



Construction Technology Trends: 2021

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Introduction

The construction industry experienced an enormous amount of change in 2020 and the disruption will continue in 2021. The industry faced adversity in the form of economic challenges and a public health emergency that continues to put pressure on businesses and the health of workers. This will impact the decisions construction companies need to make to drive growth.

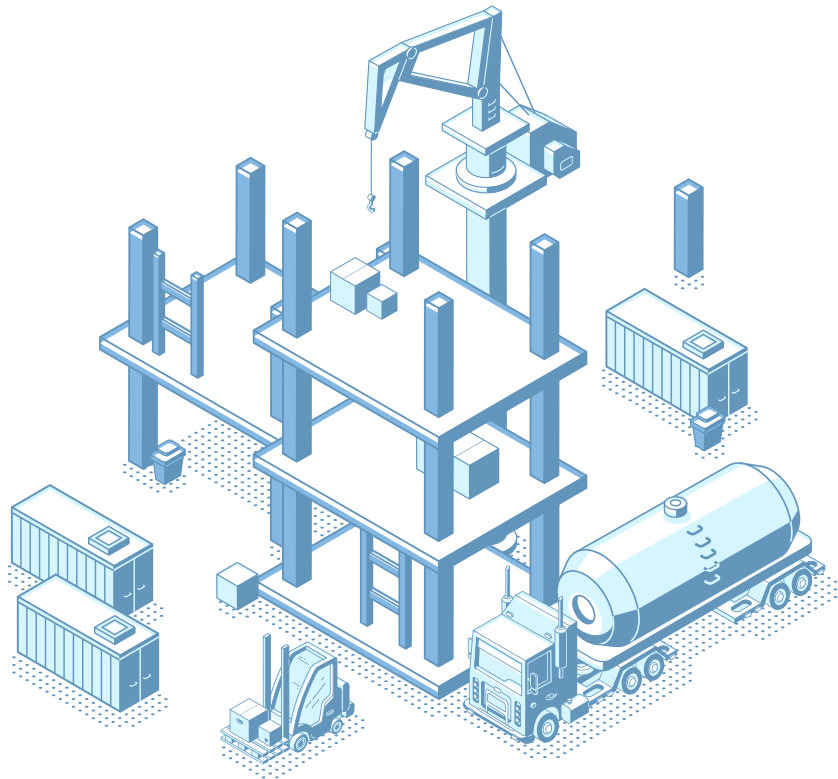
Research from [Deloitte](#) shows the construction industry was better-positioned to endure the COVID-19 pandemic due to lessons learned from the 2008 recession. It had better control over its leverage and credit, which provided a buffer against unforeseen economic shocks. However, construction companies continue to face cost pressures for building materials and equipment procurement. Many projects were also delayed and required permits often take longer to make it through the approval process.

However, these challenges present growth opportunities for the construction industry

and mid-size companies in particular. Much of this growth will come in the form of new and better technologies, which will help companies work smarter and safer.

The construction industry added [more than \\$900 billion](#) to the U.S. economy in Q1 2020, which represents the highest level since the 2008 recession. COVID-19 hit hard, however, eliminating two years of GDP gains seemingly overnight. Recovery may be tough, but it's far from impossible. Below, we explore top industry trends your firm should consider this year, along with solutions to help you utilize them to your advantage.

But all challenges present opportunities for growth. The road forward is starting to become clear, especially for mid-size firms that can't afford a repeat of this past year's massive workflow interruptions.



Trend 1: Remote Connectivity

The work your construction business does onsite is inherently hands-on, but that doesn't mean all your business processes should be hands-on.

Every industry has seen some degree of digital transformation over the last decade, but 2020's lockdowns really brought one big thing into perspective: it's going to be the digital-first businesses that survive and thrive going forward.

How does your management team collaborate when they can't be in the same room? Do you process digital forms remotely or manage project data in one central location when your team isn't in one place? Inspection forms, work orders, timesheets, and daily reports can all be streamlined with a transition from paper-based forms to digital forms.

Beyond its benefits in a post-COVID world, going digital translates to incredible cost savings for your business. Digital tools can help you:

- **Streamline your sales and marketing processes.** Take out rote steps in order to bring in more leads and close more contracts.
- **Cut-out inefficiencies and save money on administrative processes.** Shuffling paperwork from person-to-person costs your business both labor hours and lost productivity due to manual errors.
- **Hire faster and better.** Free up valuable time your hiring



team spends on administrative tasks and track applicants with less hassle.

- **Spend less time managing legal issues and compliance.** And spend more time growing your business.

Digitization isn't just a buzzword. It's a legitimate means to improve day-to-day functions of your business and grow your bottom line.

If your firm still takes the “paper” in paperwork literally, then you're doing yourselves a huge disservice. Mobile apps and other digital platforms have taken all of the paper — and even a lot of the work — out of managing the contracts, forms, schedules, compliance documents, and other essentials that you need for your business operations.

Here are a few key areas of the construction industry where digital solutions can simplify operations and save you serious money:

Maintenance Schedules

Keep maintenance inspections accurate by editing checklists, service bulletins, and schedules from a central, digital location. Keeping accurate logs is easier too when it's done digitally. With the right mobile app, you can take a picture, tag it, and log it for future reference from your phone.

Work Orders

Modern solutions can send job information directly to your workers in the field to reduce downtime. They can also auto-populate data like material lists and customer information, eliminating errors. The ability to collect digital signatures is another way to streamline the end-to-end work order process.

Worksite Inspections and Reports

Keep schedules, inspections, daily reports, required forms and certificates, and general communications stored in one cloud-based location for worksite crews so anyone who needs it can access it.

Jobsite safety is critical to positive business outcomes for construction companies. Digital solutions can reduce data-loss from lost safety incident reports to improve compliance and keep your workers safe. It also enables real-time intelligence from analytics to alert management of trends that require action.

Labor Management and Timesheets

Log and track breaks, work times, and safety protocols and training from anywhere, ensuring that your labor reports are always up-to-date.

Payment Dispute Technology

The right solution can help you document when work was done, so you get more assurance you'll get paid for every hour worked. If you use an all-in-

one solution, you can go paperless with estimates, invoices, and other critical payment-related documents so you can manage the full payment dispute process digitally.



Trend 2: Employee Safety

On the job safety issues can be costly, with [injuries and illnesses costing businesses \\$170 billion a year](#), according to OSHA. But in 2021, we're likely to see a much broader definition of what safety looks like — encompassing not just prevention of on-the-job injuries, but enhanced cleanliness protocols and a reduction in the number of workers per job shift.

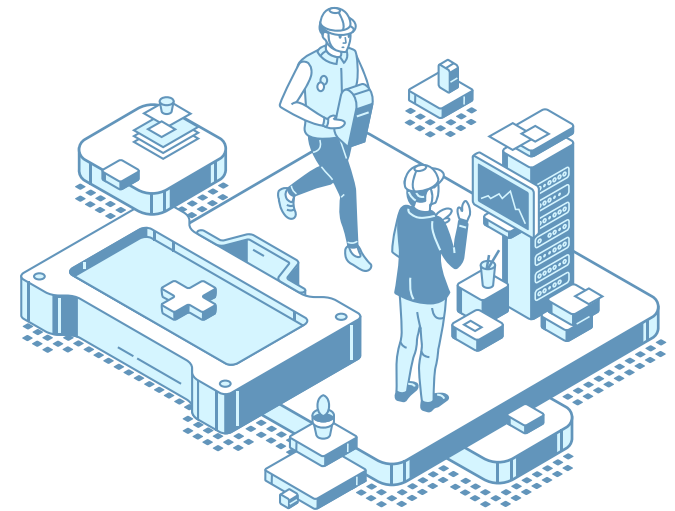
Some of these measures are easy to account for. For example, [expanded cleanliness regulations](#) will require businesses to increase access to hand sanitizer on-site and forbid workers to share protective equipment. However, some increased safety measures will require more comprehensive coordination, and that's where digital tools and automation can help. Digital tools can help you stay compliant with safety regulations, but they can also help you spot trends or red flags that might lead to costly accidents. For instance, some technology solutions can provide project leaders with instant snapshots of need-to-know information like which

pieces of equipment shouldn't be used because they're due for maintenance. They can also give you confidence your safety reports are accurate and updated on a consistent timeline.

Automated trackers, forms, and lists help eliminate the guesswork and reduce errors in construction safety programs. Mobile technology and automation can improve safety measures that require a direct response to the pandemic. Use mobile apps to quickly and easily manage crew size and oversee orders of protective equipment. If your firm does temperature checks, you can track and log results digitally instead of manually so you always have access to the data.

45%

of the behind the scenes
work that your business
does can be automated



Trend 3: Supply Chain Disruptions

The COVID-19 pandemic caused [delays in resources and materials for 75% of U.S. manufacturers](#). Stable relationships with single suppliers — once seen as a mainstay of good business — will for many be [replaced by a larger pool of alliances](#). This will ensure there is always a supplier ready to step in if a favored supplier falls short on supply.

Supply chain diversification could mean a big change in how your firm typically does business. However, this is a critical step to consider and can make or break your business in the event of future disruptions.

It's no secret: adaptable firms persist during tough times. An adaptable supply chain will keep your business running through unforeseen disruptions. To start, make a deliberate effort to form new relationships with additional suppliers. This process can take a long time because it requires research, networking, and trust. However, your company will be able

to pivot to additional suppliers if disruptions occur. Technology is here to help streamline this process, too. Consider a solution that can automatically populate forms with data you're collecting about supplies, worksite inventories, logs, and schedules. That data can then be crunched into daily, weekly, or monthly reports that can help you see when a supply problem is coming.

75%

US manufacturers that reported delays in resources and materials caused by the COVID-19 pandemic.





Trend 4: Data Science for All

There are two key benefits of data capture and a strong data management program. The first is the ability to look back and understand how you can improve your business, and the other is the ability to apply predictive models to inform critical business decisions. Construction companies that undertake these efforts will realize a large competitive advantage over those who are resistant to change.

The good news is you don't need a degree in data science to utilize data in a way that improves your business. In fact, you may only need to make a couple of small changes to leverage data in a meaningful way.

Here are the top ways construction companies and other firms are “upping” their data game:

Moving Data to a Centralized, Cloud-based Location

About [13% of a construction team's working hours are spent seeking out project data and information](#). That's a lot of time dedicated to hunting down information. It would be a better use of time if workers focused on quality work, job safety, and innovation. Instead of paper-based data capture or static spreadsheets across multiple computers, successful companies will shift to a cloud-based solution to ensure everyone has the same updated information in real-time.

Auditing and Pooling the Data You Already Have

Odds are you collect data from apps or forms already, such as supplier or customer contact information. But does it get stored in one place? Does it get duplicated? Who is in charge of updating it and analyzing it?

An internal audit of your data capture procedures and an assessment of what data is captured will help you understand the scope of the opportunity to transition from paper-based processes to digital ones.

Automation for Easier Data Collection and Handling

We get it: manual data entry isn't fun. The good news is about 45% of the behind-the-scenes work your business does can be automated, according to McKinsey. This includes data collection and reporting.

Once a data audit and capture assessment is complete, you can move your data to a centralized cloud-based platform. From there, you can use more advanced analytics tools to visualize historical trends and use predictive tools to anticipate changes in trends. For example, you may be able to predict when equipment will break down based on historical trends on equipment age, brand, and make. You may also be able to anticipate when you need to implement additional safety measures based on past incident reports. Data loss prevention is another advantage of digital-based solutions as opposed to paper-based forms. Workers may capture the data they need on inspections, work orders, timesheets, or daily reports, but paper forms are prone to be lost. This can cause headaches when it comes to proof of work completed and can result in lost revenue.

13%

of a construction team's working hours are spent seeking out project data and information



Final Takeaways

Digital technology had an outsized impact on the construction industry in 2020 and we expect the pace of change to continue to accelerate. Companies will need to focus efforts on technology-based solutions to cut costs and improve efficiency. It will be critical for them to accept constant change and adjust accordingly.

Construction companies will need to:

1. Adopt digital solutions to replace manual and paper-based processes
2. Ensure safety and health compliance through improved record-keeping
3. Diversify their supply chain
4. Take a data-driven approach to decision-making

Want to learn how to implement these solutions in your company?

Speak to a GoCanvas digital construction pro today. [Contact us](#) here.





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