

\* Deck Joint at Begin Bridge or End Bridge shown;  
Deck Joint at  $\phi$  Pier or Intermediate Bent similar.

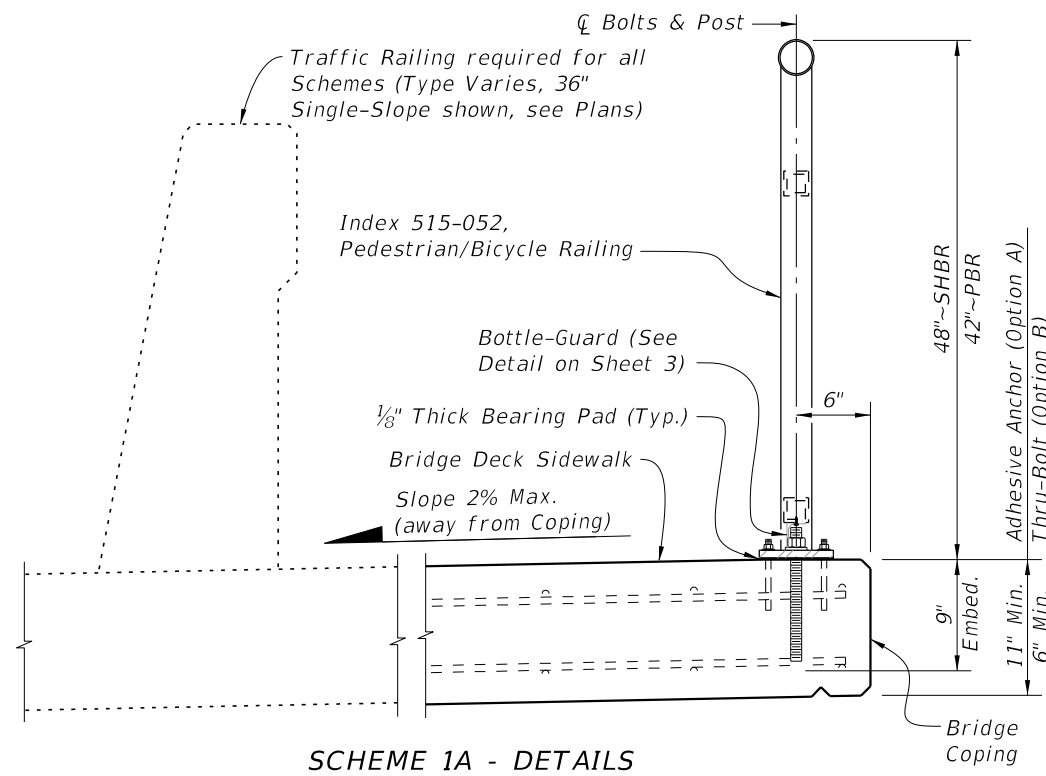
\*\* SHBR~Special Height Bicycle Rail  
PBR~Pedestrian/Bicycle Rail

NOTES:

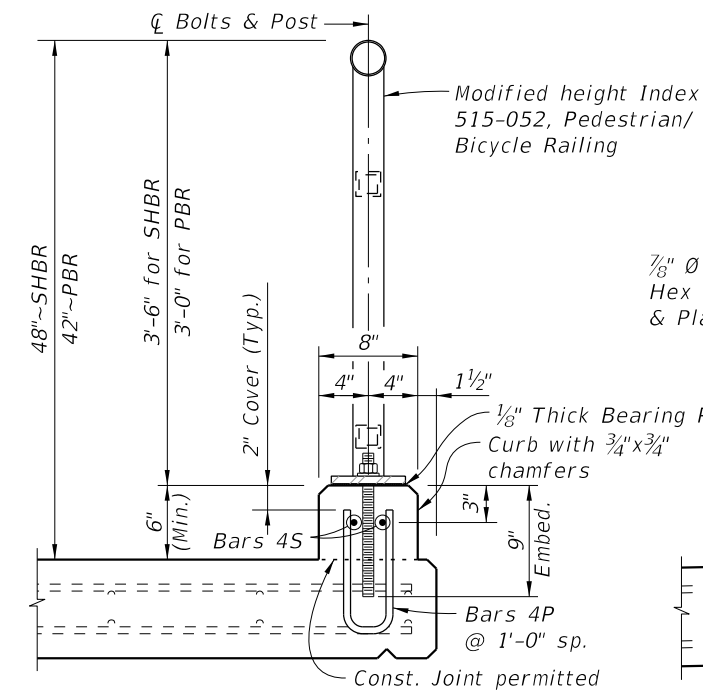
1. Shop Drawings are required.
2. Work this Index with Index 515-052 Bicycle/Pedestrian Railing Details (Steel) and Specification Section 515. Refer to the SPI for Design Criteria and Limits of Use.
3. Materials:
  - A. Steel: Galvanized after fabrication
    - a. Fasteners: Hex Head Bolt ASTM A307, Hex Nuts ASTM A563, Washers ASTM F436
    - b. Support Bracket (Scheme 3) L-shape and Stiffener Plate: ASTM A36
    - c. Bottle-guard (Schemes 1 & 3) L-shape: ASTM A36
  - B. Concrete: Same as bridge deck
  - C. Pre-cured Silicone Sealant: Specification Section 932
  - D. Bearing Pads: Provide  $\frac{1}{8}$ " Plain, Fabric Reinforced or Fabric Laminated bearing pads that meet the requirements of Specification Section 932 for Ancillary Structures.
4. See Structures Plans, Superstructure Sheets for bridge information including concrete type, deck expansion joint locations and orientations, and thermal movement.
5. Railings:
  - A. For thermal movement greater than 4" (up to a maximum of 5"), clear opening between adjacent pickets, or panels at Rail Expansion Joints above Deck Joints must be reduced to  $3\frac{1}{2}$ ".
  - B. For treatment of railings on skewed bridges see Index 521-427.
6. Curbs:
  - A. Match open curb joints at Deck Expansion Joint locations to the deck joint dimension.
  - B. Construct Concrete Curb (Scheme 2) vertical with the top surface finished level transversely. See Concrete Curb Details Sheet 3.
  - C. Provide  $\frac{3}{4}$ " Intermediate open joints in curbs coinciding with the  $\frac{3}{4}$ " joints in the traffic railing.
7. Payment: Support bracket (Scheme 3) is incidental to the cost of railing. Curb concrete and reinforcing steel (Scheme 2) are included in the bridge deck quantities.

10/6/2025 3:11:20 PM

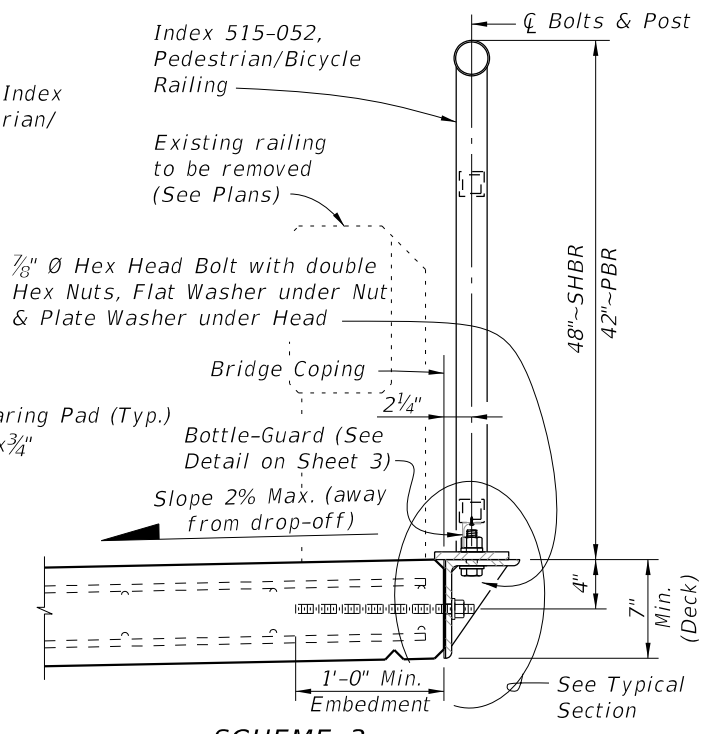
LAST REVISION 11/01/17	REVISION	DESCRIPTION:		FY 2026-27 STANDARD PLANS	BRIDGE PEDESTRIAN/BICYCLE RAILING (STEEL)	INDEX 515-051	SHEET 1 of 3
---------------------------	----------	--------------	--	------------------------------	--	------------------	-----------------



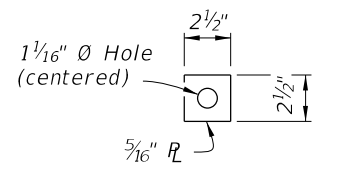
**SCHEME 1A - DETAILS**  
(Adhesive Anchor Option shown)



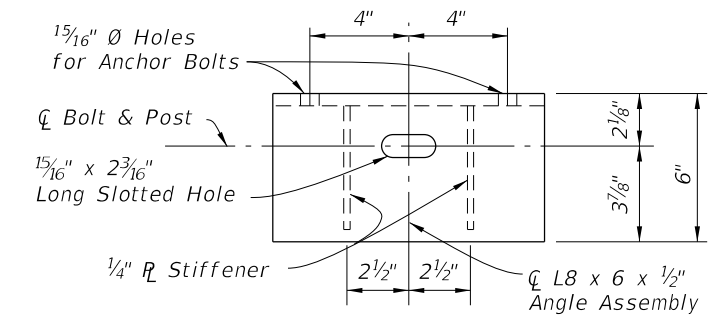
**SCHEME 2 - TYPICAL SECTION THROUGH CURB MOUNTED RAILING**



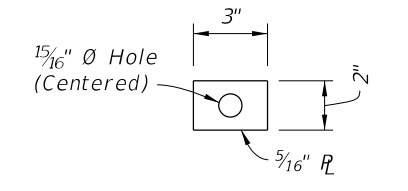
**SCHEME 3 - TYPICAL SECTION THROUGH SIDE MOUNTED RAILING (RETROFIT)**



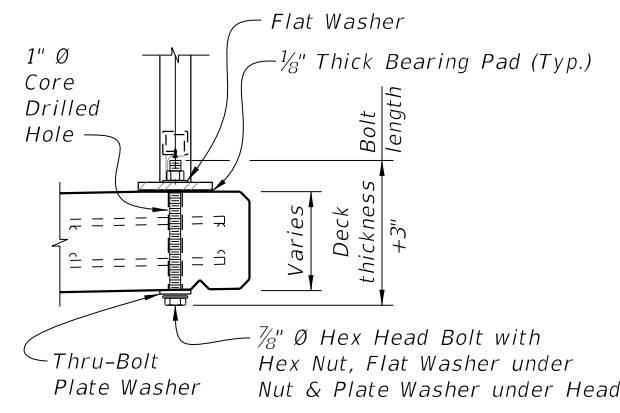
**THRU-BOLT PLATE WASHER DETAIL**



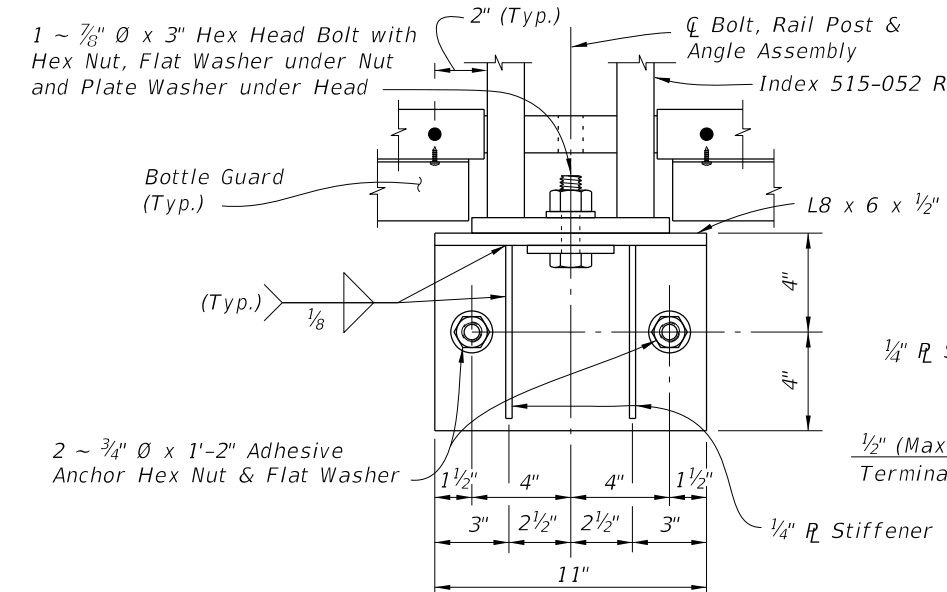
**PLAN VIEW**



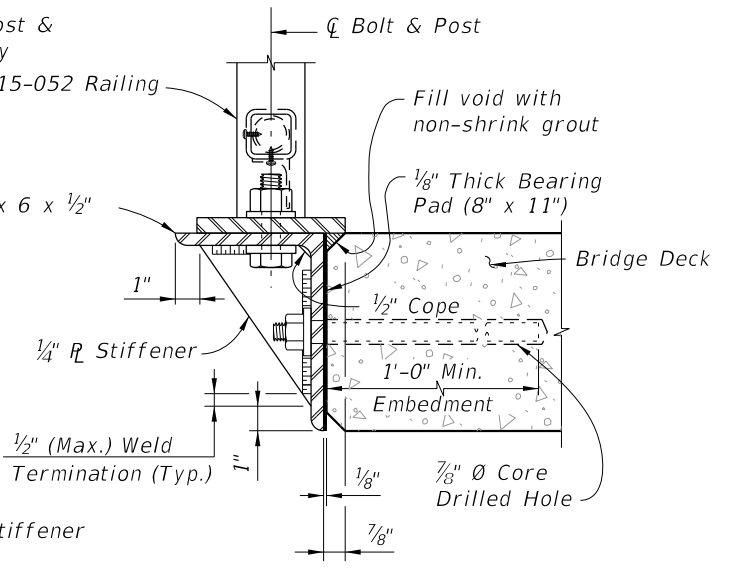
**PLATE WASHER DETAIL**



**SCHEME 1B - DETAILS (Thru-Bolt Option)**



**ELEVATION VIEW**




**TYPICAL SECTION**

**SCHEME 1 - TYPICAL SECTION THROUGH DECK MOUNTED RAILING**

**SCHEME 3 - SIDE-MOUNTED SUPPORT BRACKET DETAILS**

10/6/2025 3:11:26 PM

LAST REVISION 11/01/17	REVISION	DESCRIPTION:		FY 2026-27 STANDARD PLANS	BRIDGE PEDESTRIAN/BICYCLE RAILING (STEEL)	INDEX 515-051	SHEET 2 of 3
---------------------------	----------	--------------	--	------------------------------	--	------------------	-----------------

