

# THE ARCHITECT'S ANGLE

John W. Baumgarten Architect, P.C.

March 18, 2008

Vol. 22



John Baumgarten  
R.A., AIA, NCARB, LEED

## Do You Know That...?

- As of July 1, 2008, New York City will adopt the International Building Code (IBC) as the official code for construction in the five boroughs. The IBC has a high degree of "synchronization" with the State and National model codes already governing the design & construction of Health Care facilities. From July 1 through December 31, 2008, applicants may use either the current code or the IBC. Thereafter, use of the IBC will be mandatory.

## Contact us:

### Principal

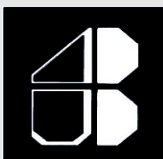
John W. Baumgarten, R.A.  
[john@jwbarch.com](mailto:john@jwbarch.com)

### Associate

Anthony Hatzioannou, R.A.  
[anthony@jwbarch.com](mailto:anthony@jwbarch.com)

John W. Baumgarten  
Architect, P.C.  
366 North Broadway  
Suite 207  
Jericho, NY 11753

T – (516) 939-2333  
F – (516) 939-0033  
[jwbarch.com](http://jwbarch.com)



## Sprinkler Upgrades – Throwing Water on the Problem

Although the design and construction of Skilled Nursing Facilities has seen many advances in Life Safety over the past several decades, many older facilities still have a gap in their defenses; they are not fully sprinklered.

During the 1970s, when many homes were built, Life Safety & Building Codes did not require Nursing Homes to be fully sprinklered. The combination of a Fire Alarm/Smoke Detection System and the sprinkling of hazardous areas such as kitchens, maintenance shops and large storage areas was deemed a sufficient level of safety.

Throughout the 1970s and 1980s Life Safety Codes continued to evolve and this evolution produced safer Senior Care facilities. Lower flame spread requirements and smoke developed ratings together with the virtual phasing out of combustible building components significantly reduced the potential "fuel" for a fire. Smoke and fire compartmentation (fire walls and smoke barriers) along with HVAC/Fire Alarm interconnection (fan shut-downs) would significantly prevent a potential fire from spreading rapidly.

Eventually, Life Safety Codes mandated that all new Nursing facilities be fully sprinklered. To date, the requirement has not been made retroactive to existing facilities unless they are undergoing what amounts to a gut alteration. It is only a matter of time before older facilities will be forced to become fully sprinklered.

Sprinklering a fully occupied Nursing facility seems like an expensive and daunting task, however if approached properly, the impact of such a project can be minimized. Additionally, when realized, the many "hidden" benefits of a sprinkler upgrade can improve a facility's "look and feel".

The best way to reap the full benefit of a sprinkler upgrade is to undertake it as part of an overall modernization. For example, if ceilings and lighting must be removed to run sprinkler piping, it makes sense to replace them with newer, more aesthetic ceilings & lighting. Taking this approach a step further, sprinkler protection would then allow resident dining/lounge areas to be expanded and "opened up", to corridors breaking up an institutional linear floor plan. With ceilings temporarily "down" for piping installation, this presents an opportunity to install HVAC ductwork to improve indoor air quality.

There are a number of basic infrastructure issues that must be examined when considering a sprinkler upgrade. A partially sprinklered building may not have a large enough incoming street service to handle the entire building. Even if the service size is adequate, the street pressure may be relatively low, dictating the installation of a fire pump. Getting the water "up to the floors" is the easiest part of the problem since risers can usually be run vertically within existing stairwells.

Although the costs of fully sprinklering an occupied building are not insignificant, the payback in lower insurance premiums and a potentially higher census from a corresponding modernization could provide significant offsets.

## **John W. Baumgarten Architect, P.C.: Recent Projects:**

