



March 30, 2020

Re: Structural Engineers Association of California
State of California Executive Order N-33-20
Critical Infrastructure Workers Classification for Structural Engineers

SEAOC position on the critical function of structural engineering during the COVID-19 pandemic

The Structural Engineers Association of California hereby confirms that structural engineers and structural engineering firms provide essential services in maintaining critical infrastructure; provide professional services required to support legally mandated construction activities; and are mandated by licensure and ethics to safeguard life, health, property and public welfare. During this critical time in our state's and nation's history, it is imperative that structural engineering functions in support of construction be allowed to continue on the same basis as construction continues in order to protect the public.

Background: Executive orders and guidance

On March 19, the Governor of the State of California issued [Executive Order N-33-20](#), directing Californians to stay at home, except as necessary to maintain continued operations of critical infrastructure sectors. The executive order has no specified end date. This order imposes statewide restrictions similar to those imposed locally by the March 16 "[Shelter in Place](#)" orders issued by seven Bay-Area counties and Los Angeles's March 19 "[Safer at Home](#)" public order. The local orders include exceptions for "essential businesses," while the State order includes exceptions for "essential critical infrastructure workers."

On March 22, the State Public Health Officer issued a [list](#) of "essential critical infrastructure workers" to clarify who, if their critical work necessitates it, may perform those critical functions at locations other than their residence. Pertinent to the members of the construction industry, and to structural engineers supporting that industry, the State Public Health Officer's list includes the following classes (emphasis added):

- *Construction workers who support the construction, operation, inspection, and maintenance of construction sites and construction projects (including housing construction).*
- *Workers such as plumbers, electricians, exterminators, and other service providers who provide services that are necessary to maintaining the safety, sanitation, construction material sources, and essential operation of construction sites and construction projects...*

On March 19, the Department of Homeland Security issued guidance on "[Identifying Critical Infrastructure During COVID-19](#)." This document provides detail with respect to a March 16 [guideline](#) by the President, stating that:

If you work in a critical infrastructure industry, as defined by the Department of Homeland Security, such as healthcare services and pharmaceutical and food supply, you have a special responsibility to maintain your normal work schedule.

The DHS guidance identifies 16 "critical infrastructure sectors," and critical functions within each. Construction of facilities in these sectors, including the necessary engineering design other engineering functions, is generally included. "Critical infrastructure workers" include:



- Workers to ensure continuity of building functions, including but not limited to security and environmental controls (e.g., HVAC) ... and the permits and inspections for construction supporting essential infrastructure.
- Workers supporting essential maintenance, manufacturing, design, operation, inspection, security, and construction for essential products, services, and supply chain and COVID 19 relief efforts.
- Workers supporting the construction of housing, including those supporting government functions related to the building and development process, such as inspections, permitting and plan review services...

The DHS statement clarifies that the “list is advisory in nature” and “is not, nor should it be considered, a federal directive or standard.”

Basis for SEAOC position

In forming this position, the Association has considered the following:

- The California Professional Engineers Act, requires Civil and Structural Engineers, by virtue of licensure and professional ethics, to “safeguard life, health, property, and public welfare.” Engineers do so through the “Supervision of the construction of engineering structures” by providing “periodic observation of materials and completed work to determine general compliance with plans, specifications, and design and planning concepts” according to the Act.
- Local Orders identify “professional services, ..., when necessary to assist in compliance with legally mandated activities” as essential businesses. When completing on-site observations of construction, civil and structural engineers are providing services mandated by the California Building Code.
- Active construction projects, such as schools and universities, medical facilities, and commercial facilities, approved for construction require proper, code-mandated, observation and assistance in compliance with design intent and construction plans. Improper or inadequate coordination of construction now, can increase the risk of harm to the general public through less than best construction implementation which may result in poor performance during other future disasters, such as earthquakes.

The structural engineering profession in California has long been a cornerstone of the safety of the built environment, protecting the public from the worst consequences of earthquakes and other hazards. The professionals within the industry are critical to its future and the ability to weather disasters affecting the built environment. Therefore, civil and structural engineers are a necessary part of active construction projects and should be considered an essential part of the construction workforce.

Performance of critical structural-engineering functions during the COVID-19 pandemic

The Structural Engineers Association of California recognizes that the COVID-19 pandemic threatens the health and well being of engineers performing their functions and of the public in general; that interpersonal contact has been identified as the vehicle for the pandemic; and that minimization of the risks caused by personal contact is a civic responsibility. SEAOC is committed to developing and disseminating best practices regarding fulfillment of critical engineering functions in a manner consistent



with both our ethical obligations and our civic responsibility. This guidance will be expanded and amended as appropriate in light of emerging public orders, building-department practices, and other developments. At this time, SEAOC has the following recommendations:

Work-at-home: SEAOC recommends that work be done remotely at home rather than in the office or on the job site, except for specific items that require in-person, on-site observation.

Virtual site visits: SEAOC recommends that engineers work with contractors to utilize video and other technology in order facilitate remote site observation and reduce the need for in-person site visitation. Periodic in-person observation may nevertheless be appropriate, with the frequency and duration reduced considering the virtual visits.

In-person site visits: SEAOC recommends that in-person site visits be thoroughly planned in advance, including the need for personal protective equipment, the need to share spaces such as elevators or construction lifts, and the items and areas to be reviewed. Any indoor in-person meetings should be avoided in favor of web meetings. [CDC recommendations](#) for maintaining interpersonal distance and minimizing transmission risk should be followed.

Plan review: SEAOC recommends that jurisdictions take immediate action to implement touchless, paperless submittals and reviews, including virtual meetings.

SEAOC, as always, remains committed to our membership and to the safety and wellbeing of the public.

Respectfully,

Structural Engineers Association of California
Representing Structural Engineers throughout California