

## Not Just Anybody Should Be Allowed to Do Demolition Work

By Daniel A. Hoffman III

For nearly 20 years I have been discussing the problem of people not comprehending the differences between the construction process and the demolition process. But it is now time to go public with my comments as I have experienced the ramifications firsthand, suffered the aggravation as well as the financial consequences, and truly believe some general contractors and developers have become quite wealthy parlaying this issue to their advantage.

Earlier in another magazine I listed the Top 10 Differences between the two processes, which can be summarized as:

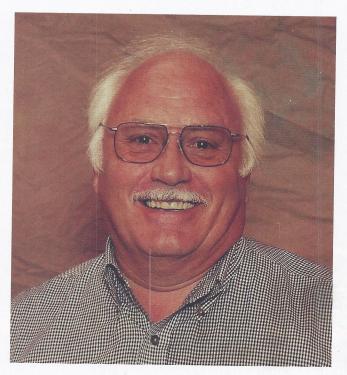
- Number 10 It is All About Nothing! What is the End Product? NOTHING!
- Number 9 Everyone Thinks They Can Do Demolition Anyone Can Wreck Things!
- Number 8 Demolition is 3 Businesses in 1. Demo + Material Handling + Commodities
- Number 7 Demolition Contractors Do Not Work Well With
- Others Safety Issues

  Number 6 Drawings Construction has Details Demo has Nothing
- Number 5 Materials Construction has Certainty Demo has Mystery
- Number 4 Quantities Construction Calculates from Data –
- Number 3 Rigging Weights & Load Centers Construction Calculates Demo Guesses
- Number 2 Construction Can Calculate Odds on Data Demo Odds Calculated on Experience
- Number 1 Demolition Can Generate Enough Revenue From Resultant Material to Pay You.

(For the original expanded descriptions & images email request to: demodan@dahenterprises.com)

As a follow up, Chris Rogers of New Zealand, as part of a LinkedIn.com discussion he started, posed the question, "Is it a prerequisite that one should have a degree in Project Management to demolish /dismantle/destruct buildings or structures?" I tracked the actual statements from respondents, literally from all over the world, in response to this question. I gathered the statements in a list and then identified who made the statement, what part of the world they were from, the company they represented, their position and the date they made their comment. While the answers were all over the place, the essence of all of the comments was that experience performing the work is the only way to become "qualified" to perform a demolition project, and any formal education, while beneficial, would only serve as a starting point.

I believe it is terribly important to show this is not only the core issue here, but also it is the universal opinion of people familiar with demolition from around the world. The demolition process is



something only learned through an apprenticeship, similar to other trades such as carpentry, masonry, plumbing, etc. There is no school or university where someone can go to learn the "demolition business" and receive a "degree" qualifying them to actually perform demolition work; and, while a couple of universities are now offering courses in demolition, as of today there are no degreed courses in how to perform demolition work.

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For that matter, just because one receives a degree in journalism, doesn't mean that person is now qualified as chief editor or publisher. Likewise, receiving a degree in structural or mechanical engineering, would not provide the skills to go out and actually perform carpentry work or do plumbing jobs. It would however be a good start for those processes because the recipient now has the ability to incorporate that knowledge into something they are creating.

The root difference between construction and demolition is that in the construction process you create something affording you total control of the materials, structural design, and form. Everything can be documented and verified as the project is performed. This is not the case when performing a demolition project because you have none of this. For every square inch of structure not tested, you are working on undefined materials, uncertain strengths, with unknown deterioration.

There are very simple demolition projects requiring little or no skill, just like there are very rudimentary plumbing, carpentry, and other projects requiring little or no skill. The difference is, no one will hire a plumber to hang their cabinets, or hire a carpenter to install their toilet, so why do these same people hire someone with the wrong skill, or in some cases no skill at all to perform a demolition contract?

Every demolition project is different, and while some are downright no-brainers, there are others that should only be performed by the most qualified low bidder, not just the low bidder.

## **Because They Had The Lowest Price!**

Pursuit of the "Almighty Low Bid" is the motivation and also was the root cause of an accident on a project in Philadelphia. A four-story wall of a building being demolished fell onto an adjacent occupied Salvation Army Store on June 6, 2013. Six people were killed and 14 people were injured in this travesty representing exactly the problem being described here.

For total disclosure, I was engaged by the Region 3 Office of OSHA as their Expert Demolition Witness in the regulatory litigation against the contractor and equipment operator who are also criminally charged with 3rd degree murder for causing those six deaths. Until those cases are tried in criminal court, the regulatory case is on hold, and while I am not able to disclose any details of this case, simply based on the public information generated by the news media, in my opinion the actions of this contractor show a lack of demolition experience and knowledge.

Demolition contractors have all experienced bidding against those companies that have vastly less experience in performing the work, and all can attest to the proven formula of "the less you know about what can happen on a demolition project, the lower your price can be!"

We have all been invited to a bid walk only to learn that the same bidder, who submitted a ridiculous price on the last project, is bidding again. We know he will beat our price so why waste the time to bid the project? This is what happened in Philadelphia and will happen again if changes are not implemented.

On this project, a city building inspector, the owner who hired the demolition contractor, even the architect were on this site shortly before the accident occurred. Any "qualified" demolition person observing the state of that building (as represented in media pictures) and also knowing the adjacent building was operating with customers in it, would have been horrified. This was a demolition project, not a construction project, with vastly different conse-

quents to every step of the project. Sadly, the inspector committed suicide and the others are being sued.

After this accident, the city of Philadelphia approached the National Demolition Association (NDA) to discuss what could be done to train their inspectors in the art/science of demolition. While this type of training has never to my knowledge been provided, I am of the opinion that a lack of training was not the root cause of the accident at 22nd and Market Streets. Training people to identify what might be a problem on a demolition project is simply wrong and is another manifestation of not understanding how the demolition process differs from the construction process.

On a construction project there are regulations and building codes that can be reviewed to see if the correct material has been installed in the proper manner — because every pound of that material has been identified as to how it is to be installed, in what form, and what shape, and is documented. This documentation is in the form of plans and specifications. In the demolition process, we are lucky we get an address for the structure, much less what were the building materials used.

Philadelphia believed the training of their building inspectors would be the answer, so the city turned to a number of companies and associations, including myself. It was explained that while some training could be done, the real problem is having unqualified contractors performing certain types of projects. Every demolition project is different, and while some are downright no-brainers, there are others that should only be performed by the most *qualified* low bidder, not just the *low* bidder. The essence of the solution is to control who performs which project. Issuing the same demolition permit for a 7-Eleven store as for the demolition of a refinery or downtown high-rise is just wrong; and even if there *was* a difference made in the issuance of the different types of permits, you would also have to have a companion licensing requirement to be qualified to pull the various types of permits.

I laid out my plan to put together a team of city inspectors and local demolition contractors to review the demolition permit issuing, with the goal of creating specific demolition permits for the different types of projects. This same group of specialists would then also review a new licensing system that would define different levels of insurance and bonding, define and require different types and amounts of training for supervision, require documentation of current employees and their demolition experience, review and document insurance modification rates, review and document accident-incident reporting, review OSHA 300 reports, review and document proven experience from previous projects performed, and other qualifying requirements to hold varying types of demolition licenses. Both of these systems would then operate to require only those with the correct license level to be allowed to pull specific types of demolition permits. Arrangements were also made to visit with other cities where licensing programs had been implemented.

What did the city do? Did they go to someone experienced in performing demolition projects? No — they went to the General Building Contractors Association and asked them to train their inspectors for demolition projects.

And they wonder why I rant on!

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