Web-Based Project Management Action Research for Highway Projects Under $10 Million

**Purpose**

Identify a web-based project management system for the Iowa DOT, specifically for the shop drawing approval process in smaller highway projects (< $10 million).

**Methodology**

Action Research, an iterative approach, was used to identify a solution. See Figure 1. An iteration begins with the diagnosing step and ends with the identification of the iteration’s lessons learned. The workflow of sign truss shop drawing approval process was documented in order to identify, test, and implement a WPMS solution that met these requirements. See Figure 2.

**Results**

After 3 action research iterations, Microsoft SharePoint, a web-content management system, was selected for implementation. SharePoint allows the development of pages with customized workflows and terminology to better meet the Iowa DOT needs and specifications.

**Lessons Learned**

- Action Research is an effective method to identify a WPMS solution available.
- Establishing a workflow before identifying solution is helpful.
- Identifying the roles and responsibilities of each project team member, accelerates the development and implementation process.