

# BIM FOR INFRASTRUCTURE

## Integrated Digital Project Delivery

Building Information Modeling (BIM) is a collaborative work method for structuring, managing, and using digital data and information about transportation assets throughout their lifecycle. It enables users to exchange data from one discipline to the next, indicating who is building what, when each part will be built, the materials to be used, and how it will be constructed.

BIM has historically been associated with vertical construction. When applied to transportation infrastructure such as highways and bridges, BIM helps optimize the design, construction, and management of our infrastructure assets throughout their lifecycles.

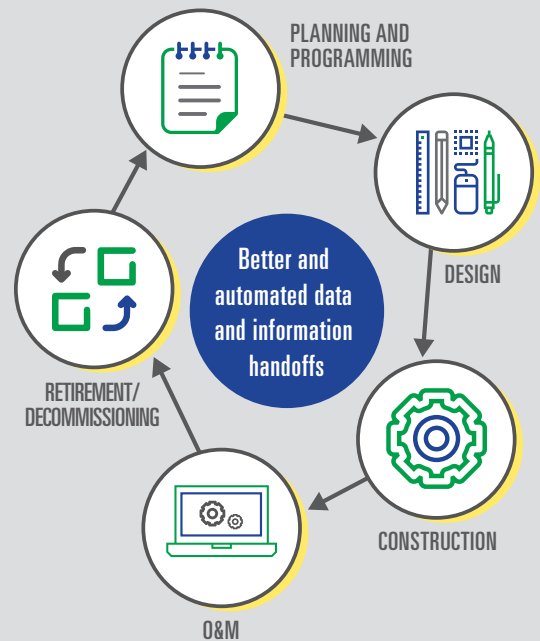
The application of advanced digital construction management processes results in more seamless data transfer and increases information sharing between agency business silos and among stakeholders. The use of digital technologies during construction allows projects to be completed safer, faster, and more accurately.

The Federal Highway Administration has a vision for the deployment of BIM for Infrastructure and is advancing support by offering funding opportunities, technical assistance, peer exchanges, training, and conducting research.

BIM for Infrastructure provides the following benefits:

- Breaks down disciplinary silos, fostering collaboration
- Provides cost and time savings through design visualization
- Minimizes construction impacts to the public
- Enables clear communication and data sharing from design through retirement or replacement

### After BIM

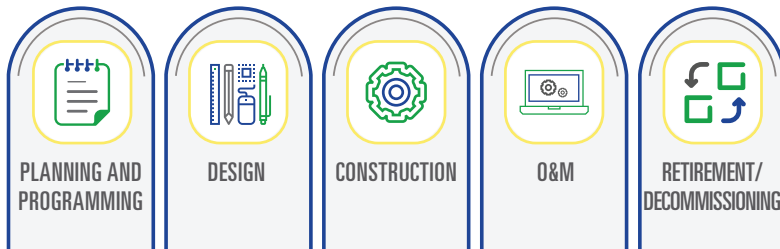


O&M: Operations and Maintenance, which includes Asset Management

Illustrations by HDR

### Before BIM

#### Siloed Data and Information Management



O&M: Operations and Maintenance, which includes Asset Management

BIM helps break down organizational silos to share data throughout the life cycle of the asset.



U.S. Department of Transportation  
**Federal Highway Administration**

**FHWA-HIF-20-021**

**Task Manager:** Connie Yew, Team Leader  
Federal Highway Administration  
1200 New Jersey Avenue, S.E., Washington, DC 20590  
202-366-1078, [connie.yew@dot.gov](mailto:connie.yew@dot.gov)

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide information to the public regarding existing requirements under the law or agency policies.