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International Conference of Building Officials - member

6-20-96

Mr. Jeff Svoboda, Mr. John Schrot, Attorneys at Law, Alan R. Miller P.C.

Re: MetroCell Security  
5977 E. 14 Mile Road  
Sterling Heights, Michigan 48321  
2nd floor Occupancy

To whom it may concern,

This letter is intended to address the concerns of the Sterling Heights Building Official and Fire Prevention Department regarding the Occupancy of the second floor of MetroCell Security. Metro Cell believes that they have complied with the Fire Inspector's Inspection Report dated 2-19-96. Metro Cell further contends that the interpretation of the Building Official is subject to the appeal provisions as set forth in the 1993 B.O.C.A. National Building Code, paragraph 121.1, which reads "Any person shall have the right to appeal a decision of the code official to the board of appeals. An application for appeal shall be based on a claim that the true intent of the code or the rules legally adopted there under have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used."

Metro Cell contends that the intent of the code, as delineated in section 101.4, has been met. The bottom of the bar joists at 7' from the finished floor, but with the actual ceiling at the underside of the roof deck at 10 feet, does not compromise health, safety or welfare as far as the stated structural, means of egress, sanitary equipment, light and ventilation, or fire safety requirement.

There are several areas which are clearly interpretive in nature and therefore specifically subject to the appeal process.

Under section 1204, ceiling heights in *habitable* rooms, as defined as rooms for living, sleeping, eating or cooking, must be 7' 6". Residential occupancies are generally assumed to present a greater risk than a (small) Business occupancy, thus requiring smoke detection, etc. Residential occupancies are allowed projections into the 7'6" ceiling height requirement by 6", or down to 7'. Furthermore, rooms with sloping ceilings are allowed, and the ceiling height may be an unspecified, unregulated height for up to 50% of the floor area, as long as any floor area with a ceiling height of less than 5' not be included in any floor area computations. There could indeed be situations where a significant floor area had ceiling heights of less than 5', and this floor area could very likely be used for storage of combustibles such as files or merchandise, and increase the level of fire risk, without increasing any exiting or allowable areas requirements of the code. Furred ceilings may also cover two-thirds of an area, down to 7'.

Furthermore, under the B.O.C.A. Property Maintenance Code, dropped and furred ceilings may be as low as 7', with beams as low as 6' 8".

Under the B.O.C.A. commentary, which explains the history, development and intent of the code, and attempts to further explain interpretive differences, the reason for the height requirement for ceilings is to alleviate potential physiological or physiological harm to the occupants, limitations on air circulation, to avoid a low ceiling which would add fuel contribution at head level in the event of a fire, and to prevent smoke accumulation at head level. With the exception of a couple of light fixtures which Metro Cell may indeed have already raised, there are no projections below 7' which present a hazard to people, even who are 6'8" as I am, to bump their heads on. There are only insignificant combustibles, and only unregulated materials such as the diffusers on light fixtures, from the 7' level to the 10' level. There would be no smoke accumulation except at the 10' level. Indeed, the ceiling at MetroCell presents a safer situation than the 7'6" ceiling requirement, as there is a much greater volume of space available for the accumulation of heat, smoke and gas, further away from the occupants. There is no foreseeable physiological or physiological harm to the workers, because of the open, well-lit nature of the structure, and no limitation on air circulation.

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Interestingly, the intent and development history regarding ceiling heights in the Uniform Building Code by the International Conference of Building Officials, was to eliminate tenement housing at the turn of the century. The Uniform Code also developed with considerations for fuel contribution, smoke accumulation, obstruction and hazard, and the physiological or physiological impact on the occupants of the space. I believe that the conditions at MetroCell are satisfactory under these criteria.

Again, MetroCell believes this is clearly an interpretive, appeal able matter for the Sterling Heights Appeal Board, and believes that the safety intent of the code has been satisfied. As an alternative, an additional measure of safety could be achieved through a monitored smoke and heat alarm system, which is frequently used as an alternative, by some building officials in existing, older buildings, or in situations such as this where there may be areas of concern to the local building or fire officials. As specifically allowed under section 106.4, "Alternative materials and equipment", there is no compromise in quality, strength, effectiveness, fire resistance, durability and safety."

Respectfully,

Jeff Bartrem, C.B.I.  
President  
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