



## 16.1 WIDENING EXISTING BRIDGES

### 16.1.1 GENERAL

This policy specifies the design criteria to be used for bridge widenings.

### 16.1.2 POLICY

Widenings on stand-alone substructure must be based on AASHTO LRFD Bridge Design Specifications and California Amendments (AASHTO-CA BDS). Seismic design of bridge widenings shall be according to STP 20.03.

Widenings on bridges originally designed based on Caltrans Bridge Design Specifications, LFD April 2000 (BDS) or earlier must be designed using the AASHTO-CA BDS to the largest extent possible, without re-analyzing the existing structure for LRFD loads. If the existing structure was designed using BDS, the BDS may be used for overhangs without girders and elements connected to the existing structure such as closure pours. However, such structures need approval at type selection. If the widening shares support, such as cantilevering the deck, slab, and/or bent cap to an adjacent existing structure, BDS and its HS20 vehicular live load may be used in order to maintain an acceptable structure depth.

### 16.1.3 REFERENCES

1. AASHTO. (2017). *AASHTO LRFD Bridge Design Specifications*, 8th Edition, American Association of State Highway and Transportation Officials, Washington DC.
2. Caltrans. (2019). *California Amendments to AASHTO LRFD Bridge Design Specifications*, Eighth Edition, California Department of Transportation, Sacramento, CA.
3. Caltrans, (2013). *Structure Technical Policy 20.03 – Seismic Design Criteria for Bridge Widenings*, California Department of Transportation, Sacramento, CA.
4. Caltrans (2000). *LFD Bridge Design Specifications*, California Department of Transportation, Sacramento, CA.