

CASE STUDY / CONOURSE DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES

NEW CONCOURSE LEADS THE WAY FOR THE FUTURE OF AIR TRAVEL AND PASSENGER EXPERIENCE

Delta Air Lines is building a new terminal complex at LaGuardia Airport. For the first concourse of the terminal, a project delivery approach that emphasized no operational downtime was a must.



EFFICIENT APPROACH DELIVERS LIMITED INTERRUPTION

An innovative project phasing method allowed operations to continue while construction carried on.

PROJECT STATS

CLIENT

Delta Air Lines

LOCATION

Queens, New York

COMPLETION DATE

October 2019

12.1M

**DELTA AIR LINES
PASSENGERS ANNUALLY**

\$3.9B

TOTAL TERMINAL COST

7

**GATES IN
NEW CONCOURSE**

CHALLENGE

More than 30 million passengers use New York's LaGuardia Airport each year. As LaGuardia's largest airline, with more than 12 million passengers in 2018, it's important that Delta Air Lines continues to provide the best possible service to its passengers.

Rapidly evolving technology, consumer expectations and increased passenger traffic have created demand for a more seamless, comfortable travel experience. To meet demands and deliver a world-class travel destination, Terminals C and D are being consolidated into Delta's new home, Terminal C. When complete, the new terminal will consist of 37 gates across four concourses, featuring modern customer amenities, state-of-the-art architecture, more spacious gate areas and a connected terminal system.

For the first concourse, which houses gates 92 through 98, Delta needed to procure a team that could develop an approach that would minimize the impact on travelers, avoid reducing the number of gates available and allow operations to continue without disruption.

SOLUTION

Our team provided design and construction administration services for the new concourse. Stakeholder

meetings — including with Delta, the Port Authority of New York & New Jersey and the LaGuardia master planning team — were held early in the process. Following these meetings, construction coordination meetings with the Port Authority and other program construction teams were held to coordinate on-airport activities. Every decision the design and construction team made focused on minimizing project impacts to customers, employees and the surrounding community.

Before strategic design for the project could begin, innovative phasing proposals were required. The schedule was developed in a way that prevented interruptions to operations during construction. For example, ground-loaded aircraft hardstands were relocated around ongoing construction by developing very detailed phasing, grading, paving and access plans early in the design process.

Flexibility in terminal and aircraft parking layouts were developed to accommodate future changes in passenger market demands.

In addition, off-site prefabrication was used to help stay on schedule and for staging purposes, as the construction site is limited with the active airport. Large structural components were



fabricated and assembled off-site to shorten assembly time and downtime on roadways. Two examples include the temporary connector from the newest concourse to the existing Terminal D, and the temporary bridge structure that connected the existing Terminals C and D departure roadways.

Designed to be wider, the new concourse provides additional space for more seating, amenities, restrooms and concessions with a higher level

of customer service, as well as better circulation for passenger movement.

RESULTS

The new concourse comprises seven gates on the far eastern side of the airport. It features dining inspired by local favorites, more seating and respite places for passengers, and ample outlets for charging devices.

Construction featured 12,000 tons of steel, more than 50,000 cubic yards of concrete and more than

40 miles of piping, cabling and other infrastructure. In the new concourse, there are 573 piles.

The project was completed on time and without interruption to operations. The new concourse will serve as a model for the remaining three concourses as part of Delta's new \$3.9 billion terminal at LaGuardia — building on years of investment that Delta has put in at the airport.



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