



Key Achievements

- The project was the recipient of ENR's 'Best of the Best 2018' award in the Landscape/Urban Development category.
- Hayward Baker, Inc. (HBI) completed the project safely and on time despite limited work areas in this congested, high-traffic location.

The project

Constructed 25 ft above an at-grade roadway, Seaside Way Pedestrian Bridge is a 600-ft-long structure that connects the Long Beach Convention Center and Long Beach Performing Arts Center. The bridge consists of six continuous spans and two cantilever ends supported by seven, 5-ft-diameter reinforced concrete columns in turn supported on 7-ft-diameter drilled shafts. Site soils were sands with a very shallow water table.

The challenge

Achieving a geometrically complicated, very precise design, coordinating all the construction elements, and working safely in a high-traffic area were the owner's primary challenges.

The solution

For each at-grade drilled shaft location along the bridge alignment, HBI utilized 96-in.-diameter oversized construction safety casing (CMP) to stabilize the upper portion of the 84-in.-diameter drilled shaft. Drilling of the shaft to tip elevation at 45 ft below working grade was accomplished under polymer slurry. A reinforcing cage was placed for the full length of the pile and concrete tremied in to displace the slurry and complete the pile. Despite limited work zones in this high pedestrian and vehicular traffic area, the project was completed safely and on time.

Application

Deep Foundations

Technique

Drilled Shafts

Market sector

Infrastructure – Transportation

Owner

City of Long Beach

Main contractor

Powell Constructors, Inc.

Engineer

Arup

Keller business unit (s)

Hayward Baker, Inc.