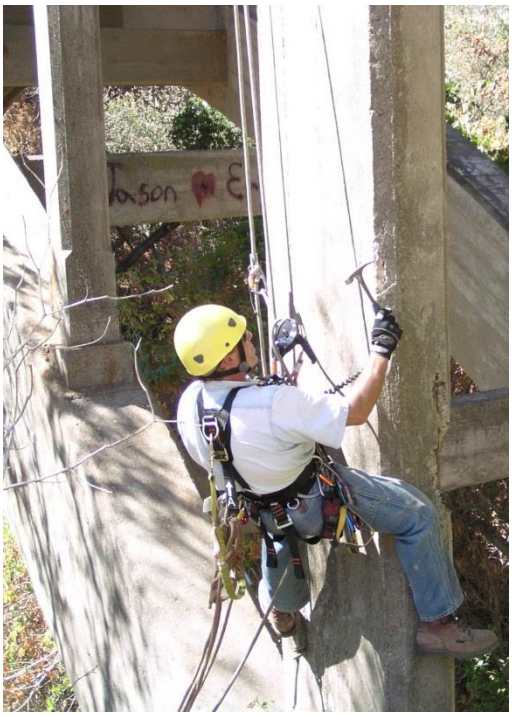
PROJECT PROFILE

Orangevale Avenue Bridge

Condition Assessment | Folsom, CA



CLIENT

Dokken Engineering

BACKGROUND

Constructed in 1915, the Orangevale Avenue Bridge is one of the oldest bridges in Sacramento County that is still in use. Spanning 160 feet, the reinforced concrete arch bridge features open spandrel columns and a T-beam superstructure.

The City of Orangevale needed assistance in developing repairs for this historic bridge. On behalf of the city, Dokken Engineering retained WJE to perform a condition assessment of the concrete superstructure. The assessment was complicated by the fact that the bridge is situated over a steep, wooded ravine.

SOLUTION

WJE set up a series of ropes and rappelling equipment so that the in-house Difficult Access Team could perform a comprehensive close-up inspection of the superstructure. The engineers documented the location and extent of concrete deterioration, recorded salient as-built geometric information for key members, and used nondestructive methods to confirm size and layout of embedded steel reinforcement. Concrete samples were taken from representative areas of the bridge and examined in WJE's laboratory to determine the quality, composition, and condition of the concrete. Using information from the survey, WJE prepared a report summarizing the condition of the bridge and provided conceptual concrete repair details.

WJE ENGINEERS ARCHITECTS MATERIALS SCIENTISTS