

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Guidance Paper: City/County Owned Temporary Sleeping Units

Code: 2018 NC Building Code
Section: 3103

Date: 11/8/2022

Purpose:

The purpose of this document is to provide clarification to Code Enforcement Officials (CEO), on code requirements or guidelines for city/county owned temporary housing solution using palletized shelters assembled onsite for temporary housing under extreme weather conditions or disaster situations. The sleeping units addressed by this letter are small modular units, approximately 120sf, that house 2 or 3 persons each and will be erected onsite for less than 180 days.

Overview:

According to the 2018 NC Building Code Section (NCBC) 3103.1 a building erected for a period of fewer than 180 days is considered a temporary building and is required to comply only with Section 3103. Any building that is erected for a period of 180 days or more must comply with the entire NCBC like any other permanent building. Also, a building set in place for more than 180 days but only used seasonally for less than 180 consecutive days is not considered a temporary structure.

Permits:

If the sleeping units are separated by a minimum of 20 feet and each unit is 120sf or less and less than 10 occupants, NCBC Section 3103.1.2 states that a permit is not required. The building must still comply with the code, but a permit is not required.

An electrical permit is required for all electrical systems in temporary buildings and service to temporary buildings.

NC Modular Labelling:

A NC modular label is not required for buildings erected onsite if the buildings can be inspected for compliance with the NC State Building Codes onsite.

For buildings erected onsite for less than 180 days:

The NCBC section 3103.1.1 prescribes those categories of the code that must be complied with, even though the structure will be used onsite less than 180 days. These criteria are essential for measuring the safety of any structure or use; therefore, the application of these criteria to a temporary structure cannot be waived. The temporary structure should minimally include conformance to the structural strength, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements.

Occupancy Classification:

Sleeping units are classified as Group R-1 by NCBC Section 310.3 because the occupants are transient in nature.

Construction Type:

This letter is addressing the use of Type VB structures as described in NCBC Section 602.5 and Table 601.

Fire Safety System Requirements:

NCBC and 2018 NC Fire Code Section 903.2.8 begin by requiring sprinkler systems for all Group R occupancies; however, exception #3 exempts camping units in a campground. If the city/county places the sleeping units in a parking lot or similar circumstance, they can be addressed as though they were in a campground. The units would then be exempt from sprinkler system requirements under exception #3.

NCBC and 2018 NC Fire Code Section 907.2.8.1 begins by requiring manual fire alarm systems for Group R-1 occupancies, but exception #1 exempts units that are separated with 1-hour rated fire partitions and have egress directly to the public way. When the units are set 20 feet apart they are considered separate buildings and the 1-hour separation requirement is not applicable. Likewise, each unit will egress directly to the public way.

No cooking equipment and no portable heating units are allowed in the sleeping units.

The use of materials used as interior finishes, trim, and decorative materials in temporary structures shall conform with NCBC Chapter 8. Class C interior finish material is acceptable for non-sprinklered Group R-1 occupancies.

The local fire official shall determine fire truck access requirements on a case-by-case basis.

Site Planning and Fire Separation Requirements:

A site plan showing the location of the temporary structures is required to be provided per Section 3103.3. The section refers to Table 602 which provides fire-resistance rating requirements for exterior walls depending on the occupancy and the fire separation distance. For Group R-1 of Type VB construction the requirement is for a minimum separation distance of 20 feet for unrated exterior walls. Less than 20 feet separation will require 1-hour rated exterior walls.

NCBC Section 503.1.2 allows multiple buildings on the same lot to be treated as a single building provided the building height and area limits of Chapter 5 are met; however, placing the proposed units closer than the 20 feet allowed by Table 602 will result in negating the use of exception #3 in Section 903.2.8 and sprinklers will be required. To avoid the installation of a sprinkler system it is imperative that the units be placed a minimum of 20 feet apart. The units must also be separated from other building on site as required by Table 602 based on the occupancy classification of such buildings.

Means of Egress:

The means of egress for temporary structures are required to comply with NCBC Chapter 10. NCBC Section 3103.4 has set the maximum travel distance for temporary structures at 100 feet. However, when the proposed sleeping units are set 20 feet apart each unit is considered a separate building and the travel distance becomes a moot point.

Structural Strength:

Construction document or specification shall contain sufficient structural design details to verify the ability of the temporary structure to resist design loads specified in chapter 16 including dead load, floor and roof live load, snow load, wind load, and seismic load. An anchorage designed by a registered design professional must be adequate to resist the wind load or seismic load for sliding, overturning, and uplift.

If temporary structures are placed in flood hazard areas established by Section 1612, a certain level of conformance is appropriate in order to minimize the likelihood of increasing flood heights or flood damage.

Plumbing Fixtures:

Common use toilet and bathing facilities in a separate temporary building is acceptable as long as a facility is a maximum of 500 feet from the door of the sleeping unit it serves to the door of the toilet/bathing building as allowed in NC Plumbing Code Section 403.3.3. Required minimum quantity of plumbing fixtures is as required for “Dormitories” facilities in Table 403.1.

Accessibility:

A temporary structure requires full compliance with NCBC Chapter 11 for making the structures accessible to physically disabled person. When the units are set 20 feet apart each unit is a separate building. NCBC Section 1107.6.1.1 will require the quantity of “accessible units” onsite to comply with Table 1107.6.1.1. Also, because the units are set 20 feet apart, Section 1107.6.1.2 will not require Type B units. Type A units are not required for Group R-1. Compliance with Section 1104 will be required, and toilets and bathing rooms must comply with Chapter 11.

Light, Ventilation, and Heat:

A temporary structure must comply with requirements imposed by Chapter 12 of the NCBC and applicable sections of the NC Mechanical Code. Portable heating units are not allowed.