Airport Layout Plan (ALP)

- ALP is an airport planning document showing:
  - Physical layout of existing and potential airport facilities
  - On and off-airport airspace, including any obstructions
  - Airport property and land uses

- A project identified on an ALP does not guarantee it will be built, only that it is planned
  - Depends on need, priority, and funding availability
  - Project must be on the Airport’s Capital Improvement Plan
  - FAA won’t provide funds for projects that are not on the ALP
Why are we updating the ALP?

• We need to:
  – Comply with FAA ALP requirements
  – Meet FAA airport design standards
  – Meet City ordinance requirements
  – Reflect current conditions
  – Prepare for 2018 Airport Master Plan Update
  – Keep our flexibility to respond to future conditions

• FAA requirements
  – We must identify current and planned improvements on an FAA-approved ALP
  – We are obligated to “keep the ALP up-to-date at all times”
Why are we updating the ALP?

• Our ALP is out-of-date - it was last approved in 2000
  – The FAA did not approve the Draft ALP from the 2007/2010 airport master plan process
  – The FAA gave us funding to complete the ALP update by December 2016

• The 2000 ALP does not reflect current conditions, FAA standards, or meet Ordinance #3888
  – It shows a future 6,800 ft South Runway
  – It does not show the existing Germann Road alignment
  – It does not meet FAA’s Runway Protection Zone standards
Ordinance No. 3888

• Approved by City Council on February 22, 2007
• Amended City Code:
  – Set the maximum runway length at 5,700 ft (South Runway)
  – Extension of a runway requires voter-approved bonds, which specify the bond monies are for the purpose of extending a runway
  – Airport shall not be designed to accommodate aircraft that:
    • Weigh greater than 75,000 lbs and/or,
    • Have a wingspan greater than 79 ft (Airplane Design Group II)
  – No application for a Part 139 certificate without prior City Council approval
    • Part 139 certificates are required to accommodate commercial scheduled/unscheduled passenger service
Design Group II Airplanes

Turboprop and jet aircraft operating at the Airport

HondaJet

Dassault Falcon 900 Series

Cessna Citation X

Beech King Air
What’s in the ALP Update?

Runway and Runway Protection Zones
- Potential future South Runway length
- Runway Protection Zones for South Runway

Additional Airfield Changes
- New separation standards between taxiways and taxilanes
- New standards that discourage “straight-through” pavement
- New design standards for taxiway fillets
- Potential future hangar/t-shade sites
Runway Protection Zone (RPZ)

- RPZ ("clear zone") is a trapezoidal area off the end of each runway
  - Protects people and property on the ground
  - Very limited land uses permitted
  - FAA wants airports to control the land where RPZs are located

Source: U.S. Department of Transportation
**2000 Approved ALP**
Red depicts a planned **6,800 ft** future runway with a larger RPZ extending off airport property

**2007-2010 Draft ALP**
Yellow depicts a planned **5,700 ft** future runway with a larger RPZ extending off airport property

**2016 ALP Update**
Black depicts a planned **5,550 ft** future runway with a smaller RPZ contained within airport property
## Comparing the ALPs

<table>
<thead>
<tr>
<th>Item</th>
<th>Existing Facilities</th>
<th>Current 2000 ALP (Future Plan)</th>
<th>Draft 2007-10 ALP (Future Plan)</th>
<th>Proposed 2016 ALP Update (Future Plan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Runway Length</td>
<td>4,870 ft.</td>
<td>6,800 ft.</td>
<td>5,700 ft.</td>
<td>5,550 ft.</td>
</tr>
<tr>
<td>South Runway Category</td>
<td>B-II</td>
<td>C-II</td>
<td>C-II</td>
<td>B-II</td>
</tr>
<tr>
<td>RPZ for South Runway (North end)</td>
<td>Completely On-Airport</td>
<td>Extends Off-Airport</td>
<td>Extends Off-Airport</td>
<td>Completely On-Airport</td>
</tr>
<tr>
<td>Land Acquisition needed for RPZ for South Runway?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Germann Road Alignment</td>
<td>As-is</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### NOTES
- “B” means the aircraft approach speed from 104 to 138 mph
- “C” means the aircraft approach speed from 139 to 191 mph
- “II” means the aircraft wingspan from 49 feet to 79 feet
- B-II category has a smaller Runway Protection Zone than C-II
ALP – Proposed Airport Layout Drawing
• Taxiway A- taxilane separation issue (currently 70′, new standard is 105′)
• Offset taxiway connectors to remove “straight through” alignments
• Potential site for new hangars/t-shades on north ramp (based on demand)
• Current RPZ over Queen Creek Road for future discussion (nat’l issue)
<table>
<thead>
<tr>
<th>Design Issue/ Facility Improvement</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queen Creek Road in North Runway RPZ</td>
<td>Subject to further guidance from FAA (national issue)</td>
</tr>
<tr>
<td>70 ft. separation between Taxiway A and parallel taxilane to the north should be 105 ft.</td>
<td>Subject to further study as part of next Master Plan Update; could entail changes to taxilane/aircraft tie-downs or potential modification to standards</td>
</tr>
<tr>
<td>Straight-through crossings (within middle third of runway) should be offset</td>
<td>Remove some connectors and construct new offset connectors</td>
</tr>
<tr>
<td>Direct routes to runways from aircraft apron should have 1 required vehicle turn to minimize incursions.</td>
<td>Remove some connectors and construct new offset connectors</td>
</tr>
<tr>
<td>Taxiway fillets do not meet current design standards</td>
<td>Construct new fillets to FAA standard as part of new projects</td>
</tr>
<tr>
<td>New hangars and t-shade planned for Armory Ramp</td>
<td>Based on future demand</td>
</tr>
</tbody>
</table>
Recommendation

- Submit updated ALP to the FAA for comment depicting a potential 5,550 foot runway and other changes as indicated

- Benefits
  - Brings us into compliance with FAA’s ALP requirements
  - Meets FAA standard for airports to control RPZ land
  - Finalizes the potential length and category of the South Runway
  - Meets City Ordinance No. 3888
  - Reflects current conditions
  - Prepares for 2018 Airport Master Plan Update effort
  - Keeps flexibility to respond to future conditions
  - No need for additional land acquisition
<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 12</td>
<td>City Council Micro retreat</td>
</tr>
<tr>
<td>September 14</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>September 30</td>
<td>Submit working draft to FAA for 45 day preliminary review period</td>
</tr>
<tr>
<td>November 15</td>
<td>FAA comments expected</td>
</tr>
<tr>
<td>November 23</td>
<td>FAA comments incorporated</td>
</tr>
<tr>
<td>December 8</td>
<td>City Council Agenda for ALP approval</td>
</tr>
<tr>
<td>December 12</td>
<td>Submit signed ALP to FAA for final approval</td>
</tr>
<tr>
<td>December 14</td>
<td>Airport Commission</td>
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</tbody>
</table>