Maximize Federal Funds for Advanced Digital Construction Management Systems (ADCMS)

$85 Million in FHWA Grants for Technology & Innovation

The Federal Highway Administration (FHWA) Technology and Innovation Deployment Program includes $85 million in grant funds to accelerate the use and deployment of advanced construction management systems (ADCMS) as authorized under section 13006 of the IIJA. ADCMS are defined as commercially proven digital technologies and processes for management of construction and engineering activities.

The funding will be allocated to a program with the following goals:

- Support states in implementing technology to maximize interoperability, boost productivity, and reduce project delays and overruns throughout the construction lifecycle
- Reduce reliance on paper documents to increase the timeliness and effectiveness of information sharing
- Help state and local governments adopt tools that help them integrate technology into contracts and weigh the costs of digitization more effectively
- Reduce the environmental impact of construction projects

Fast Facts

+ $85M in grant funds set aside for DOTs
+ $34M in 2023; $17M per year in FY 2024-2026
+ Funds for technologies, training & more
+ DOT benefits: productivity, efficiency, cost savings
+ Infrastructure benefits: reliability, longevity, sustainability

Systems covered by grant funds include technologies and processes that improve infrastructure project operations and outcomes, such as hardware and software for:

- Digital Project Delivery
  - Capital program planning
  - Construction project management
  - 3D design and BIM modeling
- Enterprise Asset Management
  - Planning and budgeting
  - Maintenance and operations
- Connected Data Environment
  - Single system of record unifying multiple asset data sources
  - Digital twin of each asset across its lifecycle
- Other programs and activities that promote the adoption and benefits of digital technologies for construction and engineering management

We're here to help.

Trimble's team of experts in public grant funding, digital technologies, and infrastructure management can help you identify grant-eligible programs, submit grant applications, develop strategies, and implement programs to advance innovation and digital transformation at your agency. **Contact us** for help.

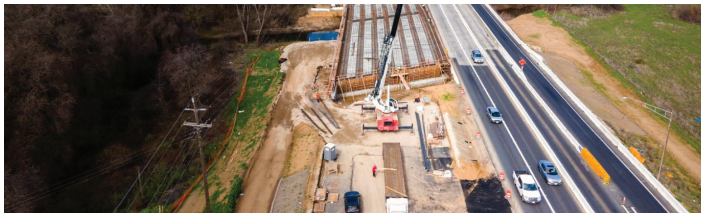
Digital Transformation Drives DOT Project Success

Many innovative DOTs are already using these technologies to achieve benefits such as time and cost savings, increased productivity and efficiency, and improved infrastructure resilience and sustainability. Here is just one example.

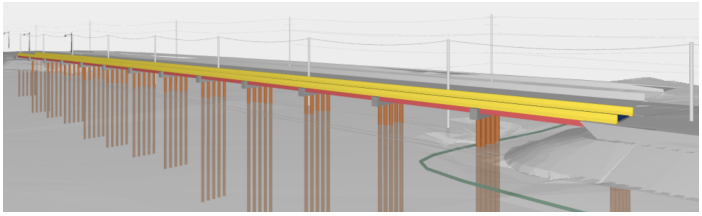
3D modeling improves safety and enables bridge project completion a year ahead of schedule

California DOT (Caltrans) and Granite Construction completed the $158 million Cosumnes River Bridge Replacement project on State Route 99 in Sacramento County. This highly complex project required innovative technologies to coordinate multiple teams and minimize the impact on the public and the environment.

To improve workflows, Trimble delivered 3D bridge structures with adjacent earthworks and new utilities routing using data modeling. Trimble's 3D model provided the project team with critical information on the design and real-time conditions throughout the project. The end result was that six aging bridges were replaced by three modern bridge spans, improving road safety while building public trust. Construction of the entire project was completed more than a year ahead of schedule, contributing to lower costs while minimizing traffic disruptions and environmental impacts.



Innovative technologies helped teams complete the complex bridge project one year early.



A 3D model like this one enabled design and construction teams to improve accuracy and efficiency.

The Cosumnes River bridge project's success bridge project launched Caltrans' adoption of an asset lifecycle management strategy to connect digital data across its programs and divisions. As part of this strategy, Caltrans will use digital construction technologies for all future projects, enabling improvements in safety, efficiency, and infrastructure resilience by reducing rework and improving cross-team productivity.

> **"The success of the Cosumnes River bridge project validated what we suspected all along: If you can connect internal and external teams with a single source of reliable data over time, it will drastically improve productivity, and the result will be a better-performing asset over the entire service life."**
>
> — Aaron Chamberlin, Senior Transportation Engineer, Caltrans

Collaborate to Innovate

Scan the QR code or **contact us** for information or help with identifying grant-eligible programs, securing grants, and developing and executing your digital construction management strategy.

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