CASE STUDY

The Missouri Department of Transportation Implements AASHTOWare Project Construction & Materials™ for Improved Processes

AASHTOWare
Project
Construction & Materials
AASHTO

CHALLENGE ▼

The Missouri Department of Transportation (MoDOT) was ready to move to a web-based construction management system in order to overcome challenges with upgrades, customizations, estimates, and more. Doing so would require a large-scale implementation to AASHTOWare Project Construction & Materials™.

800
AASHTOWare Project Users

≈450
AASHTOWare Project Construction & Materials Users

SOLUTION ▼

MoDOT's initial implementation goal was to reproduce the core functionality of AASHTOWare Project SiteManager™ in AASHTOWare Project Construction & Materials to expedite their process using only internal resources, before adding additional functionality.

RESULTS ▼

With AASHTOWare Project Construction & Materials, MoDOT **experiences easier support and upgrades, improved configurations and security, and the data flow benefits of the unified database.**

The Benefits of AASHTOWare Project Construction & Materials

We sat down with Jeremy Kampeter, Construction Management Systems Admin, and Jeannette Saucier, his IT specialist, to discuss the benefits of AASHTOWare Project Construction & Materials. ▶

CONFIGURATION

Agency Views allow MoDOT to configure the module to their needs. These configurations carry throughout the entire system and are easily transmitted over to the latest upgraded versions with guidance from the Meta Delta utility.

The Benefits of AASHTOWare Project Construction & Materials

UNIFIED DATABASE

Information can be accessed through a single common user interface between MoDOT's modules, without the need to maintain an export to/from SiteManager interface - though they are still maintaining that interface as they wind down their SiteManager usage.

USER SECURITY

The Active Directory, which enables role-based access and permissions into AASHTOWare Project, has eliminated the need to maintain a host of different passwords.

REPORTING

MoDOT no longer maintains multiple catalogs for different modules, maintaining one catalog for easier reporting.

USER INTERFACE

Rather than being limited to the 600x800 window of SiteManager, MoDOT enjoys the modernized, full-size interface in AASHTOWare Project Construction & Materials.

UPGRADING

Since AASHTOWare Project is web-based, MoDOT no longer deals with a cumbersome and lengthy manual upgrade process. The agency upgraded from 4.0 to 4.4 in an expedited time frame in order to enter data before construction season.

Why did the Missouri Department of Transportation implement AASHTOWare Project Construction & Materials™?

The Missouri Department of Transportation's involvement with the Technical Review Teams (TRTs) was a key factor in the move to AASHTOWare Project Construction & Materials. Having a direct hand in the product development process allowed the DOT to get a look at the features and benefits they wanted in their new system. That expansion and integration of Agency Views into the rest of the AASHTOWare Project system and the connectivity of the unified database were two of the main components that led the DOT to implement AASHTOWare Project Construction & Materials.

We sat down with Kampeter and Jeannette Saucier, his IT specialist, to learn more about MoDOT's implementation process and their motivation to upgrade to AASHTOWare Project Construction & Materials.

WEB-BASED ACCESS AND MAINTENANCE

Since all AASHTOWare Project modules are web-based, the lack of physical installation required for every user was a very attractive benefit to the MoDOT team.

"A web-based version would be easier to support, you don't need to push something out to all the clients… We don't have thousands of machines that somebody has to touch or have to be touched by some sort of automated process to do the upgrades. You upgrade the web server, the next day every user still clicks on the same link and goes in the same as always," said Kampeter.

CONFIGURATIONS AND METADATA

Ease-of-upgrading is just one reason MoDOT decided to move to AASHTOWare Project Construction & Materials. The team was also looking forward to the Agency Views functionality that covers the entire AASHTOWare Project system with greatly improved flexibility and templating capabilities. Additionally, the recently released Meta Delta utility that verifies custom metadata to ensure customizations carry over into new releases would streamline the upgrade process.

"Previously, we had to do customization to the source code of the product itself, while the metadata allows us to make updates to the XML pages that are inside the application versus actual modification to the source code," said Saucier.

THE UNIFIED DATABASE ▶

Every AASHTOWare Project module is connected through the unified database, allowing all module data to be accessed from a single database with an intuitive user interface allows the different business areas to move seamlessly through the various phases of a construction project. This natural flow of data was appealing to the MoDOT team, who are used to maintaining export interfaces to move data around.

"The interfaces between the different modules don't have to be maintained anymore since the data flows more naturally between the modules. So, in the past or even now that we're going to have SiteManager up for a little longer in a limited capacity, we still have to maintain those Export to SiteManager interfaces, while once we're completely in AASHTOWare Project Construction & Materials, those will just naturally be there," said Saucier.

That said, the team is still working on how to best align the flow of information with the different schedules in their multiple divisions, as Kampeter explained:

"With our custom reporting, for example, we can cross over between the stuff that's in Design and in Construction, but it does pose a little bit of an issue because we have different schedules in our Design and Construction divisions. Construction doesn't want to be updating in the middle of construction season, but that's Design's slower point for the year. It takes a lot of coordination there to balance the different divisions."

Reviewing the Implementation Process

Transportation agencies all tackle implementation in different ways. Some choose to hire implementation specialists, like those at Infotech®, to assist in the implementation process. Having implemented both AASHTOWare Project Preconstruction™ and AASHTOWare Project Civil Rights & Labor™ on their own in the past, MoDOT was confident in their ability to implement this latest module with solely internal resources.

NO DEDICATED TEAM, JUST DEDICATED EMPLOYEES

To balance implementation with ongoing responsibilities, MoDOT forewent a dedicated implementation team in favor of a team of six that took on pieces of the implementation in addition to their regular duties. Jeannette and a retiree the agency brought back to help with materials set-up were the closest they had to a full-time implementation team.

"We had a team of six people, but it wasn't something where we could take people away from their other duties. So it was extremely difficult, but we had a good team of smart and talented people working on it," said Kampeter.

STARTING WITH ESSENTIAL FUNCTIONALITY

To streamline the implementation process, MoDOT stripped back their needs to the essentials. Rather than tackling all the additional functionality in AASHTOWare Project Construction & Materials, the MoDOT team focused on recreating functionality in SiteManager. This system allowed the team to implement quickly in the areas they know best while leaving the door open for adding features down the road.

"We essentially recreated what we were doing in SiteManager and now we're going back and looking at incorporating some of the additional features that we may be able to use that we just didn't have the time to explore," said Kampeter.

TAKING A PHASED APPROACH

If the world stopped moving during software implementations, they would go smoothly every time. Unfortunately, agencies often have to balance ongoing responsibilities with implementation. To do so, MoDOT migrated only the necessary contracts that had a "drop-dead" date of when they needed to be in AASHTOWare Project instead of SiteManager. While those dates were firm, not all of those contracts began at the same time. MoDOT used the window in between projects to conduct hands-on training and run pilot projects.

"We used a train-the-trainer method and had several pilot projects ongoing before we went to full implementation so that helped to get people in each of the districts in the system, using it, and seeing it every day," said Kampeter.

An Implementation Checklist

Far from a complete rundown, this checklist showcases example tasks that MoDOT tackled during implementation.

- ▸ Recreate construction and materials templates from SiteManager
- ▸ Recreate custom reports that were built in a third-party system
- ▸ Incorporate previously unused LIMS functionality
- ▸ Set up Agency Views
- ▸ Train employees on new software
- ▸ Many, many other steps

Agencies often take a phased approach to get to production more quickly. In this case, MoDOT proceeded without significant enhancements as their initial goal. As time and resources permitted, they added additional capability inherent to AASHTOWare Project that exceeds Site Manager and implemented those enhancements with minimal impact on production.

Agency Advice Column

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Dear MoDOT,

Implementation seems
like a daunting
task. What advice
would you give to
an agency that's
about to begin an
implementation?

Sincerely,
Anxious Agency
Administrator
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Dear AAA,

It can be daunting, but with the right team and process, you can implement without causing undue stress on your team or your Tums budget. We would recommend:

- ▸ Determine which version you are going to upgrade to and build your timeline around that. MoDOT planned for 4.0 a year ahead of its planned release.
- ▸ Put together a team that has worked together closely in the past and can easily overcome any implementation speedbumps.
- ▸ If you're upgrading from SiteManager, identify the functions and steps in SiteManager that you want to carry over to AASHTOWare Project.

Put together a timeline of tasks in your preferred project management system. If possible, try and have a dedicated project manager on the implementation team. Finish out any projects that you can in SiteManager rather than migrating them over to AASHTOWare Project. Migration is the biggest challenge.

Hope that helps,
MoDOT Implementation Team