Airport Zoning Update
MAC’s Perspective

Minnesota Airports Conference
April 22, 2016
MAC’s Historical Zoning Activities

Lake Elmo Airport
• MAC adopted height zoning in 1952
• Washington County adopted airspace and land use zoning in 1972

Crystal Airport
• MAC adopted height zoning in 1952
• Crystal Airport JAZB adopted zoning in 1983

MSP
• MSP JAZB adopted zoning in 1984
• Zoning ordinance amended for new Runway 17/35
  ▪ Approved in April 2004

St. Paul Downtown/Holman Field
• Draft zoning ordinance submitted to MnDOT in September 2010
  ▪ Not yet approved

Flying Cloud Airport
• Draft zoning ordinance submitted to MnDOT in December 2010
  ▪ Not yet approved
MSP 2004 Zoning Ordinance Highlights

Airspace Obstruction Zoning
- Uses Part 77 Standards
- Establishes “Maximum Construction Height Without a Zoning Permit”
  - Zoning Permits issued by City Zoning Administrator
- JAZB Variance required to penetrate Zoning Airspace Surface

Land Use Safety Zoning
- Safety Zone A – Coincident with FAA RPZ (2,500 feet beyond Primary Surface)
  - No structures/trees
- Safety Zone B – Extends 4,500 feet beyond Zone A/RPZ
  - Development and population density controls removed
  - Most land uses permitted with noise-sensitive restrictions
- Safety Zone C – Part 77 Horizontal Surface

Land use restrictions based on Safety/Risk Study
- Selected risk criteria = 1.0 accidents per 10m aircraft operations (1 X 10^-7)
STP & FCM 2010 Zoning Ordinance Highlights

Key JAZB Considerations for STP/FCM Zoning:

• MnDOT Model Ordinance was starting point
• Unique characteristics in context of existing and planned land used around the airports
  ▪ Challenging airports to zone with adjacent dense urban development
• Maintaining a “reasonable standard of safety” while considering social and financial costs to the communities
  ▪ Focus on “Reasonableness” per Chapter 360.066 Subdivision 1, considering:
    • Character of flying operations
    • Location of the airport and the nature of terrain within the Airport Hazard Area
    • Existing land uses and character of the neighborhoods around the airport
    • Uses to which the property to be zoned are planned and adaptable
    • Social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the commissioner
  ▪ Conducted detailed Safety/Risk Studies for each airport (based on MSP methodology)
  ▪ Estimated economic impact to surrounding community of implementing State Model Zoning Ordinance
STP 2010 Zoning Ordinance Highlights

Factors Considered by STP JAZB:

- Safety/Risk study found accident probability less than 1 in 10m beyond the FAA RPZ
- Economic impact analysis: ~$2.4m annual property tax losses; 7,000 lost jobs
- ~3,700 acres of existing urban development exceeds Horizontal Surface
- Pending stadium development

STP JAZB 1st Submittal Recommendations:

- Zone A = FAA RPZ
- Zone B = Balance of SSZ A+B footprint
  - Removed site acre/density limitations
  - Allows improvement, expansion, and development of new residential and non-residential uses in ERNs
  - Allowed for stadium construction with maximum of 4,000 seats in Zone B
- Worked with FAA through 7460 process to develop “Guaranteed Allowable Structure Heights” for several areas

MnDOT 1st Submittal Review Comments:

- Need for Demonstration of Cost/Benefit Analysis
- Safety Zone and Surface Area Deviations
- Land Use Restriction Deviations
FCM 2010 Zoning Ordinance Highlights

Factors Considered by FCM JAZB:

• Safety/Risk study found accident probability less than 1 in 10m beyond the FAA RPZ in “planned occupant areas”
  ▪ But greater than 1 in 10m in other Zone A/B areas
  ▪ Recognizes that pilots retain some control in many GA accidents
• Economic impact analysis: ~$600k annual property tax losses; $150m lost commercial & $12m lost residential development

FCM JAZB 1st Submittal Recommendations:

• Zone A = FAA RPZ
• Zone B = Balance of SSZ A+B footprint
  ▪ Removed site acre/structure limitations
  ▪ Identified Permitted Residential Areas to allow for improvement, expansion and development of new residential uses in existing and planned residential areas (treated as conforming uses)
  ▪ Added a provision that a minimum of 20% of the total Zone B acreage or 20 acres, whichever is greater, is contiguous open space as an added margin of safety
Zoning Lessons Learned

Airport Zoning is a complex and challenging task in an urbanized environment

- Each of our airports is unique
  - A “cookie cutter” approach to zoning is not practical
- Providing for a “reasonable level of safety” may result in technical variations from airport to airport
- A “custom” option to Airport Zoning is needed
  - Distinct pathway for review and approval separate from “Basic” MnDOT zoning model
  - Based on technical assessment to balance safety and economic impacts
  - Encompasses flexibility and creativity to address local conditions
- Indemnification and cooperation agreements have been needed to incentivize community participation
Chapter 360 Statute Revisions

Much common ground has been found over the past 24 months!

• Establishing a distinction between Commissioner’s Airport Zoning Standards and Custom Airport Zoning Standards
  ▪ Identified factors to evaluate when developing a custom zoning ordinance
  ▪ Not subjected to comparison against Commissioner’s Airport Zoning Standards

• Protecting existing land uses in place at the time of zoning, not just Established Residential Neighborhoods (ERNs)

• Coordination/integration with County and Municipality planning (Chapter 394 & 462)

• Establishing a timeline for MnDOT review

• Providing for judicial review for any action taken by the Commission

• Streamlining hearing requirements

• Grandfathering existing zoning regulations

• Allowing for FAA no hazard determination in lieu of a variance

• Exception for withholding state funding due to zoning
  ▪ Safety projects to maintain existing infrastructure not affected by zoning
Chapter 360 Statute Revisions

A few items that require further coordination...

- MnDOT ability to withhold federal AIP funding due to zoning
- Clarification of social and economic cost criteria to be used
- Clarification of zoning vs. land acquisition language
- MnDOT standard of review for custom zoning ordinances

We look forward to working with all of you on these items in 2016!
Chapter 360 Statute Revisions

When developing and adopting custom airport zoning regulations under this section, the municipality, county, or joint airport zoning board must include in the record of decision and findings a detailed analysis evaluating the following factors:

- the location of the airport, including the surrounding land uses and the character of neighborhoods in the vicinity of the airport, including:
  - the location of vulnerable populations, including schools, hospitals, and nursing homes, in the airport hazard area;
  - the location of land uses that attract large assemblies of people in the airport hazard area;
  - the availability of contiguous open spaces in the airport hazard area;
  - the location of wildlife attractants in the airport hazard area;
  - airport ownership or control of the federal Runway Protection Zone and the department's Clear Zone;
  - land uses that create or cause interference with the operation of radio or electronic facilities on the airport or that create or cause interference with radio or electronic communications between the airport and aircraft;
  - 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, impair visibility in the vicinity of the airport, or otherwise endanger the landing, taking off, or maneuvering of aircraft; and
  - the protection of airspace to prevent the creation of air navigation hazards in the airport hazard area;
- the airport's type of operations and how the operations affect safety surrounding the airport;
- the accident rate at the airport compared to a national rate, including an analysis of accident distribution based on the rate with a higher accident incidence;
- the planned land uses within an airport hazard area, including any applicable platting, zoning, comprehensive plan, or transportation plan;
- the social and economic costs of restricting land use compared to the investment in the airport or the safety benefits derived from application of the proposed regulations; and
- any other factor the municipality, county, or joint airport zoning board...