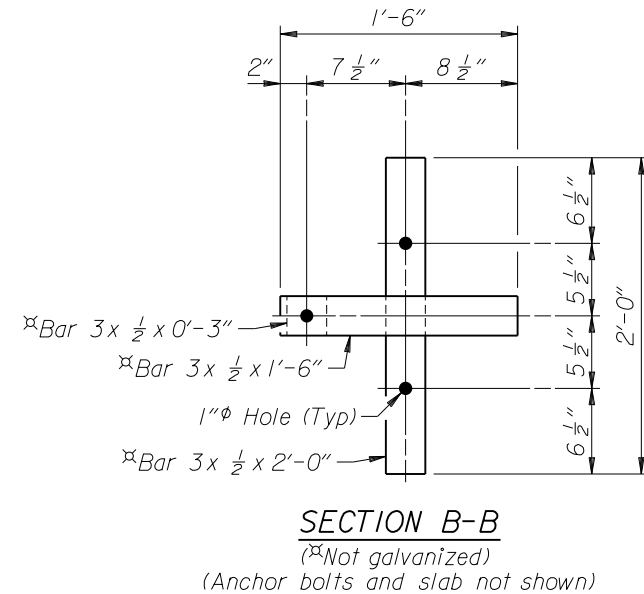
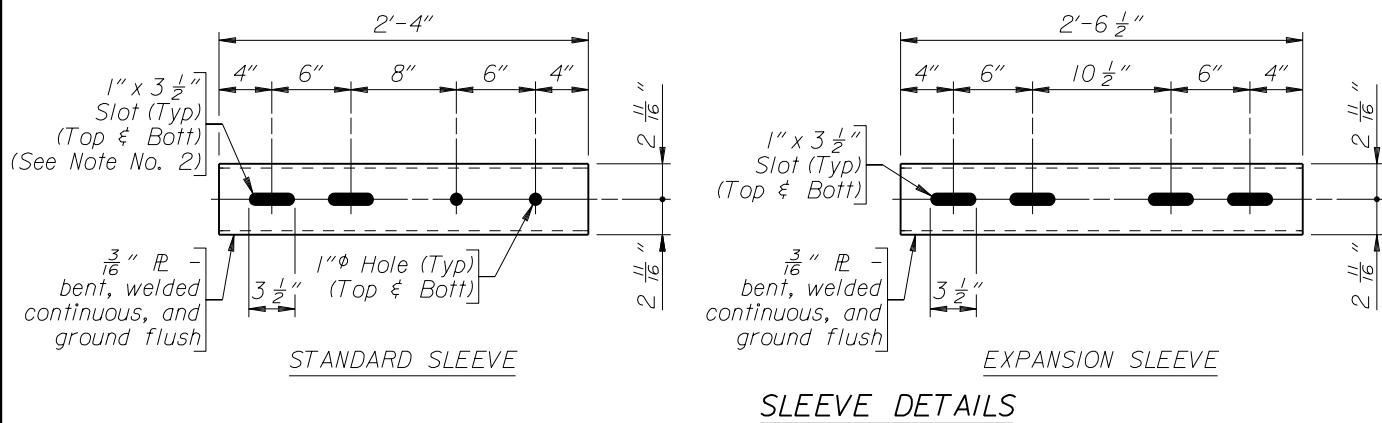


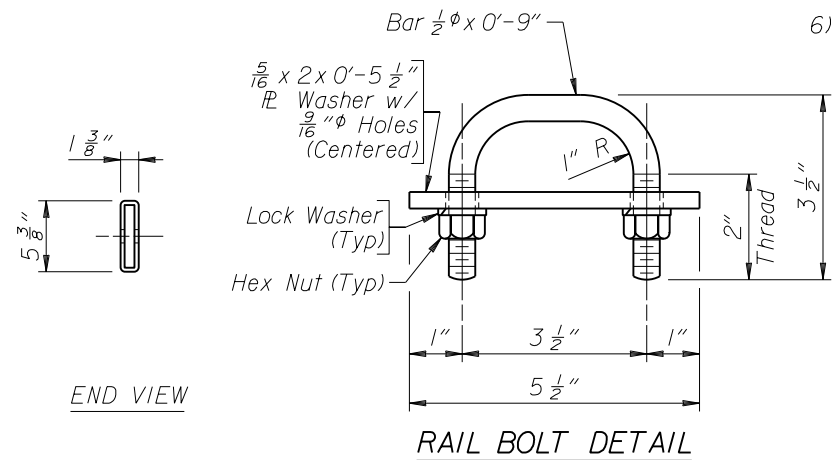
**POST DETAILS**  
 (See View A-A for anchor bolt hole spacing)



**PLAN**  
 (X posts req'd on bridge)  
 (X posts req'd on approach slabs)

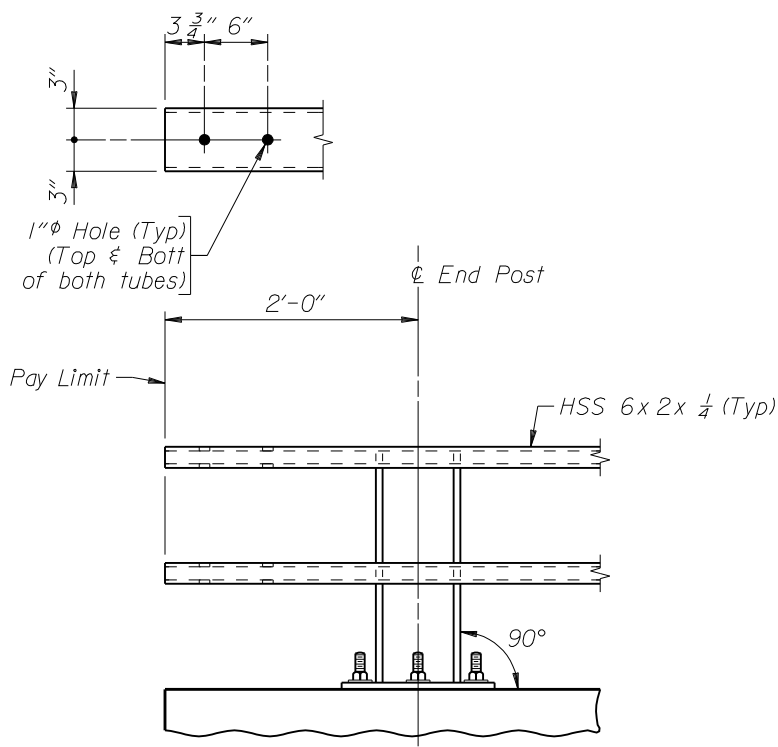


**SLEEVE DETAILS**

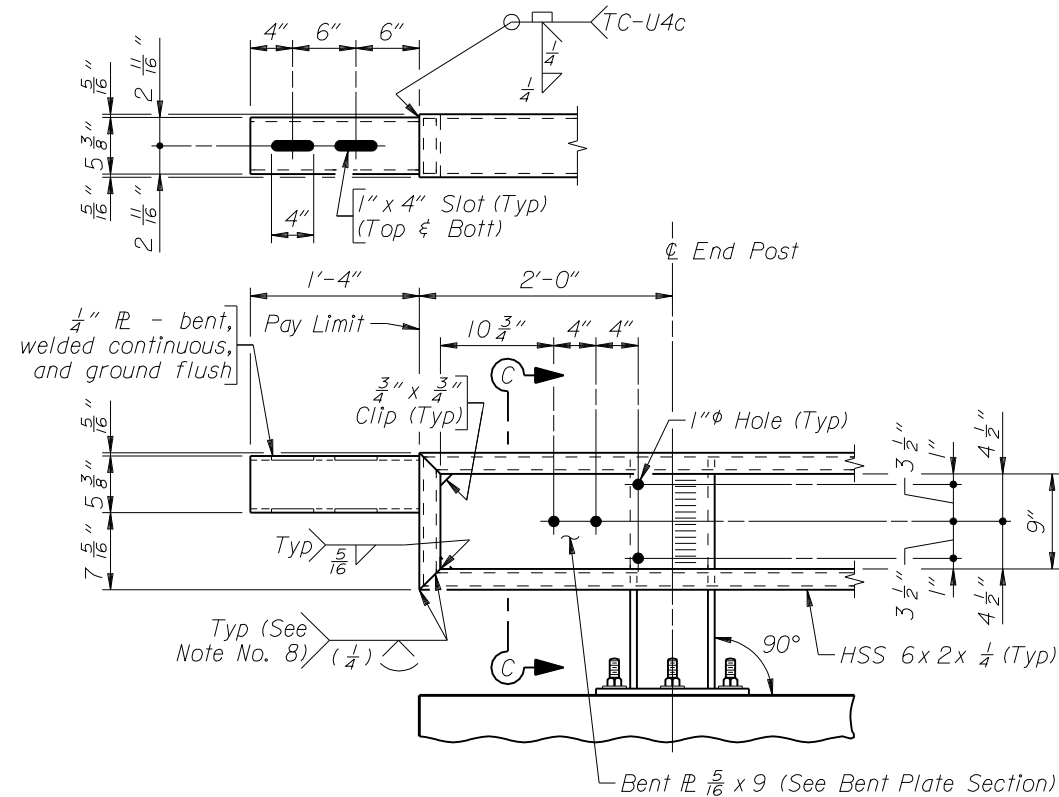


- Note:**
- 1) Ensure the expansion splice is located in the railing panel which passes over the bridge expansion joint as indicated on the plan.
  - 2) Slots may be omitted in standard sleeves where bolts are required on one side of splice only.
  - 3) Anchor bolts may be tack welded to anchorage (Shop or field).
  - 4) At post locations, drill two 1 1/16" holes in the rails to receive rail bolts (Shop or field). See Post Details for hole spacing.
  - 5) Before installing rails, paint cut, drilled, or otherwise damaged surface areas of the railing components with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
  - 6) After installing the rails, paint exposed bolt threads with two coats of zinc rich paint conforming to the requirements of ASTM A 780.

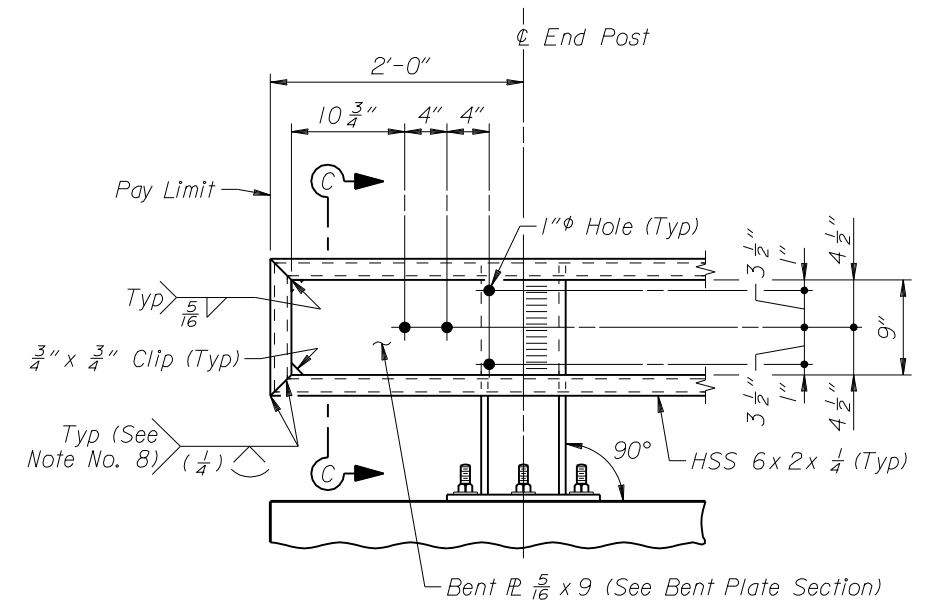
WYOMING DEPARTMENT OF TRANSPORTATION BRIDGE PROGRAM			
REVISIONS		BRIDGE RAILING DETAILS	
		TL3_br1.dgn	
APPROVED	DESIGN	Design Section X	
DATE	DETAIL	Drwg. No. X Sheet X of X	
	O'S.		



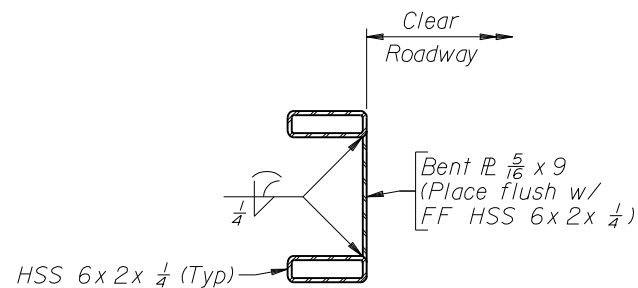
**ELEVATION AT TERMINAL TYPE ①**  
 (Box beam guardrail connection)



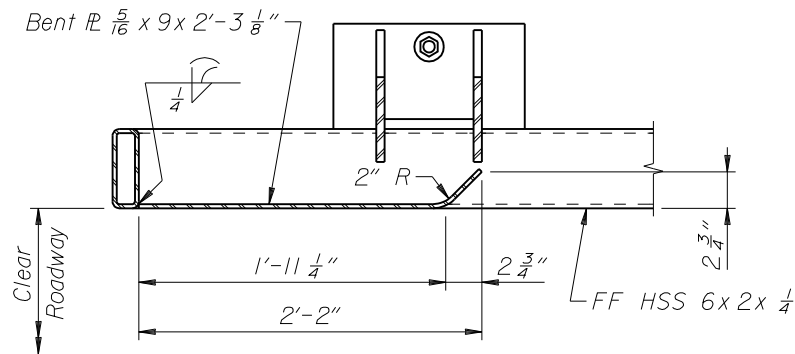
**ELEVATION AT TERMINAL TYPE ②**  
 (Box beam guardrail connection, Interstate exit end only  
 (With provision for temporary corrugated beam guardrail connection))



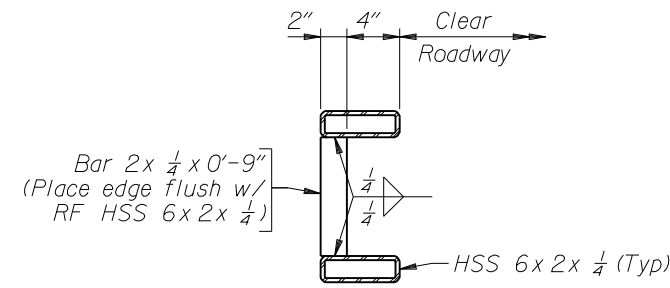
**ELEVATION AT TERMINAL TYPE ③**  
 (Corrugated beam guardrail connection  
 or no guardrail connection)



**SECTION C-C**

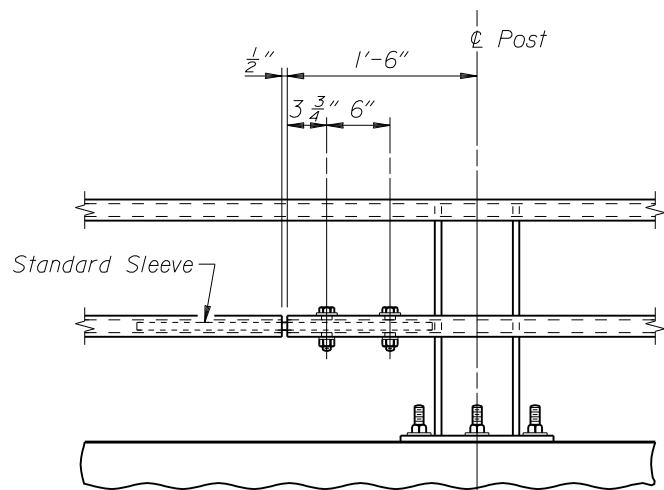


**BENT PLATE SECTION**  
 (Top rail not shown)  
 (Req'd at Type ② and ③ Terminals)

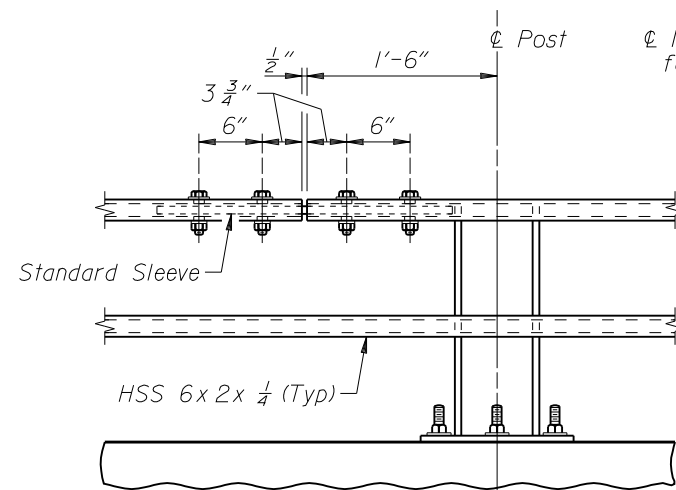


**BRACE BAR DETAIL**  
 (See Note No. 7)

- Note:**
- 1) Either top or bottom rail in terminal section may be the longer rail.
  - 2) Ensure each rail length is continuous over a minimum of two posts. Railing that is part of a type ② or ③ terminal is continuous if either the top or bottom rail in the terminal is continuous over a minimum of two posts.
  - 3) In rehabilitation work, ensure railing that cannot feasibly be made continuous over a minimum of two posts has a double-bolted splice.
  - 4) Splices may be located on either side of post.
  - 5) Not more than one splice is permitted per side of post, except at expansion splices.
  - 6) Do not shop splice rails.
  - 7) Ensure a brace bar is placed 2'-0" from the splice end of the shorter tube at type ② and ③ terminals.
  - 8) Ensure the fabricator prepares a sample of the indicated joint and it is macroetched to demonstrate that the required effective throat is achieved.

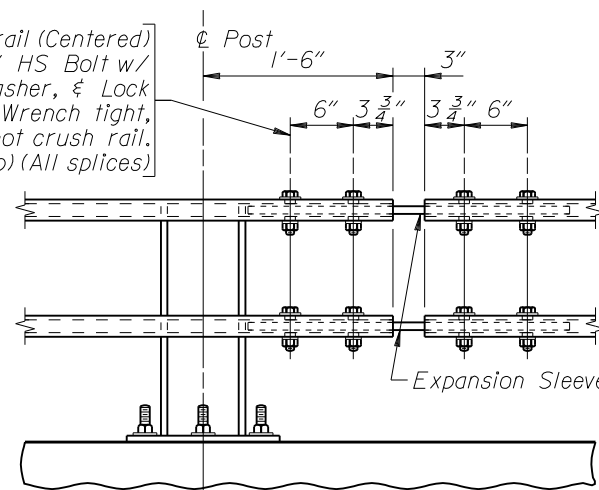


**STANDARD SPLICE**  
 (Top or bottom rail)



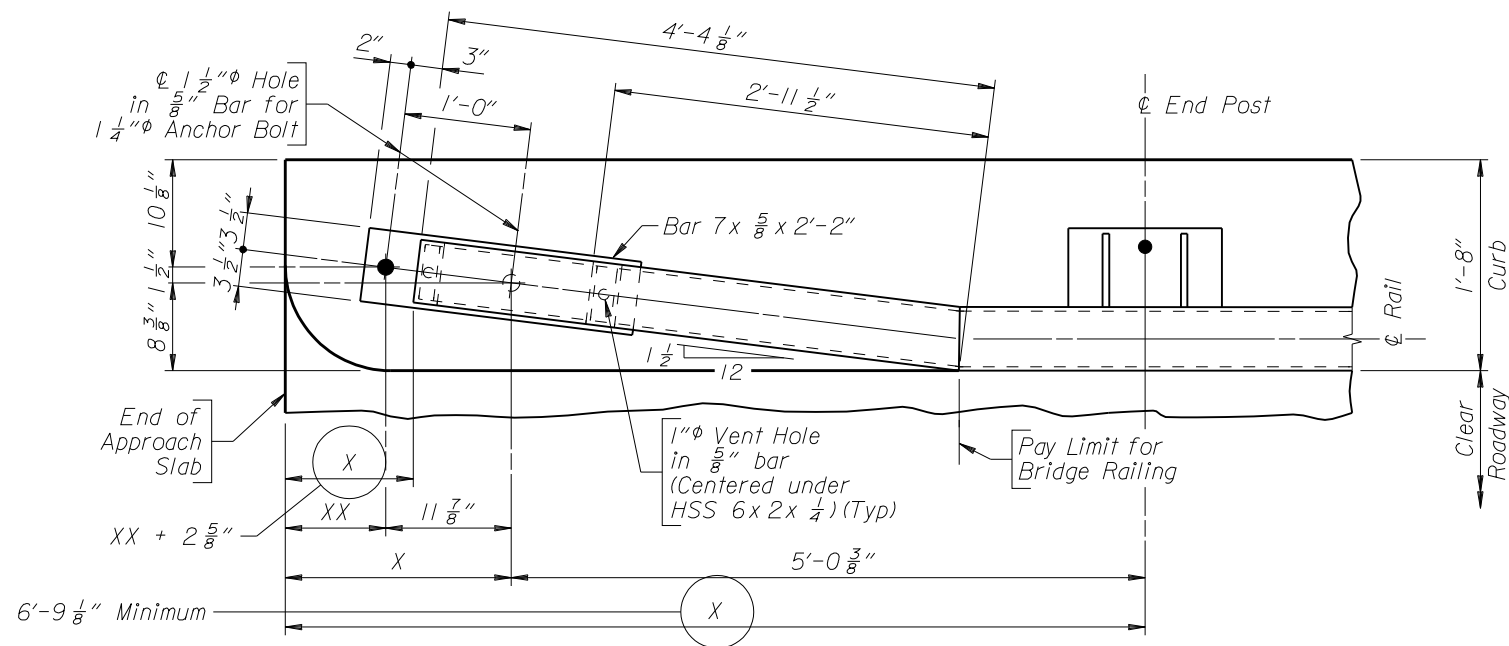
**DOUBLE-BOLTED SPLICE**  
 (Top or bottom rail)  
**SPLICE DETAILS**

1"  $\phi$  Holes in rail (Centered)  
 for 3/4"  $\phi$  x 3 1/2" HS Bolt w/  
 Hex Nut, Washer, & Lock  
 Washer. Wrench tight,  
 do not crush rail.  
 (Typ) (All splices)

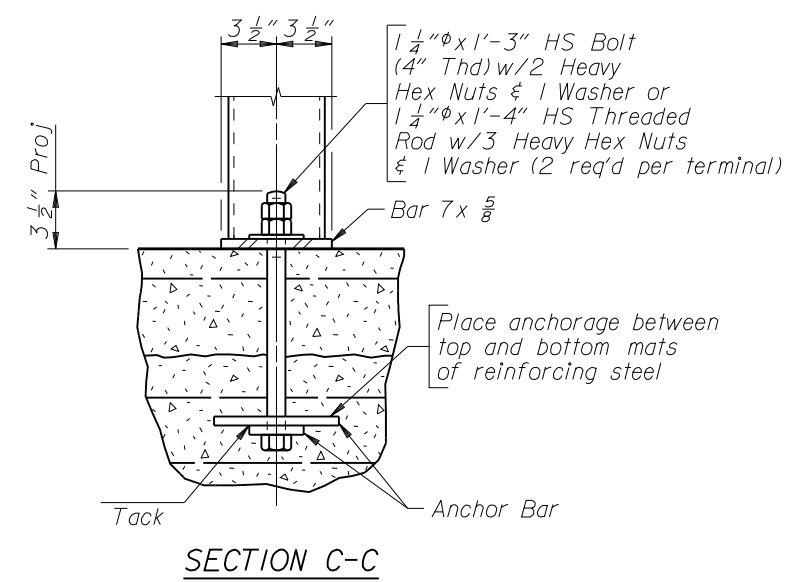


**EXPANSION SPLICE**  
 (Top and bottom rail)

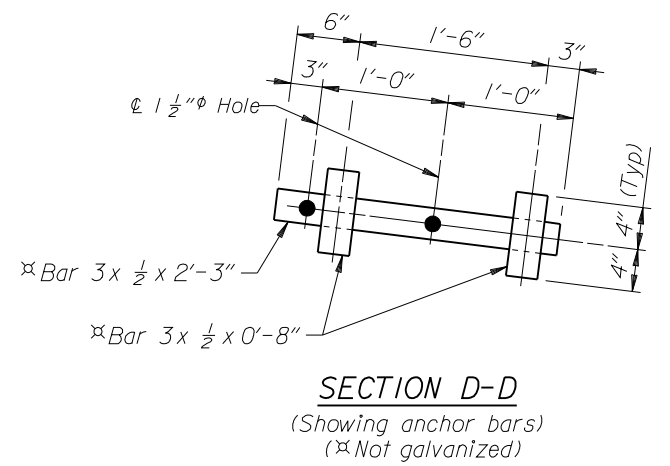
WYOMING DEPARTMENT OF TRANSPORTATION BRIDGE PROGRAM			
REVISIONS		BRIDGE RAILING DETAILS	
		TL3_br2.dgn	
APPROVED	DESIGN	Design Section X	
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	O'S.		



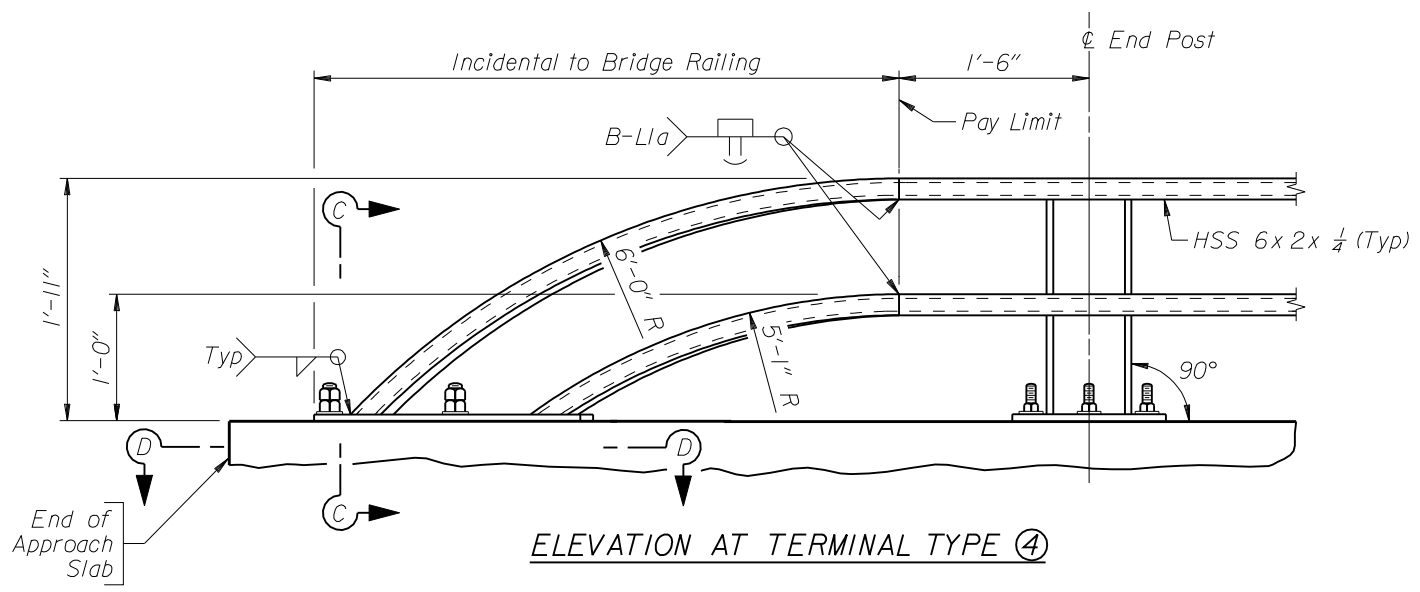
**PLAN AT TERMINAL TYPE ④**  
(Bolts not shown)



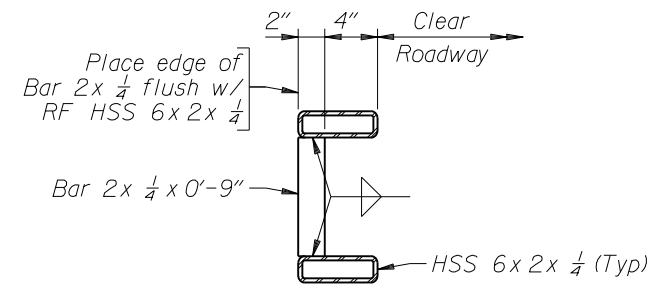
**SECTION C-C**



**SECTION D-D**  
(Showing anchor bars)  
(Not galvanized)

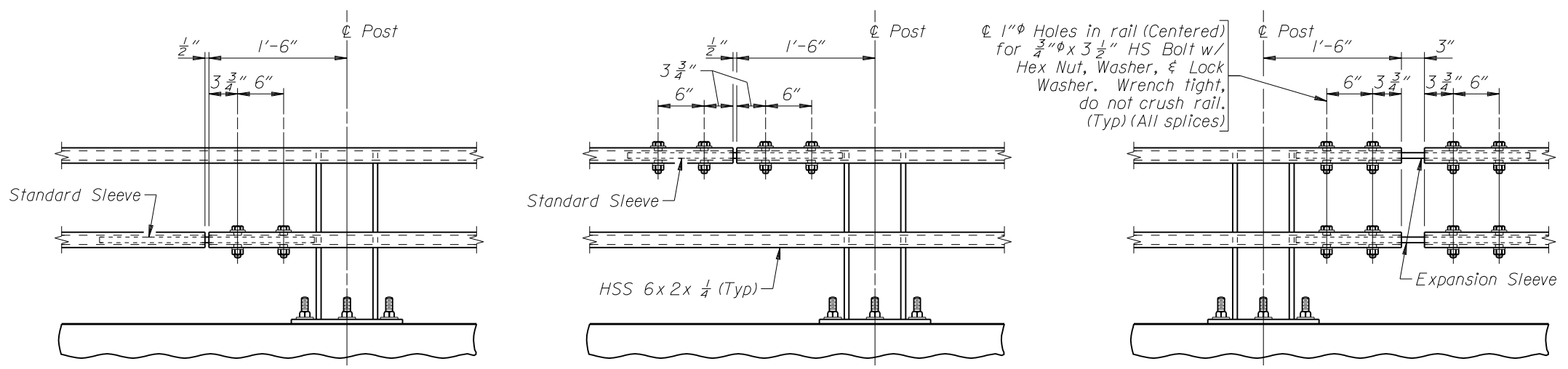


**ELEVATION AT TERMINAL TYPE ④**



**BRACE BAR DETAIL**  
(See Note No. 7)

- Note:**
- 1) Either top or bottom rail in terminal section may be the longer rail.
  - 2) Ensure each rail length is continuous over a minimum of two posts. Railing that is part of a type ④ terminal is continuous if either the top or bottom rail in the terminal is continuous over a minimum of two posts.
  - 3) In rehabilitation work, ensure railing that cannot feasibly be made continuous over a minimum of two posts has a double-bolted splice.
  - 4) Splices may be located on either side of post.
  - 5) Not more than one splice is permitted per side of post, except at expansion splices.
  - 6) Do not shop splice rails.
  - 7) Ensure a brace bar is placed 2'-0" from the splice end of the shorter tube at type ④ terminals.



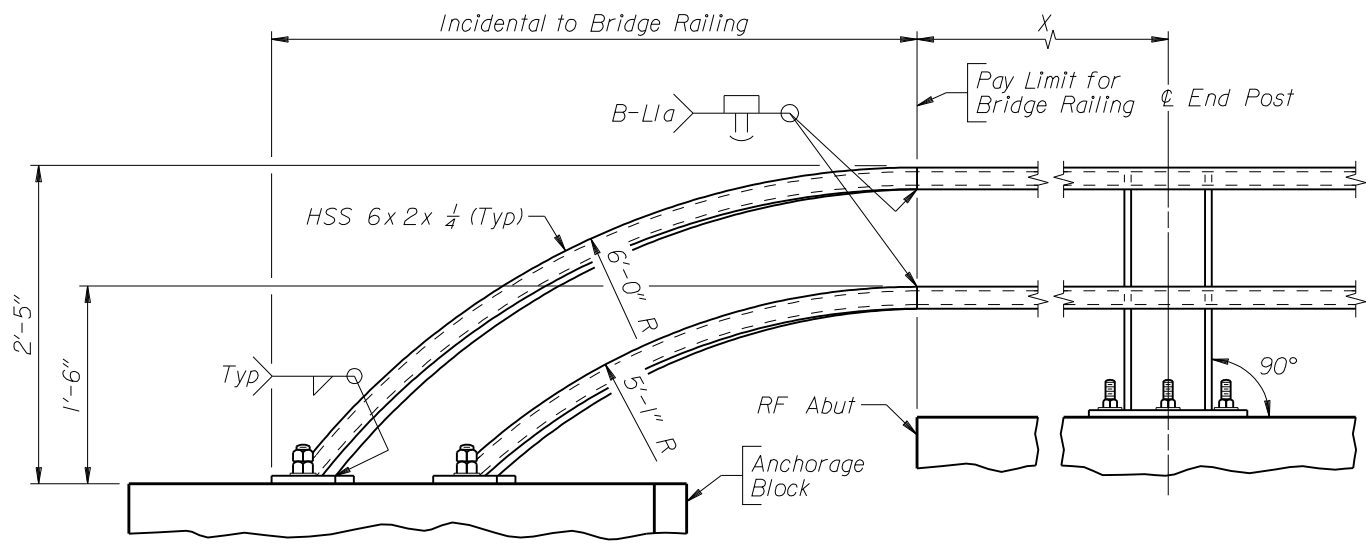
**STANDARD SPLICE**  
(Top or bottom rail)

**DOUBLE-BOLTED SPLICE**  
(Top or bottom rail)

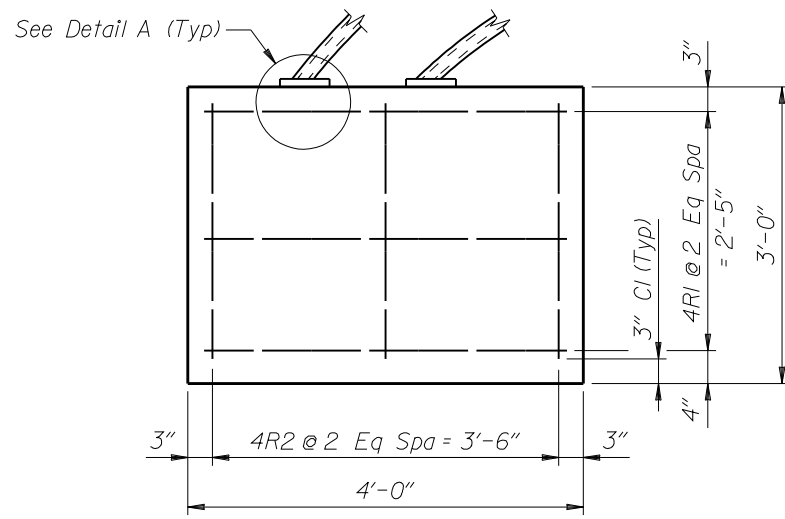
**EXPANSION SPLICE**  
(Top and bottom rail)

**SPlice DETAILS**

WYOMING DEPARTMENT OF TRANSPORTATION BRIDGE PROGRAM			
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		TL3_br3.dgn	
APPROVED	DESIGN	Design Section X	
DATE	DETAIL	Drwg. No. X Sheet X of X	
	O'S.		

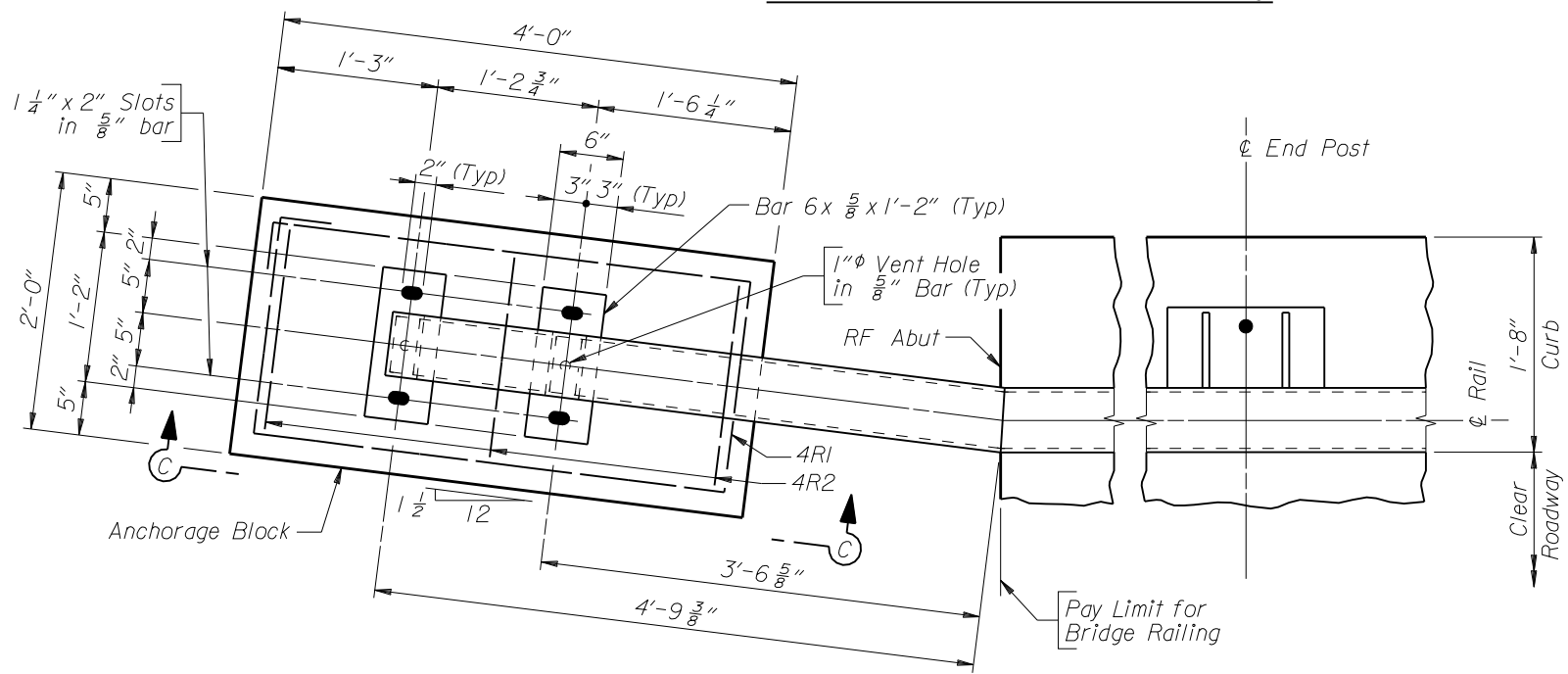


ELEVATION AT TERMINAL TYPE ⑤

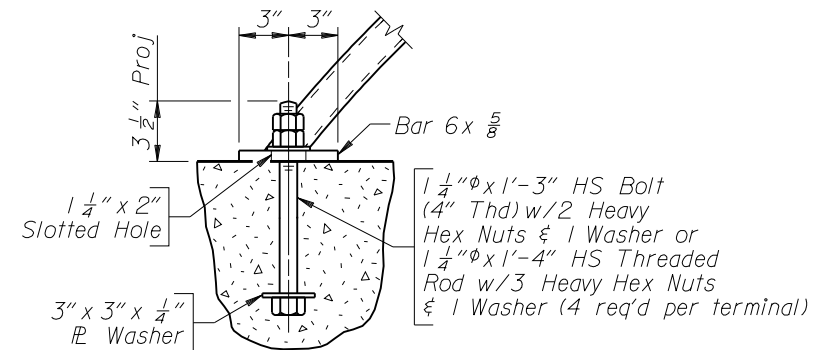


VIEW C-C

BILL OF REINFORCEMENT		
Location	Mark	Number Req'd Per Anchorage Block
Anchorage Block	4R1	3
	4R2	3
	Weight	41 LB
Bending Diagrams		
	4R1 (Tie)	(11'-5")
	4R2 (Tie)	(9'-1")

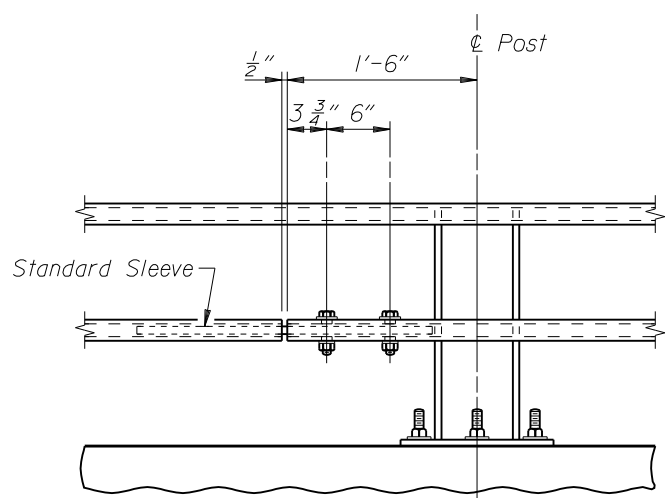


PLAN AT TERMINAL TYPE ⑤  
(Bolts not shown)

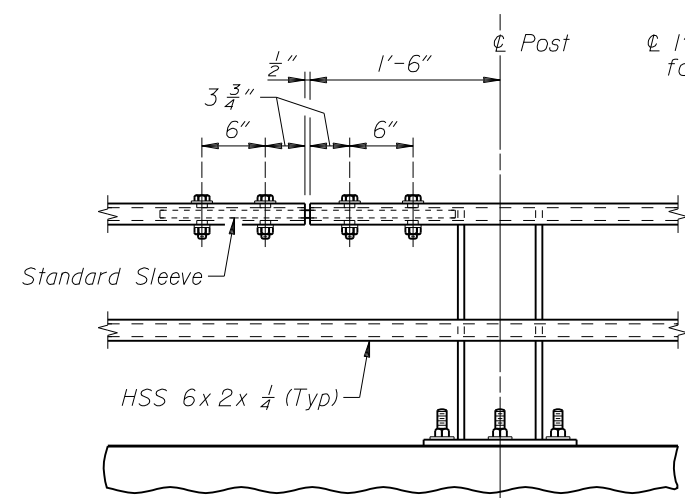


DETAIL A

- Note:
- 1) Either top or bottom rail in terminal section may be the longer rail.
  - 2) Ensure each rail length is continuous over a minimum of two posts.
  - 3) In rehabilitation work, ensure railing that cannot feasibly be made continuous over a minimum of two posts has a double-bolted splice.
  - 4) Splices may be located on either side of post.
  - 5) Not more than one splice is permitted per side of post, except at expansion splices.
  - 6) Do not shop splice rails.
  - 7) Ensure rail terminal section is in place and in proper alignment prior to placement of concrete in end anchorage block.

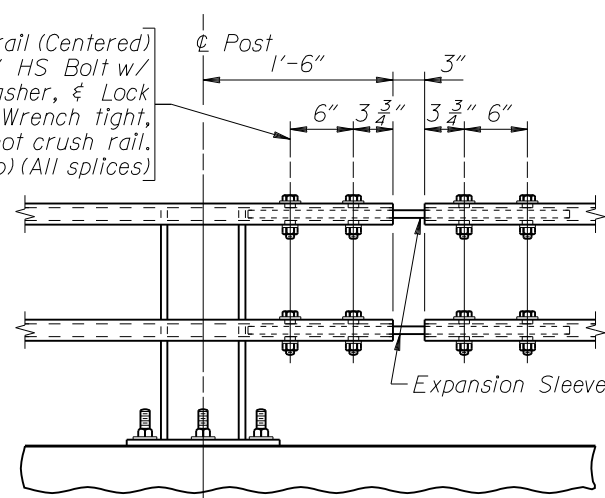


STANDARD SPLICE  
(Top or bottom rail)



DOUBLE-BOLTED SPLICE  
(Top or bottom rail)  
SPLICE DETAILS

1"  $\phi$  Holes in rail (Centered) for 3/4"  $\phi$  x 3 1/2" HS Bolt w/ Hex Nut, Washer, & Lock Washer. Wrench tight, do not crush rail. (Typ) (All splices)



EXPANSION SPLICE  
(Top and bottom rail)

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DATE	DETAIL	Drwg.No. X Sheet X of X	
	O'S.		