

# INDOT Digital Delivery Roadmap



Meet the Presenters



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# 10-Year Strategic Timeline for State DOT

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Introduction

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Phase 1: Planning & Foundation (2025–2026)

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Phase 2: Pilot Development (2026–2027)

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Phase 3: Evaluation & Scaling (2028–2029)

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Phase 4: Statewide Rollout (2030–2032)

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Phase 5: Optimization & Sustainability (2033–2035)

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Strategic Anchors

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Conclusion

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# Phase 1: Planning & Foundation (2025–2026)

## Focus Areas

- Organizational readiness
- Stakeholder engagement
- Asset prioritization

## Key Activities

- Conduct business architecture and data governance assessments
- Identify priority assets (e.g., bridges, culverts)
- Form cross-functional working groups
- Secure funding and leadership buy-in

# INDOT Pain Points



## Isolated and Transactional Workflows

Many teams function within **separate systems**, leading to inefficient transitions, duplicated work, and limited visibility throughout project stages.

The current approach is "**swim lane oriented**," with tasks moving between groups with minimal collaboration.



## Lack of System Integration

Tools like **SPMS**, **ERMS**, **ProjectWise**, and **PeopleSoft** are not fully integrated, resulting in **manual data entry**, **version control problems**, and **data fragmentation**.

This disconnect impairs real-time updates and complicates project tracking.



## Ineffective Submittal and Review Processes

Submittals are often **manual**, **slow**, and **inconsistent**, lacking automation or validation rules.

Review comments may not be preserved, and **external permissions** in ProjectWise hinder collaboration.



## Limited Visibility

Project managers do not have **real-time dashboards** or centralized tools for tracking project status, schedules, and deliverables.

This leads to **reactive management** and delays in addressing issues.

# INDOT Pain Points



## Stakeholder Engagement Gaps

Engagement in planning and tool adoption is inconsistent among departments and consultants, causing **misalignment** and **resistance**. **Cross-functional working groups** are needed for inclusive input and ownership.



## Tool Underutilization and Training Deficits

Existing tools are underused due to **insufficient training**, **unclear roles**, and **inconsistent standards**.

There is a demand for **scalable training programs** and **on-demand resources** for staff and consultants.



## Document and Data Management Challenges

Issues include **inconsistent naming**, **lack of standardized deliverables**, and **difficulty in tracking changes**.

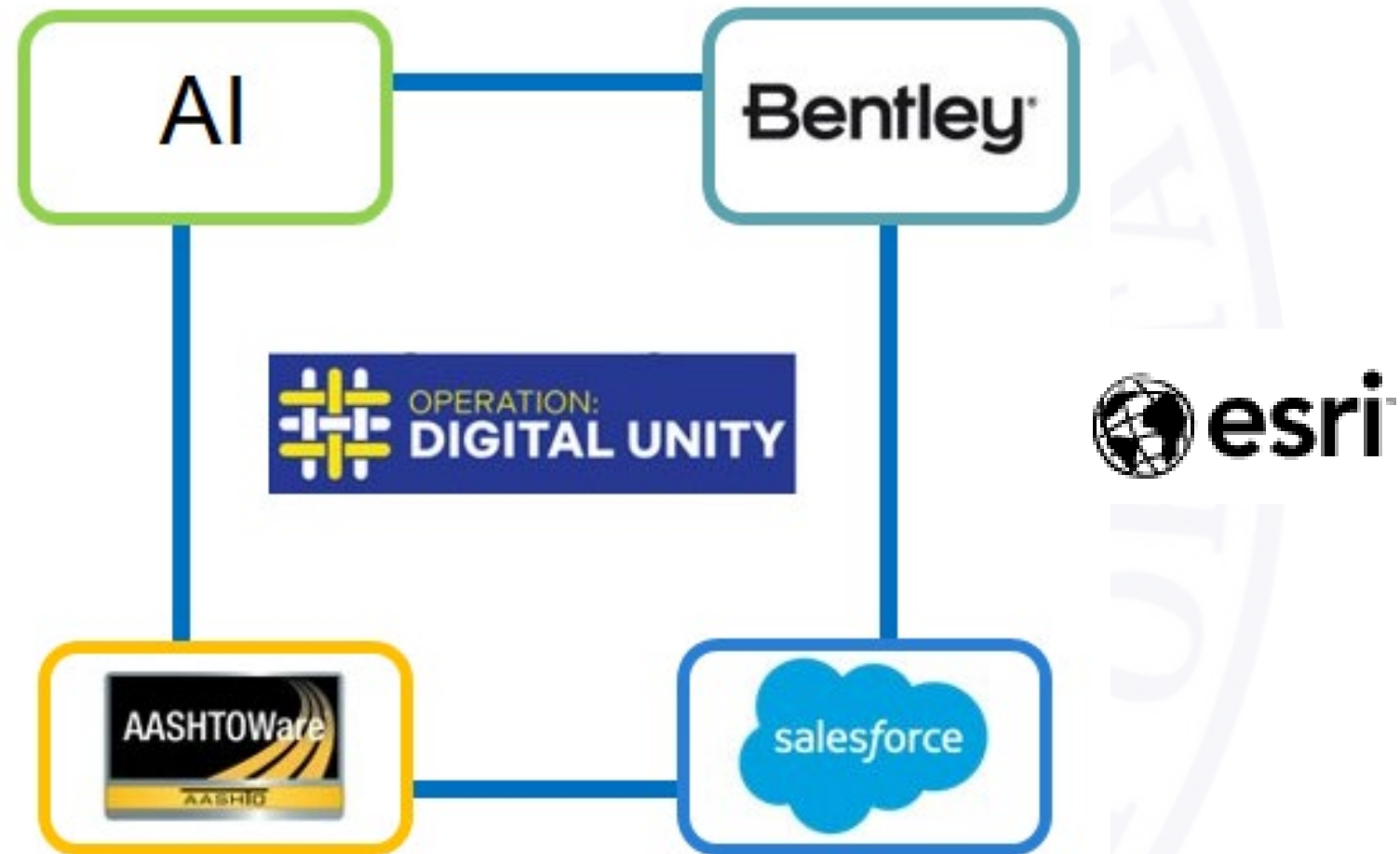


## Construction and Field Process Inefficiencies

Manual processes for **document submission** and **change order management** are slow and prone to errors.

A call for **automated workflows**, **mobile access**, and **real-time data integration** exists.

# Digital Unity

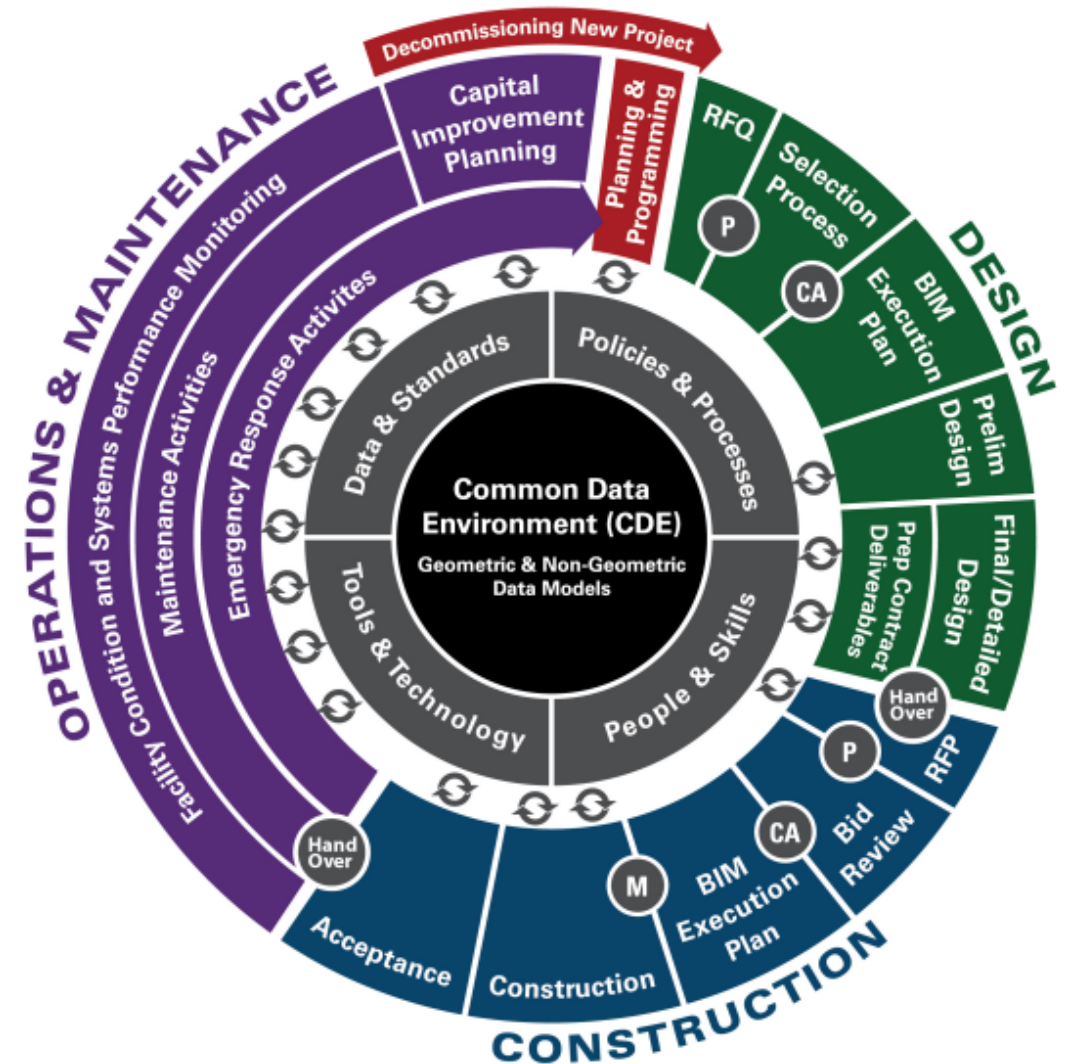


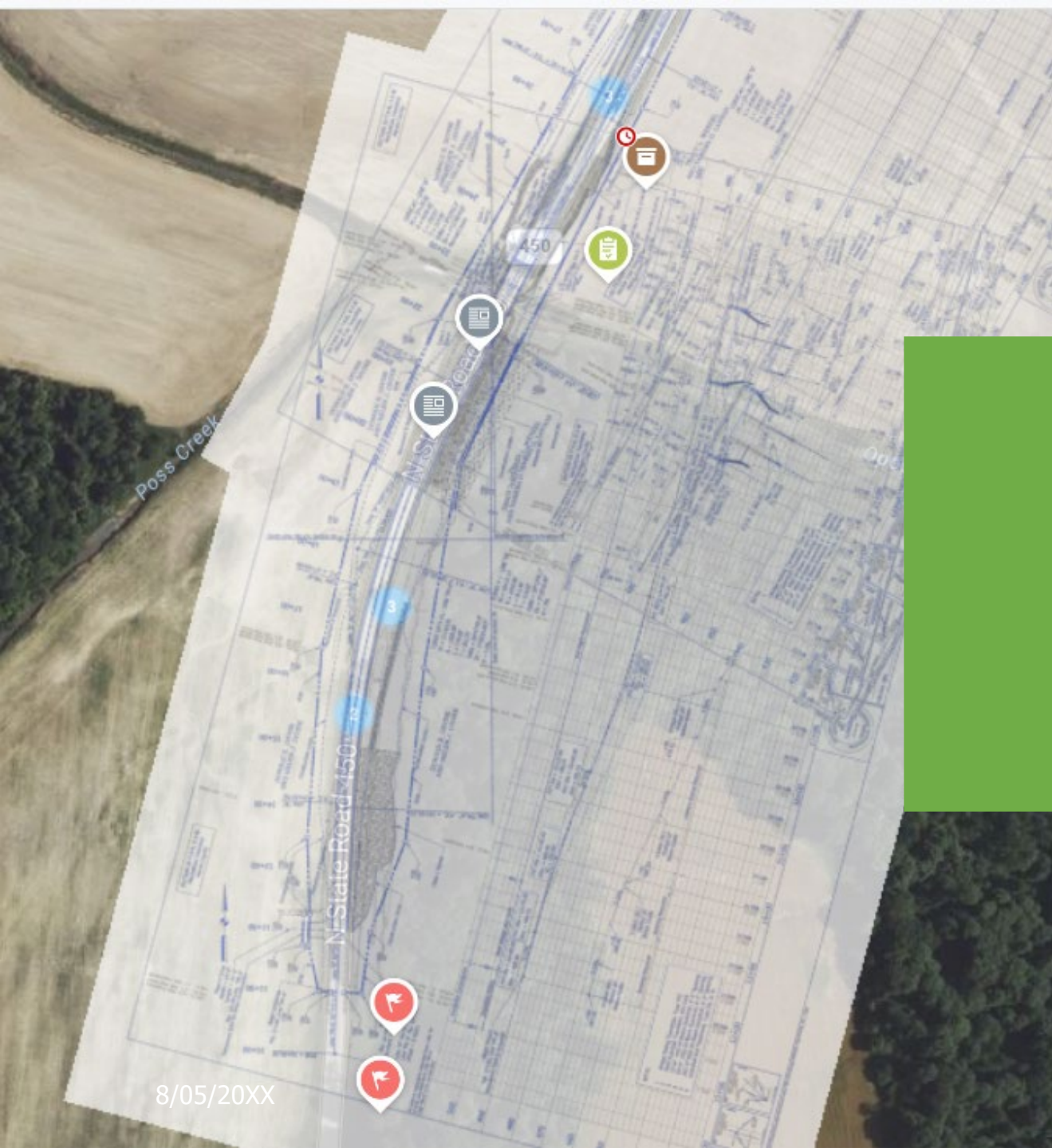
# RFP Digital Delivery

ID: 21239

Digital Delivery  
Implementation  
Plan and Data  
Requirements  
Development  
Plan

- Target RFP: 03/10/26
- Modernize Bentley Workspace
  - Bridge Workspace
  - Drainage Workspace
- Future-State Data Dictionary





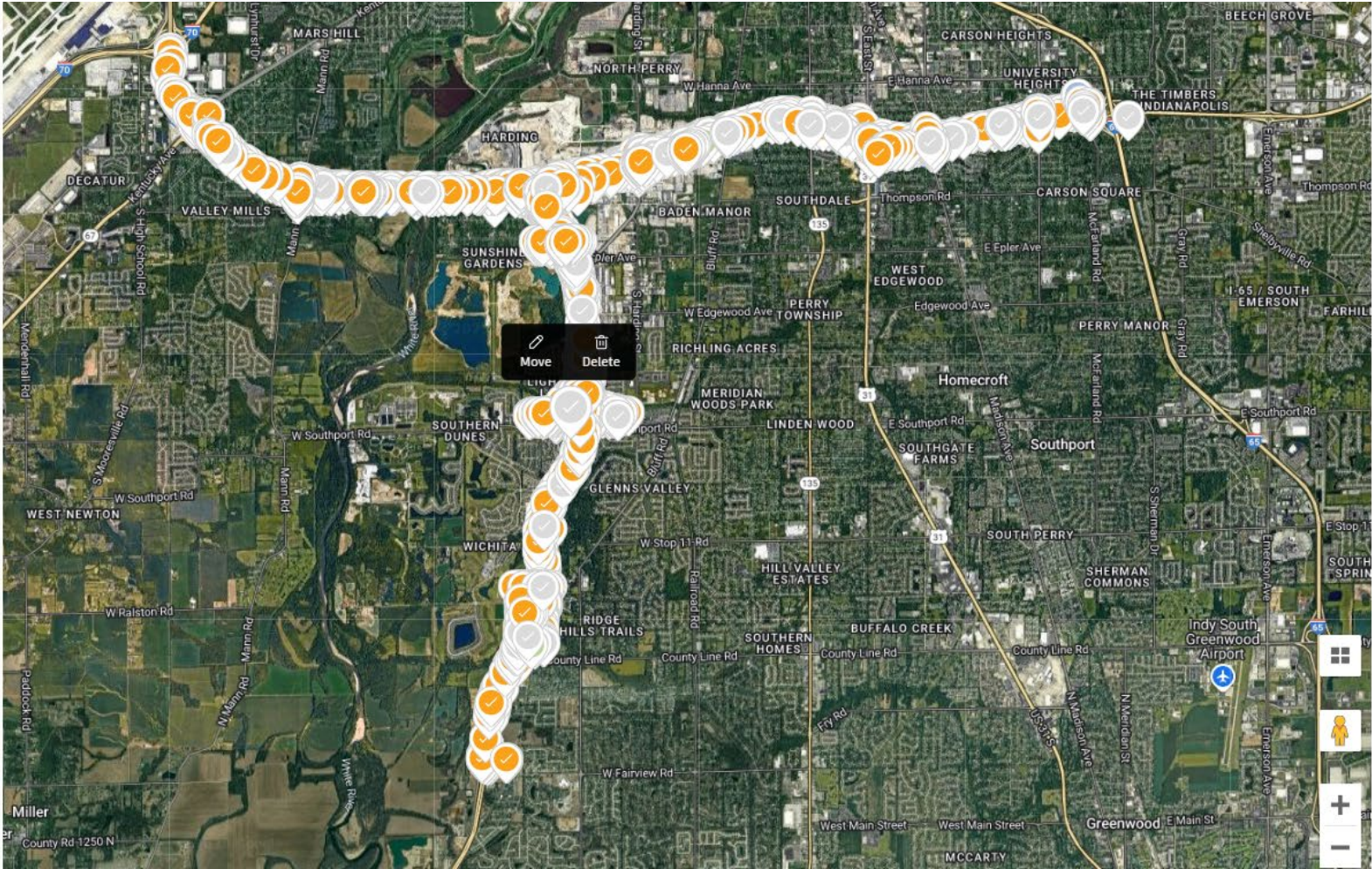
Field Checks

Issues Review

Roll Plots

# Workflows/Process/Communication

#156 - Deficiency List	
Open • Deficiency List	
Deficiency List - Milestone	No due date
#155 - Deficiency List	
Open • Deficiency List	
Deficiency List - Milestone	No due date
#154 - Deficiency List	
Open • Deficiency List	
Deficiency List - Milestone	No due date
#153 - Deficiency List	
Closed • Deficiency List	
Deficiency List - Milestone	No due date
#152 - Deficiency List	
Open • Deficiency List	
Deficiency List - Milestone	No due date
#151 - Deficiency List	
Open • Deficiency List	
Deficiency List - Milestone	No due date
#150 - Deficiency List	
Open • Deficiency List	
Deficiency List - Milestone	No due date
#149 - Deficiency List	



39.66366350620304,  
-86.19813775263934

Google

Map data ©2025 | Terms | Report a map error

Description \*

Clean sediment from curb and road.  
Repair inlet protection as needed.

Priority

Unspecified

Placement

Unspecified

References (2)

Add references

Photos (2)

IMG\_5431  
May 28, 2024 10:17 AM

image000000  
May 30, 2024 12:49 PM

Attachments

# Phase 2: Pilot Development (2026–2027)

## Focus Areas

- Prototype digital twins
- Digital delivery pilots

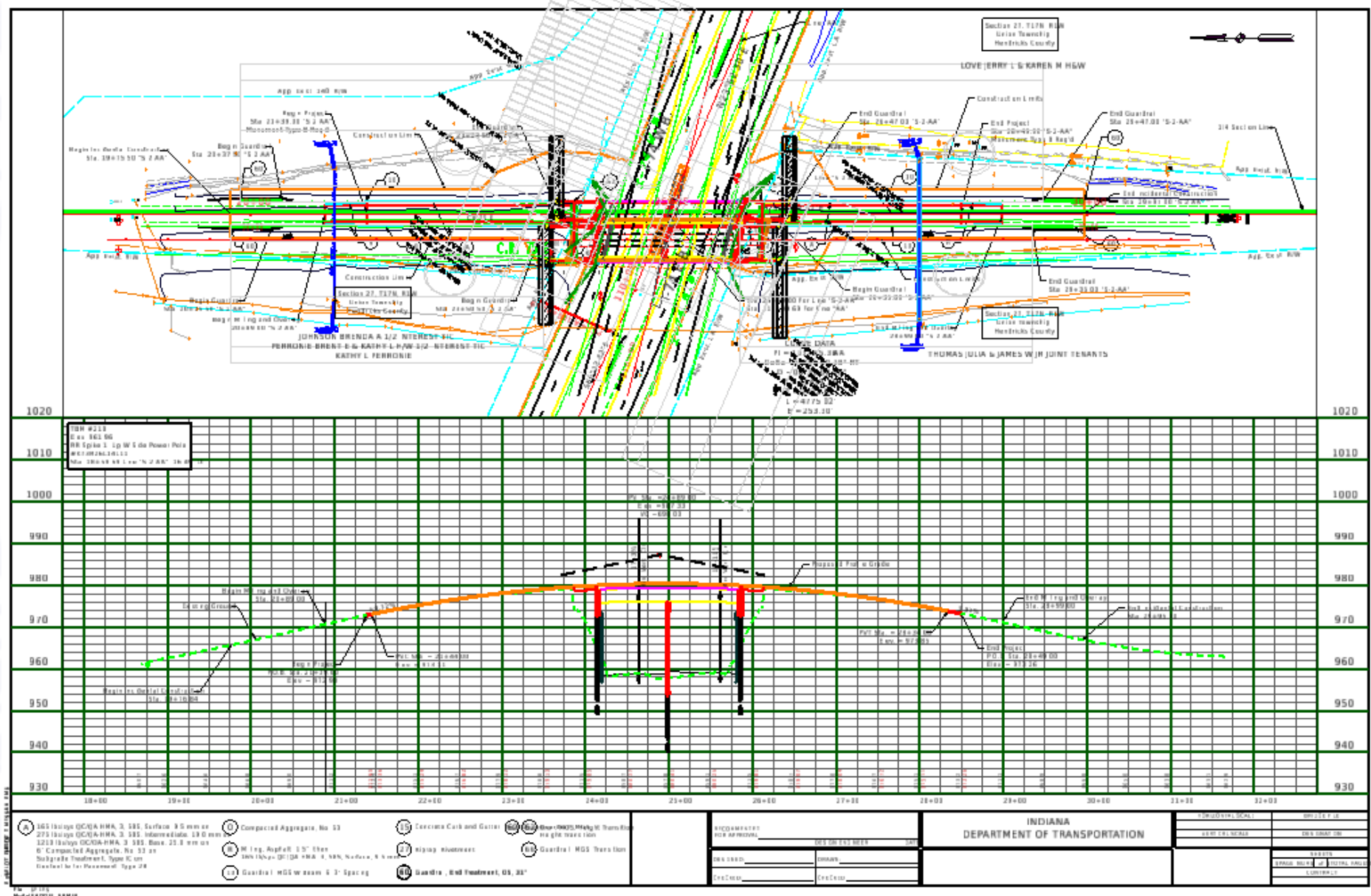
## Key Activities

- Select 2–3 asset types for the pilot
- Develop metadata and attribute sets
- Test CAD-to-GIS workflows
- Launch pilot projects in selected districts

# SR 32 PDB Pilot Demonstration



12/17/202



# Phase 3: Evaluation & Scaling (2028–2029)

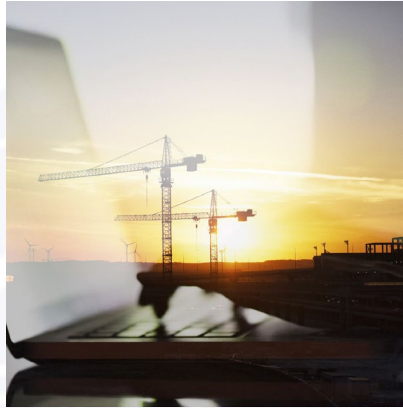
## Focus Areas

- Feedback integration
- Tool and process refinement

## Key Activities

- Evaluate pilot outcomes
- Refine modeling standards and data exchange formats
- Expand pilots to additional regions and asset types
- Begin training programs for field and design staff

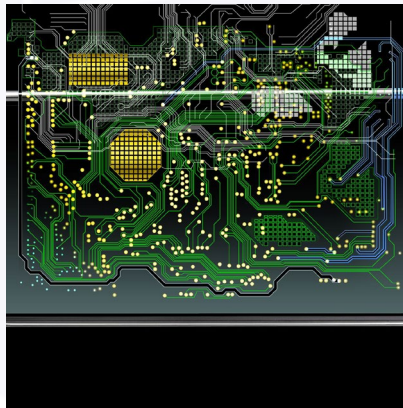
# Digital Construction and As-Builts



**Digital Construction Implementation**



**Inspection and Quality Control**

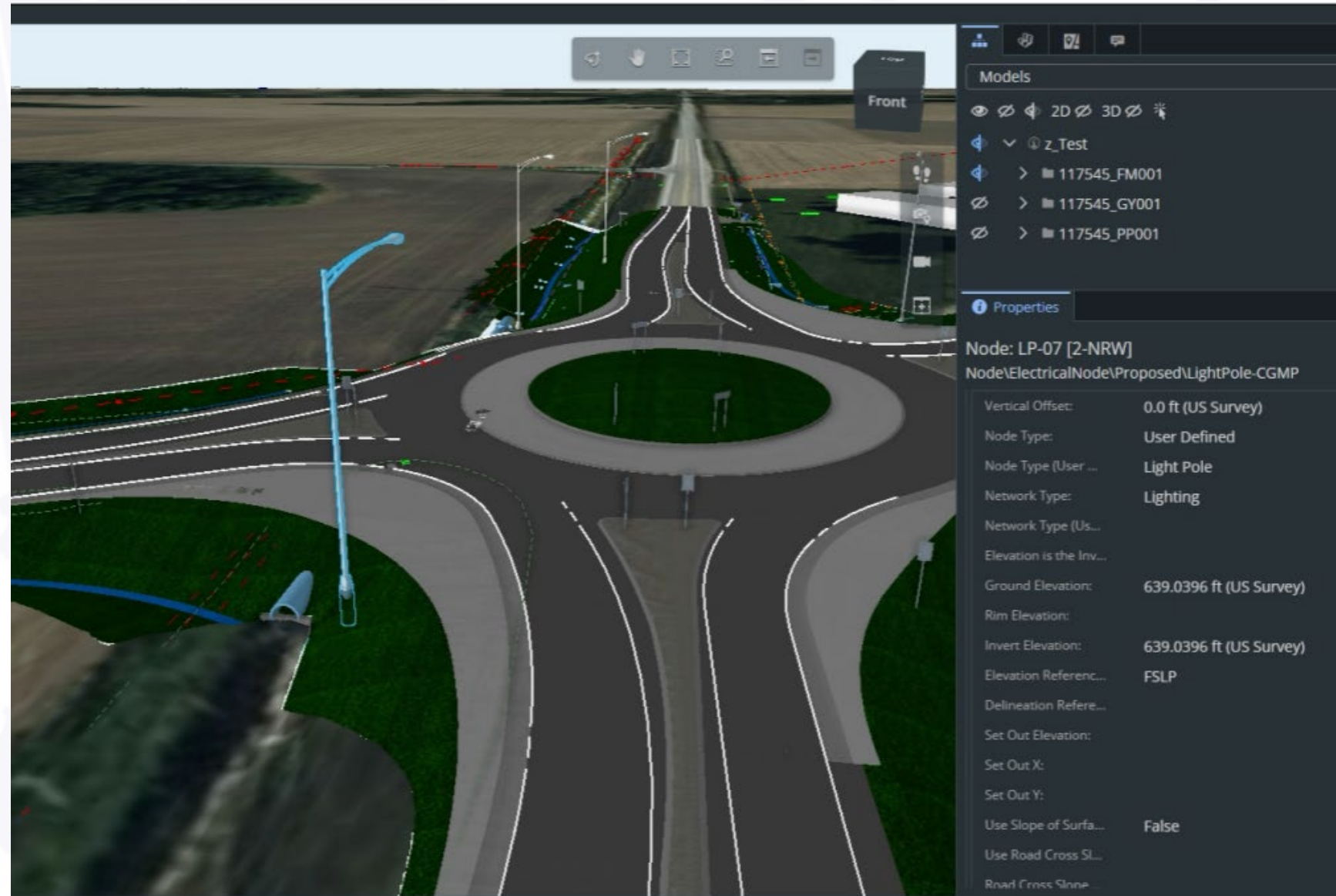


**Integration with Asset Management**

# Digital Twin Environment

Scalable  
Implementation  
Strategies

Data Lifecycle  
Management



# Phase 4: Statewide Rollout (2030–2032)

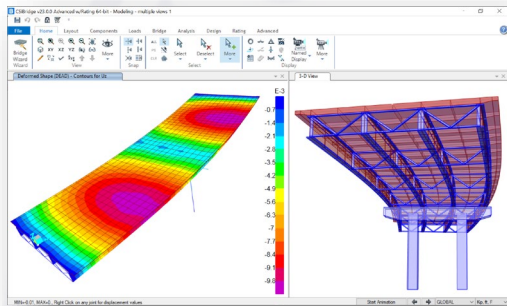
## Focus Areas

- Full lifecycle integration
- Workforce transformation

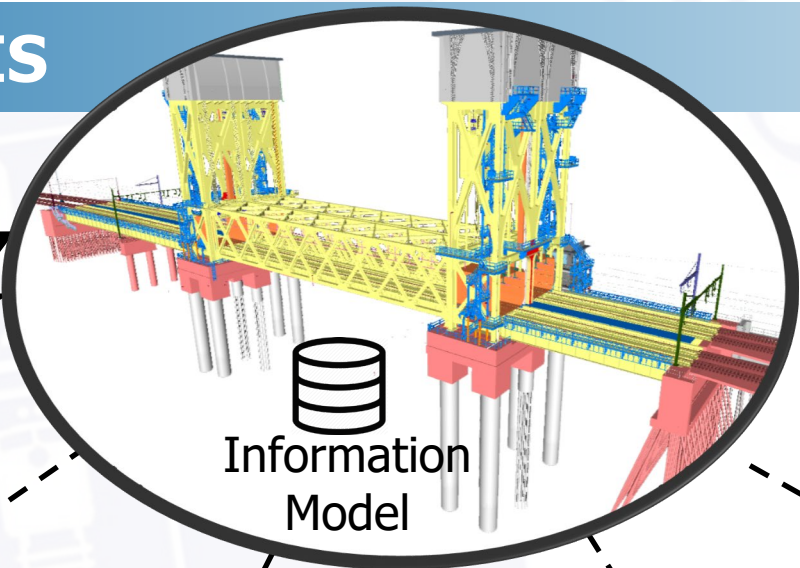
## Key Activities

- Implement digital delivery across all new projects
- Integrate digital as-builts into asset management systems
- Replace legacy systems

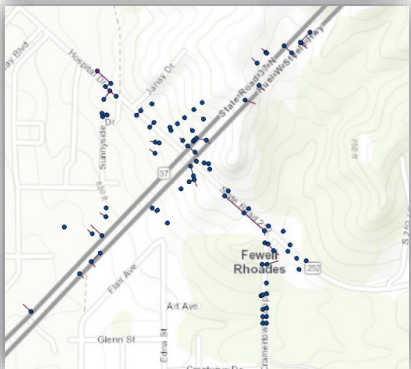
# WHAT DIGITAL DELIVERY IS



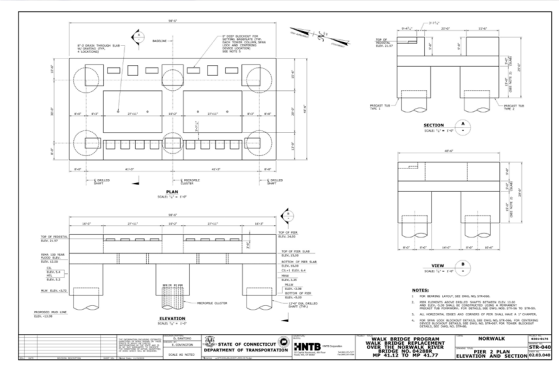
Analysis



Visualization



GIS



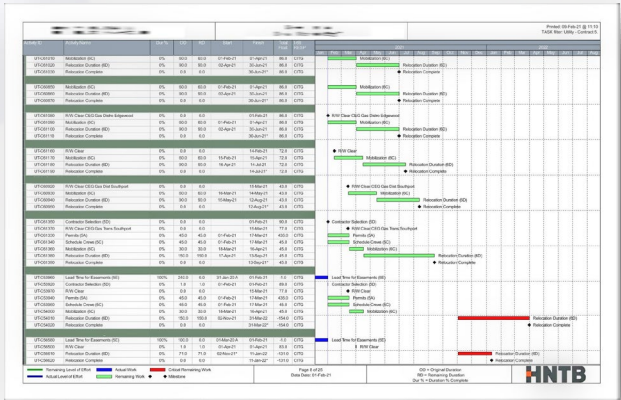
Traditional 2D Plans

PRISM #: 10-1595 PROJECT NAME: The Yakima River Project

This template is meant only as a guide to assist users in developing budgets for the evaluation process. The amount will be responsible for entering final budget in PRISM.

Category	A	B	C	D	E	F	G	H
	Unit	Unit	In-Kind	Cash Match	Match Source	SRFB	Funds	Total Costs
	Number	Cost	Match	Funds				(Gold columns C, D, G)
<b>CONSTRUCTION COSTS: specific costs directly related to the execution and construction/implementation of the project, including permits (detailed description on tasks)</b>								
Heavy Hauling (3 years cost/500 tons)	3.00	\$6,000.00	\$18,000	\$0	\$18,000	\$0	\$18,000	
Purchase of signs	4.00	\$375.00	\$0	\$0	\$1,500.00	\$1,500	\$1,500	
GPS Services	1.00	\$3,000.00	\$3,000	\$0	\$3,000.00	\$3,000	\$3,000	
Truck	1.00	\$1,000.00	\$1,000	\$0	\$1,000.00	\$1,000	\$1,000	
Build Clear (boards, gloves, miterbox etc)	3.00	\$150.00	\$0	\$0	\$450.00	\$450	\$450	
Shanties	2.00	\$337.50	\$0	\$0	\$675.00	\$675	\$675	
Hot Cuts	100.00	\$0.50	\$0	\$0	\$50.00	\$50	\$50	
Transport Cages	6.00	\$75.00	\$0	\$0	\$450.00	\$450	\$450	
GPS Units	2.00	\$350.00	\$0	\$0	\$700.00	\$700	\$700	
Permitting/Environmental Review	1.00	\$0.00	\$3,000	\$0	\$0	\$3,000	\$3,000	
Biological Techniques (for 3 years)	3.00	\$20,000.00	\$0	\$0	\$18,000.00	\$18,000	\$18,000	
<b>SUBTOTAL</b>		\$24,000.00	\$0	\$0	\$118,702.51	\$118,702.51	\$118,702.51	
<b>LAB AND ADMINISTRATIVE COSTS: direct costs (including staff time) that support construction/implementation of the project (detailed description on tasks)</b>								
Supervision	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
<b>STATE &amp; LOCAL SALES TAX</b>		\$6,000.00	\$0	\$0	\$0	\$0	\$0	
<b>PRISM BUDGET TOTAL</b>		\$30,000.00	\$0	\$0	\$118,702.51	\$118,702.51	\$118,702.51	
<b>MATCH NOT INCLUDED IN PRISM BUDGET: Any match over 12% not included in the PRISM Budget for cost bookkeeping and reimbursement.</b>								
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
<b>SUBTOTAL</b>		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
<b>TOTAL PROJECT BUDGET</b>		\$30,000.00	\$0	\$0	\$118,702.51	\$118,702.51	\$118,702.51	

Quantities / Cost Estimate



Construction Sequencing

# Phase 5: Optimization & Sustainability (2033–2035)

## Focus Areas

- Continuous improvement
- National alignment

## Key Activities

- Align with national IFC standards
- Refresh hardware/software
- Institutionalize governance and training
- Monitor ROI and system performance

# Alignment – Vision to Reality



DATA AND “THE MODEL”



SOFTWARE, HARDWARE, AND  
DIGITAL INFRASTRUCTURE



ROLES AND RESPONSIBILITIES

# True Digital Workflows



- End of Digital versions of paper processes
- Psychology of change
- Trust issues!

# Stakeholder Impacts



Let's take this slow!

- Shocking the system is expensive!
- Every aspect of building, owning, operating and maintaining our transportation infrastructure will be touched

# What's Next?



Siloed information



Cumbersome and antiquated workflows



Lack of Transparency

# Coming Spring 2026



All Active Des numbers will have an Infrastructure Cloud Project created and connected to the INDOT data source, ie. ProjectWise Explorer



Updated Permissions structure will allow project participants greater access to folders and files throughout the project



No more siloed project data\*



Stage Submittals will  
transition from ERMS  
to Infrastructure Cloud

# Getting Ready for Infrastructure Cloud

Register with Bentley IMS to create a user account and ID

- Registration is free but required to access projects
- Instructions: [SYNCHRO Construction Solution - Using Bentley IMS to log into SYNCHRO Perform \(Web\) – Communities](#)
- Link: <https://ims.bentley.com/>
- Costs associated with access and usage of Infrastructures Cloud are included in INDOT's contract with Bentley and are not passed on to external users.

# Training – In Development



LIVE WORKSHOPS WITH  
REVIEWERS



RECORDED WEBINARS



PROCESS  
DOCUMENTATION

# Continuous Improvement and Commitment to Collaboration

Version 1.0

Feedback will be highly valuable

Website coming