Chapter 11 Fire Prevention Code

11.1 Building Code: NC Fire Prevention Code

(A) For the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, the most current adopted edition of the North Carolina State Building Code: Fire Prevention Code, including all appendices and all subsequent amendments and revisions. A copy of such is on file in the office of the Clerk of the City of Trinity.

(B) Amendments to codes and standards adopted by reference herein which are adopted and published by the North Carolina State Building Code Council shall be effective in the City of Trinity at the time such amendments become a part of North Carolina State Building Code: Fire Prevention Code.

As the North Carolina Prevention Code is supplemented and amended by the state, such amendments shall be automatically incorporated by reference into this code as if copied in this article in full.

11.2 Criminal penalty.

Any person who shall violate any of the provisions on the Fire Prevention Code adopted herein, or fail to comply therewith, or who shall violate or fail to comply with any order made thereunder, or who shall build in violation of any detailed statement of specifications or plans submitted or approved thereunder, or any certificate or permit issued thereunder, shall, severally for each and every violation and noncompliance respectively, be guilty of a Class 3 misdemeanor and shall be fined not more than $500, subject to the provisions in G.S. § 14-4. The application of the penalty shall not be held to prevent the enforced removal of prohibited conditions.

11.3 Key Boxes and Locks.

Where required: All new buildings of non-residential type. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for lifesaving or fire-fighting purposes, the *fire code official* is authorized to require a key box to be installed in an *approved* location. The key box shall be of an *approved* type listed in accordance with UL 1037 and shall contain keys. **Locks**. An *approved* lock shall be installed on gates or similar barriers where required by the *fire code official*. **Key box maintenance**. The operator of the building shall immediately notify the *fire code official* and provide the new key where a lock is changed or rekeyed. The key to such lock shall be secured in the key box.

11.4 Requirements for Fire Service Water Mains, Fire Hydrants and Fire Connections on Private Property.

(A)***Fire service water mains.***

(1) Fire service water mains shall be installed in accordance with approved plans and the city engineering public works department requirements and specifications for water main construction. Fire service mains shall also be installed in accordance with the National Fire Protection Association standard for the installation of private fire service mains and their appurtenances, NFPA 24. Conflicting provisions of the city engineering and public works department specifications and NFPA 24 requirements should be reported to the fire department.
(2) Fire service water mains, water meters and other appurtenances shall be designed to provide the minimum combined required sprinkler demand (if applicable) and needed fire flow at twenty (20) pounds per square inch residual pressure at the hydraulically most difficult fire hydrant. It is assumed that other fire hydrants, if provided, will provide a greater quantity of water at the same residual pressure.
(3) Required fire flow will be determined utilizing the most current version of the North Carolina Fire Code.
(4) Water flow testing will be conducted at the time of the Certificate of Occupancy to determine that the water system meets the water supply quantities determined in subsection (a)(2). Failure to meet the water flow requirements subsection (a)(2) will result in denial of certificate of occupancy.

(B) ***Fire hydrants*****.** Fire hydrant coverage shall not exceed the limits established in the most current version of the North Carolina Fire Code, to the most remote point of any building covered by the state fire prevention code.

(1) All fire hydrants will be on a public main, no private fire hydrants are permitted.

(2) For proper measurement, start at the fire hydrant and measure along the same path of travel as a fire truck would use. Do not measure according to the term "as the crow flies."

(3) The approach route of firefighting apparatus should be kept in mind as fire hydrant locations are determined. Fire hydrants should be located so that the fire apparatus will not have to go past the fire to catch a fire hydrant, then double back to the fire.

(4) Fire hydrants shall be installed and painted according to the city engineering, public works and fire department specifications.

(5) Each fire hydrant must be readily visible and within six (6) feet of the curb line. No obstructions are permitted between the hydrant and the curb line.

(6) All obstructions, such as fences, trees, shrubs, signs, etc., shall be at least three (3) feet from the fire hydrant in all directions. The city or fire department shall have the right to cut, trim or remove obstructions to the extent and for the purpose of correcting such hazards.

(7) The five-inch Storz connection of the fire hydrant shall always face the curb.

(8) The nut of the Storz connection cap shall be no less than eighteen (18) inches nor more than four (4) feet above grade.

(C) ***Fire department connections.*** **The fire department connections for standpipe and/or sprinkler systems are important supplements** to normal water supplies. Under fire conditions, these devices permit the fire department to increase the water supply and pressure to fire protection systems which may be materially reduced by a larger number of sprinklers operating or by the use of hose streams from standpipe risers.

(1) Minimum size pipe shall be 4" diameter.

(2) All fire department fire sprinkler system connections for commercial buildings shall have one 5" Storz connection and protective cap. All fire department standpipe system connections for commercial buildings shall have two (2) 2½" NST connection and protective caps.

(3) The fire department connections at buildings provided with more than two (2) standpipe risers shall all have two (2) 2½" NST connection and protective caps at all standpipe riser.

(4) Fire department fire sprinkler connections on residential structures with residential sprinkler systems shall have five-inch Storz connection and protective cap. Fire department fire standpipe connections on residential structures with residential standpipe systems shall have two (2) 2½" NST connection and protective caps.

(5) All fire department connections (fire sprinkler and standpipe) shall be located not less than ten (10) feet from a building, nor more than five (5) feet above finished grade. Fire department connections (fire sprinkler and standpipe) are not permitted at backflow preventer or hot boxes. The fire chief will make final decisions on locations.

(6) In cases where both a fire sprinkler and standpipe connection are required, both connections shall be within five (5) feet of each other.

(7) All fire department connections (fire sprinkler and standpipe) shall be provided with a clear space of ten (10) feet horizontally and vertically in all directions.

(8) All fire department connections (fire sprinkler and standpipe) shall be readily visible and not more than ten (10) feet from a street, fire lane or similar area providing access to fire department apparatus. The area between the connection and vehicular access shall be free of obstructions.

(9) There shall be an approved pumper fire hydrant within one hundred (100) feet of the fire department connection (fire sprinkler and standpipe) measured along an approved path of travel for the fire apparatus.

(D) ***Installation, inspection and maintenance of private fire hydrants and private water system components***.

(1) *Installation.* All newly installed private fire hydrants and private water systems shall be installed in accordance with and subject to the city's ordinances, policies, and standard specifications; NCAC Title 15A, Subchapter 18C Water

Supplies; and NFPA 24 Standard for the Installation of Private Fire Service Mains and Their Appurtenances.

(2) *Inspection and maintenance*. The owner of a private water system shall have all fire hydrants and water system components tested and inspected by a contractor licensed by the state or a certified operator as defined in NCAC Title 15A, Subchapter 18C. Testing and inspection shall occur within the required maintenance periods specified in NFPA 25 Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems.

(3) *Repairs.* The owner of a private water system shall be responsible for the repairs or replacement of any damaged, broken, and/or inoperable hydrants and/or water system components; and shall have all fire hydrant and/or water system component repairs or replacements conducted by a contractor licensed by the state in accordance with NCAC Title 15A, Subchapter 18C and NFPA 25 Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems.

(4) *Violations.* Any person who fails to comply with the provisions of this section shall be subject to penalties in accordance with section C.

11. 5 Fire/Inspection Authority Limits.

(A) The primary fire/inspection limits for the City of Trinty are contracted with the Guil-Rand Fire Protective Association, Inc. aka Guil-Rand Fire Department. The Guil-Rand Fire Department will be responsible for providing fire protection and emergency response in the outlined jurisdiction within the city limits. Fire and life safety inspections and plan reviews will be conducted inside the entire city limits of the City of Trinity.

(B) The Guil-Rand Fire Protective Association, Inc. aka Guil-Rand Fire Department has adopted and will maintain a fee schedule for Plan Reviews, Construction Inspection Fees, Permit Fees, and Reinspection Fees. The most current version of the fee schedule will be posted on the Guil-Rand Fire Department website.