Additional Rail required for Special Height Bicycle Railing

Pedestrian/Bicycle Railing

Bars 5X @ 1'-0" sp. (Max.) (Alternate with Bars ST)

2" Cover (Top)

Bars SS (Typ.)

Bars ST @ 1'-0" sp. (Max.) (Alternate with Bars 5X)

2" Cover (Sidet)

6" M. Embedment into Deck

Standard Hook Top Steel in Deck (Rotate to maintain cover)

Const. Joint

Coping

Slope Varies

Bridge Deck

Bars 5S (Typ.)

2" A

1'-0"

Raised Sidewalk

SECTION A-A
TYPICAL SECTION THRU TRAFFIC RAILING
SECTION THRU BRIDGE DECK SHOWN

NOTES:
Omit Railing End Taper and Guardrail if Concrete Barrier Wall is used beyond the Approach Slab. See Structures Plans, Plan and Elevation Sheet and Roadway Plans. If Railing End Taper is omitted, extend Typical Section to the end of the Approach Slab. Begin placing Railing Bars ST and 5X on Approach Slab at the railing end and proceed toward Begin or End Bridge to ensure placement of guardrail bolt holes. If required, adjustments to the bar spacing for Bars ST and 5X shall be made immediately adjacent to Begin or End Bridge. Shift and rotate Bars ST and 5X on Approach Slab in end taper section as required to maintain cover.

VIEW B-B
APPROACH SLAB END VIEW OF TRAFFIC RAILING

CROSS REFERENCE:
For location of Section A-A and View B-B see Sheet 1.

NOTE: For Post "B", Post "C" and Rail Details, see Index No. 822.

RAILING END DETAIL

Bars ST & 5X
Alternating at 6"

2½ Spacing Bars ST & Bars 5X

Bars 5S (Typ.)

Bars 5X

Bars ST

Raised Sidewalk

Approach Slab
### Conventional Reinforcing Steel Bending Diagrams

<table>
<thead>
<tr>
<th>Mark</th>
<th>Size</th>
<th>Length</th>
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<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>As Req'd</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>9'-0&quot;</td>
</tr>
<tr>
<td>X</td>
<td>5</td>
<td>5'-10&quot;</td>
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<table>
<thead>
<tr>
<th>Roadway</th>
<th>Low Gutter</th>
<th>High Gutter</th>
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</thead>
<tbody>
<tr>
<td>Cross-Slope</td>
<td>0% to 2%</td>
<td>90°</td>
</tr>
<tr>
<td></td>
<td>2% to 6%</td>
<td>87°</td>
</tr>
<tr>
<td></td>
<td>6% to 10%</td>
<td>84°</td>
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</tbody>
</table>

### Estimation of Traffic Railings

#### Estimated Traffic Railing Quantities

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Concrete</td>
<td>CY/LF</td>
<td>0.095</td>
</tr>
<tr>
<td>Reinforcing Steel</td>
<td>LB/LF</td>
<td>25.90</td>
</tr>
</tbody>
</table>

(The above quantities are based on a 6" thick x 6' wide raised sidewalk at low side of deck, 2% deck cross slope and counter 2% sidewalk cross slope.)

### Intermediate Joint Seal Notes

1. At Intermediate Open Joints, seal the lower 6" portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
2. Apply sealant prior to any Class V finish coating and remove all curing compound and loose material from the surface prior to application of bonding agent.
3. The cost of the Pre-cured Silicone Sealant shall be included in the Contract Unit Price for the Traffic Railing.

### Reinforcing Steel Notes

1. All bar dimensions in the bending diagrams are cut to cut.
2. The 3'-8" vertical dimensions shown for Bar 5T and 5X are based on a bridge deck with a 6" thick x 6' wide raised sidewalk at low side of deck, 2% deck cross slope and a counter 2% raised sidewalk cross slope. If the raised sidewalk thickness, width or cross slopes vary from the above amounts, adjust these vertical dimensions accordingly to achieve a 6" minimum embedment into the bridge deck.
3. The reinforcement for the railing on a Retaining Wall shall be the same as detailed with ØA = 90°.
4. All reinforcing steel at the open joints shall have a 2" minimum cover.
5. Bars 5S may be continuous or spliced at the construction joints. Bar splices for Bars 5S shall be a minimum of 2'-2".
6. The Contractor may utilize Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.