

## Appendix D of this LDO

### AIRPORT ZONING OVERLAY

**Airport Zone Overlay (AZO).** The zones and restrictions established in this subsection are designed to limit the height of structures surrounding the county airport's established elevation of 771' above mean sea level (msl) in order to prevent hazards to the lives and property of the users of the airport and the occupants of land in the vicinity.

- A. **Uses allowed.** The use requirements of the underlying district apply to the AZO district. However, all uses must be in conformance with the provisions of this section.
- B. **Establishment of zones.** To carry out the provisions of this section, there are hereby created and established certain civil airport imaginary surfaces which include all of the land lying beneath the approach surface, transitional surface, horizontal surface, conical surface and primary surface. These civil airport imaginary surfaces are established with relation to the Rowan County Airport runway and proposed extensions of thereof. Such imaginary surfaces are shown on the Official County Airport Zoning Map prepared by the Rowan County Planning Department and dated October 4, 2004, which is adopted and incorporated herein by reference. The size of each such imaginary surface is based on the categorization of this runway as a *precision instrument runway*. The slope and dimensions of the imaginary surfaces, applied to each end of a runway, are determined by the most precise approach existing or planned for the runway end. The surfaces are hereby established and defined as follows.
1. *Horizontal surface.* A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs with a radius of 10,000 ft from the center of each end of the primary surface of each end of the runway, including any planned extensions, and connecting the adjacent arcs by lines tangent to those arcs.
  2. *Conical surface.* A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.
  3. *Primary surface.* A surface longitudinally centered on a runway. The primary surface extends 200 feet beyond each end of the runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is 1,000 feet as required for precision runway landings
  4. *Approach surface.* A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface.
    - i. The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of 16,000 feet as provided for precision instrument runways.
    - ii. The approach surface extends for a horizontal distance of 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40:1.
  5. *Transitional surface.* These surfaces extend 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. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

C. **Height limitations.** Except as otherwise provided in this article, no structure shall be erected, altered or maintained, and no tree shall be allowed to grow within the AZO district extending or projecting into the lowest applicable imaginary surfaces defined herein.

D. **Definitions**

- *Approach Surface* means the surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of 16,000 feet as provided for precision instrument runways. The approach surface extends from the primary surface along the extended runway centerline for a horizontal distance of 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40:1.
- *Horizontal surface* means a horizontal plane 150 feet above the established airport elevation of 771' mean sea level, the perimeter of which is constructed by swinging arcs with a radius of 10,000 ft from the center of each end of the primary surface of each end of the runway, including any planned extensions, and connecting the adjacent arcs by lines tangent to those arcs.
- *Instrument land system (ILS)* means a radio navigation system which provides aircraft with horizontal and vertical guidance prior to and during landing, and at certain fixed points, indicates the distance to the reference point of landing.
- *Precision instrument runway* means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.
- *Primary surface* means a surface longitudinally centered on a runway. The primary surface extends 200 feet beyond each end of the runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is 1,000 feet as required for precision runway landings.
- *Transitional surface* means the surfaces extend 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. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.