

**Project Name:** Circle Drive over Virginia Road Bridge Replacement

**Location (if applicable):** City of San Marino

**City or County Responsible for Project:** Los Angeles County Department of Public Works

**Category:** Efficient and Sustainable Road and Bridge Preservation, Maintenance and Construction and Reconstruction Projects

**Contact Information**

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**Narrative Description of Your Entry**

The Circle Drive over Virginia Road Bridge Replacement Project consisted of replacing an existing four-span reinforced concrete bridge with a single span post-tensioned concrete box girder bridge located in the City of San Marino.

The bridge was built back in 1910 and was 115 feet long with a clear travel width of 18 feet. The newly constructed bridge is 135 feet long with a 32-foot-wide travelway and two six-foot-wide sidewalks.

**Vehicular Safety and Preservation Enhancements**

The existing Circle Drive Bridge was rated as functionally obsolete because the existing column bents were located too close to the edge of travel way on Virginia Road. The bridge was also rated as structurally deficient due to deterioration of the reinforced concrete girder, and was posted for a 3-ton weight restriction. The bridge also did not comply with either the Americans Disabilities Act (ADA) requirements or the Caltrans Seismic Design Criteria (SDC).

The newly constructed Circle Drive Bridge was designed for the latest AASHTO vehicular loadings and the latest seismic loads per Caltrans SDC, and provides a clear and unobstructed travelway along Virginia Road. The new bridge also complies with the latest ADA requirements with curb ramps and six foot wide sidewalk on both sides of the bridge. Additionally, careful consideration was made to preserve and enhance the architecture of the community, including aesthetic streetlights and sandstone colored concrete for the bridge. Other design features such as City sign and decorative concrete bridge barrier railings were introduced to mimics the architectural design at the nearby Veteran's Memorial at Lacy Park and the City Hall Building.

During the design phase of the project, numerous meetings among engineering staff from the City, local architecture review committees, and design engineers were conducted in order to evaluate different aesthetic alternatives and landscaping features for the project. Community meetings were also held to inform local residents about the project and to solicit feedback on the 3D rendering of the final product. Through collaboration and teamwork with different stakeholders, the local residents were very pleased with the project and expressed their appreciation when the bridge was opened in November 2015.

### **Sustainable Design Features**

This project consisted of replacing portions of the existing landscape with a combination of water savings and drought tolerant plants that will blend in with the surrounding foliage environment. Together with the colored concrete and aesthetic treatments, this project presents a unique solution to preserve local character and cultural resources, and to enhance the wellbeing of local community.

Overall, the project has improved the quality of the local roadway system in the City of San Marino through enhanced safety, promoted collaboration among local agencies, and sustainable design features.

### **Supporting Documentation**

1. Location Map and Pre- and post-construction photos (See attached).