

## CHAPTER 167

# TALL STRUCTURES ZONING

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**167.01 DEFINITIONS.** As used in this chapter, unless the context otherwise requires:

1. "Airport" means the Clarinda Municipal Airport.
2. "Airport elevation" means the highest point of an airport's usable landing area measured in feet above mean sea level, which elevation is established to be 992 feet.
3. "Airport hazard" means any structure or object of natural growth located on or in the vicinity of a public airport, or any use or land near such airport which obstructs the airspace required for the flight of the aircraft in landing or takeoff of aircraft.
4. "Airport primary surface" means a surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends two hundred (200) feet beyond each end of that runway. The width of the primary surface of a runway will be that width prescribed in Part 77 of the Federal Aviation Regulations (FAR) for the most precise approach existing or planned for either end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.
5. "Airspace height" means for the purpose of determining the height limits in all zones set forth in this chapter and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.
6. "Control zone" means airspace extending upward from the surface of the earth which may include one or more airports and is normally a circular area of five (5) statute miles in radius, with extensions where necessary to include instrument approach and departure paths.
7. "Instrument runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities or area type navigation equipment, for which an instrument approach procedure has been approved or planned.
8. "Minimum descent altitude" means the lowest altitude expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure, where no electronic glide slope is provided.
9. "Minimum en route altitude" means the altitude in effect between radio fixes which assures acceptable navigational signal coverage and meets obstruction clearance requirements between those fixes.
10. "Minimum obstruction clearance altitude" means the specified altitude in effect between radio fixes on VOR airways, off-airways routes, or route segments

which meets obstruction clearance requirements for the entire route segment and which assures acceptable navigational signal coverage only within twenty-two (22) miles of a VOR.

11. "Runway" means a defined area on an airport prepared for landing and takeoff of aircraft along its length.

12. "Visual runway" means a runway intended solely for the operation of aircraft using visual approach procedures with no straight-in instrument approach procedure and no instrument designation indicated on a FAA approved airport layout plan, military services approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

**167.02 AIRPORT ZONES AND AIRSPACE HEIGHT LIMITATIONS.** In order to carry out the provisions of this section, there are hereby created and established certain zones which are depicted on the Municipal Airport Height Zoning Map. A structure located in more than one (1) zone of the following zones is considered to be only in the zone with the more restrictive height limitations. The various zones are hereby established and defined as follows:

1. Horizontal Zone. The land lying under a horizontal plane one hundred fifty (150) feet above the established elevations, the perimeter of which is constructed by:

A. Swinging arcs of five thousand (5,000) feet radii from the center of each end of the primary surface of runways 13, 31 and 19 and connecting the adjacent arcs by lines tangent to those arcs.

B. Swinging arcs of ten thousand (10,000) feet radii from the center of each end of the primary surface of runway 1, and connecting the adjacent arcs by lines tangent to those arcs.

(NOTE: The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000 foot arc is encompassed by tangents connecting two adjacent 10,000 foot arcs, the 5,000 foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.)

No structure shall exceed one hundred and fifty (150) feet above the established airport elevation in the horizontal zone, as depicted on the Municipal Airport Height Zoning Map.

2. Conical Zone. The land lying under a surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty (20) feet to one (1) for a horizontal distance of four thousand (4,000) feet. No structure shall penetrate the conical surface in the conical zone, as depicted on the Municipal Airport Height Zoning Map.

3. Approach Zone. The land lying under the surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface.

(Note: An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.)

A. The inner edge of the approach surface is:

- (1) 250 feet wide for runways 13 and 31.
  - (2) 500 feet wide for runways 1 and 19.
- B. The outer edge of the approach zone is:
- (1) 1,250 feet for runways 13 and 31.
  - (2) 1,500 feet for runway 19.
  - (3) 3,500 feet for runway 1.
- C. The approach zone extends for a horizontal distance of:
- (1) 5,000 feet at a slope of 20 to 1 for runways 13, 31 and 19.
  - (2) 10,000 feet at a slope of 34 to 1 for runway 1.

No structure shall exceed the approach surface to any runway, as depicted on the Municipal Airport Height Zoning Map.

4. **Transitional Zone.** The land lying under those surfaces extending outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. No structures shall exceed the transitional surface, as depicted on the Municipal Airport Height Zoning Map.

5. **Descent/En Route Altitude.** No structure shall be erected in the County that raises the published minimum descent altitude or decision height for an instrument approach to any runway, nor shall any structure be erected that causes the minimum obstruction clearance altitude or minimum en route altitude to be increased on any Federal airway in the County.

**167.03 USE RESTRICTIONS.** Notwithstanding any other provisions of 167.02, no use may be made of land or water within the City in such a manner as to interfere with the operation of any airborne aircraft. The following special requirements shall apply to each permitted use:

1. **Surface Lighting.** All lights or illumination used in conjunction with street parking, signs or use of land and structures shall be arranged and operated in such a manner that it is not misleading or dangerous to aircraft operating from the Municipal Airport or in the vicinity thereof.
2. **Visual Hazards.** No operation from any use shall produce smoke, glare or other visual hazards within three (3) statute miles of any usable runway of the Municipal Airport.
3. **Electronic Interference.** No operation from any use in the City or County shall produce electronic interference with navigation signals or radio communication between the airport and aircraft.

**167.04 LIGHTING.** Notwithstanding the provisions of 167.03, the owner of any structure over two hundred (200) feet above ground level must install on the structure lighting in accordance with Federal Aviation Administration (FAA), Advisory Circular 70-7460-1D and amendments. Additionally, any structure constructed after the effective date of this chapter and exceeding nine hundred forty-nine (949) feet above ground level, must install on that structure high intensity white obstruction lights in accordance with Chapter 6 of FAA

Advisory Circular 7460-1D and amendments. Any permit or variance granted may be so conditioned as to require the owner of the structure or growth in question to permit the City, at its own expense, to install, operate and maintain thereto such markers or lights as may be necessary to indicate to pilots the presence of an airspace hazard.

**167.05 VARIANCES.** Any person desiring to erect or increase the height of any structure, or to permit the growth of any tree, or otherwise use property in violation of any section of this chapter, may apply to the Board of Adjustment for variance from such regulations. No application for variance to the requirements of this chapter may be considered by the Board of Adjustment unless a copy of the application has been submitted to Municipal Airport Manager or Aeronautics Director for an opinion as to the aeronautical effects of such a variance. If the Municipal Airport Manager or Aeronautics Director does not respond to the Board of Adjustment within fifteen (15) days from receipt of the copy of the application, the Board may make its decision to grant or deny the variance.