AASHTOWare Project[™] Software Update Contract Management Conference March 29, 2017





What is AASHTOWare?

- Powerful enterprise software suite
- Designed by transportation professionals for transportation professionals
- AASHTOWare advantages:
 - Cost sharing
 - Utilizes best business practices
 - Helps DOTs comply with FHWA regulations
 - Follows AASHTO national standards
 - Customizable to accommodate state-to-state differences







What is AASHTOWare Project?

- Enterprise-wide web-based software
- Manages information throughout the entire contract and construction lifecycle
- Includes cost estimation, proposal preparation, bid-letting, construction and materials management, and historical data collection & analysis
- Creates an integrated view of the contract process throughout each phase
- Provides mobile solutions for the field
- Includes external access options







AASHTOWare Project – An Integrated Solution







AASHTOWare Project Modules







AASHTOWare Project Licensees



50 agencies, including Washington D.C. and two Canadian provinces

• 35 agencies licensing construction/materials modules







AASHTOWare Project At MDOT

- MDOT uses AASHTOWare Project (AP) to manage and process virtually all aspects of Michigan's road, bridge, airport, and railroad construction project life cycles
- The software is critical to MDOT carrying out its mission
- Current legacy AP systems utilize client/server based technology which is becoming obsolete
- Major endeavor in progress to replace existing client/server based systems with a web based system





AASHTOWare Project Systems Used By MDOT

Module	Stage
BAMS/DSS	Production
Bids	Production
Construction & Materials	Licensing
Construction Administration	Production
FieldManager Suite	Production
FieldManager Bridge	Production
FieldNet	Production
Mobile Inspector	Production
SYNC Service	Production
Preconstruction	Production
Worksheet (SAPW)	Production





Transition Analysis Project

- MDOT conducted AP transition analysis project
- Purpose of project was to identify and examine the issues involved with migrating the client/server based legacy systems to the new web based system
- Project recommended to implement the web based system and retire the client/server predecessors
 - Consistent with State of Michigan's strategic direction
 - Web based systems are industry standard with many advantages over c/s systems
 - New AP web based system also provides:
 - New and improved functionality in many areas
 - One unified database
 - Single standard security model





Legacy Systems / Replacement Modules

	Legacy System	AP Replacement Module
•	Proposal and Estimates System (PES) Letting and Awards System (LAS) Worksheet (SAPW)	Preconstruction
• • •	FieldManager Software Suite FieldNet System Construction Administration System (CAS) Materials Testing System (SampleManager)	Construction & Materials
•	Expedite	• Bids
•	N/A	Civil Rights & Labor
•	Decision Support System (BAMS/DSS)	• TBD





Projects Needed To Move Forward With Web Software

	Actual/Est.	Actual/Est.
Project	Begin Year	End Year
Preconstruction Analysis/Preparation	2011	2014
Construction/Materials Development	2011	2014
Preconstruction Implementation	2013	2014
AASHTOWare Project 3.01 Development	2014	2016
Construction/Materials Analysis/Preparation	2015	2017
Construction/Materials Implementation	2016	2019
Civil Rights & Labor / LCPTracker Gap Analysis	2017	2018
Construction/Materials Analysis/Preparation – Phase II	2018	2019
Construction/Materials Implementation – Phase II	2019	2020
Civil Rights & Labor Analysis/Preparation	TBD	TBD
Civil Rights & Labor Implementation	TBD	TBD





Construction & Materials Module

- Construction & Materials contains all applicable functionality in FieldManager and CAS
- New user interface
- Includes significant amount of new functionality:
 - Electronic approvals
 - Historical reports
 - Ability to go paperless in many areas
 - Event notifications





Construction & Materials Module (cont)

- Improved/reengineered functionality in many areas including:
 - IDRs
 - Material approvals/usage
 - Stockpiles
- Interfaces with Mobile Inspector app
- Web based system will streamline and eliminate:
 - FieldNet
 - Sending read-only copies of contracts to contractors
 - Client software installs and upgrades



Construction/Materials Analysis/Preparation Project

- Conducted the analysis work and tasks required to prepare the Construction & Materials module for implementation
- Projected completed in Feb, 2017
- Work included:
 - Gap analysis between Construction/Materials and predecessor systems
 - Study on MDOT's use of breakdowns
 - Configured software for MDOT's business processes
 - Identified and applied customizations needed
 - Prepared software for external access
 - Developed and customized reports
 - Tested software in SOM environment
 - Developed business change management plan





Construction/Materials Implementation Project

- Implements Construction & Materials into production
- Project currently in progress
- Work includes:
 - User acceptance testing
 - Load/performance testing
 - Upgrade FieldManager/CAS interface systems to interface with Construction & Materials
 - Implement MSP/DNR solution that provides MDOT vehicles with internet access statewide
 - Execute business change management plan which includes:
 - Updated business processes
 - Policy and procedure changes
 - Communication campaign
 - Training program
 - Place software in production in accordance with implementation plan





Construction & Materials Implementation Plan

- Goal is to minimize risk and disruption to user community as much as possible
- Implements in stages:
 - Stage 1: Limited Production
 - Currently scheduled for 10-1-17 to 8-31-18
 - Stage 2: Transition To Full Production For All New Contracts
 - Currently scheduled for 9-1-18 to 9-30-19
 - Stage 3: Migrate Remaining FieldManager/CAS Contracts to Construction & Materials
 - Stage 4: FieldManager Archived Contracts
 - Stage 5: Decommission FieldManager, FieldNet, CAS





Construction & Materials Implementation Impact

- Will use standardized AASHTO terminology as much as possible changes include:
 - Inspector's Daily Report -> Daily Work Report
 - Contract Modification -> Change Order
 - Construction Pay Estimate Report -> Payment Estimate For Contractor
 - Contractor's Performance Evaluation -> Contractor Evaluation
- Consultants will not have to pay license fees
 - Training is still TBD





Construction & Materials Impact To Contractors

- Contractors will <u>not</u> have to pay license fees
- Authorized contractor staff will receive Login ID
- Contractors will have real time read-only access to reports & screens with information currently in FieldManager
- Eliminates receiving read-only copies of contracts via FieldNet
- Change Order (Cont. Mod.) approvals will be done in Construction & Materials
 - Contractor firms will need to specify staff authorized to approve Change Orders
- Training is still TBD





Construction & Materials Use For Non-MDOT Contracts

- State of Michigan will host Construction & Materials software for MDOT let contracts only
- FieldManager will continue to be available for non-MDOT let contracts for awhile after MDOT has implemented Construction & Materials
- Potential tools that could be used after FieldManager is no longer available
 - Michigan Tech's Michigan Engineers' Resource Library (MERL) software
 - See <u>http://merl.michiganltap.org/about</u> for information
 - Various third party tools are also available



Questions?



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