FUELING CHICAGO’S ECONOMIC ENGINE: INVESTING IN O’HARE BRINGS BENEFITS TO THE REGION

DELOITTE’S ENGINEERING AND CONSTRUCTION CONFERENCE
JUNE 27, 2017
A Modern and Efficient O'Hare is Critical to Chicago and the Region’s Economy
O’Hare Connects Chicago with the World, Making Our Region a Global Destination
Chicago's Large Population, Strong Business Base, and Geographic Location Make it the Most Important Hub City in the United States

- Chicago is the 3rd largest metropolitan area in the U.S.
  - Chicago has a much larger population base than any other Midwest hub
  - Chicago is the only city in the developed world projected to achieve “megacity” status by 2025 (population over 10 million)

- Business travelers make up a high proportion of Chicago’s domestic and international travelers
  - The Chicago area is home to the 2nd largest concentration of Fortune 500 company headquarters in the U.S.
  - Chicago is home to 1,800 foreign-based companies and has the most diversified economy in the U.S.

- Chicago is ideally located to connect passengers traveling across the country and across the world
- ORD is the only U.S. airport that sustains two highly profitable global airline hubs

As a result, Chicago’s Airports Have Operated at or near Capacity Limits for Years
Chicago is an Attractive Destination for Tourists and Business

Growing Number of Visitors
• Chicago is one of only three U.S. cities to welcome more than 50 million visitors annually.
• 54.1 million visitors in 2016 for conventions, business and leisure, an increase of 2.9 percent over the previous record of 52.6 million achieved in 2015.
• Mayor Emanuel’s goal is 55 million visitors annually by 2020.
• Chicago recently named the nation’s #2 travel destination in Condé Nast Traveler.

Hotels
• Chicago Central Business District offers 124 hotel properties with over 41,000 daily room nights (May 2017)
• In 2016, occupancy was 75.2 percent in a market that added 533,000 daily rooms on an annual basis.

Economic Impact
• Direct spending by visitors reaching an estimated $15 billion in 2016, a 35 percent increase since 2010.
• Tourism generated $911 million in total tax revenue, $2.28 billion in revenue for Chicago’s hotels and $127.3 million in hotel tax revenue.
• Supported an estimated 145,137 tourism related jobs in 2016.
<table>
<thead>
<tr>
<th>Award / Recognition</th>
<th>Source / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART INSTITUTE OF CHICAGO NAMED #2 MUSEUM IN THE WORLD</td>
<td>TripAdvisor's 2016 Travelers' Choice Awards</td>
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<tr>
<td>THE BEST CITIES IN THE U.S.</td>
<td>Condé Nast Traveler</td>
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<tr>
<td>CHICAGO NAMED ONE OF THE TOP 25 BEST COASTAL CITIES IN THE WORLD</td>
<td>Compression+Design</td>
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<tr>
<td>CHICAGO, TOP TECH HOT SPOT OF THE FUTURE</td>
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<td>&quot;IT LIST 2016&quot; – BEST NEW HOTELS ON THE PLANET</td>
<td>Travel+Leisure</td>
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<td>TOP 10 RESTAURANTS OF THE YEAR</td>
<td>Food &amp; Wine Magazine</td>
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<tr>
<td>BEST HOTEL IN THE U.S.</td>
<td>U.S. News &amp; World Report</td>
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<td>CHICAGO - #1, THE 50 BEST BIKE CITIES OF 2016</td>
<td>Bicycling Magazine</td>
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<tr>
<td>CHICAGO TOPS THE GLOBAL RANKING OF THE WORLD'S MOST FUN CITIES</td>
<td>TimeOut</td>
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O’Hare is the World’s Best Airport for Connection Opportunities:
O'Hare is the Number-One Mega Hub in the World, with the Highest Ratio of Possible Scheduled Connections to the Number of Destinations Served – the So-Called “Connectivity Index.”

Global

<table>
<thead>
<tr>
<th>Rank</th>
<th>Airport</th>
<th>Country</th>
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<td>5</td>
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North America

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<th>Rank</th>
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<td>PHX</td>
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<tr>
<td>9</td>
<td>MSP</td>
<td>USA</td>
<td>414</td>
</tr>
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</table>

Source: oag.com
O'Hare Has Sufficient Demand to Fill Flights from Destinations Around the Globe, with a less circuitous route for connections to other U.S. Cities

A Passenger Can Reach Shanghai Five Hours Earlier with a Direct Flight from O’Hare Compared to Connecting Through LAX or SFO

Connecting through O’Hare to Asia provides 30-150 minute savings for midwest/east coast passengers

Chicago’s location enables more direct connections Between Asia and U.S. Cities
O'Hare 21 – Investing in O’Hare to Enable Future Economic Growth

- As announced in July 2016, we are expanding Terminal 5 by 25 percent to provide up to nine additional gates. This project will be the first expansion of Terminal 5 since it opened 23 years ago.

- In June, we announced that three hotel development projects are launching at O'Hare, which will more than double the current hotel capacity at the airport.

- Finally, and most importantly, "O'Hare 21" calls for redevelopment of Terminal 2 into a new O'Hare Global Terminal to serve both domestic and international flights.
Chicago’s Continued Economic Growth Requires Investment in Our Terminals
Midway Modernization Program

- $323 million investment represents largest improvement program in two decades
- Positions Midway to meet forecasted passenger demand

Parking Garage Expansion
- 1,500 new spaces in terminal parking garage
- New pedestrian bridge offers temperature-controlled corridor for passengers using CTA or kiss and ride lot

Security Checkpoint Expansion
- 80,000-square-foot security pavilion improves passenger flow through TSA security checkpoint

Concessions Redevelopment
- 70,000-square-feet of concessions space to feature Midway favorites and new offerings that reflects Chicago’s diversity
Chicago’s Investment in the OMP Has Substantially Reduced Airfield/Airspace Delay

Peak Hour Capacity:
- Increase: 50%
  - From 172 to 258 Aircraft Operations Per Hour

All-Weather Measured System Delay Reduction:
- Decrease: 57%
  - From 2003-2008 to 2009-2014

Now is the Time to Invest in O’Hare’s Terminals

Source: FAA
Completion of the OMP Sets the Groundwork for O'Hare 21 and the O'Hare Global Terminal - Allowing O'Hare to Continue Providing Economic Benefits for Our Region

The OMP Delivered Runway Capacity and Reduced Delays

O'Hare Modernization Program

O’Hare 21 Delivers Gate Capacity

Deicing Pad
Cross-field Taxiway
Former Location Of Runway 15/33
Taxiway A/B

Western Concourse
Concourse C Extension
Terminal 2 Redevelopment + CBP
Terminal 3 Extension
Terminal 5 Expansion
As Other U.S. Hubs Invest and Grow, Facility Constraints Have Depressed O’Hare’s Position as an International Gateway Hub

<table>
<thead>
<tr>
<th>Gateway Airport</th>
<th>2005 International Passengers (000)</th>
<th>2015 International Passengers (000)</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miami</td>
<td>14,241</td>
<td>31,207</td>
<td>119.1%</td>
</tr>
<tr>
<td>Seattle</td>
<td>2,471</td>
<td>4,380</td>
<td>77.3%</td>
</tr>
<tr>
<td>Houston</td>
<td>6,393</td>
<td>10,612</td>
<td>66.0%</td>
</tr>
<tr>
<td>New York</td>
<td>19,123</td>
<td>30,020</td>
<td>57.0%</td>
</tr>
<tr>
<td>Dallas</td>
<td>5,651</td>
<td>7,997</td>
<td>41.5%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>8,055</td>
<td>11,252</td>
<td>39.7%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>17,486</td>
<td>22,878</td>
<td>30.8%</td>
</tr>
<tr>
<td>O’Hare</td>
<td>11,382</td>
<td>11,068</td>
<td>-2.8%</td>
</tr>
</tbody>
</table>

Source: ACI, 2005, 2015
Other U.S. Cities Are Investing in Their Airport Terminals to Serve Growing Demand and Drive Economic Benefits for Their Regions

- Los Angeles (LAX): $13.6 billion
- San Francisco (SFO): $6.7 billion
- New York (LGA): $8.0 billion
- New York (JFK): $10 billion

With Proper Investment, Chicago’s Central U.S. Location and Market Strength Position O’Hare to be the Nation’s Leading International Gateway
O’Hare Terminals 1, 2 and 3 Are Aged, Congested and Inefficient

**T1**
- 29 Years Old
- Insufficient Depth for Security Checkpoints
- Aircraft Limitations Between B & C Concourses
- Large Deferred Maintenance

**T2**
- 55 Years Old
- Failing Structure
- Passenger Demand Exceeds Design Capacity
- Concourses E & F Cannot Serve Larger Aircraft

**T3**
- 55 Years Old
- Rotunda is Failing
- Concourse G Cannot Support Larger Aircraft
- Concourse L Poor Level of Service
- Insufficient Depth for Security Checkpoints
- Large Deferred Maintenance
Three Million Passengers Are Burdened Each Year with Long and Complicated Transfers Between International Terminal T5 and Terminal Core Making O’Hare a Less Attractive International Gateway

### Average Walking Distance and Travel Time from T5 to Terminal Core

<table>
<thead>
<tr>
<th>Distance</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T1</strong></td>
<td>3,410</td>
</tr>
<tr>
<td><strong>T2</strong></td>
<td>2,950</td>
</tr>
<tr>
<td><strong>T3</strong></td>
<td>2,990</td>
</tr>
</tbody>
</table>

**Notes:**
1) Based on CBP goal processing times and APC usage. Flights from pre-cleared destinations do not require CBP processing.
2) Based on standard check and average maximum queue time industry standards.
3) Based on TSA maximum queue wait and processing times.

### SSCP3

- **Avg. Distance (ft):** 1,245
- **Avg. Time (min):** 5.0
- **walking/processing:** 5-17

### CBP Processing

- **Avg. Distance (ft):** 435
- **Avg. Time (min):** 1.7
- **walking/processing:** 7-17

### Train Station (T5)

- **Avg. Distance (ft):** 870
- **Avg. Time (min):** 10
- **walking/processing:** >100

### Notes:
- CBP Processing: 1
- Bag claim and recheck: 2

Source: L&B Analysis
The New O'Hare Global Terminal: **The Key to O'Hare's Future**

- At the center of the airport, a new O'Hare Global Terminal will allow arriving passengers to exit faster and connect to other flights with greater ease.
- It will include a U.S. Customs and Border Protection facility, a departure hall with additional space for TSA passenger screening, more concessions and other passenger amenities.
- It will dramatically improve connectivity, capacity and efficiency for both O'Hare and our airline partners.
O’Hare Will Increase International Service for Chicago Passengers and Businesses – and thus Fuel the Regional Economy

- Creates the first Global Alliance Hub in the U.S, so each of the 3 Major Airline Alliances operate in a consolidated facility, thereby improving international air service potential.
- Improves passenger experience by reducing connection times between flights and walking distances between terminals
- Reduces operating costs for airlines by facilitating shared use of facilities, as well as reducing tow operations between terminals
- Increases utilization of airport facilities and improve flexibility to adjust to changing economic conditions
O'Hare 21 Reduces Airline Costs, Making Chicago More Competitive Relative to Other Hub Airport Cities

Benefits Related to Increased Gate/ Apron Capacity
- Reduced Apron area congestion
- Reduced Gate Delays
- Increased Gate/ Terminal Utilization
- Improved air service

Benefits related to integrated International/ Domestic Operations
- Reduced aircraft towing costs
- Reduced terminal staffing costs
- Reduced ramp staffing
- Improved Air Service

Benefits Related to Baggage Handling Improvements
- Reduced unit operating costs
- Improved throughput
- Improved Level of Service
- Potential for easier baggage connections for passengers

Benefits Related to O&M Unit Cost Efficiencies
- Reduction in unit heating and cooling costs due to improved systems
- Reduction in unit facility maintenance cost

Benefits Related to Employee Parking / Access Improvements
- Less transit time
- Reduced busing costs/congestion

Benefits Related to Increased Non-Aero Revenue
- Opportunity to increase concession revenue with more space and better locations
- Improvements in parking revenue with improved structure and new products
O'Hare 21 and the O'Hare Global Terminal Will Generate Economic Growth, Provide Jobs, Improve Living Standards, and Increase Tax Revenue
Companies that Relocate to Chicago Say O’Hare is a Major Factor

Global transportation links and access to top talent

Caterpillar
Following a thorough site selection process, we chose this location because it is approximately a 20-minute drive to O’Hare airport and convenient to the city of Chicago via commuter train, achieving our goal to be more accessible to our global customers, dealers and employees. “
Caterpillar CEO Chief Executive Jim Umpleby, April 2017

Boeing
“We do business with 145 countries, and we have significant operations in 26 states….
So we were looking for a place that would minimize travel time throughout the country and internationally and that would also give government leaders and financial markets in Washington, DC, New York, and abroad access to us. We needed a central location near a major airport.
Boeing SVP and CAO John Warner, SVP and CAO / 2001 interview with Harvard Business Review

GE Transportation
“We have transformed GE Transportation from a North American rail company to a truly global transportation business. Chicago allows us to more efficiently reach and serve customers around the world in the rail, mining and marine industries.”
GE Transportation President and CEO Lorenzo Simonelli, May 2012

GE Health
Because Chicago is “a great hub for travel, it “puts us closer to our customers in the U.S.“, and because of Chicago’s strong health care sector and academia.

John L. Flannery, GE Heathcare CEO, January 2016
This Investment will Enable Chicago to Attract Additional Corporate Headquarters - Which Rely on Efficient Air Service

- The 15-county Air Trade Area had the second highest number of Fortune 500 company headquarters in 2016
- Of the 15 new U.S. companies to join the Fortune 500 in 2016, three are headquartered in the Air Trade Area¹ (Univar, Baxalta and Arthur J. Gallagher)
- 36 Fortune 500 Headquarters in the Air Trade Area¹
- Chicago was named “Top Metro for Corporate Investment” by Site Selection magazine in 2015
- Business visitors grew 2.1% to 11.90 million visitors in 2016²

¹ Fortune Magazine (2016).
² Choose Chicago (2016).

Major Chicago-Based Corporations
New Contracts Require Robust Programs to Include MBE/ WBE/ DBE Firms and Workers from Socioeconomic Disadvantaged Areas

| CDA Workforce | • Increase diversity of senior leadership team  
• Focus on increased diversity in middle management |
|---------------|--------------------------------------------------------------------------------------------------|
| MBE, WBE and Small Business Outreach | • Targeted outreach to minority businesses and professional organizations  
• Create ongoing dialogue, special presentations, and distribution of materials regarding contracts |
| Contract Types and Packages | • Develop bid packages that are of right size and scope for MBE/WBE subcontractors and small businesses  
• Provide assistance in meeting requirements (bonding, variances, insurance)  
• Create MBE/WBE participation in non traditional contracts such as OCIP, technology |
| Workforce Diversity and Community Hiring | • Develop a project-specific workforce hiring plan  
• Implement and identify hiring opportunities throughout the life of the project  
• Pre Apprenticeship programs to prepare minorities for skilled trades |
| Strategic Partnership Programs | • Develop ongoing partnerships focused on core construction management and business skills  
• Facilitate partnering opportunities with prime and sub-tier level firms  
• Include Mayor’s Office of People with Disabilities (MPOD) and Veterans Affairs |
New Contract Types Will Increase Participation

Modify Future Contract Types
- Target Market for majority of CM services
- At least 2 Target Market design contracts
- Utilize CM At Risk to expand workforce development and mentoring of MBE WBE construction firms

Implementation of Intervention Team for Project Performance
- Monitor for claims or issues slowing cash flow
- Elevate to expedite negotiations and payment
- Support for permits and other regulatory issues
Compliance is Ongoing and Penalties for Not Meeting Goals Are Significant

**Contract Compliance Monitoring**

- Monitors M/W/DBE Commitments
- Tracks Requests for Subcontractor Approval to ensure committed goals are subcontracted out to the firms included on the Compliance Plan approved by DPS
- Oversees day-to-day participation specific to each Contract
- Requests participation letter for each change order to monitor compliance goals
- Prompts General Contractor if participation is trending below committed goals
- Performs project audits and compiles final documentation for DPS review of actuals vs. committed goals
- Conducts site visits (announced and unannounced)
- Monitors Equal Employment Opportunity (Minority and Female Commitments) through the Certified Payroll Processing System (LCP Tracker)
- Assess penalties if goals are not met at end of contract
New Contracts Require Robust Programs to Include MBE/ WBE/ DBE Firms and Workers from Socioeconomic Disadvantaged Areas

- The CM At-Risk community development plan will include but not be limited to the following
  - MBE/ WBE/ DBE program:
    - Targeted outreach program that includes CDA, CM At-Risk and assist agencies
    - Plan for unbundling some bid packages to meet the project goals and pair bid package scopes with the capabilities of the local MBE/ WBE certified contractors.
    - Plan for developing a small contractor bridge bid bond program in conjunction with the City of Chicago
    - Mentor/ protégé and contractor training program
    - Establishment of an MBE/ WBE Community Advocacy Group
    - Early intervention program for subcontractors that encounter issues with cash flow and permits during contract execution
    - Workshops for subcontractors to assure access to easily implementable administrative procedures for bidding, invoicing, submittals using approved project software, claims, and badging
    - Identification of non-traditional opportunities for MBE/WBE businesses such as insurance, safety equipment, technology, signage, translation services and services for construction office facilities (rentals, MEP, services)
    - Monthly reports to track contract goals and actual participation; and remediation measures for contracts and program elements that are lagging against the goals
  - Workforce and community hiring program
    - Inclusion of hiring goals and requirements including relevant City bid incentives in all contract and subcontract terms
    - Gaps analysis to identify skilled trades with a lack of diversity
    - Outreach program to unions for increased rates of minority and female participation in apprenticeship programs
    - Transportation assistance
    - Process for continuous improvement of workforce recruitment and retention utilizing information and data from firms, assist agencies and employees
    - Job fairs in various areas of the City
    - Facilitating interaction between primes, subcontractors and existing training programs such as those at City Colleges of Chicago - Dawson Skills Center and Chicago Public Schools – Dunbar Technical Institute
    - Partnerships with City of Chicago sister agencies to support CDA’s commitment to provide job-readiness training to underserved communities including MOPD - Mayor’s Office for People with Disabilities; DFSS – Department of Family & Support Services; and Veterans Affairs
    - Monthly reports to track contract workforce goals, actual hiring and retention rates, and remediation measure for contracts and program elements that are lagging against the goals.
The Time To Invest In O'Hare Is Now…
O'HARE 21

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CHICAGO DEPARTMENT OF AVIATION

GINGER S. EVANS, COMMISSIONER