- 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" tong 3/4" (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.

Railing Joint Traffic Railing or Pedestrian / Bicycle Railing 2" Ø PVC Conduits Wrap with sponge rubber ⅓" thick nominal Expansion / Deflection Fitting (See Note 5)



\* Reduce to 6" maximum when installed in

Pedestrian/ Bicycle Railings.

EJB "B" Single Conduit (Maximum Dimensions)

1'-6"

(Min.) <u>3</u> Expansion / Deflection

DETAIL "C" EXPANSION / DEFLECTION

DETAIL "A" EXPANSION FITTING DETAIL

**REVISION** 01/01/16 Traffic Railing or

DESCRIPTION:

Pedestrian / Bicycle Railing

2" Ø PVC Conduits

Wrap with sponge rubber

1/4" thick nominal

Expansion Fitting

(See Note 4)

FY 2016-17 **DESIGN STANDARDS**  FITTING DETAIL (CONCRETE / SOIL)

Wrap with sponge rubber

Ø PVC Conduits

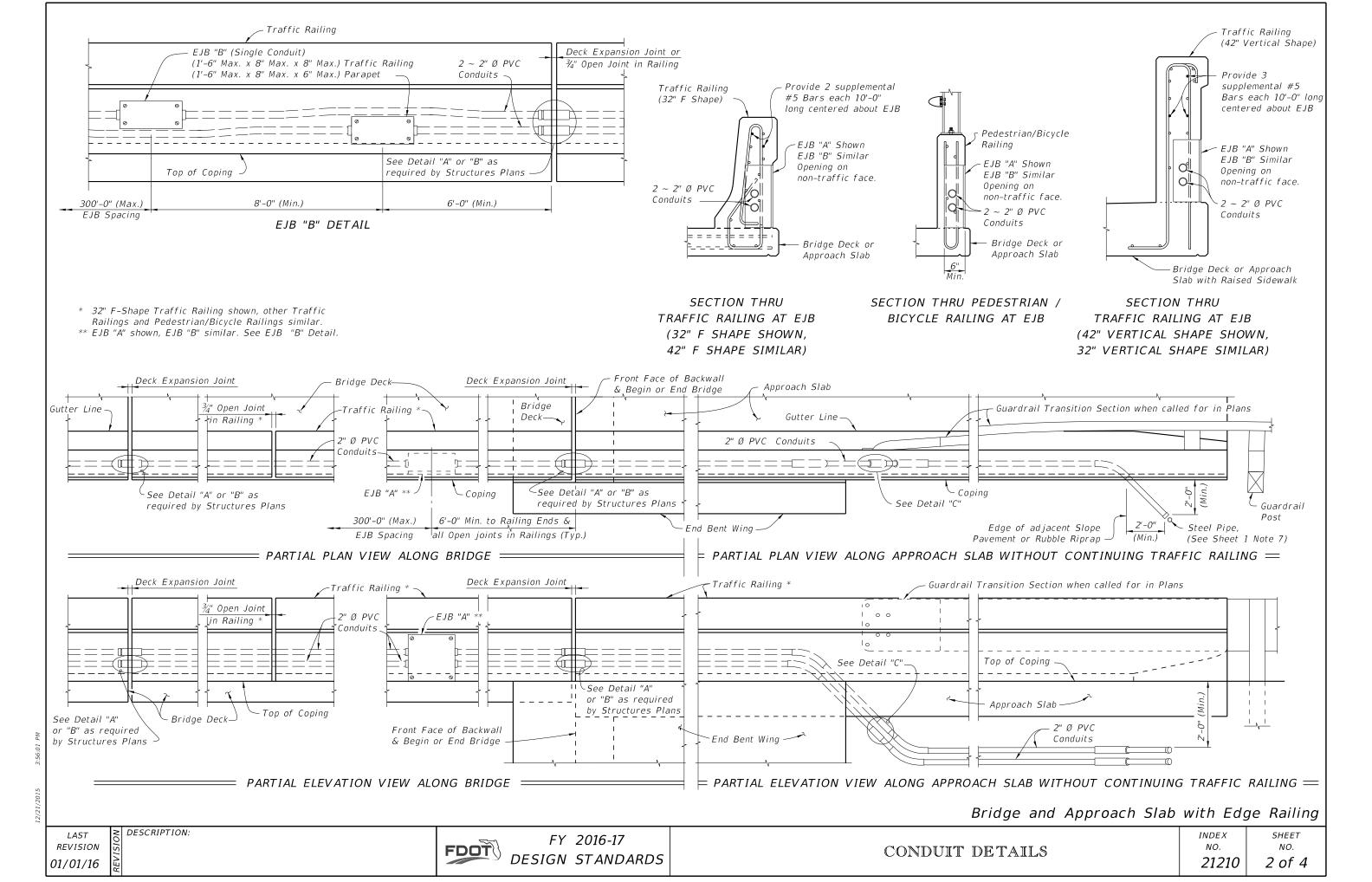
1/3" thick nominal

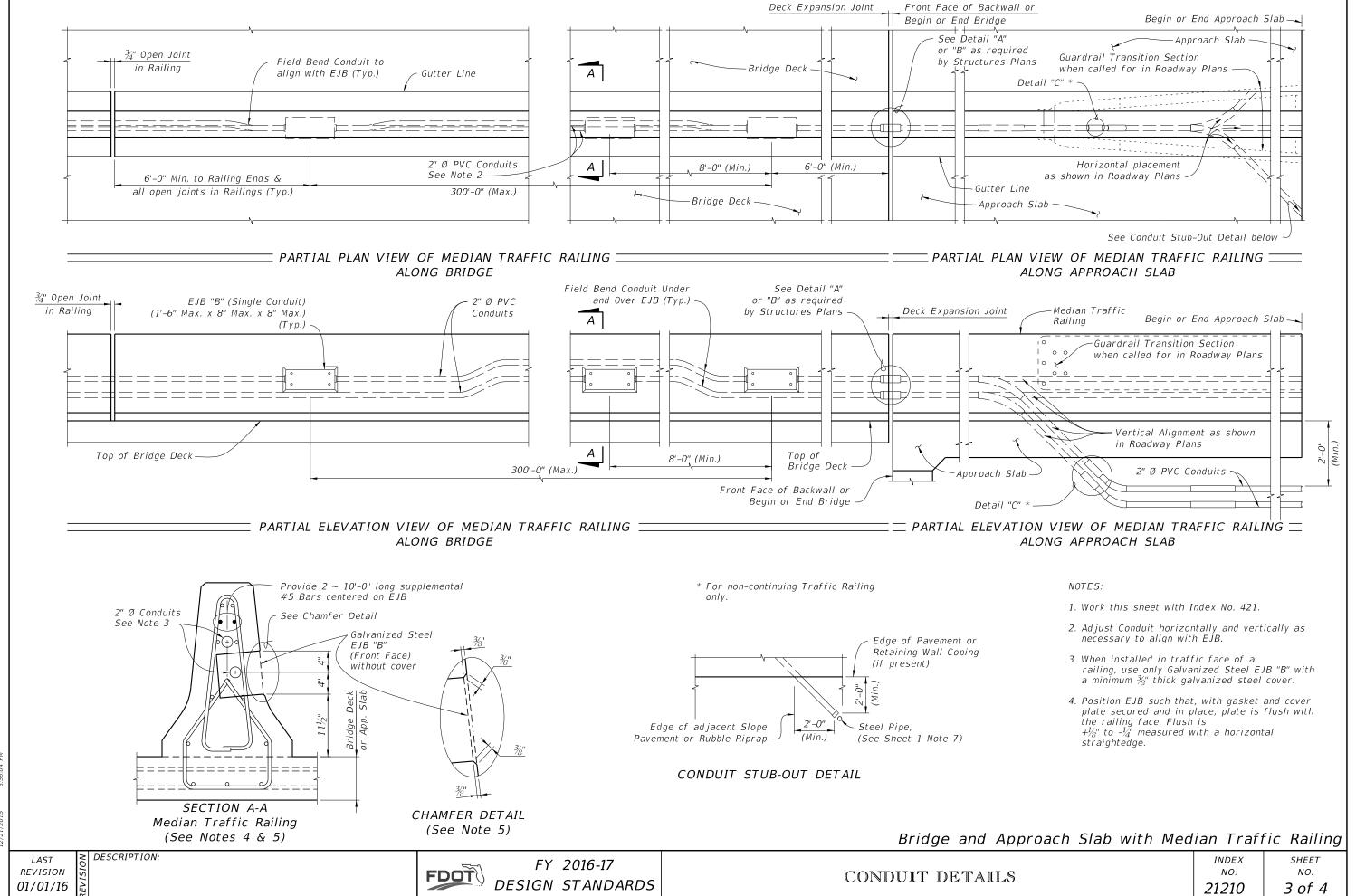
1'-6"

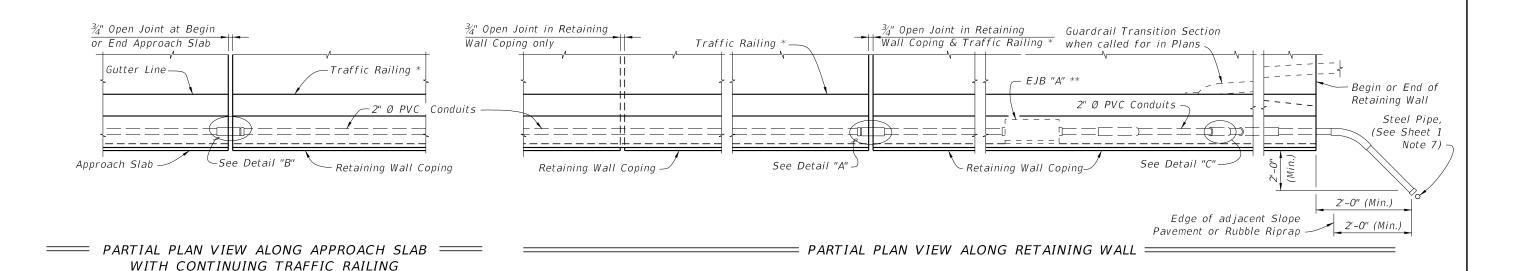
EJB "A"

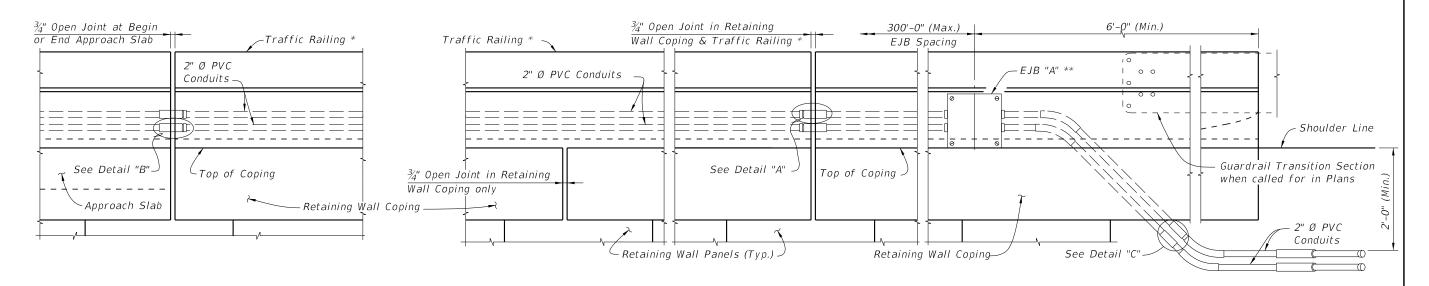
Double Conduit

(Maximum Dimensions)









==== 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 with Railing

**REVISION** 01/01/16

**FDOT** 

FY 2016-17 DESIGN STANDARDS

CONDUIT DETAILS

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SHEET NO. 4 of 4

DESCRIPTION: