editor's note

WHILE SIPPING MY COFFEE DURING MY youngest son's early Sunday morning hockey practice, I almost did a spit-take when one of the other parents began describing the roughly 60x30 ice rink he had recently built in his backyard. I did manage to sputter and ask how much water he needed for that rink. And while the answer of 12,000 gallons seemed almost oceanic to me, it turned out he only paid $7 per 1,000 gallons and all the dads agreed the cost wasn't that bad for a winter of fun.

Later that day (when I was a lot more awake), I thought about the conversation and was mildly surprised that nobody was concerned about the sustainability issues involved in using 12,000 gallons of water—the only concern seemed to be economic.

But I believe the same holds true when most owners are looking at building design. Recently, the Structural Engineering Institute's Thermal Bridging Working Group released a white paper (which is printed as a supplement to this issue) looking at the issue of thermal bridging. For years, I've heard about this bugaboo but this was the first time I saw anyone actually try to quantify the beast. They modeled a typical three-story, 9,000-sq.-ft. office building and closely looked at five details contributing to energy loss.

Interestingly, two of the details (rooftop grillage posts and roof canopy penetrations) had a negligible impact on energy usage for the entire building (we're talking the change in a couch cushion could pay for wasted energy). A third (structural support of masonry lintels) had a higher impact but the cost to mitigate the thermal bridging was so high that even a card-carrying Sierra Club member would reject it.

But the other two (roof edge angles and shelf angle supports) not only saved money but in at least one case the suggested alternate detail was actually more economical than the standard detail. Now that's a win-win.

While the white paper is an interesting exercise I believe its real impact will come from designers and fabricators simply giving more thought to the issue. I would be very surprised if some clever designer or enterprising fabricator can't improve on the standard details way beyond what was suggested in the paper and brilliantly suggest details that economically mitigate thermal bridging. (If you do implement an economic alternative detail, let me know—*Modern Steel Construction* is always looking to write about innovative details.)

And I'll be very surprised if I don't hear some of these suggestions next month at NASCC: The Steel Conference (April 18-20 in Dallas). While continuing education is the obvious purpose of the conference, it's just as valuable for the informal networking that occurs. It's a great venue that brings together the entire steel design and construction team and the casual atmosphere is highly conducive to exchanging ideas with your peers. If you haven't registered yet, or need more information, visit **www.aisc.org/nascc**. (There's even an hour-long session on "Strategies to Minimize Thermal Steel Bridging" from 3:15-4:15 on Wednesday April 18. Don't miss it!)

See you at the Steel Conference!

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