

Michigan State Transportation
Innovation Council (MISTIC)
Project Report:
Local Agency Pavement Warranty
Training Development

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Description of Project

In 2018 the Michigan Department of Transportation (MDOT) along with the Michigan County Road Association (CRA) developed draft guidelines for applying a legislatively mandated pavement warranty program on local agency paving projects. The local agency warranty policy can be applied to any project voluntarily if desired in locations where warranties are not mandated by legislation.

Warranties on paving projects are a relatively new paradigm for Michigan local agencies, both on the technical level and at the decision maker level. Outside of the large urban areas there is little experience with administering warranty programs at the local agency level. This is a concern since warranties can significantly add to the cost of a project and the financial protection they offer can be undermined if the local agency does not administer the program effectively. As with any innovation, a bad first experience from early adopters can taint the innovation and blunt its effectiveness. A training program was necessary to address this risk, and ensure successful adoption of pavement warranties as an innovative contracting tool.

This project developed and delivered training materials for both technical and non-technical local agency decision makers to provide the necessary background knowledge in order to make informed decisions about pavement warranties.

Overall Budget

The project budget primarily consisted of labor related expenses, with minor direct expenses related to travel and training facility expenses. The project budget as submitted to MDOT is included in Figure 1. \$74,792.80 of the project budget was funded by the STIC grant, with the remaining \$18,700.00 coming from in-kind services from the County Road Association.

The project exceeded the budget due to an increase in the amount and type of deliverables, with Michigan Tech absorbing the excess expense.

PRIME LABOR:						
<i>CLASSIFICATION</i>						<i>LABOR COST</i>
Director						\$ 5,725.80
Technical Writer						\$ 2,026.40
Research Engineer						\$ 596.20
Research Engineer II						\$ 6,791.94
Sr. Project Manager, Training & Ops						\$ 690.00
Customer Svc & Data Support Specialist						\$ 346.20
Workshop Coordinator						\$ 170.70
Research Associate						\$ 16,080.20
	Total Hours:	804			Total Labor	\$ 32,427.44
PRIME OVERHEAD: (Total Labor x Overhead Rate)						
	Overhead Rate:	37.00%			Total Overhead	\$ 11,998.15
PRIME OTHER DIRECT EXPENSES: (List each item once at Actual Cost - NO MARKUP.)						
<u>Items</u>	<u>Quantity</u>	<u>@</u>	<u>Unit Price</u>	<u>Unit</u>	<u>=</u>	<u>Item Price</u>
Facility Rental	40.00	@	\$ 50.000	Hour	=	\$ 2,000.00
Mileage - MTU Motor Pool	5,600.00	@	\$ 0.560	Mile	=	\$ 3,136.00
Lodging	24.00	@	\$ 78.000	Night	=	\$ 1,872.00
Per Diem	30.00	@	\$ 51.000	Day	=	\$ 1,530.00
Webinar Broadcast Services	6,250.00	@	\$ 0.060	Minute	=	\$ 375.00
Replication (material printing)	28,125.00	@	\$ 0.040	Page	=	\$ 1,125.00
Fringe Benefits-Prof	44,425.59	@	\$ 0.374	Dollar	=	\$ 16,615.17
ODC Overhead	10,038.00	@	\$ 0.370	Dollar	=	\$ 3,714.06
Advisory Panel Matching Services	18,700.00	@	\$ 1.000	Dollar	=	\$ 18,700.00
					Total Other Direct Expenses	\$ 49,067.23
TOTAL PRIME FIRM COSTS						\$ 93,492.82

Figure 1 Original Project Budget

Meeting Program Criteria

The project developed and delivered two training programs. The first training program was titled “Pavement Warranties for Local Decisionmakers” which was targeted at non-technical local elected officials who are responsible for making decisions at local road agencies. This includes county road commissioners, township board members, and city commissioners. The size of this audience is very large and disbursed across the state. The project developed a four-part asynchronous recorded training series with a fifth session that was a live question and answer session to meet the needs of audience reach and interactivity. The training series was designed to provide information on the warranty program in greater detail as the series progressed, with the first module targeted at a general knowledge level appropriate for the entire audience, and the fourth module relevant and targeted at specifics for agencies that were committed to pursue warranties.

The second training package titled “Pavement Warranty Administration and Inspection” was an instructor delivered, web based training targeted at technical decision makers, including county engineers and city engineers who are responsible for carrying out the warranty program. The one-and-a-half-hour training provided information on administrative requirements as well as technical requirements for inspection.

The project also created a place for an overview document, a warranty template for special provisions, a warranty resolution and guidelines for the use of warranties.

The project provided training and support documents for local agencies to be able to meet the administrative requirements of the state law that approved the use of warranties. The training materials also set expectations for what warranties are and are not best suited for.

Results

The four asynchronous training modules have seen wide use since their creation. The recordings of the live question and answer session and live technical training also serve as a continued resource for new elected officials and new technical staff. The question and answer session for elected officials drew 44 registrants while the workshop for technical administrators drew 104 registrants in addition to those that have accessed the material in a recorded format.

Challenges

The largest challenge with the project was designing a training program and delivering it in a short period of time to meet the legislative deadline. The budget for the project was also a challenge due to the large and disbursed audience which limited delivery modes. The non-technical elected officials were of specific concern since they typically have many responsibilities competing for their time and attention.

Lessons Learned

Providing separate training targeted at technical staff and non-technical elected officials provided the necessary information to both groups using terminology and language appropriate for their respective groups. Providing graduated training for elected officials allowed the audience who only needed a general background to opt out of future sessions and helped focus the audience and kept the content relevant. Providing access to these materials in the future allows new decisionmakers to either educate themselves or can be used by others in facilitated training to educate others.