



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

RICK SNYDER
GOVERNOR

KIRK T. STEUDLE
DIRECTOR

June 9, 2015

Mr. Russell Jorgenson, P.E.
Division Administrator
Federal Highway Administration, Michigan Division
315 West Allegan, Room 201
Lansing, Michigan 48933

Dear Mr. Jorgenson:

Fiscal Year 2014 Michigan State Transportation Innovation Council Incentive
Geospatial Utility Infrastructure Data Exchange

On April 20, 2015, the Federal Highway Administration (FHWA) requested additional information regarding the State Transportation Innovation Council (STIC) incentive funding used for the Geospatial Utility Infrastructure Data Exchange (GUIDE) report. This document supplements the Michigan Department of Transportation's (MDOT) original close-out letter dated April 6, 2015, (enclosed) by providing information on the following requested topics:

Project or Product Description

The Michigan Utility Coordination Committee (MUCC) and three of its member utilities, AT&T, Consumers Energy and DTE Energy, set out to acquire accurate three-dimensional geospatial information during the installation of utilities on seven pilot projects strategically identified by each utility. The pilot projects consisted of newly permitted utility installations located within MDOT's right-of-way. Accurate survey data was acquired on the installed utilities for all seven pilot projects according to the GUIDE Requirements Document created by the MUCC.

How the Work Specifically Meets the Program Criteria

One of the goals of utility coordination is to facilitate a smooth running project by ensuring that utility conflicts are identified, addressed, and resolved prior to construction. Results of the GUIDE pilot indicate that accurate utility information and thorough utility coordination may prevent costly conflicts, delays, service disruptions, redesigns, claims, and injuries. The following major benefits were identified as key drivers prompting the MUCC's GUIDE initiative:

- Identify utility conflicts early.
- Reduce utility conflicts during construction.
- Utilize accurate utility source data for improved utility coordination.
- Reduce public impact.
- Improve public safety.
- Reduce owner risk.

Result of the Project

The GUIDE pilot project went exceptionally well considering this was an all-volunteer group undertaking something truly new and innovative. All three utilities actively participated in making GUIDE an overwhelming success. This would have been a difficult task without their cooperation, experience and expertise. The utilities employed multiple data acquisition strategies which gained a broader understanding of the effort level required to capture accurate geospatial data per the GUIDE requirements document, under varying project conditions. There were several lessons learned regarding the logistics of capturing accurate geospatial data during utility installations that will greatly help steer the future direction of GUIDE. Prior to widespread implementation within MDOT or other potential roadway agencies, the overall process requires further refinement.

Challenges

During the GUIDE pilot project, MDOT's consultant Spicer Group had the opportunity to converse with all parties involved on a regular basis and gained valuable feedback throughout all the field installations and data acquisition processes. Below are challenges identified during the GUIDE pilot project.

- Safety
- Difficulties in coordination
- Initial cost
- Data accuracy
- Uniformity of standards
- Data security and controlled access
- Organizational change requirements

Lessons Learned

During the course of the GUIDE utility field installations, data collection methods, quality control review of data submittal and other miscellaneous activities related to this initiative, the following lessons were learned:

- Further development of the GUIDE Requirements Document is required to support a larger program roll out.
- There is the potential for significant roadway agency impacts that are structural, cultural, technical and procedural in nature, which agencies will need to be prepared to address.

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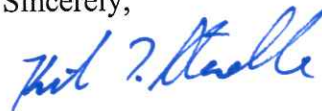
- Industry training and education will be necessary on best practices, lessons learned, proper data collection techniques, coordination techniques and processes for submitting data.
- Acquiring the geospatial data at installation is a noteworthy challenge for the utilities.
 - Surveyor proximity to the project location is key to a successful, timely and cost-effective coordination of surveying activities.
 - Coordination between the utility's installation workers and the surveyors, whether internal or contractors, were common challenges.

Expense Report

FHWA STIC Funding Amount (MDOT Job #123628)	\$50,000.00
Consultant Cost for GUIDE Report and Prezi Presentation (Spicer Group)	\$49,972.60
AT&T (non-monetary utility contribution)	\$5,032.50
Consumers Energy (non-monetary utility contribution)	\$29,048.76
DTE Energy (non-monetary utility contribution)	\$9,634.35

If you have any questions, please contact either me or Mark Van Port Fleet, Bureau of Development Director, at 517-241-3998.

Sincerely,



Kirk T. Steudle
Director

Enclosure