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## **A structural perspective on redevelopment of existing retail space/sustainability**

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In a buyer's market for commercial real estate, the idea of sprucing up an old, tired, shopping center, bought at a bargain price, can be very appealing, and often very successful. In fact, at TFM, a large part of our business is helping new owners fix up such older properties. Sometimes, however, what was expected to be a minor facelift becomes major surgery as layer after layer of problems are uncovered - and that bargain price turns out to be not much of a bargain after all. How can you tell what a building will really cost you before you buy?

First of all, your "due diligence" should include a basic assessment of all major building systems - including mechanical and electrical, as well as structural and building envelope - that looks into two basic factors for each system: the relative cost of repair or replacement of that system, and how soon it may need to be done. With energy costs taking an increasing slice of the building expense pie, you may want to replace aging, inefficient mechanical systems, too. However, you may need to strengthen the roof to handle the extra weight of new equipment and insulation. Even if there are some energy savings to be had, these can add up to significant additional capital needs.

With this assessment in hand, a better picture of the true capital cost of purchasing and owning a building will emerge. You may be surprised at the results: in New England, we are all familiar with buildings well over a hundred years old that are still in excellent condition. Solid masonry, heavy timber, slate roofs, copper flashing; these are all the mark of quality construction from a bygone era. Many shopping centers, however, were built with materials and equipment designed to have 25-year life expectancies - or less - and yet remain in service well beyond that age. This does not mean these buildings are in danger of imminent collapse, but it does mean that the cost of maintenance and repair, particularly in a building that has been neglected for some time, can start to accelerate rapidly.

One obvious example is a leaking roof; if not kept up with, leaks will begin to attack the supporting structure, and before long, not only must the roof itself be replaced, but substantial parts of the roof deck and even structural supports can be degraded to the point of needing repair as well.

Making matters worse, many older shopping centers were built to standards below those required by today's building codes, and the original construction may have been marginal to begin with. Thus, some buildings may have been subjected to severe snow or wind loads beyond their design capacity at some point. Again, this will not necessarily lead to total collapse, but instead will often result in subtle, less obvious damage: cracked masonry, warped joists, broken welds. These symptoms of trouble may not be apparent to a casual observer, but they do further weaken the structure and render it even more susceptible to damage from subsequent loads.

This is not to say that it is necessary to look at every inch of a structure to determine its condition. An experienced engineer can relatively quickly assess the likely trouble spots and types of damage

simply by noting the type of structure, quality of construction materials and workmanship, and the apparent level of maintenance or lack thereof. Based on this guidance and some random in-depth checks of likely trouble spots, an overall assessment of the building's structural condition - and potential repair costs - can be generated. When taken together with the other assessment factors such as mechanical and electrical system upgrades, the true capital costs of purchase and ownership will become clear.

The process is not particularly expensive, although it obviously depends on the age and complexity of the building under consideration. The key is to hire experienced, independent building professionals who can quickly and accurately assess building condition issues and their associated costs before the purchase decision is made. However, the value of the information - if it prevents a bad investment - can be enormous.

Having a good sense of a building's short term and long term capital needs is indispensable in arriving at the right purchase price. From this informed position, it is much easier to determine whether an apparent bargain is such a good deal after all.

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