CONDUIT GENERAL NOTES:

1. Furnish and install approved Conduits and Fittings in accordance with the Specifications, this Standard, the National Electric Code (NEC) and as directed by the Engineer.

2. Furnish and install Schedule 80 PVC Conduits in accordance with Specification Section 630 and this Index. Connect Conduit and Fittings using solvent cement in accordance with the manufacturer's recommendations.

3. Furnish and install Embedded Junction Boxes (EJB) with weatherproof covers sized in accordance with NEC requirements and the maximum size limits shown. Install EJB adjacent to the Begin and End of Bridges, Begin and End of Retaining Walls, and at other required locations. Omit EJB at Begin or End of Retaining Walls adjacent to Bridges unless a precast Traffic Railing with junction slab is used. Position EJB as shown.

4. Furnish and install Expansion Fittings at locations shown in the Plans. Certify that Expansion Fittings used at a given location are rated to accommodate the anticipated movement at that location: along Bridge decks – see Structures Plans, Expansion Joint Data Table; along Retaining Walls and other unspecified locations – 2" minimum.

5. Furnish and install Expansion/Deflection Fittings at locations shown in the Plans. Certify that Expansion/Deflection Fittings used at a given location are rated to accommodate a minimum rotation of 30 degrees and the anticipated movement at that location: along Bridge decks– see Structures Plans, Expansion Joint Data Table; along Retaining Walls and other unspecified locations – 0.7" minimum.

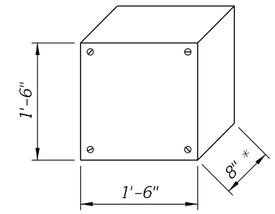
6. For all Conduits designated for future use, install either a #12 AWG Pull Wire or a Polypropylene cord between every EJB and install a #12 AWG Pull Wire from the first and last EJB in Traffic Railing or Parapet to the capped end of the Conduit.

7. For Conduit not designated for future use, see Plans for details. For Conduit designated for future use, stub out and cap the Conduit and drive a 3'–0"± long ¾" (min.) diameter Steel Pipe to be flush with the ground line adjacent to the end of the Conduit as shown on Sheets 2, 3 or 4. Provide the location of the stub out with Steel Pipe to the Engineer for inclusion on the As–Built Plans.

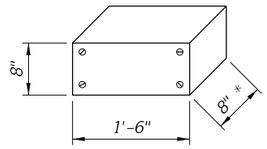
8. Shift vertical Railing reinforcement symmetrically to provide 2" clearance to EJB. Space shifted vertical reinforcement at minimum 3" centers. Cut horizontal Railing reinforcement to provide 2" clearance to EJB and provide supplemental reinforcement as shown. To facilitate placement of Conduit, Expansion Fittings, and Expansion/Deflection Fittings, shift reinforcing a maximum of 1" but do not cut railing reinforcing to facilitate Conduit or Fittings. Do not bundle Conduits, or Conduit and horizontal reinforcement.

9. Unless otherwise shown in the plans, include the cost of furnishing and installing Conduit, Pull Cords and Wires, EJB, Expansion and Expansion/Deflection Fittings and all associated hardware required to complete the installation in the cost of the Traffic Railing or Pedestrian Railing (Parapet) that the Conduit is installed in.

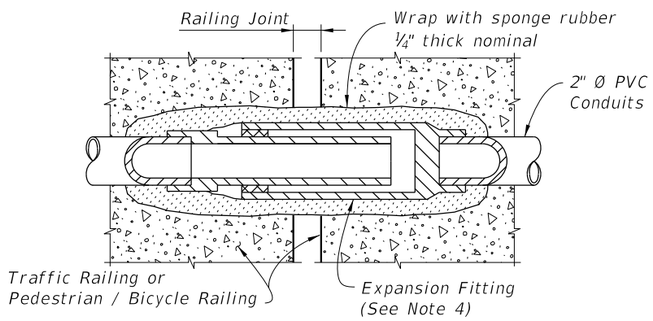
* Reduce to 6" maximum when installed in Pedestrian/ Bicycle Railings.



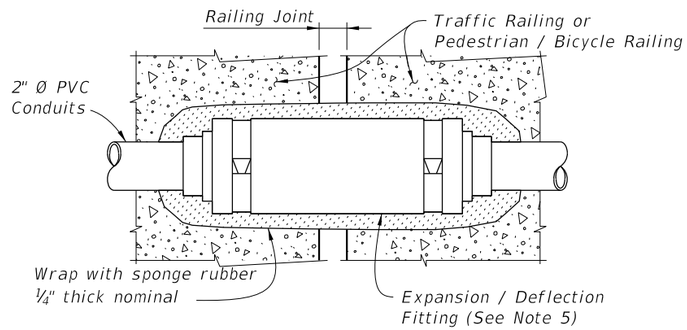
EJB "A"
Double Conduit
(Maximum Dimensions)



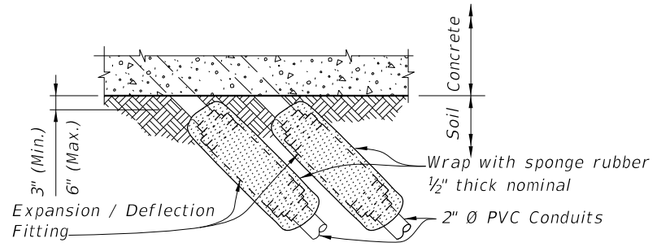
EJB "B"
Single Conduit
(Maximum Dimensions)



DETAIL "A"
EXPANSION FITTING DETAIL



DETAIL "B" EXPANSION / DEFLECTION
FITTING DETAIL (CONCRETE / CONCRETE)



DETAIL "C" EXPANSION / DEFLECTION
FITTING DETAIL (CONCRETE / SOIL)

GENERAL

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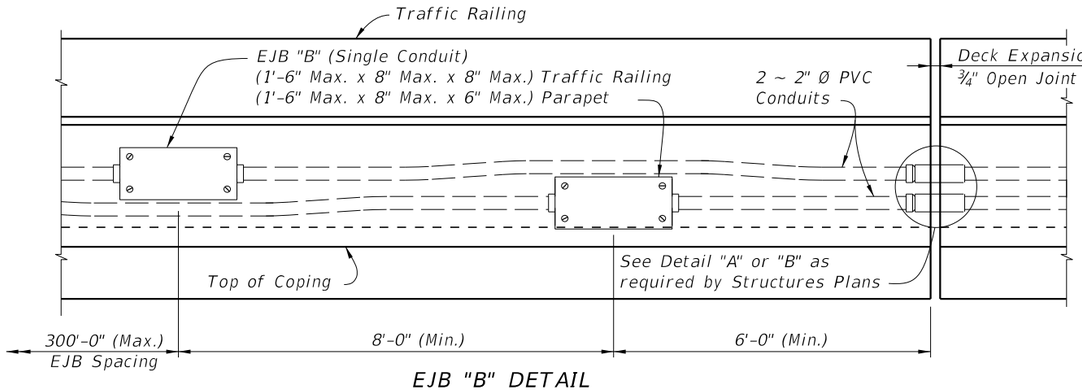
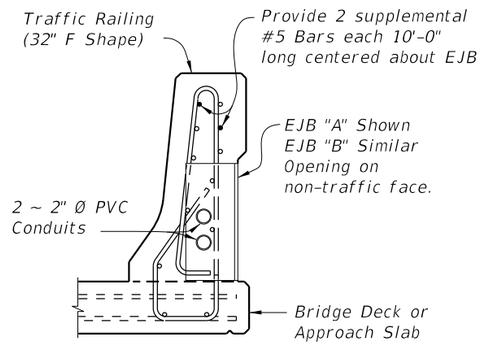
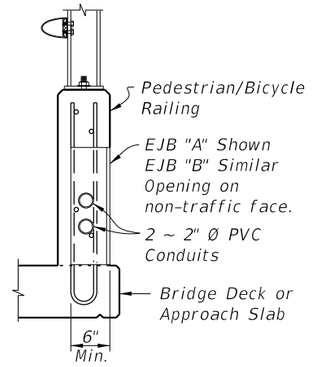


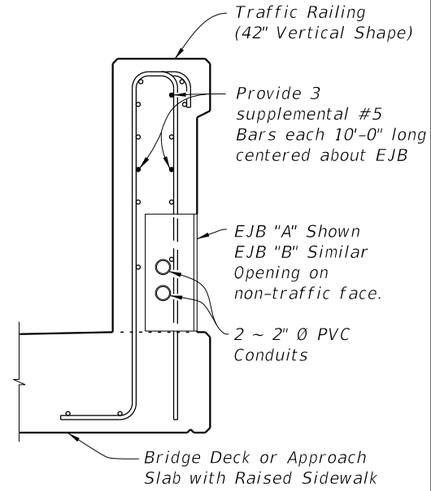
EJB "B" DETAIL



SECTION THRU
TRAFFIC RAILING AT EJB
(32" F SHAPE SHOWN,
42" F SHAPE SIMILAR)

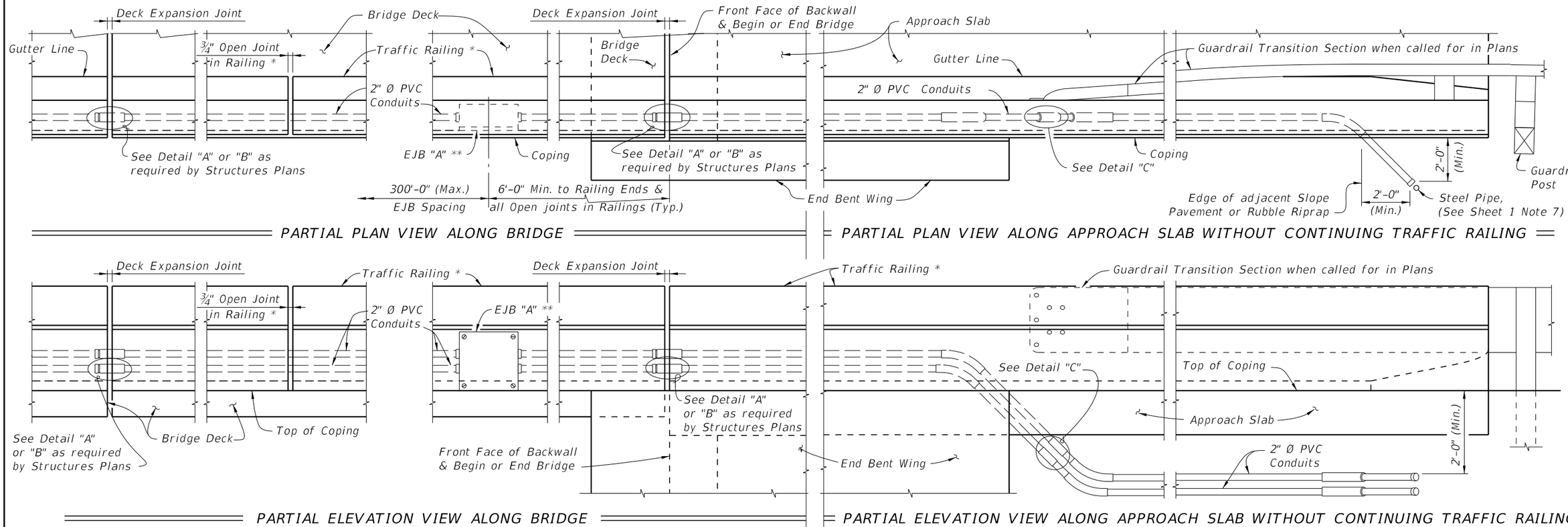


SECTION THRU PEDESTRIAN /
BICYCLE RAILING AT EJB



SECTION THRU
TRAFFIC RAILING AT EJB
(42" VERTICAL SHAPE SHOWN,
32" VERTICAL SHAPE SIMILAR)

* 32" F-Shape Traffic Railing shown, other Traffic Railings and Pedestrian/Bicycle Railings similar.
** EJB "A" shown, EJB "B" similar. See EJB "B" Detail.



PARTIAL PLAN VIEW ALONG BRIDGE

PARTIAL PLAN VIEW ALONG APPROACH SLAB WITHOUT CONTINUING TRAFFIC RAILING

PARTIAL ELEVATION VIEW ALONG BRIDGE

PARTIAL ELEVATION VIEW ALONG APPROACH SLAB WITHOUT CONTINUING TRAFFIC RAILING

Bridge and Approach Slab with Edge Railing

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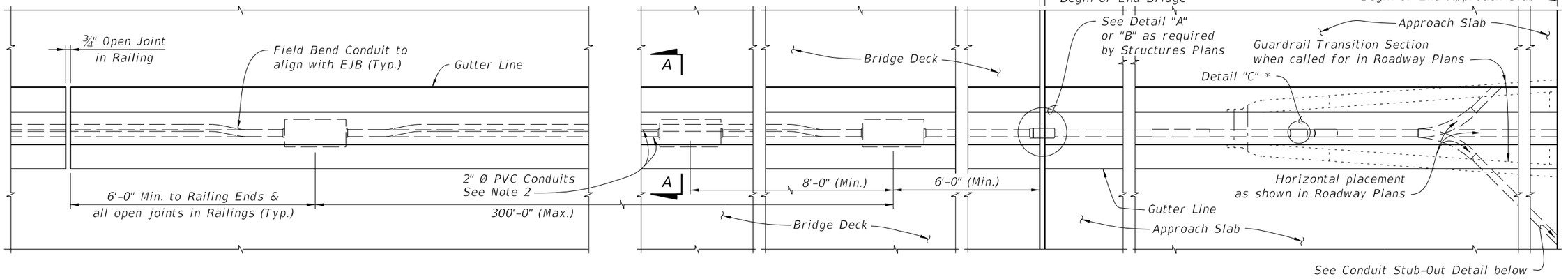
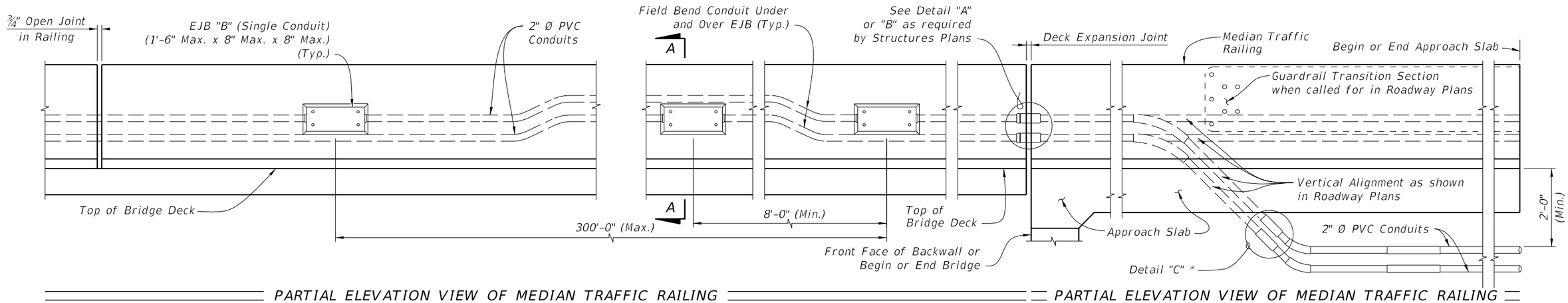


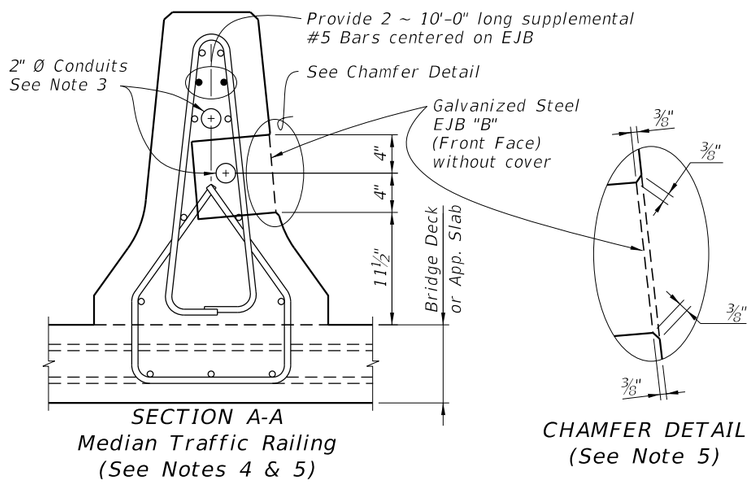
PARTIAL PLAN VIEW OF MEDIAN TRAFFIC RAILING ALONG BRIDGE

PARTIAL PLAN VIEW OF MEDIAN TRAFFIC RAILING ALONG APPROACH SLAB



PARTIAL ELEVATION VIEW OF MEDIAN TRAFFIC RAILING ALONG BRIDGE

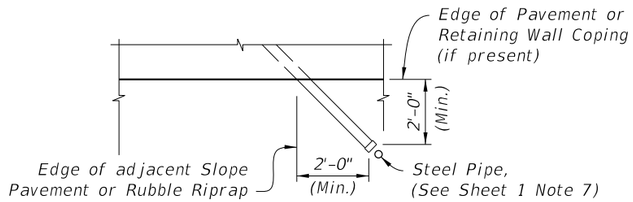
PARTIAL ELEVATION VIEW OF MEDIAN TRAFFIC RAILING ALONG APPROACH SLAB



SECTION A-A
Median Traffic Railing
(See Notes 4 & 5)

CHAMFER DETAIL
(See Note 5)

* For non-continuing Traffic Railing only.



CONDUIT STUB-OUT DETAIL

NOTES:

1. Work this sheet with Index No. 421.
2. Adjust Conduit horizontally and vertically as necessary to align with EJB.
3. When installed in traffic face of a railing, use only Galvanized Steel EJB "B" with a minimum ⅜" thick galvanized steel cover.
4. Position EJB such that, with gasket and cover plate secured and in place, plate is flush with the railing face. Flush is +1/8" to -¼" measured with a horizontal straightedge.

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Bridge and Approach Slab with Median Traffic Railing

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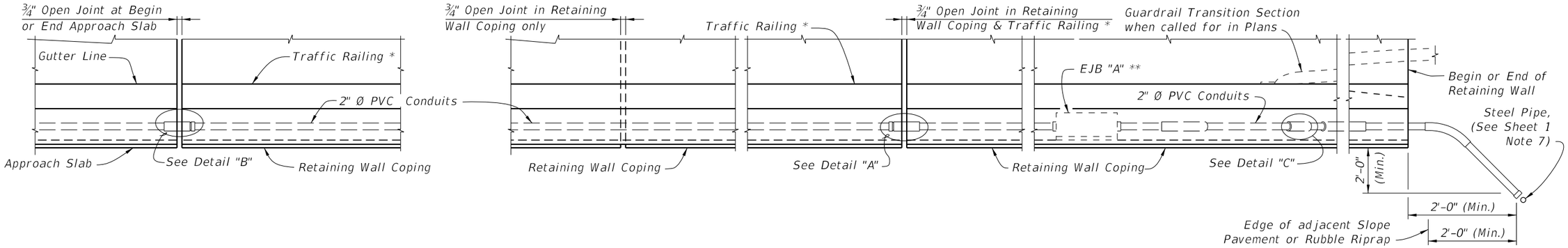
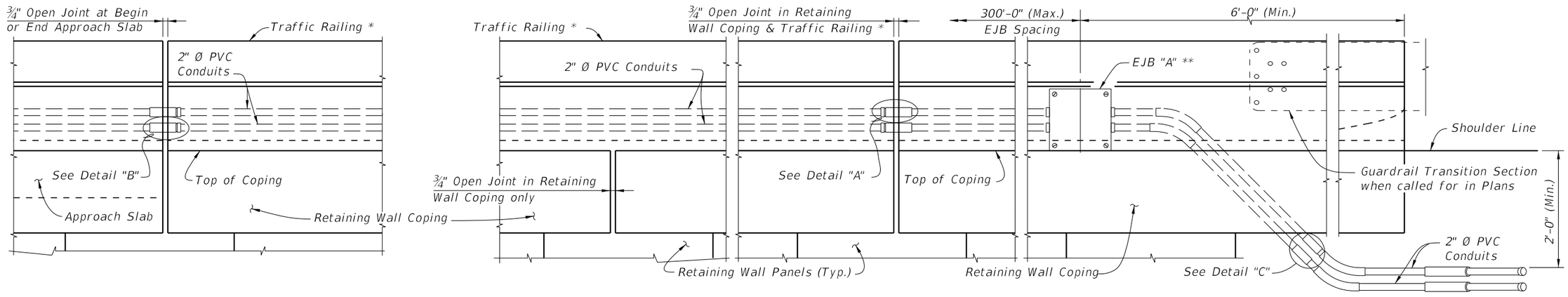


PARTIAL PLAN VIEW ALONG APPROACH SLAB WITH CONTINUING TRAFFIC RAILING

PARTIAL PLAN VIEW ALONG RETAINING WALL



PARTIAL ELEVATION VIEW ALONG APPROACH SLAB WITH CONTINUING TRAFFIC RAILING
(Retaining Wall Mounted Traffic Railing shown, Roadway Concrete Barrier similar)

PARTIAL ELEVATION VIEW ALONG RETAINING WALL

* 32" F Shape Traffic Railing shown, other Traffic Railings and Pedestrian / Bicycle Railing similar. (See Sheet 2)
** EJB "A" shown EJB "B" similar. See EJB "B" Detail on Sheet 2.

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Approach Slab and Retaining Wall with Railing

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