

# Keeping Up the Delaware River and Bay Authority

From runways to highways, DRBA is keeping Delaware on the move

## WILMINGTON AIRPORT

On Thursday, September 21, U.S. Senators Tom Carper and Chris Coons, and Federal Aviation Administration (FAA) Regional Manager Lori Pagnanelli joined with Delaware River and Bay Authority (DRBA) Executive Director Tom Cook and DRBA Airports Director Stephen Williams to announce a \$5.4 million grant to construct a new Taxiway B at the Wilmington Airport (ILG). This grant funds the third of four phases for the new taxiway, which will replace old Taxiway B and E. Over the past ten years, more than \$48 million have been invested in multiple infrastructure projects at the aviation facility.

“Smart investments in our nation’s infrastructure are important to keep us all moving safely, and this \$5.4 million grant award from the FAA will help make those vital improvements to the Wilmington airport,” said U.S. Sen. Carper. “But these investments aren’t just about safety, they create jobs and attract businesses. Aviation supports 2,600 jobs in the First State, and contributes nearly \$600 million to our economy each year. That’s a big impact on a small state.”

This four-phase project focuses on the realignment of current Taxiways B and E to form a single parallel taxiway to Runway 1-19. This third phase

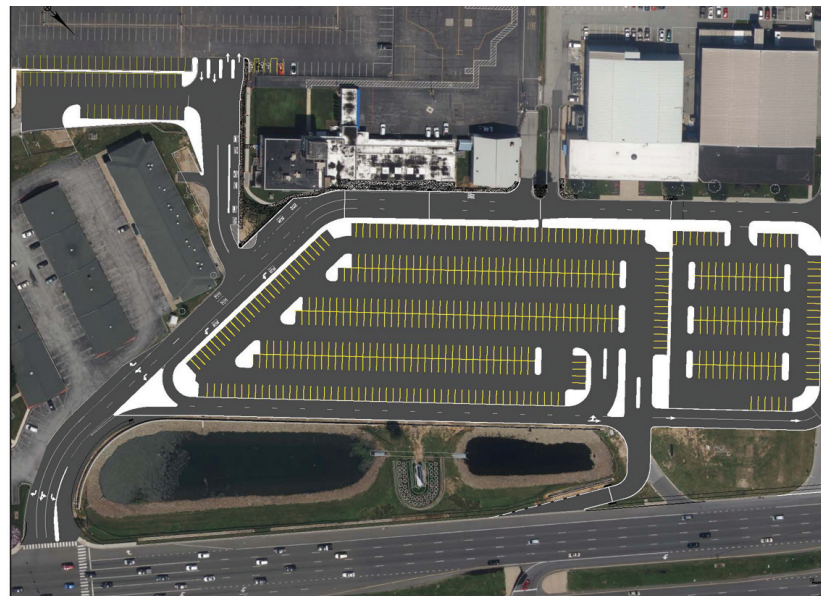
affects a 2,800-foot segment of Taxiway B north of the second phase. This segment serves as access to the northern end of Runway 1-19 and adjacent facilities. The work includes the removal and reconstruction of the existing taxiway 50 feet further from the adjacent runway to comply with FAA standards. The work is expected to begin in the spring of 2018.

Wilmington Airport also saw the completion of expanded terminal parking in September 2017, a more than \$4 million investment. In addition to new paving, curbing, and storm water management, the project focused on upgraded lighting, signage, improved traffic flow, and expanded parking availability in Lot A. The expanded lot has nearly 200 more spaces and a new perimeter road around the terminal lot to enhance traffic safety and efficiency.

Additionally, the FAA awarded the DRBA more than \$4.2 million to expand the existing Terminal Apron, realign a portion of Taxiway A, and rehabilitate portions of Taxiway C at the Wilmington Airport. The project was completed in December and expanded apron capacity around the terminal building, and improved adjacent drainage, lighting and signage to meet general aviation demand.



*Senator Carper speaks during the announcement of the grant to construct ILG's new taxiway, joined by DRBA Airports Director Stephen Williams, left, and Senator Coons, right.*



*Aerial view of expanded lot at ILG per final plans by contracted company C&S Engineers, Inc.*

# Guide to Construction

## DELAWARE AIRPARK

In November 2017, the DRBA officially opened the new Runway 9-27 at the Delaware Airpark (33N) for aviation use. The Authority's contractor, Diamond Materials of Wilmington, Delaware, completed the second to last phase of the multi-year project the previous month, which involved wetland mitigation, the paving of new Runway 9-27 (4,200' x 75'), connector taxiways (35' wide) and associated infrastructure. This comprehensive development project is the largest and most significant civilian airport improvement program in Delaware or the region in more than 40 years.

The overall project provides a runway, taxiway and apron system that enhances flight operations and safety for all classes of aviation users. The new system was designed with adequate runway length and apron dimensions to meet current and anticipated future demands of the aviation community. In addition, the facility serves a complementary and relief role for corporate traffic at the Civil Air Terminal at Dover Air Force Base.

In the spring of 2018, the final phase of this project will begin, and involves the conversion of the existing Runway 9-27 into a parallel taxiway (35' wide), construction of the final connector taxiway (35' wide) to the new runway (4,200' x 75'), and associated infrastructure.



*Aerial view of the new runway and taxi system at Delaware Airpark.*

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Delaware Airpark serves the general aviation needs of central Delaware and the Capital city of Dover, including the aircraft of the Delaware State University Aviation Program. It is the base for flight training conducted by Delaware State University for the Air Force ROTC program and other clients such as the Department of Interior and NASA.

## DELAWARE MEMORIAL BRIDGE

The DRBA contracted with American Bridge Company of Coraopolis, Pennsylvania, to construct and install a dehumidification system for the main suspension cables on both structures of the Delaware Memorial Bridge (DMB). A major transportation link in the north-south corridor between Washington, D.C., and New York City, the DMB handles more than 35 million vehicles annually. The Bridges' main suspension cables are original to each span, with the New Jersey-bound span being completed in 1951, and the Delaware-bound span finished in 1968. The work began at the end of February 2016, and is expected to reach completion late spring of this year, at a total cost of approximately \$35 million.

According to Shoukry Elnahal, Chief Engineer for the DRBA, the new dehumidification system is part of the Authority's comprehensive capital program designed to preserve and protect the bi-state agency's transportation infrastructure. The project involves the fitting of air tight wraps around the main cables, positioning injection and exhaust ports, and installing advanced dehumidification plants inside the anchorages of the two bridges. Elnahal also noted that the system will be equipped with remote sensors and advanced monitoring systems to insure it is functioning as intended.

DRBA also contracted with Platinum Scaffolding Services of Sewell, New Jersey, to perform much needed repairs on the aging piers that support both the northbound and southbound structures of the Delaware Memorial Bridge. Many of the bridge piers were showing signs of cracking and spalling, mainly from aging, and were repaired and restored to extend their lifespan. The project took approximately two years to finish, during which all 87 piers and four end abutments of the DMBs were repaired and restored. It was completed in September 2017, and cost just under \$1 million.



*DRBA Commissioner Doug VanSant, left, of Bridgeton, NJ, and DRBA Commissioner Michael Ratchford of New Castle, DE, activated the new bridge dehumidification system on the Delaware bound span.*



## I-295 SOUTHBOUND RECONSTRUCTION PROJECT

In February 2016, the DRBA's contractor, Mumford & Miller Concrete, Inc. of Middletown, Delaware, began work on the I-295 Southbound Reconstruction Project west of the Delaware Memorial Bridge Toll Plaza – from Landers Lane to I-95. The goal is to rehabilitate the approach roads and ramps to improve the highway's efficiency and safety, while limiting the impact on the traveling public during the construction. Once complete, I-295 southbound mainline traffic lanes will have 50% more capacity. The cost of the construction project is \$33.7 million. When highway work is concluded on this final phase in December 2018, the



*Above: Contracted workers climb the main cable access platform to install elements of the dehumidification system on the New Jersey bound span of the Delaware Memorial Bridge. Right: Using a pump truck, construction workers pour the concrete deck on the I-295 southbound roadway over U.S. Route 13. Below: Refurbished Delaware Memorial Bridge piers (New Jersey bound span) recently repaired in the fall of 2017.*



Authority will have invested more than \$90 million to improve the region's infrastructure during the I-295 Delaware Memorial Bridge Approach Road Rehabilitation program.

The southbound I-295/US13 interchange experiences traffic congestion where four through lanes decrease to two lanes, a condition was further complicated by weaving patterns. This project included the removal of four existing overpasses, replacement of one existing bridge, and elimination of the weaving patterns for increased traffic capacity and safety. These improvements will also increase the number of mainline through lanes from two to three, providing greater lane capacity to meet future traffic demands. The ramp from U.S. Route 13 northbound to I-295 southbound, known locally as the Baltimore ramp, was eliminated. A new ramp will be constructed further north to connect and merge with I-295 southbound. ■