

9.4.3 Concrete Appurtenances

Unless otherwise specified by the Owner, concrete curbs, parapets, barriers, and dividers should be made structurally continuous. Consideration of their structural contribution to the deck should be limited in accordance with the provisions of Article 9.5.1.

C9.4.3

Add a new last paragraph as follows:

In the event that a future modification required removal of the appurtenance, the superstructure capacity would be compromised.

9.5.2 Service Limit States

Revise the 1st paragraph as follows:

At service limit states, decks and deck systems shall be analyzed as fully elastic structures and shall be designed and detailed to satisfy the provisions of Sections 5, 6, 7, and 8. Deck slabs shall be designed for Class 2 exposure condition as specified in Article 5.7.3.4.

9.7 CONCRETE DECK SLABS

9.7.1 General

9.7.1.1 ~~Minimum Depth~~ Deck Thickness and Cover

Unless approved by the Owner, the ~~depth of~~ minimum thickness of the concrete deck, excluding any provision for grinding, grooving, and sacrificial surface, should ~~not be less than 7.0 in~~ conform to the deck design standards developed by the Owner.

Deck reinforcement to be used in conjunction with the minimum deck thickness should also conform to the deck design standards developed by the Owner

Minimum cover shall be in accordance with the provisions of Article 5.12.3

C9.7.1.1

For slabs of depth less than 1/20 of the design span, consideration should be given to prestressing in the direction of that span in order to control cracking.

The combinations of minimum concrete cover, concrete mix design and the need for protective coatings on reinforcement described in Article 5.12.3 are based on the results of monitoring bridges in California. Minimum cover requirements are based on traditional concrete mixes and on the absences of protective coating on either the concrete or steel inside. A combination of special mix design, protective coatings, dry or moderate climate, and the absence of corrosion chemicals may justify a reduction of these requirements provided that the Owner approves.

9.7.1.4 Edge Support

Revise the 2nd paragraph as follows:

Where the primary direction of the deck is transverse, ~~and/or the deck is composite with a structurally continuous concrete barrier,~~ no additional edge beam need be provided.

9.7.2 Empirical Design

9.7.2.1 General

9.7.2.2 Application

Revise the 1st sentence as follows:

Empirical design of reinforced concrete decks may ~~be used if the conditions set forth in Article 9.7.2.4 are satisfied~~ not be used.

C9.7.2.2

Add a new 1st paragraph as follows:

The durability of empirically designed decks has not yet been proven in high ADTT applications.