8-2

Table 1

Item	Environmental Area	
	Non-Freeze-Thaw	Freeze-Thaw
Air Entrainment other than footings	No	6%[A]
Maximum Water to Cementitious Material Ratio - Decks	0.45	0.40
Specify Freeze-Thaw Aggregates	No	Yes
Minimum Cover over Top Layer of Deck Reinforcing and Approach Slab Reinforcing (in.)	2	2 1/2
Exposure Factor (γ_e) Decks Other	 0.75 1.00	 0.75 0.75
Prestress Allowable Tension (within the deck) Refer to LRFD* Table 5.9.4.2.2-1	$0.19\sqrt{f'c}$	$0.0948\sqrt{f'c}$
Seal Bents under Deck Expansion Joints	No	Yes[B]
Epoxy Coated Reinforcement Decks (12" thick and less) Decks (greater than 12" thick) - Top Mat Only Curb and Barrier Rail Approach Slabs	 No No No No	 Yes Yes[C] Yes Yes
3/4" Polyester Concrete Overlay All Bridges on Routes 5, 18, 50, 80, 330 Prestressed Box Girders Prestressed Precast Slabs Prestressed Precast T Girders where the deck is monolithic with the girder	 No No No No	 Yes[D] Yes[D] Yes[D] Yes[D]
Pourable joint seals allowed	Yes	No

Notes:

[A] With 6% entrained air, concrete strengths higher than 4500 psi may be unobtainable with local aggregates. When concrete strength exceeding 4500 psi cannot be avoided, METS** can recommend lower amounts of entrained air and water reducing agents that can be used with local aggregates to obtain the most durable concrete.

[B] Designers should avoid placing deck expansion joints where deck gutter runoff might drain onto the top of bents. Specify that the exposed portion of bents under expansion joints on structures carrying State Highway traffic be sealed. Consult with METS** Corrosion Branch for appropriate materials.

[C] Whether or not to epoxy coat the bottom steel in decks greater than 12" thick should be based on the expected frequency of salting and potential problems in performing restorations.

[D] Polyester concrete overlays are placed on routes where staged construction for deck rehabilitation or replacement causes undesirable traffic disruption and for structure types where deck rehabilitation or replacement would not be feasible due to prestressing.

* AASHTO LRFD Bridge Design Specifications with CA Amendments
** Materials Engineering and Testing Services, Office of Structural Materials