

Road and Bridge Engineering Solution

Accelerate Design, Streamline Processes,
and Enhance Multidiscipline Collaboration

Due to aging infrastructure, owner-operators and engineering consultants face an increase in the number of infrastructure projects that they need to deliver in a shorter duration, all while suffering from a labor shortage.

Bentley's Road and Bridge Engineering Solution helps organizations who deliver road, bridge, and tunnel projects meet growing contract requirements more effortlessly with their current staff by accelerating 3D engineering design and facilitating delivery of 2D contract drawings. The solution replaces generic software that requires programming skills and specialists with discipline-specific, model-based software enabling all staff to contribute. Its open and connected data environment links people and processes across various disciplines, optimizing insights to mitigate risk, rework, and cost overruns, ensuring the delivery of safe and resilient infrastructure.

Accelerate Design and Documentation with Staff

With digital delivery, you can alleviate the pressures of project and staffing requirements. Model-based design increases design efficiency, accelerates plan production, and generates a data-rich environment that remains valuable beyond the design phase.

Our software includes design capabilities built for bridges with roads, bridges, and tunnels distinguishing it from other generic solutions that require intricate programming, specialists, and multiple applications.

Improve Collaboration with Open Data across Bentley and Third-party Applications

You can break down data silos across disciplines by leveraging a connected data environment. Working together in a unified model environment improves how easily you can access, use, and manage project data. Real-time visibility prevents the loss of crucial project insights, resulting in smarter choices, fewer revisions, and faster project approvals.

Reuse Design Data across the Asset Lifecycle

The Road and Bridge Engineering Solution eliminates single-purpose data and unites project phases. Complementing software solutions with data schema consistency accelerates projects from concept to asset. Data-driven models simplify the handoff to construction and asset operations while reducing errors and misinterpretations that occur with traditional paper-based handovers.





KEY BENEFITS THAT ENABLE THE DESIGN OF SAFE AND RESILIENT INFRASTRUCTURE:

- ◆ Increase productivity by 20% with purpose-built software providing intelligent, rule-driven automatic updating for design changes and ready visualizable 3D models.
- Connect the built world with the subsurface. Optimize designs with integrated geotechnical, drainage, detailing, simulation, and analysis capabilities.
- Connect natively to geological and geotechnical design solutions.
- Automate plan production and a variety of deliverables specific to roads and bridges.
- Lower overhead costs with a reduced tech stack and staff.
- Incorporate data from multiple sources regardless of format, scale, or complexity.
- Find and solve interdisciplinary conflicts prior to construction.
- Maximize time to collaboratively explore design alternatives for improved quality, safety, and performance.
- Minimize change orders that lead to cost overruns, specifically those related to subsurface conditions.
- Gather data throughout the asset lifecycle to enhance communication and improve decision-making.
- Visualize, analyze, and simulate designs prior to physical construction.
- Increase efficiency and productivity with Bentley's foundational blueprints, which are personalized implementation plans that enable firms to work at the standard of industry leaders through the execution of best practices and Bentley-recommended workflows.

