SZÉKELY ENGINEERING
EXPLANATIONS & EXAMPLES

Permits, Plans, and As-Builts, *or*, to Fix the City, First Fix the Agencies

Both the recently superseded 1968 Building Code and the current ICC-based document include virtually identical language limiting the type and amount of work that may be performed without first obtaining a building permit. Thus, plans almost always have to be filed and approved for a permit to be issued prior to the start of any work. The completed work is then inspected to confirm that it conforms to the approved plans.

Pretty straightforward, isn't it? If only.

A couple of months back, I went to a NYC Department of Buildings information session on changes in the filing process for plumbing permits and inspections, where I got the distinct impression that the inspector doing the presentation viewed himself as a police officer, and the attendees as potential criminals.

Then, about a week ago I was on-site for the final plumbing inspection on one of my projects, where there was some concern the inspector would ask for an existing 17 story dedicated gas cooking riser to be pressure tested, notwithstanding the fact that all the new work was downstream of the existing gas cock on that floor. The Plumbing Division's "Guide to Successful Plumbing Inspections", in fact, calls for a successful piping pressure test (3 psig) to have been performed within the past year. The Architect on the project in question told me of a client of his who had an existing riser fail such a test, with the latter then having to run a new riser at a cost of well over a hundred thousand dollars.

What is going on here? Why would anyone need to put a 3-pound test on a 75 to 100 year-old riser which carries no more than four ounces of pressure when:

a.) There has been no work done to the riser.

b.) There have been no complaints of a smell of gas.

It is one thing to be concerned with work being carried out in a manner which protects the public's safety, but it's quite another to believe that the way to ensure such is to become so fixated upon process that safety becomes diminished rather than enhanced.

On my recently inspected job, the inspector seemed to be concerned with Con Edison's responsibilities in addition to those of the Department of Buildings. I've also had a Con Edison Inspector take it upon himself to have the Electrical Contractor on another of my projects rip out a service cable installation because the cables were bent "too sharply" after I showed that a City Electrical Inspector's violating the installation for improperly rated lugs was in error.

On that last one, a meeting with a pair of Con Ed VP's, after a letter from me to the Chairman of the Board, had them assure me there would be no more such actions absent a phone call to me first. On the previous, the Contractor had to remind the Plumbing Inspector that Con Edison was for him to deal with, not the Inspector.

All of these cases reflect an ethos where the inspectors appear to be looking for something to write up, and the difficulty of assuring safe construction is then compounded by the facts that there are too few inspectors, too many projects, and that so far, the NYC Special Inspection process looks as though it will, in the short run anyway, cause there to be fewer qualified persons inspecting completed construction, rather than more.

There were (and remain) more efficacious ways of weeding out (on all sides) the ignorant, the incompetent, and the out-and-out dishonest, than to add new layers to a process already unwieldy at best. But, as you may have inferred from reading my earlier pieces on this issue, I believe the NYC Department of Buildings suffers from a 'Not Invented Here' syndrome, where if it's not been originated within the Department, it can't be of any use.

Oh, there are meetings with stakeholders, focus groups, and the like, but in the end we go to dog and pony shows where DOB explains to us in the unwashed hordes the latest wonders which have been wrought by The Elect in their unsullied isolation, such as insisting, for example, on as-built drawings showing the actual routing of gas piping in the field. . . . .

Actually, I think there may somewhere be such a drawing for the 80 year-old street gas main which exploded in 2007, killing a woman, and in that case, there had even been complaints about the smell of gas.

What could've gone wrong?

I mean it's not like there hadn't been crane inspections prior the spate of crane accidents which was the proximate cause of the whole Special Inspection effort. Not only that, but there's the NYC Comptroller's Audit I've written of earlier which showed way too many (67% of) self-certified applications had defects, some (16%), serious enough that permits should not have been issued, and were in fact, revoked. (By the way, it's still the case that no one I know has actually seen the applications which were the subject of the audit.)

Then, as if we've not done enough to ensure that incompetence and corruption will rise to the top, we have, in too many cases, unqualified (as in other than Professional Engineer or Registered Architect) filing representatives discussing technical issues with plans examiners, in direct contravention of the intent of former Commissioner Miele's memo of 4-21-94 (not to mention NY State Education Law). Although former Commissioner Miele has himself looked in his personal files, and has asked City personnel to look in the City's files, for any trace of the rule to implement the memo's intent, to my knowledge, none has been found as of the time of this writing.

Gee, I wonder why?

But, not to worry, persons who have been licensed by the State as competent to design something that affects the public safety, may, if the Special Inspection process is not rationalized, be found to be unqualified to inspect the construct realized from that design, and such will certainly negate all the problems discussed earlier, and, even more importantly, will finally ensure that the public safety is enhanced to the maximum extent humanly possible.

Don't you find this just a wee bit Kafkaesque? If not, perhaps you should read Henrik Ibsen's *An Enemy of the People*.

But to continue with the fixation on process.

Why the requirement to show a gas riser diagram or sprinkler riser diagram when the proposed work is for a tenant occupying a small part of one floor in an existing building, where the riser has been in place for generations? I had one plans examiner tell me "We need to know where it comes from."

This can't be done be via a callout note on the floor plan?

Why do both the 1968 and current Building Codes have virtually identical language permitting composite drawings showing the work of more than one trade while I've had design professionals refuse to file my drawings when so presented, telling me plans examiners would refuse to accept such? This was particularly perplexing for the project in question, where residential sprinklers are fed from a combination domestic/sprinkler service and my drawings originally showed both plumbing and sprinkler work.

Is it too difficult to file the same set of drawings under two different sets of DOB forms, particularly with the disclaimer the Department has made us put on our drawings over the past decade or so, limiting their approval to the items listed in the application?

When I first got into the technical side of building construction, I worked for a manufacturer of emergency lighting, stage lighting, and fire alarm systems, as an estimator, and as such I got to look at the plans and specifications of a *lot* of Architects and Engineers, as in those depicting hundreds of projects, every year.

I would expect that plans examiners have had a similar breadth of exposure, and as such, I remain absolutely flabbergasted that my getting back objections where more than half could be answered by a bit of a closer look at my drawings, is the rule rather than the exception.

And then, to add insult to injury, certain plans examiners insist upon things which appear to be made up out of whole cloth, where the very nature of the requirement has nothing whatsoever to do with prospective examination to assure Code compliance, like as built-drawings showing catalogue numbers of approved substituted installed equipment.

What's wrong with text on an AI-1 form?