

CONSTRUCTION SAFETY PRACTICES FOR COVID-19

By Jordan Hollingsworth

As COVID-19 spreads across the nation, many companies have been idled, but a significant number of construction projects have been deemed essential. Workers, supervisors and safety professionals on those projects must follow best practices to protect workers and their families from exposure to COVID-19.

Responsible contractors are hungry to publicly prove they can work safely and prevent the spread of COVID-19 while supporting the nation's critical infrastructure and providing much-needed income for the workers on those projects. After all, the construction industry employs nearly 11.2 million people in the U.S. (Wang, 2020).

Construction projects must develop and implement a site-specific safety and health plan consistent with best practices. Every construction project involves unique characteristics and circumstances, so what is appropriate and feasible for each project may be different. The general guidance provided in this article was developed by experienced safety professionals representing Safety Management Group, a safety, health and environmental consulting firm that specializes in construction and contractor safety management. The intent is to provide the industry with general best practices that can be modified to fit the specific needs of projects.

Physical Distancing

Researchers from Massachusetts Institute of Technology determined that coronavirus-bearing droplets of all sizes can travel 23 to 27 ft from a host after emission through a cough or sneeze

(Lotan, 2020). Evidence suggests that droplets can also be released by talking, and that the virus can remain active for many hours on surfaces such as counters, doorknobs and tools (Saplakoglu, 2020). In addition, it appears that individuals who have the virus but are not displaying any symptoms are capable of transmitting it.

Those facts underscore the critical importance of ensuring physical distancing between workers. Owners and contractors must adopt and implement a physical distancing protocol and post details of that protocol at the site. According to reports, OSHA is verifying physical distancing, housekeeping and sanitation of break areas (Parfitt, 2020).

Tasks

COVID-19 safe practices should be incorporated into all job briefings and task hazard assessments. All task hazard assessments should identify whether each task can be performed by a single employee and, if not, what type of PPE is needed to ensure the safety of all employees. Photos of the hazard analysis can be taken with a tablet or smartphone and sent via e-mail or text message. This is also an opportunity to introduce a serious injury and fatality program that requires each worker to

complete a personal pocket card that asks, "What can kill you today?"

Monitoring

It is advisable to designate appropriately trained personnel to monitor for proper social distancing, similar to how individuals are selected to observe fire watch required activities. Sites may be monitored directly, via web or security cameras, and by drones on larger sites. For example, one provider of construction safety software has developed an application for an artificial intelligence interface that detects when workers are not practicing proper distancing.

Scheduling

Modifying work schedules by staggering shifts or offering alternate workdays or dedicated shifts can reduce the number of workers on a site at any given time. Allow nonessential personnel to work from home whenever possible. Breaks should also be scheduled to reduce interactions.

Behavior

Common worker behaviors should be modified to protect them. For example, traditional contact greetings such as handshakes and fist bumps must be eliminated. Workers should be required to park a safe distance from each other, which may require employers to provide extra parking. Discourage ridesharing and use of public transit. If workers have to be bussed, keep them separated by every other seat.

Meetings

Whenever possible, perform meetings online or via conference call. If in-person meetings are necessary, such as tailgate talks, follow CDC guidance and limit groups to no more than 10 people. Make sure everyone is at least 6 ft apart and use spray paint to mark locations where they can stand safely. Consider employing mobile technology systems that use photos and video briefings to provide alerts about hazards and safety planning conversations.



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Site Logistics & Control

Access control is more important than ever. The number of visitors to jobsites should be limited and controlled. Measures such as fencing, no-contact card readers, modular turnstiles and guard stations can help control site access and egress. All workers and visitors to the site should be temperature screened using technology such as no-contact thermometers or thermal imaging cameras.

Deliveries to the site should also be carefully planned with contact and cleaning protocols:

- Specific locations should be identified as laydown areas for deliveries.
- Lines can be painted to limit the areas for gang boxes and material sources.
- Jersey barriers can be placed to separate workers from delivery locations.
- Trash should be kept in specific locations where it can be easily transported from the site.
- Delivery personnel should remain in their vehicles when possible and have minimal contact with site workers. This is not a time for socialization.

The site itself should be assessed to support physical distancing by limiting the potential for workers to gather, including personnel in material hoists and site trailers. Identify and resolve potential choke points and install physical barriers and signage to restrict access to closed or confined spaces. Evaluate confined spaces for maximum occupancy and to determine how to maintain physical distancing. Post signage in confined spaces as a reminder of restrictions.

Site trailers and break areas should be marked to ensure proper distancing. Community food and lunch areas should be eliminated, and community coffee-pots, water dispensers, microwaves and other shared appliances should not be present in break areas. Aerial lifts should be used by one person at a time unless additional PPE is worn.

Administrative Action & Policies

As with all safety efforts, steps to prevent the spread of COVID-19 in workplaces will only succeed with the complete encouragement and cooperation of company leadership at all levels. More than ever, jobsite observations are critical and an investment in additional safety personnel on jobsites will protect both workers and their families.

Management must adopt a zero-tolerance policy for working while sick and encourage sick workers to remain home

and self-quarantine. All supervisors and safety personnel should be aware of COVID-19 symptoms (e.g., fever, coughing, shortness of breath). Creating a COVID-19 observation form for daily completion will formalize this process.

Another potentially useful approach is requiring employees to complete an electronic health verification form every day. The form could include the following questions, with any affirmative response requiring the worker to stay off the site for 14 days:

- In the past 14 days, have you or anyone you have been in direct contact with had a confirmed case of COVID-19?
- Have you or anyone in your family been in contact with a person who is in the process of being tested for COVID-19?
- In the past 14 days, have you traveled internationally, been on a cruise or been to any domestic location categorized as Level 3 by CDC?
- In the past 72 hours, have you had a fever of greater than 100.4 °F without the use of fever-reducing medication?
- In the past 72 hours, have you experienced coughing or shortness of breath?

If possible, assign an occupational health nurse to the site and implement a 24/7 nurse screening triage to be used by all workers, including subcontractors. If that is not feasible, designate an appropriately trained employee to monitor the jobsite for signs of illness. Drones equipped with thermal imaging can be used to detect high temperatures of employees. Simple steps such as hand and boot sanitation checks can also provide indicators of compliance.

At a tense time like this, it is also important to consider workers' mental health. Simple steps such as asking employees how they are feeling and how their families are doing will show a genuine interest. Setting up a "good catch" program to recognize workers who are following protocols to protect themselves and their peers can increase awareness and compliance.

Worker Education

Do not assume that workers are well-informed about the realities of COVID-19. A major challenge for public health officials is the spread of false or misleading information, especially via social media. In addition to posting and communicating COVID-19 policies for employees, contractors and trades, supervisors and safety personnel should



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discuss COVID-19 protocols such as how to maintain proper distancing, how to report if they exhibit symptoms or suspect a fellow worker might be ill, steps for disinfecting (providing SDS for disinfectants), and when workers who have exhibited symptoms can return to a work site.

One approach is to hold a company-wide stand-down to ensure that everyone is receiving the same message at the same time. Another is to produce a safety video about COVID-19 and distribute it electronically so workers can watch it on their own devices or home computers. Completion can be verified through the use of online forms and hard hat stickers.

CDC offers posters with messages that display the symptoms of COVID-19 and urge employees to stay home when they are sick to stop the spread of germs. Posters can be placed at site entrances, elevators, buck hoists, job boards, break areas and portable toilets. Information about the federal Families First Coronavirus Response Act and Coronavirus Aid, Relief and Economic Security Act should also be posted, along with hygiene details and regularly updated state heat maps that show the number of cases by county. In addition to posting materials in English, be sure materials are available in other languages spoken by large numbers of workers.

Make sure workers are aware that their off-work behavior could expose them to the virus. They should follow any government stay-at-home orders and practice social distancing when shopping, exercising or engaging in any other essential activities.

Engineering Controls

Depending on the nature of the work site, various engineering controls may be used to facilitate physical distancing and limit worker exposure. For example, additional ventilation can be installed for those who have to work in close quarters. Access to additional buck hoists, elevators or stair towers will limit close contact. Physical barriers and plastic sheets can isolate workers in dusty operations when dust cannot be eliminated through other engineering controls. Water trucks can be used to control dust on the site. Dust or sticky mats can be installed at entry and exit locations and changed frequently; shoe sanitation tubs using non-bleach sanitizer can be mandated prior to entering or leaving the jobsite.

Sanitation & Hygiene

If the overall project schedule does not already include a cleaning and sanitation schedule, one should be added. Items that are frequently touched such as handrails, doorknobs, locks and latches should be prioritized. Cleaning protocols and worker education should address cross-contamination, with frequent cleaning of objects such as smartphones, computers, tablets, keyboards and pens. Deliveries should be cleaned before being used, and door handles and gear knobs on delivery vehicles should also be sanitized. Other sanitation methods may include UV sanitation and fog atomizers.

Contractors and project owners should ensure that handwashing stations with soap and water and hand sanitizers (containing at least 60% alcohol) are readily available on the site. Portable toilets should be cleaned regularly, and workers should use toilet paper or paper towels as disposable seat covers and avoid touching the toilet directly. Personal water jugs or single bottles should be used in place of shared bottles, with no community ice chests.

PPE

As always, having the right PPE is a critical element of workplace safety. When facing a pandemic like COVID-19, personal protection is also necessary to protect workers from becoming infected by peers or droplets they have left behind. For most workers, gloves are mandatory and coated gloves should be worn at all times on the work site. Those who work in close quarters with others may also need to wear masks, gaiters, face shields, long-sleeved shirts, long pants or goggles. CDC is not recommending that workers wear N95 masks, and under the March 17 federal directive, those should be donated to healthcare providers (Buckley, 2020). All workers should follow manufacturer recommendations to decontaminate and sanitize PPE and clothing before each use.

Tools & Equipment

Because the virus may remain active in droplets for hours, shared tools should be eliminated wherever possible and all tools should be cleaned regularly. Any

shared equipment including tools and vehicles should be disinfected before and after each use, with disinfectant wipes readily available. Users of tools or vehicles should wash or sanitize their hands before and after use. Most tools can be cleaned using mild soap or an approved diluted bleach solution and a clean damp cloth. When possible, tools should be left to rest for 3 days.

If blood or other bodily fluids are present on the tool or other equipment, the established bloodborne pathogen protocols for the jobsite should be followed.

Conclusion

With a significant number of construction projects deemed essential, the workers, supervisors and OSH professionals on those projects must follow best practices to protect everyone involved from exposure to COVID-19. It is critical for construction projects to develop and implement site-specific safety and health plans consistent with best practices. This article outlines general guidance that can be modified to fit a project's specific needs. **PSJ**

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