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 Rigid Nonmetallic Conduits in accordance with NEMA TC-2 and UL Standard 651. Furnish Fittings in accordance with NEMA TC-3 and UL Standard 514b. Conduit and Fittings must have UL labels. Conduit – on each 10-foot length; Fittings – stamped or molded on each Fitting. 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 Box 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 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. Shift reinforcing a maximum of 1" but do not cut Railing reinforcement to facilitate placement of Conduit, Expansion Fittings, and Expansion/Deflection Fittings. Do not bundle Conduits, or Conduits and horizontal reinforcement.

9. Unless otherwise shown in the plans, include the cost of furnishing and installing Conduits, Pull Cords and Wires, E JB, 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.

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

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**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

FDOT 2014 DESIGN STANDARDS

CONDUIT DETAILS

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FDOT 2014 DESIGN STANDARDS

CONDUIT DETAILS

* 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 ELEVATION VIEW ALONG BRIDGE

PARTIAL ELEVATION VIEW ALONG APPROACH SLAB WITHOUT CONTINUING TRAFFIC RAILING

Bridge and Approach Slab Edge Railing

PARTIAL PLAN VIEW ALONG BRIDGE

PARTIAL PLAN VIEW ALONG APPROACH SLAB WITHOUT CONTINUING TRAFFIC RAILING

CONDUIT DETAILS
Bridge and Approach Slab Median Traffic Railing

CONDUIT DETAILS

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 ½" thick galvanized steel.
4. Position EJB such that, with cover plate secured and in place, plate is flush with the railing face. Flush is ¼" to ½" measured with a horizontal straightedge.
5. Chamfer recess at EJB ½" all around with cover removed.

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**PARTIAL PLAN VIEW ALONG APPROACH SLAB WITH CONTINUING TRAFFIC RAILING**

- Approach Slab
- Top of Coping
- Traffic Railings
- See Detail "B"
- Top of Coping
- Traffic Railings
- Retaining Wall Coping

**PARTIAL ELEVATION VIEW ALONG APPROACH SLAB WITH CONTINUING TRAFFIC RAILING**

(Retaining Wall Mounted Traffic Railing shown, Roadway Concrete Barrier similar)

**PARTIAL PLAN VIEW ALONG RETAINING WALL**

- Guardrail Transition Section
- when called for in Plans
- EJB "A"
- 2" Ø PVC Conduits
- Traffic Railings
- See Detail "B"
- Top of Coping
- Traffic Railings
- Retaining Wall Coping

**PARTIAL ELEVATION VIEW ALONG RETAINING WALL**

- Guardrail Transition Section
- when called for in Plans
- EJB "A"
- 2" Ø PVC Conduits
- Traffic Railings
- See Detail "C"
- Top of Coping
- Traffic Railings
- Retaining Wall Coping

* 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.