



Transportation

Client

Chicago Department of Aviation

Location

Chicago, Illinois

O'Hare Modernization Program, O'Hare International Airport

Project Highlights

- ◆ Largest aviation infrastructure improvement project in the nation
- ◆ Master Civil Engineer for Chicago O'Hare International Airport

In a joint venture of four Chicago-area firms, CH2M HILL is serving as the Master Civil Engineer (MCE) for this multi-billion project, the largest aviation infrastructure improvement project in the U.S. CH2M HILL staff serves as an extension of staff for the City of Chicago for the entire program, providing technical resources and consultations on scopes, schedules, budgets, designs, and oversight for civil and facility projects.

The overall program is focused on reconfiguration of the airfield to improve capacity and safety. The massive reconstruction project includes new runways, taxiways, and aprons, and requires the relocation of roadways, railroads, utilities, security fencing, NAVAIDS, and buildings.

CH2M HILL is providing the project manager and the design manager leads for both the north and south airfield projects. The MCE is providing conceptual and preliminary engineering for the entire program and final design services for selected projects. Ongoing services include field surveys, geotechnical investigations, earthwork management planning, storm water management master planning, utility master planning and coordination, and development of design standards, environmental permitting, and design management for final engineering design.

Duties include providing design reviews, monitoring code and standards compliance, and coordinating with the City of Chicago, the program manager, the construction manager, the airlines, environmental agencies, utilities, and the FAA.

The north airfield program includes new Runway 9L-27R (already commissioned), new Runway 9C-28C, and the extension of Runway 9R. Enabling projects include utility relocations; relocation of Mt. Prospect Road and Guard Post 1; permanent displacement of Runway 14L threshold and NAVAIDS; relocation of a 90-inch watermain; construction of a new air traffic control tower; installation of a new ASR-9 facility; expansion of stormwater detention facilities; expansion of the fiber optic communications system; and expansion of the north airfield lighting control vault.

CH2M HILL completed final design for one of the more significant elements on the north airfield—the relocation of the threshold for Runway 14L. This runway is a CAT II/III approach capable, Aircraft Design Group D-V runway, 10,000 feet long by 150 feet wide. The R/W 14L approach threshold was permanently displaced approximately 2,000 feet to accommodate the new north air traffic control tower and Runway 14L approach criteria. The project consisted of design for a 5,000-foot bituminous concrete pavement overlay, to restore the pavement surface once the relocated in-pavement ALSF and touchdown zone lighting systems and electrical conduits were installed.

On the south airfield program, the MCE is currently providing design reviews for the final elements of the design of Runway 10C-28C, new Runway 10R-28L, relocation of Irving Park Road, a new south airfield air traffic control tower, and various other enabling projects. We managed the design reviews for the extension of Runway 10L, which opened to traffic in September 2008. Significant facility relocations included Federal Express and United Airlines Cargo facilities, which include large aprons; a creek; and the realignment of the Union Pacific Railroad.

About CH2M HILL

Headquartered near Denver, Colorado, USA, employee-owned CH2M HILL is a global leader in consulting, design, design-build, operations, and program management for government, civil, industrial and energy clients. The firm's work is concentrated in the areas of water, transportation, environmental, energy, facilities and resources. With US\$6.3 billion in revenue and 23,000 employees, CH2M HILL is an industry-leading program management, construction management and design firm, as ranked by Engineering News-Record and named a leader in sustainable engineering by Verdantix. The firm has been named a FORTUNE 100 Best Companies to Work for five times. Visit us at www.ch2mhill.com, twitter.com/ch2mhill and facebook.com/ch2mhill.