2014 SASHTO Conference CHANGE

Our Advanced Solution with Integrated Systems

Topics

- wvOASIS Background
- Project Schedule
- CGI Advantage Implementation Methodology
- WVDOT Specific Benefits



wvOASIS Defined

- An enterprise resource planning or ERP system is a comprehensive suite of commerciallyavailable integrated modules that provide end-to-end support for statewide administrative functions
- wvOASIS is the State of West Virginia's new ERP solution



wvOASIS Background

- Pre-implementation planning phase of the project initiated in May 2010
- Requirements defined for each functional area –
 more than 50 DOT staff participated in this effort
- RFP released in January 2011
- Evaluation of technical proposals and software demonstrations conducted in the Spring of 2011
- BAFO process conducted in summer 2011
- Contract signed with CGI on December 14, 2011



Governance

ERP BOARD

Governor Earl Ray Tomblin; State Auditor Glen B. Gainer III; State Treasurer John D. Perdue

EXECUTIVE STEERING COMMITTEE

Secretary Ross Taylor DOA, Chair Warren Keefer DHHR Keith Chapman DOT Secretary Charles Lorensen DOR Senator Robert Plymale Delegate Brent Boggs Ed Magee HEPC Terri Tomblin-Byrd Mountwest CTC Cynthia Curry FSU Mike McKown SBO Todd Childers SAO
Mack Parsons SAO
Fred Thomas STO
Misty Price STO
Gale Given OOT
Elaine Harris - Employee Advocate

PROJECT DIRECTORS

Todd Childers Fred Thomas, Deputy PD Tom Augustine CGI

PROJECT ADVISORS

Mitt Salvaggio ISG Kirk Teal ISG Daniel Keene CGI Christopher James CGI

PROJECT MANAGERS

Rick Pickens Randy Meek ISG Michael Clair CGI Rohit Chande, Deputy PM CGI

PROJECT ADMIN

Evan Pauley Mike Withrow Jennifer Namey CGI

PMO

Stephanie McWhorter CGI Lisa Shinn ISG

TEAM LEADS

Financial

Shawn Carper Chuck Williams ISG John Dickison CGI Procurement & Logistics

Dan Miller Willo Laurel ISG David Hay CGI HR/Payroll

Stephanie Ankner Joe Hoover ISG Anne Bruening CGI Treasury

Greg Hodge Chuck Williams ISG John Dickison CGI Transportation Rob Pennington Kyle Stollings Kim Asseff

Robert Cooney ISG Gary Thomas CGI Enterprise Readiness

Lisa Comer Ted Benca ISG Joan Lillich CGI Technical

Matt Ellison Satya Srivastava ISG Sanjeev Musafir CGI



wvOASIS Scope

PROCUREMENT AND LOGISTICS

- Solicitations
- eProcurement
- Vendor Self-Service
- Contracts Management
- Warehouse Inventory
- Fleet Management
- Facilities Management
- Real Estate Management
- Transportation Operations Mgmt
- Transportation Asset Inventory
- Safety Management
- Right-of-Way and Utilities

FINANCIAL MANAGEMENT

- General Ledger & Budgetary Control
- Accounts Payable & Travel
- Procurement Card
- Accounts Receivable & Billing
- Grants Management
- Project Management
- Cost Accounting/Allocation
- Asset Management
- FHWA Federal Aid Billing
- Budget Development

HUMAN RESOURCES/PAYROLL

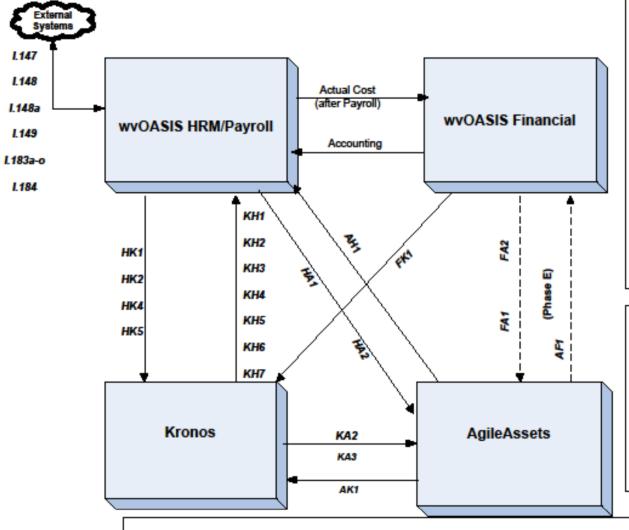
- Position Control
- Personnel Administration
- Payroll Administration
- Employee Relations & Performance Management
- Recruitment and Applicant Services
- Benefits Administration
- Learning Management
- Time Reporting
- Employee Leave Accounting
- Employee Self-Service



TREASURY MANAGEMENT

- Banking
- Cash Management
- Debt Management
- Investment Accounting

Time & Labor Interfaces



Note: The Interfaces mentioned below are discussed in detail in the Phase D interface

HK1: Employee Demographics

HK2: Multiple Reference Table Data

HK4: Employee Labor Distribution

HK5: Certifications, Skills, and Licenses

KH1: Work Week Schedules

KH2: Leave Accrual\Leave Reset\Sick Leave Payback

KH4: Approved Timesheet interface for Payroll Processing

KH5: Time and Leave Payout at Termination

The interfaces mentioned below were added after the approval of the Phase D Interface Plan

KH6: Preliminary Payroll KH7: Supplemental Payroll

> Note: The Interfaces mentioned below would be discussed in detail in the Phase E Interface Plan

FA1: COA Info to Agile FA2: Fixed Assets to Agile AF1: Vehicle Usage to FIN

AF2: Work/Task Order Numbers

FA3: Actual Costs

HA1: Employee Demographics

AK1: Entered Timesheets

KA2: Approved Leave Requests

FK1: Fixed Assets Setup to HA2: Multiple Reference Table Data

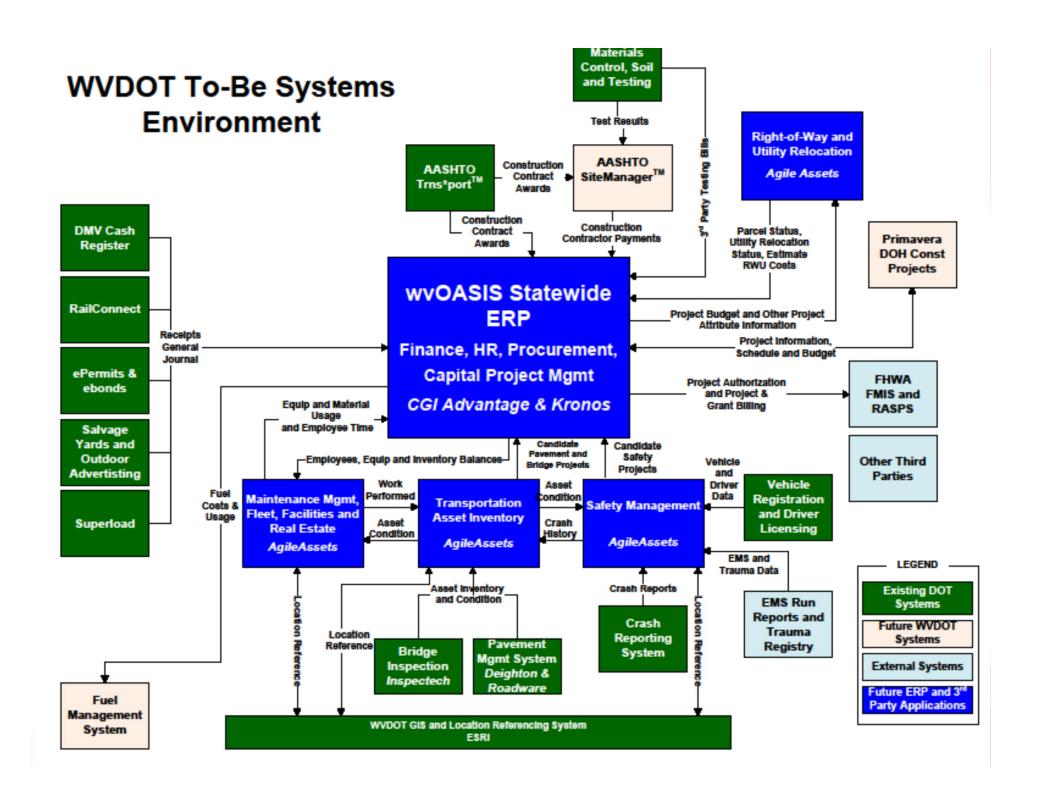
KA3: Equipment Usage

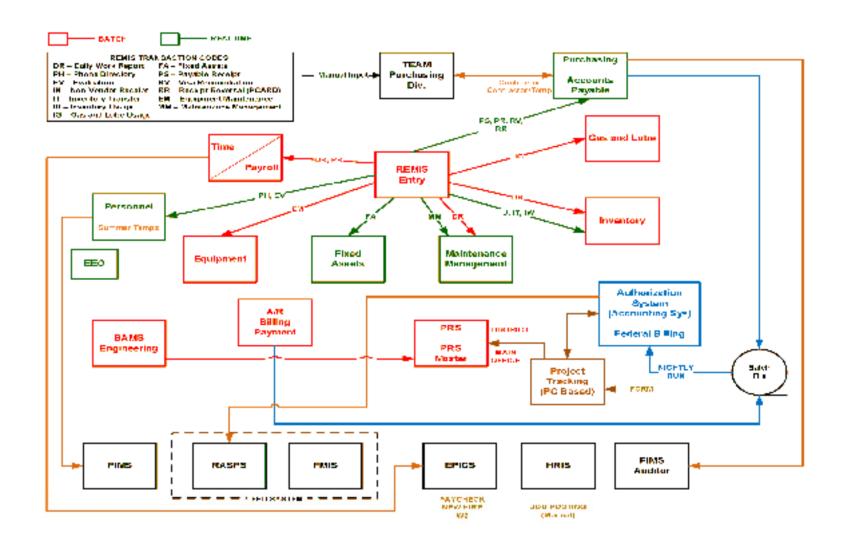
AH1: Taxable Vehicle Use (Take-home

Vehicle)

Note: The Interfaces mentioned above are discussed in detail in the Phase 3 Addendum

Kronos





wvOASIS Solution

CGI Advantage – Financials, Human Resources
 Procurement, and Performance Budgeting

Kronos – Time and Leave

AgileAssets – Transportation functionality,
 Fleet, Facilities and Real Estate



wvOASIS Key Benefits

- Consolidate numerous aging and redundant administrative systems across state government into a single, integrated ERP environment
- Facilitate the standardization of human resources/payroll policies and rules across state government
- Achieve more favorable pricing through enhanced procurement practices
 - Reduced Cost of Goods and Services
 - Process Efficiencies for the State
- Improve access to information
- Increase efficiency in the delivery of State services
 - Technical Improvements
- Business Process Improvements

wvOASIS DOT Participants

Financial

- Vicky Casto
- Donna Cox
- Eric Crawford
- Susan Creager
- Parrish French (Parkways)
- Marty Gibson
- Jim Hash
- Mendy McClure

HR/Payroll

- Jeff Black
- Mike Bradley
- Maria Catalano
- JoAnn Twohig

Technical

- Bob Brabbin
- Jr Oliver
- Lynette Shaw



wvOASIS DOT Participants

Procurement

- Anthony Colombo
- Nancy Davidson
- Denise Gould
- Heather Huffman
- Clarence Hughart
- Travis Knighton
- Angie Moorman

Transportation

- Lynn Anderson
- Kim Asseff
- Toni Boyd
- David Brabham
- Cindy Butler
- Jennifer Cox
- Cindy Cramer
- David Cramer
- Sara Daniels



wvOASIS DOT Participants

Transportation

- Carolyn Gorrell
- Ron Hamilton (Parkways)
- Donna Hardy
- Ivan Kapp
- Bruce Kenney
- Brandi Krofcheck
- Marsha Mays
- Rob Pennington

Transportation

- Stephanie Price
- Travis Ray
- Carol Roush
- Todd Schoonover
- Kyle Stollings
- Eugene Tuckwiler
- Kyle Weatherholt
- Yueming Wu



Budget Development



Aug 2013

PHASE

Safety Right of Way Utility Transportation Asset Inventory

Jan 2014

PHASE C General Ledger Budget Control Accounts Payable Accounts Receivable Pcard Cost Accounting

Project Accounting
Cash Management
Fixed Assets
Purchasing
Contracts
Inventory

Financial Transparency CAFR Grants Investments

July 2014

Legend:

Budget Development

Dept. of Transportation

Core Finance & Procurement

Human Resources & Payroll

Remaining Transportation Facilities & Real Estate

HR. Tim Pos Cla Bei Lea

HR/Payroll Employee Relations/Performance
Time & Leave Billing
Position Control Employee Self Service (ESS)
Class & Comp
Benefits
Learning

Jan 2015

PHASE E Schedule Change...

Transportation Ops & Assets

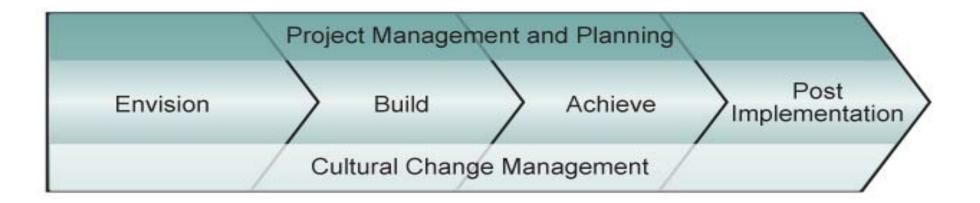
Federal Reciprocity Jan 20

Phase E Extension

- Approved by ERP Board on April 14
- Scope of extension includes:
 - Go-live of Phase E extended to July 1, 2015
 - Agile Assets will go-live for remaining functionality in Version
 7.X Signs and Signals now included in scope targeting a go-live within 60 days of overall Phase E go-live
 - All DOT agencies except Parkways will now go-live on financials as of July 1, 2015



Implementation Methodology

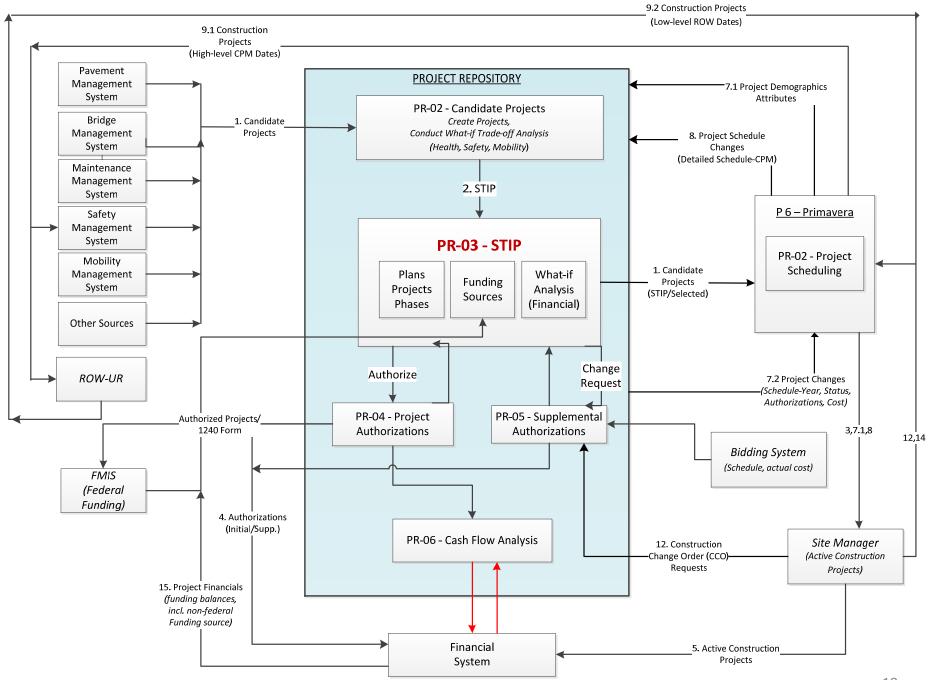




DOT Specific Benefits

- More flexible Federal-Aid billing engine to allow DOT to more easily implement business changes in future Highway bills
- Enhanced and more highly integrated transportation asset management solution to allow DOT to better control/manage total lifecycle cost of transportation assets
- Safety management solution based on industry best practices to support identification and prioritization of safety projects
- Enhanced tools to support the right-of-way acquisition and utility relocation processes reducing risk of project delay





Example System - CPMS



What is CPMS?

- The Capital Program Management System will be the central repository for capital project data.
- Significant projects (e.g. roads, bridges, buildings) will be initiated and managed in CPMS.
- Deployed as a separate instance of Advantage Budgeting (v3.10)



Capital Program Mgt. System

- Funding assignment flexibility
- Integrated finance data tracking
- Web-based workflow
- Enhanced Reporting
- Forecasting Flexibility



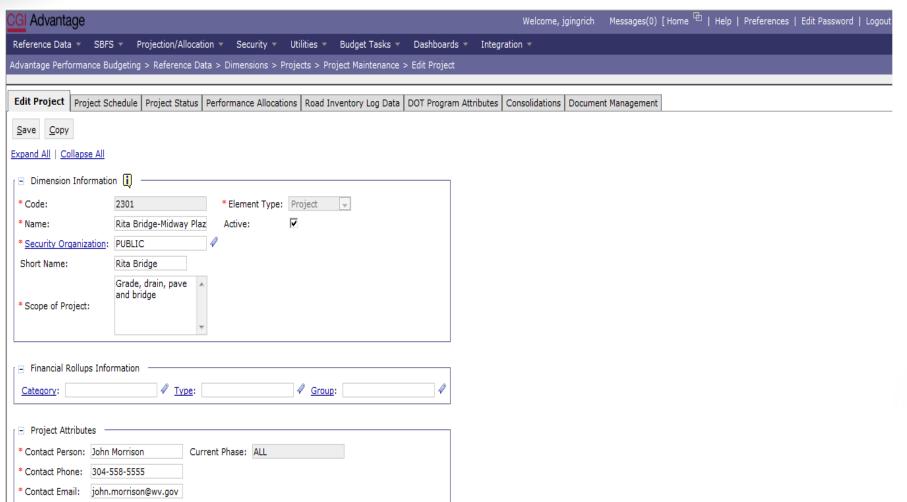
Project Initiation Requests

- The project initiation request will be performed using budget forms.
- The standard workflow for budget forms will be utilized for the approval paths for each candidate project (some project phases will skip some stages of the workflow):
 - 1. Initiate Request [1010]
 - 2. Division/District Review [1020]
 - 3. Quality Review [1030]
 - 4. Project Review Committee [1040]
 - 5. Funding Assignment [1050]
 - 6. FMIS Approval [1060]
 - 7. Funding Authorization [1070]



Project 9901 Setup

CPMS Dimension Information

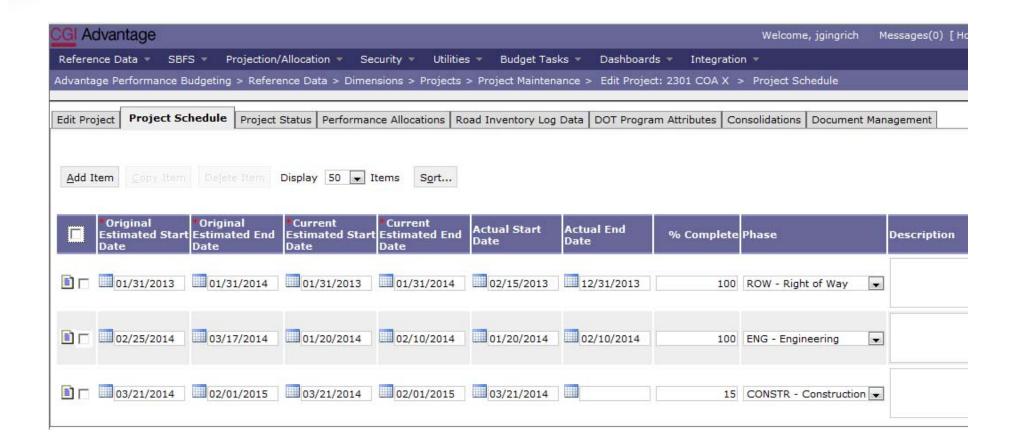


Project 9901 Setup

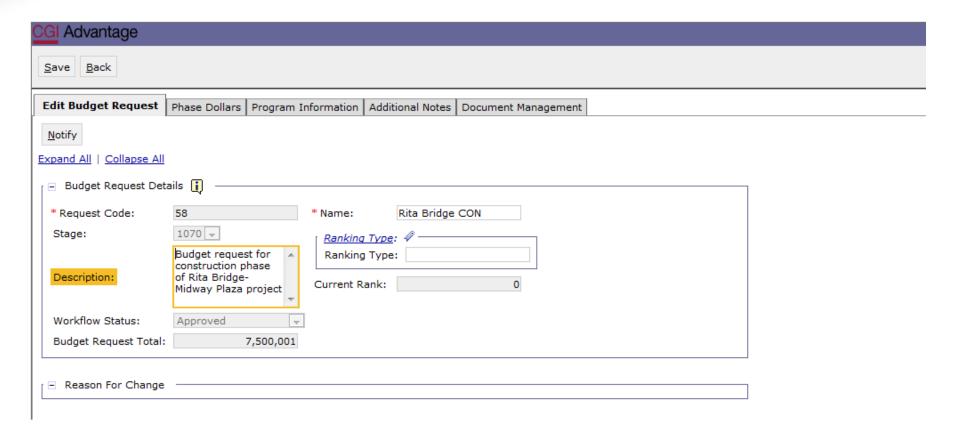
CPMS Dimension Information

F Project Information								
Existing Facility:	18'-22' HMA Rdwy 0-10' SHL							
Termini:	0.13 MI N CO 10/4-Existing WV 10							
Primary Route:	WV 10 A							
Subroute:	<u>*</u>							
Begin Milepost:	011.62 🛫							
Length:	0.80 ‡							
Start Latitude:	÷							
Start Longitude:	÷							
Primary NBI Bridge/Tunnel Number:	‡							
* Sign System:	3 - WV 🔻							
* County:	23 - LOGAN							
* Initiation Category:	X - SYSTEM EXPANSION •							
* Project Type:	3 - CON. PLANS ETC ▼							
* Supplemental Route Designation:	N/A ▼							
* MPO:	STATEWIDE							
* District:	2							
Direction:	NORTH/SOUTH ▼							
Project Asset:	0							
Includes ROW?:	▼							
School Bus Route?:								
Mail Route?:								

CPMS Project Schedule



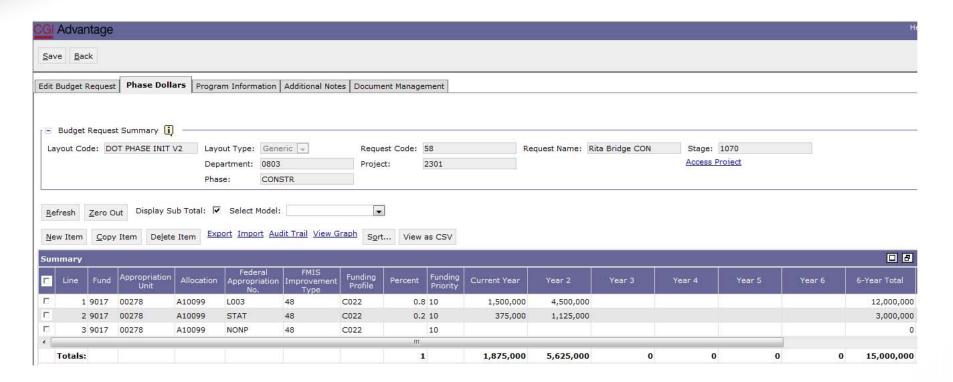
CPMS Budget Request Details (ROW Phase)



CPMS Budget Request Details (ROW Phase)

F Budget Request Information			
* Estimated Phase Cost:	\$7,500,000 🚊		
Estimated Phase Cost:			
* Initiation Funding Comments:	Dedicated funding is available		
* Anticipated Phase Start Date:	03/21/2014 💲		
* Anticipated Phase End Date:	02/01/2015 🚊		
* Initiation Funding Source:	F-Federal Funding		
- Discouries (F)			
☐ Dimensions			
Project: 2301 Rita Bridge	Phase: CONSTR Access Project Construction		
Department: 0803			
r □ Justification Text			
- Justilication Text			
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] ∃"∃", ∃ "m m", "		
Justification Text: Critical component of Governor's statewide infrastructure improvement initiative.			

CPMS Phase Dollars (ROW Phase)



Budget Request History

Budget Request History

Back Display 20 ▼ Items Sort...

Items 1-12 of 12 🗖

Full Name	Workflow Action	Workflow State	Date & Time△	Comments	^
Initiator User	Submit	Submitted	10/28/2013 09:34:24	Ready to approve	
Department User	Approve	Approved	10/28/2013 09:35:37	OK to proceed	
Department User	Submit	Submitted	10/29/2013 00:56:50		
Quality User	Approve	Approved	10/29/2013 00:59:51	Looks good	Ξ
Quality User	Submit	Submitted	10/29/2013 01:27:44		
Eva Melancon	Approve	Approved	10/29/2013 01:29:45		
Eva Melancon	Submit	Submitted	10/29/2013 01:40:23	PRC approved at 10/31/13 meeting	
Joe Weiskircher	Approve	Approved	10/29/2013 01:44:33		
Joe Weiskircher	Assign	Assigned To Work On	10/29/2013 01:49:28		
Phil Casto	Assign	Assigned To Work On	10/29/2013 01:58:06	Completed, now leave me alone.	÷
Joe Weiskircher	Submit	Submitted	10/29/2013 03:42:00		
Joe Weiskircher	Approve	Approved	10/29/2013 03:43:31	Ready for FMIS approval.	
Joe Weiskircher	Submit	Submitted	10/29/2013 03:53:01		
Rob Pennington	Approve	Approved	10/30/2013 01:46:41		Ŧ



- Capital Program Management System
- Placeholder slide



- Capital Program Management System
- Placeholder slide



Key AgileAssets Suite Features

Inventory

What do you have?

Where is it?

What condition is it in?

How much is it being used?

Is it under warranty?

When was it acquired or disposed of?

Copy of plans, photos, documents, etc.

Budgeting – from costs per day/month/year to needs to forecasting

Condition Collection and Appraisal

Performance Management

Reporting – ease of data presentation to tell your story

Tables

Graphs

GIS

Transportation Asset Inventory TAI

- Flexible/extensible asset data repository to support managing all types of assets on the transportation network including:
 - HIGHWAYS Planning, Equipment, Maintenance,
 Traffic Engineering, Information Services and
 Engineering Divisions
 - OTHER AGENCIES: Aeronautics, Port Authority,
 State Rail, Public Transit and DNR



Transportation Asset Inventory

TAI Matrix contains over 490 individual items in 47 different asset classes. Below is an overview of the current status.

- 180 By Interface
 - 52 By Data Migration to be maintained in Agile
 - 62 Build Data Definitions to be maintained in Agile
 - 19 Implementation Deferred
 - 17 Duplicates
 - 99 System Functionality
 - 62 Will Not Implement



Current Phase B - TAI Summary by Responsible Division

<u>Maintenance</u>		Traffic Eng.		
Pavement	12	Pavement Markings		8
Condition Assessments	16	Traffic barriers		5
Drainage	6	Signs		6
Inventory Maintenance	14	Crash History		33
Maintenance Feature	5			52
Roadside Features	1	Program Planning		
Structures	7	Point Assets	a 20	
LOS Rating Scales	5	Code Tables	8	
All Assets	2	Linear Assets	22	
Customer Input	10	Route Network	33	
	78		83	



Current Phase E - TAI Summary by Responsible Agency/Division

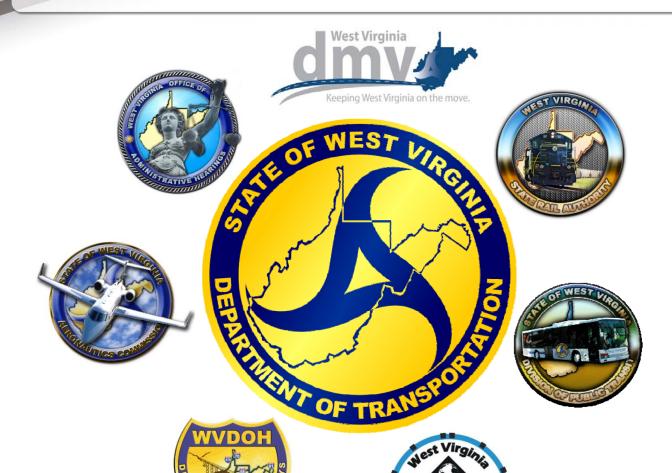
Aeronautics Commission 26		26		MAINTENANCE	
Dept of Commerce DNR 6				Access Permits	9
Parkwa	ys	1		Condition Assess	7
Port Authority		5		Data Integration	3
Public Transit		8		Drainage	6
State Rail Authority 9			Inventory Maint	4	
	TRAFFIC ENGINEERING ITS & Communication Lighting			Maint History	2
				Roadside Facilities	7
			9	Roadside Features	9
			6		
Outdoor Advertising		9			
	Roadway Features	;	1		
DASIS Soution with Interpreted Systems	Salvage Yards		6		
	Traffic Control		7		



Transportation Asset Inventory

- Flexible/extensible asset data repository to support managing all types of assets on the transportation network including:
 - Aeronautics
 - Highways
 - Ports
 - Rail
 - Public Transit







Transportation Asset Inventory

- Detailed asset inventory for select asset classes and types:
 - Location
 - Attributes specific to asset class and type
 - Construction history
 - Maintenance history
 - Crash history
 - Other events



transportation Asset inventory: Section inventory

AgileAssets Management System [TAMS] Version 6.8 Build 14933 Road Maintenance Fleet Management **Pavement Mgmnt Facilities Maintenance ROW & Utilities** Safety Resources System Setup Inventory Issue Progress Analysis and Budgets Reports Utilities Section Inventory Section Inventory Go > 199 pages (5365 rows) * Section Class Code * Section status Own PM Organizational Unit Centerline Miles Total Lane Miles Inspection Date Record His Section (name) 0265 - District Two 🗸 US012 47.05 - 49.66 (001910) NHS ROAD Active 2 608 √ No US095 255.66 - 258.21 (001540) 2.548 NHS ROAD Active 0250 - Wayne Coul 👽 <u>No</u> SH021 50.54 - 52.22 (002140) SMA ROAD Active 0836 - Pendleton C 👽 1.685 √ No US012 56.14 - 58.63 (001910) NHS 2.483 ROAD Active 0265 - District Two 😺 √ No US012 49.83 - 51.57 (001910) NHS 0265 - District Two 👽 1.742 <u>No</u> ROAD Active SH022 62.58 - 68.15 (002470) STC ROAD Active GARBAGE - Tyler (😺 5.566 <u>No</u> SH021 47.7 - 48.92 (002140) 0836 - Pendleton C 👽 SMA ROAD Active 1.215 <u>No</u> SH055 57.18 - 62.27 (007995) NHS ROAD Active 1070 - District Ten I 👽 5.092 <u>No</u> SH014 38.79 - 41.03 (001970) STC ROAD Active 0271 - I-64, Section ... 2.231 <u>№</u> US012 51.57 - 52.49 (001910) NHS ROAD Active 0265 - District Two 😺 0.921 <u>No</u> US030 204.41 - 204.69 (002040) SMA ROAD Active 0439 - Preston Cou 👽 0.280 <u>№</u> US030 204.33 - 204.41 (002040) SMA ROAD Active 0439 - Preston Cou v 0.080 <u>No</u> 015 184.7 - 189.62 (001330) FAI 4-Lane ROAD Active 4.919 GARBAGE - Tyler (😺 <u>№</u> SH055 63.77 - 63.83 (001990) NHS ROAD Active 1070 - District Ten I 👽 0.061 √ No SH055 65.35 - 65.48 (001990) NHS ROAD Active 1070 - District Ten I 👽 0.130 √ No SH045 9.74 - 10.11 (002160) SMA ROAD Active 0399 - District Thre 👽 0.366 <u>No</u> US012 66.22 - 66.28 (001910) NHS ROAD Active 0265 - District Two 👽 0.060 <u>№</u> SH055 64.66 - 64.68 (001990) NHS ROAD Active 1070 - District Ten I 👽 0.024 <u>No</u> SH055 63.85 - 63.89 (001990) NHS 0.038 ROAD Active 1070 - District Ten I 👽 <u>№</u> SH055 94.29 - 96.12 (001990) NHS ROAD Active 1070 - District Ten I 🐷 1.828 <u>No</u> 084 236.4 - 236.96 (001010) FAI 4-Lane ROAD Active 0409 - Doddridge C 👽 0.559 <u>№</u> US095 252.41 - 252.8 (001540) NHS 0.384 ROAD Active 0250 - Wayne Coul 👽 <u>No</u> SH055 82.06 - 84.39 (001990) NHS ROAD Active 1070 - District Ten I 👽 2.329 <u>№</u> SH055 71.5 - 74.14 (001990) NHS ROAD Active 1070 - District Ten I 🗸 2.640 <u>No</u> SH055 62.27 - 63.27 (001990) NHS ROAD Active 1070 - District Ten I 👽 0.499 √ No US095 527.35 - 532.17 (001540) NHS ROAD Active 0103 - Boone Coun 🐷 4.820 0108 - Clay County 🗸 SH200 55.97 - 57.72 (001610) SMA ROAD Active 1.748 <u>No</u>

Transportation Asset Inventory (TAI)

- Target levels of service for select asset classes/types
- Condition assessments:
 - Condition history
 - Management scorecards
- Customer input
- Pre-defined reports
- Ad-hoc queries
- GIS integration
- Data integration with existing management systems (Pavement, Bridge, Crash Reporting)



Transportation Operations Management

Major functions / business processes:

- Annual Planning
- Scheduling Work (Work Orders)
- Recording Work Performed
- Resource Management (Labor, Equip, Materials, Dollars)
- Citizen's Request for Assistance
- Field Data Collection (Work Performed, Cond. Assessments, Trans. Asset Inventory, etc.)



Transportation Operations Management

TOM Objectives:

- To effectively plan and schedule Maintenance Activities
 - Annual \$300 million investment
 - Statewide mileage 38,800 miles
- Maximizing the efficient use of work time, material, and equipment.
- Improve the quality of maintenance work by adopting best methods and procedures



Transportation Asset Inventory

Total TAI Requirements = 500

Phase B (Part 1) =
$$\sim$$
50%

- Core functionality to support Maintenance Quality Assurance (MQA) pilot in three districts:
 - Districts 3, 4, and 8
- Select Traffic Engineering asset types

Phase E (Part 2) =
$$\sim$$
50%

- All other in-scope asset types to be deployed as part of Phase E
- Interface with Enterprise LRS (Esri Roads and Highways)

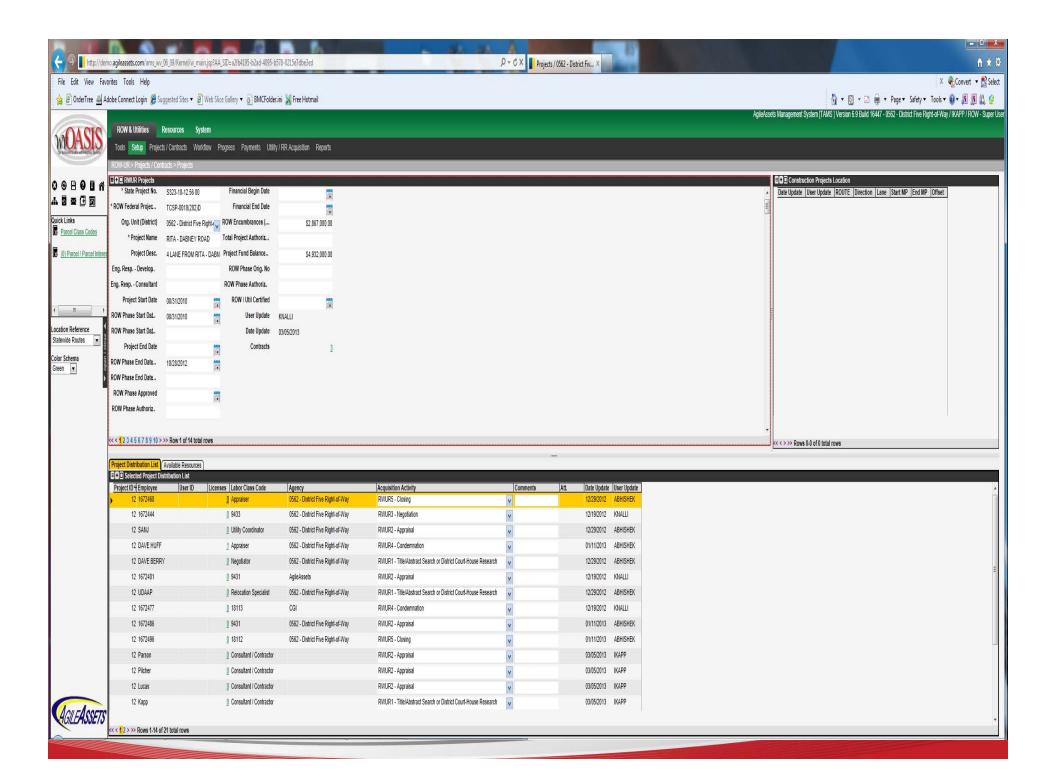


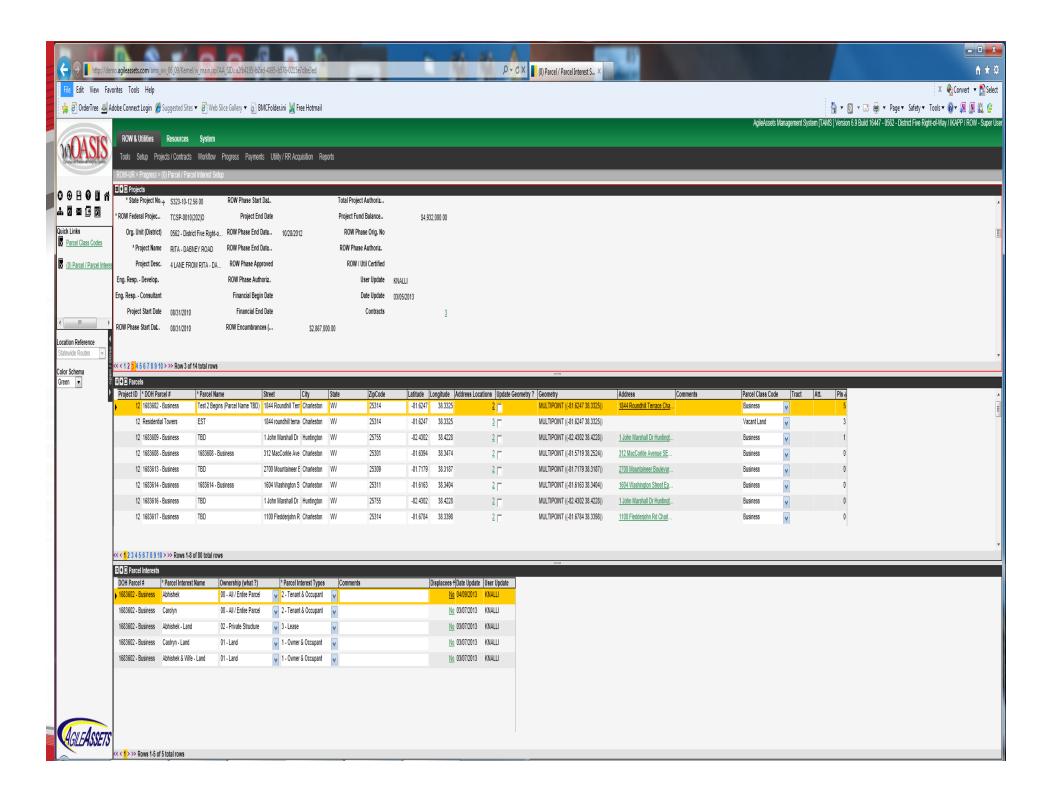
Right-of-Way Acquisition

Major system functions:

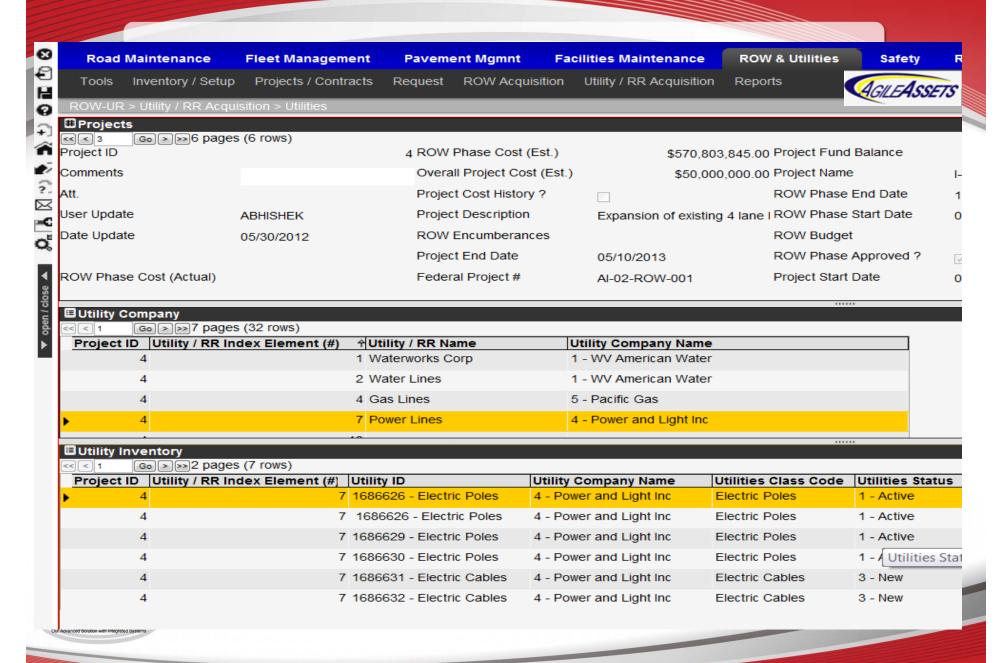
- Project set-up
- Parcel set-up
- Title abstracts
- Appraisal
- Negotiation and acquisition
- Relocation
- Management reports







Utilities Relocation / Railroad Agreements



Right-of-Way Functionality in Phase E

- Functions to be performed in Advantage are deferred until Phase E:
 - Procurement of consultants, appraisers, etc.
 - Right-of Way related payment processing



ROW - Conversions and Interfaces

Conversions:

Manual load of right-of-way data for active projects from paper files

• Interfaces:

- WVDOT CADD through GIS to Advantage for parcel inventory data
- Application integration between Agile RWUR and EMC ApplicationXTender
- Integration between WVDOTs GIS and Agile RWUR

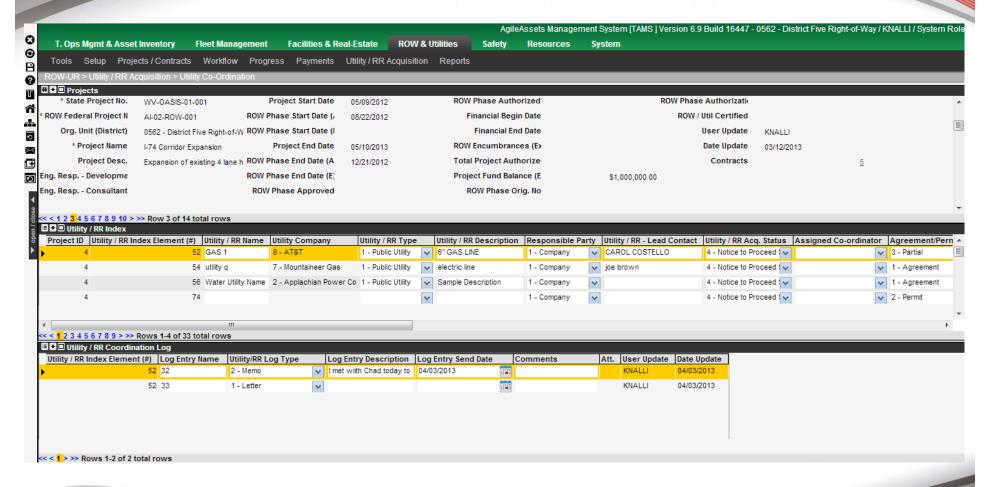


Utilities & Railroads Module

- Project Information
- Utility Companies & Railroads Involved
 - Agreement/Permit Information
 - Contact Information
 - Relocation Status
- Project Specific Documentation for each Company



Utilities & Railroads Module





Utility & Railroads Module

- Personnel using this module
 - Central Office Utility Staff
 - District Utility Staff
 - Project Managers
 - Management



Utilities & Railroads Module

- New Payment System (2015)
 - Faster Payments
 - Easier Tracking
- Asset Inventory
 - Utility & Railroad Information associated with roads/mileposts
 - From relocation plans & permits

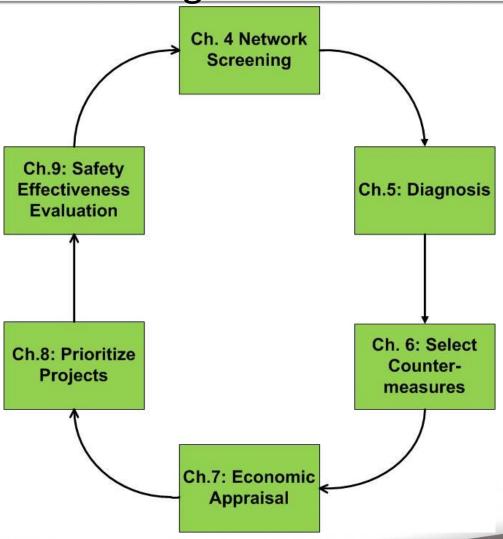


Safety Management

- Perform crash identification, analysis and countermeasure identification
- Manage highway safety program
- Prepare safety related information requests
- Perform resource allocation
- Support highway safety plan emphasis areas



Systematic Safety Management Process





Safety Management Functions

Network screening:

• Diagnostics:

Project prioritization

Safety grants management (Phase E)



Safety Management Functions

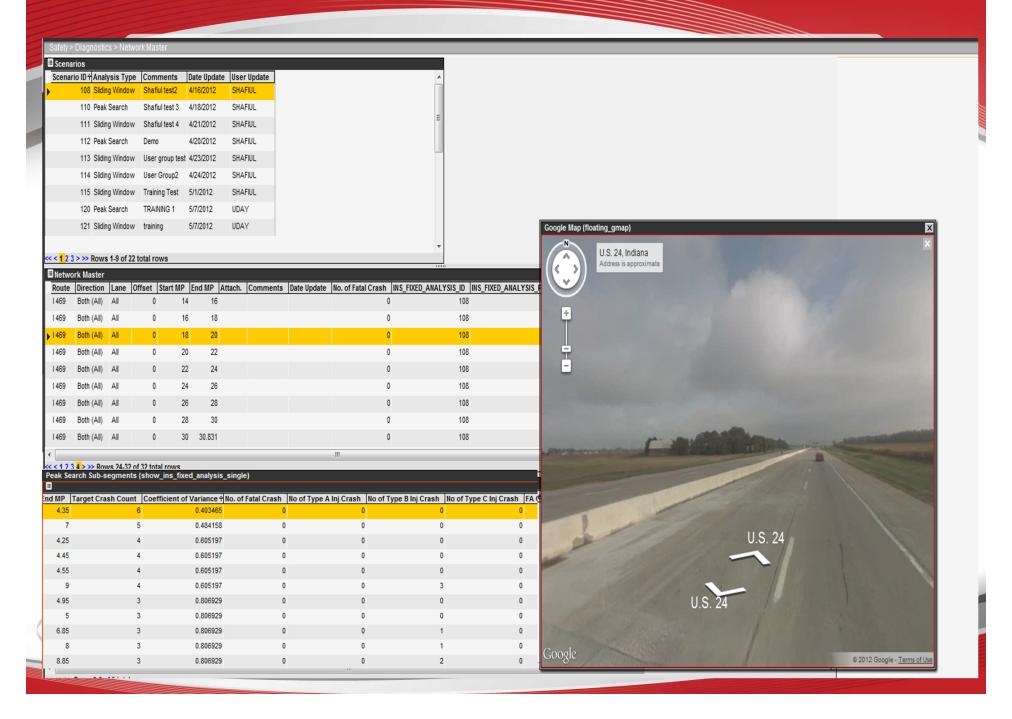
Integrated safety database including:

Function	Planned Phase		
Crash report	В		
Driver history	E		
Vehicle history	E		
Citations	В		
Convictions	E		
Trauma registry	E		
EMS run reports	E		

Phase E interfaces subject to WVDOT receiving approval to utilize data for Safety Management



Satety Ivianagement: Screening and Diagnostic Tool



QUESTIONS?



