



Model Zoning Ordinance Language for an Airport District Overlay

The attached model zoning ordinance is provided as a tool to help impacted municipalities meet their obligation to enact airport hazard zoning as required by PA Act 164. The model is an overlay zone whereby a set of zoning requirements are superimposed upon a base zone(s) and development of land subject to overlay zoning requires compliance with the regulations of both the base and overlay zones. The overlay ordinance is a streamlined version of a model ordinance also available through PennDOT's Bureau of Aviation.

This model ordinance is intended to provide guidance for local government development and adoption of an airport overlay district. The local ordinance should be developed by the municipal planning board and/or municipal zoning officer in consultation with the municipality's solicitor.

AIRPORT DISTRICT OVERLAY ORDINANCE

AN ORDINANCE OF *MUNICIPALITY* SETTING FORTH ITS AUTHORITY TO ESTABLISH AN “AIRPORT DISTRICT OVERLAY” TO INCLUDE: PURPOSES OF THE DISTRICT, DEFINITIONS, AIRPORT ZONES, AIRPORT ZONE HEIGHT LIMITATIONS; PERMITS REQUIRED; USE RESTRICTIONS; NONCONFORMING USES; VARIANCES; CONFLICTING REGULATIONS; AND AMENDING THE OFFICIAL ZONING MAP BY THE ADOPTION OF AN OFFICIAL SUPPLEMENTARY AIRPORT OVERLAY ZONING MAP.

WHEREAS, certain airport hazards, as defined, in effect reduce the size of the area available for landing, takeoff, and maneuvering of aircraft, thus tending to destroy or impair the utility of *Airport* and the public investment therein; and

WHEREAS, the creation or establishment of an airport hazard, as defined, is a public nuisance and may injure the region served by the *Airport*; and

WHEREAS, it is necessary in the interest of public health, public safety and general welfare that the creation or establishment of airport hazards, as defined, be prevented; and

WHEREAS, the prevention of these airport hazards, as defined, should be accomplished, to the extent legally possible, by the exercise of police power without compensation; and

WHEREAS, both the prevention of the creation or establishment of airport hazards, as defined, and the elimination, removal, alteration, mitigation or marking and lighting of existing airport hazards, as defined, are public purposes for which political subdivisions may raise and expend public funds and acquire land or interests in land; and

WHEREAS, The *Municipal Elected Body* did hold public hearing on *Date*;

NOW, THEREFORE BE IT ORDAINED by the *Municipal Elected Body*, pursuant to the authority conferred by 1984 Pa. Laws 164 codified at 74 Pa. Cons. Stat. §§5912 et. Seq., the following be and is hereby adopted as an ordinance of *Municipality*:

Airport District Overlay Ordinance

- Section 1: Purpose
- Section 2: Relation to Other Zone Districts
- Section 3: Definitions
- Section 4: Establishment of Airport Zones and Height Limitations
- Section 5: Permit Applications
- Section 6: Variance
- Section 7: Use Restrictions
- Section 8: Pre-existing Non-conforming Uses
- Section 9: Obstruction Marking and Lighting
- Section 10: Violations and Penalties
- Section 11: Appeals
- Section 12: Conflicting Regulations
- Section 13: Severability

Section 1: Purpose. The purpose of this ordinance is to create an airport district overlay that considers safety issues around the *Airport*, regulates and restricts the heights of constructed structures and objects of natural growth, creates appropriate zones, establishing the boundaries thereof and providing for changes in the restrictions and boundaries of such zones, creates the permitting process for use within said zones and provides for enforcement, assessment of violation penalties, an appeals process, and judicial review.

Section 2: Relation to Other Zone Districts. The Airport District Overlay shall not modify the boundaries of any underlying zoning district. Where identified, the Airport District Overlay shall impose certain requirements on land use and construction in addition to those contained in the underlying zoning district.

Section 3: Definitions. The following words and phrases when used in this ordinance shall have the meaning given to them in this section unless the context clearly indicates otherwise.

Airport Elevation: The highest point of an airport's useable landing area measured in feet above sea level. The airport elevation of the *Airport* is (insert airport elevation here).

Airport Hazard: Any structure or object, natural or manmade, or use of land which obstructs the airspace required for flight or aircraft in landing or taking off at an airport or is otherwise hazardous as defined in 14 CFR Part 77 and 74 Pa. Cons. Stat. §5102.

Airport Hazard Area: Any area of land or water upon which an airport hazard might be established if not prevented as provided for in this Ordinance and the Act 164 of 1984 (Pennsylvania Laws Relating to Aviation).

Approach Surface (Zone): An imaginary surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of the runway based on the planned approach. The inner edge of the approach surface is the same width as the primary surface and expands uniformly depending on the planned approach. The approach surface zone, as shown on Figure 1, is derived from the approach surface.

Conical Surface (Zone): An imaginary surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty (20) feet horizontally to one (1) foot vertically for a horizontal distance of 4,000 feet. The conical surface zone, as shown on Figure 1, is based on the conical surface.

Department: Pennsylvania Department of Transportation.

FAA: Federal Aviation Administration of the United States Department of Transportation.

Height: For the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.

Horizontal Surface (Zone): An imaginary plane 150 feet above the established airport elevation that is constructed by swinging arcs of various radii from the center of the end of the primary surface and then connecting the adjacent arc by tangent lines. The radius of each arc is based on the planned approach. The horizontal surface zone, as shown on Figure 1, is derived from the horizontal surface.

Larger Than Utility Runway: A runway that is constructed for and intended to be used by propeller driven aircraft of greater than 12,500 pounds maximum gross weight and jet powered aircraft.

Nonconforming Use: Any pre-existing structure, object of natural growth, or use of land which is inconsistent with the provisions of this Ordinance or an amendment thereto.

Non-Precision Instrument Runway: A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned.

Obstruction: Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth by this Ordinance.

Precision Instrument Runway: 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 on an approved airport layout plan or any other planning document.

Primary Surface (Zone): An imaginary surface longitudinally centered on the runway, extending 200 feet beyond the end of paved runways or ending at each end of turf runways. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The primary surface zone, as shown on Figure 1, is derived from the primary surface.

Runway: A defined area of an airport prepared for landing and takeoff of aircraft along its length.

Structure: An object, including a mobile object, constructed or installed by man, including but without limitation, buildings, towers, cranes, smokestacks, earth formation and overhead transmission lines.

Transitional Surface (Zone): An imaginary surface that extends outward and upward from the edge of the primary surface to the horizontal surface at a slope of seven (7) feet horizontally to one (1) foot vertically (7:1). The transitional surface zone, as shown on Figure 1, is derived from the transitional surface.

Tree: Any object of natural growth.

Utility Runway: A runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight or less.

Visual Runway: A runway intended solely for the operation of aircraft using visual approach procedures.

Section 4: Establishment of Airport Zones: There are hereby created and established certain zones within the Airport District Overlay ordinance, defined in Section 3 and depicted on Figure 1 and illustrated on *Airport* Hazard Area Map, hereby adopted as part of this ordinance, which include:

1. **Approach Surface Zone**
2. **Conical Surface Zone**
3. **Horizontal Surface Zone**
4. **Primary Surface Zone**
5. **Transitional Surface Zone**

Section 5: Permit Applications. As regulated by Act 164 and defined by 14 Code of Federal Regulations Part 77.13(a) (as amended or replaced), any person who plans to erect a new structure, to add to an existing structure, or to erect and maintain any object (natural or manmade), in the vicinity of the airport, *shall first notify the Department's Bureau of Aviation (BOA) by submitting PENNDOT Form AV-57 to obtain an obstruction review of the proposal at least 30 days prior to commencement thereof.* The Department's BOA response must be included with this permit application for it to be considered complete. If the Department's BOA returns a determination of no penetration of airspace, the permit request should be considered in compliance with the intent of this Overlay Ordinance. If the Department's BOA returns a determination of a penetration of airspace, the permit shall be denied, and the project sponsor may seek a variance from such regulations as outlined in Section 6.

No permit is required to make maintenance repairs to or to replace parts of existing structures which do not enlarge or increase the height of an existing structure.

Section 6: Variance. Any request for a variance shall include documentation in compliance with 14 Code of Federal Regulations Part 77 Subpart B (FAA Form 7460-1 as amended or replaced). Determinations of whether to grant a variance will depend on the determinations made by the FAA and the Department's BOA as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable air space. In particular, the request for a variance shall consider which of the following categories the FAA has placed the proposed construction in:

1. No Objection - The subject construction is determined not exceed obstruction standards and marking/lighting is not required to mitigate potential hazard. Under this determination a variance shall be granted.
2. Conditional Determination - The proposed construction/alteration is determined to create some level of encroachment into an airport hazard area which can be effectively mitigated. Under this determination, a variance shall be granted contingent upon implementation of mitigating measures as described in Section 9 - Obstruction Marking and Lighting.
3. Objectionable - The proposed construction/alteration is determined to be a hazard and is thus objectionable. A variance shall be denied and the reasons for this determination shall be outlined to the applicant.

Such requests for variances shall be granted where it is duly found that a literal application or enforcement of the regulations will result in unnecessary hardship and that relief granted will not be contrary to the public interest, will not create a hazard to air navigation, will do substantial justice, and will be in accordance with the intent of this ordinance.

Section 7: Use Restrictions. Notwithstanding any other provisions of this Ordinance, no use shall be made of land or water within the Airport District Overlay in such a manner as to create electrical interference with navigational signals or radio communications between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, impair visibility in the vicinity of the airport, create bird strike hazards

or otherwise endanger or interfere with the landing, takeoff or maneuvering of aircraft utilizing the *Airport*.

Section 8: Pre-Existing Non-Conforming Uses: The regulations prescribed by this Ordinance shall not be construed to require the removal, lowering, or other change or alteration of any structure or tree not conforming to the regulations as of the effective date of this Ordinance, or otherwise interfere with the continuance of a non-conforming use. No non-conforming use shall be structurally altered or permitted to grow higher, so as to increase the non-conformity, and a non-conforming use, once substantially abated (subject to the underlying zoning ordinance,) may only be reestablished consistent with the provisions herein.

Section 9: Obstruction Marking and Lighting. Any permit or variance granted pursuant to the provisions of this ordinance may be conditioned according to the process described in Section 6 to require the owner of the structure or object of natural growth in question to permit the municipality, at its own expense, or require the person requesting the permit or variance, to install, operate, and maintain such marking or lighting as deemed necessary to assure both ground and air safety.

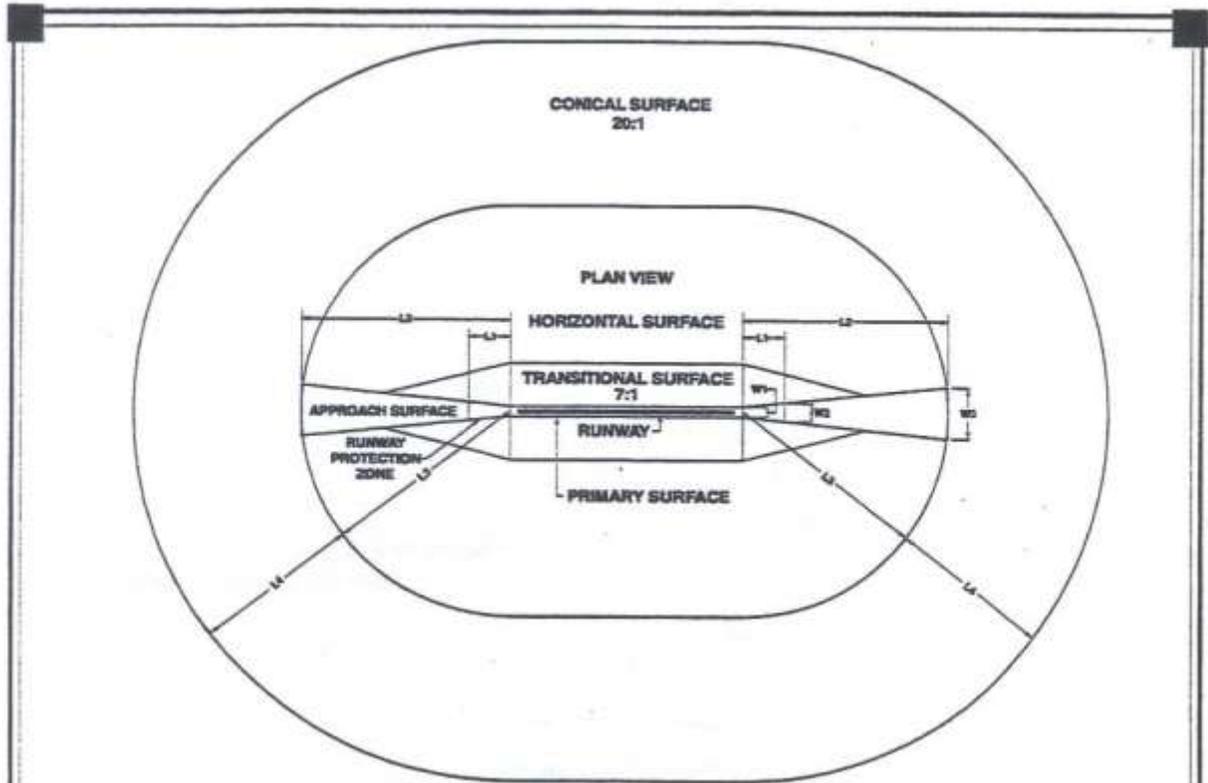
Section 10: Violations and Penalties. *Subject to that in the underlying Zoning Ordinance.*

Section 11: Appeals. *Subject to the process in the underlying Zoning Ordinance.*

Section 12: Conflicting Regulations. Where there exists a conflict between any of the regulations or limitations prescribed in this ordinance and any other regulation applicable to the same area, the more stringent limitation or requirement shall govern and prevail.

Section 13: Severability. If any of the provisions of this Ordinance or the application thereof to any person or circumstance are held invalid, such invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without the invalid provision or application, and to this end, the provisions of this Ordinance are declared to be severable.

Figure 1: Part 77 Surface Areas



FAR PART 77 "IMAGINARY SURFACES" DIMENSION REQUIREMENTS

Runway Type	Runway End		Conical Surface (L4)	Horizontal Surface (L3)	Approach Surface			Approach Slope	Primary Surface Width	Transitional Surface
	Approach	Other			Length (L2)	Inner Width (W1)	Outer Width (W2)			
Small Airplanes ¹	V	V	4,000	5,000	5,000	250	1,250	20:1	250	7:1
		NP	4,000	5,000	5,000	500	1,250	20:1	500	7:1
		NP 3/4	4,000	5,000	5,000	1,000	1,250	20:1	1,000	7:1
		P	4,000	5,000	5,000	1,000	1,250	20:1	1,000	7:1
	NP	V	4,000	5,000	5,000	500	2,000	20:1	500	7:1
		NP	4,000	5,000	5,000	500	2,000	20:1	500	7:1
		NP 3/4	4,000	5,000	5,000	1,000	2,000	20:1	1,000	7:1
		P	4,000	5,000	5,000	1,000	2,000	20:1	1,000	7:1
Large Airplanes ²	V	V	4,000	5,000	5,000	500	1,500	20:1	500	7:1
		NP	4,000	10,000	5,000	500	1,500	20:1	500	7:1
		NP 3/4	4,000	10,000	5,000	1,000	1,500	20:1	1,000	7:1
		P	4,000	10,000	5,000	1,000	1,500	20:1	1,000	7:1
	NP	V	4,000	10,000	10,000	500	3,500	34:1	500	7:1
		NP	4,000	10,000	10,000	500	3,500	34:1	500	7:1
		NP 3/4	4,000	10,000	10,000	1,000	3,500	34:1	1,000	7:1
		P	4,000	10,000	10,000	1,000	3,500	34:1	1,000	7:1
Large and Small Airplanes ³	NP 3/4	V	4,000	10,000	10,000	1,000	4,000	34:1	1,000	7:1
		NP	4,000	10,000	10,000	1,000	4,000	34:1	1,000	7:1
		NP 3/4	4,000	10,000	10,000	1,000	4,000	34:1	1,000	7:1
		P	4,000	10,000	10,000	1,000	4,000	34:1	1,000	7:1
	P	V	4,000	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1
		NP	4,000	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1
		NP 3/4	4,000	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1
		P	4,000	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1

1 - In Feet
 2 - Less than 12,500 lbs maximum certified takeoff weight
 3 - Greater than 12,500 lbs maximum certified takeoff weight

V = Visual approach 20:1
 NP = Nonprecision approach 34:1
 NP 3/4 = Nonprecision approach with visibility minimums as low as 3/4 statute miles 34:1
 P = Precision approach 50:1

Note: L1 is the length of the RPZ and W2 is the outer width of the RPZ as defined by approach visibility minimums

Source: Federal Aviation Administration

