STATE BUILDING CODE INTERPRETATION NO. 1-3-03

April 22, 2003

The following is offered in response to your April 10, 2003 letter to me in which you seek a formal interpretation of the provisions of Section 1014.11 of the BOCA National Building Code/1996 portion of the 1999 State Building Code which sets forth provisions for the enclosure of interior stairways. The building you describe is two stories, Use Group B, and Type 3B construction. One of the means of egress stairs in this building is located at the main entrance to the building, is protected by two-hour fireresistance rated construction and separated from the circulation space in the building (lobbies and corridors) by fire doors on magnetic hold open devices tied into the fire alarm system. The configuration of the stair is that it is open within the enclosure, but fully separated from the balance of the building by rated construction. In effect, an oversized enclosure has been created.

Question: Does the interior stair as described meet the requirements of the referenced code?

Answer: Yes. Section 1014.11 requires that interior stairs connecting two stories be enclosed by a minimum of one-hour fireresistance rated construction. The proposed enclosure exceeds that requirement and is therefore code compliant. The code does not require that the enclosure only be of sufficient size to accommodate the stair itself as long as the enclosure is not used for any other purpose. Your letter and the accompanying drawings do not indicate use of the enclosure for any purpose other than as an exit and as the main entrance to the building. It is important to stress here that this interpretation is based on no use whatsoever of the enclosure in question other than for ingress and egress from the building. Installation of furniture or occupancy by a receptionist would, for instance, turn the enclosure into a lobby, which is regulated by Section 1020.3 of the code. Section 1014.11 also contains the requirement that all openings in exit enclosures shall be limited to those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure. While it is true that the main entrance door to the building provides access from the exterior of the building into the stair enclosure, it is also true that these same main entrance doors provide the only way out of the exit enclosure to the exterior of the building, thus they are required for egress from the enclosure and are also code compliant. What differentiates the space being evaluated from a vestibule, regulated by Section 1020.2 is that the user of the exit stair is not required to leave the protected enclosure to enter a transition space with a lesser degree of protection, but rather stays inside the rated enclosure until reaching exit discharge, in this case the main doors to the exterior.

Other factors you describe must also be considered when evaluating this enclosure. Section 717.1.2 requires that exit access doors for exit enclosures must be fire doors and you indicate that you intend to provide such doors. Section 717.5.1 states that fire doors which are not self-closing and which are located in exit enclosures shall be automatic-closing by the actuation of smoke detectors or by the loss of power to the smoke detector or to the hold-open device. Assuming your fire doors are of the rating required by Table 717.1 (1 ½ hour door for a two-hour separation assembly), and the hold-open devices meet the requirements of Section 717.5.1, the exit access doors are also code compliant.

Although the enclosure you describe does not fit the "classic" model of what we are used to seeing as an interior stairway enclosure, when you break it down into its components you see that it meets or exceeds the requirements of the code for an interior exit stairway enclosure.