MONTANA
Department of Transportation

# Executive Summary

Digital Delivery is the use of digital tools, workflows and processes to plan, design, construct, and manage transportation infrastructure projects. Digital Delivery integrates technologies like 3D models, geospatial intelligence, data management systems, and real-time collaboration tools to improve efficiency, accuracy, and decision-making throughout the lifecycle of a project.

## Initiative Outcomes

- Leverage CADD Systems and software tools to create 3D Models with integrated project intelligence, uniting workflows from design through construction, to digital as-builts and infrastructure asset management.
- Utilize enhanced design and construction methodologies that align with future AASHTO and FHWA initiatives and standards.
- Allow for agile preconstruction design and construction through real time virtual collaboration resulting in better built projects, saving time and resources.
- Increased efficiency and effectiveness through adoption and education of MDT's Engineering workforce.
- Retention and recruitment of workforce through opportunities involving industry leading innovations.

## Digital Delivery Objectives/Results

- Highly accurate model-based quantities
- Clear communications of design intent
- Automated data extraction of project assets at pay-item level
- Enables more competitive and comprehensive bidding
- Reduction in change orders leading to lower construction costs
- Improved safety during construction and construction inspection
- Infrastructure intelligent data transitions from construction to maintenance

## Benefits to the Public / Taxpayers

- More efficient and effective design workflows for MDT project delivery that result in streamlined construction processes.
- Improve how we communicate comprehensive highway infrastructure project goals and intentions with stakeholders, including the public, allowing for more equitable conversations, collaboration and transparency.
- Workflow and Processes creating a more effective method for communicating design intent to Montana contractors which will result in cost and time savings on infrastructure projects.
- Faster design to delivery of infrastructure projects, saving time and money, maximizing safety and leading to a lifecycle asset management approach.