



Transportation

Client:

Los Angeles World Airports
(LAWA)

Location:

Los Angeles International Airport
Los Angeles, CA, USA

Construction Management of Runway 7R – 25L Relocation, Center Taxiway and Airfield Intersection Improvements

CH2M HILL provided Los Angeles World Airports (LAWA) with construction management services on the first Master Plan Project requiring implementation of the Mitigating Monitoring and Reporting Program (MMRP) and the Community Benefits Agreement. The construction management services included construction project management, construction administration, resident engineering, project controls, third party coordination with outside agencies (building inspection, utility companies etc) and other services for the Southside Airfield Improvements Program to improve airfield safety at Los Angeles International Airport.

The projects in the Southside Airfield Improvements Program were managed and supported by an integrated team of LAWA and CH2M HILL staff. Projects completed under this program included Runway 7R-25L Relocation and Center Taxiway Construction, Airfield Intersection Improvements Phases 1 and 2, and Remote Boarding Gates, which required the coordination of City of Los Angeles Department of Building and Safety, and Los Angeles Department of Water and Power.

The relocation of Runway 7R-25L required demolishing the existing runway and taxiway, including associated civil, electrical, and NAVAIDS infrastructures. A new 11,095-foot-long, 200-foot-wide runway was then constructed 55 feet south of the original location. The new work included excavation, grading, subgrade lime treatment, pipe jacking, construction of concrete base course, portland cement concrete pavement (PCCP), asphalt concrete (AC) taxiways and shoulders, a storm drain system, stormwater treatment systems, new airfield lighting and NAVAIDS so Runway 25L as a Category III Runway a new fiber optic system, and relocation of other utilities. Contractor installed end fire glide slope antennae for Runway 07R and Runway 07L.

CH2M HILL worked closely with FAA and the contractor to modify construction phasing to complete the work necessary so the FAA could flight check the new approaches for publication. The flight checks of the NAVAIDS required additional coordination

The NAVAIDS on Runway 7R-25L consisted of a localizer, end fire glide slope, approach lighting system with Flashers II system, Medium Intensity Approach Lighting System/Rail, Precision Approach Path Indicator, Automated Surface Observation System, and required testing certification by FAA prior to placing them in operation. Installation also included new runway lighting such as touchdown lights, runway edge lights, centerline lead-in lights, and taxiway lights. Modifications were made to the existing Airport Lighting Control and Monitoring System to reflect the new airfield configuration.

The design incorporated green features for stormwater runoff, recycling of demolished asphalt and concrete, MMRP for compliance with the Environmental Impact Report/ Environmental Impact Statement. Contract also included restricted delivery hours so material deliveries would occur outside morning and afternoon rush-hour traffic, off road construction equipment had diesel emission control systems installed.

The Center Taxiway and associated connecting taxiways from the Center Taxiway and Runway 7L-25R and Runway 7R-25L were designed and constructed to eliminate runway incursions. The Center Taxiway was constructed after Runway 7R-25L was reopened. The new work included excavation, grading, subgrade lime treatment, construction of concrete base course, portland cement concrete pavement (PCCP), asphalt concrete (AC) shoulders, a storm drain system, stormwater treatment systems, pavement markings, new airfield lighting and signage, and relocation of other utilities. During construction, CH2M HILL met daily with LAWA Inspection Operations and the Contractor to coordinate the planned work for the day and potential impacts to aircraft operations. CH2M HILL also provided a public Website for project information and a 24-hour-a-day construction noise hotline.

Performance:

During demolition, one month into the owner-required 8-month timeline for the Runway 7R-25L relocation, the contractor encountered an unknown concrete runway from the 1950s buried underneath the existing runway. This caused a 23-calendar-day delay, but a strict recovery schedule with revised phasing mitigated the delay. The duration of impacts to Runway 7L-25R closures for the connecting taxiways was shortened by approximately 2 months by using extended weekend closures in lieu of nightly closures 6 days per week. The overall construction project was substantially completed within the established duration within LAWA's approved budgets.

About CH2M HILL

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