

STATE BUILDING CODE INTERPRETATION I-21-07

August 30, 2007

The following is offered in response to your August 24 and August 29, 2007 letters to me in which you seek formal interpretations of the provisions of Sections 302.3 and 303.1.1 of the 2003 International Building Code portion of the 2005 State Building Code. The scenario you describe is a two-story building, owned by a municipality, on a sloping site that has grade level egress at both floors and no interior communicating stair. You have indicated that the lower story has sufficient exposure to qualify as a story above grade. The building is 1300 s.f. per floor, Construction Classification VB, not sprinklered; and the proposed occupancies are Group B on the lower story and Group A (unspecified) on the upper story. The assembly use will be by town employees or by groups authorized by the town, limited to fewer than 50 persons.

Question 1: Is it true that Section 302.3.1 of the referenced code would permit the above scenario to be considered mixed occupancies, nonseparated?

Answer 1: No. Section 302.3.1 states, in part, that the required type of construction for the building shall be determined by applying the height and area limitation for each of the occupancies to the entire building. Since Table 503 limits the allowable height of nonsprinklered buildings of Occupancy Group A and Construction Classification VB to one story, the proposed occupancy cannot be located on the second floor of a two-story VB building. The minimum construction classification that would allow Group A on the second story is VA. An alternative would be to sprinkler the building and thus receive a one story height increase to a total allowable height of two stories for Group A. Utilizing the concept of mixed occupancies, separated would likewise not result in a code compliant solution since the Assembly occupancy would still be on the second floor of a Group VB building, which is prohibited by Table 503.

The confusion here is based on the fact that due to sloping grades, the second story has grade level access and egress and that the lack of an internal stair makes the building feel like two one-story buildings stacked on top of each other. In fact, the amount of exposure of the lower level makes it qualify as a story above grade, so the building is actually a two-story building.

Question 2: Given that the town will only authorize use of the assembly space by fewer than 50 persons, can the second floor space be designated as Group B in accordance with the provisions of Section 303.1.1?

Answer 2: No. The determination of number of occupants must be made in accordance with Section 1004.1, which states in part that the number of occupants for whom means of egress facilities shall be provided (and upon which other code requirements are based) shall be determined by the *largest* number computed in accordance with Sections 1004.1.1 through 1004.1.3. These sections speak to: 1) the actual number, which may be the number you are referring to as determined by the town; 2) the number as prescribed by Table 1004.1.2; or 3) the number by combination when occupants of an accessory space must pass through the primary space. In your case, the largest number is calculated by utilizing Table 1004.1.2. Given that the actual use of the space is unknown (for instance, it may be set up for dining with tables and chairs or it may be set up lecture hall style with rows of chairs), the appropriate factor for calculation would be concentrated - 7 net square feet per occupant. Using 7 net square feet, the net area devoted to assembly purposes would only be permitted to be 343 square feet ($7 \times 49 = 343$) in order to qualify as Group B, which is unlikely given the 1300 square feet gross area per floor. Naturally, if the town anticipated allowing a cocktail reception, using 5 net square feet for standing space would be appropriate, thus reducing the allowable net area devoted to assembly to 245 square feet ($5 \times 49 = 245$).