

## Construction Industry Spotlight

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### Here's how contractors can drive value as Seattle's building codes are set to change

- **Brian Rich, Forma Construction's chief estimator, talks about balancing compliance and value.**

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The Seattle Department of Construction & Inspection's (SDCI) implementation of the International Building Code (IBC) 2018 update has been delayed until Nov. 1 due to COVID-19. With design and construction industries' responses to code implementation on an unpredictable path even before the latest crisis, contractors are looking to stay ahead by creating solutions that will meet today's code and tomorrow's.



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I sat down with Brian Rich, chief estimator at Forma Construction, to chat about what he sees changing with local designers' and builders' project-specific solutions that balance compliance and value.

#### **Q: Where do you see the IBC updates heading and what challenges are they creating?**

**Rich:** Every three years or so there is a code update, and the requirements are always going up. We're at a point where most of the low-hanging fruit has been picked and now updates are requiring elements that often get "value engineered" out of a project due to cost. That's where experience and the ability to work well with the design team come into play. There are many paths to achieve compliance, and knowledge of costs can help teams find value and achieve more project goals.

We all want the best solution. If we (contractors) generate too many ideas, we risk becoming a distraction during the design process. Good contractors bring their knowledge as builders to provide perspectives that benefit the design team.

#### **Q: What situations are driving change even before the new code takes effect?**

**Rich:** Piles and soil are hot topics because of the last code update's seismic requirements. Buildings are essentially designed and built to shake in a big earthquake — with life safety being the priority, not necessarily the usability of the building post event.

The new code moves the bar in terms of how soil is classified and has driven the need for additional mitigation to deal with soil liquefaction during a seismic event. What is solid and bearing today can become disproportionately unstable during a seismic event, and now we're addressing those conditions. Forma is seeing more requests to take soil improvement scopes into account in response to liquefaction concerns on projects across the region, including for the Kelso School District and Intercity Transit.

**Q: Every design team deals with presenting intent so it allows for competitive bidding and avoids sole sourcing materials and/or systems. What is the right range of solutions that makes a difference for teams?**

**Rich:** Traditional public procurement rules put teams in a position of needing to design everything first and then put it out to bid. For many scopes, the range of solutions that meets an intent is fairly limited. While there may be proprietary variations in the engineering and assembly from one storefront manufacturer to another, those variations don't present a range that can affect adjacent systems so it necessitates additional design consideration. This, (along) with the burden that the Spearin Doctrine places on design teams and owners, presents a desire to design a project to 100% before putting it out to bid.

Specific challenges can present numerous variables with wide-ranging solutions. Those solutions can have further-reaching impacts than anticipated. Fixing the right variables and delegating design can be a way to allow the market to determine the optimum solution, considering cost and schedule. Examples are recognizing unsuitable or liquefiable soils, or determining the tipping point for over export and import material versus piles/piers. That variability can be a challenge to explore without having a general contractor on the team during design.

Alternative contracting methods, such as GC/CM or design-build, provide opportunities to have general contractor input but can be limiting to engage a specialty subcontractor. Delegating design and leveraging GC/CM and the design-build procurement process can allow for those specialty contractors to be encouraged to work with the team to optimize design.

**Q: What makes delegating design a desirable option?**

**Rich:** Having a scope that can be described in terms of performance — but have a wide range of solutions. For example, consider special foundations such as piles, stormwater flow control measures and prefabricated structures.

Having a scope that avoids volatility in terms of availability of subcontractors and/or materials that meet the project schedule is critical. Choosing a prescriptive path for piling can effectively sole-source a subcontractor, and if the project doesn't fit into their production schedule, costs can escalate or you get zero participation.

**Q: What are things to consider if taking this approach?**

**Rich:** Consider the limitations of design-bid-build (DBB) versus design-build (DB) or GC/CM. Delegating design is more effective earlier in the design process. DB provides for the most options, followed by GC/CM and DBB.

For example, a design builder can simply select a pile partner based on the preferred range of probable solutions and have them involved and optimizing the concrete foundations/pile approach. In GC/CM or DBB, the public procurement rules don't allow for a simple selection, and the timing of the selection coupled with the design sequence would likely necessitate having concrete foundations be one variable that gets fixed that the pile contractors have to account for.

**Q: What is something you have seen missed for driving value with changing SDCI codes?**

**Rich:** While the focus is often on designers and builders, it's the code reviewers who determine what is and isn't compliant. Good working relationships and communications matter. Attend the meetings where code changes are discussed, and provide useful feedback. As contractors, we have to build what is being discussed, so we should always be there to listen and advise as needed.

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