King County International Airport
Airport Master Plan
Adopted August 23, 2004
Contents

Contents iii
Tables v
Illustrations v

Inventory of Existing Airport Facilities
Introduction A.1
Airside Facilities A.1
Landside Facilities A.5
Summary A.8

Aviation Activity Demand Forecast
Introduction B.1
Previous Forecast Summary B.1
Revised Forecast Summary B.2
Airport Reference Code (ARC)/Critical Aircraft Analysis B.8
Summary B.9

Capacity Analysis and Facility Requirements
Introduction C.1
Airfield Capacity Methodology C.1
Airfield Capacity Analysis C.6
Facility Requirements C.7
Summary C.8

Airport Development Plan
Introduction D.1
Airfield Development Recommendations D.3
Landside Development Recommendations D.8
Conceptual Airport Development Plan D.13
Contents (continued)

Airport Plans
Introduction E.1
Airport Layout Plan E.1
Airspace Plan E.7
Inner Portion of Approach Surface Drawings E.15
Landside Development Area Plan E.23
Airport Property Map E.23
Land Use Drawing E.24

Implementation Program and Phasing
Introduction F.1
Project List F.1
Cost Estimates F.1
Phasing Plan F.2
Relationship to FAA Capital Improvement Program F.2

Financial Implementation Plan
Introduction G.1
Project Cost Estimates and Development Schedule G.2
Sources and Uses of Capital Funding G.8
Projected Operations and Maintenance Expenses G.16
Projected Revenues G.19
Financial Plan Summary G.21
Financial Implementation Conclusions G.23
Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Summary of TRA-BV Unconstrained Forecast, 1994-2015</td>
<td>B.2</td>
</tr>
<tr>
<td>B2</td>
<td>Summary of Revised Unconstrained Forecast, 1997-2015</td>
<td>B.3</td>
</tr>
<tr>
<td>B3</td>
<td>Unconstrained Operations Forecast By Aircraft Type, 1997-2015</td>
<td>B.7</td>
</tr>
<tr>
<td>B4</td>
<td>Peak Period Aircraft Operations Forecast, 1997-2015</td>
<td>B.8</td>
</tr>
<tr>
<td>C1</td>
<td>IFR Wind Coverage Summary</td>
<td>C.6</td>
</tr>
<tr>
<td>C2</td>
<td>ARC D-V Dimensional Standards – Runway 13R/31L</td>
<td>C.9</td>
</tr>
<tr>
<td>C3</td>
<td>ARC B-II Dimensional Standards – Runway 13L/31R</td>
<td>C.10</td>
</tr>
<tr>
<td>C4</td>
<td>FAA Specified Taxiway Safety Area Width Standards</td>
<td>C.11</td>
</tr>
<tr>
<td>C5</td>
<td>Runway Length Requirements</td>
<td>C.14</td>
</tr>
<tr>
<td>C6</td>
<td>Representative Air Carrier Aircraft Lengths and ARFF Index</td>
<td>C.17</td>
</tr>
<tr>
<td>F1</td>
<td>Phase I (0-5 Years) Development Plan Project Costs</td>
<td>F.3</td>
</tr>
<tr>
<td>F2</td>
<td>Phase II (6-10 Years) Development Plan Project Costs</td>
<td>F.5</td>
</tr>
<tr>
<td>F3</td>
<td>Phase III (11-15 Years) Development Plan Project Costs</td>
<td>F.6</td>
</tr>
<tr>
<td>G1</td>
<td>Project Cost Estimates and Development Schedule for the Capital Improvement Program</td>
<td>G.4</td>
</tr>
<tr>
<td>G2</td>
<td>Capital Funding Sources</td>
<td>G.11</td>
</tr>
<tr>
<td>G3</td>
<td>Bond Sizing Calculation and Debt Service Schedule</td>
<td>G.14</td>
</tr>
<tr>
<td>G4</td>
<td>Historical and Projected Operations &amp; Maintenance Expenses</td>
<td>G.18</td>
</tr>
<tr>
<td>G5</td>
<td>Historical and Projected Revenues</td>
<td>G.20</td>
</tr>
<tr>
<td>G6</td>
<td>Financial Plan Summary</td>
<td>G.22</td>
</tr>
</tbody>
</table>

Illustrations and Exhibits

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Existing Airport Layout</td>
<td>A.3</td>
</tr>
<tr>
<td>C1</td>
<td>All Weather Wind Rose: 10.5- and 20-Knot Crosswind Components</td>
<td>C.4</td>
</tr>
<tr>
<td>C2</td>
<td>IFR Wind Rose: 10.5- and 20-Knot Crosswind Components</td>
<td>C.5</td>
</tr>
<tr>
<td>D1</td>
<td>Airside Development Plan</td>
<td>D.9</td>
</tr>
<tr>
<td>D2</td>
<td>Conceptual Airport Development Plan</td>
<td>D.15</td>
</tr>
<tr>
<td>Illustrations and Exhibits (continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figure E1  Airport Layout Plan</td>
<td>E.3</td>
<td></td>
</tr>
<tr>
<td>Figure E2  Airport Airspace Drawing North Approach</td>
<td>E.9</td>
<td></td>
</tr>
<tr>
<td>Figure E3  Airport Airspace Drawing South Approach</td>
<td>E.11</td>
<td></td>
</tr>
<tr>
<td>Figure E4  Airport Airspace Drawing Profiles</td>
<td>E.13</td>
<td></td>
</tr>
<tr>
<td>Figure E5  Inner Approach Surface Drawing - Runway 13R</td>
<td>E.17</td>
<td></td>
</tr>
<tr>
<td>Figure E6  Inner Approach Surface Drawing - Runway 31L</td>
<td>E.19</td>
<td></td>
</tr>
<tr>
<td>Figure E7  Inner Approach Surface Drawing - Runway 13L/31R</td>
<td>E.21</td>
<td></td>
</tr>
<tr>
<td>Figure E8  Terminal Area Plan - North</td>
<td>E.25</td>
<td></td>
</tr>
<tr>
<td>Figure E9  Terminal Area Plan - South</td>
<td>E.27</td>
<td></td>
</tr>
<tr>
<td>Figure E10 Airport Property Map</td>
<td>E.29</td>
<td></td>
</tr>
<tr>
<td>Figure E11 Land Use Drawing</td>
<td>E.31</td>
<td></td>
</tr>
<tr>
<td>Figure F1  Phasing Plan</td>
<td>F.7</td>
<td></td>
</tr>
<tr>
<td>Exhibit G1 Summary of 2000 Base Year and Total Escalated Costs for the Planning Program</td>
<td>G.3</td>
<td></td>
</tr>
<tr>
<td>Exhibit G2 Summary of Sources and Uses of Capital Funding for the Capital Improvement Program</td>
<td>G.15</td>
<td></td>
</tr>
</tbody>
</table>