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Digital Delivery with Building Information Modeling for Bridges

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Abstract

Digital delivery using Building Information Modelling (BIM) for bridges is growing in prominence nationally and in the United States (US). New software tools enable broader adoption of BIM-based bridge design production. Contractors are increasingly making use of BIM in planning site logistics and lifts, sometimes with construction simulations, and also for fabrication. Bridge data standards are moving forward through international and US efforts focused on the Industry Foundation Class (IFC) standard. The remaining issues to resolve for digital delivery are metadata, which is required to clearly communicate the responsibility for, limitations of, and reliable uses for digital data, as well as contract language and quality control processes. While many bridge owner agencies are moving forward with digital delivery, the Michigan Department of Transportation is currently pursuing a framework to close the metadata gap and bring the agency further along towards its vision for comprehensive digital delivery.

Keywords: Digital delivery; building information modelling; bridge information modelling, bridge design.

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