Lake Elmo Airport
2035 Long-Term Comprehensive Plan (LTCP)

Public Information Meeting – July 9 & 16, 2015
Existing Airport Layout
Activity Forecasts
### Runway Length Requirements

**Design Aircraft Family**
- Small Propeller-Driven Airplanes
- Fewer than 10 Passenger Seats

**Primary Runway Length**
- FAA Guidance: Range 3,300 to 3,900 feet
- Aircraft-Specific Analysis: ~ 3,600 feet

**Crosswind Runway Length**
- FAA Guidance: ~ 2,750 feet

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>MTOW (lbs.)</th>
<th>Approach Speed (knots)</th>
<th>Wingspan</th>
<th>Tail Height</th>
<th>Aircraft Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cessna 172</td>
<td>2,550</td>
<td>62</td>
<td>36' - 1&quot;</td>
<td>8' - 11&quot;</td>
<td>Single-Engine</td>
</tr>
<tr>
<td>Cirrus SR22</td>
<td>3,400</td>
<td>78</td>
<td>38' - 4&quot;</td>
<td>8' - 11&quot;</td>
<td>Single-Engine</td>
</tr>
<tr>
<td>TBM 850</td>
<td>7,394</td>
<td>85</td>
<td>41' - 7&quot;</td>
<td>14' - 4&quot;</td>
<td>Single-Engine Turbo</td>
</tr>
<tr>
<td>Diamond DA42</td>
<td>4,189</td>
<td>79</td>
<td>44' - 4&quot;</td>
<td>8' - 2&quot;</td>
<td>Multi-Engine</td>
</tr>
<tr>
<td>Eclipse 550</td>
<td>6,000</td>
<td>77</td>
<td>37' - 11&quot;</td>
<td>11' - 0&quot;</td>
<td>Very Light Jet</td>
</tr>
<tr>
<td>Pilatus PC-12</td>
<td>10,450</td>
<td>87</td>
<td>53' - 4&quot;</td>
<td>14' - 0&quot;</td>
<td>Single-Engine Turbo</td>
</tr>
<tr>
<td>Cessna Caravan 208</td>
<td>8,000</td>
<td>79</td>
<td>52' - 1&quot;</td>
<td>14' - 11&quot;</td>
<td>Single-Engine Turbo</td>
</tr>
<tr>
<td>Piper PA-31:350 Cheyenne</td>
<td>7,000</td>
<td>96</td>
<td>40' - 8&quot;</td>
<td>13' - 0&quot;</td>
<td>Multi-Engine</td>
</tr>
<tr>
<td>Piper PA-31T Cheyenne</td>
<td>9,000</td>
<td>98</td>
<td>42' - 8&quot;</td>
<td>12' - 9&quot;</td>
<td>Multi-Engine Turbo</td>
</tr>
<tr>
<td>Cessna 421C</td>
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<td>96</td>
<td>41' - 1&quot;</td>
<td>11' - 5&quot;</td>
<td>Multi-Engine</td>
</tr>
<tr>
<td>Cessna Citation Mustang</td>
<td>8,645</td>
<td>95</td>
<td>43' - 2&quot;</td>
<td>13' - 5&quot;</td>
<td>Very Light Jet</td>
</tr>
<tr>
<td>King Air 200/250</td>
<td>12,500</td>
<td>103</td>
<td>57' - 11&quot;</td>
<td>14' - 10&quot;</td>
<td>Multi-Engine Turbo</td>
</tr>
<tr>
<td>Cessna 441</td>
<td>9,850</td>
<td>99</td>
<td>49' - 4&quot;</td>
<td>13' - 2&quot;</td>
<td>Multi-Engine Turbo</td>
</tr>
</tbody>
</table>
Development Alternatives Considered

Baseline Case
- Reconstruct existing runways

Alternative A
- Extend Runways 4-22

Alternative B
- Extend Crosswind Runway 4-22
- Construct Primary Runway 14-32
- Construct Connector Rd.
- Convert Ex Runway 14-32 to Taxiway
- Relocate Service Rd and 30th St N

Alternative C
- Extend Crosswind Runway 4-22
- Construct Primary Runway 14-32
- Construct Connector Rd.
- Convert Ex Runway 14-32 to Taxiway
- Relocate 30th St N

Note: See the alternatives analysis section for more detail.
Preferred Development Alternative
Alternative 1
- Speed Limit: 45 mph
- Compatible with Alternative B (3,600’)
- Compatible with Alternative C (3,900’)
- Adds 30th St N traffic to portion of Neal Ave N
- Requires Construction of Additional Intersection
- Lowest Cost Alternative

Alternative 2
- Speed Limit: 45 mph
- Compatible with Alternative B (3,600’)
- Compatible with Alternative C (3,900’)
- Adds 30th St N traffic to portion of Neal Ave N
- Requires Construction of Additional Intersection
- Highest Cost Alternative

Alternative 3
- Speed Limit: 30 mph
- Restricts Alternative B Runway Length to 3,150’
- Restricts Alternative C Runway Length to 3,760’
- No Additional Intersection Required
- Middle Cost Alternative
Land Use Compatibility

Baseline Condition

2035 Preferred Alternative Condition
Flight Tracks

Baseline Condition

2035 Preferred Alternative Condition
Note:
Dashed white outline indicate Runway/Taxiway extensions that may not be included in initial construction. Earthwork and drainage improvements in these areas may be incorporated into initial construction to satisfy FAA surface gradient design requirements and realize construction and cost efficiencies.