Master Plan for the Cleveland Hopkins International Airport

Evaluation of Terminal & Other Airport Facility Alternatives

Executive Committee Meeting #3

January 12, 2021
Agenda

» Identification of Terminal Alternatives for Further Evaluation
» Reducing Terminal Alternatives to Two and Selecting Preferred Alternative
» Family 2 Program
» Financial Analysis
» Other Airport Facility Alternatives
» Next Steps
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Total Passengers Planning Activity Levels (PALs)

Passengers

- 2019: 10.1 M
- PAL 1: 10.1 M
- PAL 2: 10.9 M
- PAL 3: 12.0 M
- PAL 5: 13.5 M
## Critical Elements

### Critical elements to address for space deficiencies in the near and long term

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Existing</th>
<th>PAL 1 &amp; 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticketing/Check-in</td>
<td>Ticketing lobby is too narrow and does not provide adequate depth for the typical airline check-in process with self-service kiosk and queue and bag check-in processes</td>
<td>7,700 sq. ft.</td>
<td>11,200 sq. ft.</td>
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<tr>
<td>Checked Baggage Inspection Systems (CBIS)</td>
<td>Two additional explosive detection system (EDS) devices and up to 14 additional checked baggage resolution area (CBRA) stations are required by the end of the planning period (there are currently three EDS devices and 11 CBRA stations)</td>
<td>11,200 sq. ft.</td>
<td>19,500 sq. ft.</td>
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<tr>
<td>Security Screening Checkpoints</td>
<td>A consolidated centralized Security Screening Checkpoint (SSCP) is preferred and the existing SSCP’s are not sized adequately for current and future security lane configurations.</td>
<td>21,200 sq. ft.</td>
<td>43,000 sq. ft.</td>
</tr>
<tr>
<td>Holdrooms</td>
<td>Many holdrooms are currently undersized for projected demand.</td>
<td>101,200 sq. ft.</td>
<td>163,500 sq. ft.</td>
</tr>
<tr>
<td>Gates</td>
<td>To accommodate future passenger and aircraft operation growth</td>
<td>43</td>
<td>53</td>
</tr>
</tbody>
</table>
Terminal Families Selected for Further Evaluation
Agenda

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Family No. 6 Is No Longer Being Considered Due To:

» Higher initial PAL 2 cost

» Complicated construction phasing

» Two additional level changes would be required to access the satellite concourse by way of a tunnel connection

» Separate concession core for satellite concourse

» Concept is not compatible with on-airport or regional access configurations
Preferred Family 2 over Family 1

» Conducted detail phasing evaluation of Family 1 and Family 2 through PAL 2

Family 2:
» Provides superior customer experience & potential for iconic Terminal Building image beyond PAL 2
» Results in a newer Terminal Building over the long-term
» Has lower construction cost through PAL 2
» Can be financed based upon assumptions developed in the financial model

» Has lower maintenance/replacement costs
» Provides more opportunities for concessions improvements
» Provides more opportunities for future Terminal Building expansion
» Enables a more efficient gate layout
» Facilitates intuitive wayfinding
Long-Term Plan - Family 2 Layout
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Regional Access Concept #1

Terminal and Landside Campus
To Be Determined

New Airport Roads
Existing Facilities
Terminal Area

New Slip Ramps
Snow Road to SR237
Return to Terminal Ramp

RS&H
Regional Access Concept #2
Regional Access Concept #3
Evaluation of Terminal Campus Options Associated with Regional Access Alternatives

» Regional Access 2 has the best short- and long-term potential for the Airport

» Regional Access 1 has limited life after the 20 years of this Master Plan and is the costliest on-airport

» Regional Access 3 provides a high level of service while being costliest off-airport

» Preference: Regional Access 2:
  → Easiest to phase in over time
  → Greater flexibility with terminal options
  → All at-grade on-airport roadways cost less, provide best customer service
  → Facilitates transition to Regional Access 3 if ever implemented
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Financial Capacity

» The COVID-19 Pandemic has impacted CLE finances in the following aspects:
  – Lower aeronautical revenues
  – Much lower non-aeronautical revenues (parking, concessions, car rental, etc.)
  – Passenger Facility Charges (PFCs) much lower than anticipated
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Goals for Alternatives Development Plan

» Goals
  • Develop a plan with sufficient flexibility to address tenant needs
  • Generate a highest and best use plan with a campus development approach

» Meet Objectives
  • Accommodate facility space requirements
  • Address tenant desires to relocate/expand
  • Consider the useful life of aging infrastructure and timing of lease expirations
  • Develop an adaptable phasing plan
Alternatives Development Process

» Sufficient land exists to accommodate facilities development through and beyond master planning period

» Other Airport Functions
  • Air Cargo (freight, belly)
  • General Aviation (FBO, corporate)
  • Aircraft Maintenance
  • Airport Maintenance
  • Airport Support

» Evaluate alternatives based upon goals and objectives
Support Facility Alternatives – West / North

West Development Area

North Development Area
Support Facility Alternatives – South 1
Support Facility Alternatives – South 2

Legend:
- Airport Property Line
- Redevelopment Area
- Development / Redevelopment Area
- Future TOPA
- Future Taxiway / Taxiway
- Aircraft Airline Maintenance and Support
- Airport Maintenance
- Airport Support
- Cargo
- General Aviation
- Opportunity Development Area

South Development Area Alternative 2

CLEVELAND HOPKINS INTERNATIONAL AIRPORT
Support Facility Alternatives – South 3
Preferred Alternative 3

» Accommodates facility requirements

» Best addresses tenant desires to expand facility envelope at more accessible airfield locations

» Creates a campus concept

» Recognizes potential for needing to replaced aged infrastructure sooner than later

» Provides a phasing strategy that relocates key facilities that are those anticipated to need expansion as enabling projects for phasing future development.

» Provides the unanticipated benefit of enabling future terminal building envelope expansion beyond the master plan time frame.

» Provides the most direct access to the runway/taxiway system to the I-X Center
Long-Term Growth Development Phasing
Long-Term Growth Development Phasing

» Campus Development of South Development Area

» Pave the way for long-term future terminal growth (beyond the planning horizon)

» **Strategy**: As the opportunity presents itself, move facilities to the West Development area and along Taxiway L to enable the reconfiguration of the South Development Area

» Opportunities based upon:
  • Accommodating facilities requirements
  • Infrastructure conditions start to deteriorate (age)
  • Tenant desire to relocate / expand
  • Enabling projects for other development
Project Phasing

» Multiple phasing sequences were developed for each function.

» Sub-alternative phasing options were developed to anticipate “What If” scenarios associated with the timing of tenant development opportunities.

» Scenarios assume the impetus for development could be different and occur sooner or later, necessitating a reordering of project sequencing.
Preferred Alternative – PAL 5

South Development Area

Legend
- Freight Cargo
- Belly Cargo
- FBO/Corporate Aviation
- Airline/Aircraft Maintenance and Support
- GSE/Central Receiving/Fuel
- Airport Maintenance
- New Taxilanes
- Terminal / Landside

West Development Area

North Development Area
Long-Term Campus Development – Land Use

Legend
- Freight Cargo
- Belly Cargo
- FBO/Corporate Aviation
- Airline/Aircraft Maintenance and Support
- GSE/Central Receiving/Fuel/Gycol/ATCT/ARFF/RTR/ASOS
- Airport Maintenance
- Aero/Non-Aero Development
- New Taxilanes
- Terminal / Landside
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» Third Set of Executive Committee Meetings
» Prioritization of 20-Year Master Plan Program Projects
» Evaluation of Potential Environmental Impacts of Master Plan Program
» Full 20-Year Implementation/Financial Plan
» Final Set of Executive Committee Meetings
Thank you for your Attendance!