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Email Address:	kabrown@odot.org
Email List:	Dr. Raheem - SPTC BIM

Geo Coding ?	
Country:	
Region:	
Latitude:	0.0
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Custom Variable 5 :	



Assessing Building Information Modeling (BIM) Maturity and Identifying Barriers to Implementation among Transportation Agencies in Region 6

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The following questions are related to **Policies and Processes** used to minimize data loss, guarantee information oversight, and encourage attention and elevation of details captured in digital data flow across all stakeholders. Please answer the following statements ranging from "No BIM use" to "High-Level BIM Integration".

My organization has:

	No BIM Use / Not related to BIM	Digitalization Started	Not Fully Integrated	High-Level Optimization and Integration
Mission and vision for BIM				x
BIM-related goals and objectives				x
Management support for BIM integration				x
Project operations managed with BIM	x			
Facilitates communication, coordination, and teamwork, through BIM		x		
A BIM hierarchy/structure (top-down)	x			
BIM leaders who guide others to adopt, manage, and ensure BIM implementation				x
Guidelines and standards used to assist BIM use and implementation	x			

The following questions are related to **People and Skills**. Employees need to be technically skilled with relevant resources to implement BIM when new and updated technology systems are deployed. Please answer the following statements ranging from "No BIM use" to "High-Level BIM Integration".

My organization has:

	No BIM Use / Not related to BIM	Digitalization Started	Not Fully Integrated	High-Level Optimization and Integration
BIM-related goals and responsibilities established				x
BIM professional development programs/credentials available	x			
BIM training sessions available	x			
Employees who are trained to integrate BIM		x		

The following questions are related to **Data and Standards** used to populate and guide the development of information models. Modeling and information-exchange standards make data and their movement between systems and stakeholders consistent and predictable.

Please answer the following statements ranging from "No BIM use" to "High-Level BIM Integration".

My organization has:

	No BIM Use / Not related to BIM	Digitalization Started	Not Fully Integrated	High-Level Optimization and Integration
Standardized guides for collecting data for BIM	x			

Manuals and templates for BIM	x			
Used BIM during the planning and design phases	x			
Used BIM during the construction phase	x			
Used BIM during the operation and maintenance phases	x			
Stored, organized, and accessed documents using a BIM environment.	x			
BIM processes and outputs that meet predefined standards and expectations for accuracy, completeness, and reliability.	x			

The following questions are related to **Tools and Technology** used to build information models and collect, store, share, and analyze the data populated in these models. Please answer the following statements ranging from "No BIM use" to "High-Level BIM Integration".

My organization:	No BIM Use / Not related to BIM	Digitalization Started	Not Fully Integrated	High-Level Optimization and Integration
Has advanced BIM software and uses and updates them regularly		x		
Has advanced BIM hardware that fully supports the hardware available, and is regularly upgraded		x		
Has recommended a specific tool for implementing BIM	x			
Provides general IT/Software support for BIM	x			
Has a centralized model server and efficient cloud-capability for BIM use		x		

What are the top three (3) challenges that your organization has faced when Implementing BIM:

1) Determining the new workflows (and roles) and getting people to adopt the new methods, 2) providing adequate BIM education to everyone in the industry that is needed for us to fully implement, 3) identifying risks that we are not aware of yet. 4) establishing Agency wide data governance and standardization

Is your organization planning to implement BIM for management of past, current, and/or future projects? Please explain:

Planning to implement BIM for Infra for future projects. It is our goal to implement the design to construction hand-off by the end of 2027, utilizing 3d project delivery with data. Oklahoma has just started the digital delivery journey. We are currently using ORD & OBM to produce construction plans. Right now 2d pdfs are still the legal deliverable. Our plan for 2024 is to get all of our foundational pieces in order (workspace, projectwise, training, digital delivery guidance, modeling standards). So in 2025 and 2026 we can start our pilot program, testing the pieces of 3d models in design to construction hand-off. Documents will be updated annually as we learn more about what works for Oklahoma. In 2027 we expect to be implementing new processes and policies as our normal daily practice. Subsequent years will dive into pushing the data developed in design and construction hand-off to maintenance and operations as well as planning.

Does your organization have a digital delivery plan that you would like to share with us? Please explain:

We have a website odotdigitaldelivery.com which hosts our official BIM documentation. You can find our Gap Analysis,

Strategic Plan, and high level roadmap there. We would be happy to share more details.

Please share any other insights about BIM adoption/digital delivery processes that were not covered in the previous questions:

This requires a tremendous amount of industry education and training, from k-12 through current workforce. There are large generational gaps in understanding and use of technology. There is also fear of the unknown, resistance to change and lack of commitment and willpower by DOT and industry leaders. It also requires a lot of investment (people, time and money) up front with little to no information on return on investment or when/how a DOT, Consultant or Contractor might see ROI. Many states have policy, laws, regulations that do not take BIM into consideration or inhibit the development in some way (Utilities). Also statewide or agency wide data governance and standardization are required to achieve the full BIM for Infrastructure vision of pushing data throughout the entire lifecycle of an asset. Im not sure DOTs have the kind of robust data governance and management required to achieve this. There are still software development limitations, both withing the design/CADD software and in the international IFC standard. And finally, there are areas where we need 50 states to agree on common language and formats to expedite software code writing.

[The University of Texas at El Paso](#)