THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

AGREEMENT FOR GENERAL ENGINEERING SERVICES
Contract No. C-08-227-02-09

THIS AGREEMENT is made, by and between **HIDALGO COUNTY,** acting herein by and through the **Commissioner's Court**, hereinafter called the **"Owner"**, and **TEDSI Infrastructure Group, Inc.** professional engineers of Mission, Texas, hereinafter called the **"Engineer"**.

W I T N E S S E T H:

WHEREAS, the **Owner** desires to contract with the **Engineer** to provide **General Engineering Services** for **Mile 6 West Road Improvements between SH 107** and **Mile 9 North** for Hidalgo County Precinct Number One.

NOW, THEREFORE, the **Owner** and the **Engineer** in consideration of the mutual covenants and agreements herein contained do mutually agree as follows:

ARTICLE 1. Employment of Engineer. The **Owner** agrees to employ the **Engineer** and the **Engineer** agrees to perform general engineering, rights of way & field topographic services as stated in the articles to follow, and for having rendered such services, the **Owner** agrees to pay the **Engineer** compensation as stated in the articles to follow.

ARTICLE 2. Character and Extent of Services. This Agreement will provide for of the **Project** with the following:

2.1. Scope of Work. The **Owner** will furnish items and provide those services for the development of Work Authorizations and fulfillment of this Agreement, as identified in **EXHIBIT "A"** ***-Services to be Provided by the Owner***, attached hereto and made a part of this Agreement. The **Engineer** shall render professional engineering services for the development of said Work Authorizations and fulfillment of this Agreement as identified in **EXHIBIT "B"-*Services to be Provided by the Engineer***, attached hereto and made a part of this Agreement.

2.2 Classification of Services. For this Agreement, the professional services to be provided by the **Engineer**, as more particularly identified in **EXHIBIT "B"**, attached hereto.

2.3 Schedule of Work. The **Engineer** shall prepare a schedule of work (hereinafter referred to as "**Work Schedule**") in accordance with the terms identified in **EXHIBIT "C"-*Work Schedule***, attached hereto and made a part of this Agreement.

ARTICLE 3. Period of Service. Upon execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof.

3.1 Termination Date. This Agreement shall terminate at the completion of services as defined in Exhibit B, attached hereto. The **Owner** assumes no liability or obligation for payment to the **Engineer** for work performed or costs incurred by the **Engineer** prior to the date authorized by the **Owner** for the **Engineer** to begin work or during periods when work is suspended.

3.2 Suspension of Work. Should the **Owner** desire to suspend the work under this Agreement, but not terminate this Agreement, the Owner shall provide thirty (30) calendar days verbal notification to the **Engineer**, followed by written confirmation from the **Owner** to the **Engineer** to that effect. The thirty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer**. The work under this Agreement may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the **Owner** to the **Engineer**. The sixty-day notice may be waived as agreed in writing by both the **Owner** and the **Engineer**.

3.3 Termination of Agreement. This Agreement may be terminated by any of the following conditions:

(1) **Commitment of Current Revenues.** In the event that, during any term hereof, the **Owner** does not appropriate sufficient funds to meet to the obligations of this Agreement, the **Owner** may terminate this Agreement upon thirty (30) days written notice to the **Engineer**. The **Owner** agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of the **Owner** pursuant to the provisions of Tex. Loc. Govt. Code Ann. § 271.903 (Vernon Supp.1995).

(2) By mutual agreement and consent, in writing, of both the **Engineer** and the **Owner**.

(3) By the **Owner**, upon failure of the **Engineer** to fulfill the **Engineer**'s obligations set forth herein in a satisfactory manner as determined by the **Owner** and in sole opinion of the **Owner**, after the **Owner** provides written notice to the **Engineer** of such failure and the **Engineer** has not corrected such failure within (30) days of such written notice by the **Owner**.

(4) By the **Engineer**, upon failure of the **Owner** to fulfill the **Owner**'s obligations set forth herein, after the **Engineer** provides written notice to the **Owner** of such failure and the **Owner** has not corrected such failure within thirty (30) days of such written notice by the **Engineer**.

(5) By the **Owner without** cause upon thirty (30) days written notice to the **Engineer**.

(6) By satisfactory completion of all services and obligations described herein.

Should the **Owner** terminate this Agreement as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the **Engineer** notwithstanding anything herein to the contrary. In determining the value of the work performed by the **Engineer** prior to termination, the **Owner** shall be the sole judge of the value of such work performed. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the **Owner** terminate this Agreement under (5) of the paragraph above, the amount charged during the thirty (30) day notice period shall not exceed the amount charged during the preceding ninety (90) days.

If the termination of this Agreement is due to the failure of the **Engineer** to fulfill the **Engineer**'s obligations under this Agreement, the **Owner** may take over the Work Authorization and prosecute the work to completion. In such case, the **Engineer** shall be liable to the **Owner** for any additional cost occasioned by the **Owner**.

If the **Engineer** defaults in the performance of this Agreement or if the **Owner** terminates this Agreement for fault on the part of the **Engineer**, the **Owner** will give consideration to payment of an amount in settlement to include: the actual costs incurred by the **Engineer** in performing the work to the date of default, the amount of work required which was satisfactorily completed to date of default, the value of the work which is usable to the **Owner**, the cost to the **Owner** of employing another consultant and/or firm to complete the work required and the time required to do so, and other factors which affect the value to the **Owner** of the work performed at the time of default. This Agreement shall not be considered as specifying the exclusive remedy for any default by the **Engineer**, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

The termination of the Agreement and payment of an amount in settlement as prescribed above shall extinguish all rights, duties, and obligations of the **Owner** and the **Engineer** under this Agreement, except the obligations set forth in Articles 11.2, 12, 13, 15, 16, 17, 18.3, 19, 22, and 26, hereto.

ARTICLE 4. Progress and Coordination. The **Engineer** shall, from time to time during the progress of the work, confer with the **Owner**. The **Engineer** shall prepare and present such information as may be pertinent and necessary, or as may be requested by the **Owner**, in order to evaluate features of the **Engineer**'s services and work.

At the request of the **Owner** or the **Engineer**, conferences shall be provided at the **Engineer**'s office, the office of the **Owner**, or at other locations designated by the **Owner**. These conferences shall also include evaluation of the **Engineer**'s services and work when requested by the **Owner**.

All applicable study reports shall be submitted in preliminary form for approval by the **Owner** before the final report is

issued. The **Owner**'s comments regarding the **Engineer**'s preliminary report will be addressed by the **Engineer** in the final report.

If funds by other agencies or entities are to be used for the development of the **Project** under this Agreement, the **Engineer**'s services and work will be subject to periodic review and approval by other agencies or entities, including those of the city, county, state, and/or federal agencies.

Should it be determined that the progress in the production of the **Engineer**'s services and work does not satisfy the requirements of the approved **Work Schedule** as provided by **EXHIBIT "C"**, attached hereto, the **Owner** shall review the approved **Work Schedule** with the **Engineer** to determine the corrective action needed by either the **Owner** or the **Engineer**.

The **Engineer** shall promptly advise the **Owner** in writing of events which have a significant impact upon the progress of the **Engineer**'s services and work and the approved **Work Schedule**, including:

(1) problems, delays, adverse conditions which will materially affect the ability to attain contract objectives, prevent the meeting of time schedules and goals, or preclude the timely completion and submittal of Work Authorization deliverables by the **Engineer** within established time periods; this disclosure will be accompanied by a statement by the **Engineer** of recommended or immediate action taken, or contemplated, and any **Owner** or other agency or entity assistance needed to resolve the situation; and

(2) favorable developments or events which enable meeting the **Work Schedule** goals sooner than anticipated.

ARTICLE 5. Compensation and Fees. For and in consideration of the services to be rendered by the **Engineer**, the **Owner** shall compensate the **Engineer** as follows:

5.1 ***Services.*** For and in consideration of the ***Services*** to be rendered by the **Engineer**, as identified in Article 2 and more particularly identified in **EXHIBIT "B"**, attached hereto, the maximum amount payable by the **Owner** to the **Engineer** for ***Services***, subject to adjustment in accordance with Article 6.1 herein, will be provided in each work authorization issued. Payments to the **Engineer** for ***Services*** shall be made by the **Owner,** upon presentation by the **Engineer** of the monthly **Request for Payment**, in accordance with the terms and provisions of Article 6 herein.

5.2 ***Special Services.*** Those services that may be required to be provided by the **Engineer** as ***Special Services*** are set forth below and more particularly described in **EXHIBIT "B"**, attached hereto. For and in consideration of these ***Special Services*** rendered as required by the **Engineer**, the **Owner** shall pay the **Engineer** a negotiated lump sum fee (hereinafter

referred to as "**Special Services Fee**") at the hourly labor rates and non-labor rates (hereinafter referred to as "**Contract Rates**") specified in **EXHIBIT "D"-*Contract Rates***, attached hereto and made a part of this Agreement, and as follows:

1. RESIDENT OR SITE ENGINEER, INSPECTOR. Actual performance of services of project site engineer, resident engineer and/or inspector, if required by **Owner**.

2. DOCUMENT COPIES. Actual performance and / or providing of additional copies (over 3) of reports; additional copies (over 3) of plans (contract drawings), specifications, and estimates (PS&E); additional copies (over 3) of bidding documents; additional copies (over 3) of as-built drawings.

3. **EXTRA TRAVEL.** Extra travel required of **Engineer** and authorized by **Owner** to points outside of Hidalgo County.

4. EXPERT WITNESS. Assistance to the **Owner** as expert witness in any litigation with third parties, arising from the development or construction of the improvements provided in each Work Authorization.

5. MISCELLANEOUS. Investigations involving detailed consideration of operation, maintenance and overhead expenses and (unless otherwise agreed) the preparation of rate schedules, earning and expense statements; preparation of feasibility studies; environmental document preparation; appraisals, valuations, and material audits; or inventories required for certification of force account construction performed by the **Owner**; preparation of change orders for extra work done by the **Contractor.**

ARTICLE 6. Method of Payment.

6. 1 Request for Payment. Payments to the **Engineer** for services rendered will be made while work is in progress as executed through a lump sum fee assigned to each work authorization (hereinafter referred to as "**Work Authorization**") in accordance with Article 7 herein. For each **Work Authorization**, the **Engineer** shall prepare and submit to the **Owner** monthly progress reports in sufficient detail to support the progress of the work and in support of a request for payment (hereinafter referred to as "**Request for Payment**"). The progress report shall indicate the percent completion of the work accomplished by the **Engineer** during the billing period and to the date of the **Request for Payment**. On or before noon of the first Monday of each month during the performance of the services, the **Engineer** shall submit to the **Owner** for approval a **Request for Payment**. Payment of the lump sum fee for each **Work Authorization** identified in the **Request for Payment** will be in proportion to the percent completion of the work tasks identified in such **Work Authorization**s together with a detailed breakdown of the amount and the sum of all prior payments. The **Owner** shall review each such **Request for Payment** and may make such exceptions as the **Owner** reasonably deems necessary or appropriate under the circumstances then existing. About ten (10) working days after the Commissioners Court of the **Owner** meets approving such payment, the **Owner** shall make payment to the **Engineer** in the amount approved as aforesaid subject to Article 6.4 herein and below. If OWNER fails to make any payment due ENGINEER for services and expenses within thirty days after receipt of ENGINEER's invoice therefore, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest

permitted by law, if less) from said thirtieth day; and, in addition, ENGINEER may, after giving seven days' written notice to OWNER, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses and charges. Payments will be credited first to interest and then to principal. In the event of a disputed or contested billing, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.

If the Work Authorization, or any portion(s) thereof, are deleted or otherwise not constructed, compensation to the **Engineer** by the **Owner** for the Work Authorization or such portions of the Work Authorization shall be only the amounts paid the **Engineer** for actual work performed in accordance with the **Work Authorization**(s) approved by the **Owner**.

6.2 Final Payment. After final completion of the work and acceptance thereof by the **Owner**, the **Engineer** shall submit a final request for payment (**"Final Request for Payment"**) which shall set forth all amounts due and remaining unpaid to the **Engineer** and upon approval thereof by the **Owner**, the **Owner** shall pay to the **Engineer** the amount due (**"Final Payment"**) under such **Final Request for Payment** in accordance with the provisions of Article 6.1 hereof. The **Final Payment** shall not be made until the **Engineer** delivers to the **Owner** an affidavit that so far as the **Engineer** has knowledge or information any and all amounts due for materials and services over which the **Engineer** has control have been paid.

6.3 Qualification on Obligations to Pay. Any provision hereof to the contrary notwithstanding, the **Owner** shall not be obligated to make any payment (whether a payment under Article 6.1 hereof or **Final Payment**) to the **Engineer** hereunder if any one or more of the following conditions precedent exist:

(1) The **Engineer** is in default of any of its obligations hereunder or otherwise is in default under this Agreement or under any contract documents related to this Agreement;

(2) Any part of such payment is attributable to the **Engineer**'s services which are not performed in accordance with this Agreement; provided, however, such payment shall be made as to the part thereof attributable to the **Engineer**'s services which were performed in accordance with this Agreement;

(3) The **Engineer** has failed to make payments promptly to consultants or other third parties used in connection with the Work Authorization for which the **Owner** has made payment to the **Engineer**;

(4) If the **Owner**, in good faith judgment, determines that the portion of the compensation then remaining unpaid will not be sufficient to complete the **Engineer**'s services in accordance with this Agreement, no additional payments will be due the **Engineer** hereunder unless and until the **Engineer**, at its sole cost, performs a sufficient portion of the **Engineer**'s services so that such portion of the compensation then remaining unpaid is determined by the **Owner** to be sufficient to so complete the **Engineer**'s services.

6.4 No partial payment made hereunder shall be or construed to be final acceptance or approval of that part of the **Engineer**'s services to which such partial payment related or relieves the **Engineer** of any of its obligations hereunder with respect thereto.

6.5 The **Engineer** shall promptly pay all bills for labor and material performed and furnished by others in connection with the performance of the **Engineer**'s services.

6.6 Waiver. The making of the **Final Payment** shall constitute a waiver of all claims by the **Owner** except those arising from (1) faulty or defective services of the **Engineer** appearing after completion of the **Project**, (2) failure of the **Engineer**'s services to comply with the requirements of this Agreement or any contracts or Agreements related to the Work Authorization, or (3) terms of any special warranties required by this Agreement or provided at law or in equity. The acceptance of **Final Payment** shall constitute a waiver of all claims by the **Engineer** except those previously made in writing and identified by the **Engineer** as unsettled at the time of the **Final Request for Payment**.

ARTICLE 7. Work Authorization. After execution of this Agreement, the **Engineer** shall proceed with the work outlined under Article 2 hereof, only as authorized by the **Owner** through an agreed **Work Authorization** document in the form identified in **EXHIBIT "E" – *Work Authorization Form***, attached hereto and made a part of this Agreement. The **Engineer** will identify, as approved by the **Owner**, the needed services for the Work Authorization, as required through the course of the development of the Work Authorization. The **Owner** shall authorize the **Engineer** to perform one or more of the agreed tasks identified in **EXHIBIT "B"**, attached hereto, in the form of individual work authorizations. Upon authorization from the **Owner**, the **Engineer** will prepare a **Work Authorization** document, which will include a description of the work to be performed, including a description of the tasks and milestones, a work schedule, and an estimated cost proposal agreed upon by the **Owner** and the **Engineer**. The estimated cost proposal shall set forth in detail the computation of the cost of each work task, at the hourly rates established and identified in **EXHIBIT "D"**, attached hereto. The **Work Authorization** shall not waive the **Owner**'s and the **Engineer**'s responsibilities and obligations established in this Agreement.

The estimated cost proposal for each **Work Authorization**, developed by the **Engineer** and approved by the **Owner**, shall be used by the **Owner** to appropriate a purchase order for the **Work Authorization**. Each executed **Work Authorization** shall become a part of this Agreement. Upon satisfactory completion of the **Work Authorization**, the **Engineer** shall submit the Work Authorization's deliverables as specified in the executed **Work Authorization** to the **Owner** for review and acceptance.

Work included in a **Work Authorization** shall not begin until the **Owner** and the **Engineer** have signed the **Work Authorization**. All work must be completed on or before the completion date specified in the **Work Authorization**, unless extended by written agreement by the **Engineer** and the **Owner**. The **Engineer** shall promptly notify the **Owner** of any event

that will affect completion of the **Work Authorization**. All **Work Authorizations** must be executed and completed by both the **Engineer** and the **Owner** within the period established for this Agreement as specified in Article 3 hereof.

The final acceptance by the **Owner** of each **Work Authorization** shall serve as evidence of completion, on the part of the **Engineer**, of all services under this Agreement insofar as they pertain to that portion of work identified in the applicable work authorization.

ARTICLE 8. Supplemental Agreements. The terms of this Agreement may be amended by supplemental agreement if the **Owner** determines that (1) there is a need to extend the **Termination Date** identified in Article 3.1 hereof, (2) there has been a significant change in the scope, complexity or character of the services to be performed by the **Engineer**, and/or (3) for any other reason agreeable to the **Owner** and the **Engineer**. All supplemental agreements will be developed in the form identified in **EXHIBIT "F"** – ***Supplemental Agreement Form***, attached hereto and made a part of this Agreement, and incorporated herein by reference as "**Supplemental Agreement**".

If determined appropriate by the **Owner**, additional compensation to the **Engineer** for (1), (2) and/or (3) above shall be paid as a negotiated lump sum fee at the **Contract Rates** specified in **EXHIBIT "D"**, attached hereto. The negotiated lump sum fee shall be incorporated into the **Supplemental Agreement**.

Any **Supplemental Agreement** must be executed by both the **Engineer** and the **Owner** prior to the **Termination Date** specified in Article 3 hereof.

It is distinctly understood and agreed that no claim by the **Engineer** for additional work, as identified in Article 9 hereof, or changes or revisions in work, as identified in Article 10 hereof, shall be made by the **Engineer** until full execution of the **Supplemental Agreement** and authorization to proceed is granted by the **Owner**. The **Owner** reserves the right to withhold payment to the **Engineer** pending verification of satisfactory work performed by the **Engineer**.

ARTICLE 9. Additional Work. If the **Engineer** is of the opinion that any work it has been directed to perform is beyond the scope of this Agreement and constitutes extra work, the **Engineer** shall promptly notify the **Owner** in writing. In the event the **Owner** finds that such work does constitute extra work, the **Owner** shall so advise the **Engineer** and a written supplemental agreement will be executed between the **Owner** and the **Engineer** as provided herein. The **Engineer** shall not perform any proposed additional work or incur any additional costs prior to the execution by both the **Engineer** and the **Owner** of a supplemental agreement. Additional compensation from the Owner to the Engineer shall be paid as a negotiated lump sum fee at the **Contract Rates** specified in **EXHIBIT "D"**, attached hereto. The negotiated lump sum fee shall be incorporated into

the supplemental agreement as specified in Article 8 hereof. The **Owner** shall not be liable or under any obligation to compensate the **Engineer** for work performed or costs incurred by the **Engineer** relating to additional work not directly associated with the performance of the work authorized in this Agreement or as amended through supplemental agreement.

ARTICLE 10. Changes or Revisions in Work. If the **Owner** finds it necessary to request changes to the work, and the changes are within the applications of sound engineering principles, the **Engineer** shall make such revisions if requested and directed by the **Owner**.

10.1 Preliminary Work. The **Engineer** will make, without expense to the **Owner**, such revisions of any preliminary reports or drawings as may be required to meet the needs of the **Owner** and the applications of sound engineering principles.

10.2 Previously Approved or Satisfactorily Completed Work. If the **Owner** finds it necessary to request the **Engineer** to make changes to work previously approved by the **Owner** or work satisfactorily completed for which the **Owner** approves or, after a definite plan has been approved by the **Owner**, if a decision is subsequently made by the **Owner**, which for proper execution involves extra services and expenses for changes in or additions to the drawings, specifications or other documents, this will be considered as additional work, and compensation from the **Owner** to the **Engineer** will be in accordance with Article 9 hereof.

10.3 Project Delays. If the **Engineer** is required to perform additional work due to delays by the imposition of causes not within the **Engineer**'s control, such as by the re-advertisement of bids or by the delinquency or insolvency of contractors, such work associated with these delays shall be considered additional work, and the **Engineer** shall be compensated by the **Owner** for such extra services and expense in accordance with Article 9 hereof.

10.4 Reduction of Project Cost. Notwithstanding any provision herein to the contrary, in the event it is necessary for the **Owner** to require changes in the final plan to enable it to reduce the construction cost the **Engineer** will be required to make such revisions or changes. These changes will be considered additional work by the **Engineer**. Payment for this additional work will then be made to the **Engineer** in accordance with Article 9 hereof.

ARTICLE 11. Ownership and Release of Documents.

11.1 Ownership of Documents. Original drawings and specifications are the property of the **Engineer**; however, the Work Authorization deliverables are the property of the **Owner**, and the **Engineer** may not use the drawings and specifications thereof for any purpose not relating to the Work Authorization without the **Owner**'s consent. The **Owner** shall be furnished with such reproductions of drawings and specifications as the **Owner** may reasonably require. Upon completion of the work or

any earlier termination of this Agreement under Article 3.4 hereof, the **Engineer** will revise drawings to reflect changes made during construction and will promptly furnish the **Owner** with one complete set of reproducible record prints. Prints shall be furnished by the **Engineer**, as an additional service, at any other time requested by **Owner**. All such reproductions shall be the property of the **Owner** who may use them without the **Engineer**'s permission for any proper purpose relating to the Work Authorization, including, but not limited to, additions to or completion of the Work Authorization. Any additions or revisions by the **Owner** to a drawing signed, sealed, and dated by a registered professional engineer, shall be made in accordance with the Texas Engineering Practice Act and the Rules of the State Board of Registration for Professional Engineers.

All documents furnished to the **Engineer** by the **Owner** shall be delivered to the **Owner** upon completion or termination of this Agreement. The **Engineer**, at the **Engineer**'s own expense, may retain copies of such documents or any other data under this Agreement.

11.2 Release of Documents or Information. Release of information to the public or others regarding the Work Authorization will be in accordance with the Texas Public Information Act.

ARTICLE 12. Discounts, Rebates, Refunds. In connection with procurement services rendered by the **Engineer**, if procurement services are required of the **Engineer** hereunder, all discounts, rebates and refunds shall accrue to the **Owner**. For some purchases, the **Engineer** may deem that payment within the discount period is not safe; and/or inspection, guarantees, or other considerations may dictate delay. In such cases, the **Engineer** shall promptly notify the **Owner** so that a course of action may be mutually agreed upon by the **Owner** and the **Engineer**.

ARTICLE 13. Records, Accounting, Inspection. The **Engineer** shall keep full and detailed records and accounts in a manner approved by the **Owner**. The **Engineer** shall afford the **Owner**'s authorized personnel and independent auditors, if any, full access to the work performed by the **Engineer** regarding the Work Authorization and to all of the **Engineer**'s books, records, correspondence, instructions, drawings, receipts, vouchers and other documents relating to such work under this Agreement, and the **Engineer** shall preserve all such records for three (3) years after final payment. The **Engineer** shall deliver to the **Owner** upon completion of such work, a statement of the cost of such work detailed according to the accounting procedure and requirements of the **Owner**.

ARTICLE 14. Subcontracting and Assignment. The **Engineer** shall not assign, subcontract or transfer the **Engineer**'s interest in this Agreement without the prior written consent of the **Owner**. The **Engineer** shall bind every

subconsultant by written subcontract to observe all the terms of this Agreement to the extent that they may be applicable to each subconsultant. No subcontract relieves the **Engineer** of any responsibilities under this Agreement.

The **Engineer**, and the **Owner**, do hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Agreement and to the successors, executors, administrators, and assigns of such other party in respect to all covenants of this contract.

ARTICLE 15. Patents. The **Engineer** shall indemnify and save the **Owner** harmless from all liability for alleged or actual infringement of any patent resulting from the use of apparatus or equipment furnished or designed by the **Engineer** or from the use of any process designed by the **Engineer** or effected by said apparatus or equipment, and the **Engineer** shall indemnify and save the **Owner** harmless from and against all costs, legal fees, expenses and liabilities incurred in or about any claim of or action for such infringement; provided, however, that the **Owner** shall promptly transmit to the **Engineer** all papers served on the **Owner** in any suit involving such claim of infringement, and provided further, that the **Owner** permits the **Engineer** to have entire charge and control of the defense of any such suit. If because of actual infringement the use of such apparatus, equipment, or process is enjoined, the **Engineer** shall refund the purchase price thereof in proportion to the length of service uncompleted, the life of such apparatus or equipment being assumed as five years. The **Engineer** hereby grants to the **Owner** a non-exclusive, royalty-free license under patents now or hereafter owned by the **Engineer** covering any machines, apparatus, processes, articles, or products included in the **Engineer**'s work hereunder.

ARTICLE 16. Confidential Information, Inventions and Other Restrictions.

16.1 Confidential Information. The **Engineer** shall not use in any way, commercial or otherwise, except to the extent required by the proper performance of this Agreement; and shall hold in confidence and not disclose to any person, for any reason or at any time, any information relating to the secret processes, products, compositions, machinery, apparatus or trade secrets of the **Owner**, or any other confidential information given to the **Engineer** by any of the **Owner**'s commissioners, elected officials, employees, or representatives or acquired by the **Engineer** during the term of or as a result of this Agreement. Any information not generally available to the public shall be considered secret and confidential for the foregoing purposes; provided, however, that any technical information which was lawfully in the **Engineer**'s possession prior to such disclosure to the **Engineer** by the **Owner** or which is or shall lawfully be published or become part of general knowledge from sources other than the **Engineer** or which otherwise shall lawfully become available to the **Engineer** from a source other than the **Owner**, shall not be subject to these provisions. All the foregoing stipulations shall apply to such information and work hereunder as

well as to any information and ideas originated or developed by the **Engineer** in performing such work. Such information may, of course, be disclosed to the proper officials or employees of the **Owner** if necessary to perform the work hereunder. The **Engineer** shall, however, inform each of its employees who receive such information of these restrictions and the **Engineer** shall take all reasonable precautions and exert all reasonable efforts to assure conformance with such restrictions by all of its officers, employees, and agents, obtaining from them if necessary, agreements satisfactory to the **Owner**, effectuating the purposes of this Article.

16.2 Inventions. The **Engineer** shall communicate to the **Owner** at once, and require the **Engineer**'s employees assigned to the Work Authorization to communicate to the **Owner** all inventions and improvements which any of the **Engineer**'s employees, either alone or in conjunction with any of the **Owner**'s employees may conceive, make or discover during the course of or as a result of work on any Work Authorization under this or any ensuing agreement with the **Owner** that relates to the processes, products, compositions, machinery or plants of the **Owner**, or relating in any way to any of the operations in which the **Owner** has been or is engaged at the time, and such inventions and improvements shall become the sole, exclusive property of the **Owner** without any obligation on its part to make any payment therefor in addition to any sums which the **Owner** may be obligated to pay to the **Engineer** as compensation for services rendered by the **Engineer** under contract with the **Owner**. The **Engineer** shall require its employees to execute patent applications and assignments thereof to the **Owner** or its nominees, and powers of attorney relating thereto for any country the **Owner** may designate, and shall take all other actions as the **Owner** may request to maintain and protect such inventions and improvements. The **Owner** shall pay all costs or charges incurred in protecting such inventions and improvements if the **Owner** desires to protect them. Before assigning any of the **Engineer**'s employees to work under any contract with the **Owner** concerning this Work Authorization, the **Engineer** shall obtain from them agreements satisfactory to **Owner** complying in all respects with the terms and provisions of this Article.

16.3 The rights and obligations set forth in Article 16 shall survive the performance of this Agreement, or any termination, discharge or cancellation thereof.

ARTICLE 17. Engineer's Seal, Responsibility and Warranties.

17.1 Engineer's Seal. The **Engineer** shall assign a responsible engineer or engineers licensed to practice in the State of Texas, who shall sign, seal and date all appropriate engineering submissions to the **Owner** in accordance with the Texas Engineering Practice Act and the Rules of the State Board of Registration for Professional Engineers.

17.2 Engineer's Responsibility. The **Engineer** shall be responsible for the accuracy of the work performed in Work Authorizations, and shall promptly make necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer**. No additional compensation will be made to the **Engineer** for any necessary revisions or corrections resulting from errors, omissions, or negligent acts by the **Engineer**.

The **Engineer**'s responsibility for all questions arising from design errors and/or omissions will be determined by the **Owner** or a designee appointed by the **Owner**. The **Engineer** will not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the **Project** has been completed.

17.3 Warranties.

(a) The **Engineer** warrants that engineering design work performed by the **Engineer** hereunder shall be in accordance with sound engineering design practices and in conformance with applicable code and standards established for such work.

(b) Notwithstanding anything to the contrary contained in this Agreement, the **Owner** and the **Engineer** agree and acknowledge that the **Owner** is entering into this Agreement in reliance on the **Engineer**'s experience and abilities with respect to performing the **Engineer**'s services hereunder. The **Engineer** accepts the relationship of trust and confidence established between it and the **Owner** by this Agreement. The **Engineer** covenants with the **Owner** to use the **Engineer**'s best efforts, skill, judgment and abilities to design the improvements in each Work Authorization and to further the interests of the **Owner** in accordance with the **Owner**'s requirements and procedures, in accordance with all professional standards, and in compliance with all applicable national, federal, state, county and municipal laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction. If the development of plans, specifications and estimates (hereinafter referred to as "**PS&E**") are identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the Work Authorization, prior to the commencement of construction, the **Engineer** shall certify in writing to the **Owner** that the **PS&E** for the Work Authorization, and the improvements when built in accordance therewith, conform to all applicable governmental regulations, statutes and ordinances then in effect. The **Engineer** represents, covenants and agrees that there are no obligations, commitments or impediments of any kind that will limit or prevent performance of the **Engineer**'s services.

(c) The **Engineer** represents, covenants and agrees that all of **Engineer**'s services to be furnished by the **Engineer** under or pursuant to this Agreement from the inception of the Agreement until the Work Authorization has been fully completed, shall be of the standard and quality which prevail among engineers of similar experience, knowledge, skill and ability engaged in engineering practice throughout Texas under the same or similar circumstances involving the design and construction.

(d) The **Engineer** represents, covenants and agrees that the **Engineer**'s special talent, training and experience cause the **Engineer** to be the prime professional on the Work Authorization; that because of such talent and training, the **Engineer** envisions the construction of the Work Authorization in its entirety, and possesses the special skills which enable the **Engineer** to recognize dangerous conditions that a reasonable, prudent engineer having such special skills could anticipate may arise from the proper use of the improvements after acceptance by **Owner**; that as the design professional, the **Engineer** has some measure of control over any such dangerous conditions; that the **Engineer** has knowledge which will enable the **Engineer** to recognize specific dangers that may arise from the proper use of the improvements after acceptance by **Owner**; and, that the **Engineer** recognizes that any commissioners, elected officials, employees, and agents of the **Owner**, plus residents and owners of property within the area affected by the improvements are within a class of foreseeable persons who will be relying on the improvements being designed in a professional and safe manner.

(e) If the development of **PS&E** is identified in this Agreement under Article 2 hereof or **EXHIBIT "B"**, attached hereto, as part of the services to be provided by the **Engineer** for the Work Authorization, the **Engineer** represents, covenants and agrees that the **PS&E** of the improvements will be accurate and free from any material errors. The **Engineer** additionally represents, covenants, and agrees to the following: that the design of the improvements will conform to its foreseeable use with all the amenities as set forth in any **PS&E** developed by the **Engineer** for the Work Authorization; that the result of such **PS&E**, if built in accordance therewith, will be suitable for purposes for which the improvement is designed; that the result of **Engineer**'s inspection of the improvements will be suitable for purposes for which the improvements were designed; and, the improvements will be inspected in a workmanlike, professional manner and will be suitable for the Work Authorization's intended purpose. The **Engineer**'s responsibilities as set forth herein shall at no time be in any way diminished by reason of any approval by the **Owner** of any **PS&E** developed by the **Engineer** for the Work Authorization, nor shall the **Engineer** be released from any liability by reason of such approval by the **Owner**, it being understood that the **Owner** at all times is ultimately relying upon the **Engineer**'s skill and knowledge in preparing such **PS&E**.

(f) In connection with the **Engineer**'s performance of procurement services hereunder, if any, the **Engineer** shall use its best efforts to obtain from all vendors of equipment and materials, fullest possible warranties against defective materials and workmanship for the benefit the **Owner**.

ARTICLE 18. Engineer's Resources. The **Engineer** shall furnish and maintain, at the **Engineer**'s own expense, office space for the performance of all services, skilled and sufficient personnel, as well as adequate and sufficient equipment to perform the services as required under this Agreement.

18.1 Project Manager. The **Engineer** shall provide a manager (**Project Manager**) for the Work Authorization that is a registered professional engineer in the State of Texas. The **Project Manager** shall have such knowledge and experience as will enable the **Project Manager** to perform the duties required for the services under this Agreement. The **Engineer** may change the **Project Manager** during the course of the Work Authorization without prior consent of the **Owner**. If, due to situations beyond the control of the **Engineer**, the **Engineer** must change the **Project Manager** prior to the completion and acceptance of the improvements, the **Engineer** will submit a request to change the **Project Manager** to the **Owner** for approval.

18.2 Employees of the Engineer. All employees of the **Engineer** shall have such knowledge and experience as will enable them to perform the duties assigned to them and required for the services under this Agreement. Any employee of the **Engineer** who, in the opinion of the **Owner**, is incompetent, or whose conduct becomes detrimental to the work required under this Agreement, shall immediately be removed from association with the Work Authorization when so instructed by the **Owner**. The **Engineer** certifies that the **Engineer** presently has employed sufficient and qualified personnel, and will maintain sufficient and qualified personnel for performance of the services under this Agreement.

18.3 Documents/Information Exchange. The purpose of this Article is to define the required automated resources, format for graphics files, and information exchange pertaining to the Work Authorization. Taking into consideration that the **Owner** has a significant investment in the development of the improvements, there is a need for the **Engineer** to provide consistency in document development for information exchange. Consistency in document development for information exchange and production will help facilitate an economically efficient improvement. Therefore, the **Engineer** shall provide the **Owner** with documents and information in accordance with the special requirements outlined in **EXHIBIT "B"** attached hereto.

ARTICLE 19. Indemnification. To the fullest extent permitted by applicable law, the **Engineer** and its agents, partners, subcontractors, and consultants (collectively "**Indemnitors**") shall and do agree to indemnify, and hold harmless the **Owner**, the **Owner**'s respective directors, elected officials, employees and agents (collectively "**Indemnitees**") from and against all claims, damages, losses, liens, causes of action, suits, judgments and expenses, including attorney fees, of any nature, kind or description (collectively "**Liabilities**") of any person or entity whomsoever arising out of, caused by or resulting from the negligent performance of the **Engineer**'s services through activities of the **Engineer**, its agents, partners, subcontractors and/or consultants performed under this Agreement, and which are caused by or result from error, omission, or negligent act of the **Engineer** or of any person employed or contracted by the **Engineer** provided that any such **Liabilities** (1) are attributable to bodily injury, personal injury, sickness, disease or death of any person, or to the injury to or destruction of tangible personal property including the loss of use and consequential damages resulting therefrom and (2) are caused in whole or in part by any negligent act or omission of the **Engineer**, anyone directly or indirectly employed by the **Engineer** or anyone for whose acts the **Engineer** may be legally liable. The **Engineer** shall also save harmless the **Owner** from any and all expense, including, but not limited to, attorney fees which may be incurred by the **Owner** in litigation or otherwise resisting said claim or liabilities which may be imposed on the **Owner** as a result of such activities by the **Engineer**, its agents, partners, subcontractors and/or consultants. In this connection, it is agreed and understood that the **Engineer** shall not be responsible for any portion of the liability proximately caused by the **Owner**'s negligence.

ARTICLE 20. Joint and Several Liability. In the event more than one of the **Indemnitors** are connected with an accident or occurrence covered by the indemnification in Article 19 hereof, then each of such **Indemnitors** shall be jointly and severally responsible to the **Indemnitees** for indemnification and the ultimate responsibility among such **Indemnitors** for the loss and expense of any such indemnification shall be settled by separate proceedings and without jeopardy to any **Indemnitee**. The provisions of this Article shall not be construed to eliminate or reduce any other indemnification or right which the **Owner** or any of the **Indemnitees** has by law.

ARTICLE 21 Insurance. The **Engineer** shall obtain and maintain insurance in the limits of liability for each of the types of insurance coverage identified as follows:

(1) Workers' Compensation, endorsed with a waiver of subrogation in favor of the **Owner** in accordance with the statutory obligations imposed by Worker's Compensation or Occupational Disease laws under the Texas Workers' Compensation Law ("**Statutory Texas**").

(2) Commercial General Liability, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** *all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20 herein*, in limits of liability not less than one million dollars **($1,000,000)** combined single limit each occurrence and in the aggregate for bodily injury and property damage.

(3) Texas Business Automobile Policy, endorsed with the **Owner** as an additional insured and endorsed with a waiver of subrogation in favor of the **Owner** *all to the extent of the liabilities assumed by the Engineer under Article 19 and Article 20 herein*, in limits of liability not less than two hundred fifty thousand dollars **($250,000)** each person for bodily injury, five hundred thousand dollars **($500,000)** each occurrence for bodily injury, and one hundred thousand dollars **($100,000)** each occurrence for property damage.

(4) Professional Liability in limits of **$1,000,000** each claim and aggregate.

The **Engineer** covenants and agrees to maintain an insurance policy in the minimum limits of liability for each of the types of insurance coverage identified above. The **Engineer** shall furnish the **Owner** with a certificate of insurance **(*Hidalgo County* Certificate of Insurance)** showing the said policy to be in full force and effect during the period of service, identified in Article 3 hereto, for this Agreement. The completed ***Hidalgo County Certificate of Insurance*** shall be attached hereto and identified as **EXHIBIT "G"- *Hidalgo County Certificate of Insurance***. The **Engineer** will be considered in breach of contract should the **Engineer** fail to maintain an insurance policy in the minimum limits of liability and requirements identified above while performing services for and under this Agreement, and will be subject to default and termination of the Agreement as outlined in Article 3.4 hereto. Additionally, the **Engineer** covenants and agrees to use its best efforts to maintain an insurance policy in the minimum limits of liability and requirements identified above until one year following the date of the acceptance of the Work Authorization by the **Owner**.

ARTICLE 22. Compliance with Laws. The **Engineer** shall comply with all applicable Federal, State and local laws, statutes, codes, ordinances, rules and regulations, and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Agreement, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, and licensing laws and regulations. When required, the **Engineer** shall furnish the **Owner** with satisfactory proof of its compliance therewith.

ARTICLE 23. Noncollusion. The **Engineer** warrants that the **Engineer** has not employed or retained any company or persons, other than a bona fide employee working solely for the **Engineer**, to solicit or secure this Agreement, and that the

Engineer has not paid or agreed to pay any company, engineer or any other person or entity any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or execution of this Agreement. For breach or violation of this warranty, the **Owner** shall have the right to annul this Agreement without liability or, in the **Owner**'s discretion, to deduct from the ***Services Fee***, or otherwise recover, the full amount of each fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 24. Gratuities. The **Owner** mandates that employees of the **Owner** shall not accept any benefits, gifts or favors from any person doing business or who reasonably speaking may do business with the **Owner** under this Agreement; the only exceptions allowed are ordinary business meals. Any person doing business with or who may reasonably seeking to do business with the **Owner** under this Agreement may not make any offer of benefits, gifts or favors to **Owner** employees, except as mentioned herein above. Failure on the part of the **Engineer** to adhere to this provision may result in the termination of this Agreement.

ARTICLE 25. Payment of Franchise Tax. The **Engineer** hereby certifies that the **Engineer** is not delinquent in Texas franchise tax payments, or that the **Engineer** is exempt from, or not subject to, such a tax. A false statement concerning corporation's franchise tax status shall constitute grounds for termination of the Agreement at the sole option of the **Owner**.

ARTICLE 26. Disputes. The **Engineer** shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the **Engineer** in support of the services under this Agreement.

ARTICLE 27. Severability. In the event any one or more of the provisions contained in this Agreement shall for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

ARTICLE 28. Notices. All notices to either party by the other required under this Agreement shall be personally delivered or mailed to such party at the following respective addresses:

OWNER:	**Hidalgo County** **100 East Cano, 2nd Floor** **Edinburg, Texas 78539**	**ENGINEER:**	**TEDSI Infrastructure Group, Inc.** **1201 E. Expressway 83** **Mission TX 78572**

The address may be changed by either party by written notice, and notice so mailed shall be effective upon mailing.

ARTICLE 29. Miscellaneous Provisions.

(a) This Agreement constitutes the entire Agreement between the **Engineer** and the **Owner** relating to the work herein described, and supersedes any prior understanding or written or oral contracts between the parties respecting the subject matter defined herein. There are no previous or contemporary representations or warranties of the **Owner** or the **Engineer** not set forth herein.

(b) Except as specifically provided herein, no modification, waiver, termination, rescission, discharge, or cancellation of this Agreement or of any terms thereof shall be binding on the **Owner** unless in writing and executed by an officer or employee of the **Owner** specifically authorized to do so.

(c) No waiver of any provision of or a default under this Agreement shall affect the right of the **Owner** thereafter to enforce said provision or to exercise any right or remedy in the event of any other default, whether or not similar.

(d) No modification, waiver, termination, discharge or cancellation of this Agreement or of any terms thereof shall impair the **Owner**'s rights with respect to any liabilities, whether or not liquidated, of the **Engineer** to the **Owner** theretofore accrued.

(e) All rights and remedies of the **Owner** specified in this Agreement are in addition to the **Owner**'s other rights and remedies.

(f) The **Engineer** shall remain an independent contractor and shall have no power, nor shall the **Engineer** represent that the **Engineer** has any power, to bind the **Owner** or to assume or to create any obligation express or implied on behalf of the **Owner** except as specifically authorized in advance by the **Owner**.

(g) The Agreement shall be construed under the laws of the State of Texas and is performable in Hidalgo County, Texas.

(h) This Agreement may only be amended by a written document executed by the **Owner** and the **Engineer** as provided by Article 8 herein.

ARTICLE 30. Signatory Warranty The undersigned signatory or signatories for the **Engineer** hereby represent and warrant that the signatory is an officer of the organization for which he or she has executed this Agreement, and that he or she has full and complete authority to enter into this Agreement on behalf of the **Engineer**. The above-stated representations and warranties are made for the purpose of inducing the **Owner** to enter into this Agreement.

IN WITNESS WHEREOF, the **Engineer** and the **Owner** have caused this **Agreement for Professional Services** to be effective as of the 09 day of February, **2009**.

ENGINEER:
TEDSI Infrastructure Group, Inc.

BY: _____
Jesse Salinas, Principal

OWNER:
HIDALGO COUNTY

BY: _____
Juan D. Salinas III, County Judge

ATTEST:

By: _____
Arturo Guajardo Jr., Hidalgo County Clerk

ATTACHMENTS:

EXHIBIT A	-Scope of Services to be Provided by the Owner
EXHIBIT B	-Scope of Services to be Provided by the Engineer
EXHIBIT C	-Work Schedule
EXHIBIT D	-Engineer's Contract Rates
EXHIBIT E	-Work Authorization Form
EXHIBIT F	-Supplemental Agreement Form
EXHIBIT G	-Certificate of Insurance (*Hidalgo County*)

Approved As To Form:
Atlas & Hall, LLP

By: _____

EXHIBIT "A"
SERVICES TO BE PROVIDED BY OWNER

EXHIBIT "A"

Services to be Provided by the Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **Work Authorizations**.

The **Owner** will provide to the **Engineer** the following:

1) Prepare and execute a Purchase Order with Hidalgo County Purchasing Department
2) Authorization to the Engineer to begin work.
3) Payment for work performed by the engineer.
4) Assistance to the Engineer, as necessary, to obtain required data and information from other local, regional, and state agencies that the Engineer cannot easily obtain.
5) Secure required Environmental permits from regulatory agencies
6) Acquire additional Right of Way identified by the Engineer
7) Provide any available relevant data that may on file concerning the Project.
8) Provide timely review and decisions in response to the Engineers request for information and/or submittals and deliverables.
9) Attend and participate in progress meetings as required and as coordinated and conducted by the Engineer.
10) Advertise and award, as assisted and recommended by the Engineer, construction contracts for the PS&E developed by the Engineer.
11) Attend pre-bid and pre-construction conferences coordinated and conducted by the Engineer.
12) Review and approve monthly and final estimates, developed by the Engineer, for payment to the Contractor. Compensate and pay the Contractor for work performed as identified in the approved monthly and final estimates.
13) Provide assistance to Engineer where necessary and possible with Owner information/resources to ensure project is completed within timely/efficient basis.
14) Provide Engineer with Geotechnical Data for pavement design and thickness.

EXHIBIT "B"

SCOPE OF SERVICES

TO BE PROVIDED BY ENGINEER

EXHIBIT "B"

Generalized Services to be Provided by the Engineer

MILE 6 WEST ROAD – PHASE II
from SH 107 to Mile 9 North

The engineer shall provide the following engineer services required for the preparation of the plans, specification and estimate, and related documents for the above noted project. The Engineer shall maintain a direct line of communication and coordinate very closely with the Hidalgo County.

ROUTE AND DESIGN STUDIES

1) Develop and assemble Preliminary Construction Cost Estimates at 30%, 60% and 90% milestone submittals.
2) Develop Roadway Design Criteria; help prepare the Design Summary Report.
3) Attend and participate in the Design Concept Conference.
4) Conduct additional soil core hole drilling to supplement those already collected. Utilize existing soil boring information if available.
   a) Retaining Walls
   b) Miscellaneous Structures
   c) Bridges
5) Prepare foundation information summary for all structures.
6) Develop a feasibility study, design alternative analysis and/or a geometric schematic
7) Assist in developing a public involvement plan and accomplish tasks as necessary to effectuate the plan
8) Identify existing right of way limits and locate all major utilities within the study limits.
9) Determine minimum ROW and easement requirements using the proposed typical sections and preliminary cross sections. Adjust the proposed typical sections to accommodate refinements in design of the proposed alternative. Such refinements may include widening of pavement for turn lanes, changes in side slopes to reduce ROW requirements, use of retaining walls to minimize ROW and environmental impacts, addition of the proposed pavement design section, and other changes in the roadway typical sections.
10) The ENGINEER will provide an Engineering Summary Report outlining the various design alternatives considered with reasons for selection of the preferred alternative. All of the engineering analysis and methodology used in determining the preferred alternative will be documented in the report.
11) Conduct an analysis of traffic operations (level of service) for the intersecting streets using acceptable simulation software based on traffic data provided by TxDOT. This analysis will be used to determine the appropriate intersection design. Diagrams will also be developed of the existing and projected traffic volumes and turning movements, to be shown on the schematic drawing.
12) Obtain traffic counts at specific locations using tube counters and or personnel to obtain traffic counts.

SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES, AND PUBLIC INVOLVEMENT

1) Prepare environmental questionnaire and associated exhibits.
2) Prepare environmental documents (categorical exclusions or assessments) including the following elements, as appropriate:
   a) Description of the existing facility
   b) Description of the proposed action including appropriate discussions of roadway construction, utility construction, right-of-way needs and funding/construction cost
   c) Explanation of the need for the project
   d) Discussion of reasonable alternatives
   e) Potential social, economic and environmental factors
      i) Social impacts (i.e. relocations/displacements, environmental justice)
      ii) Economic impacts (i.e. property values, regional and individual access,
      (1) emergency response) iii. Environmental impacts (i.e. land use, water quality, noise, air quality,
      (2) vegetation, endangered species, historic/archaeological/cultural
      (3) resources, hazardous materials/contamination)
3) Discussion of secondary impacts

4) Conclusion of findings
5) Schedule, coordinate, attend and follow-up activities for public involvement meeting(s) and/or hearing(s).
6) Prepare exhibits for the public meetings, railroads, etc. as required.
7) The ENGINEER will perform evaluations and other tasks related to permitting issues for particular locations or elements of the project.

RIGHT-OF-WAY & UTILITIES

1) Right-of-Way:
   a) Identify areas where temporary construction/driveway easements or agreements may be required.
   b) Prepare exhibits for driveway penetration agreements.
   c) Identify areas where additional rights of way or drainage easements may be required.
2) Utility Coordination:
   a) Identify & map existing and proposed utility locations. Proposed utilities will only be mapped if Microstation files depicting the proposed utilities are supplied by the utility company and they line up with the project datum and coordinate system.
   b) Coordinate and attend utility coordination meetings. Engineer to provide copies of plans and cross sections to the utility companies.
   c) Incorporate resolutions from utility coordination meetings into plans.
   d) Coordinate with utility companies to determine areas of conflicts.
   e) Provide coordination of utility adjustments with assistance from County. Provide technical assistance and meeting exhibits as needed.

FIELD SURVEYING

1) Obtain right of entry (short of litigation) to adjacent properties, as required.
2) Cross section drainage channels and drainage facilities as required.
3) Ties to existing bridges, bridge foundations, culverts and other existing drainage facilities as required.
4) Locate proposed soil core holes as drilled.
5) Establish x, y, and z coordinates of power poles, manholes and valves of various utilities, flow lines of existing sanitary sewer and storm sewer lines, and subsequent utility ties of facilities exposed by others.
6) Update planimetries to accurately reflect changes in topography due to development, erosion, etc.
7) Provide aerial survey services to produce
   a) Digital Terrain Models
   b) Digital Ortho Rectified Photos
   c) Digital planmetric
8) Re-establish project baseline and appropriate offset(s) - recover and verify.
9) Provide project ties at limits of project in order to provide adequate length to establish grades.
10) Temporary signs, traffic control, flags, safety equipment, etc. Traffic control includes services of warning sign company to provide lane closures as required for safety of survey personnel.

ROADWAY DESIGN CONTROLS

1) Grading Design
   a) Finalize horizontal and vertical alignments, and superelevation transitions of roadways based upon the approved schematic layout. Determine vertical clearances at grade separations and overpasses, taking into account the appropriate superelevation rate. Prepare Horizontal Alignment Data sheets, Horizontal Alignment Layout sheets, and Survey Control Data sheets.
   b) Prepare Project Layout sheets.
   c) Develop Typical Sections & Form 1002 for submittal & approval. Prepare Existing and Proposed Typical Section sheets.
   d) Prepare Existing Plan sheets and Planing Layout sheets.
   e) Prepare plan and profile sheets for roadway and intersecting streets as required for widening and/or reconstruction.
   f) Develop Design Cross Sections - Design Cross Sections shall be submitted in electronic format and on 11" x 17" paper sheets or roll drawings. Design Cross-sections shall incorporate the following details on each section:

i) Baseline & ROW Designations.
ii) Existing Natural Ground, Finished Grade
iii) .Earthwork will be calculated according to specification and calculations shown for each cross section.
iv) Side Slope ratios.
v) Driveways as required.

g) Determine roadway quantities, including cut and fill quantities, and prepare quantity summary sheets. Show earthwork quantities on the plan sheets and cross sections.

DRAINAGE

1) Hydraulic Drainage Study and Documentation
   a) Gather information regarding existing drainage features, facilities and watersheds.
   b) Evaluate existing drainage conditions.
   c) Develop drainage area map and discharge rates. D. Hydraulic computations
      i) Cross Drain Culverts
      ii) Channels
      iii) Storm drainage/inlets
      iv) Drainage analysis of waterways
      v) Surface Channels/Ditches
2) Layout, Structural Design and Detailing of Drainage Features
   a) Culverts replacements and or extensions
   b) Storm drains
      i) New storm drainage
      ii) Modify existing storm drains
      iii) Inlets
      iv) Manholes
      v) Trunk lines
3) Storm Water Pollution Prevention Plan (SW3P)
   a) Develop SW3P Narrative
   b) Develop separate SW3P Plans for each phase of construction. SW3P controls may include but are not limited to temporary sediment fence, construction exits, detention ponds, and rock berms.
      i) Development of plans and details for Best Management Practices (BMPs) for permanent water quality features.
      ii) Scour evaluations and preparation of scour report as needed.
      iii) Determine quantities for drainage and SW3P items and prepare Summary of Quantity sheets.

SIGNING, MARKINGS AND SIGNALIZATION

1) Develop Traffic Signal Plans as required. Prepare Traffic Signal Layout and Detail Sheets
   a) Determine quantities and prepare quantity summary sheet
      i) List of all bid items
      ii) Bid item quantities
      iii) Specification item number
      iv) Paid item description and unit of measure
   b) Basis of estimate sheet (list of materials)
   c) General notes and specification data sheet
   d) Plan sheet(s)
      i) Existing traffic control that will remain (signs and markings)
      ii) Existing utilities
      iii) Proposed highway improvements
      iv) Proposed installation
      v) Proposed additional traffic controls
      vi) Proposed illumination attached to signal poles.
   e) Notes for plan layout

f) Phase sequence diagram(s)
   i) Signal locations
   ii) Signal indications
   iii) Phase diagram
   iv) Signal sequence table
   v) Flashing operation (normal and emergency)
   vi) Preemption operation (when applicable)
   vii) Interval timing, cycle length and offset
g) Construction detail sheets(s)
   i) Poles (TxDOT standard sheets)
   ii) Detectors
   iii) Pull Box and conduit layout
   iv) Controller Foundation standard sheet
h) Barricade and warning sign standard sheet and any special details for work zone traffic control for special conditions
i) General Traffic Signal Requirements
   i) Contact local utility company
      (1) Confirm power source
      (2) Discuss route of aerial or underground interconnect cable (when applicable)
      (3) Adjustment of overhead utility lines
   ii) Prepare governing specifications and special provisions list
   iii) Prepare traffic signal estimate

2) Signing and Pavement Marking Plans
   a) Signing and Pavement Marking Layouts, details include:
      i) Roadway layout
      ii) Center tine with station numbering
      iii) ROW lines
      iv) Culverts and other structures that present a hazard to traffic
      v) Approximate location of utilities
      vi) Existing signs to remain, to be removed, to be relocated
      vii) Proposed signs (illustrated and numbered)
      viii)Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation
      ix) Quantities of existing pavement markings to be removed
      x) Proposed delineators and object markers
   b) Determine quantities and prepare Summary of Small Signs Tabulation
   c) Determine quantities and prepare Summary of Large Signs Tabulation including all Guide Signs
   d) Sign Detail Sheets
      i) Ail signs except route markers
      ii) Design details for large guide signs
      iii) Dimensions of letters, shields, borders, corner radii etc.
      iv) Designation of shields attached to guide signs
      v) Designation of arrow used on exit direction signs
   e) Determine final pavement marking and delineation quantities and prepare Pavement Marking Summary sheet

MISCELLANEOUS (ROADWAY)

1) Retaining Walls
   a) Prepare Retaining Walls Layouts and Details, possible wall types:
   b) Retaining Wall Layouts (PLAN), include:
      i) Designation of reference line
      ii) Beginning and ending retaining wall stations
      iii) Offset from reference line
      iv) Horizontal curve data

v) Total length of wall
vi) Indicate face of wall
vii) All wall dimensions and alignment relations (alignment data as necessary)
viii) Soil core hole locations
ix) uncontaminated, subsurface drainage details

c) Retaining Wall Layouts (ELEVATION), include:
i) Top of wall elevations at each joint or intervals
ii) Existing and finished ground line elevations
iii) Limits of measurement for payment
iv) Top and bottom of wall profiles and soil core hole data plotted at correct station and elevation. The plot shall be at the same scale as the wall profile. Ground water elevations and the observation date shall be shown.
v) Uncontaminated, subsurface drainage details

d) Foundation Studies shall be obtained at approximately 100 foot intervals along retaining wall alignments over soft or questionable ground. The core holes shall extend a minimum of 15 feet below the footing elevation or deeper (as soil conditions warrant). In no instance should the spacing of core holes exceed 500 feet.

e) Determine Retaining Wall Quantities and Estimate. Prepare Summary of Quantities sheet.

f) Typical Retaining Wall cross sections.

g) General Guidelines for Retaining Walls. For projects where total estimated retaining wall quantity exceeds 30,000 square feet, preliminary retaining wall layouts shall be submitted no later than 6 months prior to the Austin Division PS&E submission deadline.

2) Illumination

a) Illumination Plan Layouts
i) Roadway layout noting pavement edges, shoulders, curbs, retaining walls, etc.
ii) Center line with station numbering.
iii) ROW lines.
iv) Symbol legend. Use department standard symbols for lighting and electrical.
v) Culverts and other structures that present a hazard to traffic.
vi) Location of underground utilities, if not shown on plan profile.
vii) Location of overhead electrical tines, both crossing and parallel to ROW.
viii) Existing sign lighting circuits and roadway illumination to remain or be removed.
ix) Existing service poles, electrical circuits, ground boxes, etc.
x) Contact electric utility for service pole locations, voltage characteristics.
xi) Location of proposed roadway illumination
xii) Proposed electrical circuits.
xiii) Tabulation of all quantities including proposed, existing to be relocated, existing to be removed. The layout sheet quantities and lighting summary shall be shown. Tabulations to include estimated quantity with a column for final quantities.

b) Prepare FAA forms and letters if required.

3) Determine if intersections at the frontage roads will require re-grading to meet ADA requirements across the accessible route.

4) Widen the intersections for right turn lanes and left turn lanes as identified by the TxDOT Traffic Engineer.

5) Develop Miscellaneous Roadway Details.

6) Develop Driveway Details & Summaries. Determine and design driveways required for reconstruction to meet ADA requirements.

7) Formulate and Prepare Traffic Control Plan, Detours and Sequence of Work Narrative. Develop Traffic Control Plan (TCP) for all phases of construction. A detailed TCP shall be developed when traffic handling during construction involves complications for which a feasible solution is not covered by the current Texas MUTCD, the current Barricade and Construction (BC) Standards or the current Traffic Control Plan Standards (TCP). For the purposes of this contract, the TCP will be developed according to the District's Guidelines for Traffic Handling. For the purposes of this contract, the traffic control plans (including temporary drainage, signing, striping and signalization) will be developed in conjunction with adjoining projects, and shall include Traffic Management System and Joint Bid Utility facilities. The Engineer shall interface and coordinate alt phases of work, including the traffic control plans, with the State's consultant(s) preparing the PS&E of the proposed project immediately

adjacent to this project.

a) Formulate overall Traffic Control concepts and construction sequence phases.
b) Develop Sequence of Work Narrative describing of all phases of the TCP that typically appears in the construction contract proposal. As such, the narrative is not required to appear on the individual TCP sheets.
c) Develop TCP Layouts and Details for all phases of construction. The following items are required on all TCP Layouts:
    i) The sequence of construction and method of handling traffic during each phase.
    ii) The existing and proposed traffic control devices that will be used to handle traffic during each construction sequence. Include temporary signals, regulatory signs, warning signs, construction warning signs, guide signs, route markers, construction pavement markings, channelizing devices, portable changeable message signs, flashing arrow boards, barricades, barriers, and temporary illumination.
    iii) The proposed traffic control devices (stop signs, signals, flag person, etc.) at grade intersections during each construction sequence.
    iv) Where detours are provided, typical and design cross sections shall be shown and/or provided.
    v) Road construction work hours shall be directed by the State and specified for all phases of the TCP.
d) Develop TCP quantities and prepare Summary of Quantity sheets.
e) Develop CPM Construction Schedule utilizing Suretrack Software.

8) Prepare Title Sheet and Index sheets.
9) Calculate project quantities and prepare quantity summary sheets.
10) Prepare special specifications for non-standard items, if required, and a list of special provisions to be used. New specification book will be utilized on this project.
11) Prepare general notes applicable to the project.
12) Prepare list of TxDOT Standard Drawings to be included in the plans, provide mylar of each.
13) Prepare list of right-of-way encroachments if needed.
14) Assemble plans for project milestones. Three reproducible paper (11" x 17") copies of the plans shall be submitted to the TxDOT Contract Management Office at the 30%, 60%, 90% and 95% design completion stages.
15) The 95% design completion submittal shall include those items listed in the Pharr District Checklist.
16) Attend review meetings for project milestones and make necessary revisions to the plans.
17) Upon completion of the District review of the plans, the Engineer shall assemble and furnish signed original Mylar (11" x 17") drawings which shall include all applicable standards.
18) Assemble and furnish CADD files of all project files.
19) Coordinate with County staff, TxDOT, local municipal agencies, utility companies, and subconsultants.
20) Agreements - Prepare exhibits for Utility Agreements at 30%, 60%, and 90% project review milestones. This will consist of paper copies of Plan & Profile sheets, typical sections, cross sections, traffic signal and illumination foundation locations and the title sheet. Work does not include design of utility adjustments.

BRIDGE DESIGN

1) Preparation of Structural Details
    a) New Structures
    b) Replacement Structures and Widenings
    c) Bridge Classification Culverts
        i) New Bridge Class structures as required
        ii) Modification/extension of existing structures as required
2) Preparation of Bridge Layouts (each bridge)
    a) Bridge Layouts (PLAN)
        i) Horizontal curve information or bearing of centerline.
        ii) Including horizontal, vertical, and template information of all roadways or railroads crossed.
        iii) Bearing of center line or reference line.
        iv) Skew angle(s).
        v) Slope for header banks and approach fills.
        vi) Control stations at beginning and ending of bridge (with deck elevation), intersections, etc.
        vii) Approach pavement and crown width.

viii) Bridge roadway width and curbs, face of rail, shoulders, or sidewalks.
ix) Bridge end treatments (cement stabilized backfill details, etc.)
x) Limits and type of riprap.
xi) Proposed features under structure.
xii) Location of profile grade line.
xiii) North arrow.
xiv) Typical bridge roadway section including preliminary proposed beam types and spacings.
xv) Cross slope and superelevation data.
xvi) Minimum horizontal clearances will be calculated and indicated (dimensioned) to controlling features, when applicable.
xvii) Location of soil core holes (station and offset), shown on layout.
xviii) Bent stations and bearings.
xix) Retaining wall locations.
xx) Traffic flow directional arrows.
xxi) Railing types shown (use single slope railing unless otherwise directed).
xxii) Joint types and seal size, if used.
xxiii) Beam line numbers consistent with span details.
xxiv) Critical horizontal clearances (location of railroad tracks, nearby structures and utilities).
xxv) Bearings of utilities.
xxvi) Overhead sign bridge locations, if applicable

b) Bridge Layouts (ELEVATION)
i) Type of foundation.
ii) Finished grade elevations at beginning and end of bridge,
iii) Overall length of structure.
iv) Length, type of spans and units.
v) Type of railing.
vi) Minimum calculated vertical clearance(s).
vii) Existing and proposed ground lines clearly marked.
viii) Grid elevations and stations.
ix) Bent numbers encircled.
x) Stationing of bridge compatible with grid stations.
xi) Standard title.
xii) Profile grade data.
xiii) Type of riprap.
xiv) Soil Core Hole information with penetrometer test data shall be shown on the bridge layout at correct station, elevation and scale.
xv) Dowel locations at all bents.
xvi) Column "H" heights.
xvii) Number, size and length of foundations.
xviii) Overhead sign bridge locations.

c) Additional layout requirements for waterway structures and bridge classification culverts.
i) Design and 100-year peak discharges.
ii) Design and 100-year high water (HW). (Recorded HW and date if available.)
iii) Natural and through-bridge velocities for design and 100-year floods.
iv) Calculated backwater for design and 100-year floods.
v) Direction of flow for waterway crossings.
vi) Contours for water crossing.

3) Bridge Classification Culvert, Estimate, Quantities, and Specifications (each bridge)
4) The minimum number of soil core holes shall be determined in accordance with Section 1-301 of the Bridges and Structures Foundation Exploration and Design Manual. Soil core holes shall be obtained at approximately 200 foot intervals along bridge alignments. Texas cone penetrometer (TCP) tests shall be conducted in all soil types encountered at a maximum of 10 foot

intervals. If single column bents with single drilled shafts are planned, TCP values should betaken at closer intervals in the upper 15 feet.

5) Bridge Total Quantities, Cost Estimates, and Summary Sheets (each bridge)
6) Bridge Special Provisions and Specifications (each bridge)
7) Bearing seat elevations for each beam or girder. Top of cap elevations for non-beam type structures.
8) General Guidelines for Bridge Design - The Engineer shall prepare a bridge layout of each bridge structure for the District's review and approval. The bridge layout shall be in conformance with the Bridges and Structures, Operation and Planning Manual and the Bridges and Structures, Detailing Manual. Soil core hole data is not required for submission of the preliminary bridge layout. No bridge design work is to be performed until the State has given the Engineer written approval of the preliminary bridge layout. Several months may be required after the preliminary bridge layout is submitted for the District to obtain approval and/or permits from the following: TxDOT Design Division, FHWA, US Army Corps of Engineers, Texas Parks and Wildlife. Consequently, the Engineer's design contract schedule should reflect all bridge layouts being submitted at the earliest possible date, and generous review times should be associated with the submittals.
9) General Bridge Design Considerations
   a) Consider use of integral abutment in conjunction with cantilever drilled shaft wall.
   b) Provide structural evaluation for the possibility of using existing bridge drilled shafts and/or columns if the bridge is replaced.
   c) Provide recommendations for the possibility of using pre-cast caps or columns.

EXHIBIT "C"
WORK SCHEDULE

EXHIBIT "C"

Work Schedule

A detailed work schedule for each **Work Authorization**, identified and more particularly described in Article 7 of this Agreement, shall be prepared by the **Engineer** to be submitted and approved by the Owner in writing for each **Work Authorization**. The work schedule will provide specific work sequence and definite review times by the **Owner** and the **Engineer** of the work performed.

The **Engineer** will diligently pursue the completion of each **Work Authorization** as defined by the milestones and deliverable due dates outlined in each **Work Authorization**'s associated work schedule.

The **Engineer** will inform the **Owner** (in reasonable advance of the delay) should the **Engineer** encounter delays that would prevent the performance of all work in accordance with the established work schedule.

EXHIBIT “D"
FEE SCHEDULE

Exhibt D

Engineer's Contract Rate Schedule

LABOR

JOB DESCRIPTION	* TxDOT BASE RATE
Engineering	
Sr. Project Manager	$69.91
Project Manager	$58.07
Sr. Engineer	$50.63
Project Engineer	$45.09
Engineer	$34.26
Sr. Engineer Designer	$38.65
Engineering Designer	$33.88
CADD Operator	$31.88
Secretary	$19.35

*** Contract Rate to be TxDOT Base Rate time standard multiplerwith profit.**

DIRECT EXPENSES:***

Mileage	$ Current GSA Travel Rate/Mi.
Car Rental	$ At Cost
Lodging (in state)	$ Current GSA Per Diem Rate
Meals	$ Current GSA Per Diem Rate
Air Travel	at cost
Overnight Carrier cost	$40/letter
GPS Equipment	$500/day
Copies (8 ½ x 11)	$0.10/ea
Color Copies (8 ½ x 11)	$1.00/ea
Copies (11 x 17)	$0.20/ea
Color Copies (11 x 17)	$2.00/ea
Mylar (11 x 17) Plots	$3.50/ea
Color Mylar (11 x 17) Plots	$7.00/ea
Bond Plots	$1.00/sq. ft.
Color Bond Plots	$2.50/sq. ft.
Mylar Plots	$2.50/sq. ft.
Color Mylar Plots	$5.00/sq. ft.
Photo Quality Color Plots	$12.00/sq. ft.

*** These are the anticipated non-labor rates to be used to negotiate purchase orders for special or excluded services, and/or additional work; and may be re-negotiated on a yearly basis. Other non-labor rates may be determined at time of negotiation. At the rates authorized by Hidalgo County for County Official

EXHIBIT "E"
WORK AUTHORIZATION

EXHIBIT "E"

Work Authorization Form

WORK AUTHORIZATION NO.___

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the **Agreement** made by and between the **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **TEDSI Infrastructure Group, Inc**. professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

PART 1. Scope of Work. The purpose of this Work Authorization is to provide services as indicated below:
The scope of services to be provided by the **Owner** is identified in **ATTACHMENT "A"** –***Scope of Services to be Provided by the Owner*** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **ATTACHMENT "B"** –***Scope of Services to be Provided by the Engineer*** attached hereto.

PART 2. Estimated Cost. The estimated cost for services under this Work Authorization is $_____. This amount is based upon the costs outlined in the ***Estimated Cost Proposal*** attached hereto as **ATTACHMENT "D"**.

PART 3. Payment. Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement**.

PART 4. Funding. This Work Authorization No.___ shall be funded through funding source:
Account No. _____
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL Period of Service.**

PART 5. Period of Service. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and all work associated with this Work Authorization shall be performed within the time period identified in the ***Work Schedule*** attached hereto as **ATTACHMENT "C"**.

PART 6. Responsibilities and **Obligations.** This Work Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. Acceptance and Acknowledgement. This Work Authorization is hereby accepted and acknowledged as indicated below and effective as of ____ day of _____, **2009.**

HIDALGO COUNTY COMMISSIONER PCT. 1

BY: _____

PART 8. ACCEPTANCE AND APPROVAL
This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court as indicated below and effective as of _____day of _____, **2009.**

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP, INC.

BY: _____
Jesse Salinas, (Principal)

THE OWNER:
HIDALGO COUNTY

BY: _____
Juan D. Salinas, III (County Judge)

LIST OF ATTACHMENTS

ATTACHMENT "A"	-	Services to be provided by the Owner
ATTACHMENT "B"	-	Services to be provided by the Engineer
ATTACHMENT "C"	-	Work Schedule
ATTACHMENT "D"	-	Estimated Cost Proposal

EXHIBIT "F"
SUPPLEMENTAL AGREEMENT

EXHIBIT "F"

Supplemental Agreement Form

WORK AUTHORIZATION NO. __

SUPPLEMENTAL AGREEMENT NO. _____

THIS SUPPLEMENTAL AGREEMENT is made pursuant to the terms and conditions of Article 8 of the **Agreement** made by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **TEDSI INFRASTRUCTURE GROUP, INC.** professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

PART 1. Scope of Work. The purpose of this Work Authorization is to provide services as indicated below: The scope of services to be provided by the **Owner** is identified in **ATTACHMENT "A"** –***Scope of Services to be Provided by the Owner*** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **ATTACHMENT "B"** –***Scope of Services to be Provided by the Engineer*** attached hereto.

PART 2. Estimated Cost. The estimated cost for services under this Work Authorization is $_____ _____. This amount is based upon the costs outlined in the ***Estimated Cost Proposal*** attached hereto as **ATTACHMENT "D"**.

PART 3. Payment. Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement**.

PART 4. Period of Services. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and all work associated with this Work Authorization shall be performed within the time period identified in the ***Work Schedule*** attached hereto as **ATTACHMENT "C"**.

PART 5. Responsibilities and Obligations. This Work Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 6. Acceptance and Acknowledgement. This Work Authorization is hereby accepted and acknowledged as indicated below and effective as of day of _____, 2009

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP, INC.

BY: _____
Jesse Salinas, (Principal)

THE OWNER:
HIDALGO COUNTY

BY: _____
Juan D. Salinas, III (County Judge)

LIST OF ATTACHMENTS

ATTACHMENT "A"	-	Services to be Provided by the Owner
ATTACHMENT "B"	-	Services to be Provided by the Engineer
ATTACHMENT "C"	-	Work Schedule
ATTACHMENT "D"	-	Estimated Cost Proposal

EXHIBIT "G"
CERTIFICATE OF INSURANCE

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 09/11/2008

PRODUCER 713-463-4550 FAX 713-463-4590
Bell Insurance Group
4544 Post Oak Place, Suite 320
Houston, TX 77027
Sherry Henderson

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: American Cas. Co. of Reading PA	20427
INSURER B: National Fire Insurance	20478
INSURER C: Continental Casualty Company	20443
INSURER D: Transportation Insurance Company	20494
INSURER E:	

INSURED TEDSI Infrastructure Group, Inc.
10260 Westheimer
Suite 460
Houston, TX 77042

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR X Contractual Liab. GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC	1075066054	09/11/2008	09/11/2009	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B		AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	2097261054	09/11/2008	09/11/2009	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
C		EXCESS/UMBRELLA LIABILITY X OCCUR CLAIMS MADE DEDUCTIBLE X RETENTION $ 10,000	2090503299	09/11/2008	09/11/2009	EACH OCCURRENCE AGGREGATE	$ 2,000,000 $ 2,000,000
D		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	WC268980107	09/11/2008	09/11/2009	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C		OTHER Professional Liability	AEH113771047	09/11/2008	09/11/2009	Each claim Aggregate	$2,000,000 $2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

County of Hidalgo is named as additional insured with respects to general liability and automobile policies, but only the specific risk and liabilities assumed under written contract with the named insured and subject to policy conditions. A blanket Additional Insured endorsement is attached to the automobile liability and general liability policies (SB-146968-A).

CERTIFICATE HOLDER

County of Hidalgo
Attn: Ms. Martha L. Salazar
100 E. Cano
5th Floor Adm. BLdg.
Edinburg, TX 78539

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Byron Johnson/SHERRY

Texas Department of Transportation

PO BOX 1717 • PHARR TEXAS 78577-1717 • (956) 702-6100

January 28, 2009

PROJECT: Mile 6 W.
COUNTY: HIDALGO
DISTRICT: PHARR

Hidalgo County Department of Budget & Management-Budget Division
100 E. Cano, 2nd Floor, Administrative Building
Edinburg, TX 78539
ATTN: Mr. Sergio Cruz

Dear Mr. Cruz:

We have reviewed the scope and fees for the aforementioned project. We concur with the scope and fees. We recommend endorsement of contract.

If you have any questions or if we may be of any assistance, please call Jesus A. Noriega at 702-6264.

Sincerely,

Hector P.Gonzalez, P.E.
Pharr Area Engineer

21.B.2.

AI-13868
Pct 1-Professional Engineering Agreements-TEDSI-Mile 6 W Project w/WA#1 & CORRECTED-Contract#C-08-226-09-30 for the Mile 2 W Proj
CC REGULAR

Date: 02/09/2009
Submitted By: Letty Saenz, PURCHASING DEPT.
Submitted For: Marty Salazar
Department: PURCHASING DEPT.
Agenda Category: Purchasing Department **Purchasing only:** Prct. 1

Information

CAPTION

A. Requesting approval of a "Professional Engineering Services Contract" (approved as form by legal counsel) with TEDSI Infrastructure Group, Inc. for "Mile 6 West Road Improvements (between SH 107 and Mile 9 N)" for Hidalgo County Pct. 1;

B. Presentation for consideration, discussion, and approval of Work Authorization #1 in the amount of $1,817,940.03 with TEDSI Infrastructure Group, Inc. to provide engineering services to Hidalgo County Precinct No. 1 in connection with Contract No. C-08-227-02-09 for "Mile 6 West Road Improvements (between SH 107 and Mile 9 North)" ;

C. Presentation for discussion and approval of a CORRECTION to Contract No. C-08-226-09-30 with TEDSI Infrastructure Group, Inc. for the "Mile 2 West Road Improvement (between Mile 12 N and Mile 7 1/2 N project approved by CC on 09/30/08) on page 2 of 20, Article 3 Period of Service, Section 3.3(5)-Termination of Agreement deleting the word "with" and replacing with the word "without" and thus complying with the legal notices on the original (Request for Qualifications packet for the Pool of Engineers);

BACKGROUND

Contract No. C-08-227-02-09-TEDSI-Mile 6 W Project-Pct 1 (approved by legal counsel)
Work Authorization No. 1-TEDSI-Mile 6 W Project
Corrected-Contract No. C-08-226-09-30-TEDSI-Mile 2 W Project-Pct 1

Fiscal Impact

FISCAL YEAR: 2009 **ACCT. #:** 9-1315-431-00-121-039-0-731/711
FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**
BUDGETARY IMPACT:

Attachments

Link: Professional Engineering Agreements-TEDSI-Mile 6 W Project
Link: Mile 6 W Project w/WA#1
Link: CORRECTED-Contract#C-08-226-09-30

Form Routing/Status

Route Seq	Inbox	Approved By	Date	Status
1	Purchasing Department	Marty Salazar	02/05/2009 05:26 PM	APRV

EXHIBIT "E"

Contract No. C-08-227-02-09
Work Authorization Form

WORK AUTHORIZATION NO.1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 7 of the **Agreement** made by and between the **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and **TEDSI Infrastructure Group**, professional engineers of Mission, Texas, hereinafter called the "**Engineer**".

PART 1. Scope of Work. The purpose of this Work Authorization is to provide services for Mile 6 West from SH-107 to Mile 9 North as indicated below:

The scope of services to be provided by the **Owner** is identified in **ATTACHMENT "A"** –***Scope of Services to be Provided by the Owner*** attached hereto. The scope of services to be provided by the **Engineer** is identified in **ATTACHMENT "B"** – ***Scope of Services to be Provided by the Engineer*** attached hereto.

PART 2. Estimated Cost. The lump sum amount for services under this Work Authorization is **$ 1,906,248.19**. This amount is based upon the costs outlined in the ***Estimated Cost Proposal*** attached hereto as **ATTACHMENT "D"**. This amount will be reduced by **$ 88,308.16** for amounts previously paid under **Contract No. C-07-050-05-22**. The new amount payable under **Contract No. C-08-227-02-09** is **$ 1,817,940.03**.

PART 3. Payment. Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Articles 5, 6, and 7 of the **Agreement.**

PART 4. Funding. This Work Authorization No. 1 shall be funded through funding source:
Account No. **9-1315-431-00-121-039-0-731/711**
Requisition No. _____ **(MUST BE INCLUDED AFTER COUNTY COURT APPROVAL)**

PART 5. Period of Service. This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of work as indicated in **Attachment B.**

PART 6. Responsibilities and Obligations. This Work Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. Acknowledgement and Confirmation. Acknowledgement and confirmation by Hidalgo County Precinct No. 1, Commissioner Sylvia S. Handy, as to the content and detail of this Work Authorization No. 1.

Hidalgo County Precinct No. 1
By: _____
Sylvia S. Handy, Commissioner

Part 8. Acceptance and Approval. This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on 2/9/09 as indicated below and effective as of 9th day of February 2009.

A purchase order will be issued by the Hidalgo County Purchasing Department after execution of this document. Issuance of the purchase order will serve as the written Notice to Proceed on this Work Authorization.

THE ENGINEER:
TEDSI INFRASTRUCTURE GROUP

BY: _____
Jesse Salinas, (Principal)

ATTEST:

BY: _____
Arturo Guajardo, Jr., County Clerk

THE OWNER
HIDALGO COUNTY

BY: _____
Juan D. Salinas, III, County Judge

LIST OF ATTACHMENTS
ATTACHMENT "A" - Services to be Provided by the Owner
ATTACHMENT "B" - Services to be Provided by the Engineer
ATTACHMENT "C" – Work Schedule
ATTACHMENT "D" - Estimated Cost Proposal

WORK AUTHORIZATION NO. 1

MILE 6 WEST ROAD

SH-107 to Mile 9 North

ATTACHMENT "A"

Services to be Provided by the Owner

The following provides an outline of the services to be provided by the **Owner** in the development of the **Work Authorizations**.

The **Owner** will provide to the **Engineer** the following:

1) Prepare and execute a Purchase Order with Hidalgo County Purchasing Department
2) Authorization to the Engineer to begin work.
3) Payment for work performed by the engineer.
4) Assistance to the Engineer, as necessary, to obtain required data and information from other local, regional, and state agencies that the Engineer cannot easily obtain.
5) Secure required Environmental permits from regulatory agencies
6) Acquire additional Right of Way identified by the Engineer
7) Provide any available relevant data that may on file concerning the Project.
8) Provide timely review and decisions in response to the Engineers request for information and/or submittals and deliverables.
9) Attend and participate in progress meetings and public involvement meetings as required and as coordinated and conducted by the Engineer.
10) Advertise and award, as assisted and recommended by the Engineer, construction contracts for the PS&E developed by the Engineer.
11) Attend pre-bid and pre-construction conferences coordinated and conducted by the Engineer.
12) Review and approve monthly and final estimates, developed by the Engineer, for payment to the Contractor. Compensate and pay the Contractor for work performed as identified in the approved monthly and final estimates.
13) Provide assistance to Engineer where necessary and possible with Owner information/resources to ensure project is completed within timely/efficient basis.
14) TxDOT to provide the Owner flexible pavement design for proposed pavement.
15) Traffic data and turning movement counts

WORK AUTHORIZATION NO. 1
MILE 6 WEST ROAD
SH-107 TO MILE 9 NORTH
ATTACHMENT "B"

Scope of Services to be Provided by the Engineer

CSJ:	0921-02-168
Highway:	Mile 6 West Road
County:	Hidalgo
Limits:	From SH 107 south to Mile 9 North
Project Length:	7.5 miles
Area Office:	Pharr Area Office

Project Description
Reconstruct and Widen Roadway

Existing Conditions
The existing 20-foot paved two-lane roadway

Proposed Improvements
Construct 68 foot paved rural roadway consisting of four 12-foot travel lanes and a two 10- foot shoulders. In addition a temporary detour shall be constructed to provide continuous two way traffic at all times.

GENERAL MANAGEMENT/COORDINATION

1) The Engineer shall design, develop and prepare all documents in English units.
2) The Engineer shall develop/submit a work schedule with milestone activities and/or deliverables identified.
3) The Engineer shall utilize Microstation computer graphics system. Roadway design for the route study will be developed GEOPAK.
4) The Engineer shall be required to meet with designated County's representatives, utility companies, adjacent and affecte landowners as required for coordination during the development of the project.
5) The Engineer shall be required to prepare the minutes for any meeting as required for documentation purpose.
6) Right of Entry: It will be the responsibility of the Engineer to secure permission, short of litigation, to enter private property for purposes of survey, environmental and Engineering investigations. The Engineer will, at all times, contact the property owner prior to any entry onto the owner's property.
7) The Engineer shall perform quality control and assurance (QC/QA) on all deliverables associated with this project.
8) The Project Manager will continually review the quality, progress and cost of the various tasks assigned to all firms with the team. Quality review will include technical requirements.

ROUTE AND DESIGN STUDIES

1) Develop and assemble Preliminary Construction Cost Estimates.
2) Develop Roadway Design Criteria; prepare the Design Summary Report.
3) Attend and participate in the Design Concept Conference.
4) Design Schematic
   a) Develop a design schematic based on alignment previously selected and submit to TxDOT for review.
   b) Revise schematic to incorporate TxDOT's comments
   c) Identify irrigation system impacted by proposed improvements. Show proposed location for relocation of irrigation systems impacted. Design and detailing of irrigation systems is not included in the scope of work.
5) Use TxDOT provided flexible pavement design report.
6) Assist in developing a public involvement plan and accomplish tasks as necessary to effectuate the plan
7) Identify existing right of way limits and locate all major utilities within the study limits.

8) Determine minimum ROW and easement requirements using the proposed typical sections and preliminary cross sections. Adjust the proposed typical sections to accommodate refinements in design of the proposed alternative. Such refinements may include widening of pavement for turn lanes, changes in side slopes to reduce ROW requirements, use of retaining walls to minimize ROW and environmental impacts, addition of the proposed pavement design section, and other changes in the roadway typical sections.
9) The ENGINEER will provide an Engineering Summary Report outlining the various design alternatives considered with reasons for selection of the preferred alternative. All of the engineering analysis and methodology used in determining the preferred alternative will be documented in the report.
10) Development of level of service analysis, turning movement counts or traffic counts are not included in scope.

FIELD SURVEYING

1) Work shall assure compliance and adherence to all rules, regulations and policies as set forth by the Texas Board o Professional Land Surveyors.
2) The Engineer shall provide all traffic control, labor and equipment for the Traffic Control Plan (TCP) while performin services under this work authorization. The Engineer's Surveyor shall comply with the regulations of the most recent editio of the "Texas Manual on Uniform Traffic Control Devices".
3) Project Control and Baseline (Set in location clear of proposed improvements)
   a) Establish Horizontal and Vertical Control Benchmarks by setting permanent benchmarks with an Aluminum disk on 5/8" iron rod set in concrete, every 1000' throughout the limits of the project. Establish elevations on set points withi the specifications of the TSPS Category 8. If applicable, NGS first order benchmarks shall be incorporated into the leve loops utilizing the NAVD88 Datum elevations. Signed and Sealed, RPLS, control data sheets shall be created for th newly establish BMs and included in the deliverables.
   b) Stake existing centerline
      i) Set 2' #5 iron rods at every 1000 ft, at all angle points, PC's, PT's and all intersecting roadways. Center poin to be set are every 1000 feet.
      ii) Reference all angle points, PC's, PT's, and at 1000 foot interval stations with iron pins on the right of way lin (on both sides).
      iii) Stationing shall correspond with the design centerline. Stationing shall be painted at 500-foot stations on th pavement using traffic paint.
4) Obtain cross sections every 100 ft at whole stations. Cross sections to extend 10 ft outside of proposed right of way. Obtai additional survey information as necessary to accurate develop a digital terrain model (DTM).
5) Topographic Survey (All work will be to 10 foot outside of the proposed ROW)
   a) Obtain driveway cross sections. Cross sections to extend 10 ft outside of proposed right of way.
   b) Update Inventory public access, commercial, and private driveways by type (dirt, caliche, gravel, concrete or paved
   c) Side Drains
      i) Obtain approximate roadway centerline station.
      ii) Obtain size, length, description of structure, and conditions.
      iii) Obtain F.L. elevations at both ends and offsets to driveway or turnout centerline.
      iv) Label descriptions (size and length) on each side drain.
6) Culverts:
   a) Obtain size of drainage structure, type, skewed angle, and material. Label and describe each structures (for example if it's an irrigation or drainage culvert) size and length.
   b) Locate and obtain inlet and outlet flow lines elevations at structures, top of headwall, aprons, edge of pavement, and center line.
   c) Obtain profile and cross sections of upstream and downstream ravines on man-made channels leading from and to the existing or proposed structure. These profiles and cross sections shall extend from inlet and outlet flow lines to distance of 500 ft. beyond the right of way or as directed by the Engineer.
   d) Determine type of wingwall (i.e. flared wingwall, parallel, etc…) and safety end treatments (pipe runners, safety end treatments, barrier rail, etc…) according to TxDOT standards. For barrier rail include type of end treatments, location, type, length, and height.
   e) Obtain pictures of culverts barrels and outlet and inlet view to right of way line.
7) Fence, Mailboxes, and Sign Inventory:
   a) Locate and obtain mailboxes inventory (type-identify as single, double or multiple) for all mailboxes within R.O.W. and at all intersection locations. Include photographs.

b) Locate and obtain sign inventory (type) for all signs within R.O.W. and at all intersection locations Include pictures.

8) Miscellaneous
   a) This item requires the surveyor to pick up any items that may be an obstruction for the proposed construction or may require special attention during the development of construction plans (ex: oil and gas on proposed right of way, etc.)
   b) ASCII files shall be provided to the State. These files shall be retrieved from GPS/Data Collector and shall be compatible with Microstation.
   c) Field books, containing all information gathered in the field, this information shall be to the surveyor's best knowledge, accurate and complete.
   d) Survey in miscellaneous items not indicated above that are within the existing and proposed right of way.

RIGHT OF WAY SURVEY

1) Utility (All work will be to 10 foot outside of the proposed ROW)
   a) The Engineer shall meet with Utility providers periodically to coordinate the work efforts and resolve any utility related problems. The Engineer shall prepare the minutes for these meetings and forwarded to the County. The Engineer shall address the following issues and any other items deemed necessary during the Utility Coordination meetings:
      i) Activities completed since last meeting
      ii) Problems encountered.
      iii) Late activities.
      iv) Activities required by the next progress meeting.
      v) Solutions for unresolved and/or anticipated problems.
      vi) Information or items required from other agencies/consultants.
   b) If a reimbursable utility relocation exists, the Engineer shall request conveyance documents from the utility provider.
   c) The Engineer shall notify the Utility companies in writing and request the following information in writing:
      i) Project letting date and request they relocate prior to letting.
      ii) Develop their relocation plan according to Utility Accommodation Policy Manual.
      iii) Forward their relocation plan to the Engineer.
      iv) Request in writing when relocation of utilities will be complete.
      v) Upon immediate completion of relocation, request they forward as-built plans to the County.
   d) The Engineer shall develop the typical sections, alignment, and preliminary cross sections addressing the utility location and shall forward these to the respective utility company.
   e) The Engineer shall update all files and plans based on the utility company responses.
   f) The Engineer shall identify all utility conflicts on the plans and prepare layouts and profiles of existing utility crossings showing conflicts of utilities with proposed improvements. The Engineer shall forward these layouts to the County and the utility companies. During design process, the Engineer shall field verify all visible utility conflicts.
   g) The Engineer shall verify the proposed relocation plan submitted by the Utility companies to assure their design is according to Utility Accommodation Policy Manual. Upon the Engineer's review and concurrence with the proposed relocation plan, they shall forward their recommendation for approval to the State.
   h) Contact "One Call" to request marking of underground utilities
   i) Request existing utility information from local utility companies
   j) The Engineer will perform any surveying necessary to for horizontal location of located, "Flagged", underground utilities and visible overhead utilities.
   k) The Engineer will obtain measure downs on utilities as follows
      i) Top of key on gas line values
      ii) Top of key on water line values
      iii) Flowline, size of tie-ins and direction of flow for sanitary sewer manholes
      iv) Flowline, size pipe for irrigation systems
      v) Flowline and size of system for inverted siphons.
   l) Subsurface Utility Engineering is not included in the scope of work.

2) Right of Way
   a) The Engineer shall stake all proposed right of way and drainage easement necessary for preparation and construction of this project as required to finalize the acquisition process and as required for utility relocations.

b) Right of Way Map (NOT SEALED) Development – The Engineer will provide the Right of Way Maps in accordance with the TxDOT Checklist below:

i) General
   (1) Graphics files will be in Microstation and Word software.
   (2) Photos of proposed ROW staking included.
   (3) Field notes and Parcel Plats are numbered continuous.
   (4) Scale shall be 1"=50' for 34" x 22" plans and 1"=100" for 11" x 17" plans

ii) Title Sheet Requirements
   (1) Title and description of project including county, limits, etc.
   (2) Vicinity map with begin and end sta.
   (3) Equations and Exceptions
   (4) Index
   (5) Legend
   (6) Title block completely filled out with Construction and R.O.W. CSJs'
   (7) List all Major Utilities from Station to Station

iii) Individual Map Sheet Requirements
   (1) Sheet size 34" X 22"
   (2) Text legible when reduced to half-scale.
   (3) Title block completely filled out with R.O.W. CSJ
   (4) Matchlines
   (5) Project layout sheet

iv) Existing information:
   (1) R.O.W. lines
   (2) Whole property or whole property inset
   (3) Roadways
   (4) Survey, county, and city limit lines shown and labeled
   (5) Improvements shown and labeled (see below)
   (6) Monumentation i.e. P.C., P.T., Break Points
   (7) North arrow
   (8) Scale
   (9) Property lines
   (10) Property descriptions i.e., lot, block, tract, subdivision, etc.
   (11) Identify existing and proposed access denial locations (if applicable)

v) Proposed information:
   (1) Type II Monumentation i.e. P.C., P.T., Break Points and 1500' intervals
   (2) Survey and R.O.W. lines
   (3) Basis of bearings
   (4) Parcel bearings and distances correspond with traverse sheet
   (5) Outside ties (P.O.C.) corresponds with field notes
   (6) Point of beginning (P.O.B.) established on proposed R.O.W. line
   (7) Parcel tied to baseline
   (8) Baseline information shown i.e. Stationing, bearings, curve data, etc.
   (9) Conveyance information shown in tables i.e. parcel number, grantors name, amount of take, remainder etc.
   (10) Math checked on remainder

vi) Improvements:

vii) Improvements bisected or within 25' of proposed R.O.W. line are shown on map with stationing and distance from proposed R.O.W. line. Buildings are labeled and dimensioned.

viii) Off-premise outdoor advertising signs within proposed R.O.W. are shown and labeled.

ix) Utilities:
   (1) All utilities within or crossing existing and proposed right of way are shown and labeled as to size, easement or fee width, and recording data of instrument.
   (2) Location of underground storage tanks and/or filler caps are shown and labeled

c) Field Notes

i) Heading
ii) County
iii) Highway
iv) Parcel number
v) R.O.W. CSJ
vi) Construction CSJ
vii) General Description or "preamble"
viii) Area of parcel to be acquired is shown in acreage (0.000) for rural land and/or square feet (to nearest whole sq. ft.) for urban land or smaller parcels
ix) Parent tract data is shown:
(1) Size of parent tract
(2) Survey data or lot, block, and subdivision
(3) Name of last recorded seller and buyer
(4) Date, volume and page or document number of last recorded conveyance
(5) Records and county of last recorded conveyance
x) Beginning Description
(1) Point of commencement is on outside tie and is described accurately by bearings and distances as it leads to the point of beginning.
(2) Point of beginning is on proposed R.O.W. line
xi) Particular Description
(1) Traverse calls are clockwise sequence
(2) Bearings and distances correspond exactly with map, parcel sketch, and traverse sheet
(3) Bearings are to nearest whole second and distances are to the nearest one-hundredth of a foot
(4) Calls are numbered
(5) Denial of access shall be described from beginning to end (if applicable)
xii) Closing Description
(1) Last call leads back to P.O.B.
(2) Restates area of parcel
(3) Establishes taking in existing road R.O.W. if applicable
(4) Legal description is referenced to Plat
(5) Sealed and signed
(6) Include an access clause whether access is permitted or denied (if applicable)
(7) Shows P.O.B. and P.O.C.
(8) All data corresponds exactly with Map and Field Notes
(9) Sheet size is no larger than 81/2" x 11"
(10) Plat closely matches example provided
(11) Plat referenced to legal description
(12) Sealed and signed
(13) Include an access clause whether access is permitted or denied (if applicable)

d) Traverse Sheet
i) Computations show area to be acquired in sq. ft. or acres, whichever is applicable
ii) Computations show area that is existing road R.O.W. if applicable
iii) Traverse calls are in clockwise sequence
iv) Error of closure meets the following:
(1) Secondary rural .0003
(2) Primary rural - secondary urban .0002
(3) Urban or industrial .00013

ENVIRONMENTAL ASSESSMENT

An Environmental Assessment (EA) will be prepared by the Engineer for the Mile 6 West in accordance with applicable procedures of the State of Texas, and the requirements of the National Environmental Policy Act and Federal Highway Administration Technical Advisory 6640.8A. – As No significant environmental issues or impacts are expected for this project a FONSI (as identified by the NEPA process) is anticipated. Should it be determined that additional work beyond an EA be required, the additional work will be added by supplemental agreement.

1) Document Need for and Purpose of the Project. This task will be based on existing roadway design elements and constraints, current and projected traffic volumes, traffic accident data, and proposed typical sections, schematics, and intersection configurations. As this data is developed, the information will be incorporated into appropriate EA sections describing the need for the project, the objectives and issues eliminated from further study. The project description section will include text and graphics illustrating the proposed project design.
2) Alternatives Analysis
   a) This task will include text and graphics illustrating the different alternatives considered prior to selecting the preferred.
   b) It will also describe the reasonable alternatives and those eliminated from further study.
3) Affected Environment and Environmental Consequences. For each of the categories listed below, the necessary background and field reconnaissance will be performed to include in the EA. Data will be provided on a regional scale, but will be specific to the project study area and alternatives that received primary consideration during the planning process. A study corridor will be identified which adequately provides the resource information used in the decision – making process and assist in determining which issues should be eliminated from further study.
   a) Land Use and Public Facilities.
   b) The effects of project alternatives will be characterized in light of land use trends, plans, and policies within the study area. This effort will entail close coordination with local and regional planning bodies and will include an analysis of potential secondary effects of the proposed improvements. Potential effects on public and community facilities will also be identified and discussed.
   c) Social Economic Impacts, Environmental Justice and Limited English Proficiency. As applicable, this task will address potential changes to local neighborhoods or communities and the effects on community cohesion relating to travel patterns, access, and public safety, particularly as those changes may differently affect various social groups and minorities. This information will include race/ethnicity, limited English proficiency, income, and other relevant data. The assessment will conform to FHWA guidance for compliance with Executive Order 12898, Environmental Justice. Project alternatives will also be evaluated with respect to potential effects on local economic development, secondary growth effects, tax revenues, public expenditures, employment and income, and access effects on local agricultural and commercial enterprises. The assessment will also address potential economic effects upon adjacent businesses due to changes in traffic patterns during and after construction.
   d) Noise. The project noise assessment will inventory potential noise sensitive receptors. In accordance with TxDOT noise assessment guidelines, the existing alignment for the design year will be computer simulated, and future noise levels will be predicted at each of the sensitive receptors using the FHWA/TxDOT approved Traffic Noise Model (TNM).
   e) Air Quality. Since the Average Annual Daily Traffic is expected to be below 140,000 vehicles per day, an air quality analysis will not be required, however, a mobile source air toxics (MSAT) qualitative analysis will be required. The qualitative analysis will include:
      i) Brief MSAT description and discussion of national trend data projecting substantial overall reductions in emissions due to stricter engine and fuel regulations issued by EPA;

ii) Comparison of the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated assumed changes in MSATs;

iii) An assessment of schools, licensed day cares, elder care facilities, and hospitals located within 100 and 500 meters of the ROW;

iv) Discussion of information that is incomplete or unavailable for a project-specific assessment of MSAT impacts, in compliance with CEQ regulations (40 CFR 1502.22(b)); and

v) Summary of current studies regarding the health impacts of MSATs, in compliance with 40 CFR 150.22(b);

f) Water Resources. The effort will reflect the requirements of the National Pollutant Discharge Elimination System (NPDES) storm water general permit program for construction activities and the anticipated project Storm Water Pollution Prevention Plan (SW3P), particularly with respect to potential mitigation benefits to be achieved through the SW3P. Additionally, the 100-year floodplain, as delineated by FEMA, will be identified and the impacts of the proposed project will be assessed. Flood management effects will also be addressed through coordination with the local flood management agency.

g) Wetlands and Waters of the U.S. The Engineer will perform jurisdictional identifications, including wetlands and evaluations in all areas potentially affected by the primary alternatives. If required, delineations of wetlands, approved jurisdictional determination forms and Individual Section 404 wetlands permit(s) and/or Nationwide Permit(s) requiring a Pre-discharge Notification or wetland mitigation planning will be added by supplemental agreement.

h) Ecological Resources. The Engineer will perform a characterization of project area ecological resources, including descriptions of vegetation, prime farmland and wildlife habitat resources. Ecologically sensitive resources, if any, will be identified and discussed in the EA. An assessment of the project area's potential to support federally threatened or endangered species will be conducted. This includes a data search of the Natural Diversity Database (NDD), an assessment of habitat in the project area for any listed species determined to be of potential occurrence and early coordination with the U.S. Fish and Wildlife Service. A list of all state and federally sensitive species of potential occurrence in the project area will be provided in the EA. If required, any required threatened or endangered species presence/absence surveys would be added by supplemental agreement.

i) Archaeological Resources

i) The archaeological investigations, the archaeologist will search site files and maps at the Texas Archeological Research Laboratory and the THC's Texas Archeological Sites Atlas on-line database for any previously recorded surveys and historic or prehistoric archaeological sites located in or near the proposed alignment. This will provide site and geographic information that will be essential to the discovery and interpretation of any undiscovered cultural resources along the proposed alignment. Because the project involves lands owned by a political subdivision of the state, any archaeological field investigations will require a Texas Antiquities Permit. The archaeologist will prepare a permit application and submit the THC.

ii) Once the background review is completed and the permit is obtained, the archaeologist will conduct an archaeological survey of the project area. The field survey will consist of one archaeologist walking the entire proposed project area with particular focus on any new, undisturbed right-of-ways and previously recorded sites. The survey will be of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. During the survey, the archaeologist will be examining the ground surface and erosional profiles for cultural resources and excavating small shovel tests where appropriate to test for subsurface archaeological deposits or assess the geomorphic setting. Any discovered or previously documented sites will be document and plotted on USGS 7.5 minute topographic maps using hand-held Global Position System (GPS) units.

iii) Once the field survey has been completed, the archaeologist will prepare a report of the investigations. The report will document previous investigations in the area, background cultural settings, the methodology used in the investigations, the presence and condition of any previously recorded sites revealed in the records review, the general nature of the survey area with respect to archaeological potential, and recommendations on the need for further work. Draft copies of the report will be submitted to the Engineer for review and comment. Once this has been accomplished, any appropriate edits will be made and a draft report will be submitted to TxDOT and the THC for review. The Texas Antiquities Code also requires that 20 copies of the final report be submitted once the project is completed. Additionally, text will be provided to incorporate into the EA.

j) Historical Resources

i) For the historic portion of the project, a historian will conduct a literature review of the project area and present a research design to TxDOT-Environmental Affairs Division (ENV), as described in ENV guidance procedures regarding historic resource surveys. This review includes examination of files at THC to identify historic properties that have been previously listed in the NRHP, designated as Recorded Texas Historical Landmarks, and/or are included in the Texas Historic Sites Inventory or other available local historical surveys. The historical will also check other available archival sources, such as historic maps or aerial photographs, to locate previously unidentified potential historic resources in the project's area of potential effect. A historic literature review will also be conducted to establish appropriate historical and cultural contexts for the project area. This information will be compiled along with a survey methodology as part of the research design that will be submitted to ENV and the THC for final determination of the APE and approval for the project to proceed.

ii) Following completion of the preliminary research tasks, two architectural historians will carry out a reconnaissance field survey of the proposed alignment to identify and record historic buildings, structures, and objects within the project's APE. The historians will plot the location of each identified resource on a USGS (or similar) map, take photographs, obtain addresses, and gather physical data on the structure such as property type and subtype classifications, stylistic influences, construction dates, integrity issues and preliminary eligibility recommendations.

iii) Four copies of a summary reconnaissance report will be provided and will include the following:

(1) A letter report containing an overview of the results of the reconnaissance survey. The letter report will describe the findings of the reconnaissance survey and recommend the need, if any, to conduct further survey efforts. The letter report will have sufficient detail and clarity to provide a basis for making determinations of NRHP eligibility.

(2) Photographic documentation for each identified historic resource. At a minimum, this documentation will include an oblique view of the primary facade and a side elevation of each resource, with the subject filling the frame. All photographs will be 3.5-x-5-inch or 4-x6-inch color prints. All photographs will be well focused and clearly depict architectural and other details relevant to an evaluation of the resource's character-defining features. Photographs will be attached to separately labeled pages that clearly identify project name, address (or location) of resource, and site ID number.

(3) An inventory of all identified resources provided in tabular form that lists their site ID numbers, locations, property and subtype classifications, stylistic influences, construction dates, integrity issues, and preliminary NRHP eligibility recommendations.

(4) A map or maps showing the location of each identified historic resource labeled with its appropriate site ID number. Outbuildings and landscape features will be reported as subsets of the main site ID number for a property. The project APE, major street names, and other directional landmarks will be clearly indicated on the map. Maps will be based on aerial photographs, USGS 7.5-minute quadrangle topographic maps, or similarly detailed maps.

(5) Proposed changes to the research design arising from the results of the reconnaissance survey, including contextual issues, comparative property information needs, data gaps, and other items necessary to finalize the evaluation and documentation phases of the project.

k) Recreational Resources. The assessment will include a review of the applicability of Section 4(f) of the DOT Act. A Section 4(f) Evaluation, should one be required, will be added as a supplemental agreement.

l) Hazardous Materials. An electronic search of potential hazardous materials sites will be conducted followed by reconnaissance-level field investigations to verify the location of potential sites and collect additional preliminary information. If required, a Phase I Environmental Site Assessments will be added by supplemental agreement. Information will be incorporated into the EA, along with a discussion of potential impacts, based on the best available information.

m) Indirect and Cumulative Impacts. The Engineer will identify indirect and cumulative impacts in accordance with the requirements of FHWA Technical Advisory T 6640.8A (1987), Report 466: Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects (National Cooperative Highway Research Program 2002), TxDOT Guidance on Preparing Indirect and Cumulative Impact Analyses (2006), and related guidance from FHWA and TxDOT.

n) Identify Corridor Issues and Field Investigations. The Engineer will perform collect, research, review and assemble available environmental data and review various maps. The Engineer will perform site visits to identify environmental constraints including land use, socioeconomic issues, wetlands and other waters of the U.S., recreational issues (Section 4[f]), industrial waste issues, and ecological resources. If necessary, any threatened or endangered species presence/absence surveys or wetland delineation will be added by supplemental agreement.

o) Graphics. The Engineer will prepare base maps for field use, stakeholder and public meeting presentation graphics, and final EA graphics using digital aerial photography. Screening graphics will be developed for each resource constraint category appropriate for the project. Alternatives will be mapped and each resource category quantified to provide the objective basis for the alternatives analysis. Report graphics will be prepared as needed to show the potential impacts of the proposed action on various resources and how these impacts may be minimized and/or avoided through the EA process.

4) Report Preparations. The EA document will comply in all respects with the NEPA and the guidelines of TxDOT and the FHWA for preparing environmental documents. The analysis will address the adverse and beneficial impacts of project construction and operation, and will also include indirect and cumulative impacts. The impact analysis will be organized to facilitate equivalent comparisons of alternatives, employing charts, tables, maps, and matrices as appropriate. Generalized preliminary mitigation options will be emphasized where adverse impacts may potentially occur. The Engineer will submit the EA document in accordance with the provisions in Phase II.

5) Public Involvement

a) Draft and advertise project Public Notices (English and Spanish) in accordance with the standards set forth by the Texas Department of Transportation public hearing requirements to provide effective notification procedures for project events and meetings that will heighten overall public participation.

b) Design and develop project support materials (English and Spanish}, including mail-out flyer, public meeting agendas and handouts, maps, and other related project information, for public dissemination. Owner to be responsible for disseminating provided material.

c) Provide coordination of professional transcribing and translation services for Public Meetings and/or Public Hearings. Additionally, the Engineer will provide technical support and assistance at one mock meeting and one public hearing. Upon receipt of the transcripts the Engineer will prepare the Summary and Analysis for submittal to TxDOT. Owner is responsible for providing professional transcribing and translation service.

d) Hidalgo County will publish the notices in the local newspaper, arrange for, pay and provide a location for the public meeting and hearing to be held, will provide a mailing list and copy, collate and mail letters to adjacent property owners, local governmental officials and others as necessary.

e) Agency Coordination: As part of the proposed effort, the Engineer intends to communicate with local, state, and federal agencies and organizations regarding project compliance with applicable environmental approvals, including the regulatory programs. These entities include:

i) Local, county and municipal government agencies

ii) U.S. Army Corps of Engineers regarding jurisdictional determinations, if necessary

iii) U.S. Fish & Wildlife Service regarding federally threatened or endangered species

iv) Federal Emergency Management Agency and local flood management agency regarding NFIP compliance, if necessary.

v) Texas Parks & Wildlife Department (TPWD) regarding area parks, wildlife refuges, state-listed endangered species, and compliance with TxDOT/TPWD Memorandum of Understanding and request for data from the Natural Diversity Database

vi) Texas Commission on Environmental Quality (TCEQ) regarding hazardous materials and groundwater protection compliance with TxDOT/TCEQ Memorandum of Understanding.

6) All correspondence will be preserved for inclusion in the EA document; telephone or in-person discussions with agency officials will be logged as part of the project file.

7) Assumptions Used to Derive the Proposed Scope of Services:

a) All investigations will be conducted based on existing literature and mapped data, aerial photographic interpretation, interactions with local and regional experts, and field reconnaissance. If necessary for specific site investigations, access to private property will be the responsibility of the Engineer.

b) The Engineer team assumes an EA that leads to the issuance of a Finding of No Significant Impact will fulfill the NEPA requirements for this project (as opposed to an Environmental Impact Statement). Additional work beyond EA will be added by supplemental agreement.

c) Any technical studies required as a result of modifications in project design alignment, or alternatives submitted after submittal of the draft EA will added by supplemental agreement.

d) The Engineer assumes that requisite engineering information such as traffic data will be provided by the Pharr District of TxDOT in a timely manner. The draft EA will be submitted to County/TxDOT not less than 60 days after receiving final engineering information, including diagrams for all alternative alignments or design options to be addressed in the EA.

e) The Engineer will prepare a scoping letter for distribution to resource and public agencies. This letter will also include minutes of the meetings with City/County officials, and Public Hearing.

f) This scope and fee is based on the current standards of practice for environmental documents developed for Texas Department of Transportation as of the date of signature of this Agreement. Modifications to submitted document required by subsequent changes to the standards of practice are additional services. Additional services will be added by supplemental agreement.

PLAN, SPECIFICATIONS AND ESTIMATE SERVICES

1) The Engineer shall prepare and submit work under this task in accordance to the PS&E Preparation Manual. The location of project should depict the entire project with beginning and ending (Station Numbers/Reference Markers) for each noted CSJ. Mapping landmarks (side streets, creeks, etc.) along with North Arrow and a scale should be shown to help relate the physical location of the project.

2) The Engineer shall use the Design Speed, the Funding Category, Average Daily Traffic, ADT, Roadway Classification, Location Type, and the appropriate Design Criteria to develop the typical sections as set forth in the Roadway Design Manual, PS&E Preparation Manual and other deemed necessary State approved manuals to prepare and submit the work under this task. The existing typical section should be shown with current roadway (pavement, right of way, etc.) characteristics. The proposed typical sections should be shown below the existing typical section with all related pertinent (pavement, right of way, etc.) information for the proposed roadway construction.

3) For Roadway, Bridge and Traffic quantities, the Engineer shall prepare and submit work under this task in accordance to the PS&E Preparation Manual and other deemed necessary State approved manuals. All summaries shall be consolidated

per CSJ, City or County participation, etc. Any quantities shown "For Contractor Information Only" should be shown as such.

TRAFFIC CONTROL PLANS (TCP)

1) The Engineer will develop a conceptual traffic control plan (TCP), roll plot, and narrative. These information will be submitted to the County and TxDOT for review. The Engineer shall make a presentation to the District Traffic Control Safety Review Committee to obtain approval of the TCP prior to development of plan sheets. Modifications requested by TxDOT or County after approval will be consider additional work and be added by supplemental agreement.
2) The Engineer shall notify the State if they plan on requesting a speed reduction at the work zones. The Engineer shall prepare the request form using the latest approved Strip Map within the project limits in conjunction with the Traffic Standards for this request. If the project limits is within the city limits, the request shall be coordinated with the State and the local municipality at the early design process.
3) The Engineer shall provide the State with a hardcopy and accompanying electronic file of a schedule and Critical Path Method for project duration for each phase of construction using SureTrack software
4) The Engineer shall describe the type of work to be performed for each phase of sequence of construction and any special instructions (ex: storm sewer, culverts, bridges, railing, illumination, signals, retaining walls, signing, paving surface sequencing or concrete placement, ROW restrictions, utilities, etc.) that the contractor should be made aware to include limits of construction, obliteration, and shifting or detouring of traffic prior to the proceeding phase.
5) The Engineer shall include the work limits, the location of channelizing devices, positive barrier, location & direction of traffic, work area, stations, pavement markings, and other information deemed necessary for each phase of sequence of construction.
6) If Engineer determines that a standard is not applicable to address the entire project, then the Engineer shall prepare layouts for each respective phase of sequence of construction to illustrate any necessary additional construction details not covered by the Standards to address work limits for each sequence in stations, channelizing devices, barricades, positive barrier, tapers, buffer zones, TCP signage, signs, work zone pavement markings, work area, location & direction of traffic, locations for pedestrian crossings, and other information deemed necessary for each phase of sequence of construction. The Engineer shall develop the layouts by referring to the TxDOT standards, latest version of the TxMUTCD for non-TCP signage that may be needed as part of the TCP signage for intersections. The layouts shall address construction of detours, access to business, homes, side streets, and driveways, and reroute of traffic to other roads.
7) The Engineer will address drainage issues that are a result of changes in horizontal and vertical profiles by specifying the location and size of the temporary drainage structures.
8) The Engineer shall prepare the plan and profile sheets and cross sections for all detours.
9) The Engineer will develop TCP plans as double stacked, 1" = 100'. TCP plans will be developed for a two phase approach to traffic control.

ROADWAY DETAILS

1) The alignment sheet(s) include the following for complex projects and/or where it is not desirable to show the following information on the plan and profiles sheet(s): include the project limits for the entire project, label curve date bearings/coordinates for each alignment, computer generated data may be graphically place on the sheet(s) and if applicable the State Plane Coordinates System should be noted on this sheet(s).
2) The Benchmark Data sheet shall be developed in tabulated form and accompanied by surveyor's sketch showing the Station Number from respective alignment, Offset, and Elevation and Physical Description.
3) The Engineer shall design the plan (horizontal) and profile (vertical) including roadway transitions based on the controlling criteria previously defined and as set forth in the previously listed. The Engineer shall develop the alignment for the project in GEOPAK format. Plan and Profile sheets will be developed at 1" =100'.
4) The Engineer shall identify and notify the State all locations not meeting the set criteria. In addition, the Engineer shall provide alternatives and a recommendation to address these design issues.
5) The Engineer shall develop and verify all cross sections in preparation of the proposed traffic control plan, drainage, utilities, right-of-way, and access onto adjacent properties. In addition, the cross sections shall be drained to maintain the natural watershed unless otherwise directed by the State.
6) The Engineer shall determine all cut and fill quantities.
7) The Engineer shall design all intersections to accommodate the design vehicles turning radius. The ADA-wheelchair ramps shall be designed in accordance to the TDLR compliance and the latest TxDOT's Pedestrian Ramp Standards in conjunction with the requirement of the latest version of the TxMUTCD as it relates location of the traffic signals

pedestrian heads, signage, and pavement markings.

8) The Engineer shall design all longitudinal barriers (railing and guardrail), raised median, fencing, bus bays, parking areas, mailboxes, and shoulder texturing in accordance to the criteria set forth in the roadway design manual and standards. Miscellaneous Details Sheet(s) may be developed to illustrate any necessary additional construction details not covered by the Standards.

DRAINAGE DETAILS

1) The Engineer shall use the Roadway Design Manual, Hydraulic Manual, PS&E Preparation Manual, and other deemed necessary State approved manuals to prepare and submit the work under this section
2) The Engineer shall use the above-listed manuals to prepare and submit the work under this task. The hydraulic calculations shall have the following based on previously County approved drainage study:
   a) Description-Material, Size, & Entrance (headwall)
   b) Design discharges, Flow per barrel, barrel slope, and Manning n-value
   c) Inlet flow line, allowable headwater, roadway (shoulder) elevation, calculated inlet headwater elevation
   d) Outlet flow line, Tailwater for design frequency/frequencies, type of flow, critical depth, and calculated friction losses, calculated outlet water elevation
   e) Controlling headwater elevation, outlet velocity, and recommended countermeasures to maintain an acceptable outlet velocity.
3) The Engineer shall show the location of culverts and ditches on the roadway plan view.
4) The Engineer shall use TxDOT standards preferably at all times. Modification to inlets, pipe connection, bedding details, and other elements pertaining to drainage details shall be included under this work task. The BCS sheet must be submitted for all box culverts within the project limits. This sheet must be signed and sealed by the Engineer.

TRAFFIC ITEMS

The Engineer shall inventory all signage through the project limits including those limits that are considered incidental to the project limits. All intersections and roadway signage shall be designed and spaced according to the requirements set forth in TxDOT's Sign Crew Field Book and standards for work under this task. Any signs no longer used by the State shall be taken out and replace by an accepted TxMUTCD signs. The Engineer shall design all signage according to the latest version of the TxMUTCD, Supplemental to TxMUTCD, and TxDOT's Signs and Markings Manual. Design of flashing beacons or traffic signals not specifically indicated in Attachment D is not included. Additional locations will be added by supplemental agreement.

STORM WATER POLLUTION PREVENTION PLANS (SW3P)

The Engineer shall submit and prepare separate SW3P sheets when soil is to be disturbed as part of the erosion control measures during each phase of the sequence of construction. The general plan for the SW3P on this project is to enclose the area under construction including existing and proposed inlets with erosion control devices and provide a stabilized construction entrances at points where traffic will be entering or leaving the construction site. The Engineer shall also design structures or features to control erosion and suspended sediments for post-construction. A standardized General Note will serve as the SW3P where there is to be no soil disturbance (seal coats, overlays, etc.) in the project. The Engineer shall refer to the Hydraulic Design Manual, TxDOT standards, TxDOT Storm Water Management Guidelines, the Environmental Manual, and District Environmental Staff for guidance on work under this task. Erosion Control measures shall conform to one or more of the approved TxDOT / Texas Natural Resources Conservation Commission (TNRCC) / US Environmental Protection Agency (EPA) / US Army Corps of Engineers (USACE) Best Management Practices. The appropriate Best Management Practice(s) shall be listed on the Environmental Issues, Permits, and Commitments (EIPC) sheet to be included as a Plan Sheet and shall be followed by the Engineer and Contractor to completion. Plan sheets will be develop separate from TCP as 1"=100', double stacked.

CROSS SECTIONS

For the Final Submission, the Engineer shall furnish the final cross - section plots, on 36" wide x 120" long roll plots, showing both the original terrain and the design cross-sections, showing the roadway template, at a vertical scale of 1"=10' and a horizontal scale of 1"=10'. The design cross - sections shall indicate the slope rate on the side slopes. The Engineer shall use GeoPak software and provide the state with the applicable files. Cross sections are to show proposed pavement thickness, top of subgrade, finish grade of side bar ditches with slopes and location of right of way. Indicating other features within the cross sections is not part of the scope of work, ie. Underground utilities, storm sewer lines, top soil, etc.

DELIVERABLES

PS&E

The Engineer shall deliver to the County and TxDOT Project Manager one copies and one CD's containing PDF's of the plan sheets provided, respective of the 1st, 2nd, and 3rd submittal. For the final submittal, the Engineer shall submit one set in Mylar accompanied by a paper copy and two CD's containing PDF's of the final plans.

1st Submittal -

1) Design Summary Report
2) Title Sheet
3) Typical Sections (existing and proposed)
4) Traffic Control Plan
5) Utility Layout (conflicts identified)
6) Plan & Profile
   a) Vertical Alignment (existing and proposed)
   b) Horizontal Alignment (existing and proposed)
7) Miscellaneous Details
8) Corresponding Quantity Summary Sheets
9) Corresponding Standard Detail Sheets for all Items of Work in this submittal
10) Preliminary Estimate
11) Design Exceptions/Waivers required
12) Newly created Special Provisions/Specifications to be used (Form 1814)
13) R.O.W. (issues identified)
14) 2 Rolls of Cross Sections

2nd Submittal -

1) Index Sheet
2) Hydrologic Computation Sheets
3) Hydraulic Data Sheets
4) Drainage Area Maps
5) Drainage Plan & Profile
6) Drainage Structure Details
7) Storm Sewer Details
8) Storm Water Pollution Prevention Plan
9) Miscellaneous Details
10) Corresponding Quantity Summary Sheets
11) Corresponding Standard Detail Sheets for all Items of Work in this submittal
12) Updated Estimate
13) Utility Adjustment/Relocation Details
14) R.O.W. Acquisition Detail
15) 2 Rolls of Cross Sections

3rd Submittal -

1) Final Index of Sheets
2) Pavement Marking Layout/Details
3) Miscellaneous Details
4) Corresponding Quantity Summary Sheets
5) Corresponding Standard Detail Sheets for all Items of Work in this submittal
6) Final Estimate
7) General Notes
8) Certifications
9) Form 1002
10) Cross Sections

4th Submittal - PS&E Package 100% complete.

ENVIRONMENTAL ASSESSMENT
The Engineer shall submit the Environmental Assessment to the Texas Department of Transportation for review and approval. Three hard copies and one CD with PDF's of the submittal will be provided for the preliminary draft, final draft and final assessment.

HYDRAULIC DELIVERABLES
The Engineer shall submit the Hydraulic Report signed and sealed by a Registered Professional Engineer in the State of Texas.

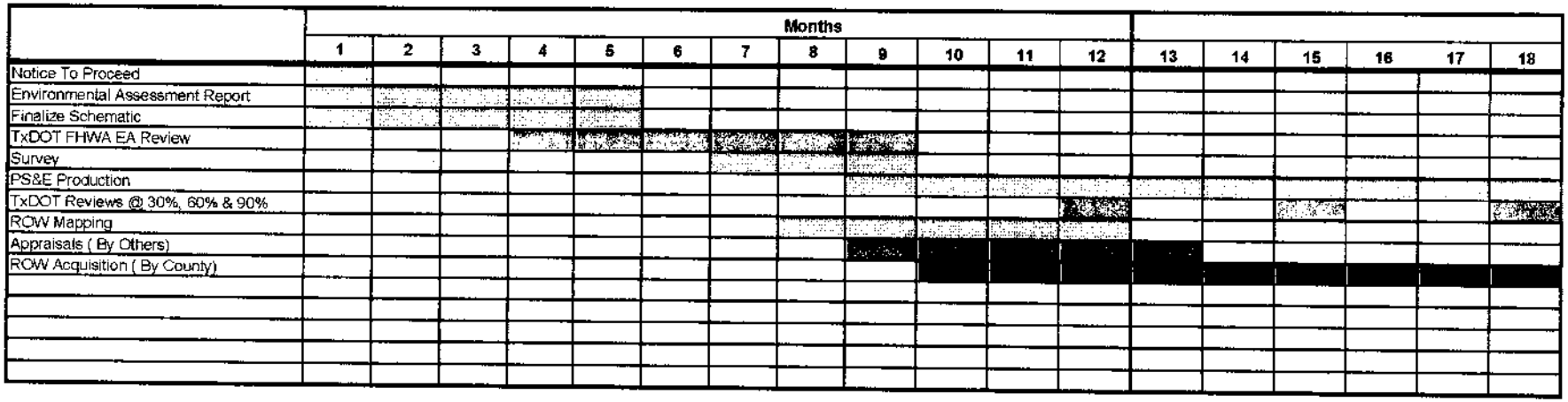
SURVEY DELIVERABLES
The Engineer shall submit, after completion of PS&E, all original field books containing all survey information requested for this work authorization. The field book shall contain all information gathered in the field. The survey information provided shall be to the surveyor's best knowledge, accurate, and complete.

Electronic files (*.txt) containing survey information with proper identification and with the following data format x, y, and z NAD-83 coordinate system. The x-coordinate corresponding to the east bearing, the y-coordinate corresponding to the north bearing, and the z-coordinate corresponding to the vertical elevation.

Electronic 2d and 3d Microstation files (*.dgn) containing survey information with proper identification and with the following data format x, y, and z NAD-83 coordinate system.

ATTACHMENT "C"

Work Schedule



General Management/Coordination

Description	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
Project Meetings (4 per month for 18 months)	144		72			36	252
Preliminary Estimate	8	16	24		40		88
Project Administration/Coordination	36					36	72
Total	188	16	96	0	40	72	412

Topographic Survey

Description	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
QA/QC Survey		24		40			64
Subconsultant Management	72					72	144
Total	72	24	0	40	0	72	208

Utility Coordination

Description	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
Utility coordination/meeting	72				120	40	232
Prepare and send utility submittals	4				60	60	124
Determine/resolve utility conflicts	24		60		80		164
Maintain communication documentation	36		72			72	180
QA/QC Survey		24		60			84
Subconsultant Management							0
Total	136	24	132	60	260	172	784

Schematic, EA and Public Involvement

Description	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin	
Schematic Document	80	120	160	320	360	80	1120
Coordination of EA Document	80		40		80	60	260
Review Meetings during schematic development	48	48				24	120
Development of DSR	4		8			2	14
Development of exhibits for Public Meeting	4	8	16		24	4	56
Development of Mailing List	1	4				8	13
MAPO Meetings (110 at 2 Hours Ea)	220				80	110	410
Attend Public Meeting (2 Meetings)	16	16				8	40
Document Public Meeting	12	12				12	36
Development of exhibits for Public Hearing	8	12	16		32	8	76
Attend Public Hearing (1 Meeting)	8	8					16
Respond to comments from Public Hearing	24	24				16	64
Prepare Submittals for TxDOT/FHWA review/approval	4	8		16	16	8	52
Revise documents as necessary	16		40		80	16	152
Total	525	260	280	336	672	356	2429

General PS&E

Description	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		Sheet Count
Title Sheet	1		4		8		13	1
Project Layout	8		16		40		64	8
Typ Sections	4	4	16		24		48	4
Pavement Design							0	
General Notes	1	4	8			4	17	
Estimate and Quantity	8		40		72	12	132	6
Miscellanous Forms	1	2				1	4	
Preparation of Submittals	5	20		40	40	24	129	
Review meetings	10		10			10	30	
Determine and Plot Standards	2	4			30		36	50
QA/QC Submittals	100	120				40	260	
Summaries	8	16		60	80		164	40
Total	148	170	94	100	294	91	897	107

Traffic Control Plan	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Phase Narrative	8	16				16	40	2
Typical Sections	4	8	16		16		44	2
Phase Layouts (Two Phase, Double Stacked, 1"=100')	24	40	72	100	200		436	40
Temporary Traffic Signals (Two Phases, 3 Intersections)	16	24	32	40	60		172	6
Detours and Miscellaneous Details	8		24	32	40		104	10
Total	60	88	144	172	316	16	796	60

Roadway Details	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Alignment Sheets	1	2			4		7	4
Benchmark Data Sheets		1			4		5	2
Plan and Profile (Roadway)(1"=100')	50	72	120	160	240		642	40
Intersection Layouts (6 Locations)	8	12	20	32	48		120	6
Side street Layouts (30 Locations, 2 per sheet)	24	48	60	80	100		312	15
Driveway Details and Summaries	4		32		60		96	8
Cross Sections (2 per STA, 12 per sheet)	8		60	100	120		288	66
Misc. Details	4	8	24	32	40		108	6
Total	99	143	316	404	616	0	1578	145

Drainage Details	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Drainage Area Maps	16	32	40		64		152	8
Hydrology Calculations	16	24	36			4	80	4
Hydraulic Calculations	24	60	72			4	160	8
Culvert Layouts, Cross-sections and Detail Sheets	16	24	40	60	80		220	20
Misc. Details			8		24		32	4
Total	72	140	196	60	168	8	644	44

Traffic Items	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
Traffic Signal Warrant Study (Mile 9 N)	1	4	4		10	2	21	
Existing Conditions (Mile 9 N)	1	4	4		12		21	1
Prop. Signal (Mile 9N)	4	10	24		40		78	2
Traffic Signal Warrant Study (Mile 10N)	1	4	4		10	2	21	
Existing Conditions (Mile 10N)	1	4	4		12		21	1
Traffic Signal Layouts (Mile 10N Existing)	4	10	24		40		78	2
Traffic Signal Warrant Study (SH 107)	1	4	4		10	2	21	
Existing Conditions (SH 107)	2	8	8		20		38	2
Traffic Signal Layouts (SH 107 Existing)	8	12	24		40	2	86	4
Electrical Service Data Sheet	1	4	9		12	1	27	2
Summary of Quantities for Signalization	1	2	8		12	2	25	1
Signing and Striping Plans (1"=100')	24	40	60	100	160		384	40
Summary of Quantities for Signs	4	8			40		52	8
Summary of Quantities for Striping	2		6		8		16	1
Intersection striping details	4	8			24		36	3
District Standard Detail Drawings	1	4	8		12		25	4
Total	60	126	191	100	462	11	960	71

Environmental & SW3P	Sr. Project Manager	Senior Engineer	Project Engineer	Sr. Eng. Tech	Eng. Tech	Admin		
SW3P Sheets (Two Phases, Double Stacked, 1"=100')	24		48	100	120	16	308	40
Epic Sheet	2		6		8		16	2
Total	26	0	54	100	128	16	324	42
Total Hours	1386	991	1503	1372	2956	814	9022	469
	$ 183.19	$ 154.46	$ 137.55	$ 117.91	$ 103.37	$ 59.03		
	$ 253,901.34	$ 153,069.86	$ 206,737.65	$ 161,772.52	$ 305,561.72	$ 48,050.42	$	1,129,093.51

Project DirectCosts

Copies, Bond Plots, Mylar Plots & Mileage		$ 56,454.68
	Sub-Total Basic Fee	**$ 1,185,548.19**

Additional Services

Aerial & Topographic Survey $30,000/mile	7.5 Mile X $30,000/Mile	=	$225,000.00
Horiz. & Vert. Control Benchmarks	38 Ea. X $1,400.00/ Ea.	=	$53,200.00
Right of Way Mapping 110 parcels at $2,750/parcels	110 Ea. X $2,750/Ea.	=	$302,500.00
Environmental Assessment at $30,000/mile		=	$140,000.00
	Sub-Total Additional Services	=	**$720,700.00**
	Total Lump Sum Fee (Basic +Additional)	=	**$ 1,906,248.19**

Texas Department of Transportation

PO BOX 1717 • PHARR TEXAS 78577-1717 • (956) 702-6100

January 28, 2009

PROJECT: Mile 6 W.
COUNTY: HIDALGO
DISTRICT: PHARR

Hidalgo County Department of Budget & Management-Budget Division
100 E. Cano, 2nd Floor, Administrative Building
Edinburg, TX 78539
ATTN: Mr. Sergio Cruz

Dear Mr. Cruz:

We have reviewed the scope and fees for the aforementioned project. We concur with the scope and fees. We recommend endorsement of contract.

If you have any questions or if we may be of any assistance, please call Jesus A. Noriega at 702-6264.

Sincerely,

Hector P.Gonzalez, P.E.
Pharr Area Engineer

AI-13868 **21.B.2.**

Pct 1-Professional Engineering Agreements-TEDSI-Mile 6 W Project w/WA#1 & CORRECTED-Contract#C-08-226-09-30 for the Mile 2 W Proj

CC REGULAR

Date: 02/09/2009
Submitted By: Letty Saenz, PURCHASING DEPT.
Submitted For: Marty Salazar
Department: PURCHASING DEPT.
Agenda Category: Purchasing Department **Purchasing only:** Prct. 1

Information

CAPTION

A. Requesting approval of a "Professional Engineering Services Contract" (approved as form by legal counsel) with TEDSI Infrastructure Group, Inc. for "Mile 6 West Road Improvements (between SH 107 and Mile 9 N)" for Hidalgo County Pct. 1;

B. Presentation for consideration, discussion, and approval of Work Authorization #1 in the amount of $1,817,940.03 with TEDSI Infrastructure Group, Inc. to provide engineering services to Hidalgo County Precinct No. 1 in connection with Contract No. C-08-227-02-09 for "Mile 6 West Road Improvements (between SH 107 and Mile 9 North)" ;

C. Presentation for discussion and approval of a CORRECTION to Contract No. C-08-226-09-30 with TEDSI Infrastructure Group, Inc. for the "Mile 2 West Road Improvement (between Mile 12 N and Mile 7 1/2 N project approved by CC on 09/30/08) on page 2 of 20, Article 3 Period of Service, Section 3.3(5)-Termination of Agreement deleting the word "with" and replacing with the word "without" and thus complying with the legal notices on the original (Request for Qualifications packet for the Pool of Engineers);

BACKGROUND

Contract No. C-08-227-02-09-TEDSI-Mile 6 W Project-Pct 1 (approved by legal counsel)
Work Authorization No. 1-TEDSI-Mile 6 W Project
Corrected-Contract No. C-08-226-09-30-TEDSI-Mile 2 W Project-Pct 1

Fiscal Impact

FISCAL YEAR: 2009 **ACCT. #:** 9-1315-431-00-121-039-0-731/711
FUNDS AVAILABLE Y/N?: **MATCHING FUNDS Y/N?:**
BUDGETARY IMPACT:

Attachments

Link: Professional Engineering Agreements-TEDSI-Mile 6 W Project
Link: Mile 6 W Project w/WA#1
Link: CORRECTED-Contract#C-08-226-09-30

Form Routing/Status

Route Seq	Inbox	Approved By	Date	Status
1	Purchasing Department	Marty Salazar	02/05/2009 05:26 PM	APRV