TRAFFIC RAILING NOTES

This Traffic Railing Retrofit has been structurally evaluated to be equivalent or greater in strength to a design which has been successfully crash tested in accordance with NCHRP Report 350 TL-4 criteria.

CONCRETE: Concrete for Transition Blocks and Curbs shall be Class II (Bridge Deck).

REINFORCING STEEL: Reinforcing steel shall be ASTM A416, Grade 60.

THREE-BEAM GUARDRAIL: Steel Three-Beam Elements shall meet the requirements for Class B (10 Gauge) Guardrail of AASHTO M 180, Type II (Zinc coated). The minimum panel length for Three-Beam Elements shall be 45°. Bed drill holes for Post connections shall be 3.2” by 2 5/8” slotted holes.

GUARDRAIL, POSTS AND BASE PLATES: Posts and Base Plates shall be in accordance with ASTM A56 or ASTM A709, Grade 36.

ANCHOR BOLTS, NUTS AND WASHERS: Adhesive-bonded Anchors and Anchor Bolts shall use fully threaded rod in accordance with ASTM F1554, Grade 105 or ASTM A821, Grade 87. At the Contractor’s option, Anchor Bolts for through bolting may be in accordance with ASTM A449. All nuts shall be single self-locking hex nuts and in accordance with ASTM A563 or ASTM A294. Flat Washers shall be in accordance with ASTM F436 and Plate Washers (for long slotted holes only) shall be in accordance with ASTM A56 or ASTM A709, Grade 36. After the nuts have been snug tightened, the anchor bolt threads shall be distorted to prevent removal of the nuts. Distorted threads and the exposed trimmed ends of anchor’s shall be galvanized in accordance with the Specifications.

CASTING: All nuts, bolts, anchors, washers, guardrail posts, anchor plates and base plates shall be hot-dip galvanized in accordance with the Specifications. Guardrail Post Assemblies shall be hot-dip galvanized after fabrication.

ADHESIVE-BONDED ANCHORS AND Dowels shall comply with Specification Section 937 and be installed in accordance with Specification Section 416. The field testing proof loads required by Specification Section 416 shall be 15,000 lbs for 3/8” Ø anchor bolts, 50,000 lbs. for the 3/4” anchor bolts with 15” embedment and 30,000 lbs. for the 5/8”Ø anchor bolts with 5” embedment.

BRIDGE NAME PLATE: If a portion of the existing Traffic Railing is to be removed that carries the bridge name, number and date, or if the installation of the Traffic Railing (Three-Beam Retrofit) will obscure the bridge name, number and date, then replace the information that has been removed or obscured with 3” halfblock lettering on white reflective sheeting applied to the top of the adjacent guardrail. The information must be clearly visible from the right side of the approaching traffic lane. The sheeting and adhesive backing shall comply with Specification Section 994 and may comprise of individual decals of letters and numbers.

PAYMENT: Payment will be made under Metal Traffic Railing (Three-Beam Retrofit) which shall include all materials and labor required to fabricate and install the barrier and painted guardrail wherever necessary to maintain post spacing.

Reflective Railing Markers and Installation of Elevation Markers, where required, will be paid for directly but shall be considered as incidental work.

TRAFFIC RAILING: (Three-Beam Retrofit) GENERAL NOTES & DETAILS

<table>
<thead>
<tr>
<th>REFLECTIVE RAILING MARKER SPACING</th>
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<tbody>
<tr>
<td><strong>Distance = Edge of Travel Lane</strong></td>
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<tr>
<td>To Face of Railing</td>
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<tr>
<td>&lt; 4'</td>
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<tr>
<td>4' to 8'</td>
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<td>&gt; 8'</td>
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2010 FDOT Design Standards

TRAFFIC RAILING (THREE-BEAM RETROFIT)
PARTIAL ELEVATION OF INSIDE FACE OF RAILING
MODIFIED POST SPACING AT INTERMEDIATE DECK JOINTS DETAIL FOR INDEX NOS. 471, 475 & 476

THREE-BEAM EXPANSION SECTION