

Consider Excluding Formed Concrete Surface Specifications in Your Bid

Have you seen or heard of any requirements for formed concrete surface quality in bid packages? They might be in the form of a reference to ACI 347.3R-13, "Guide to Formed Concrete Surfaces," in specifications based on models such as AIA MasterSpec™. Sometimes specifications other than ACI 301 reference ACI Guides, even though ACI 347.3R-13 states that:

"Reference to this document shall not be made in contract documents. If items found in this document are desired by the Architect/Engineer to be a part of the contract documents, they shall be restated in mandatory language for incorporation by the Architect/Engineer."

Based on this, you might also see or hear of specifications in which the architect or other licensed design professional *requires* that formed surfaces meet one of four concrete surface categories -- CSC-1 through CSC-4. **If you have read or heard of either a Division 3 reference to ACI 347.3R-13 or requirements for CSC on walls, columns, or other vertical elements, please call Bruce or me. We've not heard of the CSC requirements or the ACI document being included in specifications, but we want to know if this is happening.** In addition to alerting us you might also want to consider qualifying your bid by excluding that section or reference in the specifications. Here's why:

In his column for the March 2014 ASCC Voice, Bruce listed concerns about the impact on concrete contractors if these quality requirements were included or referenced in a specification. In such specifications, the licensed design professional chooses the desired CSC from a table in ACI 347.3R-13 and specifies the expected appearance and features for each specific area. The contractor is then expected to determine the means and methods, material type and quantities, and associated costs to achieve the specified concrete surface finish. The problem is that the required means and methods for achieving each of the four concrete surface classifications are not easy to pin down because of the many variables involved. These variables include concrete properties, form facing and type and amount of release agent used, weather conditions, and placing and consolidation methods. So it's difficult to prepare a bid with any confidence that all of the variables have been taken into account.

We'll soon be completing a research project in which we have examined and evaluated ACI 347.3R-13. The report will include data and a discussion of sampling and measuring methods for Surface Void Ratio (a measure of the number and size of bugholes), one of several criteria used in determining the concrete surface category. It also includes considerable background information on other methods used to classify and specify formed-surface quality, including the document from the German Concrete Association (*Merkblatt Sichtbeton Deutscher Beton-und Bautechnik-Verein e.V. 2004*) on which ACI 347.3R-13 is based. Our final report will be submitted by the end of the year and more details will be available.