

Authorize execution of a contract and initial work authorization with Jacobs Engineering Group, Inc. for Construction Engineering and Inspection services for the SH 45 Southwest Project

Strategic Plan Relevance: Regional Mobility

Department: Engineering

Contact: Justin Word, P.E., Director of Engineering

Associated Costs: \$7,700,000.00

Funding Source: Reimbursement with Project Funds

Action Requested: Consider and act on draft resolution

Summary:

On July 27, 2016, the Mobility Authority's Board of Directors approved the selection of Jacobs Engineering Group, Inc. and authorized the Executive Director to commence negotiations for a professional services contract and work authorization for Construction Engineering and Inspection services for the SH 45SW Project.

Based on the review of the proposed contract and initial work authorization by Mobility Authority staff and the GEC, it was determined that the Scope of Services addresses the anticipated project requirements and the level of effort and the associated fee is appropriate. Therefore, approval of the Contract and Work Authorization No. 1 is recommended.

Backup provided: Contract

Work Authorization No. 1 Rate Sheet & Fee Estimate

Draft Resolution

GENERAL MEETING OF THE BOARD OF DIRECTORS OF THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

RESOLUTION NO. 16-0XX

AUTHORIZE EXECUTION OF A CONTRACT WITH JACOBS ENGINEERING GROUP, INC. FOR CONSRUCTION ENGINEERING AND INSPECTION SERVICES FOR THE SH 45 SW PROJECT

WHEREAS, by Resolution No. 15-092 dated December 15, 2015, the Board of Directors authorized the Executive Director to procure construction engineering and inspection services for the SH 45 SW Project; and

WHEREAS, by Resolution No. 16-057 dated July 27, 2016, the Board of Directors awarded a professional services contract to provide construction engineering and inspection services for the SH 45 SW Project to Jacobs Engineering Group, Inc.; and

WHERAS, the Executive Director and Jacobs Engineering Group, Inc., have discussed and agreed to a proposed contract and Work Authorization No. 1 for Construction Engineering and Inspection services for the SH 45 SW Project; and

WHEREAS, the Executive Director recommends that the Board approve the proposed contract and Work Authorization No. 1 copy of which is attached to this resolution as <u>Exhibit A</u>.

NOW THEREFORE, BE IT RESOLVED, that the Board authorizes the Executive Director to finalize and execute the proposed contract and Work Authorization No. 1 with Jacobs Engineering Group, Inc. in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 7th day of September, 2016.

Submitted and reviewed by:	Approved:		
Geoffrey Petrov, General Counsel	Ray A. Wilkerson Chairman, Board of Directors		

Exhibit A

CONTRACT FOR CONSTRUCTION ENGINEERING & INSPECTION SERVICES

THIS CONTRACT FOR CONSTRUCTION ENGINEERING & INSPECTION SERVICES (the "Contract") is made by and between the Central Texas Regional Mobility Authority, 3300 N. I-35, Suite 300, Austin, Texas 78705, (the "Mobility Authority,") and Jacobs Engineering Group Inc. (the "Engineer") having its principal business address at 1999 Bryan Street, Suite 1200, Dallas, Texas 75201.

WITNESSETH

WHEREAS, the Mobility Authority desires to contract for services generally described as construction, engineering and inspection services, and more specifically described in Article I (the "Services"); and,

WHEREAS, pursuant to a qualifications-based selection conducted in accordance with the Professional Services Procurement Act (Tex. Gov't Code Sec. 2254.001, et. seq.), and the Mobility Authority's Policy Code regarding the procurement of professional services, the Mobility Authority has selected the Engineer to provide the needed services; and

WHEREAS, the Engineer has agreed to provide the services subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, the Mobility Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do hereby mutually agree as follows.

AGREEMENT

ARTICLE 1 SCOPE OF SERVICES

The Engineer will furnish items and perform those services for fulfillment of the Contract as identified in Exhibit B of the Attachment B - Work Authorization(s) (the "Services"). All Services provided by the Engineer shall comply with the terms and conditions of this Contract and any Work Authorizations issued pursuant hereto.

ARTICLE 2 COMPENSATION

Compensation for the Engineer's Services and other aspects of the mutual obligations concerning the Engineer's Services and payment therefore are as follows:

A. Maximum Compensation. The maximum payment by the Mobility Authority for the Services provided under this Contract and associated Work Authorizations (including compensation to the Engineer and reimbursable expenses) may not exceed \$.

B. Basis for Compensation. Subject to the terms of a Work Authorization issued pursuant to Article 4 below (including any maximum amount to be paid as stated therein), the Mobility Authority agrees to pay, and the Engineer agrees to accept as full and sufficient compensation and reimbursement for the performance of all Services as set forth in this Agreement, hourly rates for the staff working on the assignment computed as follows:

Direct Labor Cost x
$$(1.0 + OH Rate)$$
 x $(1.0 + Profit (\%))$.

where Direct Labor Cost equals salary divided by 2080; OH Rate equals the Engineer's most recent auditable overhead rate under 48 C.F.R. Part 31, Federal Acquisition Regulations (FAR 31) or otherwise approved overhead rate pursuant to this subsection 2.B; and Profit (%) reflects a ten percent (10%) profit. The range of Direct Labor Costs for the classifications of employees working for the Authority as of the effective date of this Agreement is reflected in Attachment A. Revisions to Direct Labor Cost ranges for employee classifications and the auditable overhead rate may be proposed no more frequently than once per calendar year, and are subject to the written approval of the Executive Director or his designee. No increase shall be made to the specified profit percentage. The first adjustment to the auditable overhead rate shall be considered no earlier than one year after the execution of this contract. All adjustments shall be agreed to in writing by the Mobility Authority prior to implementation, and the Mobility Authority shall have the right to review and/or audit the Engineer's Direct Labor Costs and auditable overhead rates upon written request. Once approved, the range of Direct Labor Costs and auditable overhead rate will be used going forward until the next annual adjustment is approved. Changes to the auditable overhead rate will not be applied retroactively to Direct Labor Costs incurred in the previous year. If the Engineer or a sub consultant of the Engineer does not have a Far 31 overhead rate, they may submit, for Mobility Authority approval, alternate documentation supporting an appropriate auditable overhead rate. If an auditable overhead rate is not submitted or available, fixed hourly rates must be submitted per subsection 2.I. During the term of this Agreement the Engineer shall provide to the Executive Director or his designee, prior to requesting any adjustment to its auditable overhead rate, a copy of the report establishing a new FAR rate for the Engineer.

The payment of the hourly rates and allowed costs shall constitute full payment for all Services, liaisons, products, materials, and equipment required to deliver the Services.

- **C. Limitations on Rates Utilized.** The Engineer represents that at all times, subject to the limitations on timing and approval in subsection 2.A, throughout the term of this Contract that it shall not use an auditable overhead rate that exceeds the rate determined in accordance with FAR 31 (or successor regulations); and shall be based on actual salary amounts for the individuals performing the work; that the Direct Labor Costs shall not exceed the ranges reflected in <u>Attachment A</u> and shall be based on actual salary amounts for the individuals performing the work.
- **D. Reimbursable Expenses.** As indicated above, and subject to the terms of any Work Authorization, the compensation computed in accordance with subsections 2.A. and B. is anticipated by the Mobility Authority and the Engineer to be full and sufficient compensation and reimbursement for the Services, and includes all customary out-of-pocket expenses anticipated to result from the Engineer's performance under the Contract that are included in the computation of the auditable overhead rate, such as office supplies, telecommunications systems, postage, general

photocopying, computer hardware/software and service charges, and similar costs. The Engineer is responsible to provide all other necessary tools and equipment to perform the required Services, which will be considered non-reimbursable expenses. To the extent not otherwise included in the Engineer's auditable overhead rate, non-reimbursable expenses shall also include all tolls incurred by Engineer or any of its sub consultants in connection with the performance of the Services. Notwithstanding the foregoing, the Engineer shall be entitled to reimbursement for reasonable outof-pocket expenses actually incurred by the Engineer that are necessary for the performance of its duties under this Contract and which are not included in the auditable overhead rate, said expenses being limited to travel costs (at rates which may not exceed those applicable to Mobility Authority employees), printing costs, automobile expenses being reimbursed at the federal mileage rates for travel originating from the office of the Engineer employee or sub consultant, and other expenses directly approved, in advance, by the Executive Director or his designee. Except for automobile expenses paid at the federal mileage rate and travel paid at state approved rates (if available), all such reimbursement shall be at one-hundred percent (100%) of the actual cost thereof paid by the Engineer to unaffiliated entities; provided, however, that aggregate amounts in excess of \$2,500 for which the Engineer intends to seek reimbursement pursuant to this subsection 2.C. must be approved in advance and in writing by the Executive Director or his designee, except when such advance approval is impractical due to a bona fide emergency situation. Except as otherwise authorized in a validly issued Work Authorization, and only then to the extent reimbursable by the Texas Department of Transportation ("TxDOT") under the terms of any form of financial assistance agreement, the Mobility Authority shall not reimburse the Engineer for travel, lodging, and similar expenses incurred by the Engineer to bring additional staff to its local office or to otherwise reassign personnel to provide basic engineering support of the Engineer's performance of the Services, provided, however, that the Mobility Authority shall reimburse, but only in accordance with the terms of this subsection 2.C., such costs incurred by the Engineer to bring to its local office or the Mobility Authority's facilities, with advance approval by the Executive Director or his designee, staff with specialized skills or expertise required for the Services and not customarily available from a staff providing general consulting civil engineering services of the type described in this agreement.

Engineer acknowledges that all expenses and costs paid or reimbursed by the Mobility Authority using federal or state funds shall be paid or reimbursed in accordance with, and subject to, applicable policies of the Mobility Authority and other applicable state and federal laws, including the applicable requirements of 2 CFR 200 Subpart E, which may reduce the amount of expenses and costs reimbursed to less than what was actually incurred.

E. Subcontractors. For the purposes of this Contract, a "subcontractor" is an individual or entity contracted by the Engineer to provide services related to or part of those which the Engineer owes to the Mobility Authority under this Contract. The Engineer may engage a subcontractor to provide services, and the Mobility Authority will reimburse the Engineer for the Engineer's cost of engaging the subcontractor for those services, if the Engineer provides a written description of the proposed services and the proposed price (using rates approved in Attachment A), to the Mobility Authority before the services are provided and the Mobility Authority has provided to the Engineer a written approval for the services and the proposed price. If an approved subcontractor bills on an hourly rate, each invoice from the subcontractor submitted to the Mobility Authority for reimbursement must report the tasks performed by each billing person and the

amount of time spent performing the task. The Engineer may not charge a mark-up or commission on a subcontractor's invoice, and the Mobility Authority will not reimburse the Engineer in an amount that exceeds the price proposal from the subcontractor that was approved by the Mobility Authority.

- **F.** Non-compensable Time. Time spent by the Engineer's personnel or subcontractors in an administrative or supervisory capacity not related to the performance of the Services is not compensable and shall not be billed to the Mobility Authority. Time spent on work in excess of what would reasonably be considered appropriate under industry standards for the performance of such Services is not compensable, unless that additional time spent resulted from the Mobility Authority's delay in providing information, materials, feedback, or other necessary cooperation to the Engineer. The Mobility Authority will not pay any hourly compensation to the Engineer for Services or deliverables required due to an error, omission, or fault of the Engineer.
- G. Invoices and Records. The Engineer shall submit its monthly invoices certifying the fees charged and any reimbursable expenses for Services provided during the previous month, and shall also present a reconciliation of monthly invoices (and related estimates) to which the work relates. Each invoice shall be in such detail as is required by the Mobility Authority and, if the work is eligible for payment through a financial assistance agreement with the Texas Department of Transportation ("TxDOT"), in such detail as TxDOT may require, including a breakdown of Services provided on a project-by-project basis, together with other Services requested by the Mobility Authority, with the Engineer provided advance notice of such TxDOT requirements. Upon request of the Mobility Authority, the Engineer shall also submit certified time and expense records directly related to Services provided to the Mobility Authority, and copies of invoices that support invoiced fees and reimbursable expenses. All invoices must be consistent with the rates established by this Contract. Unless waived in writing by the Executive Director, no invoice may contain, and the Mobility Authority will not be required to pay, any charge for billable hours which is more than (90) days old at the time of invoicing.
- **H.** Effect of Payments. No payment by the Mobility Authority shall relieve the Engineer of its obligation to deliver timely the Services required under this Contract or a Work Authorization. If, prior to acceptance of any Service, product or other deliverable, the Mobility Authority determines that said Service, product or deliverable does not satisfy the requirements of this Contract (beyond mere creative differences), the Mobility Authority may reject same and require the Engineer to correct or cure same within a reasonable period of time and at no additional cost to the Mobility Authority.
- I. Time and place of payment. Upon receipt of an invoice that complies with all invoice requirements set forth in Article 3, the Mobility Authority shall make a good faith effort to pay the amount, which is due and payable within thirty (30) days, provided that if all or a portion of the Services reflected in the invoice are to be reimbursed by TxDOT through a financial assistance agreement between TxDOT and the Mobility Authority, the Mobility Authority shall make a good faith effort to pay such amounts within thirty (30) days of receipt of such payments from TxDOT. If the Mobility Authority disputes a request for payment by the Engineer, the Mobility Authority agrees to pay any undisputed portion of the invoice when due. Any such dispute must be detailed in writing within 30 days after the Mobility Authority's receipt of

the monthly invoice. The Engineer reserves the right to stop work under this Contract if payments are not timely made per the terms of this Contract.

J. Taxes. All payments to be made by the Mobility Authority to the Engineer pursuant to this Contract are inclusive of federal, state, or other taxes, if any, however designated, levied, or based. The Mobility Authority acknowledges and represents that it is a tax-exempt entity under Sections 151.309, et seq., of the Texas Tax Code. Title to any consumable items purchased by the Engineer in performing this Contract shall be deemed to have passed to the Mobility Authority at the time the Engineer takes possession or earlier, and such consumable items shall immediately be marked, labeled, or physically identified as the property of the Mobility Authority, to the extent practicable.

ARTICLE 3 PAYMENT REQUIREMENTS

- **A. Monthly Invoices.** The Engineer shall submit its monthly invoices and any reimbursable expenses for Services provided during the previous month. The invoice shall be submitted electronically in a form acceptable to the Mobility Authority. The Engineer is authorized to submit requests for payment no more frequently than monthly and no later than ninety (90) days after costs are incurred.
- **B.** Form of Invoices. The invoice shall show: (1) the Work Authorization number for each Work Authorization included in the billing; (2) the total amount earned to the date of submission; and (3) the amount due and payable as of the date of the current billing statement for each Work Authorization. The invoice shall indicate if the work has been completed or if the billing is for partial completion of the work. The invoice shall be substantially in a form provided or approved by the Mobility Authority.
- **C. HUB Forms.** The Engineer will be responsible for completing and submitting the HSP Progress Assessment Report (PAR) and Progress Compliance Form to the Mobility Authority by 5th of each month. The forms are included as Exhibits E, and F of Attachment B Work Authorization(s).
- **D.** Thirty Day Payments. Upon receipt of an invoice that complies with all invoice requirements set forth in this Article, the Mobility Authority shall make a good faith effort to pay the amount, which is due and payable within thirty (30) days, provided that if all or a portion of the Services reflected in the invoice are to be reimbursed by TxDOT through a financial assistance agreement between TxDOT and the Mobility Authority, the Mobility Authority shall make a good faith effort to pay such amounts within thirty (30) days of receipt of such payments from TxDOT.
- **E.** Withholding Payments. The Mobility Authority reserves the right to withhold payment of the Engineer's invoice in the event of any of the following: (1) if a dispute over the work or costs thereof is not resolved within a thirty (30) day period following receipt of the invoice; (2) pending verification of satisfactory work performed; or (3) if required reports (including third-party verifications, if any) are not received.

- **F. Invoice and Progress Report Submittal Process**. The protocol for invoice and progress report submittal, review, and approval will be as follows:
 - (1) A progress report shall be submitted to Mobility Authority at least once each calendar month;
 - (2) In the event that invoices are not submitted on a monthly basis, a <u>monthly</u> submittal of the progress report information will be required nevertheless;
 - (3) The Mobility Authority and/or the GEC (as defined in Article 18) will review the invoices for supporting documentation, compliance with the Contract, and consistency with the submitted progress report;
 - (4) The invoice will either be recommended for approval by Mobility Authority and/or GEC, or the Mobility Authority and/or GEC will return it to the Engineer for required correction; and
 - (5) Upon satisfactory review and approval of the invoice, the Mobility Authority will submit it to the Mobility Authority CFO for payment.

ARTICLE 4 WORK AUTHORIZATIONS

- **A.** Use. Services performed shall be in strict accordance with the scope, schedule, and budget set forth in each Work Authorization issued pursuant to this Contract, and no Services shall be performed which are not the subject of a validly issued Work Authorization. The Mobility Authority will issue Work Authorizations using the form attached as Attachment B to authorize all work under this Contract. No work shall begin on the activity until the Work Authorization is approved and fully executed. All work must be completed on or before the completion date specified in the Work Authorization.
- **B.** Contents. Each Work Authorization shall include: (1) types of Services to be performed and a full description of the work required to perform those Services (2) a full description of general administration tasks exclusive to that Work Authorization (3) a work schedule (including beginning and ending dates) with milestones; (4) the basis of payment whether cost plus fixed fee, unit cost, lump sum, or specified rate; (5) a Work Authorization budget as described in subsection C below; and (6) HUB Requirements. The Engineer is not to include additional Contract terms and conditions in the Work Authorization.
- C. Work Authorization Budget. A Work Authorization budget shall be prepared by the Engineer and shall set forth in detail the following: (1) the computation of the estimated cost of the work as described in the Work Authorization; (2) the estimated time (hours/days) required to complete the work using the fees set forth in Attachment A; (3) a work plan that includes a list of the work to be performed; and (4) a maximum cost (not-to-exceed) amount or unit or lump sum cost and the total cost or price of the Work Authorization.

- **D.** No Guaranteed Work. Work Authorizations will be issued at the sole discretion of the Mobility Authority. While it is the Mobility Authority's intent to issue Work Authorizations hereunder, the Engineer shall have no cause of action conditioned upon the lack or number of Work Authorizations issued.
- **E.** Incorporation into Contract. Each Work Authorization shall be signed by both parties and become a part of the Contract. No Work Authorization will waive the Mobility Authority's or the Engineer's responsibilities and obligations established in this Contract. The Engineer shall promptly notify the Mobility Authority of any event that will affect completion of the Work Authorization in accordance with the terms thereof.
- **F. Supplemental Work Authorizations.** Before additional work may be performed or additional costs incurred beyond those authorized in a Work Authorization, a change in a Work Authorization shall be enacted by a written Supplemental Work Authorization in the form identified and attached hereto as Attachment C. Supplemental Work Authorizations, if required, must be executed by both parties within the period of performance specified in the Work Authorization. The Engineer shall allow adequate time for review and approval of the Supplemental Work Authorization by the Mobility Authority.
 - (1) Notice. If the Engineer is of the opinion that any assigned work is beyond the scope of this Contract and constitutes additional work beyond the Services to be provided under this Contract, it shall promptly notify the Mobility Authority and submit written justification presenting the facts of the work and demonstrating how the work constitutes supplementary work.
 - (2) Changes in Scope. Changes that would modify the scope of the work authorized in a Work Authorization must be enacted by a written Supplemental Work Authorization (see Attachment C). If the change in scope affects the amount payable under the Work Authorization, the Engineer shall prepare a revised Work Authorization budget for the Mobility Authority's approval. The Mobility Authority shall analyze the proposed justification, work hour estimate and cost. Upon approval of the need, the Mobility Authority shall negotiate the Supplemental Agreement scope with the Engineer, and then process the final Supplemental, subject to final written approval by the Mobility Authority.
 - (3) Limitation of Liability. The Mobility Authority shall not be responsible for actions by the Engineer or any costs incurred by the Engineer relating to additional work not directly associated with or prior to the execution of a Supplemental Work Authorization.
- **G. Deliverables.** Upon satisfactory completion of the Work Authorization, the Engineer shall submit the deliverables as specified in the executed Work Authorization to the Mobility Authority for review and acceptance.

ARTICLE 5 SCHEDULE

- **A. Progress meetings.** As required and detailed in the Work Authorizations, the Engineer shall from time to time during the progress of the work confer with the Mobility Authority. The Engineer shall prepare and present such information as may be pertinent and necessary or as may be requested by the Mobility Authority in order to evaluate features of the work.
- **B.** Conferences. At the request of the Mobility Authority or the Engineer and as required and detailed in the Work Authorizations, conferences shall be provided at the Engineer's office, the office of the Mobility Authority, or at other locations designated by the Mobility Authority. These conferences shall also include evaluation of the Engineer's Services and work when requested by the Mobility Authority.
- **C. Reports.** The Engineer shall promptly advise the Mobility Authority in writing of events that have a significant impact upon the progress of a Work Authorization, including:
- (1) problems, delays, adverse conditions that will materially affect the ability to meet the time schedules and goals, or preclude the attainment of project work units by established time periods; this disclosure will be accompanied by a statement of the action taken or contemplated, and any Mobility Authority or federal assistance needed to resolve the situation; and
- (2) favorable developments or events that enable meeting the work schedule goals sooner than anticipated.
- **D.** Corrective Action. Should the Mobility Authority determine that the progress of work does not satisfy the milestone schedule set forth in a Work Authorization, the Mobility Authority shall review the work schedule with the Engineer to determine the nature of corrective action needed.
- **E.** More Time Needed. If the Engineer determines or reasonably anticipates that the work authorized in a Work Authorization cannot be completed within the work schedule contained therein, the Engineer shall promptly notify the Mobility Authority and shall follow the procedure set forth in the Work Authorization. The Mobility Authority may, at its sole discretion, modify the work schedule to incorporate an extension of time.

ARTICLE 6 SUSPENSION OF WORK AUTHORIZATION

A. Notice. Should the Mobility Authority desire to suspend a Work Authorization but not terminate the Contract, the Mobility Authority may verbally notify the Engineer followed by written confirmation, giving fifteen (15) days prior notice. Both parties may waive the fifteen (15) day notice requirement in writing.

- **B.** Reinstatement. A Work Authorization may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the Mobility Authority to resume the work. Both parties may waive the sixty (60) day notice in writing.
- **C. Limitation of Liability.** The Mobility Authority shall have no liability for work performed or costs incurred prior to the date authorized by the Mobility Authority to begin work, during periods when work is suspended, or after the completion of the Contract or Work Authorization.

ARTICLE 7 CHANGES IN WORK

- **A.** Work Previously Submitted as Satisfactory. If the Engineer has submitted work in accordance with the terms of this Contract and Work Authorization(s) but the Mobility Authority requests changes to the completed work or parts thereof which involve changes to the original scope of services or character of work under the Contract and Work Authorization(s), the Engineer shall make such revisions as requested and as directed by the Mobility Authority, provided the work is reflected in a Supplemental Work Authorization.
- **B.** Work Does Not Comply with Contract. If the Engineer submits work that does not comply with the terms of this Contract or Work Authorization(s), the Mobility Authority shall instruct the Engineer to make such revision as is necessary to bring the work into compliance with the Contract or Work Authorization(s). No additional compensation shall be paid for this work.
- **C. Errors/Omissions.** The Engineer shall make revisions to the work authorized in this Contract or Work Authorization(s) that are necessary to correct errors or omissions appearing therein, when required to do so by the Mobility Authority. No additional compensation shall be paid for this work.

ARTICLE 8 OWNERSHIP OF DATA

- **A. Work for Hire.** All services provided under this Contract are considered work for hire and, as such, all data, basic sketches, charts, calculations, plans, specifications, and other documents created or collected under the terms of this Contract are the property of the Mobility Authority.
- **B. Disposition of Documents.** All documents prepared by the Engineer and all documents furnished to the Engineer by the Mobility Authority shall be delivered to the Mobility Authority upon request by the Mobility Authority. The Engineer, at its own expense, may retain copies of such documents or any other data which it has furnished the Mobility Authority under this Contract, but further use of the data is subject to express written permission by the Mobility Authority.
- **C.** Release of Design Plan. The Engineer (1) will not release any roadway design plan created or collected under this Contract except to its subproviders as necessary to complete the Contract; (2) shall include a provision in all subcontracts which acknowledges the Mobility

Authority's ownership of the design plan and prohibits its use for any use other than the project identified in this Contract; and (3) is responsible for any improper use of the design plan by its employees, officers, or subproviders, including costs, damages, or other liability resulting from improper use. Neither the Engineer nor any subprovider may charge a fee for any portion of the design plan created by the Mobility Authority.

ARTICLE 9 PUBLIC INFORMATION AND CONFIDENTIALITY

- **A. Public Information.** The Mobility Authority will comply with Texas Government Code, Chapter 552, the Public Information Act, in the release of information produced under this Contract.
- **B.** Confidentiality. The Engineer shall not disclose information obtained from the Mobility Authority under this Contract without the express written consent of the Mobility Authority.

ARTICLE 10 PERSONNEL, EQUIPMENT AND MATERIAL

- **A. Engineer Resources.** The Engineer shall furnish and maintain quarters for the performance of all Services, in addition to providing adequate and sufficient personnel and equipment to perform the Services required under the Contract. The Engineer certifies that it presently has adequate qualified personnel in its employment for performance of the Services required under this Contract, or it will be able to obtain such personnel from sources other than the Mobility Authority.
- **B.** Removal of Contractor Employee. All employees of the Engineer assigned to this Contract shall have such knowledge and experience as will enable them to perform the duties assigned to them. The Mobility Authority may instruct the Engineer to remove any employee from association with work authorized in this Contract if, in the sole opinion of the Mobility Authority, the work of that employee does not comply with the terms of this Contract or if the conduct of that employee becomes detrimental to the work.
- **C. Replacement of Key Personnel.** The Engineer must notify the Mobility Authority in writing as soon as possible, but no later than three (3) business days after a project manager or other key personnel as specified in Attachment D is removed from association with this Contract, giving the reason for removal.
- **D.** Mobility Authority Approval of Replacement Personnel. The Engineer may not replace the project manager or key personnel, as designated in the applicable Work Authorization, without prior consent of the Mobility Authority. The Mobility Authority must be satisfied that the new project manager or other key personnel is qualified to provide the authorized services. If the Mobility Authority determines that the new project manager or key personnel is not acceptable, the Engineer may not use that person in that capacity and shall replace him or her with one satisfactory to the Mobility Authority within thirty (30) days.

- **E.** Ownership of Acquired Property. Except to the extent that a specific provision of this Contract states to the contrary, the Mobility Authority shall own all intellectual property acquired or developed under this Contract and all equipment purchased by the Engineer or its subcontractors under this Contract. All intellectual property and equipment owned by the Mobility Authority shall be delivered to the Mobility Authority when the Contract or applicable Work Authorization terminates, or when it is no longer needed for work performed under this Contract, whichever occurs first.
- **F. Field Office Facilities.** The Engineer will not be required to provide field office facilities.

ARTICLE 11 SUBCONTRACTING

- **A. Prior Approval.** The Engineer shall not assign, subcontract, or transfer any portion of professional services related to the work under this Contract unless specified in an executed Work Authorization or otherwise without first obtaining the prior written approval from the Mobility Authority. Request for approval should include a written description of the proposed services, and, using rates established in Attachment A, a proposed price.
- **B. HUB Compliance.** The Engineer's subcontracting program shall comply with the requirements of Exhibits E, and F of Attachment B Work Authorization(s).
- **C.** Required Provisions. All subcontracts for professional services shall include the provisions included in this Contract and any provisions required by law. The Engineer is authorized to pay subcontractors in accordance with the terms of the subcontract.
- **D.** Engineer Responsibilities. No subcontract shall relieve the Engineer of any of its responsibilities under this Contract and of any liability for work performed under this Contract, even if performed by a subcontractor or other third party performing work for or on behalf of the Engineer.
- **E.** Invoice Approval and Processing. All subcontractors shall prepare and submit their invoices on the same billing cycle and format as the Engineer (so as to be included in invoices submitted by the Engineer), and in the event that the cycles are not concurrent, a detailed explanation will be submitted to the Mobility Authority.

ARTICLE 12 INSPECTION OF WORK

A. Review Rights. Under this Contract, the Mobility Authority, TxDOT, and the U. S. Department of Transportation, and any authorized representative of the Mobility Authority, TxDOT, or the U.S. Department of Transportation, shall have the right at all reasonable times to

review or otherwise evaluate the work performed hereunder and the premises in which it is being performed.

B. Reasonable Access. If any review or evaluation is made on the premises of the Engineer or a subcontractor under this Article, the Engineer shall provide and require its subcontractors to provide all reasonable facilities and assistance for the safety and convenience of the persons performing the review in the performance of their duties.

ARTICLE 13 SUBMISSION OF REPORTS

All applicable study reports shall be submitted in preliminary form for approval by the Mobility Authority before a final report is issued. The Mobility Authority's comments on the Engineer's preliminary report must be addressed in the final report.

ARTICLE 14 VIOLATION OF CONTRACT TERMS

- **A.** Increased Costs. Violation of contract terms, breach of contract, or default by the Engineer shall be grounds for termination of the Contract, and any increased or additional cost incurred by the Mobility Authority arising from the Engineer's default, breach of contract or violation of contract terms shall be paid by the Engineer.
- **B.** Remedies. This Contract shall not be considered as specifying the exclusive remedy for any default, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.
- C. Excusable Delays. Except with respect to defaults of subcontractors, the Engineer shall not be in default by reason of any failure in performance of this Contract in accordance with its terms (including any failure to progress in the performance of the work) if such failure arises out of causes beyond the control and without the default or negligence of the Engineer. Such causes may include, but are not restricted to, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.

ARTICLE 15 TERMINATION

- **A. Termination.** The Contract may be terminated by any of the following conditions:
 - (1) by mutual agreement and consent, in writing from both parties;
- (2) by the Mobility Authority by notice in writing to the Engineer as a consequence of failure by the Engineer to perform the Services set forth herein in a satisfactory manner or if the Engineer violates the provisions of Article 22, Gratuities, or Exhibit E to Attachment B, HUB Requirements;

- (3) by either party, upon the failure of the other party to fulfill its obligations as set forth herein, following thirty (30) days written notice and opportunity to cure;
- (4) by the Mobility Authority for its convenience and in its sole discretion, not subject to the consent of the Engineer, by giving thirty (30) days written notice of termination to the Engineer; or
 - (5) by satisfactory completion of all services and obligations described herein.
- **B. Measurement.** Should the Mobility Authority terminate this Contract as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the Engineer. In determining the value of the work performed by the Engineer prior to termination, the Mobility Authority shall be the sole judge. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the Mobility Authority terminate this Contract under paragraph A (3) or (4) above, the Engineer shall not incur costs during the thirty-day notice period in excess of the amount incurred during the preceding thirty (30) days and only as necessary to terminate the work in progress.
- C. Value of Completed Work. If the Engineer defaults in the performance of this Contract or if the Mobility Authority terminates this Contract for fault on the part of the Engineer, the Mobility Authority will give consideration to the following when calculating the value of the completed work: (1) the actual costs incurred (not to exceed the rates set forth in the applicable Work Authorization) by the Engineer in performing the work to the date of default; (2) the amount of work required which was satisfactorily completed to date of default; (3) the value of the work which is usable to the Mobility Authority; (4) the cost to the Mobility Authority of employing another firm to complete the required work; (5) the time required to employ another firm to complete the work; (6) delays in opening a revenue generating project and costs (including lost revenues) resulting therefrom; and (7) other factors which affect the value to the Mobility Authority of the work performed.
- **D.** Calculation of Payments. The Mobility Authority shall use the fee structure established by the applicable Work Authorization in determining the value of the work performed up to the time of termination. In the event that a cost plus fixed fee basis of payment is utilized in a Work Authorization, any portion of the fixed fee not previously paid in the partial payments shall not be included in the final payment.
- **E.** Surviving Requirements. The termination of this Contract and payment of an amount in settlement as prescribed above shall extinguish the rights, duties, and obligations of the Mobility Authority and the Engineer under this Contract, except for those provisions that establish responsibilities that extend beyond the Contract period, including without limitation the provisions of Article 17.
- **F.** Payment of Additional Costs. If termination of this Contract is due to the failure of the Engineer to fulfill its Contract obligations, the Mobility Authority may take over the project

and prosecute the work to completion, and the Engineer shall be liable to the Mobility Authority for any damages to the Mobility Authority.

ARTICLE 16 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 Contract, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, nondiscrimination, licensing laws and regulations, the Mobility Authority's enabling legislation (Chapter 370 of the Texas Transportation Code), and all amendments and modifications to any of the foregoing, if any. When required, the Engineer shall furnish the Mobility Authority with satisfactory proof of its compliance therewith.

ARTICLE 17 INDEMNIFICATION

THE ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS THE MOBILITY AUTHORITY AND ITS OFFICERS, DIRECTORS, EMPLOYEES, ENGINEERS, AND AGENTS (WHICH, FOR THE PURPOSES OF THIS AGREEMENT, SHALL THE MOBILITY AUTHORITY'S GEC, OUTSIDE COUNSEL, BOND COUNSEL, FINANCIAL ADVISORS, TRAFFIC AND REVENUE ENGINEERS, TOLL OPERATIONS/COLLECTIONS FIRMS, AND UNDERWRITERS) FROM ANY CLAIMS, COSTS, OR LIABILITIES OF ANY TYPE OR NATURE AND BY OR TO ANY PERSONS WHOMSOEVER, TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS, ERRORS, OR OMISSIONS OF THE ENGINEER OR ITS OFFICERS, DIRECTORS, EMPLOYEES, **AND AGENTS** WITH RESPECT TO THE **ENGINEER'S** PERFORMANCE OF THE WORK TO BE ACCOMPLISHED UNDER THIS AGREEMENT. IN SUCH EVENT, THE ENGINEER SHALL ALSO INDEMNIFY AND HOLD HARMLESS THE MOBILITY AUTHORITY, ITS OFFICERS, DIRECTORS, EMPLOYEES, ENGINEERS, AND AGENTS (AS DEFINED ABOVE) FROM ANY AND ALL REASONABLE AND NECESSARY EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, INCURRED BY THE MOBILITY AUTHORITY IN LITIGATING OR OTHERWISE RESISTING SAID CLAIMS, COSTS OR LIABILITIES. IN THE EVENT THE MOBILITY AUTHORITY, ITS OFFICERS, DIRECTORS, EMPLOYEES, ENGINEERS, AND AGENTS (AS DEFINED ABOVE), IS/ARE FOUND TO BE PARTIALLY AT FAULT, THE ENGINEER SHALL, NEVERTHELESS, INDEMNIFY THE MOBILITY AUTHORITY FROM AND AGAINST THE PERCENTAGE OF FAULT OFFICERS, DIRECTORS. ATTRIBUTABLE TO THE ENGINEER OR ITS EMPLOYEES, AND AGENTS OR TO THEIR CONDUCT.

ARTICLE 18 ROLE OF GENERAL ENGINEERING CONSULTANT

The Mobility Authority will utilize a General Engineering Consultant ("GEC") to assist in its management of this Contract. The GEC is an independent contractor and is authorized by the Mobility Authority to provide the management and technical direction for this Contract on behalf of the Mobility Authority. All the technical and administrative provisions of the Contract shall be managed by the GEC, and the Engineer shall comply with all of the GEC's directives that are within the purview of the Contract. Decisions concerning Contract amendments and adjustments, such as time extensions and Supplemental Work Authorizations, shall be made by the Mobility Authority; however, requests for such amendments or adjustments shall be made through the GEC, who shall forward such requests to the Mobility Authority with its comments and recommendations.

Should any dispute arise between the General Engineering Consultant and the Engineer, concerning the conduct of this Contract, either party may request a resolution of said dispute by the Executive Director of the Mobility Authority or his designee, whose decision shall be final. The parties shall first try to resolve the dispute at the lowest level practical. In the event that an agreement cannot be reached, the Engineer may schedule a meeting with the GEC Program Manager. If an agreement cannot be reached at this level, then a meeting will be scheduled with the Mobility Authority and the GEC Program Manager, so the Engineer can present its case. The Mobility Authority's decision in the matter will be final. In no case will the Engineer go directly to the Mobility Authority with a dispute unless the Engineer believes that the GEC is violating, or is directing the Engineer to take an action which would violate, any laws or similar provisions described in Article 16 or any ethical obligations owed to the Mobility Authority.

ARTICLE 19 ENGINEER'S RESPONSIBILITY

- **A.** Accuracy. The Engineer shall have total responsibility for the accuracy and completeness of the documents prepared under this Contract and shall check all such material accordingly.
- **B.** Errors and Omissions. The Engineer's responsibility for all questions arising from errors and/or omissions will be determined by the Mobility Authority. The Engineer shall not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the project has been completed. In the event that the Mobility Authority discovers a possible error or omission, the Mobility Authority shall notify the Engineer and seek to involve the Engineer in determining the most effective solution with respect to time and cost, provided that the Mobility Authority shall ultimately determine the solution that is chosen.
- **C. Seal.** The responsible Engineer shall sign, seal and date all appropriate engineering submissions to the Mobility Authority in accordance with the Texas Engineering Practice Act and the rules of the Texas Board of Professional Engineers.
- **D.** Resealing of Documents. Once the work has been sealed and accepted by the Mobility Authority, the Mobility Authority, as the owner, will notify the Engineer, in writing, of the possibility that a Mobility Authority engineer, as a second engineer, may find it necessary to

alter, complete, correct, revise or add to the work. If necessary, the second engineer will affix his seal to any work altered, completed, corrected, revised or added. The second engineer will then become responsible for any alterations, additions or deletions to the original design including any effect or impacts of those changes on the original engineer's design.

ARTICLE 20 NONCOLLUSION

- **A. Warranty.** The Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Engineer, to solicit or secure this Contract and that it has not paid or agreed to pay any company or Engineer any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract.
- **B. Liability.** For breach or violation of this warranty, the Mobility Authority shall have the right to annul this Contract without liability or, in its discretion, to deduct from the Contract compensation, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 21 INSURANCE

The Engineer and all subcontractors shall furnish the Mobility Authority a properly completed Certificate of Insurance approved by the Mobility Authority prior to beginning work under the Contract and shall maintain such insurance through the Contract period. The Engineer shall provide proof of insurance (and the Professional Liability Insurance discussed herein) in a form reasonably acceptable by the Mobility Authority. The Engineer certifies that it has and will maintain insurance coverages as follows:

- **A. Workers' Compensation Insurance.** In accordance with the laws of the State of Texas and employer's liability coverage with a limit of not less than \$1,000,000. This policy shall be endorsed to include a waiver of subrogation in favor of the Mobility Authority.
- **B.** Comprehensive General Liability Insurance. With limits not less than \$1,000,000 for bodily injury, including those resulting in death, and \$1,000,000 for property damage on account of any one occurrence, with an aggregate limit of \$1,000,000.
- C. Comprehensive Automobile Liability Insurance. Applying to owned, non-owned, and hired automobiles in an amount not less than \$1,000,000 for bodily injury, including death, to any one person, and \$1,000,000 on account on any one occurrence, and \$1,000,000 for property damage on account of any one occurrence. This policy shall not contain any limitation with respect to a radius of operation for any vehicle covered and shall not exclude from the coverage of the policy any vehicle to be used in connection with the performance of the Engineer's obligations under this Agreement.

- **D.** Excess Liability Insurance. In an amount of \$5,000,000 per occurrence and aggregate.
- **E.** Valuable Papers Insurance. In an amount sufficient to assure the full restoration of any plans, drawings, field notes, logs, test reports, diaries, or other similar data or materials relating to the services provided under this Agreement in the event of their loss or destruction, until such time as the work has been delivered to the Mobility Authority.
- F. Architects and/or Engineers Professional Liability insurance. Engineer shall provide and maintain professional liability coverage, with limits not less than \$5,000,000 per claim and \$5,000,000 aggregate. The professional liability coverage shall protect against any negligent act, error or omission arising out of design or engineering activities, including environmental related activities, with respect to the project, including coverage for negligent acts, errors or omissions by any member of the Engineer and its subcontractors and subconsultants (including, but not limited to design subcontractors and subconsultants) of any tier. The policy must provide that coverage extends a minimum of three (3) years beyond the Engineer's completion of the services. This policy shall be endorsed to include a waiver of subrogation in favor of the Mobility Authority.
- **G. General for All Insurance.** The Engineer shall promptly, upon execution of this Agreement, furnish certificates of insurance to the Mobility Authority indicating compliance with the above requirements. Certificates shall indicate the name of the insured, the name of the insurance company, the name of the agency/agent, the policy number, the term of coverage, and the limits of coverage.

All policies are to be written through companies (a) authorized to transact that class of insurance in the State of Texas; (b) rated (i), with respect to the companies providing the insurance under subarticles 21.a. through d., above, by A. M. Best Company as "A-X" or better (or the equivalent rating by another nationally recognized rating service) and (ii) with respect to the company providing the insurance under subarticle 21.e., a rating by A. M. Best Company or similar rating service satisfactory to the Mobility Authority and/or its insurance consultant; and (c) otherwise acceptable to the Mobility Authority.

All policies are to be written through companies authorized to transact that class of insurance in the State of Texas. Such insurance shall be maintained in full force and effect during the life of this Agreement or for a longer term as may be otherwise provided for hereunder. Insurance furnished under subarticles 21.b., c., and d., above, shall name the Mobility Authority as additional insured and shall protect the Mobility Authority, its officers, employees, and directors, agents, and representatives from claims for damages for bodily injury and death and for damages to property arising in any manner from the negligent or willful acts or failures to act by the Engineer, its officers, employees, directors, agents, and representatives in the performance of the services rendered under this Agreement. Certificates shall also indicate that the contractual liability assumed in Article 17, above, is included.

The insurance carrier shall include in each of the insurance policies required under subsections 21.a., b., c., d., e., and f., the following statement: "This policy will not be canceled or materially changed during the period of coverage without at least thirty (30) days prior written

notice addressed to the Central Texas Regional Mobility Authority, 3300 N. IH-35, Suite 300, Austin, Texas 78705, Attn: Executive Director"

H. Subproviders. In the event a subprovider selected by the Engineer to perform work associated with this Contract is unable to secure insurance coverage in the amounts set forth in subarticles 21.b., d., and f. above, Engineer may provide to the Mobility Authority an explanation of coverages that a subprovider does possess, why those coverages are adequate to cover the potential exposure for the work to be performed by the subprovider, and an acknowledgement that the Engineer remains liable for the work performed under the contract, including that performed by the subcprovider. The Mobility Authority may decide, in is sole discretion, whether to accept the coverages available to the subprovider

ARTICLE 22 GRATUITIES

- **A.** Employees Not to Benefit. Mobility Authority policy mandates that the director, employee or agent of the Mobility Authority shall not accept any gift, favor, or service that might reasonably tend to influence the director, employee or agent in making of procurement decisions. The only exceptions allowed are ordinary business lunches and items that have received the advance written approval of the Executive Director of the Mobility Authority.
- **B.** Liability. Any person doing business with or who reasonably speaking may do business with the Mobility Authority under this Contract may not make any offer of benefits, gifts or favors to Mobility Authority employees, except as mentioned above. Failure on the part of the Engineer to adhere to this policy may result in the termination of this Contract.

ARTICLE 23 HISTORICALLY UNDERUTILIZED BUSINESS REQUIREMENTS

The Engineer agrees to comply with the HUB requirements and reporting guidelines set forth in Exhibits E, and F of Attachment B - Work Authorization(s). The HUB Goal established for this project is 23.7%. The Engineer also agrees to comply with the HUB subcontracting plan that was included in the response that the Engineer submitted to the Mobility Authority's Request for Qualifications.

ARTICLE 24 CERTIFICATE OF INTERESTED PARTIES (FORM 1295)

The Engineer must comply with the Certificate of Interested Parties (Form 1295) adopted by the Texas Legislature as House Bill 1295, which added section 2252.908 of the Government Code, available for review at the Texas Ethics Commission website:

https://www.ethics.state.tx.us/tec/1295-Info.htm

The Engineer, after award, is required to complete and submit Form 1295 (attached as Exhibit B) if the Engineer has either of the following contracts with a governmental entity or state agency starting as of January 1, 2016:

- 1) Requires an actions or vote by the governing body of the entity or agency before the contract may be signed; or
- 2) Has a value of at least \$1 million.

ARTICLE 25 MAINTENANCE, RETENTION AND AUDIT OF RECORDS

- **A. Retention Period.** The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred and services provided (hereinafter called the Records). The Engineer shall make the Records available at its office during the Contract period and for four years from the date of final payment under this Contract, until completion of all audits, or until pending litigation has been completely and fully resolved, whichever occurs last.
- **B.** Availability. The Mobility Authority shall have the exclusive right to examine the books and records of the Engineer for the purpose of checking the amount of work performed by the Engineer. The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and shall make such materials available at its office during the contract period and for four (4) years from the date of final payment under this Contract or until pending litigation has been completely and fully resolved, whichever occurs last. The Mobility Authority or any of its duly authorized representatives, the Texas Department of Transportation ("TxDOT"), the Federal Highway Administration ("FHWA"), the United States Department of Transportation Office of Inspector General and the Comptroller General shall have access to any and all books, documents, papers and records of the Engineer which are directly pertinent to this Contract for the purpose of making audits, examinations, excerpts and transcriptions.

ARTICLE 26 CIVIL RIGHTS COMPLIANCE

- **A.** Compliance with Regulations. The Engineer shall comply with the regulations of the Department of Transportation, Title 49, Code of Federal Regulations, Parts 21, 24, 26 and 60 as they relate to nondiscrimination; also Executive Order 11246 titled Equal Employment Opportunity as amended by Executive Order 11375.
- **B.** Nondiscrimination. The Engineer, with regard to the work performed by it during the Contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment.
- C. Solicitations for Subcontracts, Including Procurement of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurement of materials or leases of

equipment, each potential subcontractor or supplier shall be notified by the Engineer of the Engineer's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.

- **D.** Information and Reports. The Engineer shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the Mobility Authority or the FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of the Engineer is in the exclusive possession of another who fails or refuses to furnish this information, the Engineer shall so certify to the Mobility Authority or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.
- **E.** Sanctions for Noncompliance. In the event of the Engineer's noncompliance with the nondiscrimination provisions of this Contract, the Mobility Authority shall impose such Contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
- (1) withholding of payments to the Engineer under the Contract until the Engineer complies; and/or
 - (2) cancellation, termination, or suspension of the Contract, in whole or in part.
- F. Incorporation of Provisions: The Engineer shall include the provisions of Article 26A through E in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The IECM shall take such action with respect to any subcontract or procurement as the Mobility Authority or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance provided, however, that in the event the IECM becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the IECM may request the Mobility Authority to enter into such litigation to protect the interests of the Mobility Authority; and, in addition, the IECM may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE 27 PATENT RIGHTS

The Mobility Authority and the U. S. Department of Transportation shall have the royalty free, nonexclusive and irrevocable right to use and to authorize others to use any patents developed by the Engineer under this Contract.

ARTICLE 28 DISPUTES

- **A. Disputes Not Related to Contract Services.** 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 authorized herein.
- **B. Disputes Concerning Work or Cost.** The Executive Director of the Mobility Authority shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Contract, and his decision upon all claims, questions and disputes shall be final. The Engineer shall comply with the provisions of Article 18 in proceeding with such disputes.

ARTICLE 29 SUCCESSORS AND ASSIGNS

The Engineer and the Mobility Authority do each hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Contract and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Contract. The Engineer shall not assign, subcontract, or transfer its interest in this Contract without the prior written consent of the Mobility Authority.

ARTICLE 30 SEVERABILITY

In the event any one or more of the provisions contained in this Contract 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 Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

ARTICLE 31 PRIOR CONTRACTS SUPERSEDED

This Contract, including all attachments, constitutes the sole agreement of the parties hereto for the services authorized herein and supersedes any prior understandings or written or oral contracts between the parties respecting the subject matter defined herein.

ARTICLE 32 CONFLICT OF INTEREST

The undersigned Engineer represents that such firm has no conflict of interest that would in any way interfere with its or its employees' performance of Services for the Mobility Authority or which in any way conflicts with the interests of the Mobility Authority. The Mobility Authority shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the Mobility Authority's interests.

ARTICLE 33 ENTIRETY OF AGREEMENT

This writing, including attachments and addenda, if any, embodies the entire agreement and understanding between the parties hereto, and there are no agreements and understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby. No alteration, change or modification of the terms of the Contract shall be valid unless made in writing signed by both parties hereto.

ARTICLE 34 SIGNATORY WARRANTY

The undersigned signatory for the Engineer hereby represents and warrants that he or she is an officer of the organization for which he or she has executed this Contract and that he or she has full and complete Mobility Authority authorization to enter into this Contract on behalf of the firm. These representations and warranties are made for the purpose of inducing the Mobility Authority to enter into this Contract.

ARTICLE 35 NOTICES

A notice, demand, request, report, and other communication required or permitted under this Contract, or which any party may desire to give, shall be in writing and shall be deemed to have been given on the sooner to occur of (i) receipt by the party to whom the notice is hand-delivered, with a written receipt of notice provided by the receiving party, or (ii) two days after deposit in a regularly maintained express mail receptacle of the United States Postal Service, postage prepaid, or registered or certified mail, return receipt requested, express mail delivery, addressed to such party at their address set forth below, or to such other address as a party may from time to time designate under this article, or (iii) receipt of an electronic mail transmission (attaching scanned documents in a format such as .pdf or .tif) for which confirmation of receipt by the other party has been obtained by the sending party:

In the case of the Engineer:
Jacobs Engineering Group Inc.
2705 BEE CAVE ROAD SUITE 300
Austin, TX 78746
In the case of the Mobility Authority:
Executive Director
Central Texas Regional Mobility Authority
3300 North IH 35, Suite 300
Austin, TX 78705

with a copy to:

Director of Engineering Central Texas Regional Mobility Authority 3300 North IH 35, Suite 300

Austin, TX 78705

A party may change the information provided in this article for notification purposes by providing notice to the other party of the new information and the effective date of the change.

ARTICLE 36 BUSINESS DAYS AND DAYS

For purposes of this Contract, "business days" shall mean any day the Mobility Authority is open for business and "days" shall mean calendar days.

ARTICLE 37 INCORPORATION OF PROVISIONS

Attachments A through D are attached hereto and incorporated into this Contract as if fully set forth herein.

ARTICLE 38 PRIORITY OF DOCUMENTS/ORDER OF PRECEDENCE

This Contract, and each of the Attachments (together, the "Contract Documents"), are an essential part of the agreement between the Mobility Authority and the Engineer, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are intended to be complementary and to describe and provide for a complete Contract. In the event of any conflict among the Contract Documents or between the Contract Documents and other documents, the order of precedence shall be as set forth below:

- A. Supplemental Work Authorizations;
- B. Work Authorizations;
- C. Contract Amendments;
- D. This Contract.
- E. The Request for Qualifications
- F. The Engineer's Response to the Request for Qualifications.

Additional details and more stringent requirements contained in a lower priority document will control unless the requirements of the lower priority document present an actual conflict with the requirements of the higher level document. Notwithstanding the order of precedence among Contract Documents set forth in this Article 36, in the event of a conflict within a Contract Document or set of Contract Documents with the same order of priority (including within documents referenced therein), the Mobility Authority shall have the right to determine, in its sole discretion, which provision applies.

IN WITNESS WHEREOF, the Mobility Authority and the Engineer have executed this Contract in duplicate.

THE ENGINEER JACOBS ENGINEERING GROUP INC.	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
(Signature)	(Signature)
	Mike Heiligenstein_
(Printed Name)	E
(Title)	Executive Director
(Date)	(Date)
Attachments to Contract for Construc	etion Engineering & Inspection Services

Attachments	Title
A	Rate Schedule
В	Work Authorization
С	Supplemental Work Authorization
D	List of Key Personnel

ATTACHMENT A

RATE SCHEDULE

ATTACHMENT B

WORK AUTHORIZATION WORK AUTHORIZATION NO. 1 CONTRACT FOR CONSTRUCTION ENGINEERING & INSPECTION SERVICES

for Construction Engineering and Inspection Serv	nade pursuant to the terms and conditions of Article vices (the Contract) entered into by and between the hority) and Jacobs Engineering Group Inc. (the	ne Central Texas
the project description attached hereto in Exhibit l	nstruction Engineering and Inspection services in B and made a part of this Work Authorization. The ll as the work schedule are further detailed in Exhibitory Authorization.	e responsibilities
Engineer's estimated Work Authorization costs in	e under this Work Authorization is \$\frac{\\$}{2}\$ our basis using hourly billing rates. This amount is neluded in Exhibit D, Fee Schedule/Budget, which articipation shall be tracked and documented as det	n is attached and
PART III. Payment to the Engineer for th in accordance with the appropriate sections of the	te services established under this Work Authorization Contract.	on shall be made
	all become effective on the date of final acceptance work, unless extended by a supplemental Work	-
PART V . This Work Authorization does not the Contract.	not waive the parties' responsibilities and obligation	s provided under
IN WITNESS WHEREOF, this Work accepted and acknowledged below.	Authorization is executed in duplicate counterp	arts and hereby
THE ENGINEER	CENTRAL TEXAS REGIONAL MOBIL AUTHORITY	JTY
(Signature)	(Signature)	

File: CTRMA CEI Agmt Revised 08/12/16

(Title)

(Date)

(Printed Name)

Mike Heiligenstein

Executive Director

(Date)

LIST OF EXHIBITS TO ATTACHMENT B, WORK AUTHORIZATION

Exhibits	Title
A	Services to Be Provided by the Mobility Authority
В	Services to Be Provided by the Engineer
С	Work Schedule
D	Fee Schedule/Budget
Е	Historically Underutilized Business (HUB) for State Funded Professional or
	Technical Services Contracts
F	HUB Participation Forms (F-1 through F-4) – See Exhibit E Instructions
G	Certificate of Interested Parties (Form 1295)

EXHIBIT A

SERVICES TO BE PROVIDED BY THE MOBILITY AUTHORITY

The Mobility Authority shall perform and provide the following in a timely manner so as not to delay the Services to be provided by the Engineer:

- 1. Authorize the Engineer in writing to proceed.
- 2. Render reviews, decisions and approvals as promptly as necessary to allow for the expeditious performance of the Services to be provided by the Engineer.
- 3. Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed-upon work schedule.
- 4. Maintain the Project's Website.
- 5. Provide the Engineer with relevant data available to the Mobility Authority related to people, agencies and organizations interested in the proposed project.

EXHIBIT B

SERVICES TO BE PROVIDED BY THE ENGINEER

Consulting and professional services provided by the Engineer include, but are not limited to, providing and maintaining construction engineering, inspection, survey and materials testing staff at the field office supplied by the Contractor team (the "Contractor"), to oversee, review and document construction activities performed by the Contractor. Scheduling of activities below shall conform to established Mobility Authority, TxDOT and/or other required review and comment periods for each milestone of the Project.

The Engineer shall participate as part of the project management team and work at the direction and supervision of the Mobility Authority and its General Engineering Consultant (GEC) to provide the Services. The Mobility Authority expects the Engineer to work cooperatively and collaboratively with the Independent Environmental Compliance Manager and in assisting the GEC throughout all aspects and phases of construction operations and in its dealings with the Contractor, suppliers, subcontractors, engineers, legal counsel, accountants, consultants, government entities, utilities, property owners, and the general public. The Engineer is expected to coordinate with the Authority's Public Involvement team, as necessary, in the Mobility Authority's dealings with the general public, abutting property owners, and interested advocacy groups. The Engineer shall participate in training to ensure compliance with environmental, health, and safety requirements.

The Engineer shall lead construction meetings with the Contractor and maintain the Mobility Authority's electronic document management system. The Engineer shall report to the GEC and staff, such as office engineer and record keeper, and keep the GEC informed of the Contractor's operations in the field, especially issues that would affect safety, quality, schedule, and potential construction disputes. The Engineer has the authority to stop construction activity in response to emerging life safety issue. The Engineer shall also be responsible for coordinating with the Materials Testing Consultant (MTC) on materials related items (i.e. scheduling materials tests, reporting and resolving materials issues, etc.).

The Engineer shall not be responsible for providing inspections of tolling equipment (including ITS elements and lightning protection), utilities, HAZMAT mitigation or environmental/Storm Water Protection Pollution Prevention Plans (SWP3). These services will be provided by the GEC.

The Engineer shall not control or direct the construction under the construction contract. Construction engineering, inspections, survey checks, and material testing operations performed by the Engineer shall not relieve the Contractor of sole responsibility for the means and methods of construction, or for health or safety precautions in connection with the work under the construction contract. The Contractor shall remain responsible for design related Services.

The Engineer should be aware that the time frames noted herein are tentative and subject to change. The Engineer shall remain available as long as the services are required by the Mobility Authority, unless the agreement is terminated as described therein.

The Services to be provided by the selected Engineer include, without limitation, the following key elements:

A. General Requirements

- 1) Provide all labor, equipment, tools, and incidentals to perform the Services.
- 2) Provide all Personal Protective Equipment (PPE), as necessary in performance of Services. PPE shall meet all current standards set by OSHA and any additional project specific requirements at the direction of the Mobility Authority.
- 3) Provide vehicles clearly displaying company logos, mobile phones, and computer equipment system (i.e. laptop, computers and/or tablets) capable of performing the Services.
- 4) Services shall include online entry of documents into the Mobility Authority's document control system. The Mobility Authority shall provide access to the project document control system. The Engineer shall become familiar with the operation of this system, as needed, and respect the confidentiality of all information provided to and available on this system.
- 5) Assist in the resolution of construction issues and conflicts and provide timely data to the Mobility Authority and the Contractor.
- 6) Perform the Services described in this agreement as needed before, during, and after the construction of improvements.

B. Construction Engineering

- 1) Provide quality control and assurance oversight for the construction of the project through construction engineering and management in accordance with the plans and specifications, in collaboration with the Mobility Authority. Included with this task shall be the following responsibilities:
 - a. Establish and maintain the Project Field Office operation within the Contractor-provided facility; including the purchase, installation and maintenance of IT equipment; leasing and maintenance of project vehicles; and any additional expenses required by the Project.
 - b. Review the Contractor's plan for construction Quality Control to be used in the field.
 - c. Maintain project diary and associated required documentation.
 - d. Document pre-Project conditions via still photography and video.
 - e. Coordinate review of requests for information, shop drawings, and submittals as submitted by the Contractor for concurrence with contract documents as required by the Project design and specifications.

2) Project Document Control Oversight

- a. Maintain and retain project files for the duration of the Project on the Mobility Authority's document control system.
- b. Maintain the tracking database for correspondence, transmittals, requests for information, meeting minutes, action items, submittals, Inspector daily reports, project diary, project schedule, change orders, pay estimates, lien waivers, shop drawings, working drawings, erection drawings, catalog cut sheets, mix designs, non-conformance reports, payment certifications,

- Insurance and Bonds, material test data, schedules, audits, related technical data, and issues associated with the Project.
- c. Assign identification coding to incoming and outgoing project related documentation and perform entry into the Mobility Authority's document control system.
- d. Prepare, manage, record, distribute and archive documentation of project activities, progress, and related communications.
- e. Log and track requests for information, submittals, and deliverables.
- f. Perform retrieval of documents as a result of Public Information Act requests.
- g. Provide mail services for the Project (US, Priority, Courier, Internal and External).

3) Project Scheduling

a. Review, analyze and report on the Contractor's progress and upcoming milestones on a monthly basis to the Mobility Authority.

4) Change Order Processing and Management

- a. Provide review of Change Orders on the Project and coordinate with external agencies as required.
- b. Review Change Order cost estimates prepared by the Contractor, evaluate Contractor claims for extension of time, and provide comments to the Mobility Authority.
- c. Maintain, log and retain all documents associated with Change Orders.
- d. Assist in review of Contractor initiated alternative design or substitution proposals. The Engineer(s) of Record shall be responsible for the design and approval of any design alternative, alteration or revision.

5) Requests for Information (RFI) Processing and Management

- a. Review and facilitate responses to RFIs on the Project.
- b. Maintain, log and retain all documents associated with RFIs.

6) Shop Drawing / Submittal Processing and Management

- a. Coordinate review shop drawings, erection drawings, working drawings, samples, material and product certifications, and catalog cuts and brochure submittals with the Mobility Authority and the Design Engineer. The Engineer of Record shall be responsible for final approval.
- b. Maintain, log and retain all documents associated with shop drawings.

7) Contractor Pay Requests

a. Review and provide required certifications to the Mobility Authority for processing of the Contractor's partial and final pay requests.

b. Evaluate the pay requests for proper documentation and signature by the Contractor in accordance with the requirements of the Contract and to ensure that it accurately reflects monies due for acceptable work completed.

8) Utility Coordination

- a. Provide oversight review of locations of new utility poles, meters, and other equipment associated with the establishment of new utilities in the project area.
- b. Participate in meetings, as necessary, in the utility coordination process.
- c. Coordinate with the contractor to resolve matters relating to schedules, utility identification, design changes, and conflict resolution.

9) Provide Technical Advice

- a. Advise and assist the Mobility Authority on matters of construction related to interpretation of design details, construction techniques and procedures, specifications, standard construction details, and construction plans prepared by the Design Engineer(s).
- b. Seek clarifications from the Design Engineer(s) on the intent reflected in the designs, plans, and specifications. The Engineer of Record shall remain responsible for design related services.

10) Program Reporting

- a. Prepare and issue monthly status reports on the Project's construction status which shall document any issues, delays encountered, and corrective actions as necessary.
- b. Provide a monthly update to the Mobility Authority on key milestones accomplished during the preceding month, meetings and key activities for the upcoming month, and identify outstanding issues requiring resolution.
- c. Track, monitor, and report on contracts and budgets for the Construction Engineering and Inspection (CE&I) Team.
- d. Track, monitor, and prepare reports on HUB utilization for the CE&I Team, and SBE programs for other program contracts including construction contracts.

C. Construction Oversight Inspections

- 1) The Engineer's inspection team (hereinafter referred to as Inspectors) shall perform their work in a manner that minimizes disruption to the Contractor's operations and schedule. The Inspectors shall not hinder work that complies with the approved contract documents beyond that required for normal inspection and at pre-defined hold points. Inspectors shall comply with all applicable state and local laws and prepare applicable inspection reports and forms.
- 2) Perform and report construction inspections of all operations related to structures, roadway, drainage, traffic (i.e. signs, striping, signals, illumination), and maintenance of traffic to determine whether the Contractor's work, including sequencing of work, is conducted in accordance with the approved contract

documents. If the Engineer observes any noncompliance by the Contractor, Engineer shall ensure that Contractor corrects the noncomformity and, failing such correction, promptly report same to the Mobility Authority. All Inspectors shall have a current OSHA-10 Card (safety training). Current and valid certifications, as required, shall need to be submitted to the GEC throughout the Contract duration for items a, b, c, and d, below. Although not a comprehensive list, at least one certified inspector shall be required for each of the following construction components:

- a. Traffic Control A certified inspector is a person who has passed the Work Zone Traffic Control course offered by Texas A&M Engineering Extension Service (TEEX) and has a minimum of five (5) years of experience in Traffic Control inspection.
- b. Electrical A qualified inspector is a person has a minimum of five (5) years of experience in electrical inspection of roadway illumination and traffic signals.
- c. Asphalt A certified inspector is a person with a current Texas Asphalt Pavement Association (TxAPA) Hot-Mix Asphalt (HMA) Roadway Specialist Level 1B certification and a minimum of five (5) years of experience in asphalt inspection for roadways.
- d. Concrete A certified inspector is a person with a current American Concrete Institute (ACI) Concrete Field Testing Technician Field Grade I certification and a minimum of five (5) years of experience in inspection of structural concrete.
- 3) Toll gantry column and truss inspections shall be provided by the Engineer.
- 4) Identify, document, and make recommendations to the Mobility Authority regarding plan errors and omissions, substitutions, defects and deficiencies in the work of the contractor, subcontractors, vendors, etc.
- 5) Provide sufficient staff and a staffing plan to maintain consistency throughout the Project to schedule and perform inspections of the Contractor's work. The Engineer shall be required to be on-site performing inspection duties at any time the work is being performed including nighttime hours and on weekends as required by the planned construction work. Inspections at locations other than the project site may be required. Staffing levels shall be optimized to eliminate and/or minimize overtime for both budget and safety reasons. If weather conditions, project delays, or work stoppages temporarily reduce the need for personnel, the Engineer shall be responsible for managing their staffing levels and hours billed accordingly.
- 6) Review and report final documentation of construction quantities in support of Contractor draw requests.
- 7) Review and provide input on the Contractor's reported progress shown in the schedules, as needed.
- 8) Maintain to a digital photograph log of the Project area during construction to document construction progress, with emphasis on areas with potential claim items/issues and on areas of real/potential public controversy. All photographs shall have embedded time, date, and georeferencing data.

- 9) Verify that the Project is implemented in accordance with the direction provided in RFIs. Inspectors shall prepare RFIs as necessary during the Project and provide them to the Mobility Authority for review. The Mobility Authority shall determine whether an RFI will be officially submitted to the Contractor.
- 10) Inspectors shall be provided with access to the Contractor's shop drawings and submittals. Inspectors shall verify that the Project is constructed in compliance with these documents.
- 11) Prepare, follow-up on, and be involved in the resolution of Non-Conformance Reports (NCRs) for non-compliant work.
- 12) Schedule and conduct material testing as needed for inspection of the construction work.
- 13) Review material testing reports and assist in the resolution of any deficiencies reported.
- 14) Perform quality control checks on all documentation (i.e. drill shaft logs, daily work reports) prior to submitting them to the Mobility Authority for incorporation into the Project records.
- 15) Become familiar with and utilize the features of the designated Project document control system to standardize storage of Project documents.
- 16) Become familiar with and utilize the standard reporting forms used to document construction inspections.
- 17) Track, monitor, and report to the Authority on contracts and budgets for the Engineer and any sub-consultants.
- 18) Inspect the Contractor's operations for compliance with the sections of the Environmental Compliance Management Plan under the CE&I Team's authority.

D. Construction Inspection Checklists

Inspection checklists shall be provided by the Mobility Authority as a tool for the Inspectors to verify that the Project is built in compliance with the approved construction documents. Inspection shall not be limited to items on the checklist. Inspectors shall document their inspections using the appropriate checklist. Inspectors are expected to notify the Mobility Authority of any issues or improvements that can be made to the checklists.

E. Traffic Control

- 1) Review, monitor and recommend modification to the Contractor's maintenance of traffic/traffic control operations according to applicable specifications and standards through the use of approved inspection reports.
- 2) Provide an inspector that is certified to perform barricade inspections and submit proof of certification to the Mobility Authority for each inspector utilized on the Project for maintenance of traffic inspections. TxDOT required quarterly barrier inspections and recommended corrections will be coordinated with TxDOT, the Mobility Authority, and the Contractor.

- 3) Document and issue deficiency reports per applicable state laws to the Contractor on any non-compliance of traffic control devices or layouts.
- 4) Verify lane closures and detours are in accordance with applicable standards.
- 5) TxDOT Form 599 is required for the inspection of traffic control devices.
- 6) Ensure the Contractor makes repairs to critical items immediately and that other deficiencies or actions are being addressed within the timeframes specified by the contract and specifications. Advise the Mobility Authority on non-payment of applicable contract pay items, if needed.
- 7) Determine whether all traffic control items used by the Contractor meet requirements of Texas Manual on Uniform Traffic Control Devices (TMUTCD, current version at the time of proposal or latest edition), traffic control plans, standards and specifications and State compliant list which include at a minimum:
 - a. Devices or signs installed shall be clean and free of damage, properly aligned and spaced, have proper reflectivity, and be properly mounted;
 - b. Pavement markings are performing properly;
 - c. Proper flagging procedures are followed; and
 - d. The overall set up is in compliance with TMUTCD and TxDOT requirements.
 - e. If the Engineer observes any noncompliance by the Contractor, Engineer shall ensure that Contractor corrects the noncomformity and, failing such correction, promptly report same to the Mobility Authority.

F. <u>Drill Shafts (i.e. Bridges, Large Signs, Toll Gantries, Signals, High Mast Illumination)</u>

The Inspector shall verify proper drill shaft or pile installations. Inspectors shall have knowledge in geological materials to ensure proper founding is achieved, proper underwater and slurry displacement concrete placement procedures and proper use of steel casing for dewatering and stability applications are implemented. The Inspector shall complete a separate log for each drill shaft/pile.

G. Construction Inspection - Daily Work Reports (DWR)

Prepare a DWR for each calendar day from the begin work date until final acceptance. All inspectors shall prepare their own DWR each day they are on the Project. Each DWR must have all applicable information included (i.e. the weather recorded for that day, including temperature high and low, weather conditions, all visitors to the Project, traffic conditions, lane closure hours, police officer names and hours worked, portable message sign hours, instruction given to the Contractor, the Contractor work hours, the Contractor's equipment and utilization, safety concerns, and accidents). When recording information pertaining to accidents, record only factual information as observed. Also, include the subcontractors on the Project, the number of hours on the Project, a description of the work they are

performing, and items for payment. Work items inspected should be assigned to schedule activity IDs and change orders when applicable for purposes of documenting and tracking pay items.

H. Contractor Quantities

Fill out a TxDOT Form 1257 or other approved form for all applicable items as a means to pay for items of work inspected. Input the station number, supporting calculations, quantity being paid, any comments or remarks necessary, and any other information to properly distinguish the item being paid. Reference plan sheets as reference markers. Submit hard copies of measurements and attachments that support the calculations and quantities listed.

Quantities shall be assigned to schedule activity IDs for purposes of documenting and tracking pay items. The Inspector shall be responsible for collecting material tickets for any material delivered during inspection.

Track and report on a monthly basis Contractor's materials on hand.

I. Non-Conformance Reports (NCRs)

If the inspection identifies work that is in non-conformance, and that work can be corrected and completed in conformance with the approved construction documents, and the Contractor corrects and completes the work in accordance with the approved construction documents, then no additional action is required.

If the work is not in conformance and is not easily correctable, then the Inspector shall prepare a Non-Conformance Report (NCR) and provide it to the Mobility Authority for review. The Mobility Authority shall determine whether an NCR shall be officially submitted to the Contractor. The NCR process shall be as defined in other documents. The NCR shall be resolved prior to the Contractor proceeding with the work for which the NCR was issued. If the Contractor chooses to continue, the work in question and subsequent affected work shall be at the Contractor's risk of rejection, removal, or remediation. The Inspector shall not issue a stop work notice.

If an NCR has been issued for work and the Mobility Authority determines that the work presents a safety, environmental, public perception or other vital problem, the Mobility Authority may issue a stop work notice until the issue is satisfactorily resolved.

J. Survey Support

- 1) Perform initial verification of the Contractor's surveyor by checking permanent and temporary benchmarks set by the Contractor.
- 2) Perform additional verification of the Contractor's survey records and methods through semi-annual audits.
- 3) Check the horizontal and vertical locations of bridge structure components to verify conformance with the plans.

- 4) Check Contractor's line and grade between VPT/VPCs and at the beginning and end of cross slope transitions as well as any points of 0% cross slope for all lanes and shoulders on the mainlanes and general purpose lanes.
- 5) Perform miscellaneous spot checks as needed during the duration of the project.
- 6) All deliverables shall be in Microstation Format (latest TxDOT approved version) with Topographic information to be provided in 2D and 3D files. Digital Terrain Models shall be in .tin format. Other point files shall be required in ASCII or .dat file formats as requested by the Mobility Authority.
- 7) All deliverables must also conform to the following TxDOT coordinate system: Texas Central Zone #4203, NAD 83, Adjusted to Surface using a combined scale factor of 1.00011.

K. Materials Records and Quality Acceptance

- 1) Provide a Qualification Program for materials utilized for the construction of the Project in accordance with the Quality Acceptance Program (QAP). Maintain documentation of all qualified individuals who perform required tests for acceptance of materials.
- 2) Prepare reports for all material tests, clearly stating whether the material meets specifications, includes all information required by the testing method, and are signed by the Materials Engineer (or his designee). Provide all reports in a timely manner for review by the Mobility Authority.
- 3) Develop and implement a testing plan in compliance with TxDOT's Guide Schedule of Sampling and Testing for the Project. As recommended in the Guide Schedule, testing will be performed at a four-fold increase at the start of production until the Mobility Authority has confidence in the Contractor's (or the Contractor's suppliers) process.
- 4) Prepare Non-Conformance Reports (NCRs) for failing tests as appropriate.
- 5) Prepare control charts for applicable test values.
- 6) Monitor test results, maintain a material testing database capable of tracking failing tests, inform the Mobility Authority of failing test results in a timely manner, and work with the Mobility Authority to resolve failed tests on the project.
- 7) Perform IRI testing of finished pavement surfaces per applicable TxDOT testing methodology.

L. Materials Engineering

 Approve the Contractor's procedures and requirements for handling, storage, shipping, delivery, and preservation of materials incorporated into the work; including Corrective Action procedures for test or inspection failures, malfunctions or deficiencies.

- 2) Perform the testing of construction materials utilized on the project.
- 3) Submit construction Quality Acceptance Material Certification letters quarterly to the Mobility Authority.
- 4) Conduct the materials acceptance testing program and provide materials advice as deemed necessary.
- 5) Prepare the end of project material certification binder and sign materials certification letter stating that the materials incorporated into the construction work are in accordance with standards and specifications.

M. Record Drawings

1) Compile and provide the Mobility Authority with Record (As-Built) Plans incorporating construction revisions into the original "as bid" construction plans.

N. Punch List

- 1) Coordinate with the Mobility Authority, the Contractor and TxDOT in the generation of a final punch list.
- 2) Monitor the resolution of outstanding construction items.
- 3) Perform inspection to verify satisfactory completion of punch list items.
- 4) Provide input on meeting minutes generated.

O. Meetings

Facilitate project meetings to assess progress, schedule, and the quality of services being provided as well as identify issues. The Engineer shall prepare agendas, meeting minutes, action items and follow-up action item status for each of the Project meetings and distribute to attendees and appropriate personnel.

Meeting attendance and participation may include, but not be limited to:

- 1) Attend and participate in weekly progress meetings held by the Mobility Authority with the Contractor.
- 2) Attend and participate in staff meetings for the construction oversight team held by the Mobility Authority.
- 3) Attend and participate in pre-activity meetings, safety meetings, and any other meetings requiring construction inspection expertise, as requested by the Mobility Authority.

P. <u>Deliverables</u>

The following construction documentation shall be maintained and kept up-to-date during the course of the construction contract on the Mobility Authority's document

control system for review by the Mobility Authority after being checked by an appropriate member (senior inspector, project manager, etc.) of the Engineer's staff.

- 1) Weekly Progress Reports and Weekly Meeting Minutes;
- 2) Change Orders, Partial and Final Pay Estimates;
- 3) RFI Files and Log;
- 4) Submittal Files and Log;
- 5) Project Diary (objective and consisting of documented facts and statements only);
- 6) Documentation of Contractor Progress Payments;
- 7) Construction Quality Management Plan;
- 8) Inspector Daily Work Reports;
- 9) Inspector Checklists (includes any required calculations or worksheets);
- 10) Inspector Verified Quantities;
- 11) Embankment, Sub-grade, Sub-base, and Base Course Testing Reports;
- 12) Concrete Plant and Concrete Related Field Inspection Reports (calibrations, gradations, admixtures, slump, air content, etc);
- 13) HMA Plant Reports;
- 14) HMA and Cement Concrete Mix Designs;
- 15) Concrete Volume Checks;
- 16) Off-Site Testing and Inspection Reports (by others);
- 17) Miscellaneous materials certifications and documents (source of aggregate, shop drawings, subcontractor acceptance, purchase orders, etc);
- 18) Inspector Photographs;
- 19) Drill Shaft Logs;
- 20) Barricade Inspection Reports;
- 21) Provide materials tickets for all applicable items (i.e. Concrete, HMA, Flexbase, Prime, Fertilizer, Seed, etc.) with an attached documentation indicating date, pay item(s), placement location, and cumulative quantity;
- 22) Punch list Documentation;
- 23) Project Close-Out Documentation;
- 24) Initial Benchmark Survey Verification Report;
- 25) Survey Audit Reports;
- 26) Survey plan sheets for bridge drilled shaft and bearing seat checks;
- 27) Survey spreadsheet for roadway grade checks;
- 28) Accident Reports prepared by others for major accidents within the work zone (fatality or medical treatment required);
- 29) Correspondence;

- 30) Letters from the Mobility Authority to the Contractor documenting acceptance, time extension(s), and/or assessment of Liquidated Damages and/or Fees for Substantial Completion Dates, and/or Final Completion Date, as applicable.
- 31) Final Record Drawings
- 32) Test reports, plant reports, test failure tracking database, IRI results, and certifications related to the project for incorporation into the project records.
- 33) Compile the end of project materials certification binder to be signed by the Materials Engineer (professional engineer licensed and registered in Texas), including deficiency report, letters of certification, summary of NCRs and Engineering Judgments, and test exception letters.

Q. Schedule

The scope and duration of the Project is based on a 34 month construction contract construction schedule, including any added days to the schedule by contract, as well as a close-out period. The Engineer shall be available as requested by the Mobility Authority during close-out and will be responsible to ensure that all documentation has been submitted and all outstanding project-related issues have been resolved. A preliminary project schedule is attached as Exhibit C.

R. Local Government Project Procedures (LGPP)

The Engineer is required to provide a "qualified person" to the Project. This person must work actively and directly on the project and have successfully completed the TxDOT Local Government Project Procedures Training and Qualification Course, LGP101.

EXHIBIT C

WORK SCHEDULE

The Engineer shall perform Construction Engineering and Inspection Services as described in this Work Authorization and will submit deliverables to the Mobility Authority based on the following work schedule:

Notice to Proceed	October 10, 2016 (Tentative)
Substantial Completion	32 months
Final Completion	

EXHIBIT D

FEE SCHEDULE/BUDGET

EXHIBIT E

INSTRUCTIONS HUB PARTICIPATION

The HUB Subcontracting Plan (HSP) submitted by the Engineer during the RFQ Phase shall be finalized and considered a part of this contract between the Mobility Authority and the Engineer. The Engineer must maintain business records documenting compliance with the HSP and must submit monthly subcontract reports to the Mobility Authority by completing the HUB Prime Contractor Progress Assessment Report (PAR). This monthly report is required as a condition for payment and must identify all subcontractors and the amounts paid to each subcontractor.

During the term of the contract, if the parties in the contract amend the contract to include a change to the Scope of Work or add additional funding, the Mobility Authority shall evaluate to determine the probability of additional subcontracting opportunities. When applicable, the Engineer must submit an HSP change request for the Mobility Authority's review.

When making a change to an HSP, the Engineer shall obtain prior written approval from the Mobility Authority before making any changes to the HSP. Proposed changes must comply with the HUB Program good faith effort requirements relating to the development and submission of a HSP.

Failure to meet the HSP and post-award requirements shall constitute a breach of contract, and shall be subject to remedial actions. The Authority may also report noncompliance to the CPA in accordance with the provisions of the Vendor Performance and Debarment Program (see 34 T.A.C. §20.108 relating to Debarment) and (see 34 T.A.C. §20.105 relating to Procedures for Investigations and Debarment).

The following pages contain four (4) different forms (Forms F-1 through F-4) covering participation of HUB providers and subproviders. The correct form to use is determined by whether or not a HUB goal has been set for the contract. The following pages contain separate reporting forms for federally funded HUB participation. **Select the forms that are appropriate for your contract and <u>delete the rest</u> along with these instructions from the Work Authorization.**

EXHIBIT F

FORM F-1

Central Texas Regional Mobility Authority Subprovider Monitoring System Commitment Worksheet

Contract #:	_ Assigned Goal: 23.7%	Federally Funded	St	ate Funded _	<u> </u>
Prime Provider:		Total Contra	ct Amount:		
Prime Provider Info :HUB					
Engineer ID #:	HUB	Expiration Date:			
(First 11 Dig If no subproviders are used on		by placing "N/A" on the 1st l	line under Sul	bproviders.	
Subprovider(s)	Type of Work	Engineer ID # (First 11 Digits Only)	H=HUB	Expiration Date	\$ Amount or % of Work *
(List All)	OI WOIK	(Plist 11 Digits Olly)			70 01 WOIK 1
	Su	bprovider(s) Contract or %	of Work* T	otals	
*For Work Authorization Contr	racts, indicate the % of work to	be performed by each subpr	ovider.		
Total HUB Commitment Do					
Total HUB Commitment Per	centages of Contract	%			
E'I CEDMA CELA					

FORM F-2

HUB HSP



HUB Subcontracting Plan (HSP) Prime Contractor Progress Assessment Report

This form must be completed and su	bmitted to t	he contracting agenc	y each month to	document complia	nce with your HSP.	
Contract/Requisition Number:			Date of Award	t:	Object Code:	
Contracting Agency/University Name:						
Contractor (Company) Name:				State of Texas VID #:		
Point of Contact:				Phone #:		
Reporting (Month) Period:		Total Amount	t Paid this Reporti	g Period to Contractor:	\$	-
Report HUB <u>ar</u>	nd No	n-HIIR sui	hcontra	ctor infor	nation	
When verifying subcontractors' HUB status, en						HUB)
Directory Search located at: http://mvcpa.cpa.state.tx				"A" signifies that the		
Subcontractor's Name	Texas certified HUB (Yes or No)	Texas VID or federal EIN Do not enter Social Security Numbers. If you do not know their VID / EIN, leave their VID / EIN field blank.	Total Contract \$ Amount from HSF with Subcontracto		Total Contract \$ Amount Paid to Date to Subcontractor	Object Code (Agency Use Only)
			\$ -	s -	5 -	
			\$ -	5 -	5 -	
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Signature:		Title:		Date		

FORM F-3

		· ·	v 1		em for rederan	y runaea Contr 	acts
Contrac	t #:			Original Con	tract Amount:		
Date of	Execution:			Approved Su	pplemental Agr	eements:	
Prime P	rovider:			Total Contrac	et Amount:		
Work A If no sub	Execution: Approved Supplemental Agreements: Total Contract Amount: Work Authorization Amount: Providers are used on this contract, please indicate by placing "N/A" on the 1st line under Subproviders. All Category of Work Total Work Authorization Amount: Work Authorization Amount:						
DBE		Category of Work					Subcontract Balance Remaining
				or all subcontracts,	and forward as	follows:	
				,	Austin, Texas		
	I hereby certify that the a	above is a true and co	rrect statement of the	amounts paid to the	e firms listed ab	ove.	
Print Na	nme - Company Official /DBE L	iaison Officer	Signature			Phone	Date
Email			_			Fax	



FORM F-4

Federal Subprovider and Supplier Information

The Provider shall indicate below the name, address and phone number of all successful and unsuccessful subproviders and/or suppliers that provided proposals/quotes for this contract prior to execution. You may reproduce this form if additional space is needed.

Name		Address	Phone Number
The information must be provide	led and returned wi	th the contract.	
Signature		Date	
Printed Name	Email		Phone#

EXHIBIT G

Certificate of Interested Parties (Form 1295)

	CERTIFICATE OF INTE	RESTED PARTIES			FORM 1295
	Complete Nos. 1 - 4 and 6 if th Complete Nos. 1, 2, 3, 5, and 6	ere are interested parties. if there are no interested parties.		OFFI	CE USE ONLY
1	Name of business entity filing form, entity's place of business.	and the city, state and country of the busi	ness		
2	Name of governmental entity or state which the form is being filed.	r			
3		sed by the governmental entity or state ag vices, goods, or other property to be provi			
4		City, State, Country	Natu	ne of Interes	t (check applicable)
	Name of Interested Party	(place of business)) c	ntrolling	Intermediary
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		Ello Har			
		5 65.			
L		No Mile	<u> </u>		
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		4.			
Г	2.	1,			
5	Check only if there is NO Interested	Party.			
6	AFFIDAVIT	I swear, or affirm, under penalty of perjur	y, that th	e above disclo	sure is true and correct.
		Signature of authorized a	gent of c	contracting bus	iness entity
	AFFIX NOTARY STAMP / SEAL ABOVE				
	Swom to and subscribed before me, by the			, this the	day
	of, 20, to oer	tify which, witness my hand and seal of office.			
	Signature of officer administering oath	Printed name of officer administering oath		Title of office	er administering oath
	ADI	D ADDITIONAL PAGES AS NECES	SSAR	Υ	

Form provided by Texas Ethics Commission

www.ethics.state.tx.us

Revised 4/8/2016

ATTACHMENT C

SUPPLEMENTAL WORK AUTHORIZATION NO. ____ TO WORK AUTHORIZATION NO. ____ CONTRACT FOR CONSTRUCTION ENGINEERING & INSPECTION SERVICES

and conditions of Article 4 of the Contract	AUTHORIZATION is made pursuant to the terms of for Construction Engineer & Inspection Services (the entral Texas Regional Mobility Authority (the Mobility Engineer) dated
The following terms and conditions of W follows:	ork Authorization No are hereby amended as
execution of the parties hereto. All other to	zation shall become effective on the date of final erms and conditions of Work Authorization No.
IN WITNESS WHEREOF, this duplicate counterparts and hereby accepted	Supplemental Work Authorization is executed in
THE ENGINEER	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
(Signature)	(Signature)
(Printed Name)	Mike Heilgenstein
(Title)	Executive Director
(Date)	(Date)

ATTACHMENT D

LIST OF KEY PERSONNEL

At a minimum the Key Personnel shall consist of the following:

- 1. Project Manager
- 2. Resident Engineer/Construction Manager
- 3. Document Control Manager
- 4. Lead Roadway Inspector
- 5. Lead Structural Inspector
- 6. Lead Drainage Inspector
- 7. Survey Manager
- 8. Materials Records and Quality Assurance Manager
- 9. Lead Materials Manager
- 10. Local Government Project Procedures (LGPP) Qualified Person

SPECIFIED RATES FEE ESTIMATE

CTRMA SH	I 45 SW CEI				SF	<u>PECI</u> FIE	D RATE	S FEE	<u>ES</u> TII	<u>MAT</u> E									
									N	/ANHOU	R ESTIMATE								
						JACOB	s						SUBCON	SULTANT					1
Scope #	SCOPE OF WORK DESCRIPTION		Project Manager	2-Man Crew	Scheduler	Document Controller	Senior Field Rep	Roadway and Env Inspector	Inspector III	Inspector II	Bud Hiemer - Foster CM	Materials Testing - Pavetex	Material Testing - Pavetex	Mat. Records Magr - Pavetex	Mat. Engineer - Pavetex	Elec. Inspector - Maldonado	Total Manhours	Direct Labor Cost	Total Labor Plus OH+Profit
		Raw Rate	124.08	60.70	71.00	40.33	69.50	54.50	44.69	38.15	36.52	38.15	38.15	52.32	81.75	81.75			
		BILLING RATE	255.97	139.74	163.44	83.20	143.37	112.43	92.19	78.70	90.37	94.42	94.42	148.48	232.01	202.33			
	Construction Engineering																		
. 1	Provide QA/QC		-	-	-	-	-	-	-	-							0	\$0	\$0
1.a	Establish Project field Office		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
1.b	Review palns for Construction QC		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
1.c	Maintain project diary and related documents		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
1.d	Document pre-project conditions		140	-	-	100	32	-	-	-							272	\$23,628	\$48,743
1.e	Review shop drawings and submittals		100	-	-	100	-	-	-								200	\$16,441	\$33,917
2	Project Document Control Oversight		-	-	-	100	-	-	-	-							100	\$4,033	\$8,320
2.a	Maintain and Retian Project files in MA's document control system		160	-	-	100	-	-	-	-							260	\$23,886	\$49,275
2.b	Maintain ttracking database with issues relating to project		140	-	-	100	-	-	-	-							240	\$21,404	\$44,155
2.c	Assign identification coding		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
2.d	Prepare/Manage/Record/Distribute/Archive documentation of project activities		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
2.e	Log and track RFI's, submittals and deliverables		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
2.f	Perform Retrival of documents		100	-	-	100	-	-	-	-							200	\$16,441	\$33,917
2.g	Provide mail services		-	-	-	100	-	-	-	-							100	\$4,033	\$8,320
3	Project Scheduling		-	-	-	-	-	-	-	-							0	\$0	\$0
3.a	Evaluate, monitor and verify construction schedule		-	-	340	-	-	-	-	-							340	\$24,140	\$55,571
3.b	Report progrese on monthly basis		-	-	-	-	-	-	-	-							0	\$0	\$0
3.c	Idenity baseline schedule and schedule revisions on a monthly basis		-	-	-	-	-	-	-	-							0	\$0	\$0
3.d	Constructability review of WBS submitted by contractor		-	-	-	-	-	-	-	-							0	\$0	\$0
4	Change order processing and management		-	-	-	-	-	-	-	-							0	\$0	\$0
4.a	Review change orders and coordinate with external agencies		100	-	-	50	-	-	-	-							150	\$14,424	\$29,757
4.b	Review change order cost estimates		100	-	-	-	-	-	-	-							100	\$12,408	\$25,597
4.c	Maintain log for change orders		100	-	-	50	_	-	-	-							150	\$14,424	\$29,757
4.d	Review contractor initiated alternative design or substition proposals		80	-	-	50	-	-	-	-							130	\$11,943	\$24,637
5	Request for inforamtion processign and management		-	-	-	-	-	-	-	-							0	\$0	\$0
5.a	Review and respond for RFI's		50	-	-	50	-	-	-	-							100	\$8,220	\$16,958
	Maintain log of all RFI's		40	-	-	50	-	-	-	-							90	\$6,980	\$14,399
6	Shop Drawing/ Submittal Processing		-	-	-	-	_	-	-	-							0	\$0	\$0
4.a	Coordinate review shop drawings		40	-	-	50	_	-	-	-							90	\$6,980	\$14,399
4.b	Maintain, log and reatin documents with shop drawings		40	-	-	50	-	-	-	-							90	\$6,980	\$14,399
7	Contractor Pay Requests		-	-	-	-	-	-	-	-							0	\$0	\$0
7.a	Review and provide certifications for processing Contractors payments		80	-	-	50	-	-	-	-							130	\$11,943	\$24,637
7.b	Evaluate pay requests for documentation and signature		30	-	-	50	-	-	-	-							80	\$5,739	\$11,839
8	Utility Coordination		-	-	_	-	_	-	-	-							0	\$0	\$0
8.a	Review locations of new utilities in project area		35	-	_	-	_	-	-	-							35	\$4,343	\$8,959
8.b	Participate in utility coordination meetings		25	_	_	_	_	-	_	-							25	\$3,102	\$6,399
	Coordinate with contractor to resolve matters - schedule, desing change, utility																		
8.c	identification		25	-	-	-	-	-	-	-							25	\$3,102	\$6,399

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SPECIFIED RATES FEE ESTIMATE

OTT (IVI) COL	1 45 SVV CEI				0.	2011 11		MANHOUR ESTIMATE											
						JACOE	BS						SUBCONS	SULTANT					
			ct Manager	n Crew	luler	nent Controller	r Field Rep	vay and Env ctor	ctor III	ctor II	Hiemer - Foster CM	rials Testing - ex	rial Testing - ex	Records Magr - .ex	Engineer - Pavetex	nspector - onado	Manhours	: Labor Cost	Labor Plus Profit
Scope #	SCOPE OF WORK DESCRIPTION		roje	2-Mai	chec	Jocui	enio	Road\ nspe	nspe	nspe	3nd H	√avet	Material '	ا کاملار) معرف	Mat.	:lec. I Maldo	otal	Direct	Total I
		Raw Rate	124.08	60.70	71.00	40.33	69.50	54.50	44.69	38.15	36.52	38.15	38.15	52.32	81.75	81.75	F		
		BILLING RATE	255.97	139.74	163.44	83.20	143.37	112.43	92.19	78.70	90.37	94.42	94.42	148.48	232.01	202.33			
9	Provide Technical Advice		-	-	-	-	-	-	-	-							0	\$0	\$0
9.a	Assist MA on construcion related matters to interpret design details		60	-	-	50	-	-	-	-							110	\$9,461	\$19,518
9.b	Seek Clarification from design engineers		60	-	-	50	-	-	-	-							110	\$9,461	\$19,518
10	Program Repoerting		-	-	-	-	-	-	-	-							0	\$0	\$0
10.a	Prepare and issue monthly status reports		80	-	-	90	-	-	-	-							170	\$13,556	\$27,965
10.b	Provide monthly updates - milestones accomplished and activities for upcoming month		80	-	-	100	_	-	-	-							180	\$13,959	\$28,797
10.c	Track, monitor and prepare reports on contracs and budgets		65	-	-	100	-	-	-	-							165	\$12,098	\$24,958
10.d	Track, monitor and prepare reports on HUB utilization		35	_	-	100	-	-	-	-							135	\$8,376	\$17,279
С	Construction Oversight Inspection																		
1	Inspectors		- 1	-	-	75	2,760	2,960	2,960	2,300	3,000	2,860	1,500	1,100	250	425	20,190	\$964,800	\$2,178,766
2	Perform and report Construction inspectors for structures, roadway, drainage and traffic					75	25.6	250	250	100	120		60			C.F.	1 276	¢66,063	¢4.42.07.4
3	Provide toll gantry column and truss inspections		-	-	-	75	256	350	250	100	120 100	100	60	-	-	65	1,276	\$66,863	\$142,874
3	Trovide ton gantry column and trass inspections		-	-	-	75	65	-	100	100	100	100	60	-	-	100	700	\$33,757	\$77,026
4	Identify, document and recommend plan errors, omissions, substitutions and defects		50	-	-	50	97	120	100	100	160	160	60	-	-	65	962	\$49,335	\$109,830
5	Provide sufficient staff and staffig plan		80	-	-	-	120	-	-	-	-	-	60	-	-	-	260	\$20,555	\$43,347
6	Review and report final documenttion of construction quantities		-	-	-	50	100	100	100	65	160	150	60	-	-	65	850	\$40,533	\$91,515
7	Review and provide input on Contractors schedule progress report		20	-	-	75	100	100	100	65	160	150	60	-	-	65	895	\$44,023	\$98,714
8	Maintain digital photograph log Prepare RH's and verify that project is iplemented in acordance with directions		-	-	-	75	90	100	100	65	120	150	60	-	-	65	825	\$39,385	\$88,546
9	provided in RFI's		-	-	-	75	90	100	100	65	120	150	60	-	-	65	825	\$39,385	\$88,546
10	Verify project is constructed in acordance with the Contractors shop drawings					75	100	100	100	6F	100	100	60			65	765	\$37,443	\$83,451
11	Prepare and follow up in the resolution of Non-Conformance Reports		-	-	-	75	100	100	100	65 65	100 160	100 150	60 60	-	-	65	875	\$41,541	\$93,595
12	Schedule and conduct materials testings				-	75	90	100	100	65	120	100	60		_	65	775	\$37,478	\$83,825
13	Review materisla testing reports				_	-	90	100	100	65	120	100	100			65	740	\$35,979	\$81,362
14	Perform quality control checks on all documentations				_	75	65	100	100	65	120	100	100	<u>-</u>	<u>-</u>	65	790	\$37,266	\$84,018
			-							- 55				_	-				
15	Utilize project document control system to standardize storage of docuements		35	-	-	75	65	100	100	65	120	100	100	-	-	65	825	\$41,609	\$92,976
16	Utilize standard reporting forms to document construction inspectors		-	-	-	-	65	100	100	65	120	100	100	-	-	65	715	\$34,242	\$77,778
17	Track , monitor and report on contracts and budget		35	-	-	75	65	100	100	65	100	100	100	-	-	65	805	\$40,879	\$91,169
18	Inspect Contractors operations for compliance with ECMP		-	-	-	-	65	50	100	65	153	150	100	-	-	65	748	\$34,629	\$79,860
D	Construction Inspection Checklists																		
	Document all inspections based on checkilist provided by MA		35	-	-	75	100	100	100	65	100	100	100	-	-	67	842	\$43,475	\$96,592
E	Traffic Control Review, monitor and recommend modifications to Contractors maintainence of traffic																		
1	control operations		50	-	-	-	100	-	-	-	120	-	100	-	-	100	470	\$29,526	\$67,656
2	Perform barricade inspections on a quarterly basis and provide recommendations			_		_	100	150	_		100	_	100	-	=	_	450	\$22,591	\$49,681
	Document and issue deficience reports for any non-compliance of traffic control		-	_	-		100		_				100	_	-	_			
3	devices or layouts		-	-	-	-	100	150	-	-	100	100	100	-	-	-	550	\$26,406	\$59,123
4	Verify lane closures and detours are in accordance with applicable standards		50	-	-	-	100	150	-	-	100	-	100	-	-	-	500	\$28,795	\$62,480

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SPECIFIED RATES FEE ESTIMATE

									IV	IANHOU	IR ESTIMATE								
						JACOE	S						SUBCON	SULTANT					
Scope #	SCOPE OF WORK DESCRIPTION		Project Manager	2-Man Crew	scheduler	Oocument Controller	senior Field Rep	Roadway and Env nspector	nspector III	nspector II	3ud Hiemer - Foster CM	Materials Testing - Pavetex	Material Testing - Pavetex	Mat. Records Magr - Pavetex	Mat. Engineer - Pavetex	elec. Inspector - Maldonado	rotal Manhours	Direct Labor Cost	rotal Labor Plus DH+Profit
		Raw Rate	124.08	60.70	71.00	40.33	69.50	54.50	44.69	38.15	36.52	38.15	38.15	52.32	81.75	81.75			
		BILLING RATE	255.97	139.74	163.44	83.20	143.37	112.43	92.19	78.70	90.37	94.42	94.42	148.48	232.01	202.33			
5	TxDOT Form 599 for inspection of traffic control devices		-	-	-	-	100	150	-	-	100	-	100	-	-	-	450	\$22,591	\$49,681
6	Ensure critical items are repaired immediately		50	-	-	-	100	150	-	-	100	100	100	-	-	-	600	\$32,610	\$71,922

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SPECIFIED RATES FEE ESTIMATE

			MANHOUR ESTIMATE MANHOUR ESTIMATE																
						JACO	3S						SUBCONS	SULTANT					
			ي			ntroller		۷۲			ster CM	- නි	-	agr -	Pavetex			\$t	
Scope #	SCOPE OF WORK DESCRIPTION		oject Manage	Man Crew	heduler	ocument Cont	nior Field Rep	oadway and E spector	spector III	spector II	ud Hiemer - Fc	aterials Testir svetex	naterial Testing avetex	at. Records IV svetex	at. Engineer -	ec. Inspector aldonado	otal Manhours	rect Labor Cost	Total Labor Plus OH+Profit
	SCOTE OF WORK DESCRIPTION	Raw Rate	124.08	<u>√</u> 60.70	71.00	<u>ര്</u> 40.33	ى 69.50	<u>ĕ</u> ⊆ 54.50	<u>⊆</u> 44.69	<u>⊆</u> 38.15	<u>ಹ</u> 36.52	≥ <u>&</u> 38.15	≥ <u>%</u> 38.15	∑ <u>&</u> 52.32	≥ 81.75	<u> </u>) H	iΩ	<u> </u>
		BILLING RATE	255.97	139.74		83.20	143.37				90.37	94.42	94.42	148.48	232.01	202.33			
7	Ensure all traffic control items meet the current TMUTCD'd current version		65	-	-	-	100	150	-	-	100	100	100	-	-	-	615	\$34,471	\$75,761
F	Drill Shafts																		, , ,
	Verfiy proper drill shafts or pile installations		-	-	-	-	-	-	225	66	-	50	100	-	-	-	441	\$18,296	\$40,101
G	Constuction Inspection - Daily Work Reports																		
	Verfiy proper drill shafts or pile installations		65	-	-	-	-	-	230	66	-	50	100	-	-	-	511	\$26,584	\$57,200
Н	Contractor Quantities																		
	Track and report on a monthly basis Contractors materials on hand		65	-	-	-	100	150	120	65	50	50	100	-	-	-	700	\$38,581	\$82,700
I	Non-Conformance Reports (NCR's) Inspector to confirm that all work is completed in conformance with approved																		
	construcion documents.		65	-	-	-	100	150	100	65	50	100	100	-	-	-	730	\$39,594	\$85,577
J	Survey Report																		
1	Verify Contractors surveyor by checking permanenet and temp benchmarks set by contractors		65	320	-	-	-	-	-	-	-	-	-	-	-	-	385	\$27,490	\$61,355
2	Verify contractors survey records and methods through semi-annual audits		65	160	-	-	-	-	-	-	-	-	-	-	-	-	225	\$17,777	\$38,996
3	Check horizontal and vertical locations of bridge structures		-	320	-	-	-	-	-	-	-	-	-	-	-	-	320	\$19,425	\$44,717
4	Check contrators line and grade		-	320	-	-	-	-	-	-	-	-	-	-	-	-	320	\$19,425	\$44,717
5	Perform miscellaneous spot checks		-	320	-	-	-	-	-	-	-	-	-	-	-	-	320	\$19,425	\$44,717
6	Provide all deliverables in Microstation format		100	320	-	-	-	-	-	-	-	-	-	-	-	-	420	\$31,833	\$70,314
7	All deliverables to conform TxDOT coordinate system		100	320	-	-	-	-	-	-	-	-	-	-	-	-	420	\$31,833	\$70,314
K	Materials Records and Quality Acceptance																		
	Provide Qualification Program for all materials used in accordance with the QAP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
2	Prepare reports for Material tests		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
3	Develop and implement a testing plan in complianc with TxDOT's standards		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
4	Prepare NCR's for failing tests		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
5	Prepare control charts for applicable values		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
6	Montior test results and maintain a testing database		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
7	Perform IRI testing of finished pavements surfaces		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	\$0	\$0
L	Materials Engineering																		
1	Approve contractors procedures and requirements for handling, storage, shipping, delivery and preservation of materials		-	_	_	_	_	_	_		-	50	100	-	_	-	150	\$5,723	\$14,163
	Perform tesing on construction materials used on projects		-	-	-	-	-	-	-	-	-	50	100	-	-	-	150	\$5,723	\$14,163
3	Provide quality acceptance material certification leters on a quarterly basis		-	-	-	-	-	-	-	-	-	50	100	-	-	-	150	\$5,723	\$14,163
4	Conduct materails acceptance testing program		-	-	-	-	-	-	-	-	-	50	100	-	-	-	150	\$5,723	\$14,163
5	Prepare end of project material certification binder		-	-	-	-	-	-	-	-	-	50	100	-	-	-	150	\$5,723	\$14,163
M	Record Drawings																		
1	Complie and provide MA with record plans		100	-	-	50	100	165	121	55	100	100	100	-	-	-	891	\$49,154	\$106,050
N	Punch List																		
1	Coordinate with MA, Contractor and TxDOT for final punch list		60	-	-	-	350	-	-	-	-	-	-	-	-	100	510	\$39,944	\$85,771

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SPECIFIED RATES FEE ESTIMATE

	T			MANHOUR ESTIMATE															
				JACOBS SUBCONSULTANT									1						
Scope #	SCOPE OF WORK DESCRIPTION		Project Manager	2-Man Crew	Scheduler	Document Controller	Senior Field Rep	Roadway and Env Inspector	Inspector III	Inspector II	Bud Hiemer - Foster CM	Materials Testing - Pavetex	Material Testing - Pavetex	Mat. Records Magr - Pavetex	Mat. Engineer - Pavetex	Elec. Inspector - Maldonado	Total Manhours	Direct Labor Cost	Total Labor Plus OH+Profit
		Raw Rate	124.08	60.70	71.00	40.33	69.50	54.50	44.69	38.15	36.52	38.15	38.15	52.32	81.75	81.75			
		BILLING RATE	255.97	139.74	163.44	83.20	143.37	112.43	92.19	78.70	90.37	94.42	94.42	148.48	232.01	202.33			
2	Monitor resolution of outstanding construcion items		100	-	-	-	65	-	-	-	-	-	-	-	-	100	265	\$25,100	\$55,149
3	Perform inspection to verify completion of puch list items		100	-	-	-	65	-	-	-	-	-	-	-	-	100	265	\$25,100	\$55,149
4	Provide input on meeting minutes generated		100	-	-	-	-	-	-	-	-	-	-	-	-	_	100	\$12,408	\$25,597
0	Meetings																		
1	Attend weekly progress meetings held by MA		50	-	-	-	-	-	-	-	-	-	-	-	-	-	50	\$6,204	\$12,798
2	Attend staff meetings for construction oversight		80	-	-	-	65	-	-	-	-	-	-	-	-	-	145	\$14,444	\$29,797
3	Attend pre-activity meetings, safety meetings and any other metings requiring construcion inspection expertise		50	-	-	-	65	-	-	-	-	-	-	-	-	-	115	\$10,721	\$22,118
		Billable Hours	4,000	2,080	340	3,365	6,125	6,145	5,606	3,827	6,073	5,720	4,560	1,100	250	1,967	51,158		1

	Expenses	
Jacobs	Airfare	
Jacobs	Rental	
Jacobs	Hotel with Fees	
Jacobs	Meals	
Jacobs	Laptops 5 FTEs at 34mo @ \$100/mo	\$ 17,000.00
Jacobs	Cell phone and Wireless Cards 5 FTEs at 34mo @ \$100/mo	\$ 17,000.00
Jacobs	Safety Equipment & OSHA Training (Including Vehicles)	
Jacobs	Printer Lease \$350 * 34mo	
Jacobs	Vehicles \$1200 x 34mo x 5 FTE	\$ 204,000.00
Pavetex	Materials Testing	\$ 138,534.00
Pavetex	Vehicles \$1200 x 34mo x 2 FTEs	\$ 91,600.00
Foster	Vehicles \$1200 x 32mo	\$ 38,400.00
Maldanado	Vehicles \$1200 x 15mo	\$ 18,000.00
	TOTAL EXPENSES	\$ 524,534.00

SUMMARY OF COSTS	
TOTAL LABOR PLUS OVERHEAD & PROFIT 'lus OH+Profit	\$6,175,935
Total Expenses	\$524,534
GRAND TOTAL FRAND TOTAL	\$6,700,469

SUMMARY BY CONSULTANT	
JACOBS	\$4,275,119
PAVETEX	\$1,422,119
FOSTER	\$587,245
MALDANADO	\$415,986
GRAND TOTAL	\$6,700,469

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