DEPARTMENT OF TRANSPORTATION

Asset Management Program Office
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Asset Management for Sign Maintenance

The demands on our Sign Maintenance forces continue to grow as the transportation system grows in traffic and complexity. Sign designs change as technology and crash testing matures, sign panels age and deteriorate while public expectations are increasing. Sign readability and reflectivity is front and center as the average population age is increasing.

Oakdale Sign Crew

MnDOT believes it is vital to practice and continue to advance Transportation Asset Management because TAM:

- Is a performance-based approach that uses agency goals and objectives to drive resource allocation. Asset management relates resource needs to the construction, maintenance, and operation of transportation infrastructure assets.

- Enables transportation agencies to improve accountability, decision-making, and coordination between maintenance and capital programs and better manage the available funding.

The collection, management, and analysis of quality asset inventory and condition data is a critical part of asset management. Asset management implementation benefits from well-planned information technology systems that consider the decision-making processes that agencies use to keep assets operational and safe.

MnDOT made a strong commitment to managing our assets by adopting an Asset Management Strategic Implementation Plan, which sets a departmental vision (and set of strategic objectives and action plans). In

other words, MnDOT is committed *"to effectively manage transportation assets by mitigating risk, optimizing return on investment, and using the best available information and tools."*

Asset Management for Sign Maintenance Staff at MnDOT

Maintenance and Operations staff play a critical role in the asset management picture. They not only carry out the work but are a critical link in capturing data that the department uses to demonstrate responsible management of the system and the resource gaps we face in meeting the system needs.

It is well understood that by virtue of their roles, field focused employees may not have good opportunities to see the extent of the value the data they may collect, or record provides. The following are a few of the ways Sign Maintenance staff help:

1. Updating sign inventory data in TAMS after traffic engineering requests are completed, and during blanket replacement projects, means key information like sign panel age can be used for planning and scoping.

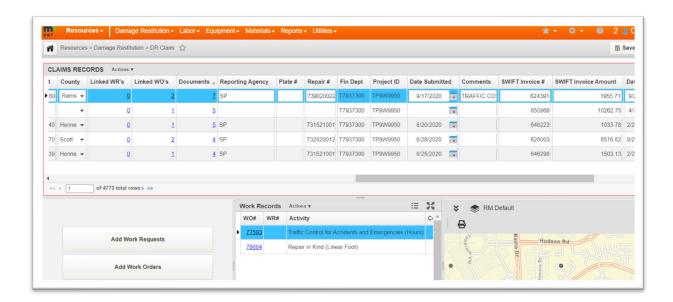*Traffic Engineering Scoping Map*

2. Tracking work order locations reduce agency risk. Signs being hit multiple times per year can be evaluated for site specific safety improvements.

Historical Georilla Tool

3. Work order labor, equipment, and material costs combined with the number of repairs per year is used to predict future budget and resource needs.

4. Utilizing updated sign inventory data for sign design saves roughly 30% time in the design process. Instead of physically logging each sign from the field, the existing inventory data is used for preliminary design in capital projects. District maintenance staff are also essential in performing quality control before major capital projects in some Districts.

Damage Restitution Automation in TAMS

Sign Maintenance staff play crucial roles, not just in performing high priority work, but in accurately capturing asset management data that improves agency decision making and creates much needed efficiencies.