It’s an axiom of design that almost any structure can be built from either steel or concrete. While some designers, contractors, or developers have a marked preference for one or the other, for most the decision-making process usually comes down to speed and cost (though since time is money, isn’t speed simply another way of looking at cost?). There are, of course, ancillary issues—for example, in a parking structure you might be concerned with the increased safety provided by smaller steel columns, or a developer might be environmentally conscious and appreciate the complete recyclability offered by steel.

Sometimes, though, the decision-making is tainted by myths—and currently there are two tall tales negatively influencing the decision to go steel.

Unfortunately, the first—the myth of long delivery backlogs for steel—is largely self-inflicted by the steel industry itself. Not too long ago, one of our marketing engineers came back from a parking conference and related what would have been an amusing tale if it wasn’t such a common one. One of the speakers discussed at length the growing use of steel in the parking market and expounded on its many benefits (if you want a list, visit www.aisc.org/parking). And then he commented that the only drawback was it takes about six months to get steel from the mills. Huh? Lead times today are near historic lows and as a new structural mill in Indiana ramps up its operations, delivery schedules should remain excellent.

So where does this myth originate? Part of it relates to the cyclic nature of the construction industry. The boom-and-bust cycle means that during peak demand periods all construction materials (and labor, for that matter) are in short supply. But a greater portion of the problem arises from when the steel isn’t available from traditional sources. During the past decade, there has never been a shortage of steel. Rather, there has been a shortage of steel from mills and local steel service centers that normally supply the fabricator.

However, if scheduling is critical, it behooves the fabricator to work with his customer to investigate obtaining material from other sources, including steel service centers from across the country. The contractor can then decide if the added cost will be more than compensated by the benefit of a quicker job completion—and frankly, given the incredibly depressed prices of raw steel, paying a few dollars more per ton should not substantially affect the total project cost.

Clearly, most fabricators deliver on time. The few that don’t, however, give the entire industry a black eye—one that’s hard to heal no matter how many success stories are told (for one of the best success stories, take a look at page 51 and read about the quick re-opening of a damaged bridge in Oklahoma).

The second myth, and one that may be harder to dispel, is that concrete offers superior blast resistance to steel. I’m amazed that designers aren’t shouting to anyone who will listen that it isn’t the material that dictates a building’s blast resistance, it’s the design. If the design loads are determined prior to the start of design, both steel and concrete buildings can be equally successful. Meeting those load requirements may change the economics, aesthetics or schedule of building with one material or the other—and it’s those considerations that should govern the choice of material, not a myth based on ignorance.

P.S. – Make sure you check out our online Q&A sessions. Visit www.aisc.org/chat for more information.

NOTES FROM THE EDITOR