

ORDINANCE NO. 5 -2023

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE TOWNSHIP OF LOGAN  
COUNTY OF GLOUCESTER, STATE OF NEW JERSEY, CREATING A NEW CHAPTER ENTITLED  
"PUBLIC SAFETY RADIO COVERAGE" OF THE CODE OF THE TOWNSHIP OF LOGAN

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**WHEREAS**, the Township of Logan recognizes the importance of having first responders be able to communicate within buildings; and

**WHEREAS**, the Township now seeks to improve first responders' ability to communicate within buildings within the Township; and

**WHEREAS**, the Township determines to create a new Chapter of the Township Code entitled "Public Safety Radio Coverage" with this ordinance.

**NOW, THEREFORE, BE IT ORDAINED**, by the Mayor and Council of the Township of Logan, in the County of Gloucester and State of New Jersey, and it is hereby enacted and ordained by the authority of same that the Code of the Township of Logan is hereby amended to create a new Chapter of the Code of the Township of Logan entitled "Public Safety Radio Coverage" as set forth below:

**Section 1.**

CHAPTER \_\_\_\_ . PUBLIC SAFETY RADIO COVERAGE.

§ \_\_\_\_-1 Emergency responder radio coverage in existing buildings.

**A.** Existing buildings that do not have approved radio coverage for emergency responders within the building, based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building, shall be equipped with such coverage according to one of the following:

1. Where an existing wired communication system cannot be repaired or is being replaced, or where not approved by the fire code official.
2. Where minimum signal strength measurements in 95 percent of all areas on each floor of the building do not meet the signal strength requirements in subsections i and ii below:
  - i. Minimum signal strength into the building. A minimum signal strength of -95 dBm shall be receivable within the building.
  - ii. Minimum signal strength out of the building. A minimum signal strength of -95 dBm shall be received by the agency's radio system when transmitted from within the building.

**B.** Exception: Where it is determined by the Fire Code Official that the radio coverage system is not needed.

§ \_\_\_\_-2 Permit required.

**A.** A Construction Permit for the installation of or modification to emergency responder radio coverage systems and related equipment, for both newly constructed and existing buildings, is required as specified in IFC Section 105.7.5. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

§ \_\_\_-3 Technical requirements.

- A. Systems, components and equipment required to provide the emergency responder radio coverage system shall comply with the following:
- B. Radio signal strength. The building shall be considered to have an acceptable emergency responder radio coverage when signal strength measurements in 95 percent of all areas on each floor of the building meet the signal strength requirements in subsections 1 and 2 below:
  - 1. Minimum signal strength into the building. A minimum signal strength of -95 dBm shall be receivable within the building.
  - 2. Minimum signal strength out of the building. A minimum signal strength of -95 dBm shall be received by the agency's radio system when transmitted from within the building.
- C. System Design. The Emergency responder radio coverage system shall be designed in accordance with the below subsections.
  - 1. Amplification systems allowed. Buildings and structures that cannot support the required level of radio coverage shall be equipped with a radiating cable system, a distributed antenna system with Federal Communications commission (FCC) certified signal boosters, or other system approved by the fire code official in order to achieve the required adequate radio coverage.
  - 2. Technical criteria. The fire code official shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, effective radiated power of radio sites, and other supporting technical information.
  - 3. Standby power. The standby power supply shall be capable of operating the emergency responder radio coverage system for a duration of not less than 24 hours.
  - 4. Signal booster requirements: If used, signal boosters shall meet the following requirements:
    - i. All signal booster components shall be contained in a National Electrical Manufacturer's Association (NEMA) 4 type waterproof cabinet.
    - ii. Battery systems used for the emergency power source shall be contained in a NEMA 4 type waterproof cabinet.
    - iii. The signal booster system and battery system shall be electrically supervised and monitored by a supervisory service, or when approved by the fire code official, shall sound an audible signal at a constantly attended location.
    - iv. Equipment shall have FCC certification prior to installation.
  - 5. Additional frequencies and change of frequencies. The emergency responder radio coverage system shall be capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC.



§ \_\_\_\_-4 Installation requirements.

A. The installation of the public safety radio coverage system shall be in accordance with the following:

1. Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior coordination and approval of the Fire Code Official.
2. Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:
  - i. A valid FCC-issued general radio operator's license.
  - ii. Certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.
3. These qualifications shall not be required where demonstration of adequate skills and experience satisfactory to the fire code official is provided.
4. Acceptance test procedure. Where an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to verify that two-way coverage on each floor of the building is not less than 90 percent. The test procedure shall be conducted as follows:
  - i. Each floor of the building shall be divided into a grid of 20 approximately equal test areas.
  - ii. The test shall be conducted using a calibrated portable radio of the latest brand and model used by the agency talking through the agency's radio communications system.
  - iii. Failure of not more than two nonadjacent test areas shall not result in failure of the test.
  - iv. In the event that three of the test areas fail the test, in order to be more statistically accurate, the floor shall be permitted to be divided into 40 equal test areas. Failure of not more than four nonadjacent test areas shall not result in failure of the test. If the system fails the 40-area test, the system shall be altered to meet the 90-percent coverage requirement.
  - v. A test location approximately in the center of each test area shall be selected for the test, with radio enable to verify two-way communications to and from the outside of the building through the public agency's radio communications system. Once the test location has been selected, that location shall represent the entire test area. Failure in the selected test location shall be considered failure of that test area. Additional test locations shall not be permitted.
  - vi. The gain values of all amplifiers shall be measured, and the test measurement results shall be kept on file with the building owner so that the measurements can be verified during annual tests. In the event that the measurement results become lost, the building owner shall be required to rerun the acceptance test to reestablish the gain values.
  - vii. As part of the installation, a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections.
5. FCC compliance. The emergency responder radio coverage system installation and components shall also comply with all applicable federal regulations including, but not limited to, FCC 47 CFR Part 90.219.

§ \_\_\_-5 Maintenance.

- A. The emergency responder radio coverage system shall be maintained operational at all times in accordance with the following.
1. Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:
    - i. In-building coverage test as described in §\_\_\_\_-4A.4.
    - ii. Signal booster shall be tested to verify that the gain is the same as it was upon initial installation and acceptance.
    - iii. Backup batteries and power supplies shall be tested under load of a period of 1 hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
    - iv. Other active components shall be checked to verify operation within the manufacturer's specifications.
    - v. At the conclusion of the testing, a report, which shall verify compliance with section 510.5.3, shall be submitted to the fire code official.
  2. Additional frequencies. The building owner shall modify or expand the emergency responder radio coverage system at his or her expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this section.
  3. Field testing. Agency personnel shall have the right to enter onto the property at any reasonable time to conduct field testing to verify the required level of radio coverage.

§ \_\_\_-6 Violations and Penalties.

Any persons or entities found to be in violation of the requirements of this Chapter shall, upon certification of said violation by the Township of Logan Fire Official, be subject to a penalty. Such penalties shall not exceed a rate of \$1,000 per day for the failure to abate the violation. If the violation is not abated within ninety (90) days of the date of violation, Certificate of Occupancy for the building in violation may also be revoked until compliance with this Chapter.

§ \_\_\_-7 Permit Fees.

The applicant for a Construction Permit under this Chapter shall be responsible for all fees for review and inspection of the radio amplification system incurred by the Township's public safety radio Engineer and shall be charged the hourly rate approved by the Township.

**Section 2.**

**Severability.**

Should any section, clause, sentence, phrase or provision of this Ordinance be declared unconstitutional or invalid by a Court of competent jurisdiction, such decision shall not affect the remaining portions of this Ordinance.



**Section 3.**

**Repealer.**

All prior Ordinances or parts of Ordinances inconsistent with this Ordinance be and the same are hereby repealed to the extent of such inconsistencies.

**Section 4.**

**When effective.**

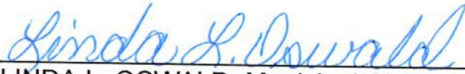
This Ordinance shall take effect immediately upon final passage and publication in accordance with law.

TOWNSHIP OF LOGAN

BY: 

FRANK W. MINOR, Mayor

ATTEST:




LINDA L. OSWALD, Municipal Clerk

First Reading: January 17, 2023  
Second Reading: February 21, 2023  
Adopted: February 21, 2023

**NOTICE**

The Foregoing Ordinance was introduced at a regular meeting of the Mayor and Council of the Township of Logan, in the County of Gloucester and State of New Jersey, held on the 17th of January, 2023. It will be further considered for final passage, after public hearing hereon, at a meeting of said Mayor and Council to be held at the Township Building of Logan, 125 Main Street, Bridgeport, New Jersey on the 21st day of February, 2023, at 7:00 P.M at which time any person who is interested thereon would be given the opportunity to be heard. During the week prior to and up to and including the date of such meeting, copies of said Ordinance will be made available at the Clerk's office, 125 Main Street, Bridgeport, New Jersey to the members of the general public who shall request the same.

  
LINDA L. OSWALD, Municipal Clerk