NOTES:

1. On approach end provide Index No. 402 (as shown) or other site specific treatment, see Roadway Plans. For treatment of trailing end see Roadway Plans.

2. Actual joint dimension and orientation vary. For Intermediate Deck Joints use the Modified Post Spacing at Intermediate Deck Joints Detail, Index No. 470, Sheet 2, as required.

3. Areas where existing structure has been removed shall match adjoining areas and shall be finished flat by grouting or grinding as required. Exposed existing reinforcing steel shall be burned off 1" below existing concrete and grouted over.

PARTIAL PLAN OF RAILING

PARTIAL ELEVATION OF INSIDE FACE OF RAILING
(Existing Traffic Railing not shown for clarity)

TYPICAL TREATMENT OF RAILING ALONG BRIDGE

CROSS REFERENCES:
For Section A-A see Sheet 2.
For Traffic Railing Notes and Details see Index No. 470.
**SECTION A-A**

**TYPICAL SECTION THRU RAILING ON BRIDGE DECK**

**BILL OF REINFORCING STEEL**

<table>
<thead>
<tr>
<th>MARK</th>
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<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>4</td>
<td>3'-7&quot;</td>
</tr>
<tr>
<td>L</td>
<td>4</td>
<td>4'-1&quot;</td>
</tr>
<tr>
<td>M</td>
<td>4</td>
<td>2'-8&quot;</td>
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</tbody>
</table>

**BAR BENDING DIAGRAMS**

- **BAR 4M**
- **DOWEL BAR 4D**

**NOTE:** All bar dimensions are out to out.

**SECTION B-B**

**TYPICAL SECTION THRU RAILING ALONG APPROACH SLAB**

(SCHEMES 5 AND 6 SHOWN, SCHEMES 3 AND 4 SIMILAR)

**CROSS REFERENCES:**

- For location of Section A-A see Sheet 1, 3 & 4.
- For location of Section B-B see Sheet 4.
- For location of Section C-C see Sheet 3.
- For application of Dim. A see Post Dimension Table on Index 470, Sheet 3.

**VIEW B**

- Existing Wing Post
- Thrie-Beam Guardrail
- Asphalt Overlay when present
- Slope: 5" Min. Embedment
- Varies 2'-8" x 10" x ½" Post Bolts and Recessed Nuts
- Match Front Face of Thrie-Beam Guardrail along Bridge
- Match Wing Wall
- Match Wing Post

**VIEW C-C**

- Existing Traffic Railing
- Existing Bridge Deck
- Asphalt Overlay when present
- Slope: Varies
- Top of Curb
- Thrie-Beam Guardrail
- Existing Wing Post
- Final Riding Surface
- Match Front Face of Thrie-Beam Guardrail along Bridge
- Match Wing Wall
- Match Wing Post
- Existing Bridge Deck
- Asphalt Overlay when present
- Slope: Varies
- Top of Curb
- Thrie-Beam Guardrail
- Existing Wing Post
- Final Riding Surface
- Match Front Face of Thrie-Beam Guardrail along Bridge
- Match Wing Wall
- Match Wing Post

**NOTE:** All bar dimensions are out to out.
Existing Curb

Double Dowel Bars 4D (10" Embedment) (See Note 2)

Post Spacing as measured to Post Bolts

PARTIAL PLAN OF RAILING

(Existing Wing Post and Traffic Railing not shown for clarity)

SCHEME 1

RAILING END TREATMENT FOR PERPENDICULAR OR ANGLED WING WALLS

SCHEME 1 NOTES:

1. Provide Transition Block (as shown) or Curb if existing Approach Slab does not have a curb, see Roadway Plans. Shape and height of Transition Block or Curb shall match existing bridge curb. Transition Block may be omitted on trailing ends with no opposing traffic.

2. Field bend Dowel Bars 4L within Transition Block as required to maintain 2" top and side clearance and 3" bottom clearance.

35° / 2 3 / 2 0 1 5

TRAFFIC RAILING - (THRIE-BEAM RETROFIT) WIDE CURB TYPE 2

INDEX

476

SHEET NO. 3 of 4

DESCRIPTION:

2016

DESIGN STANDARDS