

# Taking flight

The R&D Tax Credit aspects of renovating U.S. airports to global standards

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**A**irport design in numerous airports throughout the United States is outdated and lacking in modern technology. Recent remarks by Vice President Joe Biden that described U.S. airports as “third world” have galvanized many airports to pursue massive improvements and “first-world” modernization projects throughout the country.

As a result, airports across the United States are working on major construction and infrastructure projects to improve and upgrade their facilities, including new and upgraded terminals, runways and taxiways, lighting and passenger amenities.

U.S. airports provide service to more than 800 million passengers annually and is projected to reach the billion mark annually by 2027 or sooner. Compared with their counterparts abroad, U.S. airports receive lower marks for customer service, feature more delays and congestion, and have older infrastructure.

Nations in Asia and the Middle East are developing new, efficient and technology-enhanced airports that resemble high-end shopping malls full of leisure amenities, but American airports are falling behind in core infrastructure areas as well as in amenities. New developments and innovations to improve airport design can utilize research and development tax credits.

## The R&D Tax Credit

Enacted in 1981, the Federal Research and Development (R&D) Tax Credit allows a credit of up to 13 percent of eligible spending for new and improved products and processes. Qualified research must meet the following four criteria:

- New or improved products, processes, or software
- Technological in nature
- Elimination of uncertainty
- Process of experimentation

Eligible costs include employee wages, cost of supplies, cost of testing, contract research expenses, and costs associated with developing a patent. On Dec. 18, 2015, President Obama signed the bill making the R&D Tax Credit permanent. Beginning in 2016, the R&D credit can be used to offset Alternative Minimum tax and startup businesses can utilize the credit against payroll taxes.



## MAJOR AIRPORT RENOVATION PROJECTS & COSTS

AIRPORT NAME	PROJECT DESCRIPTION	ESTIMATED COST (IN MILLIONS)
Los Angeles International (LAX)	Terminal Modernization	\$8,500
LaGuardia Unified (LGR)	Terminal Modernization	\$4,200
New Orleans (MSY)	Terminal Expansion	\$1,000
Tampa (TPA)	Terminal Expansion	\$1,000
Orlando (MCO)	Terminal Modernization	\$1,100
	New South Terminal	\$1,800
<b>TOTALS</b>		<b>\$17,600</b>



### Estimated project costs

Each airport expansion and renovation project involves massive amounts of construction, whether to renovate high-traffic areas. These include lobby areas, ticketing and baggage handling mechanisms, and intra-airport transportation, such as “people-movers” and rental car hubs, or expanding existing structures and systems to provide for unique airport needs while seamlessly integrating into the former airport layout.

The common need for all of these airport projects is that they all involve major airports that have to be renovated and expanded to handle substantially more passengers. Other common technology driven projects impacting two or more of the airports are new ticketing technology, new baggage handling and baggage claim technology, and new central building operating systems, including lighting heating and cooling.

### Los Angeles International Airport (LAX)

At LAX, construction and renovation projects have encompassed more than 20 individual projects, including the remodeling of the Tom Bradley International Terminal, new and improved TSA screening areas, the arrivals and departures dining and retail locations, and demolitions of the original TBIT concourses, both north and south terminals.

In addition, LAX also is in the process of replacing its central utility plant in conjunction with electrical and accessibility renovations to all airline terminals. Terminal 2, the second largest in the airport, will be upgrading the ticket lobby, baggage screening, baggage claim and concourse areas, as well as construction of all new concession and upgrades of all electrical, mechanical, and telecom systems that serve the terminal.

At the Southwest Airlines terminal, improvements include new passenger security screening, a new inline Checked Baggage Inspection and sorting system, upgraded hold rooms and infrastructure, refurbished baggage claim areas, replacement of passenger boarding bridges, renovated airline support office space, replace-

ment of aircraft paving sections and fuel hydrant pits. Passenger services, including convenience retail, specialty retail, food and beverage, public seating, common areas, and restroom facilities are also experiencing dramatic renovation efforts. The LAX improvements are slated for a January 2020 completion date.

### LaGuardia International Airport (LGA)

Arguably one of the busiest international airports in the country, LaGuardia Airport is undergoing a massive, and much-needed, makeover of the Central Terminal Building, originally opened for operation in 1964. Once completed, the Central Terminal will be replaced in its entirety and augmenting it with a grand entry way.

Additionally, the current disconnected assortment of terminals will be replaced with an aesthetically pleasing, unified airport, which will be physically shifted south, closer to the parkway, allowing for nearly 2 miles of new taxiways to alleviate LaGuardia’s chronic delay issues. The plan also encompasses a



rail link between the airport and Willets Point in Queens, as well as reestablishment of ferry service.

Further improvements include the elimination of parking garages and surface lots that consume acreage between the highway and the terminal entrance, to be replaced by two modern parking garages elsewhere on the grounds and clearing space to build the new terminals while the old terminals remain in use.

### New Orleans International Airport (MSY)

In New Orleans, the city broke ground on a new \$807 million North Terminal complex on Jan. 14, 2016. The new 760,500 square-foot terminal will have two concourses with 30 gates, a 2,000 car parking garage, a



central utility plant and a ground transportation staging area. In addition, the MSY renovation includes a \$72 million power plant project, an \$87 million highway addition to improve airport access, and a \$17 million on-site hotel project. The entire project should be done by October 2018.

### Orlando International Airport (MCO)

In Orlando, the \$1.1 billion renovation and expansion project is the largest effort in the airport's history, and includes construction on the South Airport APM Complex and Intermodal Transportation Facility (ITF), along with enhancements at the North Terminal Facility. Current projects include: ticket lobby expansion in Terminals A&B, baggage system improvements for increased efficiency and security, renovation of curbside canopies, a new central energy plant, and a new cell phone lot north of the airport, which includes restroom facilities.



Further improvements include expanding Customs & Border protection facilities (an ever-present concern in South Florida heightened by reopened international relations with Cuba), international gates to accommodate larger aircraft, restroom renovations, and replacement of Automated People Mover (APM) trains. The South Airport Complex is increasing multimodal transportation access to accommodate up to four rail systems. The entirety of these renovations is projected for completion by summer 2017.

### Tampa International Airport (TPA)

In Tampa, officials have green-lit a \$971 million plan to update its facility, including a consolidated rental car facility, an automated people mover, new concessions, upgraded roadways, and taxiways. Phase One specifically addresses decongestion goals by building a 2.6 million square foot car rental center, a 1.4 mile automated people mover, and major main terminal expansion. By late 2017, passengers will be able to enjoy dozens of new restaurants and stores, including many local brands.

As the airport industry continues to grow, new innovations are put into place to fix current infrastructure problems, become more environmentally friendly and turn airports into a place where travelers actually want to spend time. Federal and state R&D tax credits are available to support these innovative efforts in the airport design industry. **FC**

