



BRIAN TAYLOR
STATE FIRE MARSHAL

**FOR IMMEDIATE RELEASE: NC Office of State Fire Marshal Issues Guidance
Concerning FEMA’s Transportable Temporary Housing Units**

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December 23, 2024

Raleigh, NC – State Fire Marshal Brian Taylor announces that OSFM has, pursuant to the authority granted to it by the General Assembly in S.L. 2024-57, issued guidance to FEMA and local governments regarding alternative methods for safely and efficiently installing FEMA-owned transportable temporary housing units (TTHUs) to shelter North Carolinians displaced by Hurricane Helene. The guidance – which is enclosed with this press release – has also been incorporated into an emergency rule that is pending review by the Codifier of Rules of the North Carolina Office of Administrative Hearings.

OSFM, in cooperation with the North Carolina Building Code Council, has already taken [emergency action](#) to create minimum requirements for temporary shelters constructed on-site. However, these types of shelters are not available for many North Carolinians who are waiting to occupy a FEMA TTHU. FEMA’s contractors are faced with a variety of geographical challenges and other factors that make it difficult for them install these TTHUs – particularly with respect to utility service connections (i.e., electrical wiring and plumbing) and foundations (i.e., piers, footings, exterior landings, etc.) – in a manner that complies with the North Carolina State Building Code. These same challenges make it very difficult for local inspectors to consistently and uniformly inspect FEMA’s TTHUs for compliance with the North Carolina State Building Code.

OSFM has again taken prompt action to remove impediments to installing FEMA’s TTHUs so that families in North Carolina displaced by Hurricane Helene can be provided with safe and warm shelter this holiday season. Based on their constant communication with local inspectors and representatives of FEMA, OSFM’s engineers developed a list of alternative methods for the installation of foundations and the connection of external electrical and plumbing systems that prioritize the safety of the occupants of FEMA’s TTHUs while preempting the most common installation roadblocks faced by FEMA’s contractors in the field. Equipped with this guidance, FEMA’s contractors will be able to more rapidly install TTHUs and local inspectors will be able to quickly confirm that the structures are safe to occupy.

OSFM remains committed to its mission of supporting FEMA and local governments in their work to ensure that North Carolinians have safe and warm shelter for the Winter. We will continue to use every tool at our disposal to create innovative solutions to the problems faced by our most vulnerable citizens and we hope that every North Carolinian has a joyful and safe holiday season.

OFFICE OF STATE FIRE MARSHAL

FEMA Transportable Temporary Housing Units

Statewide Installation Alternative Methods

(Session Law 2024-57; Section 1F.4 – 11 NCAC 05B .1001)

December 23, 2024

Purpose: Pursuant to the authority granted to the Office of State Fire Marshal by the General Assembly in S.L. 2024-57, this document provides statewide alternative methods for the installations of FEMA-owned transportable temporary housing units installed in the aftermath of Hurricane Helene. The document does not prevent or discourage compliance with the requirements within setup manuals or State Codes, nor the local jurisdictions' authority to create and approve additional alternative materials and methods. These alternative methods may be used as an option at the installer's discretion. The guidance contained in this document uses field composition and terminology and is consistent with 11 NCAC 05B .1001.

The duration of the temporary housing shall be determined by FEMA. Any home or equipment that is later determined to be used in a permanent nature will require the owner and/or contractor to obtain new permits from the authority having jurisdiction. The permanent home or equipment shall be installed or modified to meet the standards that are in effect when a new permit is pulled.

Manufactured Housing Unit (MHU) Set Manual & State Code

Alternatives Methods

Setup / Foundations

Note: This section applies to MHUs only. The State does not regulate the setup of vehicles; for Recreational Vehicles, including Park Models and Travel Trailers, only the electrical and plumbing sections of this document apply.

- (1) Footings for piers may be placed on the surface grade in lieu of the frostline depth where all the following conditions apply:
 - (a) the grade under the footing is undisturbed (no fill dirt) or a compaction test is provided; and
 - (b) underpinning encapsulates the entirety of the open space between the floor of the MHU and the grade

- (2) Longitudinal and Lateral Bracing Systems (Minute Man, Oliver, etc.) may be used where pier footings are placed on grade surface where all the following conditions apply:
 - (a) the height limitations described in the manufacturer instructions of the bracing system are not exceeded; and
 - (b) the four corners of the MHU are provided with tie down strapping

- (3) Positive drainage may be omitted where the grade under the MHU contains no low areas or holes where water may accumulate

- (4) Exterior landings for stairs not exceeding 36 ft² may be regulated by the 2019 NC Regulations for Manufactured Homes in lieu of the 2018 NC Residential Code

- (5) Exterior landings for stairs may be omitted where all the following conditions apply:
 - (a) the stairs are constructed in accordance with either the 2019 NC Regulations for Manufactured Homes or the 2018 NC Residential Code (must have turndowns on both handrail ends);
 - (b) the stair system has cross members on the structure side of the system for lateral support; and
 - (c) all corners of the stair system are supported underneath by solid concrete blocks no less than 4 inches thick on undisturbed soil

Electrical

Note: TEMPORARY electrical can cause PERMANENT damage to persons and property.

- (1) Electrical conduits shall be allowed installation without burial or further protection in the horizontal area between the electrical pedestal and the structure when such area is 3 feet or less
- (2) Electrical conduit may be installed on top of the grade without burial where all the following conditions apply:
 - (a) the conduit is boxed in with building materials;
 - (b) the covering is secured with driven stakes and supported to the grade no less than every 5 feet and at every direction of a bend to prevent movement;
 - (c) the covering is painted orange, and orange paint is reapplied to the covering every 60 days; and
 - (d) the lumber used for the building materials is treated
- (3) Ridged Metal Conduit may be installed on top of the grade without burial, supporting, or covering with building materials if the conduit is painted orange, and orange paint is reapplied to the conduit every 60 days
- (4) Recreational Vehicles (Park Models and Travel Trailers) may be permitted to be hardwired directly to electrical equipment using wiring in non-flexible conduits rather than a plug-and-cap described in the State interpretations
- (6) Any temporary electrical service or pedestal may utilize a single ground rod without a supplemental ground electrode where all the following conditions apply:
 - (a) the service or pedestal is used exclusively for the connection of a FEMA owned transportable temporary housing unit or its accessory structure and equipment;
 - (b) all ungrounded circuits do not exceed 150 volts to ground; and
 - (c) the rating of the single disconnecting means, or the summation of the ratings of multiple overcurrent devices that serve together as the disconnecting means, does not exceed 100 amperes.

Plumbing

Note: Photos are provided on the following pages as examples to the language below.

- (1) Water service and distribution pipes may be installed on top of grade where all the following conditions shall apply:
 - (a) both sides of the piping are secured with driven stakes and supported to the grade no less than every 5 feet and at every direction of a bend to prevent movement;
 - (b) electrical self-regulating pipe heating cable (heat tape) is installed with the piping;
 - (c) piping insulation to prevent freezing encapsulates the piping and heating cable; and
 - (d) the piping insulation is painted orange, and its reapplication shall not exceed 60 days;

- (2) Drain-waste-vent (DWV) pipes for the building drain and sewer may be installed on top of grade where all the following conditions shall apply:
 - (a) both sides of the piping are secured with driven stakes and supported to the grade no less than every 5 feet and at every direction of a bend to prevent movement; and
 - (b) the piping or its insulation where applicable is painted orange, and its reapplication shall not exceed 60 days;

- (3) Drain-waste-vent (DWV) pipes for the building drain and sewer installed on top of grade must be installed utilizing either (a) or (b):
 - (a) a slope in accordance with the 2018 NC Plumbing Code
 - (b) a sewage grinder/macerator pump, including electrical self-regulating pipe heating cable (heat tape) and piping insulation to prevent freezing

- (4) Where sewage grinder pumps are installed, all the following conditions shall apply:
 - (a) the pump and tank shall be accessible for service (not be located under the MHUs);
 - (b) the pump tank shall be insulated with a box constructed from building materials and foam board of at least 1.5 inches thick; and
 - (c) the lumber used for the building materials shall be treated

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