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Keeping commitments

R. Craig Finley, P.E.

In February, the Florida Department of Transportation (FDOT) held a one-day summit entitled Commitments Made are Commitments Kept. The event focused on two trends affecting the state's aggressive transportation construction program—rising material costs and a dwindling number of contractors willing to bid on projects.

One of the most enlightening sessions was a presentation by William Buechner, Ph.D., vice president of economics and research for the American Road and Transportation Builders Association. Buechner said that until 2004, highway construction costs were "well-behaved," averaging only a 1.8-percent increase for the previous 12 years. Since then, major construction materials such as steel, diesel fuel, stone, and cement have broken the pattern. All told, highway materials costs increased 8.5 percent in 2004 and 12.5 percent in 2005, he said.

The situation is worse in some places than others. While Buechner's numbers are alarming from a national standpoint, the reality is even more startling in Florida. Buechner reported that the average national price of asphalt mixtures increased by 1.6 percent and 8.3 percent, respectively, during the last two years. In Florida, those increases were 14.3 percent and 21.9 percent.

The strong housing and commercial markets are factors contributing to rising prices, says Buechner.

In areas where the housing and commercial markets are hottest, such as the Southeast and Southwest, the competition for materials and manpower has been intense. This leads to sharper increases in building costs in these areas. These price fluctuations are contributing to cost estimates that fall short. Another result is that contractors, who are afraid of getting burned by future unexpected increases in material prices, are cushioning their bids—when they bid at all.

At the summit, the FDOT noted that the percentage of projects with two or fewer bidders nearly tripled from fiscal 2003 (14 percent) to the first half of fiscal 2006 (41 percent). This all supports something I've been saying for quite some time now—we can no longer estimate projects the way we used to.

But too many of us remain in denial, failing to address the problem at hand. It's a gross oversimplification to suggest that sloppy or unrealistic estimating is the only reason for this dilemma. Nor is it just about bridge designs that ignore the fact that someone has to actually build the project. Sure, these things play a part, but if you look at what's driving these price fluctuations and the changes in our industry, you'll see that the situation is much more complex.

Increased demand from overseas. Southern Asia in particular—was one factor that influenced the volatility in material prices. Another was the slew of hurricanes that hit the Southeast. The confluence of these and other events resulted in unprecedented price increases and bidder indifference, jeopardizing the projects and programs of many state highway departments. In some cases, projects have been deferred or significantly altered. How should the industry respond?

Owner flexibility in program budgeting. There was a consensus at the summit that owner agencies need to build the expectation of a busted budget into their programs. Then they can identify lower-priority components and slash them from the plan if necessary. This requires a re-examination of priorities—"must have" versus "nice to have," as the FDOT put it.

A long-term view. The FDOT has begun stockpiling key resources such as right-of-ways, borrow pits, and prefabricated components. This insulates them from future price increases. More importantly, it gives them definitive data to work with when developing project budgets.

More sophisticated estimating. We need to be more aware of the world around us. Is China's demand for construction materials expected to rise or fall in the next few years? Will the Fed continue to raise interest rates to cool off the economy? Has the housing market truly peaked? We can't be sure what the landscape will look like in 2010, but by being more educated about what's happening now and what's expected to happen, we can do a much better job of guessing.

No more wishful thinking. For bridge professionals, that means setting realistic expectations for cost and schedule up front—even if you have to cut out some frills or go back for more money. In the long run, it will mean fewer headaches and, ultimately, a better project all around.

Like it or not, the dynamic in our industry is changing. The DOTs and other owners will adjust, as will some designers, engineers, and contractors.

The sooner you see the light, the better your chances of succeeding.

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