



Evaluation Plan

December 2005

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INTRODUCTION

The Midwest Smart Work Zone Deployment Initiative (MwSWZDI) was initiated in 1999 as a Federal Highway Administration (FHWA) Pooled Fund Study intended to coordinate and promote research among the participating states related to safety and mobility in highway work zones. Led by Pat McCoy at the University of Nebraska, the original four states of Iowa, Kansas, Missouri, and Nebraska were joined by Wisconsin in 2001. In 2003, the Nebraska Department of Roads stepped down from its role as lead state, and the Kansas Department of Transportation stepped forward to lead the study. To best facilitate the transition, a new study was initiated with the same title and participants. Various circumstances led to another change of lead state in 2004, when the lead state role moved from Kansas to Iowa. The study is an ongoing cooperative effort between state Departments of Transportation, universities, and industry. Commercial products are provided by private vendors. State DOTs provide funds, prioritize products with respect to the anticipated benefits to their construction and maintenance activities, and cooperate with researchers to identify test sites and conduct the evaluations. To date, 47 evaluations of various work zone related products have been conducted or are ongoing, and several synthesis studies have been initiated. Completed reports and descriptions of ongoing projects can be obtained at Mid-America Transportation Center (MATC) website (www.matc.unl.edu).

PROGRAM PROCESS

The programming process for the study comprises the following steps.

1. The Technical Advisory Committee (TAC) develops problem statements describing the highest priority issues related to work zone safety and mobility.
2. The TAC issues a Request for Proposals (RFP) aimed at vendors of commercial products that address one or more of the problem statements.
3. Vendors submit descriptions of their products and their espoused benefits.
4. State DOT representatives rank these products by their relative importance to maintenance and construction activities in their respective states.
5. Evaluators prepare proposed work plans and budgets addressing the problems statements. The work plans may describe a product evaluation, a synthesis study, or a research study.
6. State representatives rank the proposals based on their respective needs.
7. An aggregate score for each proposal is calculated based on a weighted average of the state rankings. Rankings are weighted based on the funding level from each state.
8. The ranked list of proposals based on aggregate scores is compared against the available funds to determine the disposition of each proposal.¹

For PY 2005, a list of fifteen problem statements were developed. Time did not permit solicitation of vendors for potential solutions (Step 2 above), so the process skipped to Step 5, with proposals all being for synthesis studies or research projects. Four proposals were

¹ I.e., funded or not funded.

submitted by evaluators. Based on state rankings and funding levels, three of the four projects will be funded (the fourth duplicates the focus of one of the other three). Additional funds will be designated for study administrative duties and for a conference to be held in the Spring of 2005 to disseminate information about completed evaluations. A budget surplus existed because of higher than expected state funding and lower than expected administrative costs. A second solicitation has been issued. The funds associated with that solicitation are indicated appropriately in the budget.

PROJECT YEAR 2005 (PY 2005) PROGRAM

The four proposals submitted plus the conference and administrative budgets totaled \$190,201. Available funding totaled \$220,562, including \$20,562 being rolled over from previous years and \$25,000 from a supplemental source channeled through CTRE. One of the four proposals will not be funded due to its similarity with another of the proposals, reducing the requested funding to \$197,689, resulting in a budget surplus of \$22,873. A second solicitation was issued to identify a fourth project to be funded with the surplus funds. The participating states and their respective funding levels are shown in Table 1. The resulting program is shown in Table 2.

Table 1. Funding Levels of Participating Agencies.

Agency	Funding level
Iowa	\$ 45,000
Kansas	\$ 80,000
Wisconsin	\$ 50,000
Supplemental (CTRE)	\$ 25,000
Rollover from Previous Years	\$ 20,562
Total	\$ 220,562

Table 2. Proposal funding status and level

Proposal	PI	Amount	Status	
Administration-Travel	Tom Maze / Tom McDonald	ISU	\$42,740	Funded
Compendium CDROM	Aemal Khattak	UNL	\$3,000	Funded
Conference	Tom Maze / Tom McDonald	ISU	\$10,875	Funded
Design of Portable Rumble Strips, Phase 2	Eric Meyer / Rick Hale	MeyerITS / KU	\$37,650	Funded
Asset Management Strategies to Mitigate Freeway WZ Congestion	Tom Maze	ISU	\$50,000	Funded
Freeway WZ Capacity	Horowitz / Drakopoulos	MWU / MU	\$53,424	Funded
Comparison of Congestion Prediction Software	Eric Meyer	MeyerITS	\$22,873	Funded
Total Budget for PY 2005			\$ 220,562	
Projects Not Funded				
Freeway WZ Congestion Mitigation Strategies	Alan Horowitz	MWU	\$24,992	Not Funded

This program and associated work has been approved by the Technical Advisory Committee (TAC). Details of the Work Plan and budget details per project are provided in Appendix A.

APPENDIX A: WORK PLAN

The Midwest Smart Work Zone Deployment Initiative 2005 Work Plan comprises the individual work plan proposals submitted for individual projects that were subsequently included in the approved Study Program. ISU/CTRE will contract with IDOT for the entire study budget, and individual projects will be contracted between ISU/CTRE and the PI (or associated institution). Participating State DOTs will assist IDOT in monitoring project performance. Changes in project budget or work plan require approval of the TAC. For minor changes, the Project Monitor in the local state DOT shall represent the TAC, deferring to the TAC when deemed appropriate.

Project Budget

Item	Administration-Travel	Compendium CDROM	Conference	Design of Portable Rumble Strips, Phase 2	Asset Management Strategies to Mitigate Freeway WZ Congestion	Freeway WZ Capacity	Comparison of Software Packages for Traffic Congestion and Delay Estimation	Total
State	IA	NE	IA	KS	IA	WI	KS	
Personnel								
Salaries & Wages	\$13,845			\$25,416	\$27,510	\$27,235	\$22,400	\$ 116,406
Fringe Benefits	\$ 4,226			\$ 2,160	\$ 5,973	\$ 8,925		\$ 21,284
Subtotal	\$18,071			\$27,576	\$33,483	\$36,160	\$22,400	\$ 137,690
Other Direct Costs								
Materials & Supplies	\$ 500			\$ 2,750	\$ 265	\$ 200	\$ -	\$ 3,715
Printing & Copying	\$ 250			\$ -	\$ 200	\$ 200	\$ -	\$ 650
Postage	\$ 100			\$ -	\$ -	\$ -	\$ 123	\$ 223
Telephone & FAX	\$ 100			\$ -	\$ 200	\$ -	\$ 150	\$ 450
Research Equipment	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ 5,000			\$ 200	\$ 1,580	\$ 100	\$ 200	\$ 7,080
Other	\$ 9,900			\$ 355	\$ 1,120	\$ -	\$ -	\$ 11,375
Subtotal	\$15,850			\$ 3,305	\$ 3,365	\$ 500	\$ 473	\$ 23,493
Total Direct Cost	\$33,921			\$30,881	\$36,848	\$36,660	\$22,873	\$ 161,183
Indirect Cost	\$ 8,819			\$ 6,769	\$13,152	\$16,764	\$ -	\$ 45,504
Total Cost	\$42,740	\$ 3,000	\$10,875	\$37,650	\$50,000	\$53,424	\$22,873	\$ 220,562

Note: Detailed budgets for Compendium CDROM and Conference are either unavailable at this time or do not fit the categories of typical projects, and are given elsewhere. Consequently, the numbers in the rightmost column do not sum to the figure at the bottom of the column.