

Hiring a Structural Engineer

One Architect's Viewpoint...

By Richard E. Fencl, AIA, CSI, LEED AP

Talk with any architect and the discussion will inevitably turn to the design of buildings. The passion within most of my architectural colleagues is the desire to provide betterment and excellence to the built environment through the quality, distinction and merit of their work. Yes, architects are selfish and sometimes ego-filled in their perception that they – and dare I say they alone – provide this passion and energy and design wisdom. Yet, when you probe deep enough, most architects will admit that this power of design must extend to the engineers and consultants with whom we work. At my firm, for instance, we constantly discuss the mantra of hiring creative consultants.



"Hire creative engineers! Engineers who will make our projects better... our architecture better... our world better."

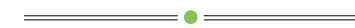
Not always an easy task, but a noble one to say the least.

The label commonly attached to architects suggests a "generalist", a "broad thinker", a "conceptualist", an "orchestra leader"; i.e., someone aware of the interrelationships and coordination between systems and disciplines that must go into every building type. Architects can speak about plumbing, painting and partitions, and they must know about plaster, paving and plastic laminate; but ask us about specific nuts and bolts within each of these topics, and we regularly defer to the manufacturer, the contractor or our consultants. Architects must be able to focus on an entire project, which obviously leaves little time to have specific strengths in those areas equally critical to the project, such as structural framing, foundations, the delivery of heating and cooling, or the electrical systems necessary to operate the building.

I believe I am safe in saying that all architects want their consultants to excel at the task for which they are educated and, of course, licensed. I also feel safe in saying that most architects want their engineers and consultants to be specialists, experts on the tasks assigned to them, with years of experience focused on the specific project type at hand. Additionally, architects want engineers who are broad-minded enough to view their specialties within the context of the architecture that we, together, are endeavoring to create.

So here is my list of the things that I look for when selecting an engineer for my architectural masterpiece:

- An engineer who can accept the pie-in-the-sky challenges that we architects often present.



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- Someone who is aware of the latest trends in buildings, both good and bad. An engineer who can teach me the pros and cons of the engineering approaches that affect my work. An engineer who can challenge me, the architect, to express my design intent in ways in which you, the engineer, can help me realize those designs.
- An engineer who listens to me. Since most architects never stop talking, you need to read between the lines to grasp the realism and logic in my words.
- Someone who knows how to "skin a cat" six different ways, who can think outside the box and isn't afraid to be creative.
- An engineer who worries about deflection and movement more than stress. Most of my problems are borne out of cracked finishes, uneven substrates and leaking envelope systems.
- Someone who understands that architects will change their minds ten thousand times before making a decision, and who will offer advice on how to help me solve the many problems that affect my decision-making.
- An engineer who remembers that his or her beams, columns, girders, caissons and footings will all affect the plumbing, painting, partitions, plaster, paving and plastic laminate that go into my project. Therefore, someone with a broad focus and specialized knowledge in the specific area of expertise.

Let's talk about Structural Engineering Certification.

In a profession where the word engineer means different things to different people, wouldn't you, Mr. or Ms. Engineer, want my architectural profession to know your qualifications to help me create this wonderful built environment? Wouldn't you want me to know that this qualification represents not only the kind and quality of work that your engineering firm does, but your own active participation within the profession of structural engineering? Wouldn't you want me to know that your participation in the structural engineering certification program includes focused continuing education, knowledge of specific structural engineering approaches, and an ability to demonstrate your specialization, not only to me, but to the building community in general?

The Structural Engineering Certification Board offers engineers that opportunity to tell me, as an architect, that the SECB designation means specialization; and it is a specialization that promises a partnership for building design, as well as a partner - you, the engineer - to help craft the appropriate structural solution for our project. The Certified Structural Engineer is saying to me: "My specialty is structures. It is not sewers or culverts, not levees or dams, not streets or highways. My buildings will be safe, modern, efficient and, hopefully,

creative. My buildings are not just steel and concrete, but all materials of buildings, whether wood, masonry, stone, glass or aluminum.”

“...is a specialization that promises a partnership for building design, as well as a partner - you, the engineer - to help craft the appropriate structural solution for our project.”

It should not surprise any reader that in the not-too-distant future, a client, an owner or an architect will INQUIRE about your specific experience to engineer a building structure. It should also not surprise any engineer that in the not-too-distant future a client, owner or architect will REQUIRE accreditation and certification to confirm your experience and thereby confirm that you will provide the enhanced partnership required to produce great architecture.

Grandfathering into SECB Certification ends June 1, 2008. Contact www.secertboard.org for more information. Be creative and get certified as a structural engineer. Become my partner. ■

Richard E. Fencil, AIA, CSI, LEED AP, is the Firmwide Technical Director for Gensler, striving to improve the technical merit and quality assurance processes of the firm's work. Mr. Fencil is past chairman of AIA Chicago's Technical Committee and of the Chicago Committee on High Rise Buildings.

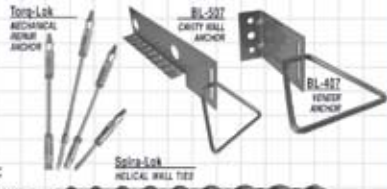
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