ARDOT and e-Construction Strategy



Keli Wylie, P.E.

Alternative Project Delivery Administrator Arkansas Department of Transportation

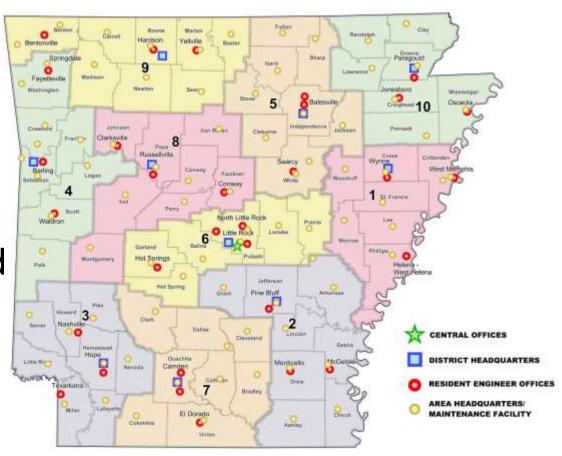


Arkansas Department of Transportation

 3rd Largest State Agency (approx. 3,700 employees)

Maintains 16,465
 miles of highway and
 7,338 bridges

 10 District Offices and 31 Resident Engineer Offices





State of Practice (SOP)

- e-Bidding
 - AASHTOWare Project Bids
 - InfoTech BidX
- Electronic Signatures
 - Doc Express
 - Contract Execution (2015)
 - Supplemental Agreement Execution (2019)
 - Change Order Execution (2020)
- Document Management System
 - e-Builder (2013)
 - "Automated" Document Management System for CAP and Alternative Delivery Program
 - Doc Express (2016)
- Construction Management System
 - AASHTOWare Project SiteManager
 - AASHTOWare Project Construction & Materials to replace SiteManager in <u>2021</u>

State of Art (SOA)

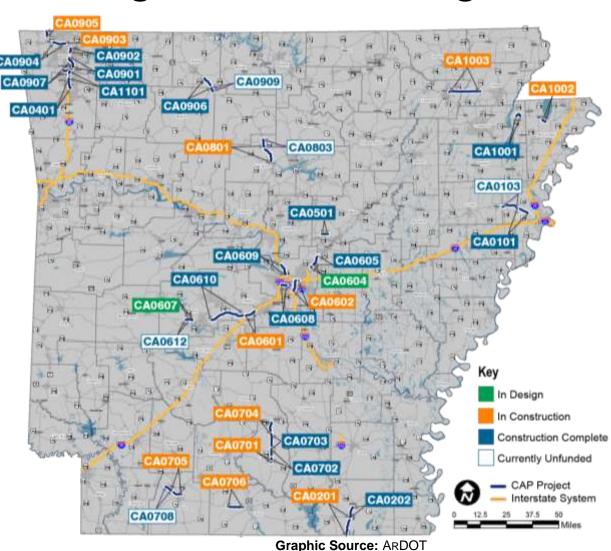
- e-Ticketing
 - COVID-19
 - "Connex" and "FleetWatcher"
- 3D Models
 - 3D digital terrain models (DTM) provided to potential bidders
 - Not used for wholesale quantity verification purposes



ARDOT Connecting Arkansas Program

- Voter approved in 2012
- Half-Cent Sales

 Tax expires in
 June 2023
- More than 30 projects in the program
- Approx. 170
 miles of
 improvements







e-Builder

- "Automated" Document Management System
 - Filing Cabinet
 - Roles
 - Automated Work Flow
- Web-based platform
- Mobile capability
 - Mobile application/browser
 - VPN
- Electronic signature capability
- Cost/Budget functionality
 - · Project budget vs. Work to date
 - Change Orders
- Forms
 - customizable
- Software Cost
 - Implementation Cost ~\$250,000
 - Annual Cost (unlimited users) ~\$130,000



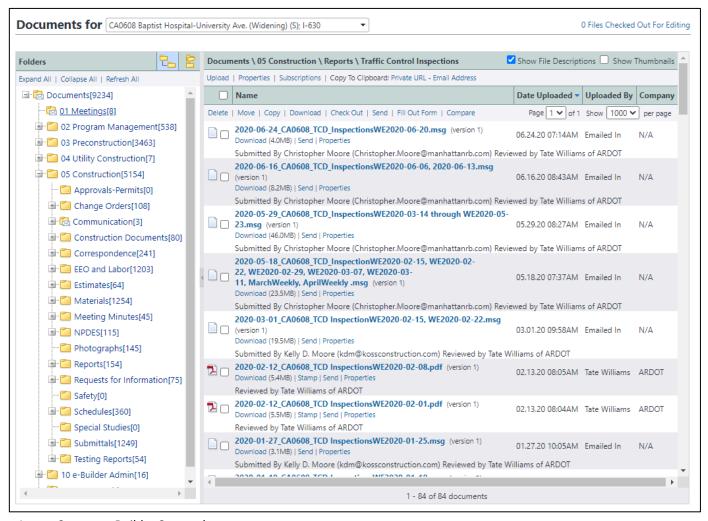
e-Builder

"If it's not in e-Builder – it didn't happen"

- Communication
 - Email
 - Calendar
- Forms
 - Action Items
- Processes
 - Submittals/Shop Drawings
 - Requests for Information (RFIs)
 - Change Orders
 - Invoices



Documents







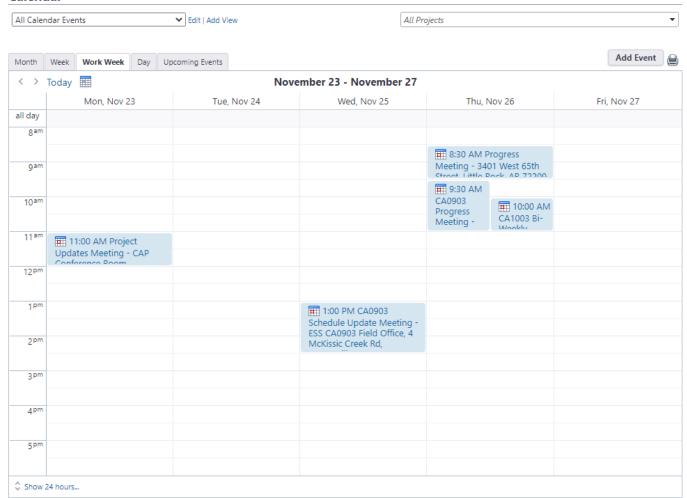
Email

Messages

messages							
Show All							
Subject	Date Sent 🕶	То	СС	Sent By	Delivery Address	Status	# Times Opened*
RE Review - (CA0903) Lane Closures at Bella Vista Bypass beginning Nov. 30	11.19.2020 10:04 AM	Josh King	Multiple	Lindi Miller	josh.king@ardot.gov	Successful [Resend]	Multiple
Failed Aggregate Base Course Test (Lot 128)	11.18.2020 4:31 PM	Multiple	Multiple	Paul Tierney		Multiple	Multiple
CA0903 Signal Certs	11.18.2020 1:07 PM	Multiple		Brian Powell		Multiple	Multiple
CA0903 Signal Submitals	11.18.2020 1:03 PM	Multiple		Brian Powell		Multiple	Multiple
CA0903 - Observation of Holiday	11.18.2020 9:30 AM	Multiple	Multiple	Josh King		Multiple	Multiple
PIO Draft - (CA0903) Nov. 20,23,24 lane closures for BVB - NR 20-353	11.17.2020 4:30 PM	news@ardot.gov	Multiple	Lindi Miller	news@ardot.gov	Successful [Resend]	Multiple
CA0903 - Response to RFI 67 - Revised Deck Pour Sequence	11.17.2020 3:27 PM	Multiple	Multiple	Josh King		Multiple	Multiple
RE Review - (CA0903) Lane Closures at Bella Vista Bypass beginning Nov. 20	11.17.2020 9:08 AM	Josh King	Multiple	Lindi Miller	josh.king@ardot.gov	Successful [Resend]	Multiple
CA0903 - Signed Copy of SWPPP Report #55	11.12.2020 11:43 AM	Paul Tierney	Multiple	Josh King	paul.tierney@emerysapp.com	Successful [Resend]	Multiple
CA0903 - Summary of time charges	11.09.2020 4:51 PM	Multiple	Bashar Qedan	Josh King		Multiple	Multiple

Calendar

Calendar



Action Items

Workflow and Static Forms

Subject	Subject						
Prefix	#-	Author	Held By	Due Date	Status		
Action Item : Premier Concrete Mix Design Transfe							
	36	Brian McMillian McGeorge Contracting	William Hockaday ARDOT	11.13.2020	4.4d late		
ACTION ITEM: No	Action Item : Notice of Potential Impact - Preboring Piling						
	35	Anthony Jones McGeorge Contracting	William Hockaday ARDOT	11.20.2020	0.6d early		
ACTION ITEM: NO	Action Item : Notice of Potential Impact - Underground Utilities						
	34	Anthony Jones McGeorge Contracting	William Hockaday ARDOT	11.20.2020	0.6d early		
Action Item: Pile Hammer Submittal No. 2							
	33	Brian McMillian McGeorge Contracting	William Hockaday ARDOT	11.03.2020	12.4d late		
ACTION ITEM: CA0704 B3 Test Pile 3 Certification							
	32	Anthony Jones McGeorge Contracting	William Hockaday ARDOT	11.13.2020	4.4d late		



Submittals

Processes	Reports (0)
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rint	Log
	9

Process	Subject	Step	Responsible Actors	Process Age -	In Step Since	Status
SUBMT - 311	Concrete Mix Design_Request to Transfer	S2 - RE Review	Mark Asher, Aaron Peck	6	11.13.2020	Submitted
SUBMT - 310	Trackless Tack	S6 - RE Forward	Mark Asher, Aaron Peck	10	11.17.2020	Pending
SUBMT - 309	Temp Wire Walls	S4 - Review Team	Azad Shahriar	13	11.10.2020	Pending
SUBMT - 305	Shop Drawings - Permanent Metal Decking	S7 - Contractor Feedback Review	Suzanne Wissel	44	10.19.2020	Completed
SUBMT - 302	CSL Test Report and Drilled Shaft Log Record	S4 - Review Team	John Ruddell, Stephen Smiley, Kyle Yeary	56	10.30.2020	Pending
SUBMT - 299	CSL Test Report and Drilled Shaft Log Record	S2 - RE Review	Mark Asher, Aaron Peck	59	11.18.2020	Submitted
SUBMT - 298	Profile Grades - Bridge B7424	S2 - RE Review	Mark Asher, Aaron Peck	64	09.16.2020	Submitted
SUBMT - 296	Drilled Shaft Installation Plan	S2 - RE Review	Mark Asher, Aaron Peck	79	10.07.2020	Submitted
SUBMT - 284	CSL Test Report and Drilled Shaft Log Record	S2 - RE Review	Mark Asher, Aaron Peck	99	11.18.2020	Submitted





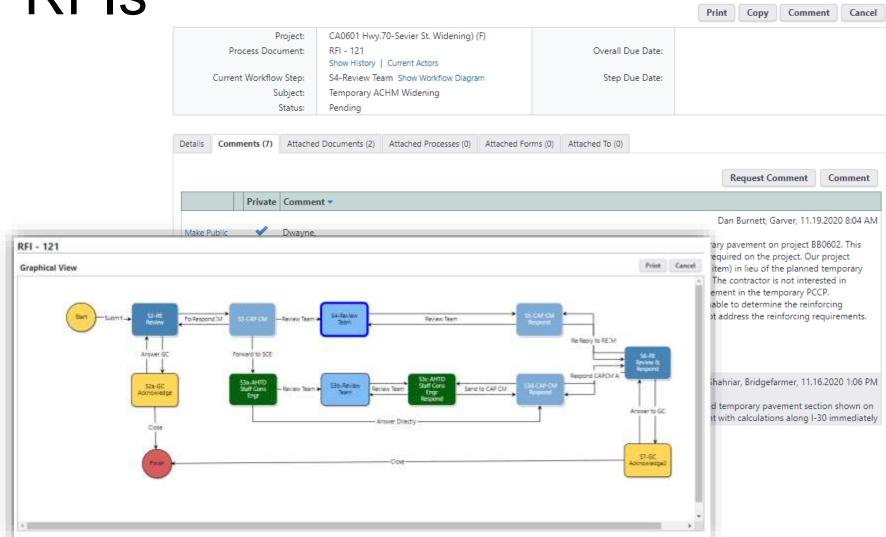
RFIs

Processes Reports (0) Log Print M ◀ 1 ▶ N Show 25 ✔ Responsible | Process | In Step Process Subject Step Status Actors Age 🔺 Since RFI -Mark Asher, NOI - Differing Site Conditions - Asphalt S2-RE Review 11.10.2020 Submitted 123 Aaron Peck S4-Review RFI -PCCP Patching repair Dwayne Cale 10 11.16.2020 Pending 122 Team RFI -S4-Review Temporary ACHM Widening Dwayne Cale | 14 11.19.2020 Pending 121 Team Mark Asher, RFI -Notice of Impact - Asphalt Removal 274+39-268+29 S2-RE Review 15 11.04.2020 Submitted 119 Aaron Peck S7-GC RFI -Isaac Detour HWY 67 Box Culvert STA 399+78 20 11.10.2020 Pending 117 Acknowledge2 | Martinez RFI -S6-RE Review Mark Asher. Replacement of damaged Variable Message Sign 23 11.02.2020 Pending 116 & Respond Aaron Peck RFI -S2a-GC Suzanne Notice of Impact Letter - V Line J&B Sta. 202+99 35 10.19.2020 Pending 113 Acknowledge Wissel RFI -S2a-GC Suzanne Temp. ACHM Widenings. 37 10.20.2020 Pending 112 Acknowledge Wissel Notice of Impact - Unforeseen Site Conditions -RFI -Mark Asher. Shoulder/Main Lane Removals (Ref NOI from June S2-RE Review 51 09.29.2020 Submitted Aaron Peck 109 2019) RFI -Rumble Strip Eradication and Traffic Shift (Reference S2a-GC Suzanne 77 10.19.2020 Pending RFI #80 and #90) Acknowledge 106 Wissel S6-RE Review Mark Asher. RFI - 91 Line Z11 153 10.01.2020 Pending Aaron Peck & Respond S2a-GC Suzanne RFI - 75 | Soil Stabilization Frontage Road "B" 216 11.02.2020 Pending Acknowledge Wissel M ■ 1 ▶ M Show 25 ✔



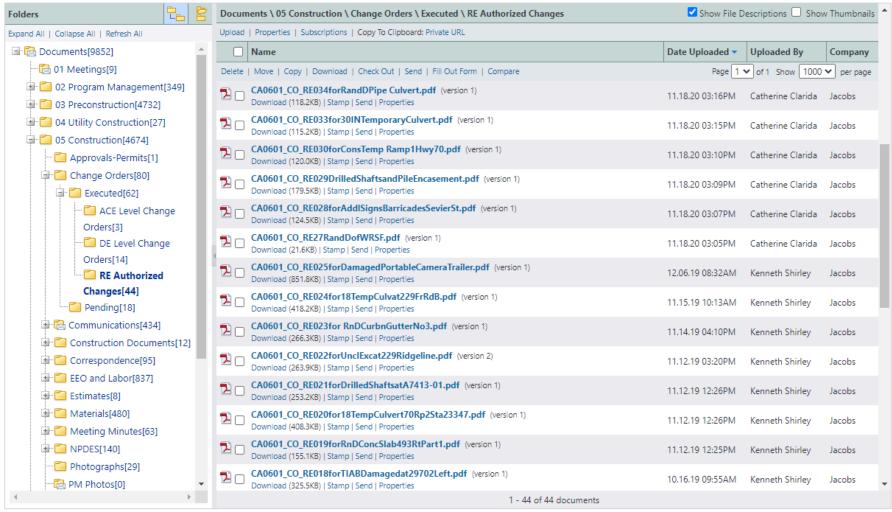
RFIs

Request for Information (RFI) - 121





Change Orders





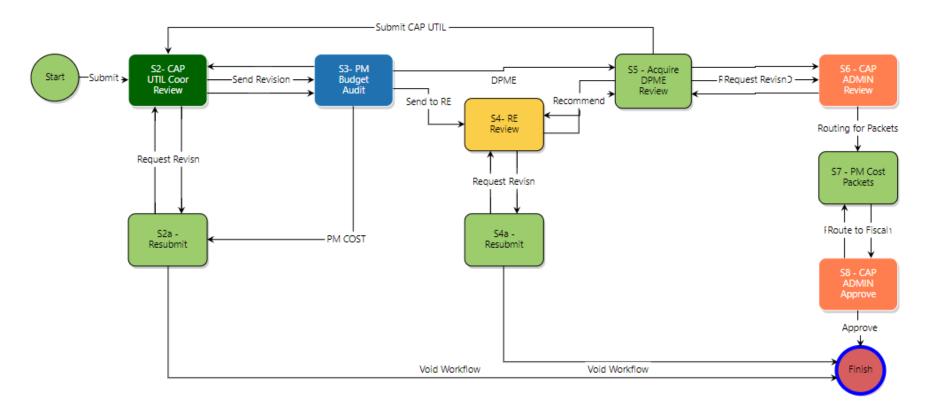
Invoice Tracking

Data Field	Edit Uses	Edit Cates	Old Value	New Volum
Subset	Chall Thompson	09 24 2020 10 07AM	300,0000	MC001 67/25/2020-08/21/2020 - CB
AHTD Comments on this invoice?	Chief Thompson	MATORI 000145-60		Ne
Impose Period From	Chad Thompson	09.24.2020 10:STAM		67.25.2626
Impos Period To	Chall Thumpson	09242020 100TAM		08.21.2020
Invoice with Backup Discurrentation	Olat Transport	09.24.2020 TOOPAM		CARROL JACOBS 30 port
to this the final invoice for Title II?	Chied Thompson	09.34.3600 10.07AM		Na
Percent CE: Contract Used To-Date	Chief Thompson	09.24.2520 10.07AM		45.77
Percent Contract Time Used To-Data	Ched Thompson	09:24:3020 10:07AM		4577
Percent Contractor Cornelete	Chad Phompson	09.34.2020 10:07AM		45.77
Vendor Invasio Number	Chall Trompson	89-24-3020 18-67AM		CADROL JACORS 30
Notes	Clad Prompson	09.34.2020 10.07AM		Initial submission of invoice
Contract Closeout Complete	Seem Stotts	09.26.2020 T1:34AM		NA.
Notes	Servir Stotts	09:28:2000 11:1BAM	Initial submission of musical	The PM Cost is routing this invoice to you.
Review Team Feedback	Kevin Statts	09-28-2020 T1-18AM		
Notes	East Vott	10.07.2020 12.23PM	The PM Cost is routing this imission to you.	The CMP PM is selsing you to revine this CEI Invision
Contract Manager Revision Comments	Xervi Stotts	10.08.2020 11:09AM		Completed review of the invoice. Couple things - on Jecobs portion, the relegat past for Netther Horicous is showing 1,216. Ø 33 – \$401.25 but offer creating the fatest i on getting is 1,234. Ø 33 4\$413.82. Double check the mileage strain. Double offers the Wage states for Raismany Par SA 2 - Survey Act (risd percent) - main rate temp \$12 is \$13 on the invoice. Clemati - main rate being \$18 vs. \$25 on the invoice.
Notes	Kevin Stoffs	10.08.3000 11:09AM	The CMF PM is aslong you to revise this CEI Invoice	
Notes	Chad Thompson	11.18.2000 03.49PM		In-pice Has Sean Resultmitted
Industry Comments	Chad Thompson	11.16.2000 00.48PM		I have updated in leage for Honous Radburry revised invoice of Corrected rate for Clerical \$18 o Corrected job title from Survey aid to Survey Tach.
Invoice with Backup Documentation	Chad Thompson	11.18.2000.03.49PM	CA0601_IACOBS_30.64F	CA0661_JACOBS_30RusH





Utility Invoicing workflow diagram





Questions?

Contact information:

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