



## Engineering

Wayne Goodwin, Commissioner of Insurance  
Rick McIntyre, Assistant State Fire Marshal

April 26, 2016

Cothran Harris, AIA  
CH Architecture  
5725 Oleander Drive, Suite E-1  
Wilmington, NC 28403

**RE: 2012 NC Building Code  
Section 1021.2, Single Exits**

Mr. Harris:

This letter is in response your request for formal interpretation dated 4/12/2016. I have also reviewed the Richard Lang e-mail requesting the same.

The specific question raised in the request letter and e-mail (in my words) is:  
*Is the open parking level beneath the NC Building Code, Group R considered a Story?*

You cited the NC Residential Code as a basis for the decision. However, a dwelling constructed to that Code is typically limited to Type VB construction and a single exit is allowed regardless of height. The single-family dwelling (Residential Code) allowance is not appropriate for a multi-family dwelling (Building Code).

The open parking level beneath the NC Building Code, Group R-2 is considered a story. Table 1021.2 limits sprinklered, Group R-2 stories with one exit to the third story and below. The plans submitted show a 4-story building (3-stories R-2 above 1-story S-2). This building requires 2-exits.

Sincerely,

Barry Gupton, PE  
Chief Code Consultant

cc: File  
Richard Lang, Carolina Beach  
Alan Griffin, Carolina Beach  
Carl Martin, NCDOT



April 12, 2016

Mr. Barry Gupton  
Chief Code Consultant- Engineering Division  
N. C. Department of Insurance  
322 Chapanoke Road. Suite 200  
Raleigh, NC 27603-3400

RE: 703 St. Joseph Street, Carolina Beach  
Story above grade in a flood plain

Dear Mr. Gupton;

I am writing you at Carl Martin's request. I request a formal interpretation of the definition of "story" in regard to commercial construction in a flood plain. As you know, there are circumstances where a building has to be elevated several feet in order for a habitable floor level to be above the flood line. Traditionally, the level below the first habitable level is considered a foundation, even if it is high enough to park cars beneath the building. The residential code recognizes this explicitly in Chapter 46 in its definition of "Lowest Floor".

**"LOWEST FLOOR.** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor: provided

1. That the walls are substantially impermeable to the passage of water and the structural components have the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy, or
2. Construction shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing the entry and exit of flood waters."

Unluckily, the commercial code is silent on the subject. We are working on the conversion of a condominium building constructed in 2005 in the town of Carolina Beach. It was designed, approved by the town and constructed as a three-story building. Enclosed are copies of the original plans and elevations.

There are hundreds if not thousands of type V residential occupancy commercial condominium buildings in North Carolina's beach communities from Corolla to Calabash. Most of these structures are three occupied stories on top of wood pilings. Many of these structures have two units per floor served by a single exterior stair. Beginning in 2002 this was addressed in Table 1005.2.2 note C. In 2006 the table was renumbered 1018.2 and as 1019.2 in 2009. In the most recent code the table has been reformatted with a specific row for R-2 third floor units and renamed "Stories with one exit" as opposed to "Buildings with one exit".

Enclosed are copies of the floor plan revisions and Appendix B we submitted to the Town of Carolina Beach for the renovation of this building. Is it the interpretation of the Department of Insurance that this is a three or four story building?

Thank you for your assistance in the matter.

Best regards,

A handwritten signature in orange ink, appearing to read 'Cothran Harris', with a long horizontal stroke extending to the right.

Cothran Harris AIA  
Enclosures

CC: Nathan Sanders  
Carl Martin