

706-B-324 BRIDGE RAILINGS AND MOMENTS SLABS

(Revised 01-18-24)

The Standard Specifications are revised as follows:

SECTION 602, BEGIN LINE 47, DELETE AS FOLLOWS:

(b) Cast-in-Place Concrete Barrier and Concrete Glare Screen

Cast-in-place concrete barrier and concrete glare screen shall be constructed in accordance with applicable requirements of 706.03 ~~or by the use of an approved slip form machine~~. The surfaces of the concrete shall vary no more than 1/4 in. in 10 ft from the specified cross-section, as measured from a longitudinal straightedge. Where concrete pavement or concrete shoulder abuts the concrete barrier, 1/2 in. preformed joint filler shall be placed as shown on the plans.

SECTION 706, BEGIN LINE 26, DELETE AND INSERT AS FOLLOWS:

~~The concrete mix design~~ for reinforced concrete moment slabs shall be ~~QC/QA~~ **PCCP in accordance with 501 or PCCP in accordance with 502 and shall include one or more pozzolans in accordance with the proportioning in 501.05.**

SECTION 706, BEGIN LINE 47, INSERT AS FOLLOWS:

Concrete bridge railing shall be built monolithically and continuous from support to support. A *butt joint or open joint* shall be provided at the end of the bridge between the bridge railing and the railing transition as shown on the plans. *The location of the joint shall coincide with the location and skew of the Type I-A or bridge expansion joint.*

Unless otherwise specified, the slip form method may be used to place concrete railing ~~on bridge structures~~. If the slip form method is chosen, the QCP shall be prepared, signed, dated, and submitted to the Engineer for review and approval at least 15 days prior to the start of slip form barrier rail placement. The QCP shall include, as a minimum:

- (a) the Contractor's concrete mix design, including materials sources and admixtures,
- (b) the Contractor's methods of materials control and testing,
- (c) the Contractor's proposed method of placement, including ensuring proper consolidation around reinforcing bars, finishing and curing, and
- (d) the corrective action that will be taken when defects are found.

The slip form paver shall consolidate, screed, and finish the freshly placed concrete in one complete pass so a minimum of hand finishing will be necessary to provide a dense and homogeneous railing in conformance with the plans and specifications. The slump shall be ~~1 3/4 in. ± 3/4 in.~~ *1 1/2 in. ± 1 in.* The joints may be formed or sawed as long as a satisfactory joint is attained.

If joints are to be sawed, the full depth saw cut shall be made before uncontrolled shrinkage cracking occurs and within 48~~24~~ h of concrete placement. Before full depth sawing, partial depth saw cuts of 2 1/2 in. ± 1/2 in. at the joint locations may be made as soon as the concrete has hardened sufficiently to enable sawing without raveling. All saw cuts shall be made at the locations shown on the plans or as directed.

All concrete bridge railings shall be *finished and* reflectorized in accordance with 602.03(c) and (f).

SECTION 706, BEGIN LINE 88, DELETE AND INSERT AS FOLLOWS:

706.04 Concrete Railing with Reinforced Concrete Moment Slab

The railing portion shall be *cast-in-place and* constructed in accordance with ~~602.03~~ *except it shall be cast in place* 706.03. Type D-1 contraction joints in the moment slab shall match the locations of the joints in the abutting PCC pavement. If the abutting pavement is HMA, the D-1 contraction joints shall be spaced at 18 ft. The locations of the transverse joints in the moment slab and the railing shall be the same.

SECTION 706, BEGIN LINE 106, DELETE AND INSERT AS FOLLOWS:

Finishing and curing the moment slab shall be in accordance with 504. ~~Finishing and curing the railing shall be in accordance with 702.~~

Pavement smoothness of the moment slab shall be in accordance with 502.20.

Job control testing for acceptance, *concrete mixing, transportation, weather limitations, inspection, and opening to traffic* shall be in accordance with 502.05.

SECTION 706, AFTER LINE 195, INSERT AS FOLLOWS:

Furnishing and operating the 16 ft straightedge shall be included in the cost of other pay items within this section.

The cost of furnishing and placing all materials not specified as pay items shall be included in the cost of the pay items in this section.
