

7 WAYS

SYNCHRO Can Help
You Achieve Your
Construction Digital
Delivery Goals

Digital delivery offers many benefits

Many Departments of Transportation (DOTs) are adopting construction digital delivery workflows and technology. Digital delivery offers many benefits such as streamlined preconstruction processes and more efficient project execution – from the field to the office.

With SYNCHRO's digital construction management solutions, including mobile field applications and 3D/4D workflows designed for heavy civil infrastructure, you can realize these benefits and achieve your construction digital delivery goals with confidence. Here are the 7 ways SYNCHRO can help.



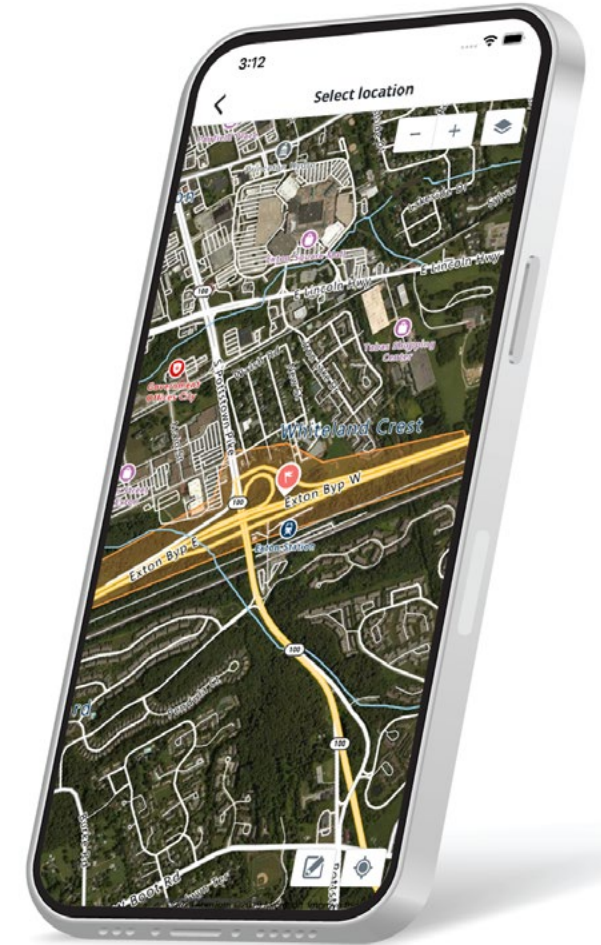
1

Coordinate Design and Construction Using 3D Models

SYNCHRO enables the transition from design-focused to construction-focused project management. The application utilizes 3D/4D workflows and cloud technology to facilitate collaboration, coordination, and problem solving between teams, leading to better project outcomes. SYNCHRO provides a secure, single source of project truth, where your data will be up to date and accessible from a range of devices based on roles and permissions.

Coordinating design and construction teams using 3D models enables you to:

- Communicate design intent, increase design quality, and reduce conflicts.
- Streamline and expedite design and construction review processes by 30% or more.
- Capture additional data, providing a more comprehensive overview of the project.
- Improve visibility between stakeholders, reducing change orders by 15% or more.

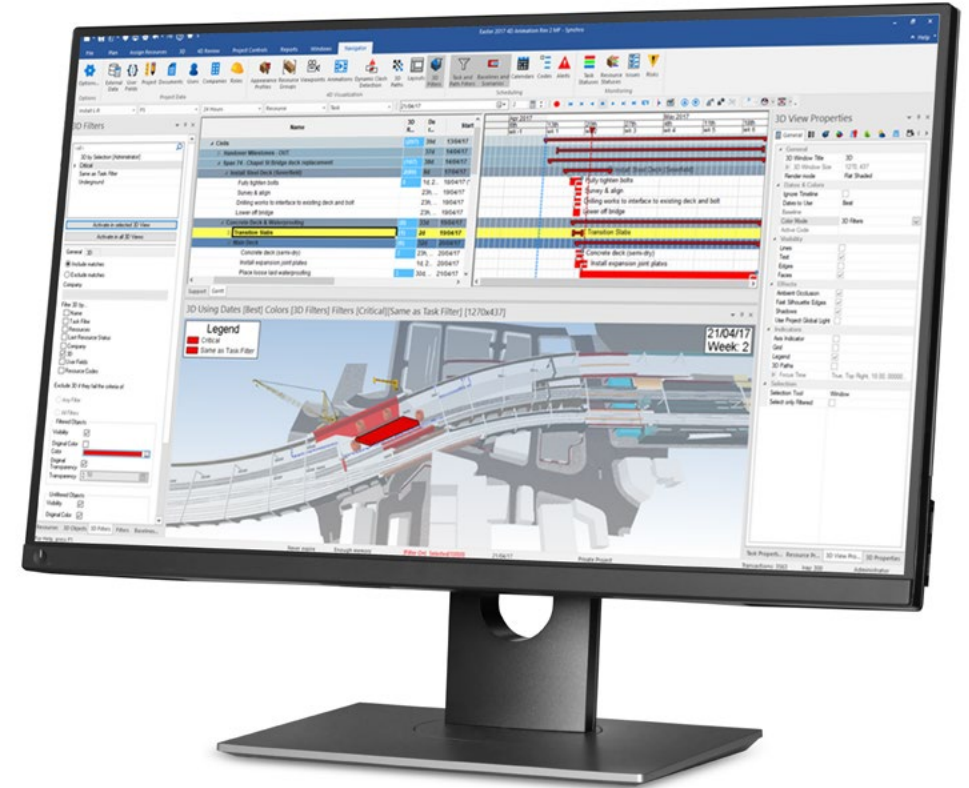


2 Build Your Heavy Civil Projects Virtually First by Using 4D Models

SYNCHRO enables teams to utilize 4D models to understand what they are building before they build it. By adding construction equipment and paths to schedule activities, you can visualize conflicts and resolve them before construction begins, as well as easily understand the maintenance of traffic plans within time and spatial contexts. In addition, teams can perform what-if analysis to reduce risks and delays by reviewing time-lapsed construction sequences.

By simulating construction projects with 3D/4D models before construction begins, DOTs and their partners can:

- Validate and optimize project plans and schedules.
- Anticipate construction impacts on the environment, traffic flows, and the local economy.
- See issues before they occur, minimizing mistakes during construction, reducing risk, and limiting exposure to workspace and logistic clashes.
- Improve safety planning and ensure compliance with safety regulations to reduce accidents and injuries on the jobsite.



3 Develop Accurate Schedules Using Constructible Components

SYNCHRO's 4D workflows allow you to break horizontal projects into constructible components with auto-calculated quantities. Then, you can use these components to build a construction schedule that reflects, for example, how many people are needed and when they are needed, all while keeping the original design intent. Breaking the project down into the phases and steps in which it will be built allows you to minimize the disruption to the community.

By slicing and dicing road and bridge elements into constructible components, contractors can:

- Build plans that more accurately represent how a project will be built.
- Optimize project plans, schedules, and resources.
- Generate accurate quantity take-offs so they can deliver projects on time and within budget.
- Increase project transparency to keep the public informed and regulations met.

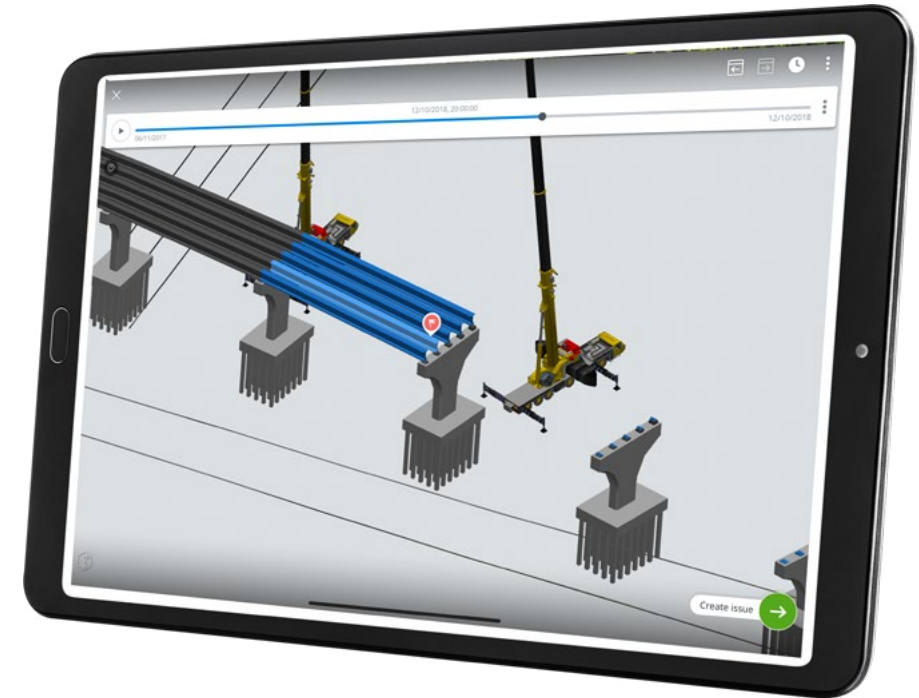


4 Share 4D Sequences with All Stakeholders, Including Field Crew

With SYNCHRO, users can share web-based 4D sequences with stakeholders, including field crew, enabling them to play back animations to better understand construction sequences. They can also gather data on-site and send instant, geo-located feedback back to the office. This feedback ensures that everyone is working from the same data, and that any changes made to the project plan are reflected in real time, reducing the potential for miscommunication and errors.

By sharing 4D sequences with all project stakeholders – from the office to the field – you can increase collaboration and transparency empowering teams to:

- Identify, mitigate, and resolve issues faster.
- Enhance stakeholder visibility into project performance.
- Make better, more informed data-driven decisions.
- Keep projects into control, on time, and within budget.



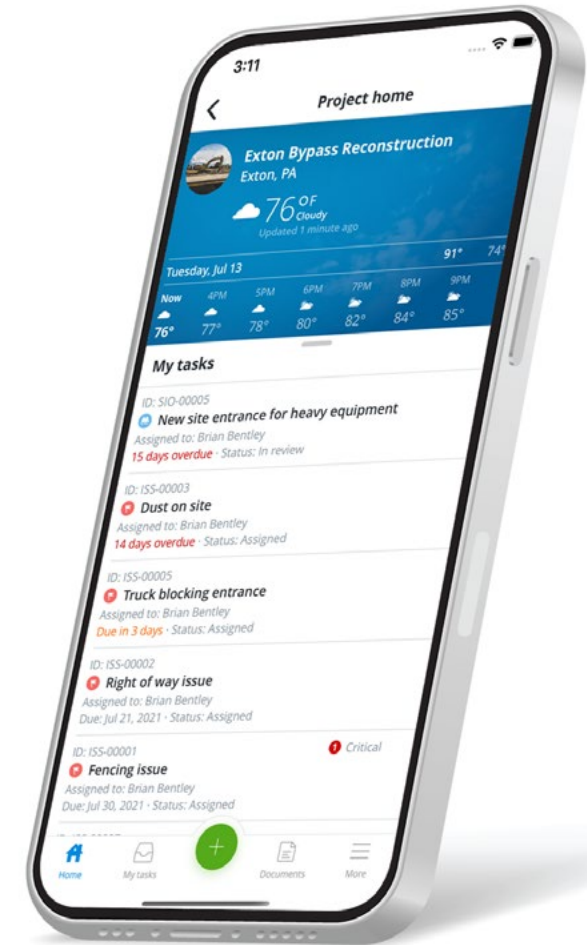
5

View and Capture Data Automatically and Electronically in the Field

You can extend the value of the 4D model into field workflows for status checks, work planning, review, and inspections within SYNCHRO. With connected mobile applications and workflows, a project team can review, validate, and communicate in one complete digital and interactive visual environment that includes documents, forms, and models. This streamlined review process significantly improves in project delivery efficiencies, including quality, accelerated schedules, and reduced risk, costs, and rework.

By capturing data automatically and electronically in the field, teams can:

- Expedite operations in the field, including inspections, time tracking, and resource allocation.
- Accelerate construction time by 20% or more.
- Work on the right tasks at the right time.



6

Real-time Project Performance Tracking and Monitoring

SYNCHRO provides real-time site performance monitoring, giving project managers and stakeholders visibility into project progress and enabling them to identify potential issues early. With SYNCHRO's web-based construction management solution, teams can access, manage, collaborate, and analyze project data all in one place. This intuitive project tracking and analysis ensures better team collaboration at every project phase, helping to improve efficiency and reduce the potential for delays.

With SYNCHRO's flexible real-time project performance tracking and monitoring, teams can:

- Manage project performance with comprehensive dashboards and custom workflows and sequences.
- Make better and quicker decisions that minimize project errors and maximize team productivity.
- Oversee daily logs, issues, inspections, and RFIs to stay ahead of schedule, all managed in one place.
- Connect external software, such as document repositories including ProjectWise and Power BI dashboards.
- Access and manage up-to-date project data in one place.



7

Future-proof Your Operations with Bentley Infrastructure Cloud Powered by iTwin

With Bentley Infrastructure Cloud, powered by iTwin, SYNCHRO can provide a connected data environment that integrates design, construction, and operational data into a single, unified platform. All stakeholders, from designers to contractors to owners, can access the same data and collaborate in real time, enabling better decision-making and reducing the potential for errors or miscommunication. iTwin also enables SYNCHRO to provide advanced analytics and visualization capabilities, allowing project teams to monitor and analyze project data in real time. As a result, teams can identify potential issues early, optimize project performance, and improve overall project outcomes.



SYNCHRO | Get Time on Your Side

No matter where you are on your construction digital delivery implementation, SYNCHRO will meet you there.

SYNCHRO's digital construction management solution, designed for heavy civil infrastructure, will enable you to streamline preconstruction processes and create more construction efficiencies – from the office to the field.

SYNCHRO is ideal for:

- Planning and virtual construction
- Project management and collaboration
- Operations and field management

Contact us today to get started with construction digital delivery.

CONTACT US

Bentley Systems' Infrastructure Cloud, powered by iTwin, offers a wide variety of solutions to help you manage and visualize project, construction, or asset information to improve project performance and make better, faster, data-driven decisions.

LEARN MORE

