AASHTOWare® Project
What it can do for your agency

Jim Johnson, AASHTO
AASHTOWare Project Business Manager
AASHTOWare

- Customer-led model
  - Dedicated expert volunteers
- AASHTOWare enables:
  - Cooperative development
  - Management
  - Sustainability of timely, cost effective
  - State-of-the-art technical solutions
- Meet the requirements of AASHTO members

AASHTOWare Users

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What is AASHTOWare Project™?

- Enterprise web-based software
- With a unified database
- Manages contract and construction lifecycles
- Creates an integrated view of the contract process
- Provides secure third-party integration
- Mobile solutions for the field
AASHTOWare Project: An Integrated Solution

Decision Support

Cost Estimation

Construction & Materials Management

Contractor Management

Civil Rights & Labor Management

Contract Award

Bid Letting

Project Development

PS&E Estimate

Proposal Preparation

AASHTOWare Project: An Integrated Solution

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AASHTOWare Project Preconstruction™

- Manages project information
- Track funding and costs information
- Checking and verification of bids
- Reporting
- Bids
  - Letting
  - Summary
  - Analysis

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AASHTOWare Project Bids™

- Streamlines the bidding process
- Electronic bids
  - Publishing
  - Submitting
- Digital certification to sign bids
- Linked to AASHTOWare Project Preconstruction

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AASHTOWare Project Civil Rights and Labor™

- Federal and state requirements
  - Good Faith Efforts
  - Equal Employment Opportunity
  - Affirmative Action
  - DBE/MBE/WBE certifications
- Payroll
- Reporting
- Field interviewer mobile app
## Project Life-cycle

<table>
<thead>
<tr>
<th>Estimation</th>
<th>Projects &amp; Proposals</th>
<th>Bid Lettings</th>
<th>Construction</th>
</tr>
</thead>
</table>

[Image of AASHTOWare Project logo]

[aashtoware.org]
AASHTOWare Project Estimation™ is a web-based, cradle-to-grave estimation application designed to deliver accurate, reliable estimates for your construction program.
<table>
<thead>
<tr>
<th>Conceptual Estimate</th>
<th>Program Estimate</th>
<th>Preliminary Detail Estimate</th>
<th>Final Detail Estimate</th>
</tr>
</thead>
</table>

**Estimation Life-cycle**

[Image: AASHTOWare Project Estimation]

[Website: aashtoware.org]
AASHTOWare Project Estimation™

Estimation Cycle

- Long-range planning
- Transportation improvement needs
  - STIP Reports, 10 and 20-Year Plans
  - Corridor Studies
- Feasibility/Alternative analyses
- Project scoping / Initial design
- Detailed project design
- Final estimate
Types of Estimates

- Long Range (Parametric) estimates
  - Planning/Conceptual estimate
    - Get project cost from general parameters
    - "I want to resurface 5 miles of 2-lane asphalt pavement in Alachua county. How much will it cost?"
  - Project scoping estimate
AASHTOWare Project Estimation™

Types of Estimates

• Short Range (Item-level) estimates
  – Preliminary estimate
    • Design the project specific items
    • Get item quantities from design and estimate unit prices
  – Final detail estimate
AASHTOWare Project Estimation™

Estimation Initiation

• Concept
  – Cost Estimate
    • Adhoc pricing
    • Parametric items
    • Typical sections
    • Detail items
    • Non-construction costs
    • Variables
AD HOC ESTIMATION

I didn’t have any accurate numbers so I just made up this one.

Studies have shown that accurate numbers aren’t any more useful than the ones you make up.

How many studies showed that?

Eighty-seven.
Estimation Methodologies

• Parametric (improvement type, length, etc.)
• Bid-based (derived from historical data)
• Cost-based (labor, equipment, materials)
• Reference prices
• Ad hoc prices
• Any combination of the above pricing methods
AASHTOWare Project Estimation™
Conceptual Estimation Transition

1. Project Estimate
2. Transition the Concept to a Project (11)
3. Build Project Items (12)
4. Maintain Cost Estimate Item Prices
5. Letting Estimate
6. Associate a Cost Estimate with a Proposal (13)
7. Maintain Cost Estimate Item Prices
How can AASHTOWare Project Estimation Help You?

• Work Program/Budget
  – Long Ranger Planning
  – Work Program Development

• Designer
  – Alternate Designs
  – Final Design Cost

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AASHTOWare Project Construction and Materials™

• Construction management
• Materials management
• Laboratory information management
• Field Inspection mobile app
Stormwater Compliance Functionality

Manage/Trace SWPPPs at the contract level via:

- Contract Permits
- Locations (Stormwater controls, discharge points, etc)
- Earth-Moving Events
- Events Daily Work Reports
- Completion of Stormwater Inspection Report
Stormwater Compliance Inspection Report

State Highway Agency

Stormwater Environmental Compliance Inspection Report

Contract: JIMTEST, CT TEST  Prime Contractor: 00158, Klett Construction Company
Fed Proj Num:  District:  Managing Office:
Project Engineer:  Delivery Engineer:  
Report Period: 07/05/2017 to 07/10/2017  Inspection Cycle:  Compliance Certification Status:
Inspector: John Oberdiek  Qualification: Storm Water Inspector Extraordinaire!
Entered By: CorporateDomain\johnson1  Revised By: CorporateDomain\johnson1
Date of Last Precipitation:  Weather:  Rainfall Amount:
Location:
Comments:

Contract Projects

<table>
<thead>
<tr>
<th>Project ID</th>
<th>Description</th>
<th>Controlling</th>
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<tbody>
<tr>
<td>Jintest</td>
<td>Test</td>
<td>No</td>
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</table>

Permits

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<tr>
<th>Permit ID</th>
<th>Permit Type</th>
<th>Submit Date</th>
<th>Obtained Date</th>
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<tbody>
<tr>
<td>SW Permit 001</td>
<td>Federal - CWA Stormwater</td>
<td>07/03/2017</td>
<td></td>
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</table>

Earth-Moving Events

<table>
<thead>
<tr>
<th>Description</th>
<th>Proj Cmpl</th>
<th>Actl Cmpl</th>
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</thead>
<tbody>
<tr>
<td>Grading for Bridge Approach</td>
<td>07/24/2017</td>
<td></td>
</tr>
</tbody>
</table>

Contract: JIMTEST  Stormwater Report Period  07/05/2017 to 07/10/2017  Page: 1 of 1
Stormwater Compliance Functionality

Daily Work Reports:

• Qualified Inspector
• Weather Conditions (rain totals, etc)
• Triggers Events (Required actions needed, due date)
• Stormwater Inspection Report
How can AASHTOWare Project Construction & Materials Management Help You?

Application comes with specific functions related to tracking and managing all environmental requirements related to construction activities, specifically water run off.
Following slides won’t be used but general text idea on them will be used in presentation.
Conceptual Estimate

1. Create a Concept
   - Add Ad Hoc Pricing (3.c)
   - Add Typical Section Profiles (3.d)
   - Add Parametric Items (3.e)
   - Add Non-Construction Costs (3.f)
   - Add Markups (3.g)
   - Add Contingency Assignments (3.h)
   - Add Life Cycle Costs (3.i)

2. Create a Cost Estimate for the Concept
   - Use the Cost Estimate in Project Planning Stages (3)

3. Refine Cost Estimate