Index 812 Bridge Fencing (Enclosed)

Design Criteria

AASHTO LRFD Bridge Design Specifications, 6th Edition; ***NCHRP Report 350*** Test Level 3 Criteria (portion of fence adjacent to traffic railing only); ***Structures Design Guidelines (SDG)***

Design Assumptions and Limitations

The Traffic Railing mounted side of this fence is based on a design that was successfully crash tested in accordance with the ***AASHTO Guide Specifications for Bridge Railings*** Performance Level 2 pickup test. Modifications have been made to improve the crashworthiness to ***NCHRP Report 350*** Test Level 3 Criteria.

This fence can be used on Index 820 Concrete Parapets, Indexes 410, 420, 422, 423, 424 and 425 Traffic Railings, certain non-FDOT standard concrete traffic railings meeting the requirements of ***SDG*** 6.7 and on existing New Jersey and F-Shape Traffic Railings listed in the ***Instructions for Design Standards*** Index 402.

Evaluate the expansion joint movements of the bridge. Expansion rails are required for concrete parapet installations at expansion joints where the total movement exceeds 1-inch. If the total movement at an individual expansion joint is 6-inches or less, the bridge fence will span the joint without using an expansion assembly. If the total movement at an individual expansion joint exceeds 6-inches, an Expansion Assembly must be installed at that location.

Use of this fence in lieu of Index 810 Bridge Fencing (Vertical) or Index 811 Bridge Fencing (Curved Top) should be based on project and site specific requirements.

Plan Content Requirements

In the Structures and/or Roadway Plans:

Show and label the Bridge Fencing (Enclosed) on the Plan and Elevation, Typical Section, Superstructure and Approach Slab sheets, Retaining Wall Control Drawings, and other sheets as required. Include cross references to ***Design Standards*** Indexes 812, 820 and the traffic railing standard as appropriate.

Show the limits of fencing in the plans if they are not from begin of approach slab at Begin Bridge to end of approach slab at End Bridge.

Show estimated quantities for bridge fencing with estimated quantities for Traffic Railing and/or concrete parapets in the superstructure details sheets.

Determine if bridge fencing requires grounding. If required, provide details in the superstructure sheets.

Provide locations for expansion joints requiring expansion rails or expansion assemblies in the superstructure layout sheets.

Designate the required finish in the General Notes, e.g., zinc or aluminum coated, or polyvinyl chloride (PVC) coated. If PVC coated fence is used, include the following notes in the General Notes:

1. A note specifying the color of the PVC coating for chain link fabric.
2. A note to paint the fence framework to match the color of the PVC chain link fabric.
3. A note for preparation of galvanized steel for painting.
4. A note to coat tension wire and fence fittings to match the color of the PVC chain link fabric.

Payment

Item number	Item description	Unit Measure
550-10-343	Fencing, Type R, 7.1 - 8.0’, With Full Enclosure	LF
550-10-353	Fencing, Type R, 8.1 - 10.0', With Full Enclosure	LF