Protection of Concrete Work

ASCC Position Statement #40

Most project specifications, including ACI 301-10, “Specifications for Structural Concrete,” contain provisions for protection of concrete work such as the following:

“Protection from mechanical injury—During the curing period, protect concrete from damage by mechanical disturbances, including load-induced stresses, shock, and vibration. Protect concrete surfaces from damage by construction traffic, equipment, materials, running water, rain, and other adverse weather conditions.”

The first sentence states, and the second sentence implies, that the required protection is during the curing period. This is reasonable because protecting the concrete during the curing period reduces the likelihood of failing to reach the specified strength. Since 1960, ACI 301 has included this statement regarding protection during the curing period. But some Owners and Construction Managers interpret this specification clause as requiring concrete contractors to protect the concrete until project completion.

For instance, on a sports stadium project, the concrete was required to have a broom finish. After two years of construction, during which the concrete was used by all trades as a working surface, the broom finish wore unevenly. The Owner believed that the specification clause required the concrete contractor to protect the concrete during the curing period. But some Owners and Construction Managers interpret this specification clause as requiring concrete contractors to protect the concrete until project completion.

But do the two sentences cited require the concrete contractor to be responsible for work by other trades? “Guidelines for Authorities and Responsibilities in Concrete Design and Construction,” prepared by the ACI Committee on Responsibility in Concrete Construction and published in Concrete International, April 2005, provides assistance in interpreting these two sentences. This document states two fundamental principles in determining responsibility:

- “One over-riding principle in these guidelines is the simple notion that responsibility and authority must be congruent”; and
- “The other principle is that every entity should be responsible for its own work.”

Using these principles, the logical conclusion is that concrete contractors are not responsible for the work of other trades because they do not have the authority to control the other trades’ work or limit their construction traffic. It is clear that concrete contractors have the responsibility and authority to protect the concrete they place by controlling their own work during the curing period for that concrete.

ASCC concrete contractors will work with Owner’s Representatives, Prime Contractors, and Design Professionals in addressing protection of the concrete during the curing period. However, damage to the concrete by other trades is the responsibility of those trades. If you have any questions, contact your ASCC concrete contractor or the ASCC Technical Hotline at (800) 331-0668.