

TITLE VI: PROPERTY AND LAND USE

CHAPTER 4: TALL STRUCTURES ORDINANCE AND AIRPORT OVERLAY ORDINANCE, KEOKUK MUNICIPAL AIRPORT

- Section 6-4-1-Purpose and Intent
- Section 6-4-2-Authority
- Section 6-4-3-Statement of Purpose and Findings
- Section 6-4-4-Short Title
- Section 6-4-5-Applicability
- Section 6-4-6-Definitions
- Section 6-4-7-Airport Overlay Zoning Maps
- Section 6-4-8-Airport Overlay Zones
- Section 6-4-9-Airport Zoning Commission
- Section 6-4-10-Airport Zoning Board of Adjustment
- Section 6-4-11-Ordinance Administration
- Section 6-4-12-Airport Development Permits
- Section 6-4-13-Hazardous Markings and Lighting
- Section 6-4-14-Height Limitation
- Section 6-4-15-Variances
- Section 6-4-16-Appeals
- Section 6-4-17-Judicial Review
- Section 6-4-18-Penalties
- Section 6-4-19-Conflicting Regulations
- Section 6-4-20-Severability
- Section 6-4-21-Effective Date
- Exhibit A-Airport Overlay Zoning Map

Section 6-4-1, Introduction

KEOKUK MUNICIPAL AIRPORT ZONING ORDINANCE CREATED BY LEE COUNTY,
IOWA

1. Introduction.

1.1 The Keokuk Municipal Airport is acknowledged as an essential public facility to the State of Iowa and the local community. The creation or establishment of an airport hazard is a public nuisance and poses a potential concern to the surrounding communities served by Keokuk Municipal Airport.

1.2 There shall be no creation or establishment of a hazard that neither endangers public health, safety, welfare, and impacts an individual's quality of life nor prevents the safe movement of aircraft at the Keokuk Municipal Airport.

1.3 For the protection of the public health, safety, and general welfare, and for the promotion of the most appropriate use of land, it is necessary to prevent the creation or establishment of airport hazards. The prevention of airport hazards shall be accomplished, to the extent legally possible, by proper exercise of the police power.

1.4 The prevention of new airport hazards, and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards, are considered to be a public purpose for which City of Keokuk ,Lee County (City/County) may raise and expend public funds, as an incident to the operation of airports, to acquire or property interest therein.

2. Interpretation.

2.1 In interpreting and applying provisions of this title, they shall be held to be the minimum requirements for the promotion of the public safety, health, convenience, comfort, morals, prosperity and general welfare. It is not intended by this title to interfere with or abrogate or annul any easements, covenants or other agreements between parties, or licenses, franchises, or permits issued by the City of Keokuk or the County of Lee, except that if this title imposes a greater restriction, in all cases except franchises issued by the City of Keokuk or the County of Lee upon the vote of the elector, this title shall control.

Section 6-4-2, Authority

Iowa Code Section 329.3 *Airport Zoning* empowers local municipalities to zone airports including height restrictions and land uses.

Section 6-4-3, Statement of Purpose

1. Purpose.

1.1 This Ordinance shall regulate and restrict the height of structures, objects, and growth of natural vegetation; otherwise regulating the use of property, within the vicinity of the Keokuk Municipal Airport. Creation of appropriate zones and establishing the boundaries thereof, as well as providing for changes in the restrictions and boundaries of such zones is vested in this Ordinance.

1.2 Keokuk Municipal Airport Land Use & Height Zoning Maps are incorporated into and made part of this Ordinance. The Ordinance also provides for the enforcement

of the Ordinance through an airport official, the establishment of a Board of Adjustment; and imposition of penalties related to the implementation of the Ordinance.

Section 4-Short Title

This Ordinance shall be known and may be cited as **Keokuk Airport Zoning Ordinance**, and it is referred to as “the Ordinance” within the following sections

Section 6-4-5-Applicability

1. This ordinance encompasses a general area around the Keokuk Municipal Airport including a 5 mile boundary. Specific dimensions associated with the zoning boundary are shown in the Airport Land Use & Height Overlay Zoning Maps

Section 6-4-6, Definitions

1. The following definitions shall be utilized for terms as appropriate to the Ordinance.

Air Traffic. (FAA FAR Sec. 1.1)

Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

Airport. (FAA FAR Sec. 152.3)

Any areas of land or water that is used, or intended for use, for the landing and takeoff of aircraft. Any appurtenant areas that are used, or intended for use, for airport buildings, other airport facilities, or rights-of-way; and all airport buildings and facilities located on the areas specified in this definition. Keokuk Municipal Airport owned by the City of Keokuk.

Airport Elevation. (FAA AC 150/5190-4A)

The highest point on an airport's usable landing area measured in feet from sea level.

Airport Environs.

The land use and people in the areas surrounding an airport which can be directly affected by the operation of the airport.

Airport Hazard. (FAA FAR Sec. 152.3)

Any structure or object of natural growth located on or in the vicinity of a public airport, or any use of land near a public airport that obstructs the airspace required for the flight of aircraft landing or taking off at the airport; or is otherwise hazardous to aircraft landing or taking off at the airport.

Airport Layout Plan (ALP). *(FAA FAR Sec. 152.3)*

The plan of an airport showing the layout of existing and proposed airport facilities.

Airport Overlay Zones.

A zone intended to place additional land use conditions on land impacted by the airport while retaining the existing underlying zone. The FAR Part 77 Surfaces and RPZs have been combined to create five airport overlay zones. The five specific zones create a comprehensive area focused on maintaining compatible land use around airports. Each zone also corresponds to an Imaginary Surface description for slope and dimension.

- **Zone A, Runway Protection Zone-** is intended to provide a clear area that is free of above ground obstructions and structures. This zone is closest to the individual runway ends.
- **Zone B, Approach Surface Zone-** is a critical overlay surface that reflects the approach and departure areas for each runway at an airport. The size of Zone B is predicated upon the type of approach (visual, non-precision, or precision) that a specific runway has and the type/size of aircraft utilizing the runway.
- **Zone C, Transitional Surface Zone** includes those areas that are parallel to the runway pavement and extend 1,050' from the edge of the primary surface.
- **Zone D, Horizontal Surface Zone-** is typically elliptical in shape, depending upon the runway types and configurations at an individual airport.
- **Zone E, Conical Surface Zone-** is the outermost zone of the overlay areas and has the least number of land use restriction considerations. The zone begins at the edge of the horizontal surface and is 4,000 feet in width paralleling the horizontal surface forming a conical shape.

Airport Reference Code (ARC). *(FAA Web site)*

The ARC is an FAA coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport.

Airport Reference Point (ARP). *(FAA AC 150/5300-13)*

The latitude and longitude of the approximate center of the airport.

Airport Zoning Permit.

Airport zoning permit allowing new development, or alteration or expansion of a nonconforming use.

Airside. *(FAA Web site)*

That portion of the airport facility where aircraft movements take place, airline operations areas, and areas that directly serve the aircraft, such as taxiway, runway, maintenance and fueling areas.

Airspace. *(FAA Web site)*

The space lying above the earth or above a certain area of land or water that is necessary to conduct aviation operations.

Approach and Runway Protection Zone Map.

The approach and Runway Protection Zone Map is compiled from the criteria in FAR Part 77, "Objects Affecting Navigable Airspace." It shows the area affected by the Airport Overlay Zoning Ordinance, and includes the layout of runways, airport boundaries, elevations, and area topography. Applicable height limitation areas are shown in detail.

Approach Slopes. *(FAR Part 77)*

The ratios of horizontal to vertical distance indicating the degree of inclination of the Approach Surface. The various ratios include:

- **20:1.** for all utility and visual runways extended from the primary surface a distance of 5,000 feet.
- **34:1.** for all non-precision instrument runways extended from the primary surface for a distance of 10,000 feet.
- **50:1/40:1.** For all precision instrument runways extending from the primary surface for a distance of 10,000 feet at an approach slope of 50:1 and an additional 40,000 feet beyond this at a 40:1 Approach Slope.

Approach Surface. *(FAA AC 150/5190-4A)*

A surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in this Ordinance. In plan the perimeter of the approach surface coincides with the perimeter of the approach zone.

Avigation Easement. *(FAA Web site)*

A grant of a property interest in land over which a right of unobstructed flight in the airspace is established.

Building Codes. *(The Practice of Local Government Planning)*

Codes, either local or state, that control the functional and structural aspects of buildings and/or structures. Local ordinances typically require proposed buildings to comply with zoning requirements before building permits can be issued under the building codes.

Commercial Uses.

Commercial uses means a use category including land uses or activities involving the production, processing, manufacturing, or sale of goods or services for financial gain, including uses that provide merchandise to the general public. Accessory uses may include offices, storage, food service, or other amenities primarily for the use of employees and parking.

Compatibility.

The degree to which land uses or types of development can coexist or integrate.

Easement. *(FAA AC 5020-1)*

The legal right of one party to use a portion of the total rights in real estate owned by another party. This may include the right of passage over, on, or below property; certain air rights above the property, including view rights; and the rights to any specified from of development or activity, as well as any other legal rights in the property that may be specified in the easement document.

Federal Aviation Administration (FAA). *(FAA Web site)*

A federal agency charged with regulating air commerce to promote its safety and development; encourage and develop civil aviation, air traffic control, air navigation; and promoting the development of a national system of airports.

Federal Aviation Regulations (FAR). *(FAA FAR)*

Regulations established and administered by the FAA that govern civil aviation and aviation-related activities.

- **FAR Part 36.** *(FAA FAR Sec. 36.1)*
Regulation establishing noise standards for the civil aviation fleet.
- **FAR Part 91.** *(FAA FAR Sec. 91.1)*
Regulation pertaining to air traffic and general operating rules, including operating noise limits.
- **FAR Part 150.** *(FAA FAR Sec. 150.1)*
Regulation pertaining to airport noise compatibility planning.
- **FAR Part 161.** *(FAA FAR Sec. 161.1)*
Regulation pertaining to notice and approval of airport noise and access restrictions.
- **FAR Part 77.** *(FAA FAR Sec. 77.1)*
Objects Affecting Navigable Airspace - Part 77 (a) establishes standards for determining obstructions in navigable airspace; (b) defines the requirements for notice to the FAA Administrator of certain proposed construction or alteration; (c) provides for aeronautical studies of obstructions to air navigation to determine their effect on the safe and efficient use of airspace; (d) provides for public hearings on the hazardous effect of proposed

construction or alteration on air navigation; and (e) provides for establishing antenna farm areas.

General Aviation Airport.

Any airport that is not an air carrier airport or a military facility.

Height.

Height is utilized for the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the Official Height Zoning Map; height shall be measured as the highest point of a structure, tree, or other object of natural growth, measured from the mean sea level elevation unless otherwise specified.

Hold Harmless Agreement.

An agreement which holds airport sponsors or jurisdictions harmless for alleged damages resulting from airport operations. Such agreements are recorded in deeds or permits as a condition of approval of a regulatory land use decision.

Industrial, Wholesale Trade, and Storage Uses.

A use category including the following use types:

(a) Industrial development or uses involved in the research, design, manufacturing, processing, fabrication, packaging, or assembly of goods. Natural, man-made, raw, secondary, or partially completed materials may be used. Products may be finished or semi-finished and are generally made for the wholesale market, for transfer to other plants, or to order for firms or customers. Goods are generally not displayed or sold on site, but if so, they are a subordinate part of sales (typically 10% or less of the total gross floor area). Relatively few customers come to the site.

(b) Industrial, manufacturing, wholesale trade, and warehouse/storage uses including uses that produce goods from raw or finished materials, uses that distribute goods in large quantities to primarily wholesale customers, or provide for storage or warehousing of goods, either in enclosed buildings or outdoors. Few customers, especially the general public, come to the site. Accessory activities may include sales, offices, parking, and storage.

Imaginary Surfaces. (FAA FAR Part 77.25)

Those areas established in relation to the airport and to each runway consistent with FAR Part 77 in which any object extending above these imaginary surfaces, by definition, is an obstruction.

- **Transitional surface.**

The transitional surface extends outward and upward at right angles to the runway centerline and extend at a slope of seven feet horizontally for each one foot vertically (7:1) from the sides of the primary and approach surfaces. The transitional surfaces extend to the point at which they intercept the horizontal surface at a height of 150 feet above the established airport elevation.

- **Horizontal surface.**

The horizontal surface is a horizontal plane located 150 feet above the established airport elevation and encompasses an area from the transitional surface to the conical surface. The perimeter is constructed by generating arcs from the center of each end of the primary surface and connecting the adjacent arcs by lines tangent to those arcs.

- **Conical surface.**

The conical surface extends upward and outward from the periphery of the horizontal surface at a slope of 20 feet horizontally for every one foot vertically (20:1) for a horizontal distance of 4,000 feet.

- **Approach surface.**

The approach surface is longitudinally centered on the extended runway centerline and extends outward and upward from the end of the runway primary surface. The approach slope of a runway is a ratio of 20:1, 34:1, or 50:1, depending on the approach type. The length of the approach surface varies from 5,000 to 50,000 feet and also depends upon the approach type.

Incompatible Land Use. *(FAA FAR Sec. 150.7)*

The use of land which is normally incompatible with the aircraft and airport operations (such as, but not limited to, homes, schools, nursing homes, hospitals, and libraries).

Instrument Approach Procedure. *(FAA Pilot/Controller Glossary)*

A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority.

Instrument Flight Rules (IFR). *(FAA Pilot/Controller Glossary)*

Rules governing the procedure for conducting instrument flight. In addition, it is a term used by pilots and controllers to indicate a type of flight plan.

Instrument Landing System (ILS). *(FAA Pilot/Controller Glossary)*

A precision instrument approach system which normally consists of the following electronic components and visual aids: localizer, glideslope, outer marker, middle marker, and approach lights.

Itinerant Operation. *(FAA AC 150/5325-4B)*

Takeoff or landing operations of airplanes going from one airport to another airport that involves a trip of at least 20 miles. Local operations are excluded.

Land Use Compatibility. *(FAA Web site)*

The coexistence of land uses surrounding the airport with airport-related activities.

Lighting and Marking of Hazards to Air Navigation.

Installation of appropriate lighting fixtures, painted markings or other devices to such objects or structures that constitute hazards to air navigation.

Mitigation. *(FAA Web site)*

The avoidance, minimization, reduction, elimination or compensation for adverse environmental effects of a proposed action.

Navigation Aids (NAVAID). *(FAA Web site)*

Any facility used by an aircraft for guiding or controlling flight in the air or the landing or take-off of an aircraft.

Navigable Airspace.

The airspace above minimum altitude for safe flight, and includes the airspace needed to ensure safety in take-off and landing of aircraft.

Noise Exposure Contours. *(FAA Web site)*

Lines drawn around a noise source indicating constant energy levels of noise exposure. DNL is the measure used to describe community exposure to noise.

Noise Impact.

A condition that exists when the noise levels that occur in an area exceed a level identified as appropriate for the activities in that area.

Noise Sensitive Area. *(FAA AC 91-36D)*

Defined as an area where noise interferes with normal activities associated with the area's use. Examples of noise-sensitive areas include residential, educational, health, and religious structures and sites, and parks, recreational areas (including areas with wilderness characteristics), wildlife refuges, and cultural and historical sites where a quiet setting is a generally recognized feature or attribute..

Non-Conforming Use. *(FAA Web site)*

Any pre-existing structure, tree, or use of land that is inconsistent with the provisions of the local land use or airport master plans.

Non-Precision Instrument Runway. *(FAA AC 150/5190-4A)*

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.

Object. *(FAA AC 150/5300-13)*

Includes, but is not limited to above ground structures, NAVAIDSs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

Obstacle Free Zone (OFZ). *(FAA 150/5300-13)*

The OFZ is the airspace below 150 feet (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for the frangible visual NAVAID's that need to be located in the OFZ because of their function, in order to provide clearance protection for the aircraft landing or taking off from the runway, and for missed approaches.

Obstruction. *(FAA AC 150/5190-4A)*

Any structure, growth, or other object, including a mobile object, which exceeds a limiting height, specific to its geographic location relative to the runway/airport.

Off-Airport Property. *(FAA Web site)*

Property that is beyond the boundary of land owned by the airport sponsor

On-Airport Property. *(FAA Web site)*

Property that is within the boundary of land owned by the airport sponsor.

Overlay Zone. *(FAA Web site)*

A mapped zone that imposes a set of requirements in addition to those of any underlying zoning district.

Part 150 Study. *(FAA Web site)*

Part 150 is the abbreviated name for the airport noise compatibility planning process outlined in Part 150 of the Federal Aviation Regulation (FAR) that allows airport owners to voluntarily submit noise exposure maps and noise compatibility programs to the FAA for review and approval. See "Noise Compatibility Plan."

Primary Surface. *(FAA AC 150/5190-4A)*

A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; for military runways or when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The width of the primary surface is set forth in FAR Part 77. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

Primary Runway. (FAA AC 150/5325-4B General Definition)

The runway used for the majority of airport operations. Large, high-activity airports may operate two or more parallel primary runways.

Public Assembly Use.

Means a structure or outdoor facility where concentrations of people gather for purposes such as deliberation, education, shopping, business, entertainment, amusement, sporting events, or similar activities, but excluding air shows. "Public assembly use" does not include places where people congregate for relatively short periods of time, such as parking lots and bus stops, or uses approved by the FAA in an adopted airport master plan.

Public Use Airport. (FAA AC 150/5190-6)

Means either a publicly owned airport or a privately owned airport open for public use.

Residential and Accommodation Uses.

Mean a use category that includes the following use types:

(a) Residential uses that provide living accommodations, including sleeping, eating, cooking and sanitary facilities, to one or more persons, and where tenancies typically last longer than 30 days.

(b) Accommodation uses characterized by visitor-serving facilities that provide temporary lodging in guest rooms or guest units, for compensation, and with an average length of stay of less than 30 days. Accessory uses may include pools and other recreational facilities for the exclusive use of guests, limited storage, restaurants, bars, meeting facilities, and offices.

Runway Protection Zone (RPZ). (FAA AC 150/5300-13)

An area off the runway end designed to enhance the protection of people and property on the ground.

Runway Safety Area. (FAA AC 150/5300-13)

A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an overshoot, or excursion from the runway.

Structure.

Any object constructed or installed by humans, including, but without limitation, buildings, towers, smokestacks, and overhead transmission lines, including the poles or other structures supporting the same.

Utility Runway.

A utility runway constructed for and intended to be used by propeller driven aircraft of 12,500 pounds gross weight or less.

Variance. *(FAA Web site)*

An authorization for the construction or maintenance of a building or structure, or for the establishment or maintenance of a use of land that is prohibited by a zoning ordinance. A lawful exception from specific zoning ordinance standards and regulations predicated on the practical difficulties and/or unnecessary hardships on the petitioner being required to comply with those regulations and standards from which an exemption or exception is sought.

Visual Approach. *(FAA Web site)*

An approach to an airport conducted with visual reference to the terrain.

Visual Runway. *(FAA AC 150/5300-13)*

A runway without an existing or planned straight-in instrument approach procedure.

Visual Flight Rules (VFR). *(FAA FAR Sec. 170.3)*

Rules that govern the procedures for conducting flight under visual conditions. The term "VFR" is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, "VFR" is used by pilots and controllers to indicate the type of flight plan.

Wetland.

Land on which water covers the soil or is present either at or near the surface of the soil or within the root zone, all year or for varying periods of time during the year, including during the growing season. *(FAA AC 150/5200-33A)* Wetlands provide a variety of functions and can be regulated by local, state, and Federal laws. Normally, wetlands are attractive to many types of wildlife, including many, which rank high on the list of hazardous wildlife species

Wildlife Attractants.

Means any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's air operations area. These attractants include, but are not limited to, architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

Wildlife Hazards.

Means species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under the control, that are associated with aircraft strike

problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard.

Section 6-4-7, Airport Overlay Zoning Maps

The Airport Height Overlay Zoning Districts established by an Ordinance adopted on ____ day of _____, 20 ____ is illustrated on the official Keokuk Municipal Airport Height Overlay Zoning Map consisting of ____ sheets, prepared by _____, and dated _____, attached as Exhibit__ to this Ordinance. Such Official Height Overlay Zoning Map, may be amended, and all notations, references, elevations, data, zone boundaries, and other information thereon, is hereby adopted as part of this Ordinance

Section 6-4-8, Airport Overlay Zones

FAR Part 77 Surfaces and RPZs have been combined to create five airport overlay zones. These five zones are designed to maintain compatible land uses and related heights around Keokuk Municipal Airport.

1. Definition of Zones

Five airport overlay zones are prescribed within this Ordinance. Specific dimensions for the individual zones for each runway end are noted in the following tables and text. The Airport Overlay Zoning Maps should be evaluated to determine the specific area of impact associated with each zone.

1.1 Zone A – Runway Protection Zone (RPZ)

Zone A is intended to provide a clear area that is free of above-ground obstructions and structures. This zone is closest to the individual runway ends. The dimensional standards for this zone are the same as those described in the *Airport Design AC* (AC 150/5300-13 Change 11) and are shown in the following table.

Table1: Zone A Dimensional Requirements

Runway Ends	Approach Visibility Minimums <u>1</u>	Dimensions			
		Length L feet	Inner Width W ₁ feet	Outer Width W ₂ feet	RPZ acres
Runway 8	Not lower than ¾ mi	1,700	1,000	1,510	48.978
Runway 26	Lower than ¾ mi.	2,500	1,000	1,750	78.914
Runway 14	Visual and not lower than ¾ mi.	1,000	500	700	13.770
Runway 32	Visual and not lower than ¾ mi.	1,000	500	700	13.770

- 1 The RPZ dimensional standards are for the runway end with the specified approach visibility minimums. The departure RPZ dimensional standards are equal to or less than the approach RPZ dimensional standards. When an RPZ begins other than 200 feet (60m) beyond the runway end, separate approach and departure RPZs should be provided. Refer to FAA AC 150/5300-13, Change 11, Appendix 14 for approach and departure RPZs.

Source: FAA AC 150/5300-13, Change 11, Airport Design Standards

1.2 Zone B – Approach Surface

Zone B is a critical airport overlay zoning surface that reflects the approach and departure areas for each runway at an airport. The size of Zone B is predicated upon the type of approach (visual, non-precision, or precision) that a specific runway has and the type/size of aircraft utilizing the runway. The following table illustrates the various sizes of Zone B based upon the specific runway criteria. A portion of Zone B is overlain by Zone A because the approach surface and RPZ overlap the entire length of the RPZ. Consequently, the length of Zone B begins at the inner edge of the RPZ. Approach slopes are included in Section 6-4-6 Definitions.

Table 2: Airport Overlay Zones B-D Dimensional Standards

Item	Runway Dimensional Standards (Feet)			
	Runway 8	Runway 26	Runway 14	Runway 32
Primary surface width and Zone B inner width	1,000	1,000	500	500
Zone B end width	4,000	16,000	2,000	2,000
Zone B length	10,000	50,000	5,000	5,000
Zone C width	1,050	1,050	1,050	1,050
Zone D radius	10,000	10,000	5,000	5,000
Zone E width	4,000	4,000	4,000	4,000

1.3 Zone C – Transitional Surface

Zone C includes those areas that are parallel to the runway pavement and extend 1,050' from the edge of the primary surface paralleling the runway and extended runway centerline until they reach the end of Zone A at a 90 degree angle. The specific dimensions for Zone C are based upon various options for the primary surface that is predicated upon the type of approach and critical aircraft. Transitional Surface slopes are included in Section 6-4-6 Definitions.

1.4 Zone D – Horizontal Surface

Zone D is typically elliptical in shape, depending upon the runway types and configurations at individual airports. The Horizontal Surface is 150' above the base airport elevation from the Transitional Surface to the Conical Surface.

1.5 Zone E – Conical Surface

Zone E is the outermost zone of the airport overlay zoning areas and has the least number of land use restriction considerations. The zone begins at the edge of the horizontal surface and is 4,000 feet in width paralleling the horizontal surface. Conical Surface slopes are included in Section 6-4-6 Definitions.

2. Zone Compatibility

2.1 The following tables shall be utilized as a tool for the airport zoning administrator to evaluate land use compatibility for various land use classifications. Uses identified as compatible shall not require additional review, however, consideration should be given to the following five areas of concerns:

- Noise sensitive related issues
- High concentrations of people
- Tall structures
- Visual obstructions
- Wildlife and bird attractants

2.2 Uses found to be NOT compatible shall be precluded from development within the specific zones.

2.3 Uses found to require additional review shall be evaluated for general compatibility utilizing the *Compatible Land Use Planning Checklist* and the five primary areas of concern noted above.

Keokuk Municipal Airport Zone Chart #1					
<i>C = Compatible</i>		<i>AR = Additional Review Required</i>		<i>NC = Not Compatible</i>	
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Residential Activities					
Single-Family Uses (1 dwelling per lot)					
<i>Detached Single Family Dwelling</i> (i.e. farm dwelling, detached single family)	NC	AR	NC	AR	C

house, manufactured/modular/mobile homes if converted to real property and taxed)					
<i>Detached Zero Lot Line Dwelling</i> (i.e. condominium)	NC	AR	NC	AR	C
<i>Attached Single Family Dwelling</i> (i.e. townhouses)	NC	AR	NC	AR	C
Two Family Uses (i.e. two principal dwelling units within one building on the same parcel)	NC	AR	NC	AR	C
Multi-Family Uses (i.e. three or more principal dwelling units within a single building on the same parcel, apartments such as condominium, elder, assisted living, townhouse-style)					
<i>Low-Rise</i> (1-3 Levels)	NC	NC	NC	AR	C
<i>Mid-Rise</i> (4-12 Levels)	NC	NC	NC	AR	C
<i>High-Rise</i> (13+ Levels)	NC	NC	NC	AR	C
Group Living Uses (i.e. assisted living, group care facilities, nursing and convalescent homes, independent group living)	NC	NC	NC	AR	C
Manufactured Housing Parks	NC	NC	NC	AR	C

Keokuk Municipal Airport Zone Chart #2					
C = Compatible AR = Additional Review Required NC = Not Compatible					
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Commercial Activities					
Eating and Drinking Establishments (i.e. restaurants, cafes, coffee shops, fast food restaurants, bars, nightclubs, taverns, cocktail lounges)	NC	AR	AR	C	C
Quick Vehicle Servicing Uses (i.e. full-serve and mini-serve gas station, unattended card key service stations, car washes)	NC	AR	AR	C	C
Office Uses (i.e. business, government, professional, medical, or financial)					
<i>General Office</i> (i.e. professional offices, financial businesses, government offices)	NC	AR	AR	AR	C
<i>Low-Rise</i> (1-3 Levels)	NC	AR	AR	AR	C
<i>Mid-Rise</i> (4-12 Levels)	NC	NC	NC	AR	C
<i>High-Rise</i> (13+ Levels)	NC	NC	NC	AR	C
<i>Medical/Dental Office</i> (i.e. medical and dental clinics, chiropractic clinics, physical therapy clinics)	NC	AR	AR	AR	C
<i>Low-Rise</i> (1-3 Levels)	NC	AR	AR	AR	C
<i>Mid-Rise</i> (4-12 Levels)	NC	NC	NC	AR	C
<i>High-Rise</i> (13+ Levels)	NC	NC	NC	AR	C

Keokuk Municipal Airport Zone Chart #3

C = Compatible

AR = Additional Review Required

NC = Not Compatible

Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Commercial Activities (Continued)					
Retail Uses (i.e. sale, lease, or rent of new or used products)					
<i>Sales-Oriented</i> (i.e. appliances, convenience stores, bakeries, electronics, furniture, garden supplies, gas stations, groceries, hardware, malls, strip malls, videos)	NC	AR	AR	AR	C
<i>Personal Service-Oriented</i> (i.e. retail service-banking establishments, laundromats/dry cleaning, quick printing services, beauty/tanning salons, funeral homes)	NC	AR	AR	AR	C
<i>Repair-Oriented</i> (i.e. consumer goods-electronics, office equipment, appliances)	NC	AR	AR	AR	C
<i>Hospitality-Oriented</i> (hotels, motels, convention centers, meeting halls, event facilities)	NC	NC	NC	AR	C
<i>Low-Rise</i> (1-3 Levels)	NC	AR	AR	AR	C
<i>Mid-Rise</i> (4-12 Levels)	NC	NC	NC	AR	C
<i>High-Rise</i> (13+ Levels)	NC	NC	NC	AR	C
<i>Outdoor Storage and Display-Oriented</i> (i.e. outdoor storage-lumber yards, vehicles sales, landscape material and nursery product sales, farm supply and equipment sales)	NC	AR	AR	AR	C
Surface Passenger Services (i.e. passenger terminals for buses, rail services, local taxi and limousine)	NC	AR	AR	C	C

services)					
Vehicle Repair Uses (i.e. vehicle repair or service shops, alignment shops, tire sales)	NC	AR	AR	C	C
Keokuk Municipal Airport Zone Chart #4					
C = Compatible		AR = Additional Review Required		NC = Not Compatible	
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Industrial/Manufacturing Activities					
Industrial Service Uses (i.e. machine shops, tool repair, towing and vehicle storage, building supply yards, heating/plumbing/electrical contractors, exterminators, janitorial services, fuel oil distributors, solid fuel yards)	NC	AR	AR	AR	C
Manufacturing and Production Uses (i.e. manufacturing, processing, fabrication, packaging or assembly of goods)					
<i>Technical/Light Manufacturing</i> (i.e. electrical components, engineering, scientific and research, office, computer hardware/software, optical, pharmaceuticals, printing/photo facilities, publishing)	NC	AR	AR	AR	C
<i>General Manufacturing</i> (i.e. manufacturing, compounding, assembling or treatment of most articles, materials, or merchandise)	NC	AR	AR	AR	C
<i>* Heavy Manufacturing</i> (i.e. concrete and asphalt plants, meat packing plants, wet corn milling, manufacturing of animal feed, paper/paperboard mills, ethanol plants)	NC	NC	NC	AR	C
Mining and Extraction Uses	NC	NC	NC	AR	C
Salvage Operations (i.e. firms that collect, store, and dismantle damaged or discarded vehicles, machinery, appliances, and building material)	NC	C	NC	C	C
Keokuk Municipal Airport Zone Chart #5					
C = Compatible		AR = Additional Review Required		NC = Not Compatible	

Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Industrial/Manufacturing Activities (Continued)					
Self-Service Storage Uses (i.e. mini-warehouses/storage facilities)	NC	C	AR	C	C
Warehouse and Freight Uses (i.e. major wholesale distribution centers, general freight storage, railroad switching yards, bus/rail car storage lots, parcel service, grain terminals)	NC	C	AR	C	C
Waste-Related Uses (i.e. recycling centers, sanitary landfills, waste transfer stations, composting, energy recovery plants, sanitary and water treatment facilities, sanitary collection/pumping facilities, hazardous waste collection sites)	NC	NC	NC	AR	AR
Wholesale Sales Uses (i.e. sale, lease, or rental of products to retailers for industrial, institutional, or commercial business users)	NC	AR	AR	AR	C

* Heavy Manufacturing typically has excessive smoke, dust, or hazardous waste.

Keokuk Municipal Airport Zone Chart #6					
<i>C = Compatible</i>		<i>AR = Additional Review Required</i>		<i>NC = Not Compatible</i>	
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Institutional Activities					
Basic Utility Uses (i.e. utility substation facilities, electrical substations, water and sewer lift stations, water towers)	NC	AR	NC	AR	C
College and Universities (i.e. public or private colleges and universities, technical colleges, seminaries)	NC	NC	NC	AR	C
Community Service Uses (i.e. public, nonprofit, or charitable nature providing a local service to the people)					
<i>General Community Service</i> (i.e. libraries, museums, transit centers, park and ride facilities, senior/community/neighborhood centers, police and fire stations)	NC	AR	AR	AR	C
<i>Community Service-Shelter</i> (i.e. transient housing)	NC	AR	AR	AR	C

Daycare Uses (i.e. childcare centers, adult daycare, preschools .after school programs)	NC	NC	NC	AR	C
Detention Facilities (i.e. prisons, jails, probation centers, juvenile detention homes, halfway houses)	NC	NC	NC	AR	C
Educational Facilities (i.e. public and private schools)					
<i>General Educational Facilities</i> (i.e. public and private elementary, middle, junior, and senior high schools including religious, boarding, military schools)	NC	NC	NC	AR	C
<i>Specialized Education Facilities</i> (i.e. specialized trade, business, or commercial courses, nondegree-granting schools)	NC	NC	NC	AR	C
Hospitals (i.e. hospitals, medical centers)	NC	NC	NC	AR	C
Religious Assembly Uses (i.e. churches, temples, synagogues, mosques, Masonic, eagles, moose, or elk lodges)	NC	NC	NC	AR	C
Keokuk Municipal Airport Zone Chart #7					
<i>C = Compatible AR = Additional Review Required NC = Not Compatible</i>					
Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Infrastructure Activities					
Communication Transmission Facility Uses (i.e. broadcast, wireless, point to point, emergency towers and antennae)	NC	NC	NC	AR	AR
Parking Uses (i.e. ground lots, parking structures)	AR	C	AR	C	C
Transportation Uses (i.e. highways, interstates, local and county roads)	AR	C	C	C	C
Utility Uses (i.e. solar power generation equipment, wind generators, wind farms)	NC	NC	NC	AR	AR

Keokuk Municipal Airport Zone Chart #8

C = Compatible

AR = Additional Review Required
Compatible

NC = Not

Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Infrastructure Activities					
Agricultural Uses (i.e. commercial cultivation of plants, livestock production)					
<i>Plant-related</i> (i.e. crop farming, vegetable, fruit, and tree, wholesale plant nurseries)	AR	AR	AR	C	C
<i>Animal-related</i> (i.e. livestock operations, dairy farms, horse farms)	AR	AR	AR	C	C
<i>Resident-related</i> (i.e. single-family home, mobile home if converted to real property and taxed)	NC	AR	NC	AR	C
<i>Facility-related</i> (i.e. fuel bulk storage/pumping facility, grain elevator, livestock/seed/grain sales)	NC	NC	NC	AR	AR
Floodplains	AR	AR	AR	C	C
Water Bodies (i.e. open bodies containing water)					
<i>Man-made resources</i> (i.e. mining and extraction, water detention ponds, wetlands)	NC	AR	AR	AR	AR
<i>Naturally occurring</i> (i.e. lakes, ponds, prairie pot holes, rivers, streams, wetlands)	NC	AR	AR	C	C
Wildlife Preservation Areas (i.e. petting zoos, wildlife rehabilitation centers, zoos)	NC	NC	NC	AR	C

Keokuk Municipal Airport
Zone Chart #9

C = Compatible

AR = Additional Review Required

NC = Not Compatible

Land Uses	Zone A	Zone B	Zone C	Zone D	Zone E
Parks and Recreation Activities					
Commercial Recreational Uses (i.e. facilities used for physical exercise, recreation, or culture)					
<i>Outdoor</i> (i.e. campgrounds, tennis/swimming facilities, drive-in theaters, skating rinks, pavilions, amphitheaters)	NC	NC	NC	AR	C
<i>Indoor</i> (i.e. physical fitness centers, health clubs, bowling alleys, skating rinks, billiard halls, arcades, indoor theaters)	NC	AR	NC	AR	C
<i>Golf</i> (i.e. golf driving ranges, outdoor miniature golf, 9+ hole courses)	NC	AR	NC	C	C
Utility Uses (i.e. amusement/theme parks, fairgrounds, racetracks, sports arenas)	NC	NC	NC	AR	AR
Parks (i.e. aquatic, mini, private, sports, neighborhood, school, community)	NC	AR	NC	C	C
Casino	NC	NC	NC	AR	C

SECTION 6-4-9, Airport Zoning Commission

1. Powers and Duties.

1.1 There is created an airport zoning commission to recommend the boundaries of the various original zones, and appropriate regulations and restrictions to be enforced therein. Such commissions shall, with due diligence, prepare a preliminary

report and hold public hearings thereon before submitting its final report to the County Board of Supervisors and the Keokuk City Council. The commission, may, from time to time, recommend amendments, supplements, changes or modifications to the Board of Supervisors and the City Council.

1.2 Composition. The airport zoning commission shall consist of five (5) members. Two (2) members shall be appointed by the City Council, and two (2) members shall be appointed by the County Board of Supervisors. One (1) additional member, to act as chairman, shall be selected by majority vote of the four (4) appointed members. The terms of the members shall be for five (5) years, excepting that when the Board is first created, one (1) member appointed by the City Council and the County Board of Supervisors shall serve a term of two (2) years, and the other a term of four (4) years. Members shall be removable by the appointing authority for cause, upon written charges, after a public hearing.

1.3 Meetings. The airport zoning commission shall adopt rules for its governance and in harmony with the provisions of this title. Meetings of the commission shall be held at the call of the chairman and at such other times as the airport zoning commission may determine. The chairman, or in his absence, the acting chairman, may administer oaths and compel the attendance of witnesses. All meetings of the airport zoning commission shall be open to the public. The airport zoning commission shall keep minutes of its proceedings showing the vote of each member upon each question, or if absent, or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall immediately be filed in the office of the Keokuk City Clerk and Lee County Auditor.

SECTION 6-4-10 Airport Zoning Board of Adjustment

1.1 Powers and Duties. There is created a Board of Adjustment to have and exercise the following powers: To hear and decide appeals from any order, requirement, decision or determination made by the Airport Zoning Commission/Administrative Agency in the enforcement of this title; To hear and decide exemptions to the terms of this title upon which such Board of Adjustment, under such regulations, may be required to pass; and To hear and decide specific variances. The Board of Adjustment shall have the powers established in Iowa Statutes, Section 414.12 and Section 358A.15.

1.2 Composition - The Board of Adjustment shall consist of five (5) members. Two (2) members shall be appointed by the Keokuk City Council and two (2) members shall be appointed by the Lee County Board of Supervisors. One (1) additional member to act as chairman shall be selected by a majority vote of the four (4) appointed members. The terms of the members shall be for five (5) years excepting that when the Board is created, one (1) member appointed by the City Council and the Board of Supervisors shall serve a term of two (2) years, and the other a term of

four (4) years. Members shall be removable by the appointing authority for a cause, upon written charges, after a public hearing.

1.3 Reversal of Orders - The concurring vote of a majority of the members of the Board of Adjustment shall be sufficient to reverse any order, requirement, decision or determination of any administrative official, or to decide in favor of the applicable on any matter upon which it is required to pass under this title, or to effect variations of this title.

1.4 Meetings - The Board of Adjustment shall adopt rules for its governance and in harmony with the provisions of this title. Meetings of the Board shall be held at the call of the chairman and at such other times as the Board of Adjustment may determine. The chairman, or in his absence, the acting chairman, may administer oaths and compel the attendance of witnesses. All meetings of the Board of Adjustment shall be open to the public. The Board of Adjustment shall keep minutes of its proceedings, showing the votes of each member upon each question, or if absent or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall immediately be filed in the office of the City Clerk and the County Clerk, and on due cause shown.

SECTION 6-4-11, Ordinance Administration

2 Ordinance Administration

2.1 It shall be the duty of the ___Keokuk Zoning Administrator___ referred to herein as the "Airport Zoning Administrator", to administer the regulations prescribed herein. Applications for permits and variances shall be made to the Airport Zoning Administrator upon forms furnished by the Airport Zoning Administrator. Applications for action by the Board of Adjustment shall be forthwith transmitted by the Airport Zoning Administrator should an applicant request review of a permit decision by the Airport Zoning Administrator. Permit applications shall be either granted or denied by the Airport Zoning Administrator according to the regulations prescribed herein.

SECTION 6-4-12, Airport Development Permits

1. Development Permits

1.1 It shall be the duty of the applicant to provide the Airport Zoning Administrator with sufficient information to evaluate the proposed action. This information shall include but not be limited to the following as noted in the *Compatible Land Use Planning Checklist in Exhibit B*:

- a) Contact information
- b) Structure information
- c) Site location information
- d) Drawing information
- e) Height Certification
- f) Identify current and potential compatibility concerns

1.2 The Airport Zoning Administrator shall evaluate the proposal based upon information provided by the applicant. The Airport Zoning Administrator shall approve the permit if after evaluation, the proposed project is found to be adequately compatible. Adequate compatibility shall take into consideration the following information:

- a) Completed compatible land use planning checklist (Exhibit B);
- b) Completed FAA 7460-1 review of impacts;
- c) Mapped identification of location of site in Part 77 surface;
- d) Municipal airport zone charts (listed herein).

Should the proposed project be found to be incompatible after review, the Airport Zoning Administrator shall deny the permit. Should the permit be denied, the applicant shall have the right to request a variance or an appeal as prescribed in this Ordinance.

SECTION 6-4-13, Hazardous Markings and Lighting

1. Markings and Lighting.

1.1 Lighting and marking requirements will be determined through an FAA 7460-1 airspace analysis. The owner of any structure(s), object, natural vegetation, or terrain determined by the Airport Zoning Administrator to be an airport hazard is hereby required to install, operate, and maintain such markers, lights, and other aids to navigation necessary to indicate to the aircraft operators in the vicinity of an airport the presence of an airport hazard. Hazardous markers and lights shall be installed, operated, and maintained at the expense of the owner of the structure(s), object, vegetation, or terrain.

SECTION 6-4-14, Height Limitations

1. Limitations.

1.1 No structure, object, natural vegetation, or terrain shall be erected, altered, allowed to grow or be maintained within any airport zoning district established by this Ordinance to a height in excess of the applicable height limitations set forth in the Tall Structures Ordinance and Airport Overlay Ordinance.

1.2 The permitted height shall not exceed the difference between the base elevation and the height limitations or slopes, as illustrated on the "Official Keokuk Municipal Airport Height Overlay Map" within the various airport zoning districts encompassed by this Ordinance. The Tall Structures Ordinance and Airport Overlay Ordinance is located in the City of Keokuk Public Works office and the Lee County Engineer's Office.

1.3 An FAA 7460-1 airspace review shall provide a portion of the information necessary to evaluate potential height impacts. However, it shall not be the sole source of review.

SECTION 6-4-15, Variances

1. Variances.

1.1 Any person desiring to erect, alter, or increase the height of any structure, object, or to permit the growth of any natural vegetation, or otherwise use his property in violation with any section of this Ordinance, may apply to the Board of Adjustment for variance from such regulation.

1.2 No application for variance to the requirements of this Ordinance may be considered by the Board of Adjustment unless a copy of the application has been submitted to the Airport Zoning Administrator for an opinion as to the aeronautical effects of the variance.

1.3 Variances shall be allowed where a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship, and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations of this ordinance; provided, however, that any such variance may be allowed subject to any reasonable conditions that the board of adjustment may deem necessary to effectuate the purposes of this ordinance, including the reservation of the right of the municipality, at its own expense, to install, operate, and maintain thereon such markers and lights as may be necessary to indicate to operators of aircraft the presence of the airport hazard.

SECTION 6-4-16-Appeals

1. Appeals.

1.1 Any person, property owner, or taxpayer impacted by any decision under this Ordinance may appeal to the Board of Adjustment.

SECTION 6-4-17, Judicial Review

1. Judicial Review.
 - 1.1 Any person aggrieved, or any taxpayer affected, by any decision of the Board of Adjustment, may appeal to the Court of Record as provided in Iowa Code, Section 414.15.

SECTION 6-4-18, Penalties

1. Penalties.
 - 1.1 Any violation of this Ordinance or of any regulation, order, or ruling promulgated hereunder shall constitute a simple misdemeanor, and shall be punishable by a fine of not more than \$ 250 dollars or imprisonment for not more than 30 (days) or both; each day a violation continues to exist shall constitute a separate offense.

SECTION 6-4-19, Conflicting Regulations

1. Conflicting Regulations.
 - 1.1 Where there exists a conflict between any of the regulations or limitations prescribed in this Ordinance and any other regulations applicable to the same area, whether the conflict be with respect to height or structures, the use of land, or any other matter, the more stringent limitation or requirement shall govern and prevail.

SECTION 6-4-20, Severability

1. Severability.
 - 1.1 If any provision of this Ordinance or the application thereof to any person or circumstances is 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

SECTION 6-4-21, Effective Date

This Ordinance shall be in effect from and after its passage by the governing body and publication and posting as required by law.

Adopted on this _____ day of _____, 20__.

Exhibit A-Official Keokuk Municipal Airport Height Overlay Map

The exhibit provides the Official Airport Land Use & Height Overlay Zoning Maps to be kept on file with the appropriate governmental entities. The maps must be amended when changes occur within the jurisdictional boundaries of these maps. The maps must be prepared and adopted concurrently with the Ordinance.

Exhibit B-Airport Land Use Compatibility Checklist

The exhibit includes a checklist to examine compatibility between airports and surrounding land uses. The document is excerpted from "Iowa Airport Land Use Guidebook", Appendix J, produced by the Iowa Department of Transportation Office of Aviation.

EXHIBIT A – HEIGHT OVERLAY MAP

DRAFT

**FAR PART 77
SURFACES**

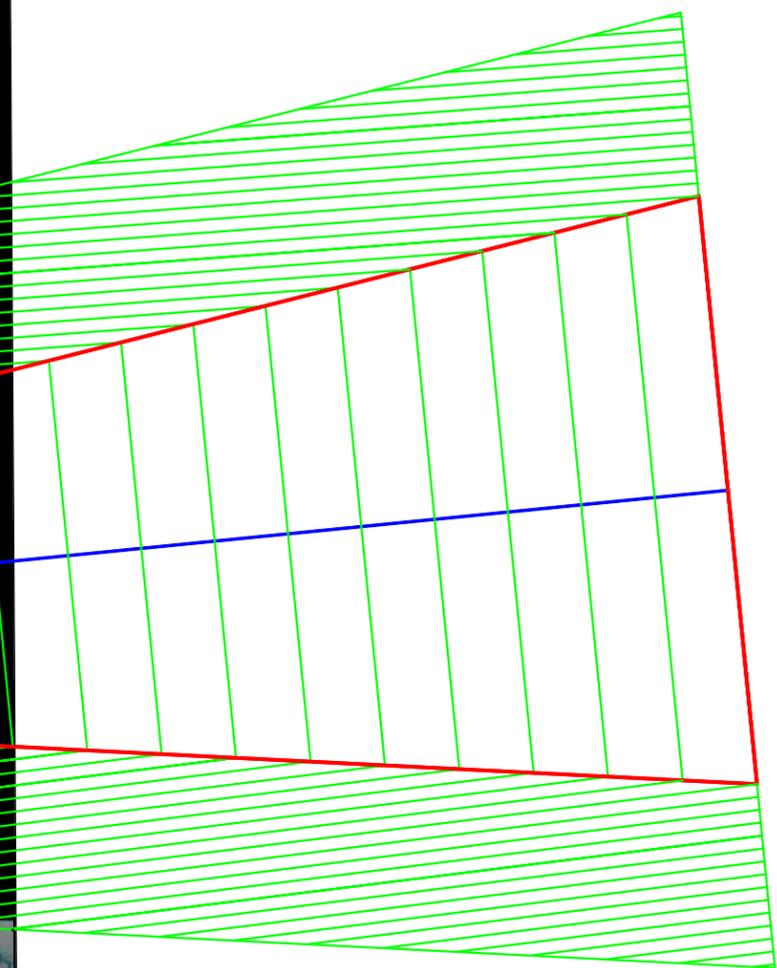
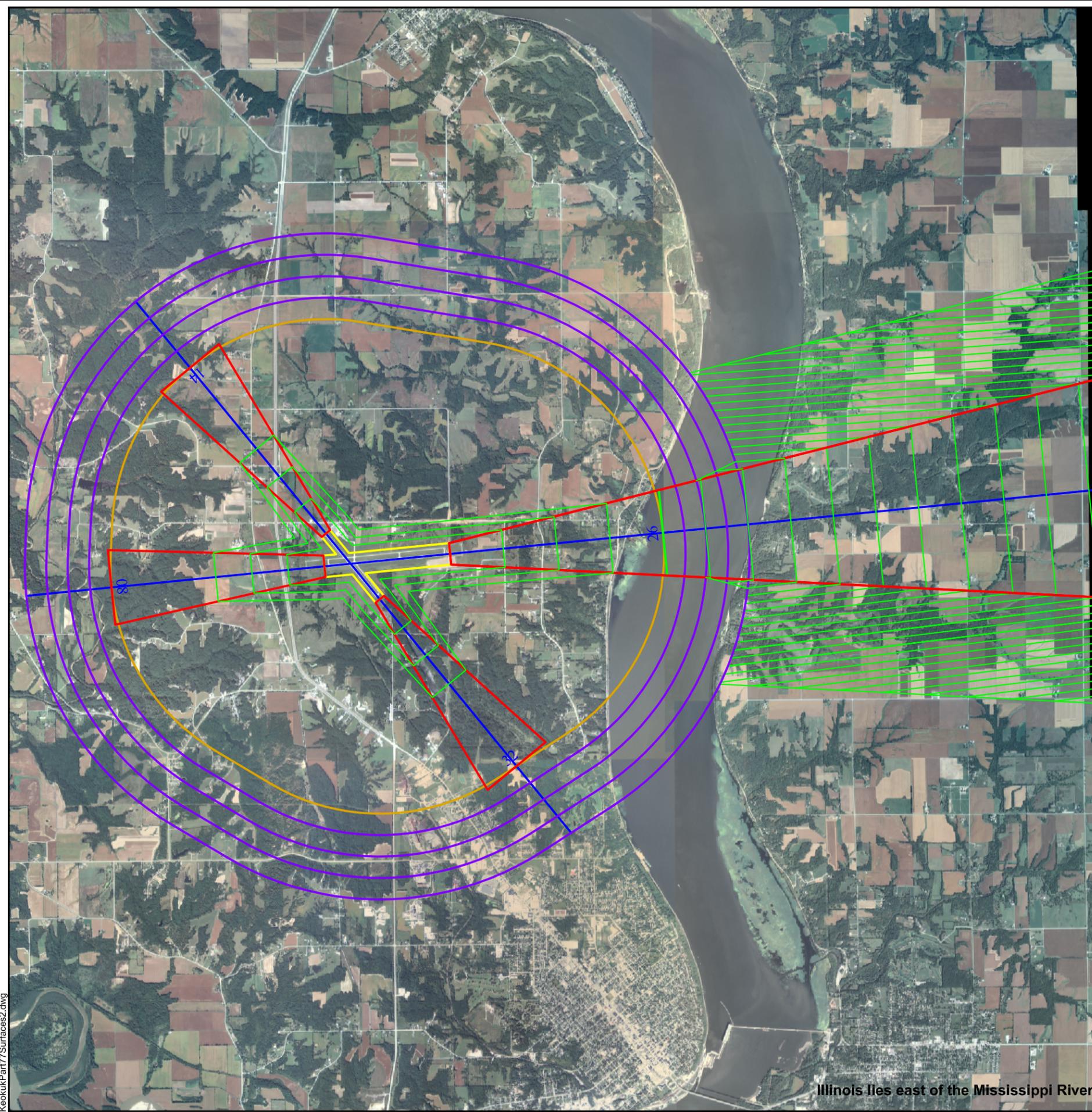
KEOKUK MUNICIPAL
AIRPORT

KEOKUK, IOWA

Prepared for:



Iowa Dept of Transportation
Office of Aviation
800 Lincoln Way
Ames, IA 50010
515-239-1691
www.iawings.com



-  Runway Centerline
-  Primary Surface
-  Approach Surface
-  Transitional Surface
-  Horizontal Surface
-  Conical Surface
-  Airport Reference
Point Elevation

This diagram is to be used for informational purposes only to provide a quick reference to aid airport managers and planners in understanding the extent of the FAR Part 77 surfaces as it relates to existing airport property. It is based on data contained in the FAA NASR database as of October 2007. Any use beyond the intended purpose is not authorized. For additional information or to determine planned airport development, contact the local airport sponsor. For further information regarding FAR Part 77 surfaces, consult <http://oeaaa.faa.gov/oeaaa/external/portal.jsp>.

Illinois lies east of the Mississippi River



Prepared by:



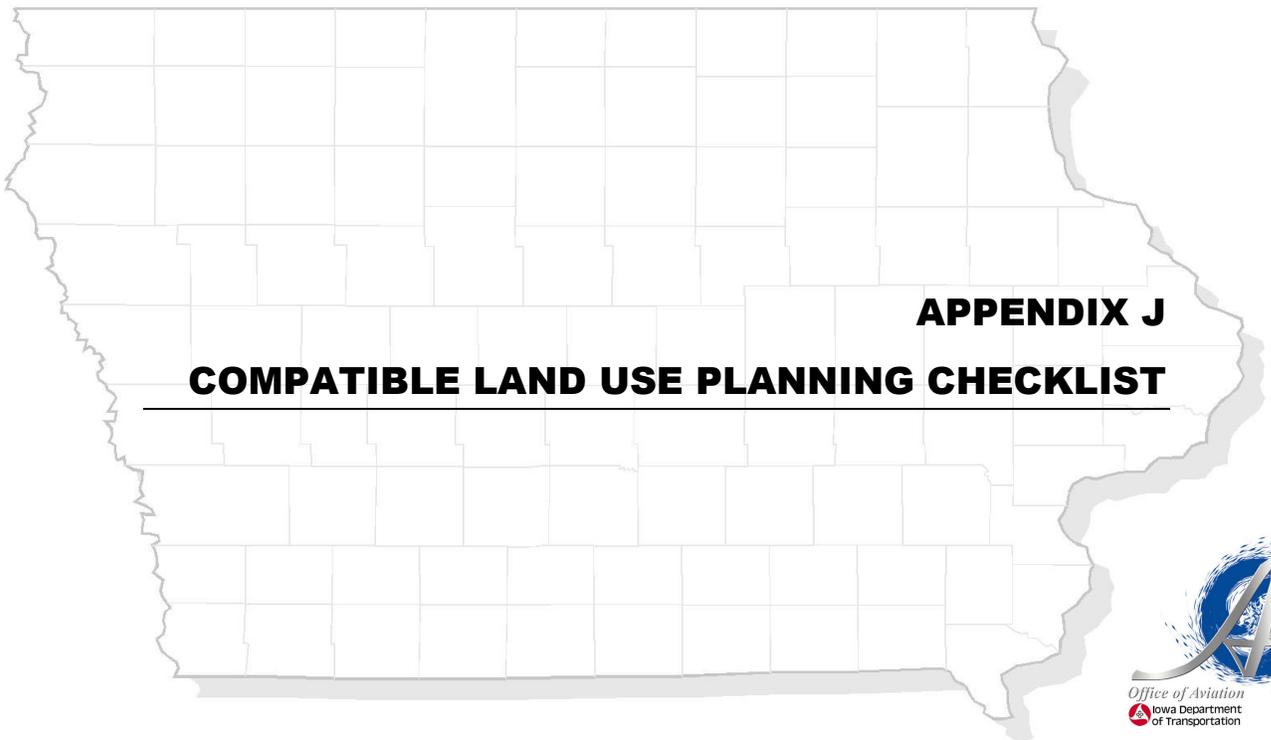
KeokukPart77Surfaces2.dwg

EXHIBIT B – AIRPORT LAND USE COMPATIBILITY
GUIDE

DRAFT



Iowa Airport Land Use Guidebook



APPENDIX J

COMPATIBLE LAND USE PLANNING CHECKLIST





Iowa Airport Land Use Guidebook

THIS PAGE INTENTIONALLY LEFT BLANK



Iowa Airport Land Use Guidebook

Sample – Compatible Land Use Planning Checklist & Permit Application

CONTACT INFORMATION

Applicant Information

Name _____

Contact _____

Address _____

City/State/Zip _____

Phone _____

Fax _____

Engineer/Architect Information

Name _____

Contact _____

Address _____

City/State/Zip _____

Phone _____

Fax _____

STRUCTURE INFORMATION

Type of Construction

_____ New Construction _____ Alteration Ground Elevation _____ (MSL)

_____ Permanent _____ Temporary Height of Structure + _____ (AGL)

Top Elevation = _____ (MSL)

Description and Use of Structure (dimensions, type of construction, purpose, etc):





Iowa Airport Land Use Guidebook

SITE INFORMATION

Site Address _____	Township _____
City/State/Zip _____	Section _____
Nearest Road Intersection _____	Latitude _____
	Longitude _____

DRAWING INFORMATION

Request will not be considered without an engineered drawing/plan set which illustrates the following:

_____ Drawing Identification (file name or #) and Date	_____ Engineers Seal
_____ Scale	_____ Contact Information
_____ Site Map	_____ Profile View of Structure

REMARKS

CERTIFICATION

I hereby certify that all statements on this application are true and correct

Signature _____	Date _____
Name and Title of Person Filing the Notice _____	
Phone of Person Filing Notice _____	



Iowa Airport Land Use Guidebook

OFFICIAL USE ONLY			
Site Location	_____ Zone A	_____ Zone B	_____ Zone C
	_____ Zone D	_____ Zone E	
Elevation Information	Ground Elevation at Site	_____	
	Height of Structure	_____	
	Top Elevation	_____	
	Allowable Elevation	_____	

IDENTIFY CURRENT AND POTENTIAL COMPATIBILITY CONCERNS

The purpose of this step is to begin to understand and identify airport land use compatibility concerns, both issues that already exist and ones that may arise if current airport activity and land use development patterns persist into the future.

- To what extent are generally recognized types or compatibility concerns apparent locally?
- How does the community feel about these concerns?
- What land use or airport-related actions are being taken to minimize the concerns?

Issues to Consider

1. Noise sensitivity related issues
 - a. Extent of noise impact in relation of the airports environs
 - b. Anticipated growth of airport
 - c. Extent of soundproofing
 - d. Extent of sound barriers
2. High concentrations of people
 - a. Number of people in a given area at one time
 - b. Anticipated growth of the development
 - c. Type of development and location of development relative to the runway ends and runway centerlines



Iowa Airport Land Use Guidebook

2. Tall structures
 - a. Height of structure
 - b. Location of structure relative to the runway ends and runway centerlines
 - c. FAA Form 7460

3. Visual obstructions
 - a. Amount of dust, glare, light emissions, smoke, steam, or smog the development will emit
 - b. Location of lighting fixtures relative to the runway ends and runway centerlines
 - c. Glare or reflection from glass windows or open water bodies such as retention ponds

4. Wildlife and bird attractants
 - a. Select and space vegetation species to minimize habitats
 - b. Maintain appropriate grass lengths to minimize wildlife attractants
 - c. Prohibit certain agricultural crops near airport
 - d. Eliminate standing water
 - e. Use of repellents to disperse wildlife in a humane manner

Resources for Identifying Compatible Land Uses

- Iowa Department of Aviation Office of Aviation
 - Iowa Airport Land Use Guidebook
 - Staff
- Local municipal zoning
 - Airport overlay zoning ordinance
 - Height limitation zoning ordinance
- Federal Aviation Administration
 - Regulations
 - FAR Part 77 standards for airspace protection
 - FAR Part 150 noise compatibility study guidance
 - Advisory Circulars
 - Land use compatibility
 - Wildlife hazards
 - Model zoning ordinance
 - Various pamphlets and other materials
 - FAA and other state and federal web sites



Iowa Airport Land Use Guidebook

DEVELOP COMPATIBLE CRITERIA

This step includes the process to determine the compatibility of the development relative to the airport.

Identify Primary Areas of Interest

- Noise Sensitivity Related Issues
- Safety Related Issues
 - High concentrations of people
 - Tall structures
 - Visual obstructions
 - Wildlife and bird attractants



Iowa Airport Land Use Guidebook

Noise Sensitivity Related Issues

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Could the land use exceed compatible DNL noise levels of 65 or greater?

If YES, then consider the following items:

- Can the structure/land use be insulated to reduce noise impacts?
- Are there outdoor activities that would be impacted by noise events?
- Can landscaping material be utilized to mitigate possible noise exposure?
- Can the structure and/or land use be shifted within the site to allow a more compatible location?
- Other:



Iowa Airport Land Use Guidebook

High Concentrations of People

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Could the land use attract a concentration of people?

If YES, then consider the following items:

- What is the size of concentration of people?
- What is the frequency of use at any given time?
- Are there outdoor activities associated with the use?
- Can the structure and/or land use be shifted within the site to allow a more compatible location?
- Other:



Iowa Airport Land Use Guidebook

Tall Structures

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Could the land use exceed height standards?

If YES, then consider the following items:

- Can the structure and/or land use be lowered?
- Can the structure and/or land use be shifted within the site to allow a more compatible location?
- The applicant MUST submit an FAA Form 7460 to the FAA.
- Response from the FAA regarding Form 7460 is attached to the report for reference. However, FAA determination does not guarantee local approval.
- Other:



Iowa Airport Land Use Guidebook

Visual Obstructions

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Could the land use cause light or glare reflection upward?

If YES, then consider the following items:

- Can installation of down shielded light fixtures be utilized?
- Can the number of lighting fixtures be reduced while still illuminating the land use area?
- Can lighting be configured in a linear manner such that it does not align with a runway or airport facility making it difficult for a pilot to distinguish?
- Can reflective building materials (such a mirrored/reflective glass, solar panels, metal roofs, etc) be limited within the vicinity of an airport?
- Can areas of water be located away from the airport, due to possible reflection concerns?
- Other:



Iowa Airport Land Use Guidebook

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Could the land use create or emit smoke, steam, or dust?

If YES, then consider the following items:

- Can the structure and/or land use be shifted within the site so that the prevailing wind directions carries the smoke, steam, or dust away from the airport to allow a more compatible land use?

- Can the land use activity be changed to reduce/limit emissions of smoke, steam, etc.?

- Land uses that create or emit smoke and steam generally contain stacks that could also be a height concern. *(See height standards above)*

- Other:



Iowa Airport Land Use Guidebook

Wildlife and Bird Attractants

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Could the land use have or create areas of standing water?

If YES, then consider the following items:

- Does the standing water have wildlife controls in place such as wires, balls, etc across the water body that detracts birds from landing, roosting, or resting in the vicinity of an airport?
- Can the detention area be constructed in such a manner that standing water is dispersed within 48 hours?
- If the standing water is associated with a detention area, can the detention area be located under ground or have the depth increased to reduce surface area?
- Other:



Iowa Airport Land Use Guidebook

Additional Considerations

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Could the land use contain flammable substances or materials?

If YES, then consider the following items:

- Can the structure and/or land use be shifted within the site to allow a more compatible location?

- Other:



Iowa Airport Land Use Guidebook

YES	NO	MAYBE	LAND USE CONCERNS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Could the land use cause a source of electrical, navigational, or radio interference?

If YES, then consider the following items:

- Has the applicant coordinated with the FAA, through the FAA Form 7460 to evaluate potential concerns?

- Has the response from the FAA regarding Form 7460 been received?
(attach to report for reference)
(*FAA determination does not guarantee local approval*)

- Other:

