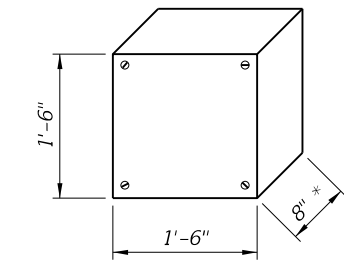


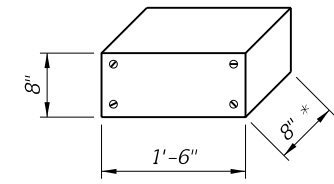
CONDUIT GENERAL NOTES:

1. Furnish and install approved Conduits and Fittings in accordance with the Specifications, this Standard, and the National Electric Code (NEC) and as directed by the Engineer.
2. Furnish Schedule 80 PVC Conduits in accordance with Specification Section 630. Connect Conduit and Fittings using solvent cement in accordance with the manufacturer's recommendations.
3. Furnish and install Embedded Junction Boxes (EJB) 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 Conduit designated for future use, install in accordance with Specification Section 630, either: #12 AWG Pull Wire or Polypropylene cord between every EJB and install #12 AWG Pull Wire from the first and last EJB in Traffic Railing or Parapet to in-ground Junction Box or capped end of Conduit.
7. For all Conduit designated for future use, stub out and cap the Conduit; drive a steel pipe at the End of the Conduit as shown on Sheet 2 unless the plans require an in-ground Junction Box. Show location of stub out with Steel Pipe or in-ground Junction Box on 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"; do not cut railing reinforcing. 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.

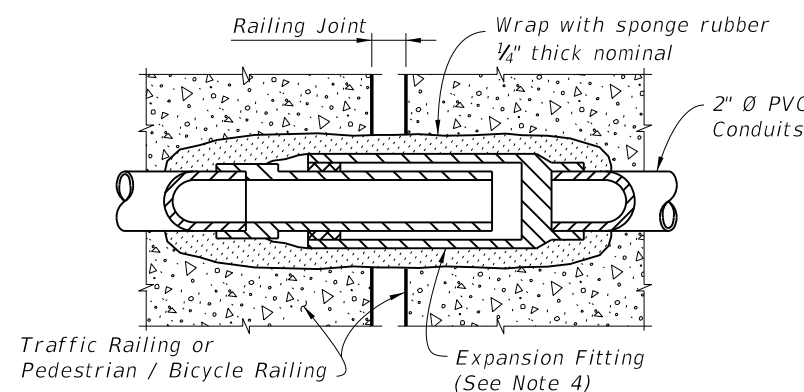
\* Reduce to 6" maximum when installed in Pedestrian/ Bicycle Railings.



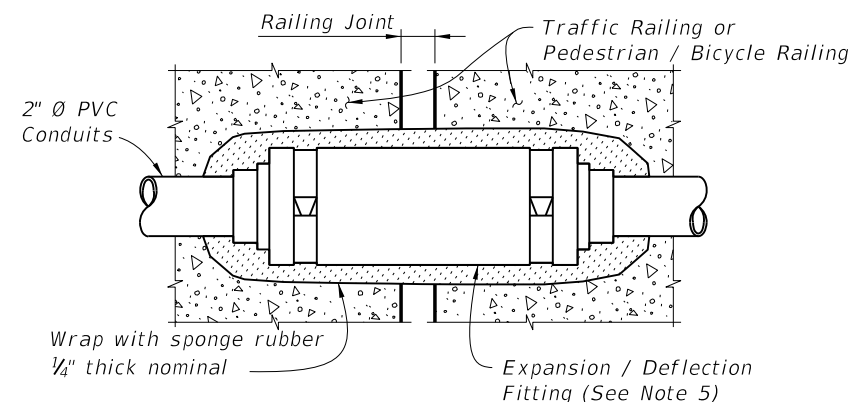
EJB "A"  
Double Conduit  
(Maximum Dimensions)



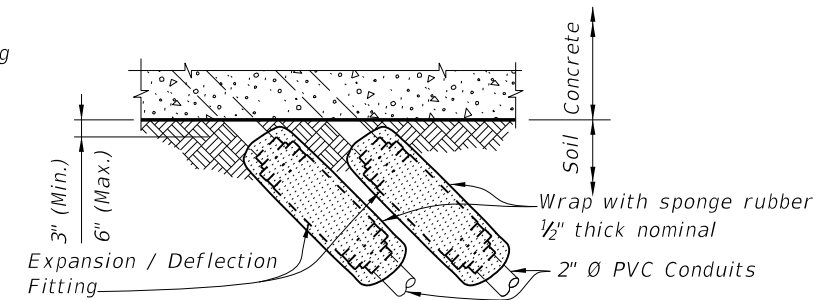
EJB "B"  
Single Conduit  
(Maximum Dimensions)



DETAIL "A"  
EXPANSION FITTING DETAIL




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

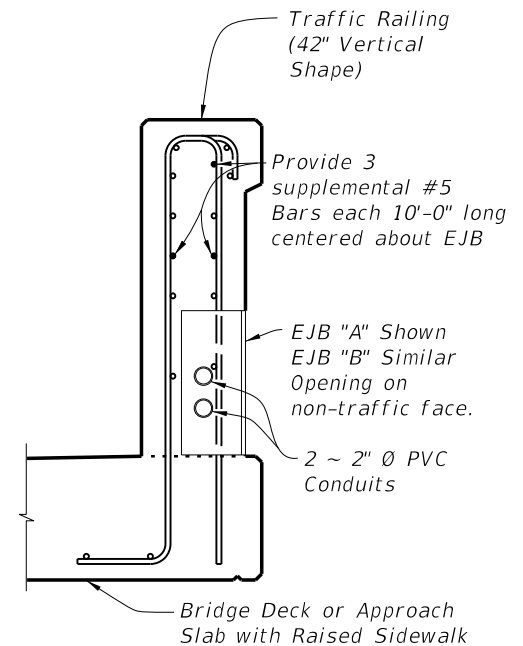
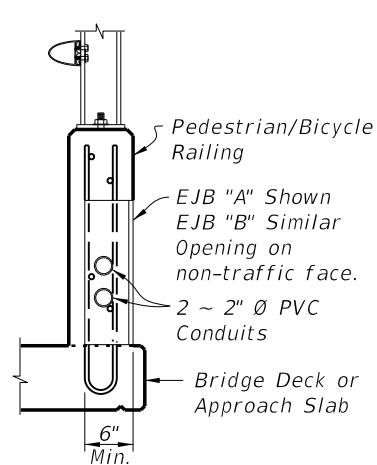
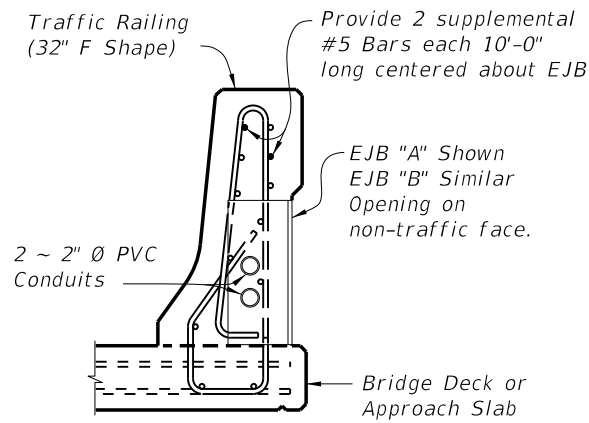
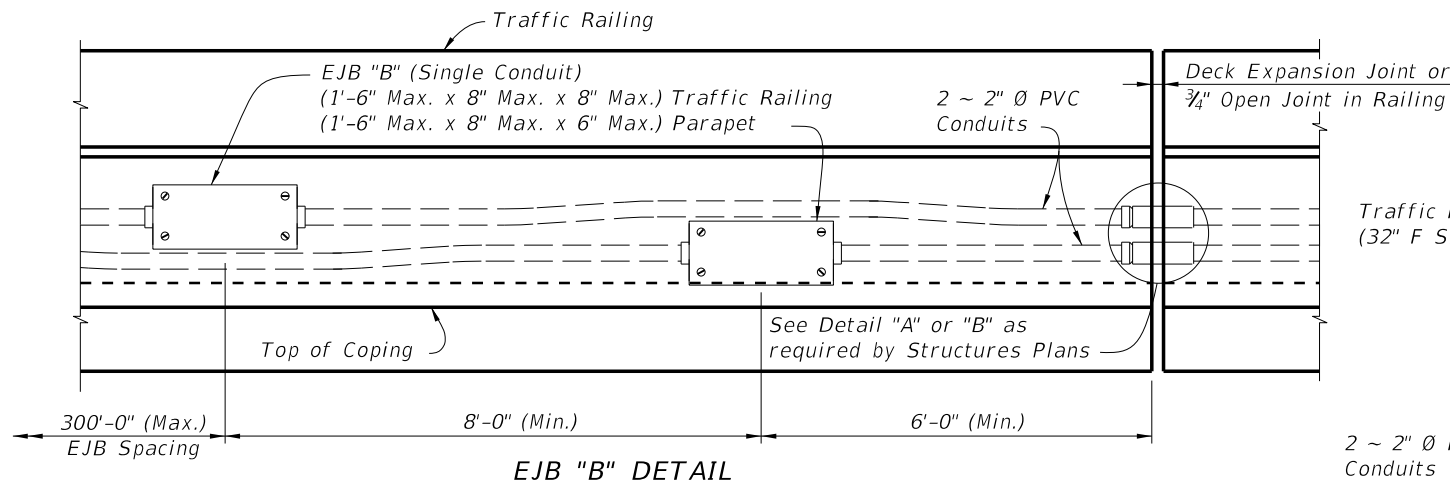


DETAIL "C" EXPANSION / DEFLECTION  
FITTING DETAIL (CONCRETE / SOIL)

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GENERAL

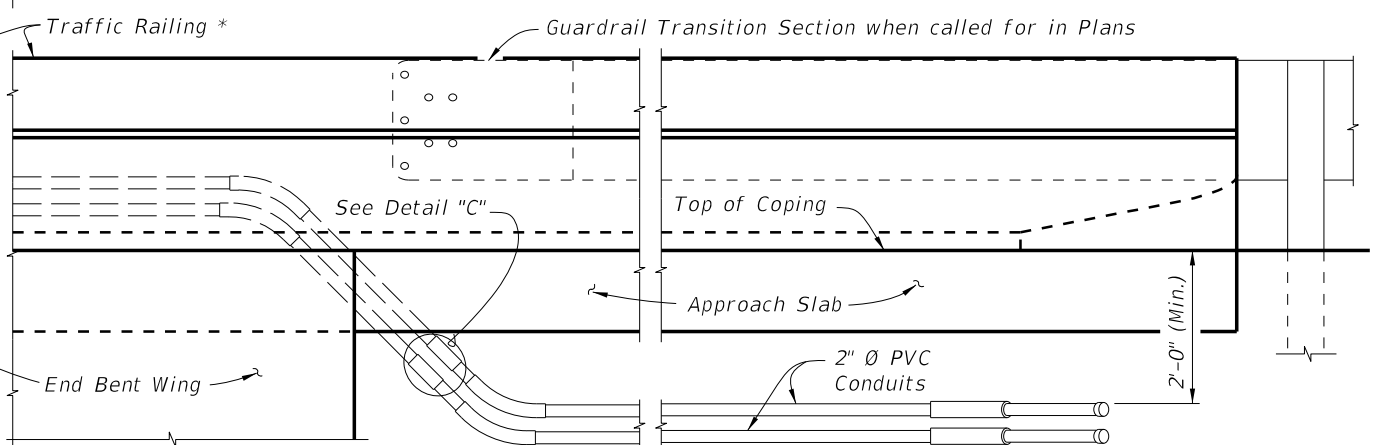
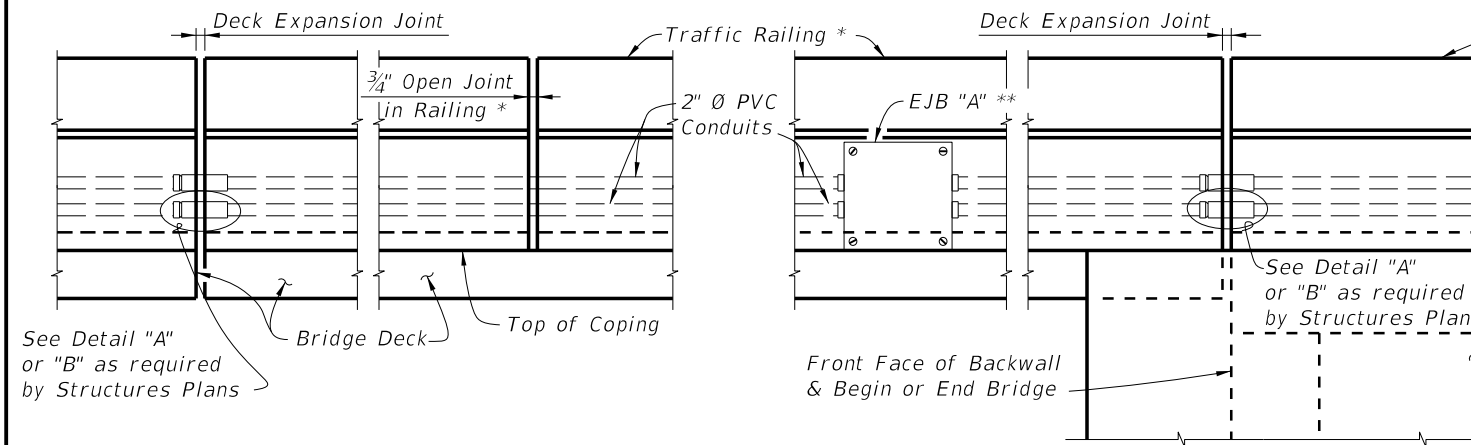
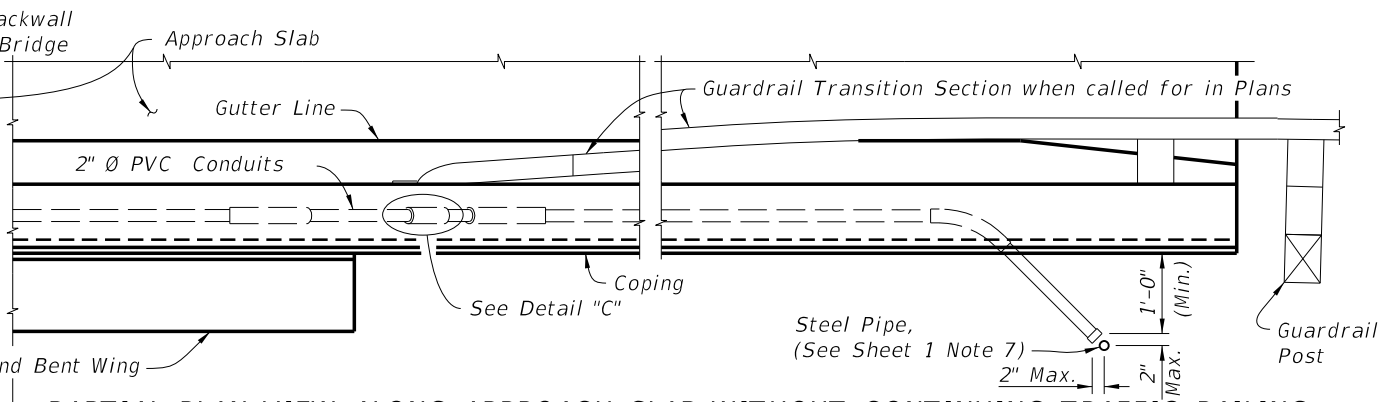
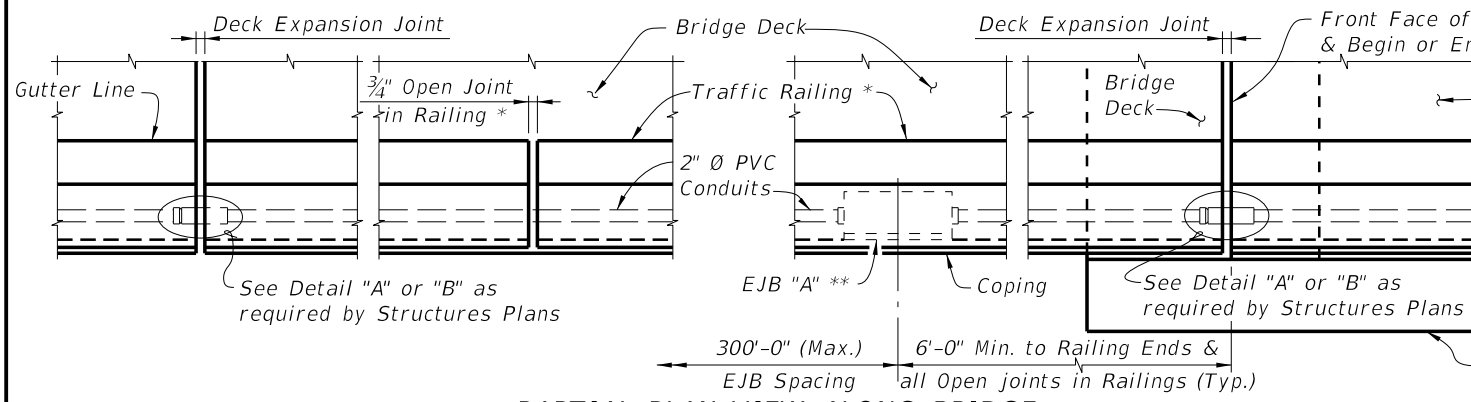


\* 32" F-Shape Traffic Railing shown, other Traffic Railings and Pedestrian/Bicycle Railings similar.  
 \*\* EJB "A" shown, EJB "B" similar. See EJB "B" Detail.

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

SECTION THRU PEDESTRIAN / BICYCLE RAILING AT EJB

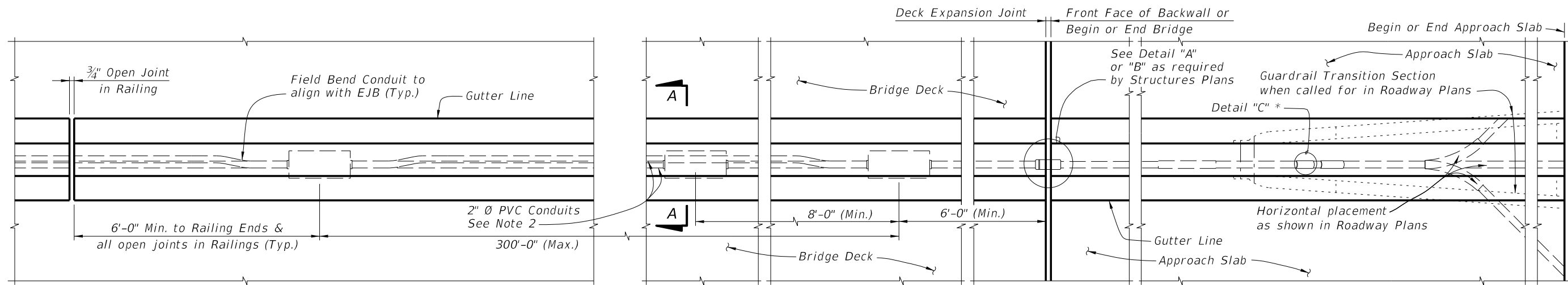
SECTION THRU TRAFFIC RAILING AT EJB (42" VERTICAL SHAPE SHOWN, 32" VERTICAL SHAPE SIMILAR)



Bridge and Approach Slab Edge Railing

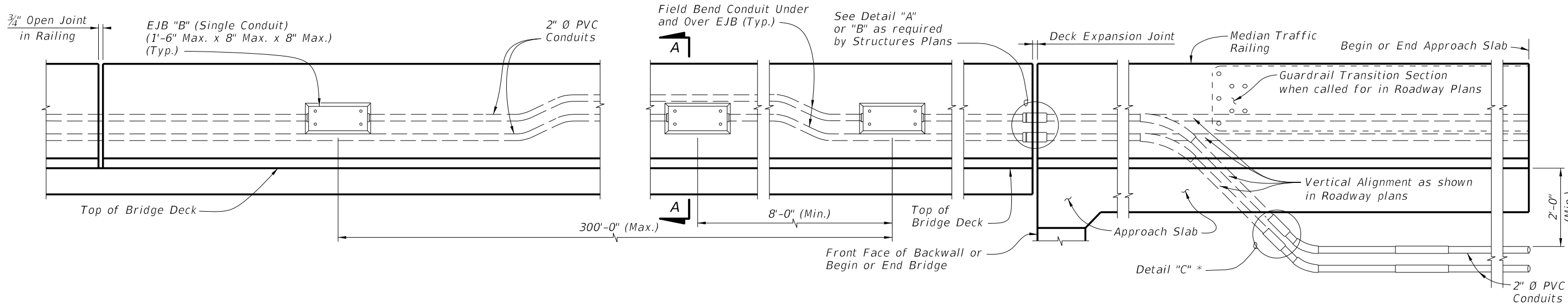
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LAST REVISION 07/01/13	REVISION	DESCRIPTION:	 2015 DESIGN STANDARDS	CONDUIT DETAILS	INDEX NO. 21210	SHEET NO. 2 of 4
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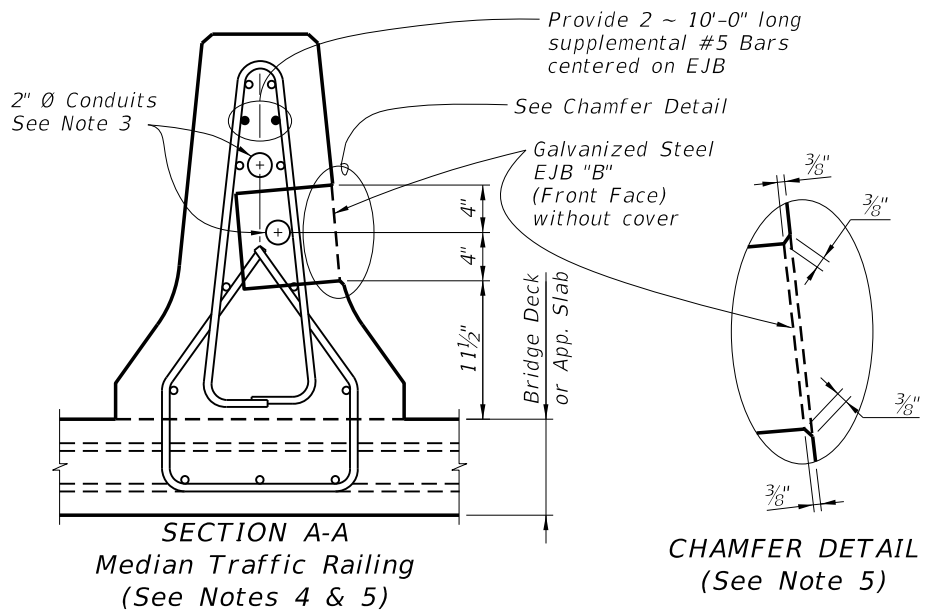
PARTIAL PLAN VIEW OF MEDIAN TRAFFIC RAILING ALONG BRIDGE

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



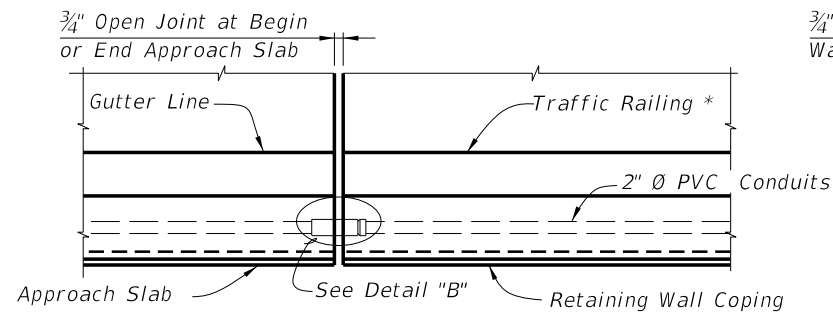
\* For non-continuing Traffic Railing only.

- NOTES:
1. Work this sheet with Index No. 421.
  2. Adjust horizontal and vertical alignments of conduit as necessary to align with EJB.
  3. Use only Galvanized Steel EJB "B" when installed in traffic face of railing. EJB Cover must be a minimum of 3/8" thick galvanized steel.
  4. Position EJB such that, with cover plate secured and in place, plate is flush with the railing face. Flush is +1/8" to -1/4" measured with a horizontal straightedge.
  5. Chamfer recess at EJB 3/8" all around, with cover removed.

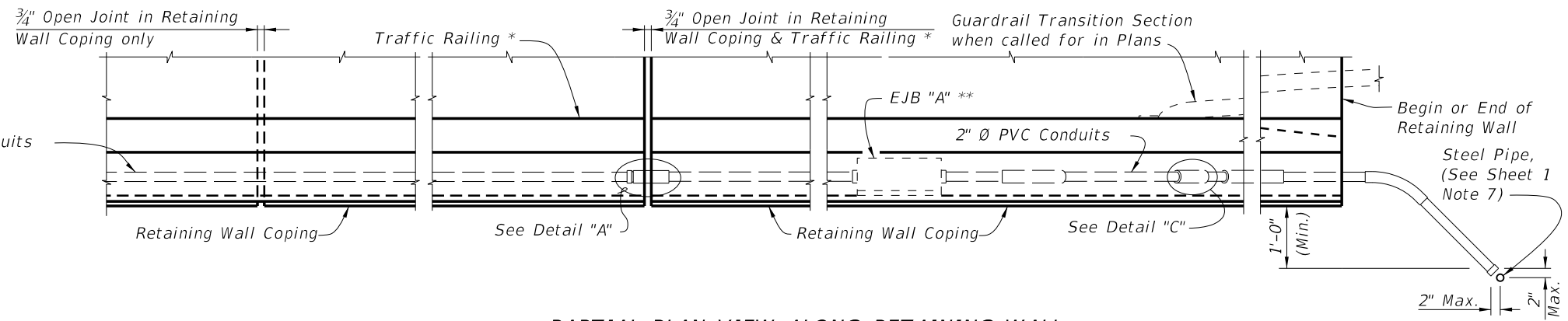
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LAST REVISION 07/01/13	DESCRIPTION:	 <b>2015</b> DESIGN STANDARDS	<b>CONDUIT DETAILS</b>	INDEX NO. <b>21210</b>	SHEET NO. <b>3 of 4</b>
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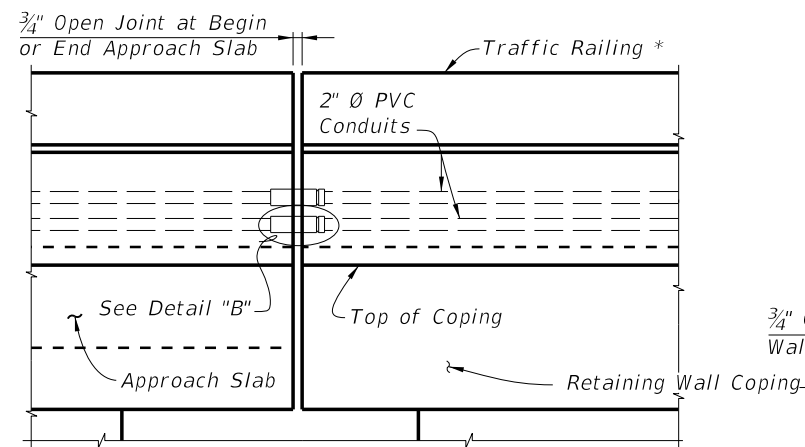
*Bridge and Approach Slab Median Traffic Railing*



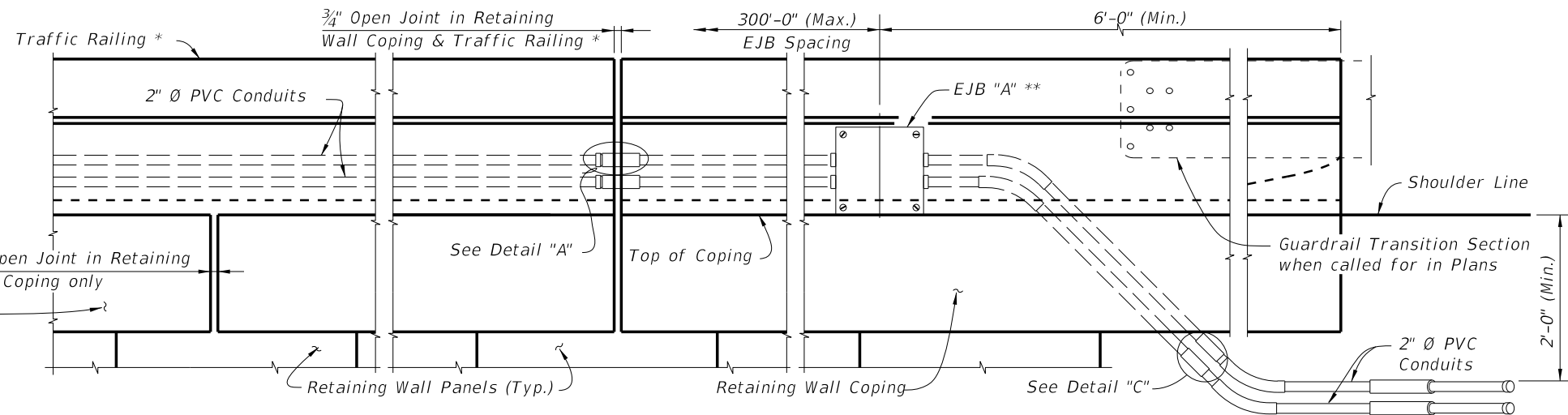
PARTIAL PLAN VIEW ALONG APPROACH SLAB WITH CONTINUING TRAFFIC RAILING



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.

Approach Slab and Retaining Wall Railing

LAST REVISION 07/01/13	REVISION	DESCRIPTION:	 <b>2015</b> DESIGN STANDARDS	CONDUIT DETAILS	INDEX NO. 21210	SHEET NO. 4 of 4
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