Lake Elmo Airport
Joint Airport Zoning Board (JAZB)
Meeting Agenda

• Chair Opening/Remarks
• Approval of Minutes from June 25, 2019 Meeting
• JAZB Formation Items
• Public Comments
• Overview of State Airport Zoning Statute (MnDOT)
• Presentation – Commissioner and Custom Zoning Standards
• Discussion of Airport Zoning Liability
• Establish Next Meeting Date
• Adjourn
JAZB Overview

Through a collaborative process, the JAZB seeks to develop an airport zoning ordinance that achieves a balance between providing for a reasonable level of safety while allowing for compatible community development.

JAZB Goals

- Develop an Airport Zoning Ordinance for review and approval by the MnDOT Commissioner of Transportation
- Develop an Airport Zoning Ordinance that achieves a balance between providing for a reasonable level of safety while allowing for compatible community development
- Ensure that the Airport Zoning Ordinance is developed in a manner that includes meaningful stakeholder engagement
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JAZB Formation Items

• Introduction of New JAZB Members
• Resolutions for JAZB Members
• Vice-Chair Position
• Scope of Lake Elmo Airport Zoning Ordinance
JAZB Formation Items

- **Scope of Lake Elmo Airport Zoning Ordinance**
  - MnDOT will not approve an airport zoning ordinance that does not include the proposed future runway configuration as documented in the *EA/EAW Preferred Alternative*.
    - If the JAZB chooses the Commissioner Standard, the zoning ordinance will need to include both the existing and future runway configurations.
    - If the JAZB chooses the Custom Standard, there is no guideline that requires the ordinance to include the existing runway configuration.
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The commissioner shall not expend money for land acquisition, or for the construction, improvement, or maintenance of airports, or for air navigation facilities for an airport, unless the governmental unit involved has or is establishing a zoning authority for that airport, and the authority has made a good-faith showing that it is in the process of and will complete with due diligence, an airport zoning ordinance in accordance with sections 360.061 to 360.074.
An airport hazard:

- endangers the lives and property of users of the airport and of occupants of land in its vicinity
- may reduce the size of the area available for the landing, takeoff, and maneuvering of aircraft, thereby impairing the utility of the airport and the public investment therein

But:

- the elimination or removal of existing land uses or their designation as nonconforming uses is not in the public interest and should be avoided whenever possible consistent with reasonable standards of safety.
• Subd. 3: Joint airport zoning board
  • 2 ways to zone, MAC must form a JAZB

• The JAZB: “…shall have the same power to adopt, administer, and enforce airport zoning regulations applicable to the airport hazard area in question as …the municipality within which the area is located.”

• (c) If a county or municipality, …, fails to adopt, or thereafter fails to enforce, the zoning regulations or fails to join in creating a joint airport zoning board, the owning or controlling municipality, or a joint airport zoning board created without participation by the subdivisions which fail to join the board, may itself adopt, administer, and enforce airport zoning regulations for the airport hazard area in question.
• A hearing must be held before regulations before submitting to commissioner
  • If changes are made, a second hearing must be held

• Notice of the hearing must be provided
  • In 2 newspapers 3 times
  • Website

• Mailed notification when regulating:
  • the location or size of a building
  • density of population
  • Anyone who has requested notification

• Failure to notify does not invalidate when bona fide attempt is made
Prior to adopting, must submit to the commissioner to determine whether the regulations conform to the standards prescribed...

Commissioner must examine within 90 days and report approval or objection

If approved:
- Adopt regulations
- Second hearing if changes made since first

If Objection
- Make changes
- Proceed with custom zoning
• A “Stadium of Air” that pilots use to circle and land at the airport during Normal Operations
Minnesota Standard Zones

Simple Example of Airport Zoning

Zone A + Zone B
Runway Length

Zone C
OK

- Agricultural crops
- Horticulture
- Raising livestock
- Wildlife habitat
- Nonspectator outdoor recreation
- Cemeteries
- Auto parking

NO

- Buildings
- Temporary structures
- Exposed transmission lines
- Assembled groups of people
- Or similar other uses
- Radio interference, Lighting, ect.
Zone B

OK

• Buildings
  (on appropriate size site)
• All uses OK in Zone A
  Agricultural crops
  Horticulture
  Raising livestock
  Wildlife habitat
  Nonspectator outdoor recreation
  Cemeteries
  Auto parking

NO

• Building Site less than 3 acres
• Assembly of people (> 15 / acre)
• Churches
• Schools
• Stadiums
• Trailer Courts
• Radio interference, Lighting, etc.
• Hospitals
• Theaters
• Hotels & Motels
• Camp grounds
OK

• All other uses below the height restrictions

NO

• Radio interference
• Lighting
• Visibility impairment (glare, smoke, steam, dust)
• Endangerment of Aircraft Operations
• Must provide notice to the commissioner

• Not related to commissioner’s standards

• Commissioner’s approval is based on:
  • Evaluation of criteria
  • Provides a reasonable level of safety
360.0656: Custom Factors

• (1) the location of the airport, the surrounding land uses, and the character of neighborhoods in the vicinity of the airport, including:
  • (i) the location of vulnerable populations, including schools, hospitals, and nursing homes, in the airport hazard area;
  • (ii) the location of land uses that attract large assemblies of people in the airport hazard area;
  • (iii) the availability of contiguous open spaces in the airport hazard area;
  • (iv) the location of wildlife attractants in the airport hazard area;
  • (v) airport ownership or control of the federal Runway Protection Zone and the department's Clear Zone;
  • (vi) land uses that create or cause interference with the operation of radio or electronic facilities used by the airport or aircraft;
  • (vii) land uses that make it difficult for pilots to distinguish between airport lights and other lights, result in glare in the eyes of pilots using the airport, or impair visibility in the vicinity of the airport;
  • (viii) land uses that otherwise inhibit a pilot's ability to land, take off, or maneuver the aircraft;
  • (ix) airspace protection to prevent the creation of air navigation hazards in the airport hazard area; and
  • (x) the social and economic costs of restricting land uses;
• (2) the airport's type of operations and how the operations affect safety surrounding the airport;
• (3) the accident rate at the airport compared to a statistically significant sample, including an analysis of accident distribution based on the rate with a higher accident incidence;
• (4) the planned land uses within an airport hazard area, including any applicable platting, zoning, comprehensive plan, or transportation plan; and
• (5) any other information relevant to safety or the airport.
• Comprehensive Plans:
  • Must consider location and dimensions of airport safety zones
  • Encourages land uses in airport safety zones that are compatible with safe operation of airport and safety of people in vicinity

• Airport Safety Zones
  • Must be depicted of zoning maps
Thank you!

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651-234-7190
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Airport Zoning Case Study

Flying Cloud Airport
Joint Airport Zoning Board
Flying Cloud Airport Zoning – Case Study

Height Limitations

Land Use Limitations
Flying Cloud Airport Zoning – Case Study
Flying Cloud Airport Zoning – Case Study

Aircraft Accident Potential Location Data Set

Aircraft Accident Probability in Airport Vicinity
Flying Cloud Airport Zoning – Case Study

Economic Impact Analysis
Flying Cloud Airport Zoning – Case Study

JAZB Final Safety Zones A & B
The Flying Cloud Joint Airport Zoning Board demonstrated that the social and economic costs of restricting land uses in accordance with the State [Commissioner] standards outweighed the benefits of a strict application of the standards.
Introduction to Lake Elmo Airport Zoning

Basic Airfield Surfaces
Airfield Surfaces

Runway Primary Surface

- Defined by Federal FAA Standards
Airfield Surfaces

Runway Primary Surface
• Defined by Federal FAA Standards

Runway Protection Zone (RPZ)
• Defined by Federal FAA Standards
**Airfield Surfaces**

**Runway Primary Surface**
- Defined by Federal FAA Standards

**Runway Protection Zone (RPZ)**
- Defined by Federal FAA Standards

**Runway Clear Zone (beyond RPZ)**
- Defined by MnDOT State Standards
- Cumulative Total ~ 135 acres
Introduction to Lake Elmo Airport Zoning

Application of the Commissioner Standard Zones
Commissioner Standard Zone A

Two-Thirds of Runway Length Under Approach
- 2,333 feet for Primary Runway
- 1,833 feet for Crosswind Runway

On-Airport
- ~102 acres

Off Airport
- ~54 acres

Total
- ~156 acres

Zone A shall contain no buildings, temporary structures, exposed transmission lines, or other similar land use structural hazards, and shall be restricted to those uses which will not create, attract, or bring together an assembly of persons thereon. Permitted uses may include, but are not limited to, such uses as agriculture (seasonal crops), horticulture, raising of livestock, animal husbandry, wildlife habitat, light outdoor recreation (nonspectator), cemeteries, and auto parking.
One-Third of Runway Length Under Approach

- 1,167 feet for Primary Runway
- 917 feet for Crosswind Runway

On-Airport
- ~5 acres

Off Airport
- ~119 acres

Total
- ~124 acres

Zone B shall be restricted in use as follows. Each use shall be on a site whose area shall not be less than three acres. Each use shall not create, attract, or bring together a site population that would exceed 15 times that of the site acreage. Each site shall have no more than one building plot upon which any number of structures may be erected.

A building plot shall be single, uniform, and nonconstrained area, whose shape is uncomplicated and whose area shall not exceed the following minimum ratios with respect to the total site area:

<table>
<thead>
<tr>
<th>Site Area at Least (Acres)</th>
<th>But Less Than (Acres)</th>
<th>Ratio of Site area to Building Plot Area</th>
<th>Building Plot Area (square feet)</th>
<th>Maximum Site Population (15 Persons/A)</th>
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<tr>
<td>20</td>
<td>and up</td>
<td>6:1</td>
<td>218,000</td>
<td>300</td>
</tr>
</tbody>
</table>

The following uses are specifically prohibited in zone B: churches, hospitals, schools, theaters, stadiums, hotels and motels, trailer courts, camp grounds, and other places of public or semipublic assembly.
Commissioner Standard Zones A & B

On Airport Commissioner Zones A&B
• ~107 acres On-Airport Total

Off Airport Commissioner Zones A&B
• ~173 acres Off-Airport Total

Total Commissioner Zones A&B
• ~280 acres
Commissioner Standard Zone C

No use shall be made of any land in any of the safety zones which creates or causes interference with the operation of radio or electronic facilities on the airport or with radio or electronic communications between the airport and aircraft, makes it difficult for pilots to distinguish between airport lights and other lights, results in glare in the eyes of pilots using the airport, impairs visibility in the vicinity of the airport, or otherwise endangers the landing, taking off, or maneuvering of aircraft.
Airport Vicinity Land Uses

FUTURE LAND USE

**Met Council Future Land Use**
- Agricultural, 4 unit per 40 acres
- Open Water
- Public
- Railway
- Single Family Residential, 1 unit per 2.5 acres

**Lake Elmo 2040 Future Land Use**
- Commercial (C)
- Public / Semi-Public (PSP)
- Park
- Rural Area Development (RAD), .1 units per acre
- Right of Way (ROW)
- Rural Single Family (RSF), 0.1 - 2.0 units per acre
- Village Low Density Residential (V-LDR), 1.5 - 3.0 units per acre
- Village Medium Density Residential (V-MDR), 3.0 - 8.0 units per acre
Airport Vicinity Land Uses

Acres below reflect land uses in Commissioner Standard Zones

FUTURE LAND USE

Met Council Future Land Use
- Agricultural, 4 unit per 40 acres, 2.8 acres
- Public, 3.8 acres
- Railway, 5.4 acres
- Single Family Residential, 1 unit per 2.5 acres, 91.4 acres

Lake Elmo 2040 Future Land Use
- Commercial (C), 8.5 acres
- Public / Semi-Public (PSP), 5.4 acres
- Rural Area Development (RAD), .1 units per acre, 13.4 acres
- Right of Way (ROW), 7.2 acres
- Village Low Density Residential (V-LDR), 1.5 - 3.0 units per acre, 8.6 acres
- Village Medium Density Residential (V-MDR), 3.0 - 8.0 units per acre, 25.1 acres
Commissioner Standard Vs. Custom Standard

**Commissioner Standard “As Is”**

**“What If” Custom Standard Starting Point**

FUTURE LAND USE

- Met Council Future Land Use:
  - Agricultural, 4 units per 40 acres
  - Open Water
  - Public
  - Railway
  - Single Family Residential, 1 unit per 2.5 acres

- Lake Elmo 2040 Future Land Use:
  - Commercial (C)
  - Public / Semi-Public (PSP)
  - Park
  - Rural Area Development (RAD), 1 unit per acre
  - Right of Way (ROW)
  - Rural Single Family (RSF), 0.1 - 2.0 units per acre
  - Village Low Density Residential (V-LDR), 1.5 - 3.0 units per acre
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Airport Zoning Liability

• DeCook v. Rochester Int’l Airport Joint Zoning Board
  • Test: “When an airport ordinance regulates land use within runway safety zones, ‘there must be compensation to landowners whose property has suffered a substantial and measurable decline in market value as a result of the regulations.’”


• Revised Airport Zoning Law: Custom Zoning
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Meeting Plan

Meeting 1 (June 25, 2019):
- Welcome and Agenda Overview
- Board Member Introductions
- JAZB Overview
- Selection of Chairperson
- Organizational Logistics
- Goals for Lake Elmo Airport JAZB
- Summary of New State Airport Zoning Statute
- Initial Meeting Plan

Meeting 2 (August 29, 2019):
- Presentation and Work Session – Custom vs. Commissioner’s Standards
- Board member input on zoning standard selection

Meeting 3:
- Presentation of Custom Zoning Factors and Methodology
- Board member input on Custom Zoning Factors and Methodology
- Discuss outline of proposed Draft Lake Elmo Airport Zoning Ordinance

Meeting 4:
- Presentation of Draft Lake Elmo Airport Zoning Ordinance
- Approval of Draft Lake Elmo Airport Zoning Ordinance for Public Hearing #1

Public Hearing

Board Selection of Zoning Standard Process
Meeting Plan

JAZB Steps After Public Hearing

Review Public Hearing comments and responses

JAZB Approval to submit Draft Airport Zoning Ordinance to MnDOT

Receive/Review MnDOT comments

MnDOT Approval/Revisions Not Needed

• Presentation of Final Airport Zoning Ordinance
• Adoption of Final Airport Zoning Ordinance
• Municipal/Township Incorporation and Administration

MnDOT Disapproval/Revisions Needed

• Presentation of Proposed Revisions
• Approval of Supplemental Public Hearing
• Supplemental Public Hearing
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