

Anchor Rod Notes:

Post socket anchor details shown in these plans assume use of cast-in-place anchors. Contractor is permitted to substitute drilled anchors at no additional cost to the Contracting Authority. The embedded nuts are to be omitted. Minimum hole depth shall be equal to "T" shown in these plans. Use a polymer grout system in accordance with Materials I.M. 491.11. Anchors shall be installed in accordance with the manufacturer's recommendations. Any additional cost of drilling holes and adhesive will be considered incidental and no additional payment will be made.

Guardrail Designer Note:

Designer shall evaluate need for a crashworthy TL-3 guardrail end terminal at each end of the bridge. If provided, the following recommended guidelines should be considered in addition to guardrail length-of-need requirements:

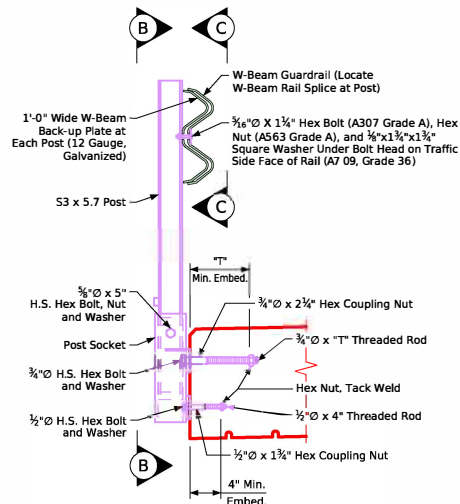
- 1) Minimum 12'-6" length standard guardrail between the first bridge post and the interior end of guardrail end terminal.
- 2) Minimum barrier length of 50 ft. before the first bridge post (including standard guardrail section and end terminal).
- 3) For flared guardrail applications, a minimum length of 25 ft. between the first bridge post and the start of the flared section.

Post Spacing Data Table (Integral Abutments)

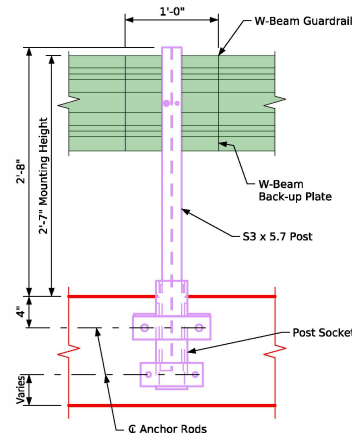
Span	"A" Dimension				"B" Post Spaces at 3'-1 1/2"	"C"	Total Number of Posts on Bridge
	0° Skew	15° Skew	30° Skew	45° Skew			
20'-0"	3'-0"	3'-0 5/8"	3'-2 13/16"	3'-7 7/16"	8	25'-0"	18
30'-0"	3'-3 3/4"	3'-4 3/8"	3'-6 9/16"	3'-11 3/16"	11	34'-4 1/2"	24
40'-0"	3'-7 1/2"	3'-8 1/8"	3'-10 5/16"	4'-2 15/16"	14	43'-9"	30
50'-0"	3'-11 1/4"	3'-11 7/8"	4'-2 1/16"	4'-6 11/16"	17	53'-1 1/2"	36

Post Spacing Data Table (High Abut.)

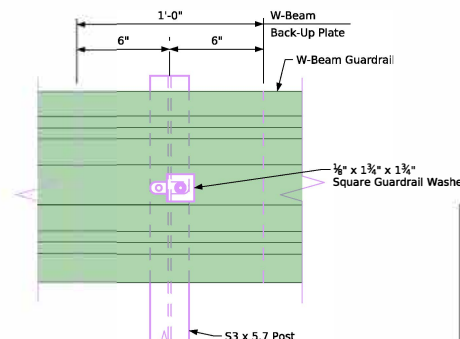
Span	"D" Dimension		"B" Post Spaces at 3'-1 1/2"	"C"	Total Number of Posts on Bridge
	0° Skew	15° Skew			
20'-0"	3'-8 1/4"	3'-8 7/8"	5	15'-7 1/2"	12
30'-0"	4'-0"	4'-0 5/8"	8	25'-0"	18
40'-0"	4'-3 3/4"	4'-4 3/8"	11	34'-4 1/2"	24
50'-0"	4'-7 1/2"	4'-8 1/8"	14	43'-9"	30



Section A-A



View B-B



View C-C

Bridge Rail Notes:

All material including bolts, rods, nuts and washers shall be galvanized per Article 4100.07 and/or 4153.06 of the Standard Specifications. Structural steel shall conform to ASTM A709 Grade 50, unless otherwise noted or shown. Post sockets shall conform to ASTM A500 Grade B. All bolts and threaded rod shall be ASTM A449 unless otherwise noted or shown. Nuts shall be ASTM A563, Grade DH, unless otherwise noted or shown. Washers shall be ASTM F436 unless otherwise noted or shown. Shop drawings of the steel posts showing layout and details shall be submitted for review. Cost of furnishing and installing the steel posts and 1'-0" W-Beam back-up plates, excluding the cost of W-Beam guardrail, shall be included in the price bid for Structural Steel. Cost of W-Beam guardrail should be included in the bid item "Steel Beam Guardrail". Refer to Sheet J245-31-25 for dimension "T".

Latest Revision Date <i>Approved by Bridge Engineer</i>	IOWA DOT	
	Standard Design - 24'-0" Roadway, Single Span Bridge	
	Single Span Concrete Slab Bridges	
	July, 2025	
	Bridge W-Beam Guardrail Details	J245-30-25