ConRAC Facility, John Glenn Columbus International Airport

Columbus, Ohio

STORIES **BUILT**

Cast-in-place (CIP) concrete garages help facilitate a safer, more secure parking experience by providing an open and spacious feel, efficient parking layouts, and space to easily install lighting, security cameras and overhead signage. Open sightlines and enhanced natural lighting are made possible by widely spaced beams and large open bays sans interrupting walls. Without those partitions or walls, which could inadvertently create isolated areas, patrons feel safer. Users also enjoy navigating CIP garages without being subject to rhythmic "thump-thump" vibrations made while driving.

Each year, Ceco Concrete helps clients across the country construct CIP parking structures, often starting with constructability design reviews. We are ready with parking structure formwork, such as Ceco's steel beamforms, to meet the needs of these projects. Equipment can be delivered to nearly any site in the country within a few days.

One such project is the Consolidated Rental Car (ConRAC) facility at John Glenn Columbus International Airport in Ohio, which Ceco completed for general contractor Dugan & Meyers. The project involved constructing a three-level rental center garage, which joins the quick turnaround station by a set of helix ramps and bridges. The more than 1,200,000-square-foot facility houses more than 2,600 vehicles. Ceco provided deck formwork services for 465,000 square feet of post-tensioned (PT) concrete garage.

The garage's efficient beam-and-slab structural system allowed the use of Ceco steel beamforms combined with larger steel girder formwork and Ceco's unique P1 panel system for the PT slab soffits. The large concrete girders, each measuring 48 x 44 inches, required the Ceco team to follow the load redistributions on the shoring through the various PT tensioning sequences until the entire load was finally distributed to the columns. The structural system was a great choice that met many key constructability measures. Its design allowed Ceco to achieve the project's schedule safely and with a high degree of reliability.

The ConRAC facility is the first phase of a long-range plan to expand capacity at the airport. Work began August 2019 and the Ceco team topped out June 2020.

FAST STATS

Owner/Developer: John Glenn Columbus International Airport
Contractor Client: Dugan & Meyers
Designer/Architect: TranSystems
Structural Engineers: Schaeffer Structural Engineers
Ceco Scope: Deck formwork services
Ceco Project Manager: Holly Dunham
Ceco Superintendent: Mike Adkins
Ceco Engineer: Peter Windler
Date Complete: May 2020