

RTI Semi-Annual Progress Report

Fiscal Year 2006

Date of This Report: March 1, 2006 **Project Number:** 9-1526 / TPF-5(116) RMC: 5

Period Covered by This Report: September 1, 2005 – February 28, 2006

Project Title: Investigation of the Fatigue Life of Steel Base Plate to Pole Connections for Traffic Structures

	Name	Agency	Phone No.	FAX	E-mail		
Research Supervisor	Karl H.Frank	UT/CTR	471-4590		kfrank@uts.cc.utexas.edu		

1. Requested Changes for Possible Project Modification

Project Termination:

No change.

Project Personnel:

No changes.

Funding Needs:

No problems or changes.

Work Plan:

No changes.

Deliverables Table:

None.

2. Program Development Information

FY2007 and FY2008 Itemized Budgets attached.

3. Equipment

No equipment was purchased.

4. Progress to Date, by Task

1) Literature Review

The literature review has been started. The analytical and field work by Connor will be included in the review as soon as it is available.

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2) Development of Test Plan

A meeting with the sponsoring states was held November 22 to formulate the initial testing program. An initial test matrix was developed and sent out to the sponsors for their approval. The test matrix was approved in January. The specimen design was started. The length and method of testing the tall light supports is being evaluated. They will be tested as either single vertical cantilever or paired specimens tested in the mast arm setup. The loading rams required, end fixtures, and specimens lengths are under study to determine the most efficient method of testing these large specimens.

3) Fatigue Testing

Fatigue testing should start next quarter.

4) Analytical Studies

Analytical studies of the end plate geometry will start next quarter.

5) Summary of Results

5. Progress on Development of "Product" Deliverables

No products required for this project.

6. Meetings/Conferences

Project meeting was held on November 22, 2005.

7. Possible Candidates for Formal Presentations at the Upcoming RMC Meeting

Not at this time.

8. Miscellaneous

None.

Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect. For inquiries call 512/465-7403.

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Itemized Budget Exhibit A

Texas Department of Transportation			
Agency(s):	UT/CTR	RMC:	5
		Fiscal Year:	2007
		Indirect Rate:	10%
Project No:	9-1526		
Title:	Investigation of the Fatigue Life of Steel Base Plate to Pole Connections for Traffic Structures		
		Revision Date:	

DIRECT COSTS		Estimated		Itemization		Total
		Budget				Costs
Salaries & Wages Professional Research Staff (Combine all Professional under one total estimated budget)	Staff Months** 12.50	\$	39,427	Professional Research Staff Est % Time* Karl H. Frank 15		
Subprofessional & Technical Clerical Total Salaries and Wages and Staff Months Fringe Benefits (provide details at the University's option)	1.23 0.50 14.23		5,387 1,958 13,564	PhD Researcher(s) 0 MS Researcher(s) (2) 100	\$	46,772
Tringe Benefits (provide detains at the emversity's option)		φ	13,304			
Total Fringe Benefits					\$	13,564
Expendable Goods & Supplies (provide details at the University's option)		\$ \$ \$	1,100 325 50	Hydraulic Oil, Filters and Strain Gages Miscellaneous Laboratory Supplies Computer Supplies		
Total Expendable Goods & Supplies		Ĺ			\$	1,475
Operating & Other Expenses Included in Modified Direct Costs Travel		\$	15,000	Out of State Participants		
Other		\$ \$ \$	100	Telephone 0		
Equipment Rental		\$	-			
Excluded from Modified Direct Costs ***						
Tuition (in lieu of partial or total salary)		\$	15,350			
Total Operating & Other Expenses					\$	30,450
Subcontracts ***		\$	-			
		\$ \$	-			
Total Subcontracts		Ф	_		\$	-
Equipment (items \$5,000 and over) ***		\$	-			
		\$	-			
		\$ \$	-			
		\$	-			
Total Equipment					\$	-
TOTAL DIRECT COSTS					\$	92,261
INDIDECT COCTC						
INDIRECT COSTS				MTDC+++ 0 7/011	•	20.456
			MTDC *** = \$ 76,911	\$	38,456	
less University's Contribution of 40%**** TOTAL INDIDECT COSTS CHARCED TO PROJECT (imited to Indiract Bet	o etc	tad at ta=	of nago)	\$	(30,764
TOTAL PROJECT COSTS CHARGED TO PROJECT (I	innied to indirect Kat	e sta	ieu at top	or page)	\$	7,692
TOTAL PROJECT COST					\$	99,953

 $^{^{\}ast}$ Include $\mathbf{estimated}$ % of each Professional's time expected to be spent on this project.

Exhibit A - Page 1 of 1 Project No.

^{**} Include estimated Staff Months for each category under Salary & Wages

*** Per OMB Circular A-21 (revised 8/8/00), equipment, tuition remission, rental costs, scholarships and fellowships, computer time, and the portion of each subcontract over \$25,000 shall be excluded from Modified Total Direct Costs.

**** Calculate this line based on the University's federally approved indirect cost rate, enter % in blank

Itemized Budget Exhibit A

Texas Department of Transportation			
Agency(s): UT/	CCTR	RMC:	5
		Fiscal Year:	2008
		Indirect Rate:	10%
Project No: 9-15	526		
Title: Inve	estigation of the Fatigue Life of Steel Base Plate to Pole Connections for Traffic Structures		
		Revision Date:	

DIRECT COSTS		Estimated		Itemization		Total
Salaries & Wages	Staff Months**	E	Budget	Professional Research Staff Est % Time*		Costs
Professional Research Staff (Combine all Professional under one total estimated budget)	13.00	\$	45,781	Karl H. Frank 15		
Subprofessional & Technical	2.15	\$	9,406	PhD Researcher(s) MS Researcher(s) (2) 100		
Clerical	0.75		2,938			
Total Salaries and Wages and Staff Months	15.90	i i	,		\$	58,125
Fringe Benefits (provide details at the University's option)		\$	16,857			
Total Fringe Benefits		Φ.	1	H. L. C. Fill	\$	16,857
Expendable Goods & Supplies (provide details at		\$ \$		Hydraulic Oil, Filters and Strain Gages		
the University's option)		\$		Miscellaneous Laboratory Supplies Computer Supplies		
		\$	100	Computer Supplies		
Total Expendable Goods & Supplies		Ψ			\$	1,875
Operating & Other Expenses						
Included in Modified Direct Costs						
Travel		\$	-			
Other		\$ \$	100	Telephone 0		
		\$	-	0		
Equipment Rental		\$	-			
Excluded from Modified Direct Costs ***						
Tuition (in lieu of partial or total salary)		\$	15,350			
Total Operating & Other Expenses					\$	15,450
Subcontracts ***		\$	-			
		\$	-			
		\$	-			
Total Subcontracts Equipment (items \$5,000 and over) ***		\$			\$	
Equipment (items \$5,000 and over)		\$	_			
		\$	_			
		\$	-			
		\$	-			
Total Equipment					\$	-
TOTAL DIRECT COSTS					\$	92,307
				·		
INDIRECT COSTS	+					
50 (%) of Modified Total Direct Costs				MTDC *** = \$ 76,957	\$	38,479
less University's Contribution of 40%****					\$	(30,783
TOTAL INDIRECT COSTS CHARGED TO PROJECT (imited to Indirect Rate	e stat	ed at top	of page)	\$	7,696
TOTAL PROJECT COST					\$	100,003

 $^{^{\}ast}$ Include $\mathbf{estimated}$ % of each Professional's time expected to be spent on this project.

Exhibit A - Page 1 of 1 Project No. 9-1526

^{**} Include estimated Staff Months for each category under Salary & Wages

*** Per OMB Circular A-21 (revised 8/8/00), equipment, tuition remission, rental costs, scholarships and fellowships, computer time, and the portion of each subcontract over \$25,000 shall be excluded from Modified Total Direct Costs.

**** Calculate this line based on the University's federally approved indirect cost rate, enter % in blank