DESIGN CONSULTANT with reasonable promptness in accordance with the DESIGN CONSULTANT's information and belief.
- K. In the event that claims in excess of the insured amounts provided herein, are filed by reason of any operations under this contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due the DESIGN CONSULTANT until such time as the DESIGN CONSULTANT shall furnish such additional security covering such claims as may be determined by the CITY.

11.2 Proof of Insurance - Certificates of Insurance

- A. Prior to commencing work or services under this Agreement, DESIGN CONSULTANT shall furnish to CITY Certificates of Insurance, issued by DESIGN CONSULTANT's insurer(s), as evidence that policies providing the required coverages, conditions and limits required by this Agreement are in full force and effect and obtain from the City's Risk Management Division approval of such Certificates.
- B. If a policy does expire during the life of this Agreement, a renewal certificate must be sent to the City of Chandler five (5) days prior to the expiration date.

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- C. All Certificates of Insurance shall identify the policies in effect on behalf of DESIGN CONSULTANT, their policy period(s), and limits of liability. Each Certificate shall include the job site and project number and title. Coverage shown on the Certificate of Insurance must coincide with the requirements in the text of the contract documents. Information required to be on the certificate of Insurance may be typed on the reverse of the Certificate and countersigned by an authorized representative of the insurance company.
- D. CITY reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance policies and/or endorsements. CITY shall not be obligated, however, to review same or to advise DESIGN CONSULTANT of any deficiencies in such policies and endorsements, and such receipt shall not relieve DESIGN CONSULTANT from, or be deemed a waiver of CITY's right to insist on, strict fulfillment of DESIGN CONSULTANT's obligations under this Agreement.

11.3 Required Coverage

Such insurance shall protect DESIGN CONSULTANT from claims set forth below which may arise out of or result from the operations of DESIGN CONSULTANT under this Contract and for which DESIGN CONSULTANT may be legally liable, whether such operations be by the DESIGN CONSULTANT or by a Sub-consultant or subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Coverage under the policy will be at least as broad as Insurance Services Office, Inc., policy form CG00011093 or equivalent thereof, including but not limited to severability of interest and waiver of subrogation clauses.

- A. Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- B. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- C. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the DESIGN CONSULTANT's employees;
- D. Claims for damages insured by usual personal injury liability coverage;
- E. Claims for damages, other than to Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- F. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; Coverage will be at least as broad as Insurance Service Office, Inc., coverage Code "I" "any auto" policy form CA00011293 or equivalent thereof.
- G. Claims for bodily injury or property damage arising out of completed operations;
- H. Claims involving contractual liability insurance applicable to the Contractor's obligations under the Indemnification Agreement;
- I. Claims for injury or damages in connection with one's professional services;
- J. Claims involving construction projects while they are in progress. Such insurance shall include coverage for loading and off loading hazards. If any hazardous material, as defined by any local, state or federal authorities are to be transported, MCS 90 endorsement shall be included;

11.3.1 Commercial General Liability - Minimum Coverage Limits:

The Commercial General Liability insurance required herein shall be written for not less than \$1,000,000 limits of liability or ten percent (10%) of the Contract Price, whichever coverage is greater. Any combination between general liability and excess general liability alone amounting to a minimum of \$1,000,000 per occurrence (or 10% per occurrence) and an aggregate of \$2,000,000 (or 20% whichever is greater) in coverage will be acceptable. The Commercial General Liability additional insured endorsement shall be as broad as the Insurance Services, Inc's

(ISO) Additional Insured, Form B, CG 20101001, and shall include coverage for DESIGN CONSULTANT's operations and products, and completed operations.

11.3.2 General Liability - Minimum Coverage Limits

- A. The General Liability insurance required herein, including, Comprehensive Form, Premises-Operations, Explosion and Collapse, Underground Hazard, Products/Completed Operations, Contractual Insurance, Broad Form Property Damage, Independent Contractors, and Personal Injury shall be written for Bodily Injury and Property Damage Combined shall be written for not less than \$1,000,000 or 10% of the contract cost and with a \$2,000,000 aggregate.
- B. Automobile Liability: DESIGN CONSULTANT shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence with respect to any owned, hired, and non-owned vehicles assigned to or used in performance of the DESIGN CONSULTANT's work. Coverage shall be at least as broad as coverage code 1, "any auto", (Insurance Service Office, Inc. Policy Form CA 00011293, or any replacements thereof). Such insurance shall include coverage for loading and off loading hazards if hazardous substances, materials or wastes are to be transported and a MCS 90 endorsement shall be included with coverage limits of \$5,000,000 per accident for bodily injury and property damage.

11.3.3 Worker's Compensation and Employer's Liability:

DESIGN CONSULTANT shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over DESIGN CONSULTANT's employees engaged in the performance of the work or services; and, Employer's Liability insurance of not less than \$1,000,000 for each accident, \$1,000,000 disease coverage for each employee, and \$1,000,000 disease policy limit. In case any work is subcontracted, DESIGN CONSULTANT will require the Subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of DESIGN CONSULTANT.

11.3.4 Professional Liability:

DESIGN CONSULTANT shall maintain Professional Liability insurance covering acts, errors, mistakes and omissions arising out of the work or services performed by DESIGN CONSULTANT, or any person employed by DESIGN CONSULTANT, with a claims made policy limit of not less than \$1,000,000.

12. DISPUTE RESOLUTION:

- A. Disputed Invoices. In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.
- B. Disputed Items. CITY may temporarily delete any disputed items contained in DESIGN CONSULTANT's invoice, including items disputed due to lack of supporting documentation, and pay the remaining amount of the invoice. CITY shall promptly notify DESIGN CONSULTANT of the dispute and request clarification and/or remedial action. CITY may withhold payment on all disputed items until the issues are resolved. After any dispute has been settled, DESIGN CONSULTANT shall include the disputed item on a subsequent regularly scheduled invoice or on a special invoice for the disputed item only.
- C. Good Faith Negotiation. CITY and DESIGN CONSULTANT agree to negotiate all disputes between them in good faith prior to exercising their rights under law.
- D. Binding Special Arbitration. All claims, disputes and other matters in question between CITY and DESIGN CONSULTANT arising out of, or relating to this Agreement, or the breach thereof (except for claims which have been resolved pursuant to paragraphs 9 or 12 A, B and C herein) above shall be decided by binding, unappealable special arbitration, as described below, if the claim for compensation, costs or expenses, damages or reimbursement is equal to or less than \$50,000. Claims over \$50,000 shall have non-binding mediation as the first step to settling the dispute or claim.

E. **Special Arbitration.** All arbitration of claims shall be conducted in Chandler, Arizona, in accordance with the following rules:

1) Any time after the parties have attempted in good faith but without success to resolve one or more disputes, a party may notify the other in writing that they are at impasse (Notice of Impasse) and request immediate arbitration in accordance with the terms herein.

2) Within ten (10) days after the date of such Notice of Impasse, each party shall select an impartial intermediary, who shall, together, agree upon a third impartial person who will be the arbitrator. To be considered impartial an intermediary or arbitrator shall not have any previous or current relationship which would be considered a conflict of interest with either party, including, but not limited to, current or previous employment or contractual relationship, indebtedness or ownership interest.

3) The parties shall immediately cooperate with each other to draft together a short summary of the facts and a list of questions or issues to be resolved by the arbitrator. If the facts are in dispute, such disputed facts shall be listed as contentions by the party asserting them. In the event the parties are unable to agree upon a summary of the facts or a list of questions or issues, each party shall instead include a statement of facts and list of issues in that party's Position Paper submitted to the arbitrator. Such summary of facts and list of questions or issues shall be completed by the parties and submitted to the arbitrator within twenty (20) days of the date of the Notice of Impasse.

4) The parties shall cooperate to gather any documents and exhibits necessary to resolve the issues and provide them jointly to the arbitrator. In the event of a dispute between the parties regarding whether a document should be provided, the disputed document shall be submitted to the impartial intermediaries who will determine its appropriateness for submittal. Correspondence between the parties which discusses settlement or resolution of the issues shall be submitted. All such evidence shall be submitted to the arbitrator within twenty (20) days of the date of the Notice of Impasse.

5) Each party may submit a written Position Paper of no more than ten (10) pages, supporting or explaining that party's position and providing citations to relevant law. Any such Position Paper shall be submitted to the arbitrator within thirty (30) days of the date of the Notice of Impasse.

6) There shall be no hearing, no witnesses, no argument nor contact by the parties or their representatives with the arbitrator except for the joint submittals and each party's Position Paper.

7) The arbitrator may request additional information and may make any other orders necessary to resolve the entire matter.

8) The arbitrator shall issue a written decision resolving all the submitted issues within 30 days after receiving the Position Papers.

F. Nothing herein contained shall be so construed as to preclude DESIGN CONSULTANT or CITY from commencing a legal action in relation to claims in excess of \$50,000, but the sole legal remedy in relation to claims of \$50,000 or less shall be binding, unappealable special arbitration as described above.

13. **AMENDMENTS:** Whenever a change in the Scope of Work contemplated in this Agreement is determined to be necessary, the work will be performed in accordance with this Agreement provided, however, that BEFORE such work is started, an Amendment shall be executed by CITY and DESIGN CONSULTANT. Additions to, modifications of, or deletions from the project provided herein may be made and the compensation to be paid to DESIGN CONSULTANT may be adjusted accordingly by mutual agreement of the contracting parties. It is agreed that no claim for extra work by DESIGN CONSULTANT will be allowed by CITY except as provided herein, nor shall DESIGN CONSULTANT do any work not covered by this Agreement unless such work is authorized through an executed amendment.

14. **TERMINATION WITHOUT CAUSE:** CITY may at any time and for any or no reason, at its convenience, terminate this Agreement or any part of the services to be rendered pursuant thereto by ten (10) day written notice to DESIGN CONSULTANT specifying the termination date. Immediately after receiving such notice, DESIGN CONSULTANT shall discontinue advancing the work under this Agreement and shall deliver to CITY

all drawings, notes, calculations, sketches and other materials entirely or partially completed, together with all unused materials supplied by CITY.

DESIGN CONSULTANT shall receive as compensation in full for services performed to date of such termination, a fee for the percentage of work actually completed. This fee shall be a percentage of DESIGN CONSULTANT(S) fee described in this Agreement under paragraph 4 and shall be in an amount to be agreed mutually by DESIGN CONSULTANT and CITY. CITY shall make this final payment within sixty (60) days after DESIGN CONSULTANT has delivered the last of the partially completed items.

15. TERMINATION WITH CAUSE

This Agreement may be terminated by CITY for cause should the DESIGN CONSULTANT fail to perform any provision of this Agreement, including without limitation, for any of the following reasons:

- (a) DESIGN CONSULTANT abandons Work;
- (b) DESIGN CONSULTANT assigns or attempts to assign its rights or obligations under this Agreement or any part thereof to any third-party (without the prior written consent of CITY);
- (c) DESIGN CONSULTANT is adjudged bankrupt or insolvent, makes a general assignment for the benefit of creditors, has a trustee or receiver appointed for its property, or files a petition to take advantage of any debtor's act;
- (d) DESIGN CONSULTANT fails or refuses to perform any obligation under the Agreement, or fails to remedy such nonperformance within seven (7) days after its occurrence;
- (e) DESIGN CONSULTANT fails to comply with any applicable Laws and fails to remedy such nonperformance within seven (7) days after its occurrence;
- (f) DESIGN CONSULTANT fails to achieve the required dates for performance required pursuant to the Agreement.

The CITY'S right of termination for cause as set forth herein shall be in addition to, and not a limitation of, any and all other remedies available to CITY at law, in equity, or under the terms and provisions of this Agreement.

16. OWNERSHIP OF DOCUMENTS: All documents, including, but not limited to, preliminary designs, tracings, drawings, original mylars, estimates, field notes, investigations, design analysis, communications (e-mail, minutes, telephone, memos, etc.) and studies which are prepared in the performance of this Agreement are to be, and shall remain the property of CITY. DESIGN CONSULTANT shall furnish CITY, upon its request, originals or reproducible copies of technical specifications and copies of all other documents listed above. DESIGN CONSULTANT shall endorse, by his professional seal, all plans and engineering data furnished by it.

17. RE-USE OF DOCUMENTS: The parties agree the documents, drawings, specifications and designs, although the property of CITY, are prepared for this specific project and are not intended nor represented by DESIGN CONSULTANT to be suitable for re-use for any other project. Any reuse without written verification or adaptation by DESIGN CONSULTANT for the specific purpose intended will be at CITY'S sole risk and without liability or legal exposure to DESIGN CONSULTANT.

18. NO KICK-BACK CERTIFICATION: DESIGN CONSULTANT warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage or contingent fee; and that no member of the City Council or any employee of the CITY has any interest, financially or otherwise, in the DESIGN CONSULTANT firm.

For breach or violation of this warranty, CITY shall have the right to annul this Agreement without liability, or at its discretion to deduct from the Agreement Price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

19. CONFLICT OF INTEREST: DESIGN CONSULTANT stipulates that its officers and employees do not now have a conflict of interest and it further agrees for itself, its officers and its employees that it will not contract for or accept employment for the performance of any work or services with any individual business, corporation or government unit that would create a conflict of interest in the performance of its obligations pursuant to this Agreement.

Pursuant to A.R.S. Section 38-511, CITY may cancel this Agreement within three (3) years after its execution, without penalty or further obligation by CITY if any person significantly involved in initiating, negotiating, securing, drafting or creating this Agreement on behalf of CITY is, at any time while this Agreement is in effect, an employee

of any other party to this Agreement in any capacity, or a consultant to any other party of this Agreement with respect to the subject matter of this Agreement.

20. CONTROLLING LAW: The laws of the State of Arizona shall govern this agreement.

21. NO ASSIGNMENT: DESIGN CONSULTANT shall not assign, transfer, convey or subcontract this Agreement or the services to be rendered pursuant thereto without the prior written consent of CITY.

22. NOTICES: Any notice required under this Agreement shall be in writing, addressed to the appropriate party at its address on the signature page and given personally or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names this _____ day of _____, 2008.

CITY OF CHANDLER

DESIGN CONSULTANT

MAYOR Date

By: *Keith M. Dibble*
Signature

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
Phone: 480-782-3307
FAX: 480-782-3355

ADDRESS FOR NOTICE
Dibble Engineers
7500 N. Dreamy Draw Drive, Ste. 200
Phoenix, AZ 85020
Phone: (602) 957-1155
FAX: (602) 957-2838

ATTEST:

City Clerk

ATTEST: If Corporation
Kevin L. Snyder
Secretary

APPROVED AS TO FORM:

City Attorney By: *[Signature]*

SEAL

**EXHIBIT A
SCOPE OF WORK**

PROJECT TITLE: UPRR Crossings (Chandler Boulevard, Chandler Heights Road)

PROJECT NO.: ST0808-201

I. PROJECT DESCRIPTION & SCOPE OF CONSTRUCTION:

A. BACKGROUND

Design roadway and railroad crossing improvements at the following locations:

Railroad: (UPRR)
Chandler Boulevard and UPRR Chandler Industrial Lee
Chandler Heights Road and UPRR Chandler Industrial Lee

Design includes, but is not limited to, horizontal layout, roadway design, utility coordination/relocation, and ROW acquisition. This project may be a design-bid-build procurement or CM@Risk, at Chandler's discretion. The design will extend to a maximum of 1000 feet to each side of the crossing along the major crossroad.

B. GENERAL TASKS

B 1.0 GENERAL REQUIREMENTS – The design and all work shall conform to the latest edition and amendments of the following:

- City of Chandler Standard Details and Specifications
- City of Chandler Technical Design Manual #1: Water System Design
- City of Chandler Technical Design Manual #2: Wastewater and Reclaimed Water System Design
- City of Chandler Technical Design Manual #3: Storm Drainage System Design
- City of Chandler Technical Design Manual #4: Street Design and Access Control
- City of Chandler Technical Design Manual #5: Traffic Signal Design
- City of Chandler Technical Design Manual #6: Street Light Design
- City of Chandler Technical Design Manual #7: Traffic Barricade Design
- City of Chandler Technical Design Manual #8: Landscape and Irrigation Design of Right Of Ways, Retention Basins and Parks
- MAG Uniform Standard Specifications and Details
- Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD)
- AASHTO *Policy on Geometric Design of Highways and Streets*
- The Code of the City of Chandler
- UPRR Railway Standards
- Federal Railway Agency Standards
- SRP Structural Design Standards

B 2.0 DATA COLLECTION

1. CITY shall provide at no cost to DESIGN CONSULTANT the following existing information as available, but not necessarily limited to, as-built drawings, related design studies and reports, geotechnical investigations, traffic data and projections, maintenance records, and drawings of developments planned within the project area. DESIGN CONSULTANT will research UPRR, SRP and RWCD design AsBuilts, reports and land ownership records.
2. DESIGN CONSULTANT shall keep a log of all documents and information provided by CITY staff and related stakeholders. DESIGN CONSULTANT will create pdf copies of the documents and place them on the ftp site for the team to utilize.

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B 3.0 PUBLIC UTILITY COORDINATION

1. DESIGN CONSULTANT shall coordinate with utility companies, private development and the CITY to incorporate existing and proposed utilities into the construction plans, in accordance with the latest version of the Arizona Utility Coordinating Committee "Public Improvement Project Guide" (PIPG). DESIGN CONSULTANT shall show all existing and proposed utilities on the paving plan and profile sheets.
2. DESIGN CONSULTANT shall coordinate with each utility company to determine if the utilities have any need to upgrade their facilities before or during the project's construction.
3. DESIGN CONSULTANT shall work with the City's Utility Coordinator to coordinate the early determination of facilities, which may be abandoned or deactivated.
4. DESIGN CONSULTANT shall be responsible for field verifying the horizontal locations of all utilities within the project limits prior to the Preliminary (15%) design submittal. DESIGN CONSULTANT shall prepare base maps detailing all existing utility data and transmit them to the utility companies for verification and comment concerning the utility locations. DESIGN CONSULTANT shall incorporate the utility company comments into the base maps.
5. DESIGN CONSULTANT shall specifically identify utility conflicts, with input from utility companies, which might affect alignment or grade and recommend alignment alternatives.
6. Prior to the 30% plan submittal, DESIGN CONSULTANT shall submit title reports for affected properties to SRP Water Users and SRP Power.
7. DESIGN CONSULTANT shall send a letter to each utility company notifying them of the project and defining the project scope and timeline, and shall also send one (1) set of 15% plans and two (2) sets each of 30%, 60%, 95%, and Final plans to each utility company for their review along with a request for written response from each company to determine the disposition of their utility as it relates to the planned roadway improvements. DESIGN CONSULTANT shall incorporate the utility companies' and private developers' construction requirements into the bid documents.
8. DESIGN CONSULTANT shall provide the utility companies with electronic base files or other pertinent information necessary for the utility companies to design the relocation of their facilities. DESIGN CONSULTANT shall coordinate with the utilities to facilitate the design to relocate their facilities. DESIGN CONSULTANT shall request a letter from each utility impacted by the planned roadway improvement identifying a timeline for relocating their facilities.
9. Prior to 30% plan submittal, DESIGN CONSULTANT shall develop preliminary alignments of any utilities requiring relocation for which the CITY's Utility Coordinator has requested an alignment design. DESIGN CONSULTANT shall submit preliminary locations to each utility for review, along with a request for written response from each utility. DESIGN CONSULTANT shall make joint trenching recommendations for underground utilities and submit those recommendations to the CITY's Utility Coordinator for approval.
10. DESIGN CONSULTANT shall identify utility easements and provide legal descriptions to the CITY between the 30% and 60% design completion to facilitate land acquisition during the design phase.
11. At the 30% design submittal, DESIGN CONSULTANT shall develop a utility strip map showing all existing and proposed utilities and existing and proposed easements for each utility to include parcel numbers and addresses at a scale of 1"=20'H.
12. For each submittal to the utility companies, DESIGN CONSULTANT shall provide the CITY's Project Manager and Utility Coordinator each with a written record of receipt.
13. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to facilitate utility coordination meetings upon notice to proceed and at each submittal (30%, 60%, and 95%) and provide a strip map showing proposed CITY and private installations and existing and proposed easements.

14. DESIGN CONSULTANT shall work with the CITY's Utility Coordinator to facilitate utility land coordination meetings upon notice to proceed and at each submittal (30%, 60%, and 95%) and provide a strip map showing proposed City and private installations.
15. DESIGN CONSULTANT shall review all utility plans for constructability within the project limits.
16. Prior to submittal of Final (100%) construction documents, DESIGN CONSULTANT shall be responsible for ensuring all utility relocations have been designed and coordinated with proposed CITY and private installations, and such relocations will not impact the proposed construction schedule of the CITY's project.

B 4.0 PROGRESS MEETINGS

1. DESIGN CONSULTANT shall hold the following progress meetings at the City of Chandler offices or project site.
 - a. Biweekly Progress Meetings shall be held up to the 60% plan submittal and shall be held every four (4) weeks, or as needed after the 60% plan submittal.
 - b. Comment Resolution Meetings shall be held in lieu of the schedule Biweekly Progress Meetings no later than two (2) weeks after redlines are returned to DESIGN CONSULTANT at each plan submittal.
 - c. Utility Coordination Meetings shall be held at project kick-off, at each plan submittal and as needed.
2. DESIGN CONSULTANT shall prepare and distribute meeting minutes for each Progress Meeting, including Action Items to be reviewed and updated at each Progress Meeting.

B 5.0 PUBLIC MEETINGS

1. No separate public meetings are anticipated for this project.

B 6.0 STAKEHOLDER MEETINGS

1. DESIGN CONSULTANT shall prepare for and participate in monthly Stakeholder Meetings for the duration of the project. DESIGN CONSULTANT shall prepare display boards featuring the horizontal alignment and depict both existing and proposed right-of-way in addition to a display board depicting the proposed typical roadway section.
2. DESIGN CONSULTANT shall be responsible for the following:
 - a. Develop and setup display boards.
 - b. Prepare a meeting sign-in sheet.
 - c. Give a brief presentation, and answer questions as needed.
 - d. Prepare distribute meeting minutes, including Action Items to be reviewed and updated at each stakeholder Meeting.
3. CITY shall be responsible for the following:
 - a. Secure a location and time for each Stakeholder Meeting.
 - b. Send invitations to Stakeholders.

B 7.0 PROJECT MANAGEMENT

1. DESIGN CONSULTANT shall prepare regular progress reports; perform regular budget and schedule monitoring; coordinate with utilities, CITY representatives and other project stakeholders; and manage sub-consultants.

B 8.0 DESIGN SURVEY

DESIGN CONSULTANT shall perform all project survey as detailed below:

1. DESIGN CONSULTANT shall perform a ground survey to establish horizontal and vertical control throughout the project limits based on the datum specified by the CITY. Survey control for the project shall be in accordance with CITY requirements. The horizontal survey data used for the project shall be presented in State Plane Coordinates, North American Datum of 1983 (NAD 83) 1992 epoch, and Arizona Central Zone, International Foot Vertical datum shall be referenced to the North American Vertical Datum of 1988 (NAVD 88), International Foot. Existing roadway centerline shall be established through Maricopa County Recorder's maps and land surveys in conjunction with existing street monuments.
2. DESIGN CONSULTANT shall perform a full topographic survey of all existing features including, but not limited to, curb and gutter, median curb, catch basins, scuppers, water meter boxes, water and gas valves, manholes, utility poles and guy wires, traffic signal poles, utility boxes, fences, trees, mailboxes, public and private irrigation, and plants and shrubs.
3. DESIGN CONSULTANT shall take pavement elevations at the centerline of the major roads at 50-foot intervals, extending 1000 feet each side of the crossing centerline. In addition, DESIGN CONSULTANT shall take elevations at the gutter flow line and top of curb for all existing curb and gutter at the pavement adjacent to median curb at the outside edge of pavement where there is no curb and at existing ground at 10-foot intervals beyond the edge of pavement or back of curb to a distance of 80 feet from the centerline of the major road.
4. DESIGN CONSULTANT shall take elevations along the centerline and edges of each driveway beginning at the gutter flow line for a distance of 20 feet. DESIGN CONSULTANT shall take ground elevations at all grade breaks along each driveway centerline and edges.
5. DESIGN CONSULTANT shall take elevations at the inverts of all catch basins, manholes, pipes, and all water valve nuts within the project units. DESIGN CONSULTANT shall establish benchmarks at 500-foot intervals along Ocotillo Road for the length of the project.
6. DESIGN CONSULTANT shall provide a sketch showing each benchmark with a minimum of three (3) ties to features which will not be disturbed by construction.
7. DESIGN CONSULTANT shall provide a digital photo log of the project. The photos shall be taken looking up-station at no less than 50-foot increments along the proposed curb line. The photos shall also include intersections at all cross/intersecting streets, driveways, curb ramps, existing above-ground utilities, existing obstructions, drainage features, ditches, railroads, roadway signage, private signage, existing landscaping, streetlights, existing miscellaneous structures, walls, and any other features which may impact the design of the project. The photo log shall provide station, offset and/or direction of the picture or other identifying descriptions for each picture. DESIGN CONSULTANT shall provide the CITY two CDs of the photo log.

B 9.0 RIGHT-OF-WAY SURVEY

1. At Preliminary (15%) Design, DESIGN CONSULTANT shall prepare a right-of-way strip map overlain on an aerial photograph of the project limits showing existing property rights for right-of-ways, easements and utilities on the major road for the purpose of identifying property boundaries to prepare legal descriptions and exhibits for property acquisition, permanent drainage easements, temporary construction easements, and utility easements, and it shall include a list of identified properties and property rights. DESIGN CONSULTANT shall obtain litigation reports for the parcels where property acquisition is needed.
2. DESIGN CONSULTANT shall provide legal descriptions and exhibits for the acquisition of new right-of-ways, temporary construction easements, drainage tracts, and drainage easements. DESIGN CONSULTANT shall provide right-of-way research and a survey to define the boundaries

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of adjacent properties where new right-of-ways or easements are anticipated. DESIGN CONSULTANT shall provide closure data for all written legal descriptions and exhibits. The scope of work includes, but is not limited to:

- a. The preparation of written legal descriptions and exhibits for twelve (12) parcels for the acquisition of permanent right-of-way. The parcel legal description shall include new right-of-way, utility easements, drainage easements and/or temporary construction easements.
3. DESIGN CONSULTANT shall submit final right-of-way documents to the CITY between 30% and 60% design completion. These documents shall include legal descriptions, parcel maps, right-of-way strip maps, a draft drainage report, and 30% design plans for all acquisitions and easements.
4. DESIGN CONSULTANT shall field stake right-of-way twice at the direction of the CITY's Project Manager.

B 10.0 PLANS, SPECIFICATIONS AND ESTIMATES

1. DESIGN CONSULTANT shall prepare plans, specifications and estimates for the project in accordance with CITY standards. The plans shall include, but not be limited to:
 - Cover Sheet
 - General Notes Sheets
 - Standard Sections Sheet
 - Paving Plans/Profiles (1"=20' H/1"=2' V) – See Task 11 for additional information
 - Drainage Plans – See Task 12 for additional information
 - Striping and Signing Plans (1"=40') – See Task 13 for additional information
 - Traffic Signal Plans – See Task 13 for additional information
 - Utility Relocation Plans (if required, by others)
 - Storm Water Pollution Plans – see Task 16 for additional information
2. DESIGN CONSULTANT shall submit plans at the 30%, 60%, 95%, and 100% stages. The plan submittals will follow the checklists provided by the CITY. The 15% submittal shall be a roll plot or plan view of the proposed alignment.
3. At the 30%, 60% and 95% plan submittals, DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format, and AutoCAD .DWF (Design Web Format) exports of each plan sheet or scanned .TIF images of each plan sheet.
4. At the completion of the design, DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format and scanned .TIF images of each plan sheet (signature set).
5. Specifications will be in accordance with the MAG Standard Specifications and City of Chandler Standard Specifications. DESIGN CONSULTANT shall supply special provisions for all items not adequately covered by the standard specifications.
6. DESIGN CONSULTANT shall prepare cross-sections and earthwork quantities determined, with the intent to provide a balanced earthwork project.
7. DESIGN CONSULTANT shall prepare cost estimates for all pay items per the standard specifications and special provisions, except that volumetric measurements will not be used for pay items.
8. Following each review, DESIGN CONSULTANT shall review the CITY's comments and complete the comment resolution forms provided by the CITY. DESIGN CONSULTANT will provide a matrix summarizing the comments and indicate whether the comments were incorporated or provide justification for not implementing the changes noted in the plan review comments. DESIGN CONSULTANT shall provide the comment matrix to the CITY one (1) week prior to the Comment Resolution Meeting. All comments will be incorporated unless otherwise authorized by the CITY.

9. DESIGN CONSULTANT shall return redline comments with each plan submittal.
10. DESIGN CONSULTANT shall be responsible for delivering to the CITY a complete set of constructible plans and shall be responsible for ensuring constructability of such plans, including, but not limited to, completion of right-of-way, TCE and drainage easement acquisitions and completion of utility relocation design.

B 11.0 PAVING PLAN/PROFILES

1. DESIGN CONSULTANT shall perform work necessary to create Typical Roadway Sections, Geometric Layout and Paving Plan & Profile Sheets using design right-of-way needs for a major arterial (City of Chandler Standard Detail C-203).
2. DESIGN CONSULTANT shall prepare paving and profile plans at a scale of 1"=20' horizontal and 1"=2' vertical to include base sheet preparation including survey control, topographic mapping, centerline stationing, curb and gutter, sidewalk, handicap ramps, driveways, turn lanes, intersecting streets, utilities, existing right-of-way, proposed right-of-way, existing utilities, construction notes, etc. Profiles shall show centerline stationing, existing ground, proposed curb and gutter grades, benchmarks, and underground utilities.

B 12.0 DRAINAGE PLANS

1. DESIGN CONSULTANT shall prepare a drainage analysis to define the new runoff expected as a result of the roadway construction and recommend the drainage improvements required.
2. DESIGN CONSULTANT shall prepare drainage calculations for all undeveloped areas adjacent to major road. The project stretch has been partially constructed by private developers constructing the half-street improvements adjacent to their developments.
3. DESIGN CONSULTANT shall perform drainage calculations and incorporate them into a Draft Drainage Report to accompany the 30% plan submittal. The limits of analysis shall be to existing improvements. DESIGN CONSULTANT shall verify any existing basins constructed along the roadway corridors within the project limits match the as-built plans. The Draft Drainage Report shall identify proposed retention basins and any required drainage easements. This report shall document all calculations certifying the proposed design meets the design criteria.
4. DESIGN CONSULTANT shall incorporate comments received from the Draft Drainage Report into a Final Drainage Report between the 30% and 60% plan submittals.
5. DESIGN CONSULTANT shall submit legal descriptions and exhibits for drainage easements, including volumetric calculations to the CITY between 30% and 60% plan submittals.

B 13.0 TRAFFIC SIGNAL PLANS

1. DESIGN CONSULTANT shall design traffic signal modifications for the Chandler Boulevard/Delaware Avenue intersection in accordance with applicable City of Chandler Traffic Signal Standards and Specifications.
2. DESIGN CONSULTANT shall perform a site visit and document the equipment and conditions related to the existing traffic signals, traffic control equipment, existing underground conduit, etc.
3. DESIGN CONSULTANT shall coordinate traffic signal design with Salt River Project (SRP) to verify that the existing power source can accommodate the modified signal.

B 14.0 STRIPING AND SIGNING PLANS

1. DESIGN CONSULTANT shall develop preliminary traffic signing and striping plans for this project at the 30% plan stage. DESIGN CONSULTANT shall finalize the traffic signing and striping plans

at the 60% plan stage. The Signing and Striping Design Plans shall be produced at 1"=40' scale and shall include the following sheets:

- a. General Striping Notes sheet (including a striping quantities)
 - b. General Signing Summary and Notes
 - c. Striping and Signing plan sheets
2. DESIGN CONSULTANT shall develop preliminary traffic analysis for each railroad crossing that will include the interaction between the train signalization and the proposed roadway traffic. Special attention will be given at the Chandler Boulevard crossing due to the proximity of the tracks and the intersection with Delaware Road.

B 14.0 STREET LIGHT PLANS

1. DESIGN CONSULTANT shall design street lighting relocations along Chandler Boulevard within the project limits in accordance with applicable City of Chandler Street Light Standards and Specifications. No lighting plans are anticipated for the other crossing locations at this time.
2. DESIGN CONSULTANT shall perform a site visit and document to the extent possible the equipment and conditions related to the existing street lighting, the existing lighting control equipment and the existing underground conduit and conductor routes.
3. DESIGN CONSULTANT shall coordinate lighting design with Salt River Project (SRP) to define a power source to serve the lighting system.
4. DESIGN CONSULTANT shall provide a computer generated point-to-point foot-candle grid for Ocotillo Road and submit documents to CITY for approval.
5. DESIGN CONSULTANT shall prepare complete street lighting relocation plans for Chandler Boulevard; including new and relocated pole locations, service locations and circuiting at the 30% plan stage. The street light design shall match the existing streetlights. The first existing streetlight on each side of the roadway beyond the limit of the paving shall be shown on the plans. DESIGN CONSULTANT shall include digital photos of existing streetlights in the photo log.
6. DESIGN CONSULTANT shall provide detail drawings for the following:
 - a. Pole details (pole illustration, pole schedule and general notes)
 - b. Electrical details (control center, wiring schematic, and cable schedule)
 - c. Foundation details
 - d. Miscellaneous details (pole grounding, connectors)

B 15.0 LANDSCAPE & IRRIGATION PLANS

1. No work is currently anticipated in this section

B 16.0 STORMWATER POLLUTION PREVENTION PLANS

1. DESIGN CONSULTANT shall develop a Storm Water Pollution Prevention Plan (SWPPP) as required on all projects which will or have the potential to impact any adjacent drainage system under the provisions of section 402(p) of the Clean Water Act (CWA) and regulations 40 CFR 121 to secure a cost for the Arizona Pollutant Discharge Elimination System (AZPDES) permit and to ensure the contractor is held responsible for this effort.

B 17.0 WATERLINE AND SANITARY SEWER PLANS

1. DESIGN CONSULTANT shall review the needs for future water and sewer improvements for each crossing with city staff.
2. DESIGN CONSULTANT will design sleeves for future water and sewer lines at each crossing.

B 18.0 GEOTECHNICAL

1. DESIGN CONSULTANT shall conduct a visual geologic reconnaissance of the project area and review available geologic literature and aerial photographs of the project site and shall conduct a visual pavement reconnaissance of the roadway segment in question.
2. DESIGN CONSULTANT shall establish test locations in the field and arrange for the mark-out of underground utilities through Arizona Blue Stake.
3. DESIGN CONSULTANT shall core the existing pavement of the roadway segment in question at up to four (4) locations to determine the existing structural (asphalt and aggregate base) section.
4. DESIGN CONSULTANT shall drill eleven (11) hollow-stem auger borings using a truck-mounted two-wheel drive drill rig. These borings will be located within the existing roadway or in the shoulder, whichever is more appropriate, and will extend up to 20 feet deep. DESIGN CONSULTANT shall collect ring samples and bulk samples for laboratory testing and will be responsible for preparation of field boring logs.
5. DESIGN CONSULTANT shall perform laboratory testing to evaluate the index, compressibility, expansion and chemical characteristics of the subsurface soils encountered.
6. DESIGN CONSULTANT shall prepare a draft geotechnical report to accompany the 30% submittal, which will contain the results of the field and laboratory analyses with presentations of the engineering parameters for design of the new pavement and recommendations for construction. In addition, the reports will contain vicinity maps depicting the project limits, plans showing the boring locations, narrative descriptions of the surface and subsurface conditions, laboratory test results and geotechnical recommendations related to excavation characteristics, bedding material, backfilling guidelines, subgrade support for new pavements, pavement design recommendations, pavement rehabilitation recommendations, and the re-use of on-site soils for engineered fill.
7. DESIGN CONSULTANT shall incorporate comments received on the draft geotechnical report into a final geotechnical report to accompany the 60% submittal.

B 19.0 PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)

1. DESIGN CONSULTANT shall conduct a Phase I Environmental Site Assessment (ESA) in accordance with ASTM-1527-05 and submit a draft Phase I ESA report inclusive of each property requiring new right-of-way to the CITY's project manager no more than forty-five (45) calendar days after the 30% plan submittal. Phase I ESA reports will document findings and provide opinions and recommendations regarding possible environmental impacts at the sites. DESIGN CONSULTANT shall provide color photographs and figures in each report.
2. Following review by the CITY's Environmental Program Specialist, DESIGN CONSULTANT shall review the CITY's comments and address those comments in a final Phase I ESA.
3. DESIGN CONSULTANT shall review lease records for the sites to evaluate probable past site uses and their possible impact on the current environmental status of the sites.
4. DESIGN CONSULTANT shall review readily available maps and reports pertaining to the sites.
5. DESIGN CONSULTANT shall obtain a chain-of-title report for ownership back to 1940 or earlier for each property to be acquired.
6. DESIGN CONSULTANT shall conduct interviews with the property representatives regarding the environmental status of the sites.
7. DESIGN CONSULTANT shall perform a site reconnaissance to visually identify areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, possible

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sources of polychlorinated biphenyls (PCB5), and possible risks of contamination from activities at the sites and adjacent properties.

8. DESIGN CONSULTANT shall review readily available local regulatory agency files for the sites and shall make requests to the County Environmental Services Department and the local Fire and Building Departments.
9. DESIGN CONSULTANT shall review available regulatory agency databases for the sites and properties located within a specified radius of the sites to evaluate the possible environmental impact to the site. Databases will identify locations of known hazardous waste sites, landfills and leaking underground storage tanks, permitted facilities utilizing underground storage tanks, and facilities using, storing or disposing of hazardous materials.
10. DESIGN CONSULTANT shall review readily available historical documents, including aerial photographs (site and adjacent properties), Sanborn Insurance Maps (site and available adjacent properties), Building Department Records (site only), and reverse city directories (site and available adjacent properties), as appropriate.
11. DESIGN CONSULTANT shall review Arizona Department of Environmental Quality (ADEQ) databases for deed restrictions, such as Declaration of Environmental Use Restrictions and Voluntary Environmental Mitigation Use Restrictions.
12. DESIGN CONSULTANT shall discuss site observations as they relate to the possible presence of asbestos-containing materials. DESIGN CONSULTANT is not required to collect asbestos samples within this scope of work.
13. Visual observations made by DESIGN CONSULTANT shall be limited to the surface area of the property and contiguous sites. Subsurface explorations, soil sampling, surface and groundwater sampling, and chemical analyses are not included in this proposal. The reports will be based solely on information gained from direct observation, personal interviews and examinations of regulatory records.
14. DESIGN CONSULTANT shall update the Phase I ESA reports if the properties are not acquired within six (6) months of the date of the assessment.

B 20.0 UTILITY LOCATING SERVICES (POTHOLING)

1. DESIGN CONSULTANT shall conduct Subsurface Utility Engineering (SUE) per ASCE publication CII/ASCE 38-02 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" at a "Quality Level C".
2. During the 30% design phase, DESIGN CONSULTANT shall develop a suggested pothole list identifying stationing and offset. DESIGN CONSULTANT will provide the list to utility companies affected by the project, and facilitate coordination of a master pothole list.
3. Prior to completion of the 30% plans, DESIGN CONSULTANT shall provide vacuum excavation potholes (test holes) on existing subsurface utilities at locations identified on the master pothole list. Pertinent pothole data will be presented in spreadsheet format on a standard "Test Hole Data Summary" form which includes the depth, horizontal and vertical location, size, and material composition of the utility line exposed.
4. DESIGN CONSULTANT shall be responsible for the field survey to initially stake the pothole location in white paint or white flagging for Blue Stake notification and as a reference point for the surveyed location of each pothole. DESIGN CONSULTANT shall identify the pothole number, northing, easting and elevation of the staked location. DESIGN CONSULTANT shall measure and record adjustments from the surveyed location to the steel reference pin set above the centerline of each exposed utility.

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5. Vacuum excavation potholing will include mobilization, set-up, traffic control (excluding uniformed police officer, special barricading, permit fees, or inspections required by any governmental agencies), pavement cut and removal (if any), pavement patch as specified in Streetcut Permit (if any), excavation, backfill and compaction, all information requested, and clean up. DESIGN CONSULTANT shall apply for and obtain City of Chandler permit for potholing.
6. For identified water and sewer lines while the pothole is excavated, representatives from the CITY's Water and Sewer Department and DESIGN CONSULTANT will perform visual inspection of the condition of the lines. Formal recommendations for potential rehabilitation or replacement will be developed by the CITY's Water and Sewer representatives and DESIGN CONSULTANT and provided to the CITY's project manager in memorandum form.

C. CONSTRUCTION DOCUMENTS

DESIGN CONSULTANT shall prepare the construction documents for each design submittal listed in the table below.

Construction Document	30% Stage	ROW	60% Stage	95% Stage	100% Stage
Face Sheet	P		F	F	S
Design Sheet/Index			P	F	S
Special Detail Drawings			P	F	S
Typical Roadway Sections	P		F	F	S
Geometric Configuration	P		F	F	S
Paving Plan & Profile Sheets	P		F	F	S
Drainage Plans & Details	P		F	F	S
Intersection Plans & Details	P		F	F	S
Utility Plan/Profile/Details	P		F	F	S
Traffic Signal Plans & Details	P		P	F	S
Signing and Pavement Markings Plans & Details	P		P	F	S
Lighting Plans & Details	P		P	F	S
Landscape Plans & Details			P	F	S
Roadway Cross Sections	P		F	F	S
Quantity & Cost Estimate	P		P	F	F
Construction Document (continued)	30% Stage	ROW	60% Stage	95% Stage	100% Stage
Drainage Report	P	F	S		
Geotechnical Report	S				
Environmental Site Assessment Report		S			
Right-of-Way Legal Descriptions		S			
Right-of-Way Strip Map	F	F	F	F	F
Utility Strip Map	P	P	F	F	F

P – Denotes Preliminary, F – Denotes Final, S – Denotes Sealed

C 1.0 ALIGNMENT (15%) PLANS

1. DESIGN CONSULTANT shall submit to the CITY three (3) full-size sets of alignment plans, three (3) copies of the right-of-way strip map, and two (2) copies of the litigation reports. In addition, DESIGN CONSULTANT shall send one (1) full-size set of alignment plans, along with a matrix detailing all identified utility conflicts to each utility company affected by the project.

C 2.0 PRELIMINARY (30%) PLANS

1. DESIGN CONSULTANT shall submit to the CITY eight (8) full-size sets of construction plans, eight (8) half size sets of construction plans, five (5) copies of the draft drainage report, five (5) copies of the draft geotechnical report, two (2) copies of the "Test Hole Data Summary Sheet," ten (10)

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copies of the construction cost estimate, ten (10) copies of the outline special provisions, two (2) copies of the final right-of-way strip map, and two (2) copies of the utility strip map, and plan checklists. In addition, DESIGN CONSULTANT shall send two (2) full-size sets of construction plans, along with conflict letters and a copy of the "Test Hole Data Summary Sheet," to each utility company affected by the project.

2. DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format, and AutoCAD .DWF (Design Web Format) exports of each plan sheet or scanned .TIF images of each plan sheet.

C 3.0 RIGHT-OF-WAY SUBMITTAL

1. DESIGN CONSULTANT shall submit five (5) copies of the final drainage reports, the final legal descriptions for acquisitions, drainage easements, utility easements, and TCEs, two (2) copies of the final right-of-way strip map, two (2) copies of the utility strip map, and one (1) copy of the draft Phase I Environmental Assessment.

C 4.0 PRELIMINARY (60%) PLANS

1. DESIGN CONSULTANT shall incorporate any changes, corrections and/or additions as a result of the preliminary plan review. DESIGN CONSULTANT shall submit to the CITY 30% redlines, ten (10) copies of 30% plan comments and annotated comment sheets, eight (8) full-size sets of construction plans, eight (8) half-size sets of construction plans, one (1) copy of the sealed drainage report, five (5) copies of the final geotechnical report, six (6) copies of the construction cost estimates, six (6) copies of the technical special provisions, plan checklists, one (1) copy of the final right-of-way strip map, two (2) copies of the utility strip map, and three (3) copies of the final Phase I ESA. In addition, DESIGN CONSULTANT shall send two (2) full-size sets of construction plans, along with conflict letters, to each utility company affected by the project.
2. DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format and AutoCAD .DWF (Design Web Format) exports of each plan sheet or scanned .TIF images of each plan sheet.

C 5.0 PRE-FINAL (95%) PLANS

1. DESIGN CONSULTANT shall incorporate any changes, corrections and/or additions as a result of the preliminary plan review. DESIGN CONSULTANT shall submit to the CITY 60% redlines, ten (1) copies of 60% plan comments and annotated comment sheets, eight (8) full-size sets of construction plans, eight (8) half-size sets of construction plans, six (6) copies of the construction cost estimate, six (6) copies of the final technical special provisions and plan checklists, one (1) copy of the final right-of-way strip map, and two (2) copies of the utility strip map. In addition, DESIGN CONSULTANT shall send two (2) full-size sets of construction plans, along with conflict letters to each utility company affected by the project.
2. DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format and AutoCAD .DWF (Design Web Format) exports of each plan sheet or scanned .TIF images of each plan sheet.

C 6.0 FINAL (100%) CONSTRUCTION DOCUMENTS

1. DESIGN CONSULTANT shall incorporate any changes, corrections and/or additions as a result of the pre-final plan review. DESIGN CONSULTANT shall submit to the CITY 95% redlines, one (1) copy of 95% plan comments and annotated comment sheets, one (1) sealed set of specifications, including technical special provisions, one (1) full-size set of sealed construction plans on reproducible 4 mil Mylar with coversheet signed by ADEQ or Maricopa Environmental Services, if applicable, one (1) copy of the final construction cost estimate and bid schedule, one (1) copy of the final right-of-way strip map, and two (2) copies of the final utility strip map.

2. DESIGN CONSULTANT shall submit a CD containing complete improvement base files in AutoCAD .DWG format and AutoCAD .DWF (Design Web Format) exports of each plan sheet or scanned .TIF images of each plan sheet.

D. POST DESIGN SERVICES

1. DESIGN CONSULTANT shall attend and actively participate in a pre-bid meeting. DESIGN CONSULTANT shall give a brief overview of the project and address questions related to the construction documents. DESIGN CONSULTANT shall prepare and deliver to CITY to issue any necessary Addenda for clarification or correction of the construction documents.
2. DESIGN CONSULTANT shall assist the CITY during construction by answering RFIs.
3. Construction management or observation/inspection or participation in construction meetings are included in this scope of work up to a maximum of 12.
4. DESIGN CONSULTANT shall prepare as-built drawings from redlined plans provided by the CITY after the construction is complete.

E. PROJECT SCHEDULE

The following schedule was developed based on past experience and is indexed to the notice to proceed date. It has been assumed that all agencies have a three-week review period.

The UPRR Design Process will follow the following schedule:

Notice to Proceed	0
Survey/ Data Collection	NTP + 4 Weeks
Diagnostic Meeting	NTP + 8 Weeks
Preliminary Design Plans	NTP + 12 Weeks
Right-of-way/ Easement Descriptions	NTP + 12 Weeks
UPRR Design Review	NTP + 38 Weeks
Agreement	NTP + 59 Weeks
Letter Report to ACC	NTP + 59 Weeks

1. DESIGN CONSULTANT shall adhere to the production schedule established for the project, and such schedule may not be modified or deviated from without written consent by the CITY. DESIGN CONSULTANT shall revise and submit for review an updated schedule whenever completion of the project design or any of the partial completion points listed in the schedule are delayed by one (1) week or more. Such adjusted schedules shall include a written explanation stating the reasons for the schedule change and a plan for getting back on schedule. DESIGN CONSULTANT shall take all reasonable actions necessary to get the project back on schedule, and CITY shall cooperate to assist DESIGN CONSULTANT.

F. QUALITY CONTROL

DESIGN CONSULTANT shall institute and comply with the Design Quality Control Plan established for the project.

G. ALLOWANCES

Utility Potholing: The DESIGN CONSULTANT shall prepare a utility potholing plan and provide potholes for anticipated conflict locations. The potholes will be paid for at the contract price per pothole.

Right-of-Way: The DESIGN CONSULTANT will prepare written legal descriptions and exhibits for up to ten (10) parcels for the acquisition of permanent right-of-way. The parcel legal description shall include new right-of-way, utility easements, drainage easements and/or temporary construction easements.

Environmental Site Assessments: DESIGN CONSULTANT will prepare up to 10 ESA's. ESA's will be paid for per parcel, not to exceed 10 parcels.

**EXHIBIT A-2
DESIGN TEAM AND THEIR ASSIGNMENTS**

Design Consultant's design team and their assignments are as follows:

Civil Engineering

Dibble Engineering
Contact: Drew Spear

Geotechnical Investigation and Environmental Site Assessments

Speedie Associates
Contact: Todd Hanke

Roadway Lighting and Traffic Signal

SWTE (Southwest Traffic Engineering)

**EXHIBIT A-3
QUALITY CONTROL PLAN**

Quality Control Plan

Design Consultant will be responsible for ensuring that an internal Quality Control Program is followed for this project.

Senior engineering staff, not part of the regular design effort of the project, will independently review the design for conformance to design standards, constructability, and quality at each design progress level prior to submittal to the CITY.

EXHIBIT B

FEE SCHEDULE - NOT TO EXCEED -- HOURLY RATE

PROJECT TITLE: **UPRR Crossing (Chandler Boulevard and Chandler Heights Road)**
PROJECT NO. **ST0808-202**
Chandler, AZ.

For services described in paragraph 3 of this Agreement, the CITY shall pay DESIGN CONSULTANT a fee not to exceed the sum of **Two Hundred Thirty Nine Thousand Three Hundred Seventy One** dollars (**\$239,371**) in accordance with the schedule set forth in exhibit B-1 and attached hereto and incorporated herein by reference.

1. **PAYMENT SCHEDULE:** Payments to Design Consultant will based on the hourly rates and expense costs shown on the fee schedule attached as Exhibit B-1 and will be made in accordance with the production schedule shown in Exhibit A.
2. The not to exceed fee listed above is the total authorized fee and includes "reimbursables".
3. Payment will be made monthly on the basis of time and costs expended as reported in progress reports and deliverables. Work schedule updates will be included in the monthly progress payment requests.
4. An application and certification for payment must be provided by Design Consultant. Such application must provide a clear, detailed invoice reflecting all items billed for. The summary sheet will show, in addition to hours, rates and costs, the percentage of work completed to date, previous payment invoiced/received and current fee requested.
5. Such application shall also include any/all backup documentation (i.e.: receipts, invoices, logs, etc) supporting reimbursable expenses and consultant fees.

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**EXHIBIT B-1
DESIGN TEAM HOURLY RATES AND OTHER CHARGES**

DIRECT LABOR BREAKDOWN:

Classification	Hours	Direct Rate	Cost
Project Principal	12	\$150.00	\$1,800.00
Project Manager	172	\$135.00	\$23,220.00
Project Engineer	374	\$120.00	\$44,880.00
Engineer/Designer	312	\$105.00	\$32,760.00
Cadd Technician	482	\$80.00	\$38,560.00
Survey RLS	18	\$135.00	\$2,430.00
Survey Crew	100	\$130.00	\$13,000.00
Clerical	32	\$45.00	\$1,440.00
Total Hours	1,502		
Total Direct Labor			\$158,090.00

DIRECT EXPENSES BREAKDOWN:

UPRR Fees & Title Reports	\$8,180.00
Reproduction	\$2,140.00
Mileage	\$780.00
Total Direct Expenses	\$11,100.00

SUBCONSULTANTS:

Speedie & Associates (Geotechnical)	\$7,400.00
Southwest Traffic (Signals, ITS, Lighting)	\$20,781.00

SUBTOTAL, SUBCONSULTANTS:

\$28,181.00

TOTAL COST TO CONSULTANT:

\$197,371.00

TOTAL DESIGN FEE (BASE CONTRACT):	\$197,371.00
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ALLOWANCES:

Utility Potholing (30 Holes @ \$700/Hole) TBE, Inc	\$21,000.00
Legal Descriptions & Exhibits (12 Descriptions @ \$1,100/Parcel)	\$11,000.00
Speedie & Associates - Environmental Site Assessments (12@1000)	\$10,000.00

SUBTOTAL ALLOWANCES:

\$42,000.00

TOTAL FEE:	\$239,371.00
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