



RESIDENTIAL AND COMMERCIAL INSPECTIONS: Why They Are Important

Owners have both an obligation to maintain buildings for the safety of their occupants and a desire to maintain the value of their investment. When a portion of a building has a possible problem, a prudent owner will have that problem investigated to see if any action needs to be taken to maintain the building's integrity. But what action is appropriate? Is hiring a structural engineer overkill? No – and here's why...If you have a company that sells XYZ product look at the problem, XYZ product is what you'll get to fix the problem. Although likely a good product, it might not be the right fix. If you hire a structural engineer, you'll get someone who understands construction and building performance and who can identify and design the correct solution for the problem.

Purchasing a Building

A potential buyer can exercise due diligence by hiring engineers to review the building's systems to determine whether they are functioning as originally planned or an appraiser might notice something and recommend additional reviews by a structural engineer. It is important at this stage to identify and choose a structural engineer who is familiar with existing buildings and has the background to recognize why a problem has developed and what steps are necessary to repair both the surface problem and any underlying issues that might be causing the problem. Structural engineers can determine if there are any structural or structural related issues that could evolve into problems in the future. With this information, a buyer can possibly avoid purchasing an undesirable property.

Homebuyers can also benefit from the expertise of a structural engineer by having a review of the house structure prior to purchase. Nearly every house that is purchased has a whole house inspection and most home inspectors are required to have general knowledge about all the different systems throughout the house. Rarely does a whole house inspector have the specific structural knowledge to properly determine whether a house has significant structural problems or potential problems that could turn into significant problems. This is generally why a structural engineer is recommended to review foundation cracks or termite infestations after

these items have been identified by a whole-house inspector. A structural engineer experienced with residential structures can determine why a particular issue has developed and what method would work best to resolve the situation. Here again, the engineer's recommendations can help the buyer avoid purchasing a problem that will end up costing lots of money in the future.

In all situations, a qualified structural engineer can provide an unbiased evaluation and reasonable solutions that the owner and purchaser can use to resolve a potential issue. So whether you are a property manager, an owner or a purchaser – a properly trained and experienced structural engineer can provide detailed and targeted recommendations to solve problems that a building currently has, avoid potential future problems, and improve awareness of identified risks prior to purchasing.

The bottom line is...Make sure you identify both the right problem and right remedy.

Example: Cracking in a Stairway

Since stairways provide daily entrance/exit to spaces within the building and are necessary for exiting during emergency situations, stairs need to be well maintained. A set of concrete stairs that show signs of distress with cracks could be a potential problem that requires attention. A structural engineer would be able to evaluate the stairs to determine if the cracking is minor or severe enough to require additional attention and repairs. Having a review by someone not trained in the complexities of how structures are designed, constructed and perform, could result in an overly conservative or unsafe repair.

