



MIKE CAUSEY, INSURANCE COMMISSIONER & STATE FIRE MARSHAL
BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL

January 26, 2021

Thomas W. Gardner, PE
Harrington Group, Inc.
3237 Satellite Boulevard, Building 300, Suite 525
Duluth, GA 30096

RE: Fire Area
2018 NCBC Chapter 2 Definition of Fire Area Related to Permanent Canopies

Mr. Gardner:

This letter is in response to your request for formal interpretation dated January 14, 2021 that was received in NCDOI by email on that same date. Your request for formal interpretation states:

“Question #1: When calculating the Fire Area, it is appropriate to measure the floor area to the interior face of the firewalls, fire barriers, exterior walls, or horizontal assemblies of a building?”

And

‘Question #2: Do non-combustible awnings (like those shown in the attached photographs) add to the “Fire Area”?’

Remarks:

Code sections noted in this letter are referring to the 2018 edition of the NC Building Code unless otherwise noted.

This interpretation is based on the two submitted questions addressing the canopy situation depicted in the photographs that were submitted with the request for formal interpretation.

As a matter of record the request for formal interpretation is presented as “Attachment A” to this letter.

Code Analysis:

Chapter 2, definition for “fire area” states:

“The aggregate floor area enclosed and bounded by *fire walls, fire barriers, exterior walls or horizontal assemblies* of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.”

Chapter 2, definition for “canopy” states:

“A permanent structure or architectural projection of rigid construction over which a covering is attached that provides weather protection, identity or decoration. A canopy is permitted to be structurally independent or supported by attachment to a building on one or more sides.”

Chapter 2, definition for “awning” states:

“An architectural projection that provides weather protection, identity or decoration and is partially or wholly supported by the building to which it is attached. An awning is comprised of a lightweight *frame structure* over which a covering is attached.”

The photographs attached to the request for formal interpretation depict a canopy instead of an awning based on the definitions of “canopy” and “awning” found in Chapter 2 because the structure is not “partially or wholly supported by the building”. The conclusions of this letter are, therefore, based on a canopy instead of an awning.

Section 101.3 Intent states:

“The purpose of this code is to establish the minimum requirements to provide a reasonable level of safety, public health and general welfare through structural strength, *means of egress* facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.”

Conclusions:

Answer #1: The definition of “fire area” indicates that it only includes “floor area” within the prescribed walls. As such it can only include area measured to the interior face for said walls, but it also is measured to furthest extent of the roof or floor above a story. The intent is to include area under a roof or floor above where the area covered by such roof or floor above will contain fuel load or is occupiable space.

Answer #2: Based on Section 101.3 I would conclude that the intent of the code is to provide protection to the occupants and building where a permanent canopy is capable of containing combustibles or occupiable space or both. Canopies, as shown in the photographs submitted with the request for formal interpretation, would be considered part of a fire area because it has a roof with potential fuel load.

Think of it this way; if the canopy was 30 feet away from the building it would be treated no different than any other building structure that has only a roof and no walls. That building would have a fire area.

The code, therefore, intends to protect the canopy depicted in the attached photographs as it would any other fire area. Without fire resistance rated occupancy separation between the enclosed building and the canopy as required by Section 508.4 the canopy is considered part of the fire area of the enclosed building.

Please call if you have comments or questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Carl Martin". The signature is fluid and cursive, with the first name "Carl" being more prominent than the last name "Martin".

Carl Martin, RA
Deputy Commissioner
Division Chief of Engineering

cc: File
Robbie Davis, Chairman – BCC
Danny Priest, Vice-Chairman – BCC

ATTACHMENT A



Atlanta, GA • Charlotte, NC
d/b/a HGI, Inc. in the State of North Carolina

Jeff L. Harrington, P.E.
James M. Rucci, P.E.
Dale C. Hansen, P.E.
Phillip A. Friday, P.E.

January 14, 2021

Via Email

Mr. Carl Martin
North Carolina Department of Insurance - Office of the State Fire Marshal
1202 Mail Service Center
Raleigh, NC 27699-1202

RE: REQUEST FOR FORMAL INTERPRETATION

HGI #:205SI0001

Dear Mr. Martin:

I am writing to request a formal interpretation of the definition of "Fire Area."

In the 2018 North Carolina State building code, Section 202 (definitions) a fire area is defined as "The aggregate floor area enclosed and bounded by firewalls, fire barriers, exterior walls or horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above."

Question #1: When calculating the Fire Area, it is appropriate to measure the floor area to the interior face of the firewalls, fire barriers, exterior walls, or horizontal assemblies of a building?

Question #2: Do non-combustible awnings (like those shown in the attached photographs) add to the "Fire Area?"

We have asked these questions of Mr. Bill Kirk, P.E. and we agree with his interpretations. Copies of his interpretations are attached. Mr. Kirk indicated his interpretation is informal and we are asking for a formal interpretation because we are finding jurisdictions in North Carolina that do not agree with Mr. Kirk and we are concerned that is because it is an informal interpretation.

I am available by cell phone at (678) 485-6252 if you wish to discuss further.

Very truly yours,
HARRINGTON GROUP, INC.

Thomas W. Gardner, P.E., FSFPE, LEED AP
Project and Engineer Development Manager

Enclosure

C: Chris Verch – Strong Systems International

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Photo 1 - Noncombustible Drive Thru Canopy (Note: Canopy Not Attached to the Building)

Mr. Carl Martin
January 14, 2021
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Photo 2 – Same Canopy as Photo 1 but Different Perspective



Photo 3 – Same Canopy as Photo 1 but Different Perspective
