DATE: January 31, 2014

TO: Honorable Members of the Economic Development Committee: Tennell Atkins (Chair), Rick Callahan (Vice-Chair), Jerry R. Allen, Scott Griggs, Adam Medrano, Lee Kleinman

SUBJECT: Dallas Executive Airport Seeking Flight Into the Future Briefing

On Monday, February 3, 2014, you will be presented the Dallas Executive Airport Seeking Flight into the Future briefing. The briefing material is attached for your review.

If you have questions or need additional information, please let me know.

Theresa O’Donnell,
Interim Assistant City Manager

Attachment

cc: Honorable Mayor and Members of the City Council
A.C. Gonzalez, Interim City Manager
Warren M. S. Ernst, City Attorney
Judge Daniel F. Solis, Administrative Judge
Rosa A. Rios, City Secretary
Craig D. Kinton, City Auditor
Ryan S. Evans, Interim First Assistant City Manager
Jill A. Jordan, P. E., Assistant City Manager
Forest E. Turner, Assistant City Manager
Joey Zapata, Assistant City Manager
Charles M. Cato, Interim Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Frank Librio, Public Information Officer
Elsa Cantu, Assistant to the City Manager — Mayor and Council
Karl Zavitkovsky, Director, Office of Economic Development

"Dallas – Together, we do it better!"
Dallas Executive Airport
Seeking Flight Into the Future

Economic Development Committee
February 3, 2014
The City of Dallas in partnership with TxDOT Aviation received a grant to conduct an airfield pavement analysis to determine the load bearing weight and structural integrity of the airport’s runways and taxiways.

In order to determine the structural condition and material properties below pavement surface, a dual approach of Heavy Weight Deflectometer (HWD) and Rolling Dynamic Deflectometer (RDD) testing was performed on all airfield pavements at Dallas Executive Airport between July 2012 and August 2012.

The data derived from these two evaluations was thoroughly analyzed and a prioritized pavement rehabilitation schedule was populated. The results determined that Runway 13/31 requires nearly full-length reconstruction which involves removing and replacing existing pavement with a new pavement section.
Dual Approach Non-Destructive Testing

- The Heavy Weight Deflectometer (HWD)
  - Non-destructive deflection testing
  - Testing every 200 feet, multiple lanes
  - **Identifies:**
    - Strength of pavement layers and subgrade

- The Rolling Dynamic Deflectometer (RDD)
  - Non-destructive deflection testing
  - Continuous deflection profiles, multiple lanes
  - **Identifies:**
    - Critical sections of pavement and subgrade

- Non-destructive testing was completed August 6, 2012
Non-destructive Testing Data
Existing Pavement Thickness
Pavement Evaluation Results

- High deflection values for pavement and subgrade
- Deficient pavement strength on Runway 13/31
- Existing pavement thickness as little as 5-inches
- Remaining pavement life = 0 to 5 years
Pavement Design & Recommendations

- Aircraft fleet mix with 90,000 pound aircraft limit (current limit = 60,000 pounds)
- The proposed pavement section
  - 10” reinforced concrete
  - 6” aggregate base
  - 12” lime-treated subgrade

- Construction Phasing
  - Four (4) Construction Phases
  - Runway 13/31 Reconstruction
  - Runway 13 Extension
## Runway 13/31 Reconstruction Phase 1

<table>
<thead>
<tr>
<th>Description</th>
<th>Phase</th>
<th>Estimated Construction Start Date</th>
<th>Estimated Construction Time</th>
<th>Runway 17/35 Availability</th>
<th>Runway 13/31 Availability</th>
<th>Largest Type of Aircraft Using Airport</th>
<th>Estimated Construction Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway 17/35 &amp; Runway 13/31 Intersection Reconstruction and Design</td>
<td>1</td>
<td>Summer 2014</td>
<td>3-4 Months</td>
<td>Closed</td>
<td>3,200’</td>
<td>Small Jet (i.e. Cessna Citation 500)</td>
<td>$9,340,000</td>
</tr>
</tbody>
</table>
## Runway 13/31 Reconstruction Phase 2

<table>
<thead>
<tr>
<th>Description</th>
<th>Phase</th>
<th>Estimated Construction Start Date</th>
<th>Estimated Construction Time</th>
<th>Runway 17/35 Availability</th>
<th>Runway 13/31 Availability</th>
<th>Largest Type of Aircraft Using Airport</th>
<th>Estimated Construction Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway 31 End Reconstruction (South)</td>
<td>2</td>
<td>Winter 2014</td>
<td>7-8 Months</td>
<td>Open</td>
<td>4,500’</td>
<td>Medium Jet (i.e. Cessna 560 Citation)</td>
<td>$7,348,000</td>
</tr>
</tbody>
</table>
## Runway 13/31 Reconstruction Phase 3

<table>
<thead>
<tr>
<th>Description</th>
<th>Phase</th>
<th>Construction Start Date</th>
<th>Estimated Construction Time</th>
<th>Runway 17/35 Availability</th>
<th>Runway 13/31 Availability</th>
<th>Largest Type of Aircraft Using Airport</th>
<th>Estimated Construction Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway 13 End Reconstruction (North)</td>
<td>3</td>
<td>Fall 2015</td>
<td>9-10 Months</td>
<td>Open</td>
<td>Closed</td>
<td>Small Jet (i.e. Cessna 525 Citation)</td>
<td>$9,961,000</td>
</tr>
</tbody>
</table>
Runway 13/31 Reconstruction
Phase 4

<table>
<thead>
<tr>
<th>Description</th>
<th>Phase</th>
<th>Estimated Construction Start Date</th>
<th>Estimated Construction Time</th>
<th>Runway 17/35 Availability</th>
<th>Runway 13/31 Availability</th>
<th>Largest Type of Aircraft Using Airport</th>
<th>Estimated Construction Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway 13 Extension (685 feet)</td>
<td>4</td>
<td>Fall 2016</td>
<td>8-9 Months</td>
<td>Open</td>
<td>5,730'</td>
<td>All Aircraft up to Gulfstream IV</td>
<td>$8,700,000</td>
</tr>
</tbody>
</table>
## Runway 13/31 Reconstruction Phasing Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Phase</th>
<th>Estimated Construction Start Date</th>
<th>Estimated Construction Time</th>
<th>Runway 17/35 Availability</th>
<th>Runway 13/31 Availability</th>
<th>Largest Type of Aircraft Able to use Airport</th>
<th>Estimated Construction Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway 17/35 &amp; Runway 13/31 Intersection Reconstruction</td>
<td>1</td>
<td>Summer 2014</td>
<td>3-4 Months</td>
<td>Closed</td>
<td>3,200'</td>
<td>Small Jets</td>
<td>$9,340,000</td>
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<td>2</td>
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</tr>
<tr>
<td>Runway 13 End Reconstruction (North)</td>
<td>3</td>
<td>Fall 2015</td>
<td>9-10 Months</td>
<td>Open</td>
<td>Closed</td>
<td>Small Jets</td>
<td>$9,961,000</td>
</tr>
<tr>
<td>Runway 13 Extension (685 feet)</td>
<td>4</td>
<td>Fall 2016</td>
<td>8-9 Months</td>
<td>Open</td>
<td>5,730'</td>
<td>All Currently Based Aircraft</td>
<td>$8,700,000</td>
</tr>
</tbody>
</table>

**Total Construction Time**: 31 Months  
**Total Construction Cost**: $35,349,000
Dallas Executive Based Aircraft Data

Examples of Aircraft by Engine Type:

**Single Engine:** Cessna 172 Skyhawk, Cessna 182 Skylane, Piper Cherokee, Cirrus SR20 & SR22, Beechcraft Bonanza, Piper Saratoga

**Multi-Engine:** Beechcraft Baron, Piper Seneca, Cessna 421 Golden Eagle

**Jet:** Cessna 500, 525 & 560 Citation, Falcon 900, Gulfstream, Hawker, Challenger, Beech Jet, Lear Jet, Israel Jet Commander 1124

<table>
<thead>
<tr>
<th>Dallas Executive Based Aircraft</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>Single Engine</td>
<td>95</td>
</tr>
<tr>
<td>Multi Engine</td>
<td>26</td>
</tr>
<tr>
<td>Jet</td>
<td>22</td>
</tr>
<tr>
<td>Helicopter</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
</tr>
</tbody>
</table>
Aircraft Affected by Runway 13/31 Reconstruction Project

Based Aircraft Affected by Runway 13/31 Reconstruction

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Engine</td>
<td>Multi-Engine</td>
<td>Jet</td>
<td>Helicopter</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Multi-Engine</td>
<td>Jet</td>
<td>Helicopter</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>19</td>
<td>1</td>
</tr>
</tbody>
</table>

Unable to Land
Able to Land
# Aircraft Affected by Runway 13/31 Reconstruction Project

<table>
<thead>
<tr>
<th>Phase</th>
<th>Total # of Aircraft Unable to Land</th>
<th>Total # of Aircraft Able to Land</th>
<th>Percentage of Aircraft Negatively Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>34</td>
<td>116</td>
<td>22.7%</td>
</tr>
<tr>
<td>Phase 2</td>
<td>23</td>
<td>127</td>
<td>15.3%</td>
</tr>
<tr>
<td>Phase 3</td>
<td>30</td>
<td>120</td>
<td>20.0%</td>
</tr>
<tr>
<td>Phase 4</td>
<td>0</td>
<td>150</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

* By Fall of 2016 all currently based aircraft will be able to use Runway 13/31.
Tenant Outreach

• Staff has conducted numerous informational meeting with tenants, sub-tenants, and stakeholders.
  
  September 27, 2013
  November 7, 2013
  January 14, 2014
  January 24, 2014

• Included at the meetings were:
  • Garver Engineering discussed aggressive construction phasing plan
  • Rocket Red discussed
    • Marketing plan and website launch
    • www.dallasexecairport.com

• Follow-up tenant meeting on February 27, 2014
Accommodation Efforts

• Staff has determined the Department of Aviation does not have any City owned hangars at Dallas Love Field to accommodate aircraft from Executive during reconstruction.
• Currently looking to negotiate ramp space for aircraft parking displaced from Executive to Love Field.
• Issuing fuel permits to FBOs to accommodate fueling at Love Field.
• Staff is researching economic impact to stakeholders to determine potential rent abatement.
Next Steps

• Staff intends to return to council in April 2014 with suggested lease amendments to reflect the rent abatement that is in alignment with the economic impact findings.