

NV5 CHALLENGES EXISTING CODES AND STANDARDS TO FOSTER MORE SUSTAINABLE OUTCOMES

NV5, Inc. (Hollywood, FL), a professional and technical engineering and consulting firm operating from 36 offices in about 10 states, serves several markets in which sustainability ought to be, and increasingly is, a core value in projects. The company, which generated \$29.2 million in revenue during the first quarter of 2015, operates in five “verticals”—construction quality assurance, infrastructure, energy, program management, and environmental—and serves clients in the energy, education, municipal government, resources, and many other sectors.

For these clients, NV5 often presents sustainable outcomes as a key part of the value that the firm delivers on products. Asked, however, what percentage of the company’s revenue is derived from projects in which sustainability is an explicit or critical part of the value proposition, Laura Bonich, NV5’s director of business development, says that the issue is not so straightforward.

The value itself may be substantial—to the client—even if the job is a relatively small one, she points out. By way of example, she describes a recent project in which NV5 conducted a peer review of another firm’s design of a community master plan and found an opportunity for considerable savings. Although NV5’s fee was \$17,000, the savings achievable through an alternative design for the community’s water storage system was about \$4 million, the firm found.

“The project was supposed to be super-sustainable, but the assumptions weren’t lined up between the design and the actual use,” Bonich tells EBJ. In this case, “my firm’s fee was very small, but when you

think about the value proposition, the client’s return on investment was huge.”

Then there might be projects that are “sustainable” by definition, in the sense that the end objective helps to foster a broader sustainability vision. Providing civil or technical engineering services connected to the development of a renewable energy facility would be an example. Bonich estimates, roughly, that perhaps a third of NV5’s revenues are derived from industries “that have some tie to making the world a better place.” But the sustainability value proposition is a much broader—and deeper—issue.

What’s more interesting to Bonich and her colleagues is how questions about sustainability are raised with clients, how the issue is reverberating in the civil engineering profession, and what the opportunities are to advance sustainability within that profession. Those opportunities are tremendous, she suggests.

“Architects and land-use planners drank the ‘green Kool-Aid’ ten years ago,” she says. In contrast, civil engineers have been constrained in their work by having to build to code and standards dating back to a time when sustainability wasn’t part of the conversation. And there’s where significant opportunity lies.

NV5 is taking advantage of this opportunity by making a point of challenging existing ways of doing things and injecting more sustainable and cost-effective outcomes into project definitions. “Our mission is to take on that challenge of changing a design code or standard,” says Bonich. These codes and standards have their purpose—for example, to simplify operations and maintenance—but they need to be revisited in light of new de-

mands for more resilient and livable buildings and infrastructure, she stresses. “The word ‘sustainability’ is really a conversation about doing something different.”

In fact, NV5 has directed its engineers to take up these kinds of conversations with clients and their regulators, through initiatives like “Just One Foot.” Under this initiative, NV5 engineers engaged in street design are challenged to narrow streets by one foot—a design choice that can yield benefits such as reduced traffic incidents—by engaging clients and regulators in discussions about those benefits.

In these types of engagements, “you go to the client and say, ‘if you can get this standard changed, the impacts or costs would be reduced,’” says Bonich. “The second step, if the client agrees, is to go to the jurisdiction and say, ‘you have this standard for this type of project—we think it should be changed, and this is why.’”

Initiating these conversations is not easy, Bonich hastens to point out—even if the end result is a situation in which everybody wins. The client community is beginning to open up; the regulatory community remains tougher to engage by comparison. But the trend is in the right direction—towards greater awareness that such conversations are worth having.

“Everybody wants to be sustainable and green, so that allows you to have the conversation,” says Bonich. The conversation will revolve around different issues for different projects and stakeholders, of course. A regulator may care about reducing the carbon footprint of a project, so finding ways to reduce carbon emissions is what the discussion revolves around.

In terms of better resources management, “everyone’s realizing that we can’t keep doing the things we’ve been doing them,” Bonich notes. The drought in California is just one object lesson. Yet the prospect of disaster need not be the prime mover, she stresses. “It doesn’t matter if

you think the world is melting—the civil engineering world can still do things a lot better, at lower cost.”

Bonich firmly believes that “most of the opportunity for improvement in infrastructure reduces both construction costs and impacts.” Whereas “green” design is thought to entail a premium for buildings—or was once thought to do so, and sometimes did—“for infrastructure, it’s the reverse,” she says. “If you build homes that use less water, for example, the treatment plant can be smaller. And in stormwater design, if you use natural swales, then you have fewer manholes and less piping, and that’s less costly.”

At the University of Utah in Salt Lake City, for example, NV5 redesigned a significant portion of the storm drainage system to promote on-site infiltration. The result yielded multiple benefits: stormwater quality improved, the construction cost for the storm drain infrastructure was reduced, and the university paid 20% less in storm drain fees to discharge into the city system.

Asked whether NV5 sees its ability to challenge existing codes and standards and push the conversation towards more sustainable outcomes as a differentiator for the company, Bonich answers with an unequivocal “yes.” That’s also her answer to the question, Will competing firms need to embrace sustainability in order not to be left behind in the marketplace?

“I would sit down with any client and say, ‘you should hire me, and here’s why: it may cost more up front, but it will reduce your costs and impacts in the long run,’” she concludes. “I think the firms that get it can absolutely go out and leverage that presentation.” ■

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