



# LAX Automated People Mover

## Los Angeles Airport, CA

### Welcome to the New LAX

Los Angeles International Airport has undertaken an effort to relieve congestion for people traveling to and from the third-busiest airport in the world. A key component of that endeavor is a new 2.25-mile-long Automated People Mover (APM).

The APM will reduce traffic and provide quicker access to terminals and transportation stations for the traveling public. The electric train system will operate a maximum of nine four-car trains on an elevated guideway with six stations – three inside the Central Terminal Area (CTA) and three outside the CTA.

In addition to improving the efficiency of travel around the airport, the APM will reduce the airport's carbon footprint with fully electric cars that will generate a portion of their own power through regenerative braking. The command center is designed to be LEED Gold certified.

Development of the APM involved constructing the guideway over traffic on Century Blvd and Sepulveda Blvd and around existing structures including the P2B Garage, as well as curved support over Century Boulevard. The project team turned to PERI USA for a custom solution for traveling formwork to fulfill design, efficiency, and sustainability plans.



## Support from All Sides

Project conditions – including crossing operational roadways – meant traditional falsework methods could not be built for this project. PERI designed a cast-in-place segmental bridge construction method utilizing formwork travelers.

PERI's involvement began at the start of the project. The VARIOKIT VBC system had not been previously used in the United States, so the PERI team and project design team visited a site in Austria to see the system in use. PERI then began designing a new turning mechanism for the curve and solutions for crossing traffic at LAX.

The resulting PERI VARIOKIT Balanced Cantilever (VBC) system used six VBC formwork travelers with formwork for a total of four spans – one over Sepulveda Blvd, one over Century Blvd, and two parallel spans over the Central Terminal Area (CTA) parking structure. Each of the four spans has 13 to 17 segments of 15-foot and closure pours at the midspan.

## Project Info

### Architect/Engineer

HDR, Inc.

### General Consulting

McNary Bergeron  
& Associates

### Contractor

LAX Integrated  
Express Solutions

### Location

Los Angeles, CA

### Products

- VARIOKIT VBC Balanced Cantilever Carriage
- PERI UP Flex Stair 100

The PERI VARIOKIT system reduces construction with high load-bearing capacity, integrated hydraulics, and safe access solutions. With VARIOKIT, crews can transfer fresh concrete loads into the supporting structure and move formwork from section to section more easily.

Four 80-foot-tall stair towers of PERI UP Flex Stair Tower were also used to access formwork areas. PERI UP steel staircase system is designed for loads of 3.00 kN/m<sup>2</sup> with wide steps the staircase is suited for large numbers of users to pass each other and transport material safely.

To aid in planning each segment solution, PERI software - including structural and static analysis, PERI CAD 23, and PERI Extended Experience - were used to bring the design to life and ensure all necessary components were ready on time.

PERI CAD, ideal for experienced CAD engineers and construction professionals in formwork and scaffolding planning, enabled detailed plans of the structures, assembly drawings, and 3D drawing details, providing cost reduction with accurate quantity planning.



The PERI Extended Experience app delivered 3D visualization of the project with augmented and virtual reality.

The customer was able to track all information about the project using myPERI, a 24/7 customer portal enabling tracking of orders, viewing reports, drawings, and more.

## Customer's Benefits

- Custom solution to build over active traffic and around existing structures.
- Engineering support and planning from initial project design phase.

## Travel Time

Concrete construction utilizing PERI solutions began in August 2021 and is expected to be completed in the second quarter of 2022. The Automated People Mover is expected to begin serving travelers in 2023.

