

Engineers and Architects Gotta Step It Up

Executive Summary: Contractors for as long as I can remember have been taking on risk that is not theirs to take. Engineers, and architects, can do a much better job of protecting projects by improving design and management of the construction process.

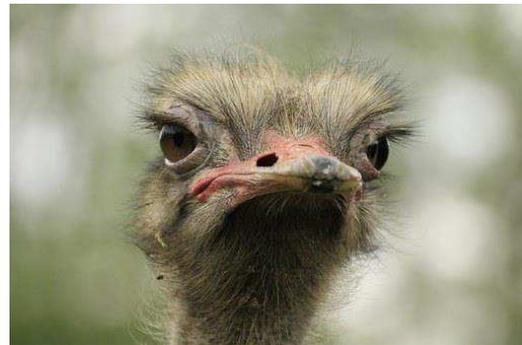
What is the definition and purpose of the engineer, or architect? Merriam-Webster defines engineer as a person who has scientific training and who designs and builds complicated products, machines, systems, or structures.

The purpose of a design engineer in construction is to design the facility and produce ready-to-build plans and specifications. Not ready-for-final-design-review-by-the-contractor-in-the-field-as-(s)he's-building, plans and specifications.

What aren't engineers and architects doing?

Many design professionals are not:

- Putting the project ahead of themselves.
- Designing with a goal of Zero RFIs.
- Finishing the drawings.
- Coordinating the different disciplines in the drawings set.
- Admitting mistakes.
- Asking for help from their Contractor.
- Truly partnering with the Contractor.
- Allowing fair and equitable change order pricing.
- Maintaining "time is of the essence" once the job starts.
- Foreseeing potential change and claim issues and managing early around them.
- Eliminating their own hubris.



What can Contractors do? Contractors can (1) not bid the work, which is not realistic because everyone has to eat, (2) can bid the work higher, and can (3) look to the Contract Documents for relief. It's usually in all Contract Documents that we don't have to work until the change order is in hand. Hold the Owner/Engineer to their contract, cause I'll bet you the contents of your wallet that when you get to mediation the Contract is the only document that means anything. Bye-bye goodwill and good deeds you've done along the way.

My Story. It's funny I call this the "My Story" section because it implies I have just one story. In this instance, where I went to college, they didn't teach us to count this high. The number of stories I have is endless.

Generally speaking, and speaking as a professional engineer, it's a disappointment how the industry favors the professional services industry. I was on a panel about a year ago and a geotechnical engineer said "I don't think it's fair that if there's utility conflict that we [the Engineer] share in the cost of the change." I was up in arms with this complaint because it

was said in the context of the Engineer not having finished incorporating the as-builts into the final Contract Documents.

I now have sat on both sides of the table: Contractor and Engineer/Owner. I still believe that engineers can come a lot closer to the middle in meeting the Contractor halfway on projects. I hope that risk will shift vastly towards making it more fair for the Contractor. (S)he needs to take *more* responsibility for their errors and omissions because as contractors we take responsibility for all of them.

Bonus quick read. Just to get your juices flowing, go ahead and read this one with your morning coffee. My humble opinion shared with my friends at the American Society of Civil Engineers:

