Project Summary

The Wisconsin Department of Transportation (WisDOT) receives funding from the Federal Highway Administration (FHWA) for highway construction and maintenance projects. FHWA defines the rules and standards for the use of federal funds on any WisDOT project or contract. An audit is completed before the project is closed and final payment is remitted to ensure FHWA rules and standards were followed.

This project was chartered by the Division of Transportation Investment Management (DTIM) Audit Section to examine the underlying causes of process delay and the increase in project audit backlog.

The goal of this project is to reduce non-value added repetition of audit procedures through a more effective deployment of resources to reduce the number of project audits in backlog.

Improvements

- Identified and eliminated redundant steps in the audit process
- Identified process steps to streamline to improve efficiencies
- Recommended areas for future process improvement and further study

MAPSS Core Goal Area

- Accountability
- Service

Statewide Goal Area

- Customer satisfaction
- Culture of government
- Employee work environment

Issue

The department faces an increasing project audit backlog, resulting in inactive federal projects. FHWA classifies any project inactive when there has been no expenditure of federal funds for more than 12 months. WisDOT risks reduced federal obligation authority, audit difficulties and consultant complaints when projects remain inactive for an extended time.

Lean Six Sigma Process

A cross-divisional team held a Kaizen, which defined the process, along with points of pain. The team used various Lean tools, including SIPOC, cause and effect diagrams, Kano analysis and value stream mapping to identify and address root causes of delay in the process.

Results

Customer satisfaction and government culture: The Audit Section has established baseline data and implemented process improvements to accelerate project close-outs, reduce project audit backlogs, and improve the level of federal inactive projects.

The turnaround time from project audits to expenditure accounting is expected to drop, with a goal of reducing project ages in the audit backlog to acceptable levels of 65 percent for projects older than one year, 25 percent for projects older than two years, and 10 percent for projects older than three years. As of June 30, 2014, project age levels were 41.73 percent for projects older than one year, 15.88 percent for projects older than two years, and 7.84 percent for projects older than three years.

It is also expected to reduce the project audit backlog to healthy and necessary levels, which was determined to be 3,200 hours and represents current staff level hours available to clear the entire backlog within one year. As of June 30, 2014, the estimated hours to complete the current audit backlog of 2,116 projects were 3,174 hours, and represent a 2,700-hour reduction from 2013.

Consultants, contractors and local governments will receive great benefit by having their projects settled in a more timely fashion. Earlier notice of balances due or refunds owed will increase customer satisfaction.

Employee work environment: The team worked in conjunction with DTSD and the Division of Business Management (DBM) in order to accomplish an overall goal of reducing the number of federal inactive projects. Within the Audit Section, the implemented changes have significantly reduced the number of project audits in backlog, eliminating workday stressors and improving overall morale.

Next Steps

The department will ensure process changes are sustained, monitor project backlogs, continue to review audit processes and implement improvements to all areas of auditing.