January 26, 2011 CTRMA BOARD OF DIRECTORS MEETING Summary Sheet

AGENDA ITEM # 14

Authorization for execution of the contract with Texas Transportation Institute (TTI) for Technical Support on the MoPac Improvement Project.

Department: Engineering

Associated Costs: \$177,000.00

Funding Source: General Fund, Reimbursed with Bond Sale Funds

Board Action Required: YES

Description of Matter:

Through this Work Authorization, TTI will provide a series of technical support activities as may be requested by CTRMA. These activities may include a third-party review of the VISSIM micro-simulation traffic modeling performed by CTRMA consultants; exploration of Active Traffic Management (ATM) Strategies; support development of special signing and traffic control devices; assisting the CTRMA with outreach and education efforts through the development and support of information workshops; and providing technical expertise and transfer of research results on topics as needs arise.

Based on the review of the proposed Technical Support Services by CTRMA 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. Approval of the Work Authorization is recommended.

Attached documentation for reference:

Contract for Technical Support on the MoPac Improvement Project.

Contact for further information:

Wesley M. Burford, P.E., Director of Engineering

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

RESOLUTION NO. 11-

Authorizing an Interlocal Agreement with the Texas Transportation Institute for Technical Support on the MoPac Improvement Project

WHEREAS, the Texas Transportation Institute can assist the Central Texas Regional Mobility Authority in connection with the development of the MoPac Improvement Project by providing a third-party review of traffic modeling performed by CTRMA consultants; exploration of Active Traffic Management (ATM) Strategies; development of special signing and traffic control devices; assistance in outreach and education efforts through the development and support of information workshops; and technical expertise and transfer of research results on topics as needs arise; and

WHEREAS, CTRMA staff recommends obtaining the services provided by the Texas Transportation Institute as set forth in the proposed agreement attached as Attachment "A" to this resolution.

BE IT FURTHER RESOLVED, that the Board of Directors authorizes its Executive Director to finalize and execute an agreement with the Texas Transportation Institute in the form or substantially in the form of the proposed Interlocal Cooperation Contract attached as Attachment "A" to this Resolution.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of January, 2011.

Submitted and reviewed by:	Approved:		
Andrew Martin	Ray A. Wilkerson		
General Counsel for the Central	Chairman, Board of Directors		
Texas Regional Mobility Authority	Resolution Number: 11-		
	Date Passed: 1/26/11		

INTERLOCAL COOPERATION CONTRACT

THE STATE OF TEXAS ** THE COUNTY OF BRAZOS **

THIS CONTRACT is entered into by and between a local government and the State agency as shown below Contracting Parties, pursuant to the authority granted and in compliance with the provisions of "The Interlocal Cooperation Act, TEX. GOVT. CODE ANN." § 791.001, et. Seq.

I. CONTRACTING PARTIES:

Performing Agency: <u>Texas Transportation Institute</u>

The Texas A&M University System - VID # 37277277275000

Receiving Agency: Central Texas Regional Mobility Authority

II. STATEMENT OF SERVICES TO BE PERFORMED:

Technical Support for MoPac Improvement Project See Attachment A

III. BASIS FOR CALCULATING REIMBURSABLE COSTS:

The Receiving Agency will reimburse the Performing Agency for actual costs incurred in carrying out the services authorized in Attachment A, Scope of Services. The Receiving Agency shall compensate the Performing Agency for only those eligible expenses incurred during this contract that are directly attributable to the completed portion of the work covered by this contract, provided that the work has been completed in a manner satisfactory and acceptable to the Receiving Agency. The Performing Agency shall not incur or be reimbursed for any new obligations after the effective date of termination. The Performing Agency shall bill the Receiving Agency for actual travel expenses, not to exceed the limits reimbursable under the state law. Out-of-state or out-of-country travel by the Performing Agency requires prior approval by the Receiving Agency.

IV. CONTRACT AMOUNT:

The total amount of this contract shall not exceed: <u>\$177,000.00</u> and shall conform to the provisions of Attachment B. The maximum amount payable under this contract is contingent upon availability of funds.

V. PAYMENT FOR SERVICES:

Receiving Agency shall pay for services received from appropriation items or accounts of the Receiving Agency from which like expenditures would normally be paid, based upon vouchers drawn by the Receiving Agency payable to Performing Agency.

Payments shall be billed: on a monthly basis with labor and expense back up provided.

Payments received by the Performing Agency shall be credited to its current appropriation items(s) or account(s) from which the expenditures of that character were originally made.

VI. DISPUTES:

The dispute resolution process provided in Chapter 2260, Texas Government Code, and the related rules adopted by the Texas Attorney General pursuant to Chapter 2260, shall be used by the Performing Agency and the Receiving Agency to attempt to resolve any claim for breach of contract made by the Receiving Agency that cannot be resolved in the ordinary course of business. The Receiving Agency shall submit written notice of a claim of breach of contract under this Chapter to the Executive Associate Director of the Performing Agency, who shall examine Receiving Agency's claim and any counterclaim and negotiate with Receiving Agency in an effort to resolve the claim.

VII. TERM OF CONTRACT:

Payment under this contract beyond the end of the current fiscal biennium is subject to availability of appropriated funds. If funds are not appropriated, this contract shall be terminated immediately with no liability to Receiving Agency. This contract begins on February 1, 2011 and terminates on February 28, 2012.

See Schedule B for General Terms and Conditions of the contract.

VIII. THE AGREEING PARTIES certify that:

PERFORMING AGENCY

Date

- 1. The services specified above are necessary and essential for activities that are properly within the statutory functions and programs of the affected agencies of State Government.
- 2. The proposed arrangements serve the interest of efficient and economical administration of the State Government.
- 3. The services or resources agreed upon are not required by Article XVI, Section 21 of the Constitution of Texas to be supplied under contract given to the lowest responsible bidder.

RECEIVING AGENCY further certifies that it has the authority to request for the above services by authority granted in <u>TEX. GOVT. CODE ANN." § 791</u>.

PERFORMING AGENCY further certifies that it has the authority to perform the services agreed upon above by authority granted in <u>Chapter 85</u>, <u>Texas Education Code</u>.

The undersigned parties bind themselves to the faithful performance of this contract.

RECEIVING AGENCY

Texas Transportation Institute Name of Agency Authorized Signature Dennis L. Christiansen, PhD, P.E. Agency Director Title Central Texas Regional Mobility Authority Name of Agency Authorized Signature Mike Heiligenstein Executive Director Title

Date

ATTACHMENT "A" INTERLOCAL COOPERATION AGREEMENT

SCOPE OF SERVICES

Technical Support for MoPac Improvement Project

General Scope: The Central Texas Regional Mobility Authority (CTRMA), in cooperation with TxDOT and other local partners, is developing managed lanes for the MoPac corridor. Given the unique nature of the project, specialized technical expertise in managed lanes is needed to enhance the success of the project.

The Texas Transportation Institute (TTI) is considered the national leader in HOT and managed lanes research through performance of leading edge studies for the Texas Department of Transportation and the Federal Highway Administration in Washington D.C. In addition, TTI provides technical support to numerous organizations in the development and implementation of HOT lanes, express toll lanes, and other managed lanes facilities through the transfer of research results into practice.

To support CTRMA's project development efforts, TTI will perform the following tasks, depending on specific needs. TTI will not begin a task until NTP is provided by CTRMA.

Task 1. Independent Modeling Review

Estimated Cost: \$22,000

In the review role, TTI will provide a third-party review of the VISSIM micro-simulation modeling performed by CTRMA consultants to examine the modeling approach, coding, calibration, execution and generation of results. TTI will assess each aspect of the modeling process in terms of adherence to typical industry practices and procedures. Elements of the review will include:

- Input Data
 - Geometric Data
 - Link geometry (length, lanes, speed, facility type)
 - Link connectivity (lane continuity and movement assignments at intersections)
 - o Control Data
 - Location and type of control devices
 - Settings for signal control
 - Yield definitions/rules
 - Traffic Demand Data
 - Input data sources
 - Conversion of input data to routes
 - Vehicle composition
- Global and Local Parameters
 - Car following parameters
 - Lane changing parameters
 - Desired speed decisions

- Reduce speed zones
- Input traffic speed
- Time step definition
- Calibration Methods and Results
- VISSIM Output Selection
 - Measures of effectiveness
 - Network-wide and focused data collection settings

The review will also include observation of vehicle behavior within the model including checks on erratic vehicle behavior, queuing that may extend beyond model boundaries and freeway weaving operations and queuing. At the request of CTRMA, TTI staff can undertake independent execution of consultant's VISSIM models to statistically verify whether or not model outputs from TTI test runs match outputs provided by consultants. *Deliverable:* Technical memorandum documenting modeling review and findings

Task 2. Exploration of Active Traffic Management (ATM) Strategies

Estimated Cost: \$36,000

Active traffic management is the ability to dynamically manage recurrent and nonrecurrent congestion on an entire facility based on prevailing traffic conditions. Focusing on trip reliability, these strategies maximize the effectiveness and efficiency of the facility while increasing throughput and safety. Active traffic management strategies rely on the use of integrated systems with new technology, including automated dynamic deployment to optimize system performance quickly and without the delay that occurs when operators must deploy operational strategies manually. When various active traffic management strategies are implemented in concert, they fully optimize the existing infrastructure and provide measurable benefits to the transportation network and the motoring public. TTI is a national leader in this field, and has conducted research for FHWA on this emerging field since 2006.

Task 2.1. Assessment of Existing Supportive ATM- and ATDM-related Practices Estimated Subtask Cost: \$10,000

The cadre of operational strategies under the ATM umbrella is diverse, particularly when it includes the broader concept of ATDM. This task will involve a review of current activities and efforts underway in the Austin that may qualify as ATM and/or ATDM and might set precedence for the concept in the region. This effort is important to help identify stakeholders, institutional issues, and any existing activities in the region that can support more extensive and comprehensive ATM in the MoPac corridor. (3 months) *Deliverable:* Technical memorandum documenting regional activities supporting ATM/ATDM

Task 2.2. Assessment of Feasible Alternatives for MoPac Corridor

Estimated Subtask Cost: \$26,000

This task will involve conducting an assessment of feasible ATM alternatives for the MoPac corridor. The task will begin with the use the Active Management Screening Tool developed by TTI for FHWA to screen possible strategies based on the goals and objectives of the region and the objectives and constraints within the MoPac corridor.

After identifying feasible alternatives, they will be vetted with stakeholders to narrow the field to realistic opportunities to enhance operations in the corridor. (3 months) *Deliverable:* Technical memorandum documenting results of screening tool analysis and recommendations for further action

Task 3. Technical Support for Assessment of User Information Needs

Estimated Cost: \$98,000

Drawing on the expertise of research staff, TTI will support development of signing and traffic control devices with a focus on provision of user information for the express lanes.

Task 3.1. Evaluation of Proposed Static and Dynamic Signs for User Comprehension, Driver Behavior and Applicable Standards

Estimated Subtask Cost: \$19,000

The evaluation will include sign locations, information density, proximity to choice and decision points, and roadway segment's geometry. Driver comprehension and behavior in response to signing and freeway operation maneuvers will be reviewed and analyzed. This task will outline and recommend signing adjustments and/or optimization needs to meet the design and operational requirements for the express lanes. Signing and marking plans will also be checked for conformance to the 2009 Federal MUTCD and anticipated changes in 2011 to the Texas MUTCD. Consistency with existing signing on adjacent toll facilities will also be considered.

Deliverable: Technical memorandum summarizing the evaluation and analysis recommendations. (2 months)

Task 3.2. Development of Message Distribution Set for Toll and Driver Information Signs

Estimated Subtask Cost: \$19,000

Approaches for displaying toll prices and destination information will be evaluated to define destination grouping and toll rates (\$/mile or \$/destination point). This task will also develop message sets and dissemination guidelines to support incident management for the express lanes and regional emergency management coordination. (2 months) *Deliverable:* Technical memorandum addressing the DMS signing preferences and the DMS message display content to include number of lines, line content, and text and font format.

Task 3.3. Focus Groups to Determine User Acceptance of Signing/Marking Plan and Concept of Operations.

Estimated Subtask Cost: \$60,000

Focus group discussions will be conducted by TTI with support from SUMA/Orchard Social Marketing to obtain user feedback on the proposed corridor signing (signage type, signage display, information type), pricing scheme, as well as driver understanding of the express lane concept. Four focus groups will be conducted in total drawing from Texas drivers who are familiar and unfamiliar with the MoPac corridor. Three groups will be conducted with Austin area drivers and one group in the Bryan/College Station area to represent unfamiliar drivers. Focus group participants will be recruited in compliance

with Texas A&M University Institutional Review Board (IRB) procedures for research involving human subjects. Subjects will be paid for their participation. (6 months) *Deliverable:* Technical memorandum summarizing the driver feedback obtained from the focus groups and makes recommendations for changes to traffic control and public outreach to address these comments.

Task 4. Informational Workshops

TTI will support CTRMA with outreach and education efforts through the development and support of information workshops.

Estimated Cost: \$6,000

Task 4.1. Stakeholder Informational Workshops

Estimated Subtask Cost: \$6,000

Support development and participation of up to three informational meetings with stakeholder groups. Support activities include development of meeting format/structure, presentation materials, and participation as subject matter expert.

Task 5. Technical Support and Assistance

TTI will provide technical expertise and transfer of research results on topics as needs arise. For each activity, a technical memorandum will be submitted documenting the findings and results. *Estimated Cost:* \$15,000

Activities may include the following:

- Facilitate peer exchange with other agencies in the U.S. developing comparable projects to MoPac
- TTI will facilitate conference calls, web meetings or other forms of peer exchange as needed on specific topics of interest, taking advantage of its network of contacts throughout the U.S. in the field of managed lanes
- Provide support in the review of the environmental process proposed schematic design and typical sections based on current industry practice and lessons learned.
- Provide support in the development and review of the Conceptual Operations Plan.

Total Not to Exceed Contract Amount: \$177,000

ATTACHMENT B INTERLOCAL COOPERATION AGREEMENT GENERAL TERMS AND CONDITIONS

Article 1. Amendments

This contract may only be amended by written agreement executed by both parties prior to the expiration of the contract.

Article 2. Disputes

The Performing Agency shall be responsible for the settlement of all contractual and administrative issues arising out of procurements entered in support of contract services. The Receiving Agency shall be responsible for the settlement of any dispute concerning this contract unless the dispute involves a subcontract.

Article 3. Records and Ownership

- **A.** The Performing Agency agrees to maintain all books, documents, papers, accounting records, and other evidence pertaining to costs at its office during the contract period and for four years from the date of final payment under the contract. These materials shall be made available for inspection and copying by the Receiving Agency, by the State Auditor's Office, and by their authorized representatives. If the contract is federally funded, these materials shall also be made available for inspection and copying by the U.S. Department of Transportation and by the Office of the Inspector General.
- **B.** After completion or termination of this contract, all documents prepared by the Performing Agency or furnished to the Performing Agency by the Receiving Agency shall be delivered to and become the property of the Receiving Agency. All sketches, photographs, calculations, and other data prepared under this contract shall be made available, on request, to the Receiving Agency without restriction or limitation of further use.
- **C.** The Receiving Agency shall own all title to, all interests in, and all rights to all intellectual property (including copyrights, trade and service marks, trade secrets, and patentable devices or methods) arising from or developed under this contract.
- **D.** Except to the extent that a specific provision of this contract states to the contrary, all equipment purchased by the Performing Agency or its subcontractors under this contract shall be owned by the Receiving Agency and will be delivered to the Receiving Agency at the time the contract is completed or terminated.

Article 4. Subcontracts

A subcontract may not be executed by the Performing Agency without prior written authorization by the Receiving Agency. Subcontracts in excess of \$25,000 shall contain all applicable terms and conditions of this contract. No subcontract will relieve the Performing Agency of its responsibility under this contract.

Article 5. Termination

This contract may be terminated by satisfactory completion of all services and obligations contained in this contract, by mutual written agreement, or by either party unilaterally after 30 days' written notice to the other party. The Receiving Agency shall compensate the Performing Agency only for those eligible expenses that are incurred during this contract and that are directly attributable to the completed portion of the work covered by this contract and only if the work has been completed in a manner satisfactory and acceptable to the Receiving Agency. The Performing Agency shall neither incur nor be reimbursed for any new obligations after the effective date of termination.

Article 6. Gratuities

Any person who is doing business with or who reasonably speaking may do business with the Receiving Agency under this contract may not make any offer of benefits, gifts, or favors to employees of the Receiving Agency. The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Executive Director of the Receiving Agency.

Article 7. No Assignment

Neither party shall assign, sublet, or transfer any interest in this agreement.

Article 8. Reference to Costs Principles and Circulars

Reimbursement with state or federal funds will be limited to costs determined to be reasonable and allowable under cost principles established in OMB Circular A-21, "Cost Principles for Educational Institutions," or OMB Circular A-87, "Cost Principles for State and Local Government." The parties shall comply with the requirements of the Single Audit Act of 1984, P.L. 98-502, ensuring that the single audit report includes the coverage stipulated in OMB Circular A-133.

Article 9. Performing Agency Resources

All employees of the Performing Agency shall have adequate knowledge and experience to enable them to perform the duties assigned to them. The Performing Agency certifies that it currently has adequate qualified personnel in its employment to perform the work required under this contract or will be able to obtain adequate qualified personnel from sources other than the Receiving Agency. On receipt of written notice from the Receiving Agency detailing supporting factors and evidence, the Performing Agency shall remove from the project any employee of the Performing Agency who is incompetent or whose conduct becomes detrimental to the work. Unless otherwise specified, the Performing Agency shall furnish all equipment, materials, supplies, and other resources required to perform the work.

Article 10. Equal Employment Opportunity

The Performing Agency agrees to comply with Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 and as supplemented by Department of Labor regulations, 41 CFR Part 60. The Performing Agency agrees to consider minority universities for subcontracts when the opportunity exists. The Performing Agency warrants that it has developed and has on file appropriate affirmative action programs as required by applicable rules and regulations of the Secretary of Labor.

Article 11. Nondiscrimination

- **A.** The Performing Agency shall comply with the regulations of the U.S. Department of Transportation relating to nondiscrimination in federally- assisted programs, including 49 CFR, Part 21; 23 CFR, Chapter 1, Subchapter C; and 41 CFR, Part 60-74 (the Regulations).
- **B.** The Performing Agency, with regard to the work performed during this agreement, shall not discriminate on the basis of race, color, sex, national origin, age, religion, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment.
- C. In all solicitations either by competitive bidding or negotiation made by the Performing Agency for work to be performed under a subcontract, including procurements of materials and leases of equipment, but not including routine purchase orders, each potential subcontractor or supplier shall be notified by the Performing Agency of the Performing Agency's obligations under this agreement and the Regulations.
- **D.** The Performing Agency shall provide all information and reports required by the Regulations and directives issued under the Regulations and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the Receiving Agency or the U.S. Department of Transportation to be pertinent to ascertain compliance with the Regulations or directives. If any information required of the Performing Agency is in the exclusive possession of another who fails or refuses to furnish this information, the Performing Agency shall so certify to the Texas Department of Transportation or the U.S. Department of Transportation, whichever is appropriate, and shall set forth what efforts the Performing Agency has made to obtain the requested information.
- **E.** In the event of the Performing Agency's noncompliance with the nondiscrimination provision of this agreement, the Receiving Agency shall impose such sanctions as it or the U.S. Department of Transportation may determine to be appropriate.
- F. The Performing Agency shall include the provisions of paragraphs A through E in every subcontract, including procurements of materials and leases of equipment, except routine purchase orders, unless exempt by the Regulations or directives. The Performing Agency shall take such lawful action with respect to any subcontract or procurement as the Receiving Agency may direct as a means of enforcing these provisions, including sanctions for noncompliance. In the event the Performing Agency becomes involved in or is threatened with litigation with a subcontractor or supplier as a result of directions given by the Receiving Agency, the Performing Agency may request the Receiving Agency to enter into the litigation to protect the interests of the State. In addition, the Performing Agency may request the United States to enter into litigation to protect the interests of the United States.

Article 12. Basis for Calculating Reimbursement Costs

The Receiving Agency will reimburse the Performing Agency for actual costs incurred in carrying out the services authorized in Attachment A, Scope of Services. The Receiving Agency shall compensate the Performing Agency for only those eligible expenses incurred during this

contract that are directly attributable to the completed portion of the work covered by this contract, provided that the work has been completed in a manner satisfactory and acceptable to the Receiving Agency. The Performing Agency shall not incur or be reimbursed for any new obligations after the effective date of termination. The Performing Agency shall bill the Receiving Agency for actual travel expenses, not to exceed the limits reimbursable under the state law. Out-of-state or out-of-country travel by the Performing Agency requires prior approval by the Receiving Agency.

Article 13. Funding

The Receiving Agency shall pay for services received from appropriation items or accounts of the Receiving Agency from which like expenditures would normally be paid. Payments received by the Performing Agency shall be credited to the current appropriation items or accounts from which expenditures of that character were originally made. If for any reason subcontractors and suppliers, if any, are not paid before the Receiving Agency reimburses the Performing Agency for their services, the Performing Agency shall pay the subcontractors and suppliers all undisputed amounts due for work no more than 10 days after the Performing Agency receives payment for the work unless a different time is specified by law. This requirement also applies to all lower-tier subcontractors and suppliers and must be incorporated in all subcontracts. If the Performing Agency fails to comply with this Article, the Receiving Agency may withhold payments and suspend work until the subcontractors and suppliers are paid. The Performing Agency is authorized to submit requests for reimbursement no more frequently than monthly and no later than 120 days after costs are incurred.

Article 14. Conflict of Interest

The Performing Agency shall not assign an employee to a project if the employee:

- 1. owns an interest in or is an officer or employee of a business entity that has or may have a contract with the state or the Receiving Agency relating to the project;
- 2. has a direct or indirect financial interest in the outcome of the project;
- 3. has performed services regarding the subject matter of the project for an entity that has a direct or indirect financial interest in the outcome of the project or that has or may have a contract with the Receiving Agency; or
- 4. is a current part-time or full-time employee of the Receiving Agency.

Article 15. Additional Work

- **A.** If the Performing Agency is of the opinion that any assigned work is beyond the scope of this contract and constitutes additional work, it shall promptly notify the Receiving Agency in writing. The written notice shall present the relevant facts and show how the work constitutes additional work.
- **B.** If the Receiving Agency in its sole discretion finds that the work does constitute additional work, the Receiving Agency shall so advise the Performing Agency and a written amendment will be executed. The Performing Agency shall not perform any proposed additional work or incur any additional costs before the execution of an agreement.

C. The Receiving Agency shall not be responsible for actions by the Performing Agency or for any costs incurred by the Performing Agency relating to additional work that is performed before an amendment is executed or that is outside the scope of the contract, as amended.

Article 16. Nonconforming Work

If the Performing Agency submits work that does not comply with the terms of this contract, the Receiving Agency shall instruct the Performing Agency to make any revisions that are necessary to bring the work into compliance with the contract. No additional compensation shall be paid for this work.

Article 17. Notice to Proceed

If Attachment A requires a notice to proceed, the Performing Agency shall not proceed with any work or incur any costs until the Receiving Agency issues a written notice to the Performing Agency authorizing work to begin. Any costs incurred by the Performing Agency before receiving the notice are not eligible for reimbursement.

Article 18. Authority of State Auditor

The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Article 19. Compliance with Laws

The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement. After receiving a written request from the Receiving Agency, the Performing Agency shall furnish the Receiving Agency with satisfactory proof of its compliance with this Article.

ATTACHMENT B

Estimated Budget

P2011207

Estimated Budget for 2/1/11 to 2/28/11 Central Texas Regional Mobility Authority Principal Investigator: Ginger Goodin	Technical Supp	ort for MoPac Improvement Project			P2011207
A. Direct Costs 1. Salaries and Wages ⁽¹⁾ Professional Services Clerical Services ⁽²⁾		8.56 staff-mo 0.41 staff-mo TOTAL SALARIES AND WAGES	\$ 73,843 \$ 1,650		\$ 75,493
 Fringe Benefits⁽³⁾ 17.1% of Salaries and Wages (Non-Stud Health Insurance (Staff @ \$526/person/n 		TOTAL FRINGE BENEFITS	\$12,909 <u>\$4,718</u>		\$17,627
3. Expendable Goods/Supplies		TOTAL SUPPLIES	<u>\$0</u>		\$0
4. Travel ⁽⁴⁾ Mileage	10 trips x 200 m	niles @ .51/mile TOTAL TRAVEL	<u>\$1,020</u>		\$1,020
5a. Other Operating Expenses Reproduction Air Courier SUB-TOTAL OTHER OPER	RATING EXPENS	SES	\$206 <u>\$95</u>	\$301	
5b. Other Operating Costs (NO INDIRECT) Computer Operations ⁽⁵⁾ SUB-TOTAL OTHER OPER	RATING EXPENS	SES (No Indirect) TOTAL OTHER OPERATING EXPENS	<u>\$2,019</u> ES	<u>\$2,019</u>	\$2,320
6. Capital Equipment		TOTAL CAPITAL EQUIPMENT	<u>\$0</u>		\$0
7. Subcontract/Consultant SUMA/Orchard - focus groups		TOTAL SUBCONTRACT/CONSULTAN	<u>\$25,000</u> T		\$25,000 \$ 121,460
B. Administrative Costs	46.5%	MODIFIED TOTAL DIRECT COST ⁽⁶⁾	\$119,441	\$55,540	ų 121,100
		TOTAL ADMINISTRATIVE COSTS	T TO SPONSOR		\$55,540 \$ 177,000
AU 6 1777 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		NEI COS	I IO SPONSOR	•	<u>\$ 177.000</u>

All facilities and equipment necessary to accomplish the required work are available.

The Texas A&M University System serves people of all ages, regardless of socioeconomic level, race, color, sex, religion, disability or national origin.

- 1 Salaries are estimated to include any expected pay increases during the contract period. Except for the Program Manager and Other Experts, salary rates are estimated based on a pool of available personnel. Reimbursement will be based on actual costs per employee in accordance with the Performing Agency's payroll policy and salary rate.
- 2 Clerical Staff are directly charged as the support required is significantly greater than the routine level of services provided by academic departments.
- 3 Fringe benefit rates are estimates only. Reimbursement will be based on actual cost per employee.
- 4 The Performing Agency shall bill the Receiving Agency for travel expenses not to exceed the limits reimbursable under state law. Trips shown are estimates only.
- 5 Includes computer use and network support services.

TEXAS TRANSPORTATION INSTITUTE

6 Per OMB Circular A-21 (rev 8/8/00) and F&A Agreement negotiated with DHHS, capital equipment purchases, rental costs, computer operations, technical support services, video operations, and subcontracts >\$25,000 are excluded from Modified Total Direct Costs.