Concrete contractors study project specifications before bidding to review specification requirements for concrete and to quantify the impact of those requirements on cost and schedule. Several ACI reference specifications are often correctly cited in project specifications, but ACI committee reports and guides are also often cited when they should not be. For instance, ACI 302, “Guide for Concrete Floor and Slab Construction,” is often cited as a reference. This and other ACI documents, however, contain clear instructions for correct usage in contract documents:

“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 part of the contract documents, they shall be restated in mandatory language for incorporation by the Architect/Engineer.”

Some specifiers attempt to make reports and guides part of the contract documents by including statements such as the following within the specifications:

- In publications referred to herein, advisory provisions shall be considered to be mandatory;
- Replace “could” or “should” with “shall” to make all the references referred to as mandatory requirements; and
- All references included in the project specification shall be considered as part of the contract documents.

Because reports and guides often suggest multiple construction options, making the entire text of such documents mandatory produces a specification that is ambiguous and is likely to create enforcement problems.

Consider this example: The project specifications state, “Precautions shall be taken to minimize plastic shrinkage cracking” and include a reference to ACI 305, “Hot Weather Concreting.” The contractor notes the following ACI 305 recommendation: “Under hot weather conditions, scheduling concrete placements at other-than-normal hours may be advisable. Pertinent considerations include ease of handling and placing, and avoiding the risk of plastic shrinkage and thermal cracking.” He or she thus decides to place concrete at night when ambient temperatures are lower and there is less chance of problems related to increased water demand, slump loss, setting rate, and tendency for plastic shrinkage cracking. The specifier, however, notes in ACI 305 that plastic shrinkage cracking may be reduced by using fog misting, temporary impervious sheeting, or by spraying the surface with a monomolecular film, and insists that fog misting be used because it’s one of the options in ACI 305. On a previous project, the contractor had been told that scheduling around the unfavorable weather conditions would satisfy hotweather concreting specification requirements and bid the job based on the assumption that this approach would be acceptable. But, on this project, the specifier doesn’t agree.

Each option included in ACI guides and reports can have a different cost and schedule impact for the owner. If specifiers reference ACI documents that contain multiple options, then choose a preferred option after the contract has been let, they don’t allow contractors the opportunity to assess the cost and schedule impact of the option and include in the bid. Thus, owners may pay more than they need to because of a higher initial cost or higher costs resulting from change orders related to such ambiguous specification requirements.

In some court cases, a judge has ruled that ACI guides cited in contract documents aren’t valid because such a use is in direct conflict with ACI’s recommendations quoted earlier. Typically, the inclusion of ACI reports or guides into a project specification is not warranted. If you have any questions, contact your ASCC concrete contractor or the ASCC Technical Hotline at (800) 331-0668.