



Construction Management Experts CDMG Unravels Latest Technological Advances for Industrial Worksites

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Pennsylvania-based CDMG has come up with a detailed article on the latest technological advances in the construction sector for industrial worksites. The industrial engineering firm that specializes in construction management unravels how technological evolution is changing the industrial construction space. "The industrial construction industry has seized upon this new technological opportunity as well," says Thomas Corry, metal building divisions manager.

Click on the link to read the entire article:
<https://www.cdmg.com/building-faqs/industrial-construction-innovations>

CDMG explains how technology has invaded the industrial construction space. VR headsets are an example that gives an immersive experience of the construction project right from their office desk. Architects and engineers create interactive designs that allow clients to see their project before the construction begins. Virtual reality provides laboratories lifelike training sessions for inexperienced workers to make it easier to

learn how to operate the equipment risk-free.

The premier industrial construction management company emphasizes how Augmented Reality enables workers to see through walls and provide a more accurate understanding of spatial relationships. Goggles help workers detect MEP clashes from another side of a wall while enjoying unobstructed, normal views.

CDMG boasts a team of industrial construction management engineers who are experts in managing technology-based construction sites. Fully connected worksites are the result of the Internet of Things that connect different worksites with embedded sensors, which are secured to construction clothing to collect data and manage safety during work hours. Construction management experts find it easier to collect real-time reports on project progress, information on worker health, material and employee performance, safety practices, and work efficiency.

CDMG focuses on the benefits of technology in providing accurate progress reports helping teams improve workflow and management processes. The Pennsylvania construction management company explains how embedded sensors provide detailed information on workers' health, safety, and performance, with smart hardhats sending automatic alerts when a worker is at risk.

CDMG explains how drones collect aerial photographs and videos for construction sites and play a role in proper site planning and construction best practices, calculate soil density, and perform heat loss calculations for structures.

Construction sites are leveraging accurate and efficient data provided by drones. The Pennsylvania-based industrial construction management company explains how self-healing concrete is the latest craze instead of traditional concrete. Self-healing concrete is made with a biodegradable additive that can self-produce limestone to fill cracks autonomously. This innovative concrete technology saves workers and owners time and money, with potential savings of up to 90 million dollars annually, the construction management company states.

The best industrial engineering firm in Pennsylvania leverages composite material that provides unparalleled structural integrity. The CABKOMA Strand Rod is an attractive reinforcement system, making it a design feature as well as a structural reinforcement, they say.

<https://www.youtube.com/embed/KrwrCLIAojk>

The top industrial construction management and engineering firm in Pennsylvania is an industry leader in commercial design. CDMG has been in the business for 25 years, designing and constructing stunning, quality buildings. Anybody looking for the leading industrial construction management company to apply

cutting-edge technology to their project can trust CDMG for its full-service construction capabilities.

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For more information about CDMG Metal Buildings, contact the company here: CDMG Metal Buildings
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A New \"Reality\" Made famous by video games, virtual reality headsets developed by companies like Oculus have dazzled consumers and the media alike in recent years. The industrial construction industry has seized upon this new technological opportunity as well. VR Headsets are now being used to give owners a completely immersive experience of their construction project right from their office desk. Architects and engineers are taking advantage of this latest innovation by creating interactive holograms of their designs. VR is being used by laboratories to provide lifelike training sessions for inexperienced workers to learn how to operate equipment risk-free. AR (Augmented Reality) goggles enable workers to see through walls and provide a more accurate understanding of spatial relationships. With the goggles, workers can detect MEP clashes from the other side of a wall while enjoying unobstructed, normal vision.

Technology-Based Construction Sites

The Internet of Things (IOT) and other companies have developed embedded sensors to create fully-connected worksites. Sensors are secured to construction clothing to collect data and manage safety during work hours. These sensors collect information on material performance, worker health, safety practices, work efficiency, and more. The sensors are also linked to construction management software to provide real-time reports on project progress, quality of materials, employee performance, and well-being, among other status updates. Cameras can also be tied to the system to provide additional data and more accurate progress reports. Technology-based construction sites will improve the workflow on current projects and provide crucial information to improve future work and management processes. Embedded sensors are being utilized in the form of connected hardhats to provide even more detailed information on a worker's health, safety, and performance. Connected hardhats are designed to monitor workers for adverse health symptoms and accidents, including light-headedness, overheating, and falls. Smart hardhats will send automatic alerts when a worker is at risk. Hard hats can also collect location data for workers to ensure people are in their proper positions and away from unauthorized or hazardous areas on the job site.

Collecting Drone Data

In addition to capturing helpful aerial photographs and videos to ensure proper site planning and construction best practices, drones are now being used for complex science and engineering problems on worksites. The latest drone software is enabling drones to calculate soil density and volume and perform heat loss calculations for structures. Drones scan the land or building using video and photography capabilities, and the software does all of the math required. If you think this sounds like something out of a Marvel movie, you're spot on. Site surveys and analytics are relying more and more on the accurate and efficient data drones provide. As the Federal Aviation Administration continues to ease up on laws restricting the use of drones, drone data will continue to grow in popularity for industrial construction projects.

Self-Repairing Concrete

The future of concrete is evolving with the development of a

self-healing concrete composite. Traditional concrete is a cornerstone for construction projects worldwide. But when concrete cracks, which it does with regularity, manual repairs are required. Workers must take time to locate cracks and fill in fractures as part of standard maintenance practices. If maintenance is neglected, the concrete will erode and eventually fail. Self-healing concrete is made with a biodegradable additive that can self-produce limestone to fill cracks autonomously. Yes, it sounds like something from a sci-fi movie. This innovative concrete technology saves workers and owners time and money, with potential savings of up to 90 million dollars annually. Not to mention the cost-savings that comes from preventing the structural and water damage concrete cracks can cause. Composite Material that Provides Unparalleled Structural Integrity The CABKOMA Strand Rod is a thermoplastic carbon fiber composite designed to provide seismic reinforcement to large-scale buildings. The material was developed by The Komatsu Seiten Fabric Laboratory in Japan and is the lightest seismic reinforcement available today, weighing five times lighter than its metal counterpart. The CABKOMA Strand Rod is an attractive reinforcement system, making it a design feature as well as a structural reinforcement. This development is significant for commercial and industrial buildings in earthquake-prone areas. Not only will the strand rod provide structural integrity, but it is also an up-and-coming aesthetic trend. CDMG is an industry leader in commercial design. For over 25 years, our team has supported and implemented the latest construction innovation technology to design and construct stunning, quality buildings for every client. Contact us today for more information on our full-service construction capabilities for your next building project.",

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CDMG Metal Buildings

From our Southpointe office in Canonsburg, Pennsylvania (20 miles south of Pittsburgh), CDMG serves the engineering and project/construction management needs of customers nationwide.

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