



pennsylvania
DEPARTMENT OF TRANSPORTATION

Airport Zoning Ordinance Workshop



Why are we here?

- To present Pennsylvania's Airport Hazard Zoning law, Act 1984-164 in a simple manner
- To encourage a collaborative, joint and partnered effort for airport zoning with:
 - Impacted Municipalities
 - Airports
 - Counties
 - MPO's / RPO's
- To provide guidance on the development of airport zoning ordinances
- To identify resources available for joint development of airport zoning ordinances
- Lay the foundation for statewide compliance with Act 164 by all impacted Municipalities



Why are you here?

- Impacted Municipalities
 - Responsible for local land use planning, zoning and the administration of ordinances
 - Directly impacted by Airport Zoning Act
 - Per Act 164, required to adopt, administer and enforce an Airport Zoning ordinance
- Airports
 - Responsible for providing a safe airport operating environment
 - Knowledgeable about airport and aircraft operations
 - Directly impacted by Act 164 non-compliance



Why are you here? (2)

- **Counties**
 - Power to enact zoning ordinances for land in those municipalities in county which have no zoning ordinance in effect
 - Required to review ordinances submitted by municipalities and at times mediate on their behalf.
 - Zoning impacts County Comprehensive Plans
 - Zoning impacts vitality of airports in county
- **Metropolitan and Rural Planning Organizations (MPOs and RPOs)**
 - Coordinates Transportation Long Range Planning
 - Coordinates Transportation Improvement Programs
 - Provides a forum for urban / rural transportation planning and decision-making



PA Airport Statistics

- Over 120 public use airports
- About 680 municipalities required to enact Airport Hazard Zoning
- About 159 municipalities have Airport Hazard Zoning in effect

PENNSYLVANIA PUBLIC-USE AIRPORTS



LEGEND

-  COMMERCIAL AVIATION /PAVED RUNWAYS
-  GENERAL AVIATION /TURF RUNWAYS
-  GENERAL AVIATION /PAVED RUNWAYS
-  PUBLIC HELIPORTS





Educational Goals of Workshop

- ❑ Increase Awareness and Understanding of Airport Hazard Zoning and PA Act 164
- ❑ Explain the Part 77 Surface Concept
- ❑ Identify the Part 77 Surface Areas in your Region
- ❑ Discuss the Airport District Overlay Ordinance Components
- ❑ Discuss Administration and Enforcement Areas of the Ordinance
- ❑ Discuss Liability Concerns
- ❑ Discuss Availability of Assistance for Adoption and Administration of Ordinance



Workshop Materials Review





Airport Hazard Zoning and PA Act 164

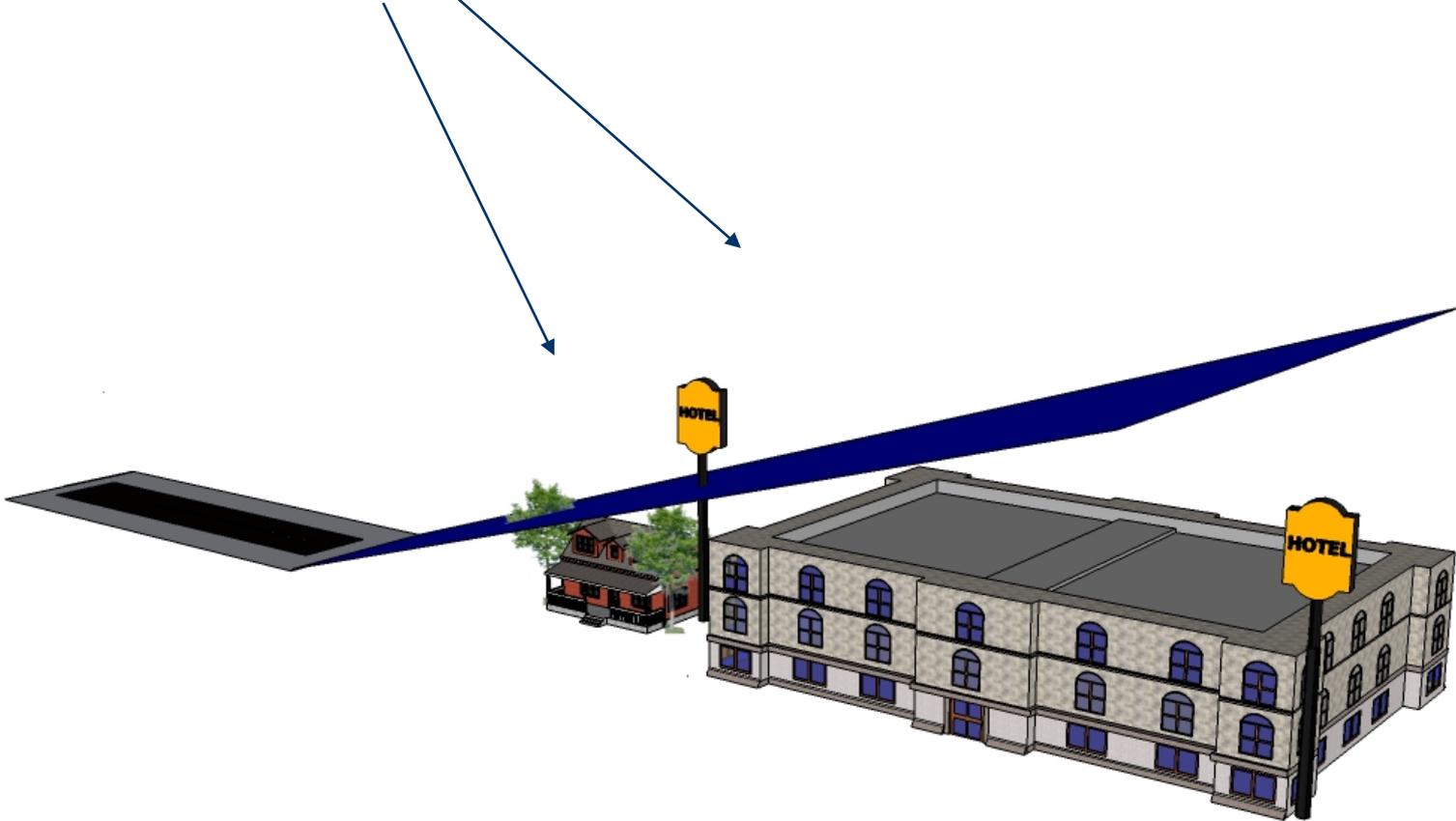




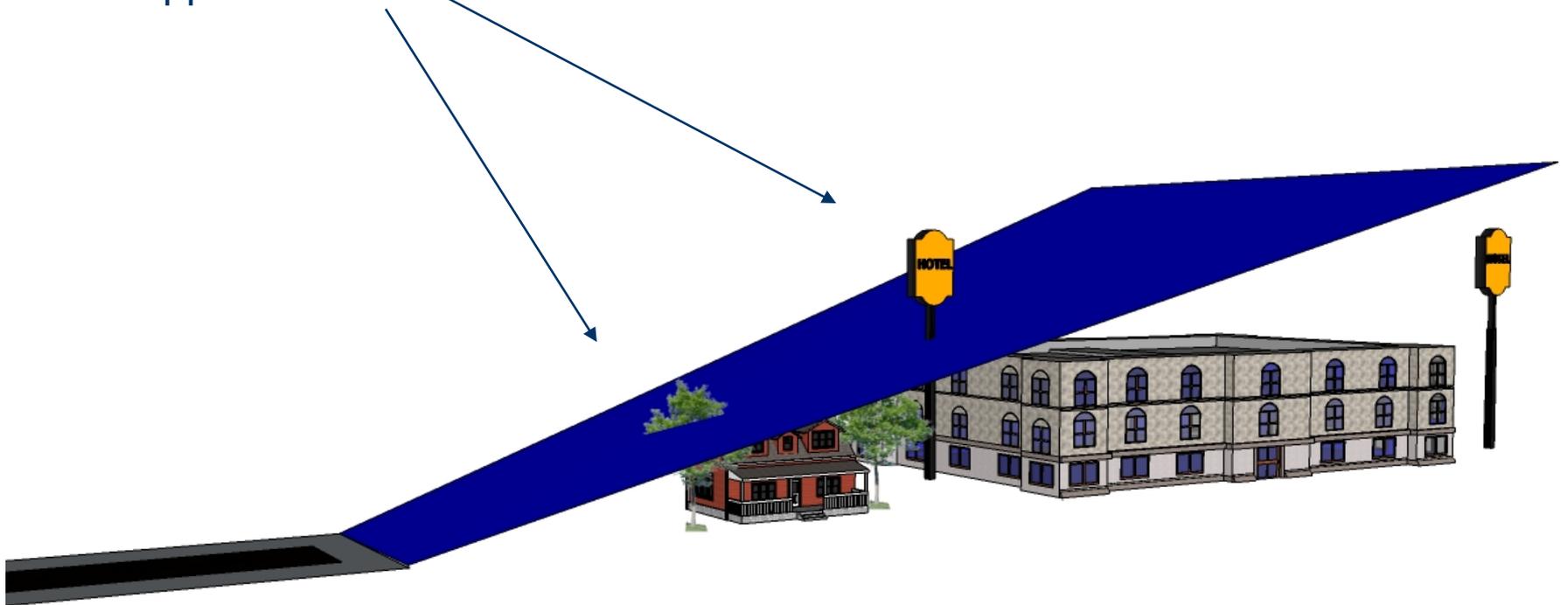
Airport Hazard Zoning: Purpose?

- Restricts heights of objects around airport areas to provide for safe aircraft flight paths.

Obstructions to
Approach Surface



Obstructions to
Approach Surface





Airport Hazard Zoning: Why is it needed? *Safety*

- Safety – Protecting Pilots, Passengers, People and Property
 - Identifies possible obstructions before they occur
 - Restricts heights of objects in and around airports so they will not interfere with aircraft operations
 - Provides a link to existing federal and state processes that evaluate airspace for objects, existing or proposed, to prevent and/or mitigate hazards
 - Reduces the possibility of accidents that could injure both passengers and people on the ground
 - Protects against liability



Airport Hazard Zoning: Why is it needed? ***Economic Development***

Economic Development

- Airports are an economic asset to both the community and the Commonwealth. Height obstructions can reduce access and the corresponding economic contribution of these airports.
- Important uses of airports include:
 - General Business Use (nearly 70% of use)
 - Goods Movement
 - Recreation
 - Flight Training
 - Air Patrol (Police, Traffic Reporting)
 - Medical Evacuation / Air Ambulance
 - Disaster Recovery Operations
 - General Aviation Reliever functions for Commercial Airports



Airport Hazard Zoning: Why is it needed? ***State Law and Federal Regulations***

Obstruction free airspace is critical to air traffic and commerce within this Commonwealth and throughout the Nation. That is why it is.....

- Mandated by Pennsylvania Law
 - Act 1984-164, Airport Zoning Act
- Regulated by Federal Aviation Regulations
 - 14 CFR Part 77 Part 77, Objects Affecting Navigable Airspace (Part 77)



Airport Hazard Zoning: Requirements of PA Act 164

- Summary - municipalities having airport hazard areas shall adopt, administer and enforce an ordinance to restrict the height of objects in the area.
- 5912. “Power to adopt airport zoning regulations. (a) General rule.—In order to prevent the creation or establishment of airport hazards, every municipality having an airport hazard area within its territorial limits **shall adopt, administer and enforce, under the police power and in the manner and upon the conditions prescribed in this subchapter and in applicable zoning law unless clearly inconsistent with this subchapter, airport zoning regulations for such airport hazard area.** The regulations may divide the area into zones and, within the zones, specify the land uses permitted and regulate and restrict the height to which structures may be erected or objects of natural growth may be allowed to grow. A municipality which includes an airport hazard area created by the location of a public airport is required to adopt, administer and enforce zoning ordinances pursuant to this subchapter if the existing comprehensive zoning ordinance for the municipality does not provide for the land uses permitted and regulate and restrict the height to which structures may be erected or objects of natural growth may be allowed to grow in an airport hazard area.”
- 5915(c) “**A municipality shall adopt, either in full or by reference, any provision of any model zoning ordinance or other similar guidelines** suggested or published by the Federal Aviation Administration of the United States Department of Transportation regarding airport hazard areas.”



Airport Hazard Zoning: Models Based on FAR Part 77

- According to PA Act 164, municipalities within the Federal Aviation Administration (FAA) Federal Regulation 14 CFR Part 77 (i.e., "Part 77") areas around an airport are required to have ordinances that restrict the height of objects that could interfere with airport operations.
- These height restrictions gradually change from 0 feet directly at the airport up to about 1920 feet above the airport runway surface, depending upon the distance from the airport and type of runways in use.
- The height restrictions are broken into 5 Surface Zones, which are defined by FAA and are a function of the airport's physical and runway features.



Airport Hazard Zoning: Model Ordinances

- Comprehensive Airport Zoning Model
 - Traditional “detailed” model ordinance
 - Used in its entirety by some municipalities to comply with Act 164; others incorporated into their existing zoning
- (New) Airport District Overlay Model
 - Streamlined model with focus on a simple “**Overlay**” District. Recommended to be developed collaboratively by multiple municipalities around a given airport.

Objective of both Models is to overlay existing zoned areas where it exists (defer to county if Municipality not zoned). Neither require a change to the primary function of existing zones.



Airport Hazard Zoning: Ordinance Administration

Municipalities are responsible for implementing and enforcing zoning, however, evaluations conducted by FAA and PennDOT / Bureau of Aviation (BOA) may be of use in this effort.

Specifically,

- BOA conducts annual airport inspections that include a limited evaluation of the approach area just off the end of the runway to identify possible obstructions.
- BOA works with airports and provides funding to study, remove, replace and/or otherwise mitigate obstructions.
- Both FAA and PennDOT require prior notification and form submission with proposed construction details so that possible height and hazard issues can be identified.



Airport Hazard Zoning: Definitions

- Act 164
 - Pennsylvania's Airport Hazard Zoning law
 - Signed October 10, 1984 to establish a number of laws relating to Aviation, including Airport Zoning.
- "Part 77"
 - Federal Aviation Regulation (FAR) Part 77
 - “Federal Regulation 14 CFR Part 77 establishes standards and notification requirements for objects affecting navigable airspace.”
 - Text version available in Section E of workbook.



Airport Hazard Zoning: Definitions (2)

- 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 by “Airport Hazard” in 74 Pa. Cons. Stat. §5102.
 - Examples:
 - Trees
 - Signs
 - Buildings
 - Other Structures
- 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).

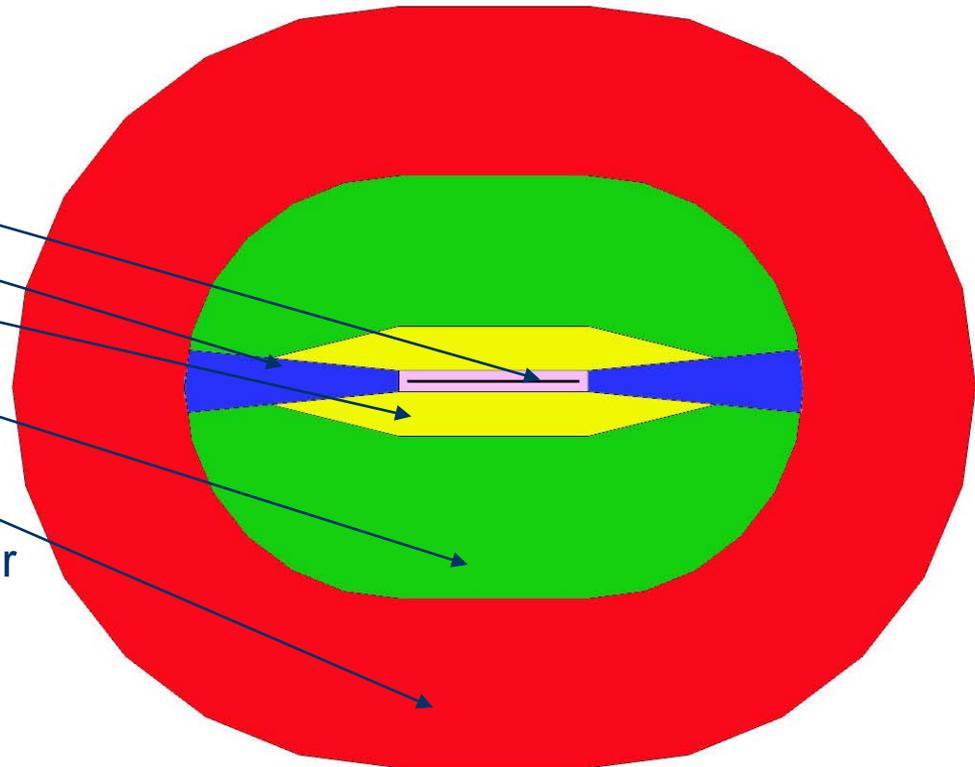


Airport Hazard Zoning: Hazard Areas

- Part 77 Surface Zones used to define Hazard Areas

- Primary
- Approach
- Transitional
- Horizontal
- Conical

(to be covered in further detail)





Airport Hazard Zoning: Hazard Areas (2)

Hazard Area dimensions also impacted by the type of runway and primary approach as defined below

- **RUNWAY** – A defined area on an airport prepared for landing and takeoff of aircraft along its length.
- **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.
- **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.
- **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.



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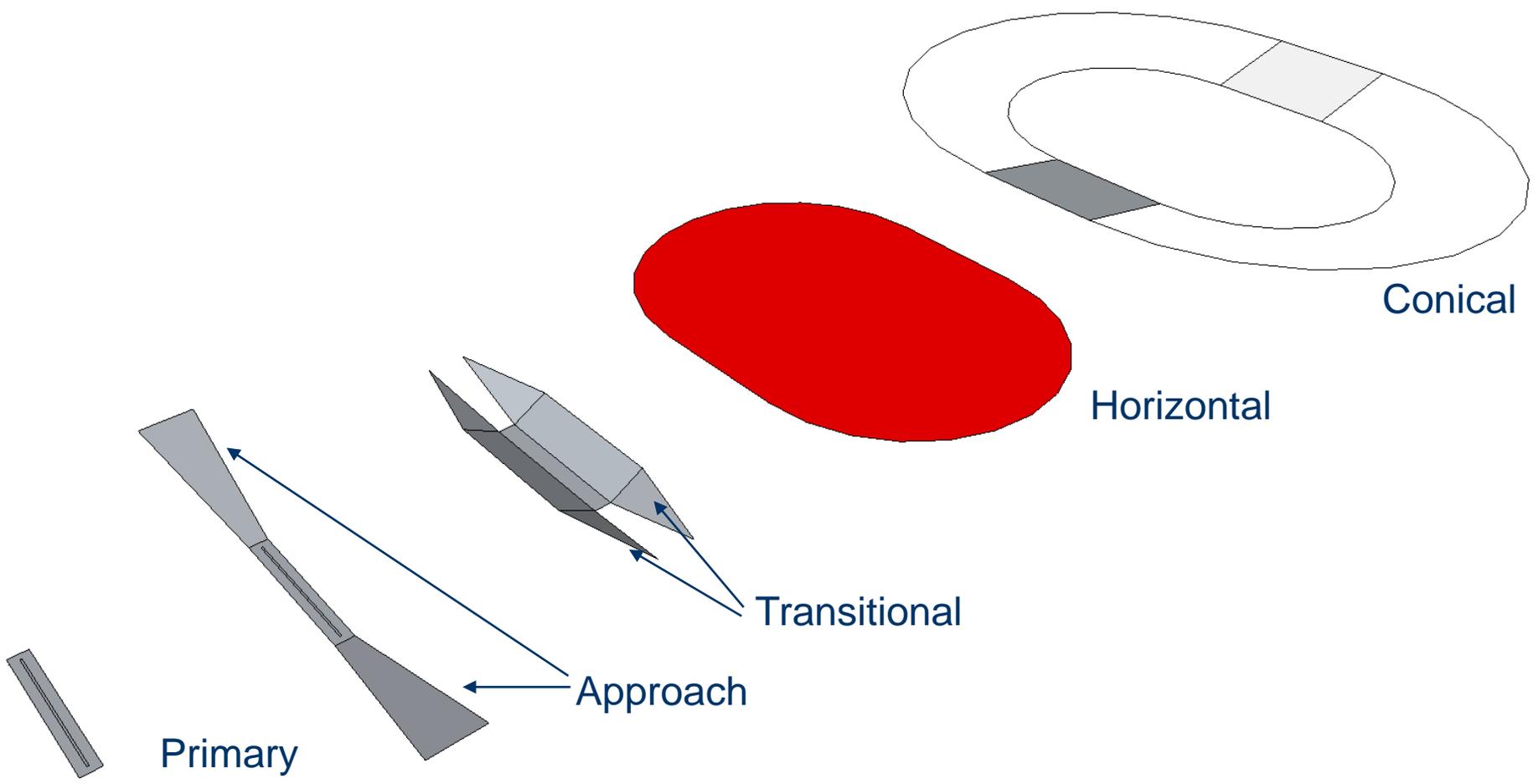
Part 77 Surface Concept





Part 77 Surface Areas





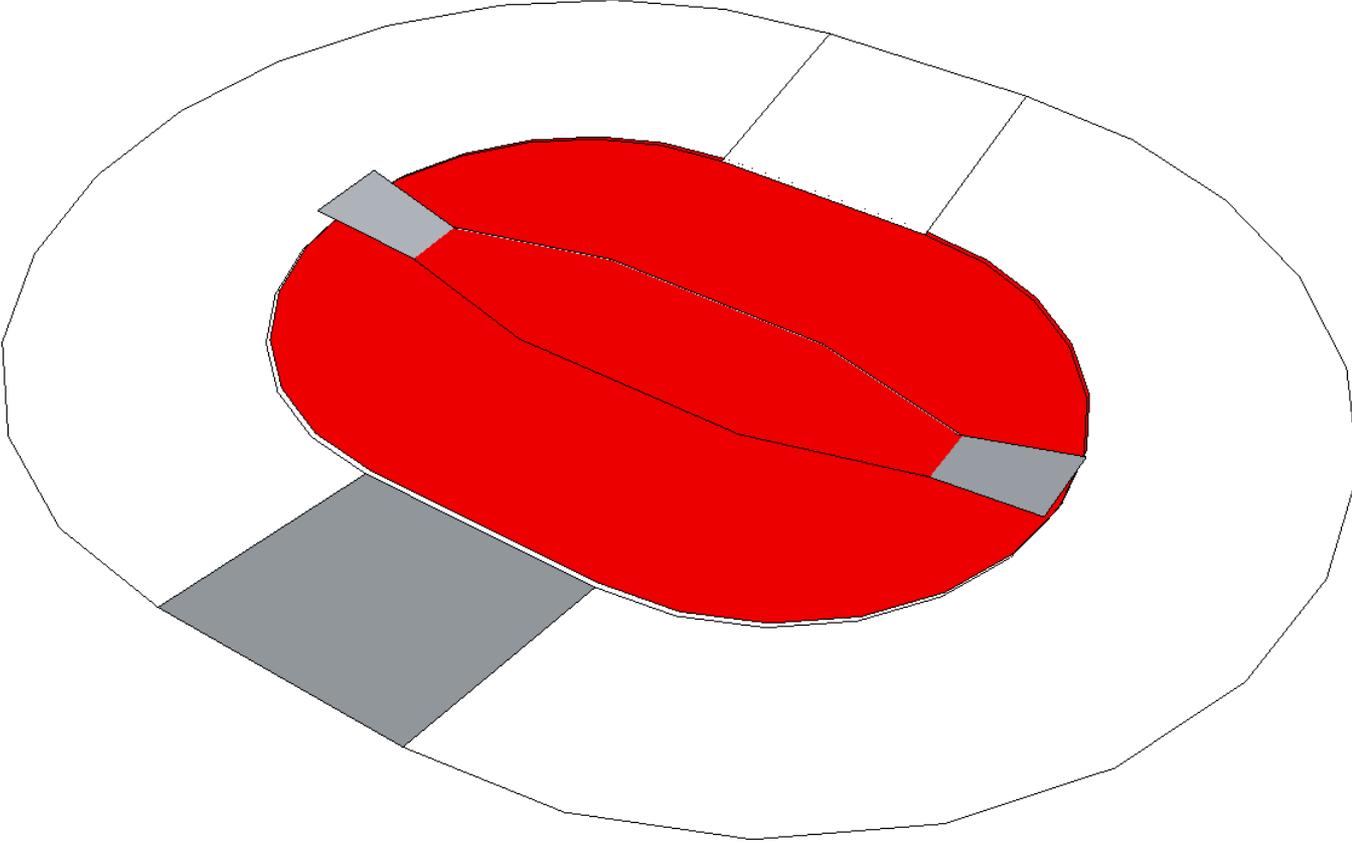
Primary

Approach

Transitional

Horizontal

Conical





Part 77 Video





Educational Goals of Workshop

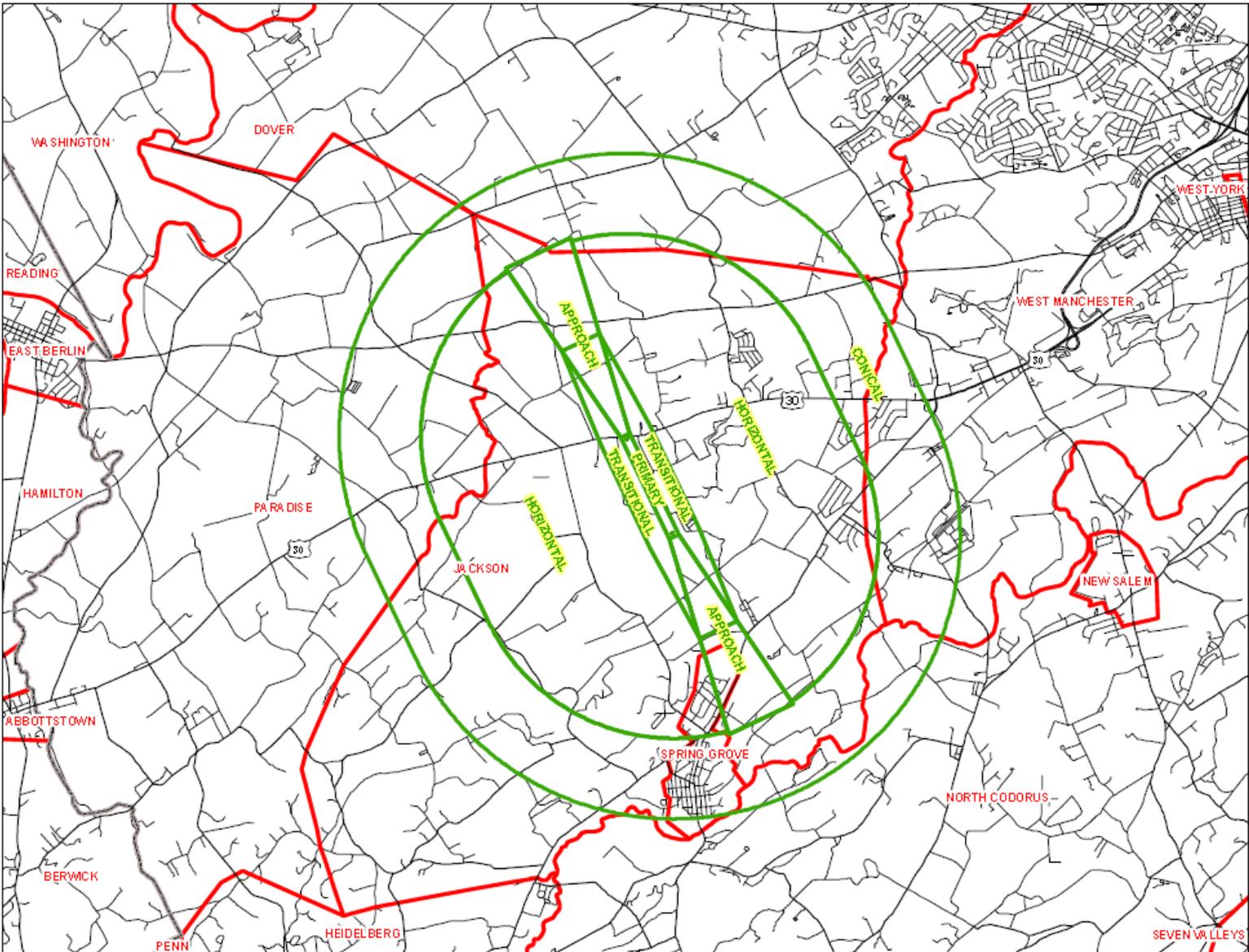
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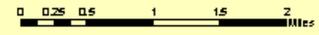
Examples of Part 77 Surface Areas

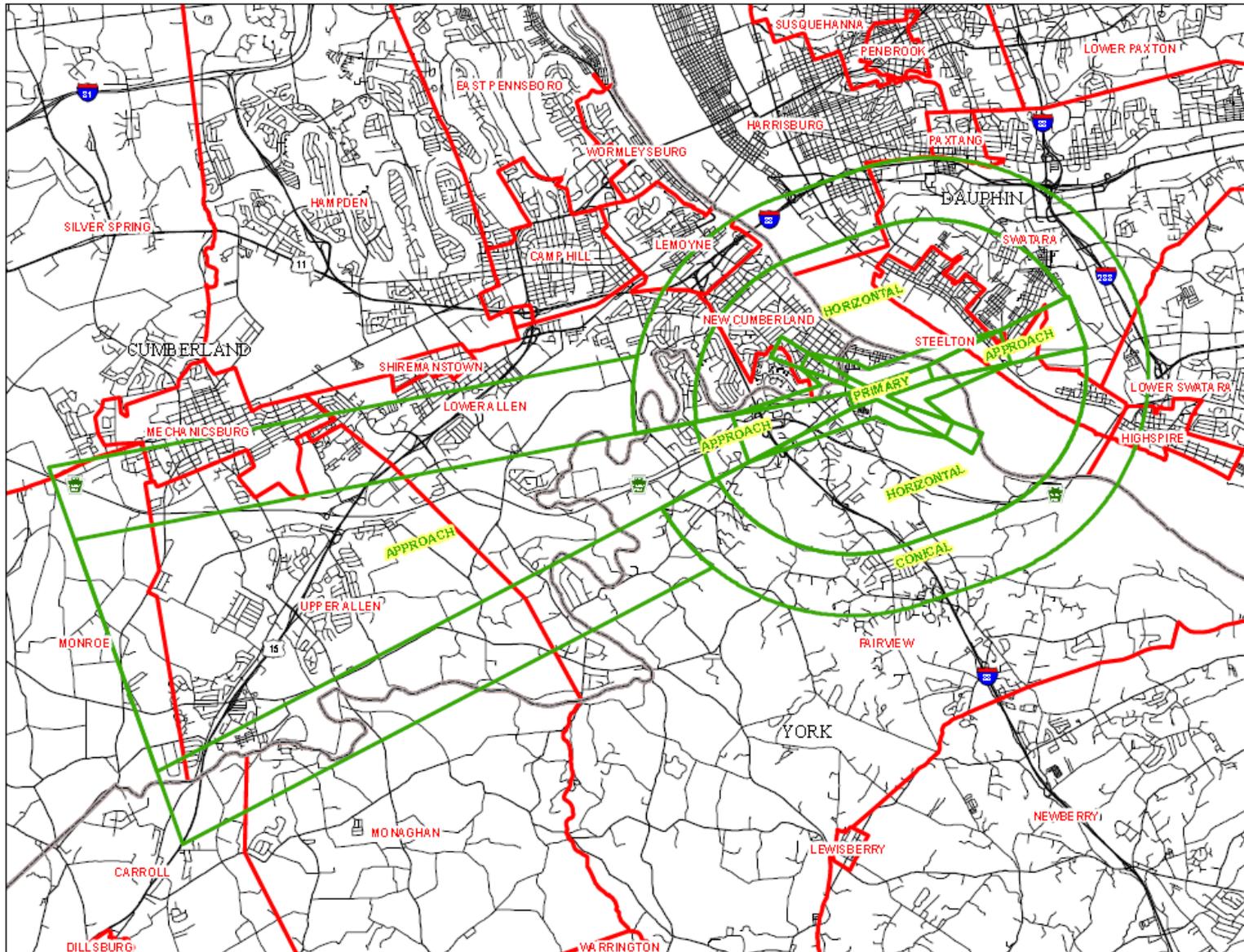


York



- Legend**
- Part 77 Surfaces
 - Road
 - County Boundary
 - Municipal Boundary

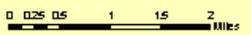




Capital City



- Legend**
- ▭ Part 77 Surfaces
 - County Boundary
 - Municipal Boundary
 - Road



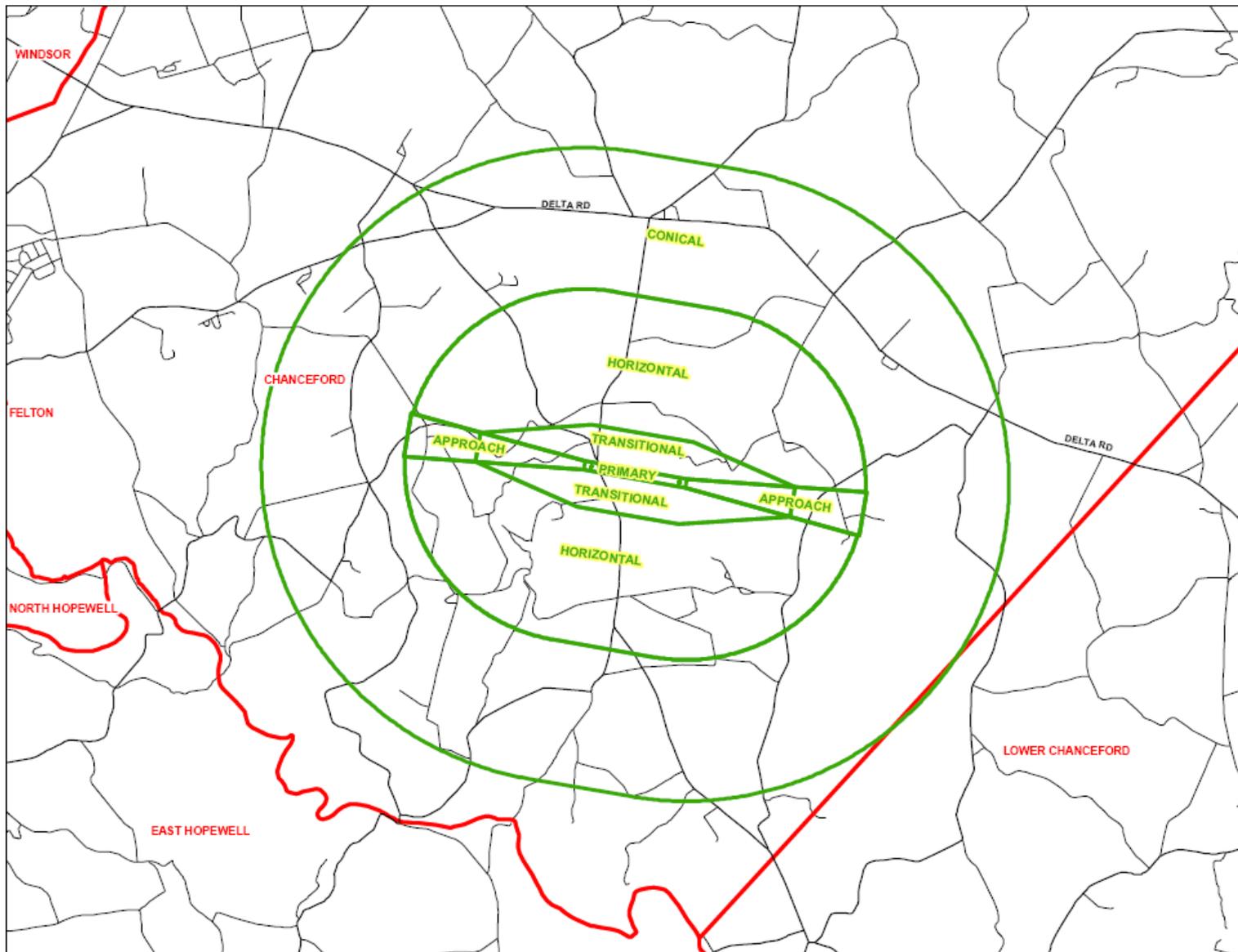
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Legend

- Part 77 Surfaces
- Road
- Municipal Boundary
- County Boundary

0 0.125 0.25 0.5 0.75 1 Miles





Availability of Part 77 Surface Maps

- On PennDOT BOA Website
- Updated if runway modifications or approach to airport changes.



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(Break)





Ordinance





Ordinance Options

- Develop own ordinance (municipal)
- County ordinance (for areas w/o zoning)
- Airport Zoning Model Ordinance
 - Comprehensive
 - **Airport District Overlay Model (Workshop focus)**



Ordinances

- Model ordinances are Overlay Ordinances
 - A mapped zone that imposes a set of requirements in addition to those laid out by the underlying zoning regulations
 - Overlay zones typically address special features in addition to existing zoning
 - Does not change function of existing zoning (e.g., Residential, Commercial, Agricultural, etc.,)



The Airport District Overlay Model

- 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

*See Workbook –Section F

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 man made, 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.

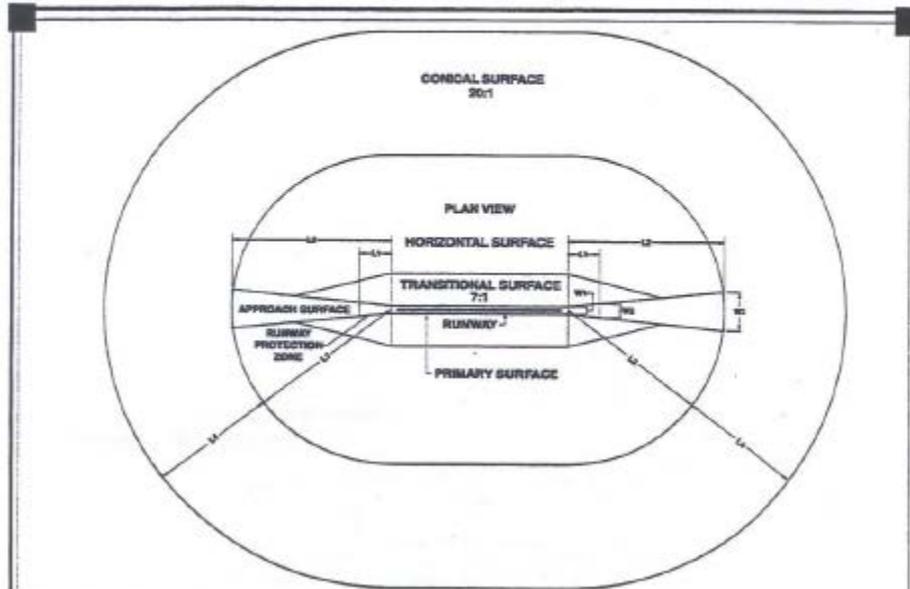
Section 10: Violations and Penalties. *Subject to that in the underlying Zoning Ordinance*

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 (L3)	Horizontal Surface (L2)	Approach Surface			Approach Slope	Primary Surface Width	Transitional Surface
	Approach	Other			Length (L1)	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	800	1,250	20:1	800	7:1
		NP 3A	4,500	5,000	5,000	1,000	1,250	20:1	1,000	7:1
	P	P	4,500	5,000	5,000	1,000	1,250	20:1	1,000	7:1
		V	4,500	5,000	5,000	800	2,000	20:1	800	7:1
		NP	4,500	5,000	5,000	800	2,000	20:1	800	7:1
Large Airplanes ²	V	V	4,300	5,000	5,000	500	1,500	20:1	500	7:1
		NP	4,300	10,000	5,000	800	1,500	20:1	800	7:1
		NP 3A	4,500	10,000	5,000	1,000	1,500	20:1	1,000	7:1
	P	P	4,300	10,000	5,000	1,000	1,500	20:1	1,000	7:1
		V	4,300	10,000	10,000	500	3,500	20:1	500	7:1
		NP	4,300	10,000	10,000	500	3,500	20:1	500	7:1
Large and Small Airplanes ³	V	V	4,300	10,000	10,000	1,000	4,000	20:1	1,000	7:1
		NP	4,500	10,000	10,000	1,000	4,000	20:1	1,000	7:1
		NP 3A	4,500	10,000	10,000	1,000	4,000	20:1	1,000	7:1
	P	P	4,300	10,000	10,000	1,000	4,000	20:1	1,000	7:1
		V	4,300	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1
		NP	4,300	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1
	NP 3A	4,500	10,000	10,000/40,000	1,000	4,000/16,000	50:1/40:1	1,000	7:1	
	P	4,300	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 3A = Nonprecision approach with visibility minimums as low as 3A statute miles 34:1
 P = Precision approach 30:1

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





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- ☐ Discuss Availability of Assistance for Adoption and Administration of Ordinance



Administration and Enforcement





Administration: Overview

- Board of Adjustment
- Joint Airport Zoning Board option
- Variances / Appeals



Administration: Board of Adjustment

- Function – to hear and decide appeals pertaining to ordinance
 - Five (5) members
 - Three (3) year term
- Existing zoning board of appeals or adjustments may be appointed to serve this function



Administration: Joint Airport Zoning Board Option

- Optional
- Where multiple municipalities are affected by the hazard area
- One Board to have function of Board of Adjustment
- Two (2) members from each municipality
- Chairman elected by members



Administration: Variances / Appeals

- Variance Requests - Recommend request include an airspace determination by the FAA
- Airport Notification – Recommend Airport Manager be notified if variance application/request is filed



Enforcement: General

- Pre-Existing Conditions / Grandfather Clause
- New or Additional Construction or Objects
- Tree Growth



Enforcement: Pre-Existing Conditions / Grandfather Clause

General: Ordinance does not apply to pre-existing conditions

- § 5915. Airport zoning requirements.(b) Nonconforming uses.—No airport zoning regulations adopted under this subchapter may require the removal, lowering or other change or alteration of any structure or any object of natural growth not conforming to the regulations when adopted or amended or otherwise interfere with the continuance of any nonconforming use, except as provided in section 5916 (relating to permits and variances).



Enforcement: New Construction / Alterations

- A person who seeks to erect a new structure, to add to an existing structure or to erect or maintain an object, natural or manmade, shall first obtain approval from the FAA and PennDOT. The following forms (included in Section G) must be submitted:
 - FAA Form 7460-1
 - PennDOT Form AV-57
- Submit forms at least 30 days prior to commencement of project
- PennDOT will determine if the structure will penetrate the surface area
- FAA will determine if the construction will result in a penetration to Part 77. If so, they will set conditions for approval or recommend further study



Enforcement: New Construction/Alterations When Forms Need Filing

- Any construction or alteration exceeding 200 ft above ground level
- Any construction or alteration
 - Within 20,000 ft of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
 - Within 10,000 ft of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.
 - Within 5,000 ft of a public use heliport which exceeds a 25:1 surface
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed that above noted standards
- When requested by the FAA
- Any construction or alteration located on a public use airport regardless of height or location



NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

1. Nature of Proposal <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; border: none; vertical-align: top;"> A. Type <input type="checkbox"/> New Construction <input type="checkbox"/> Alteration </td> <td style="width: 33%; border: none; vertical-align: top;"> B. Class <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (Duration _____ months) </td> <td style="width: 33%; border: none; vertical-align: top;"> C. Work Schedule Dates Beginning _____ End _____ </td> </tr> </table>			A. Type <input type="checkbox"/> New Construction <input type="checkbox"/> Alteration	B. Class <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (Duration _____ months)	C. Work Schedule Dates Beginning _____ End _____	2. Complete Description of Structure A. Include size and configuration of power transmission lines and their supporting towers in the vicinity of public airports. B. Include information showing site orientation dimensions, and construction materials of the proposed structure.																		
A. Type <input type="checkbox"/> New Construction <input type="checkbox"/> Alteration	B. Class <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (Duration _____ months)	C. Work Schedule Dates Beginning _____ End _____																						
3. Name and address of individual company, corporation, etc. proposing the construction or alteration. (Number, Street, City, State and Zip Code) <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> (_____) <div style="text-align: center;">Phone Number _____</div> </div>																								
3A. Name, address and telephone number of proponent's representative if different than above. <div style="text-align: right; font-size: small;">(If more space is required, continue on a separate sheet)</div>																								
4. Location of Structure			5. Height and Elevation (Separate to the nearest 0.01)																					
A. Coordinates <i>(To nearest second)</i>	B. Nearest City or Town, and State	C. Name of nearest airport, heliport, flight park, or seaplane base	A. Elevation of site above mean sea level.																					
<table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;">°</td> <td style="width: 10%; text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">Latitude</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	°										Latitude										Distance from B _____ Miles	(1) Distance from structure to nearest point of nearest runway	B. Height of Structure including all appurtenances and lighting (if any) above ground or water is so situated.	
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D. Description of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or equivalent showing the relationship of construction site to nearest airport(s). (If more space is required, continue on a separate sheet of paper and attach to this notice.)																								
Notice is required by the Aviation Code, Act of October 10, 1984, P.L.837 No. 164 and Title 67 PA Code Chapter 479, Section 479.4.																								
I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking and lighting standards if necessary.																								
Date	Typed Name/Title of Person Filing Notice		Signature																					
FOR BUREAU OF AVIATION USE ONLY: The Bureau will either return this form or issue a separate acknowledgment.																								
THE PROPOSAL: <input type="checkbox"/> Is not identified as an obstruction under any standard or FAR, Part 77, Subpart C and FAA Aviation Code, Act 1984-164. <input type="checkbox"/> Is identified as an obstruction under the standards of FAR, Part 77, Subpart C and FAA Aviation Code, Act 1984-164. <input type="checkbox"/> Should be obstruction <input type="checkbox"/> marked <input type="checkbox"/> lighted per FAA advisory Circular 70/7460-1. Chapter(s) _____ <input type="checkbox"/> Obstruction marking and lighting are not necessary. <input type="checkbox"/> A notice is required anytime the project is abandoned and when construction is completed.			REMARKS: <div style="text-align: right;">SIGNATURE: _____ DATE: _____</div>																					



NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

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			<i>(if more space is required, continue on a separate sheet)</i>	
4. Location of Structure			5. Height and Elevation <i>(Complete to the nearest foot)</i>	
A. Coordinates <i>(To nearest second)</i>	B. Nearest City or Town, and State	C. Name of nearest airport, heliport, flight park, or seaplane base	A. Elevation of site above mean sea level.	
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Date	Typed Name/Title of Person Filing Notice		Signature	



Enforcement: New Construction/Alterations FAA Form 7460 Determinations

1. **No Objection**- The proposed construction does not exceed airspace height restrictions.
2. **Conditional No Objection** – FAA has no objection to the proposal as long as certain conditions are met. Conditions are outlined in the FAA Determination letter.
3. **Objection** - The proposed construction/alteration is determined to be a hazard and is thus objectionable. The reasons for this determination are outlined to the proponent.



Enforcement: New Construction/Alterations Examples

- Dairy Queen Sign
 - Never filed proper forms when putting up sign
 - Municipality had owner lower sign
 - No cost to municipality
 - No court issues
- Holiday Inn Sign
 - Sign erected and it was reported
 - Holiday Inn didn't realize the issue - moved the sign



Enforcement: Tree Growth

- Aviation grants to airports can be used to mitigate natural growth within Part 77 surfaces. Mitigation may include:
 - Trimming, Removal, or Replacement of Trees or other natural growth; and/or
 - Property easements to maintain
- Aviation Inspections, Approach Surveys, FAA Airspace Analysis, and Obstruction Studies can identify trees/natural growth that grow above the height restriction.



Enforcement: Height Restriction Exceeded by Tree Growth

When aviation analysis or study identifies a penetration to the Part 77 surface the airport owner is notified. The airport will initiate resolution by:

- Trying to obtain permission from the homeowner to top, trim, replace, or remove tree as appropriate or negotiated
- Evaluating obstruction and request an FAA Hazard Determination to identify if obstruction can be mitigated (mark/light) or if it is a hazard
- Last resort - owner will not cooperate - municipality step in (just like any ordinance)
- Conclusion: Not a taking without compensation



Educational Goals of Workshop

- Increase Awareness and Understanding of Airport Hazard Zoning and PA Act 164
- Explain the Part 77 Surface Concept
- Identify the Part 77 Surface Areas in your Region
- Discuss the Airport District Overlay Ordinance Components
- Discuss Administration and Enforcement Areas of the Ordinance
- Discuss Liability Concerns
- Discuss Availability of Assistance for Adoption and Administration of Ordinance



Liability Concerns





Liability Concerns

- General
 - Municipalities have more liability if ordinance is NOT in place
 - With ordinance, liability occurs only if the municipality knowingly allows obstruction to occur
 - A person who fails to obtain approval from the Department prior to erecting or maintaining an approach area obstruction commits a summary offense under section 5701(a) of the Aviation Code
- State Supreme Court Ruling on Airport Hazard
 - Baublitz Airport v Chanceford Township
 - Is township required to enact an Airport Hazard Ordinance?
 - Ruling in May 2007.



Educational Goals of Workshop

- Increase Awareness and Understanding of Airport Hazard Zoning and PA Act 164
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Assistance for Adoption and Administration





Assistance for Adoption and Administration

- DCED funding
 - Funding available for ordinance adoption via LUPTAP Grants
- Airport Grants
 - Funding available to airport for Multi-municipal Ordinance Overlay development/adoption.
 - Funding available to airport for Part 77 obstruction mitigation
- Technical Assistance
 - BOA works with airports to resolve zoning issues and provide technical assistance on Part 77.



Educational Goals of Workshop

- ✓ Increase Awareness and Understanding of Airport Hazard Zoning and PA Act 164
- ✓ Explain the Part 77 Surface Concept
- ✓ Identify the Part 77 Surface Areas in your Region
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What Happens after Today? (Discussion)

- Municipalities/Counties – Contact your airport to express interest in participating in a Airport Overlay District Ordinance project.
- Airports – Meet with municipalities/counties to secure commitment to participate in an Ordinance project. Work out scope of project and submit to BOA as a funding request.
- Who can help coordinate the effort? MPO/RPO and County Planning Commissions



PennDOT Bureau of Aviation Website

<http://www.dot.state.pa.us/Internet/Bureaus/pdBOA.nsf/AviationHomepage?openframeset>



Questions

