

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 Party: Texas Transportation Institute

The Texas A&M University System - VID # 37277277275000

Receiving Party: North Texas Tollway Authority

II. STATEMENT OF SERVICES TO BE PERFORMED:

See Schedule A attached hereto and made a part of this contract

III. BASIS FOR CALCULATING REIMBURSABLE COSTS:

Cost Reimbursable

See Schedule B attached hereto and made a part of this contract. Note that no funds for Task 4 are currently included in the Schedule B budget attached. Any additional funding and time necessary for Task 4 will require an amendment to this agreement.

IV. CONTRACT AMOUNT:

The total amount of this contract shall not exceed: \$82,613.00

The maximum amount payable under this contract is contingent upon availability of funds.

V. PAYMENT FOR SERVICES:

Receiving Party shall pay for services received from appropriation items or accounts of the Receiving Party from which like expenditures would normally be paid.

Payments shall be billed: monthly

Payments received by the Performing Party 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be credited to its current appropriation items(s) or account(s) from which the expenditures of that character were originally made.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 for in Title 10 Chapter 2260 of the Government Code shall be used, as further described herein, by the Texas Transportation Institute and the Receiving Party to attempt to resolve any claim for breach of contract made by the Receiving Party:

A Receiving Party's claim for breach of this contract that the parties cannot resolve in the ordinary course of business shall be submitted to the negotiation process provided in Chapter 2260, subchapter B, of the Government Code. To initiate the process, the Receiving Party shall submit written notice, as required by subchapter B, to Mr. Don Bugh, Executive Associate Director, Texas Transportation Institute. Said notice shall specifically state that the provisions of Chapter 2260, subchapter B, are being invoked. A copy of the notice shall also be given to all other representatives of Texas Transportation Institute and the Receiving Party otherwise entitled to notice under the parties' contract. Compliance by the Receiving Party with subchapter B is a condition precedent to the filing of a contested case proceeding under Chapter 2260, subchapter C, of the Government Code.

The contested case process provided in Chapter 2260, subchapter C, of the Government Code is the Receiving Party's sole and exclusive process for seeking a remedy for any and all alleged breaches of contract by Texas Transportation Institute if the parties are unable to resolve their disputes under subparagraph (A) of this paragraph.

Compliance with the contested case process provided in subchapter C is a condition precedent to seeking consent to sue from the Legislature under Chapter 107 of the Civil Practices and Remedies Code. Neither the execution of this contract by Texas Transportation Institute nor any other conduct of any representative of Texas Transportation Institute relating to the contract shall be considered a waiver of sovereign immunity to suit.

Neither the occurrence of an event nor the pendency of a claim constitutes grounds for the suspension of performance by the Texas Transportation Institute, in whole or in part.

The designated individual responsible on behalf of Texas Transportation Institute for examining any claim or counterclaim and conducting any negotiations related thereto as required under '2260.052 of H.B. 826 of the 76th Texas Legislature shall be Mr. Don Bugh, Executive Associate Director, Texas Transportation Institute, MS 3135, Texas A&M University, College Station, Texas 77843-3135.

VII. INTELLECTUAL PROPERTY

Inventorship of developments or discoveries first conceived as the result of research conducted under this Agreement will be determined in accordance with U.S. Patent Law.

All rights to inventions made solely by employees and/or students of PERFORMING PARTY will belong to The Texas A&M University System, of which PERFORMING PARTY is a member. All rights to inventions made solely by employees of RECEIVING PARTY will belong solely to RECEIVING PARTY. All rights to inventions made jointly by employees and/or students of PERFORMING PARTY and employees of RECEIVING PARTY will belong jointly to The Texas A&M University System and RECEIVING PARTY.

For joint inventions conceived as the result of research conducted under this Agreement, PERFORMING PARTY and RECEIVING PARTY shall develop a mutually-acceptable protection and commercialization strategy, including the good-faith negotiation of the consolidation of rights in the joint invention in one of the two Parties.

PERFORMING PARTY hereby grants to RECEIVING PARTY an irrevocable, non-exclusive, non-transferable, royalty-free, fully paid right and license to use and apply PERFORMING PARTY'S inventions for its internal purposes only (including using such inventions in the construction, improvement, operation, and maintenance of RECEIVING PARTY'S turnpike projects), and without the right to sell products based upon PERFORMING PARTY'S inventions to third parties, or to sublicense rights in PERFORMING PARTY'S inventions to third parties.

VIII. 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 Party. This contract begins when fully executed by both parties and terminates on March 31, 2008.

IX. THE AGREEING PARTIES certify that:

1. The services specified above are necessary and essential for activities that are properly within the statutory functions and programs of the affected agencies and political subdivisions 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 TEX. GOVT. CODE ANN." § 791.

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

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

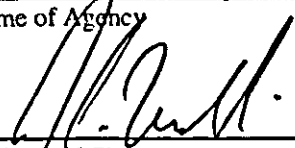
PERFORMING PARTY

RECEIVING PARTY

Texas Transportation Institute
Name of Agency

North Texas Tollway Authority
Name of Agency


Authorized Signature


Authorized Signature

6 Dennis L. Christiansen, PhD, P.E.
Agency Director
Title

Director of Maintenance
Title

June 21, 2007
Date

6-29-07
Date

1) Develop State-of-the-Practice Report on Work Zone Safety Devices

A significant amount of research and development has recently been completed or is underway to improve work zone safety. At the same time, FHWA has initiated rulemaking on high-visibility apparel for highway workers and on positive protection of highway workers. Under this task, TTI researchers will prepare a technical report to summarize these various initiatives. The report will describe work recently completed or underway, implementation recommendations made, and any remaining gaps in knowledge. As a minimum, the following topics will be reviewed:

- Traffic control plan enhancements for night work operations
 - Study to address ramps, bridges, interchanges, frontage roads, and main lanes
 - Study to include channelization devices and placement best practices
- Work zone lighting needs and requirements
- Highly-mobile positive protection systems
- Intrusion crash countermeasures (intrusion alarms, other traffic control strategies)
- Methods of speed management and control (enforcement [traditional, automated], speed display trailers, portable rumble strips, perceptual cues, etc.)
- Enforcement use for worker protection, traffic queue end protection
- Proper message design on permanent and portable changeable message signs
- Mechanical automation of various maintenance tasks
- Work zone safety training development
- Address the safety of workers in an area where the congestion is slowing the traffic down, versus an area when only a few cars are going at free flow speed through the work area
- Discuss accident rates for night work versus day work

2) Develop a Needs Assessment for a NTTA Maintenance Safety Plan

In this task, TTI researchers will work with NTTA personnel to conduct a thorough review of the activities NTTA Maintenance Department is conducting (and will conduct on future facilities) and recommend high-leverage areas where work zone safety can be most positively affected. For example, lighting plan requirements, traffic control plan enhancements, and other specifications that should be elevated when NTTA begins performing the majority of maintenance operations at night would be identified. In addition, longer-range needs, such as improved safety data collection and analysis for benchmarking and performance measurements, will also be explored. It is envisioned that this assessment will include at least three ½-day workshops with appropriate NTTA and TTI personnel to discuss issues and needs for safety improvements associated with the various maintenance activities. The results of the state-of-the-practice report will be used as a starting point and reference for discussions during these workshops. Following the workshops, TTI researchers will prepare a technical memorandum that provides a “roadmap” of short-range and medium-range action items that NTTA should consider going forward to achieve improvements in work zone safety within the organization.

3) Conceptual Design Report

This task would develop a conceptual design report on 2 potential applications/products: 1) barrel placement vehicle and 2) short-term work zone positive protection device. This would be accomplished through a series of meetings with NTTA staff to get needs, concept definition, and requirements.

Requirements for barrel placement vehicle should include consideration of:

1. Ability to place barrels in desired alignment and at desired spacing
2. Safety/protection of workers
3. Safety/protection of motorist
4. Speed of operation
5. Cost

Requirements for short-term work zone positive protection device should include consideration of:

1. Ease of deployment/placement
2. Size/length of zone protected
3. Level of positive protection
4. Space required for device
5. Ability to move device while deployed
6. Ease of removing device
7. Cost

Design concepts will be developed based on requirements established above. These concepts will be reviewed with NTTA personnel to identify expected performance and operational difficulties. One or more of the most promising design concepts will be selected for further evaluation in Task 4.

4) Testing Plan for Barrel Placement Vehicle and Positive Protection Device

This task would outline how fabrication and testing would take place on the two prototype devices. In the discussions, we identified that some things may be easier for NTTA to fabricate. This task would also lay out the scope, schedule, and budget for the phase 2 work.

Milestones

Description	Due Date
Task 1 Report	3 months after effective date of contract
Task 2 Report	6 months after effective date of contract
Task 3 – Conceptual Design Report for Barrel Placement Vehicle	6 months after effective date of contract
Task 3 – Conceptual Design Report for Positive Protection Device	7 months after effective date of contract
Task 3 – Plan for Task 4	9 months after effective date of contract

SCHEDULE B

SCHEDULE B

Estimated Budget

TEXAS TRANSPORTATION INSTITUTE
 Estimated Budget for 7/1/07 to 3/31/08
 Work Zone Safety Improvement Initiative
 North Texas Tollway Authority
 Principal Investigator: Gerald L. Ullman

P2007393

A. Direct Costs

1. Salaries and Wages*

Professional Services	3.55 staff-mc	\$	38,849
Clerical Services**	0.34 staff-mc	\$	871
Students (Undergraduate)	0.46 staff-mc	\$	618

TOTAL SALARIES AND WAGES \$ 40,338

2. Fringe Benefits

16.1% of Salaries and Wages (Non-Students)		\$6,395
1.2% of Salaries and Wages (Students)		\$7
Health Insurance (Staff @ \$459/person/month)		\$1,786

TOTAL FRINGE BENEFITS \$8,188

3. Expendable Goods/Supplies

TOTAL SUPPLIES \$0

4. Travel

Mileage ***	8 trips x 339 miles @ .445/mile	\$1,207
Meals ***	8 trips x 2 people x 2 days @ \$36/day	\$1,152
Lodging ***	8 trips x 2 people x 2 days @ \$85/day	\$2,720

TOTAL TRAVEL \$5,079

5a. Other Operating Expenses

Telephone (Long Distance Charges)	\$48
Reproduction	\$50

SUB-TOTAL OTHER OPERATING EXPENSES \$98

5b. Other Operating Costs (NO INDIRECT)

Computer Operations****		\$875
Evaluation/Reporting & Photographic Res.	80 hours @ \$45	\$3,600

SUB-TOTAL OTHER OPERATING EXPENSES (No Indirect) \$4,475

TOTAL OTHER OPERATING EXPENSES \$4,573

6. Capital Equipment

TOTAL CAPITAL EQUIPMENT \$0

7. Subcontract/Consultant

TOTAL SUBCONTRACT/CONSULTANT \$0

TOTAL DIRECT COSTS \$ 58,178

B. Administrative Costs

45.5% MODIFIED TOTAL DIRECT COST***** \$53,703 \$24,435

TOTAL ADMINISTRATIVE COSTS \$24,435

NET COST TO SPONSOR \$ 82,613

*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.*

* Salary rates are estimated for budget purposes only. Reimbursement will be based on actual costs per employee in accordance with Performing Agency's payroll policy and salary rate.

** Clerical Staff are directly charged as the support required is significantly greater than the routine level of services provided by academic departments.

*** The Performing Agency shall bill the Receiving Agency for travel expenses not to exceed the limits reimbursable under state law.

**** Includes computer use and network support services.

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