



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

December 5, 2022

Mr. Jim Sherrer  
Design Development Architects  
800 Salem Woods Drive, Suite 102  
Raleigh, NC 27615

**RE: 2018 NC Building Code Section 304.1 Business Group B and Section 903.2.2 Ambulatory care facilities**

Mr. Sherrer:

This letter is in response to your request for formal interpretation dated November 7, 2022, which NCDOI received by email the same day. Your request for formal interpretation states in relevant part:

“Is a dentist office using nitrous oxide considered an ambulatory care facility?”

**Remarks:**

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

Attachment A is comprised of the request for formal interpretation as well as all supporting information submitted with the request.

**Code Analysis:**

Dentist offices are Business Group B occupancies per Section 304.1. Dentist offices are classified as “professional services” but can also be classified as “ambulatory care facilities” depending on the condition of the patients during treatment.

**304.1 Business Group B.** Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers
- Ambulatory care facilities**
- Animal hospitals, kennels and pounds
- Banks
- Barber and beauty shops

Car wash  
Civic administration  
*Clinic, outpatient*  
Dry cleaning and laundries: pick-up and delivery stations and self-service  
Educational occupancies for high school students participating in *Cooperative Innovative High School Programs* taught at colleges, community colleges or universities  
Educational occupancies for students above the 12th grade  
Electronic data processing  
Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities not more than 2,500 square feet (232 m<sup>2</sup>) in area.  
Laboratories: testing and research  
Motor vehicle showrooms  
Post offices  
Print shops  
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)  
Radio and television stations  
Telephone exchanges  
Training and skill development not in a school or academic program (this shall include, but not be limited to, tutoring centers, martial arts studios, gymnastics and similar uses regardless of the ages served, and where not classified as a Group A occupancy).

The definitions in Section 202 of '*ambulatory care facility*' and '*incapable of self-preservation*' apply to dentist offices in which patients require assistance to leave the building in the event of an emergency.

**AMBULATORY CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to persons who are rendered *incapable of self-preservation* by the services provided.

...

**INCAPABLE OF SELF-PRESERVATION.** Persons who, because of age, physical limitations, mental limitations, chemical dependency or medical treatment, cannot respond as an individual to an emergency situation.

Section 422 provides separation, smoke compartment, means of egress, fire protection and fire alarm requirements for dentist offices that are classified as *ambulatory care facilities*.

**422.1 General.** Occupancies classified as *ambulatory care facilities* shall comply with the provisions of Sections 422.1 through 422.5 and other applicable provisions of this code.

**422.1 Separation.** *Ambulatory care facilities* where the potential for four or more care recipients are to be *incapable of self-preservation* at any time, whether rendered incapable by staff or staff accepted responsibility for a care recipient already incapable, shall be separated from adjacent spaces, *corridors* or tenants with a *fire partition* installed in accordance with Section 708.

**422.3 Smoke Compartments.** Where the aggregate area of one or more *ambulatory care facilities* is greater than 10,000 square feet (929 m<sup>2</sup>) on one *story*, the *story* shall be provided with a *smoke barrier* to subdivide the *story* into no fewer than two *smoke compartments*. The area of any one such *smoke compartment* shall be not greater than 22,500 square feet (2092 m<sup>2</sup>). The distance of travel from any point in a *smoke compartment* to a *smoke barrier* door shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be installed in accordance with Section 709 with the exception that *smoke barriers* shall be continuous from outside wall to an outside wall, a floor to a floor, or from a *smoke barrier* to a *smoke barrier* or a combination thereof.

**422.3.1 Means of Egress.** Where ambulatory care facilities require smoke compartmentation in accordance with Section 422.3, the fire safety evacuation plans provided in accordance with Section 1001.4 shall identify the building components necessary to support a *defend-in-place* emergency response in accordance with Sections 403 and 404 of the *International Fire Code*.

**422.3.2 Refuge Area.** Not less than 30 net square feet (2.8 m<sup>2</sup>) for each nonambulatory care recipient shall be provided within the aggregate area of *corridors*, care recipient rooms, treatment rooms, lounge or dining areas and other low-hazard areas within each *smoke compartment*. Each occupant of an *ambulatory care facility* shall be provided with access to a refuge area without passing through or utilizing adjacent tenant spaces.

**422.3.3 Independent Egress.** A *means of egress* shall be provided from each *smoke compartment* created by smoke barriers without having to return through the *smoke compartment* from which *means of egress* originated.

**[F] 422.4 Automatic Sprinkler Systems.** *Automatic sprinkler systems* shall be provided for *ambulatory care facilities* in accordance with Section 903.2.2.

**[F] 422.5 Fire Alarm Systems.** A *fire alarm* system shall be provided for *ambulatory care facilities* in accordance with Section 907.2.2.

**Conclusions:**

Dentist offices that provide treatment services where patients are of a condition to respond normally during emergency situations are classified as “professional services” occupancy under Business Group B in Section 304.1. Dentist offices that provide treatment services that render patients *incapable of self-preservation* are classified as “*ambulatory care facilities*” under Business Group B in Section 304.1 and are required to comply with the additional code provisions of Section 422. If nitrous oxide or other medical gases are used to render patient’s incapable of self-preservation, then that dentist office is classified as an *ambulatory care facility*. Of note, anesthesia and sedation permits are required by the North Carolina State Board of Dental Examiners.

Please call or email if you have comments or questions.

Sincerely,

A handwritten signature in black ink that reads "D.B. Rittlinger". The signature is written in a cursive, flowing style.

David B. Rittlinger, PE, LEED AP  
Chief Code Consultant  
NCDOT-OSFM Engineering & Codes Division

cc: File  
Bridget Herring, Chair – BCC  
Mark Matheny, Vice-Chair - BCC  
Michael Ali, Chair, Commercial Super Committee – BCC



## Tarheel Periodontics Pittsboro - Questions on use of Nitrous Oxide

4 messages

**Jim Sherrer** <jims@designdevelopment.com>  
To: Mary Beth Marguerat <marybeth@landmark-nc.com>

Fri, Oct 28, 2022 at 2:25 PM

I understand the inspector has questioned the use of nitrous oxide in more than 3 rooms and is referencing code section 903.2.2.1.

It is our understanding that nitrous oxide, as used by dentists and in dentist offices everywhere, does not render the patient incapable of self preservation. It has been, and remains, our interpretation that 903.2.2 does not apply to our situation or to dentist offices in general.

Based on this issue, I reached out today to NCDOL and discussed this with Pak Yip, a commercial plan reviewer at NCDOL.

He took me to the definition of Ambulatory Care Facility in Chapter 2 of the code and noted the dental or dentist offices are not included in the facilities listed ("medical, surgical, psychiatric, nursing or similar care")

He then referenced Section 304 of the Code where Business uses are listed specifically. The second item on the list is "Ambulatory Care Facilities" and further down the list is "Professional Services" and "dentists" are listed specifically in that category. It was Mr Yip's interpretation that dentist offices would not be included in ambulatory care facilities or they would not have been listed specifically under Professional Offices. The uses listed in the definition from Chapter 2 are not listed in Section 304 as they are covered by Ambulatory Care Facilities in the list.

I hope this clears up the issue and Tarheel Periodontics can be completed as designed and constructed. If there are any questions, please call me at 919 422 2223.

**Jim Sherrer**

President, AIA



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...drawing out your vision

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**Jim Sherrer** <jims@designdevelopment.com>  
To: pak.yip@ncdoi.gov  
Cc: Mary Beth Marguerat <marybeth@landmark-nc.com>

Mon, Nov 7, 2022 at 9:58 AM

Mr Yip,

We need a formal interpretation on whether a dentist office using nitrous oxide is an ambulatory care facility as defined in Chapter 2 and as regulated in 903.2.2.

I spoke with you a week or so ago and understood that dentist offices are not considered ambulatory care facilities and thus not limited to 3 exam rooms without fire sprinklers. The email below was my explanation to the contractor and Pittsboro field inspector. The inspector has requested a formal interpretation from NCDOI.

This email is to request that formal interpretation.

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