PARTIAL PLAN OF RAILING

PARTIAL ELEVATION OF INSIDE FACE OF RAILING
(Existing Traffic Railing, Expansion Dowel Assemblies & Bars 4C not shown for clarity)

TYPICAL TREATMENT OF RAILING ALONG BRIDGE

1. On approach and provide a roadway guardrail transition, Index No. 402 (as shown) or other site specific treatment. See Roadway Plans for limiting station of roadway guardrail transition to other site specific treatment. If limiting station of roadway guardrail transition is along the wing wall, see Schemes 2, 3, 4, and 5, Sheets 3 and 4. On skewed bridges, if the skew along the deck joint extends across the width of the railing, the 2-6' minimum dimension shall apply to both the front and back face of the railing. For treatment of railing end see Roadway Plans. A vertical face retrofit extends beyond bridge and approach slab ends, see Index No. 484 for treatment and details.

2. Field cut Bars 55 and Dowel Bars 60 to maintain clearance within Vertical Face Retrofit Railing.

3. Where existing structure has been removed and not encased in new concrete match adjoining areas and finish flat by grinding or grinding as required. Exposed existing reinforcing steel is encased in new concrete and buried off 2" below existing concrete and grouted over.

# Non skewed deck joint shown, actual joint dimensions and orientation vary. For treatment of skewed deck joints see Skew Details, Index No. 480. Open Jointing details at Deck Expansion Joint locations shall match the dimension of the Deck Joint. Deck Joint at Begin Bridge or End Bridge shown, Deck Joint at Pier or Intermediate Bridge similar.

# 1/2 Intermediate Open Joints stable provided at:
(1) Substructure supports where existing bridge deck is continuous.
(2) Midspan where span length exceeds 60 ft.
(3) Intermediate locations equally spaced between midspan and substructure supports where span length exceeds 80 ft.

CROSS REFERENCE:
For General Notes, Estimated Quantities, Dowel Detail, Expansion Dowel Detail, Reinforcing Steel Notes & Bending Diagrams see Index No. 480.

Front Face of Blockwall, Begin or End Bridge & Match Line (See Sheets 5, 3 or 4, & Index No. 484, Sheets 5 & 6)

Asphalt Overlay when present (Varies)

TYPICAL SECTION THRU RAILING ON BRIDGE DECK

2'-0" Cover

TYPICAL SECTION THRU EXISTING APPROACH SLAB AND END BENT WING WALL SHOWING LIMITS OF REMOVAL (SCHEMES 4 AND 5 ONLY)

Asphalt Overlay when present (Varies)

TYPICAL SECTION THRU RAILING ALONG APPROACH SLAB (SCHEMES 2 AND 3 ONLY)

Existing Wing Wall

Existing Approach Slab

TYPICAL SECTION B-B
PARTIAL ELEVATION OF INSIDE FACE OF GUARDRAIL
(Existing Wing Post 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. Railing End Transition and Transition Block may be omitted on railing ends with no opposing traffic.
2. Field bend DowelBars 4L within Transition Block as required to maintain 2" top and side clearance and 3" bottom clearance.
3. If a Special Steel Guardrail Post is required for attachment to the top of a sloping Wing Wall, saw cut and remove a wedge shaped portion of the sloping Wing Wall as required to provide a level surface for post installation.

SCHEME 2
RAILING END TREATMENT FOR PARALLEL CURBS

SCHEME 2 NOTES:
1. See Roadway Plans for limiting station of Roadway Guardrail Transition or other side specific treatment. If limiting station of Roadway Guardrail Transition is on the bridge, see Sheet 1. In skewed bridges, if the skew along the deck joint extends across the width of the railing, the 2'-6" minimum dimension shall apply to both the front and back face of the railing.
2. Provide Transition Block (as shown) or Curb if existing Approach Slab Curb does not extend beyond end of existing End Bent Wing Wall, see Roadway Plans. Shape and height of Transition Block or Curb shall match existing bridge curb. Railing End Transition and Transition Block may be omitted on railing ends with no opposing traffic.
3. Field bend DowelBars 4L within Transition Block as required to maintain 2" top and side clearance and 3" bottom clearance.
PARTIAL PLAN OF RAILING

(Partial Plan of Vertical Face Retrofit Railing if present (See Note 1))

SCHEDULE 3

RAILING END TREATMENT FOR FLARED CURBS

SCHEDULE 3 NOTE:

1. See Roadway Plans for limiting station of Roadway Guardrail Transition or other site specific treatment. If limiting station of Roadway Guardrail Transition is on the Wing Wall, attach Thrie-Beam Terminal Connector to railing as shown above. If limiting station of Roadway Guardrail Transition is on the bridge, see Sheet 1.

2. Dowel Bars 4N may be installed on a maximum angle of 45° to the cut edge of the Approach Slab as shown to facilitate drilling of holes and installation of bars.

3. At the Contractor's option, along the length of the Approach Slab curb that is to be replaced, Dowel Bars 60 may be cast in with the new section of curb as shown or they may be installed in drilled holes in the new section of curb using an Adhesive Bonding Material with a 1-0 maximum embedment.