

## **CHAPTER 23**

### **Radio and Television Antennas**

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**Sec. 23-1. Compliance with Chapter.**

No outdoor radio and television antenna mast shall hereafter be constructed or erected, enlarged or altered, within the City, which does not conform to the requirements of this Chapter. In any case not covered by this Chapter, the Electrical Inspector shall be governed by the provisions of the Electrical Code as adopted in Section 10-31 of this Code, concerning radio and television equipment. (Ord. 308, §1; Ord. 802, 1994)

**Sec. 23-2. Permit required, application.**

A written application for a permit to construct, erect, enlarge or alter any outdoor radio and television antenna shall be made to the Electrical Inspector and he or she may, whenever he or she deems it necessary, require plans of such proposed construction to be submitted to him or her. All applications and plans shall be kept on file in the office of the City Clerk, together with a record of all permits issued. All permits shall be in writing. (Ord. 308, §2)

**Sec. 23-3. Outdoor antennas.**

Outdoor antennas must be of an approved type, and shall not exceed the maximum height of fifty (50) feet above a roof support or seventy (70) feet aboveground support on commercial buildings. Antennas on residences shall not exceed thirty (30) feet above the roof support. In areas where reception may be affected by the obstruction of tall buildings, antennas in excess of the above specified height may be installed only when approved by the City Council. Every antenna, mast and guy wire must be adequately grounded for protection against a direct stroke of lightning with the ground wire as specified in the Electrical Code as adopted in Section 10-31 of this Code. In no case shall an antenna of twenty (20) feet in height or more be installed nearer to street or sidewalk than the height of the antenna plus ten (10) feet unless approved by the City Council. Anchor points for antennas, masts and guy wires must be anchor screws or lead expansion shields installed in accordance with the recommendations of the Electrical Inspector. No wires, cables or guy wires shall cross or extend over any part of a public street, way or sidewalk. (Ord. 308, §3; Ord. 802, 1994)

**Sec. 23-4. Lightning arresters.**

A lightning arrester shall be installed in each conductor of a lead-in from an outdoor antenna except that if lead-in conductors are enclosed in a continuous metal shield, the arrester may be used to protect the shield or may be omitted if the shield is permanently grounded to a ground which has a resistance of twenty-five (25) ohms or less. The arrester shall not be located near highly combustible material or in a hazardous location. (Ord. 308, §3)

**Sec. 23-5. Supports.**

Outdoor antennas and counter poise and lead-in conductors shall be securely supported. They shall not be attached to poles or similar structures carrying electric light or power wires. Insulators supporting the antennas or counter-poise conductors shall have sufficient mechanical strength to safely support the conductors. (Ord. 308, §3)

**Sec. 23-6. Metal supports on roofs.**

Metal supporting poles or masts extending more than ten (10) feet above the supporting building shall be permanently and adequately grounded by driven ground rod except poles or masts which are themselves used as antennas. (Ord. 308, §3)

**Sec. 23-7. Lead-in conductors attached to buildings.**

Lead-in conductors attached to buildings shall be so installed that they cannot swing closer than two (2) feet to the conductors of circuits of two hundred fifty (250) volts or less, or closer than ten (10) feet to conductors of circuits of more than two hundred fifty (250) volts. The clearance between lead-in conductors and any conductor forming part of a lightning rod system shall not be less than six (6) feet. Lead-ins shall be supported at intervals not less than fifteen (15) feet apart. (Ord. 308, §3)

**Sec. 23-8. Guys for pipe masts.**

All pipe masts requiring guys shall be guyed not less than three (3) and preferably four (4) guys evenly spaced. Guy wires shall be of noncorrosive, stranded cable or wire, and of three hundred-pound test strength. All guys shall be made mechanically secure to the roof, parapet or other masonry, attached to mast with guy rings or clamps. Guys shall not be installed at an angle of less than thirty degrees (30°) to the vertical mast. Guys shall not be tightened in such a manner as to cause the mast to buckle. (Ord. 308, §3)

**Sec. 23-9. Guying of pipe masts over eight feet in height.**

Pipe masts over eight (8) feet in height exclusive of the beam elements shall be guyed as outlined in Section 23-8. (Ord. 308, §3)

**Sec. 23-10. Guying of pipe masts between eight and twenty feet in height.**

Pipe masts over eight (8) feet but not greater than twenty (20) feet in height exclusive of beam elements shall be guyed to a minimum of not less than two (2) positions, the lower position not less than five (5) feet or over eight (8) feet from the base, and within five (5) feet of the top, and shall be guyed as outlined in Section 23-8. (Ord. 308, §3)

**Sec. 23-11. Guying of pipe masts over twenty feet in height.**

Pipe antenna masts of over twenty (20) feet in height, exclusive of the antenna elements, shall be guyed not less than five (5) feet or over eight (8) feet from the base. Subsequent guys shall be installed at intervals of three (3) feet to ten (10) feet above the first set of guys, and the top set shall be within five (5) feet of the top of the mast. Guys shall be installed as outlined in Section 23-8. (Ord. 308, §3)

**Sec. 23-12. Fabricated mast towers.**

Fabricated mast towers shall be installed in accordance with the manufacturer's recommendations. If the tower is over twenty (20) feet high, it shall be supported by at least two (2) sets of guys installed in accordance with regulations as outlined in Section 23-8. (Ord. 308, §3)

**Sec. 23-13. Approval required for antennas near power lines.**

If possible, all masts and towers shall be installed so that the mast and antenna cannot fall on power lines carrying two hundred fifty (250) volts or more in event of failure of the masts or guys. Where the installation could fall on a power line, the installation shall not be made until approval has been obtained from the Electrical Inspector. (Ord. 308, §3)

**Sec. 23-14. Installations generally.**

All installations shall be made in a neat, safe and workmanlike manner. (Ord. 308, §3)

**Sec. 23-15. Inspection, fee.**

Upon completion of the proposed construction, the Electrical Inspector shall inspect and examine the work to ascertain whether the work conforms to the provisions of this Chapter, and his or her inspection fee shall be the sum of one dollar (\$1.00) to be filed with the application for the permit. (Ord. 308, §3)