— FEATURED

# New Technology Can Help Increase Work Zone Safety

OCTOBER 29, 2018 BY JOBSITE EDITORIAL STAFF





the more projects are underway. "From 2011 to 2016, 532 construction workers were killed at road construction sites, more than double the total for all other industries combined," according to the Second Quarter Data Report from The Center for Construction Research and Training. Here are some of the key statistics from the report: From 2003 to 2016, 1,269 construction workers died at road

Keeping workers safe on road construction sites is an ongoing problem,

underlined by the fact that the number of fatalities at these sites increase

construction sites, accounting for approximately nine percent of all construction fatalities each year.

**Beginning With Safety** 

work areas,

- In 2016, the number of road construction site fatalities climbed to 103 from a low level of 72 deaths in 2013—a more than 40 percent
- the number of road construction projects. About half of road construction site fatalities were due to being struck by a vehicle or mobile equipment.

increase in three years. The increase, however, mirrors an increase in

and bridge subsectors.

More than 70 percent of the fatalities occurred in the highway, street,

fatal injuries.

surfacing operators at road construction sites had the highest risk of

· Construction workers who worked as crossing guards and paving

highway traffic. Other common practices involve: The incorporation of concrete barriers to separate pedestrians from

Safety practices start with the layout of a project. Many companies use

That way there is less chance that a flagger or other worker is hit by

· increased visibility of workers by using non-glare lighting and

BIM safety planning from the beginning, including plans to reroute traffic.

- reflective apparel, · rumble strips to warn drivers that they are out of their lane,
- There are many new ways to alert workers when they

and automated flagging system devices.

are in danger, but many companies have been slow to adopt them.

In addition to these standard measures, truck-mounted attenuators

(TMAs) can create a physical barrier between workers and moving

### vehicles. They also reduce damage in collisions with other vehicles. When there is an accident, "TMAs could operate either by steering the collision's energy and momentum away from the back of the truck on which it is mounted, or by folding up and collapsing over a short distance and greatly

absorbing the collision's energy," according to Construction Solutions.

Another device that can improve safety is an object detection and camera system for heavy equipment, Construction Solution reports. "This system consists of a monitor display that provides operators a real-time, overhead view of their surroundings." New Technologies Can Add Safety

There are many new ways to alert workers when they are in danger, but

many companies have been slow to adopt them, according to a March

2018 report from the Center for Construction Research and Training.

These new technologies include work zone intrusion alert technologies

(WZIATs) with audio, visual, and sometimes vibration alerts that can get

workers' attention when a collision is about to happen.

Some companies and the products they offer are:

light, personal vibrating and audio alert.

automated flaggers, and remote control radios.

portable site alarm Intellistrobe Safety Systems, Flagger - W1-AG and Remote Control Radio-FC 401-1

Astro Optics, Worker Alert System, pneumatic hose, flashing alarm

Highway Resource Solutions, Intellicone, lamps, motion detector, and

The report found that "WZIAT's financial benefits outweigh associated costs if the technologies can prevent between 12.6 percent and 34 percent of the intrusion accidents that lead to injuries and fatalities."

Transpo Industries, SonoBlaster, Single alarm unit, and

Some employees balk at these measures because using new technologies means increased time for training and operation. The report concludes that employers seek ways to use these work zone intrusion alert systems

These technologies can add an extra layer of safety with simple alarms,

alarms activated by pneumatic tubes, systems with wireless sensors,

The Future of Construction Safety Building a Culture of Safety - One Hard Hat at a Time

How Tech is Controlling Your Quality & Safety Program

If you liked this article, here are a few eBooks and webinars you may enjoy:

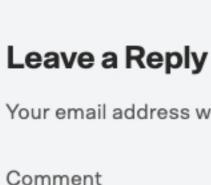
Jobsite Editorial Staff

world.

TAGS: BIM, INFRASTRUCTURE, WORKER SAFETY

CATEGORIES: SAFETY

without increasing labor costs.



Your email address will not be published. Required fields are marked \*

Launched in 2016, Jobsite, Procore's news platform, covers a mix

of engaging and informative construction news, trends, tech and

Contributors include construction news writers, thought leaders

and from those on the ground. Jobsite's popular Weekly Grind

column includes curated construction news from around the

customer spotlights for the U.S., Australia and Canada.

Name \*

Website

Email \*

**Post Comment** 

Save my name, email, and website in this browser for the next time I comment.

WORLD

Australia

Canada

United States

Terms of Service

RESOURCES

eBooks

Partners

Webinars

**EDUCATION** 

Certification

Building Inclusion

Continuing Education

Safety Qualified

## Construction Owner Tips: How to

Navigate Software Licensing

Company is Giving Back

The Value of Effectively Managing Project Schedule Compression through COVID-19

How Predictive Analytics Can Get You On The Path to An

Incident-Free Jobsite Recycled Plastic a Serious Contender for Future

Construction Materials Subscribe to Jobsite

email@example.c

Submit

In Challenging Times, How one

Procore Blog Procore.org

PROCORE

Groundbreak

Procore Platform

Privacy Policy

JOBSITE NEWS

Business

Safety

© 2020 Procore Technologies, Inc.

Real Estate

Technology