

North Spring Street Viaduct Widening and Rehabilitation Project

H Location: Y Owner:

Los Angeles City of Los Angeles Total Value: Completed: \$27mil 2018



The North Spring Street Viaduct Widening and Rehabilitation Project was a City of Los Angeles effort to bring the existing historical arch bridge up to seismic code and to widen the adjoining roadway. The roadway widening was intended to accommodate the addition of bike lanes, a sidewalk on the south side of the bridge and a striped median. To accomplish the widening, a new arch bridge was built next to the existing structure, and the two structures were linked at the roadway level to create a seamless new roadway for end users.

The work entailed a retrofit consisting of adding concrete seat extensions at the abutments and restrainer pipes at the bridge joints. It also involved wrapping the existing concrete arches in a composite fiberglass jacket that has a tensile strength as high as steel. Some of the required work also included moving existing 34.5 KV overhead power lines into over 3,000 LF of underground duct bank, installing over 1,600 LF of 60" DIA CIDH foundation piles, and pouring over 13,000 CY of structural concrete.

This project faced many challenges including working with multiple agencies, and constructing the work over the active L.A. River which had restricted work windows.

This project was the winner of the 2019 Outstanding Bridge Project award from the American Society of Civil Engineers Metropolitan Los Angeles Branch (ASCE MLAB).