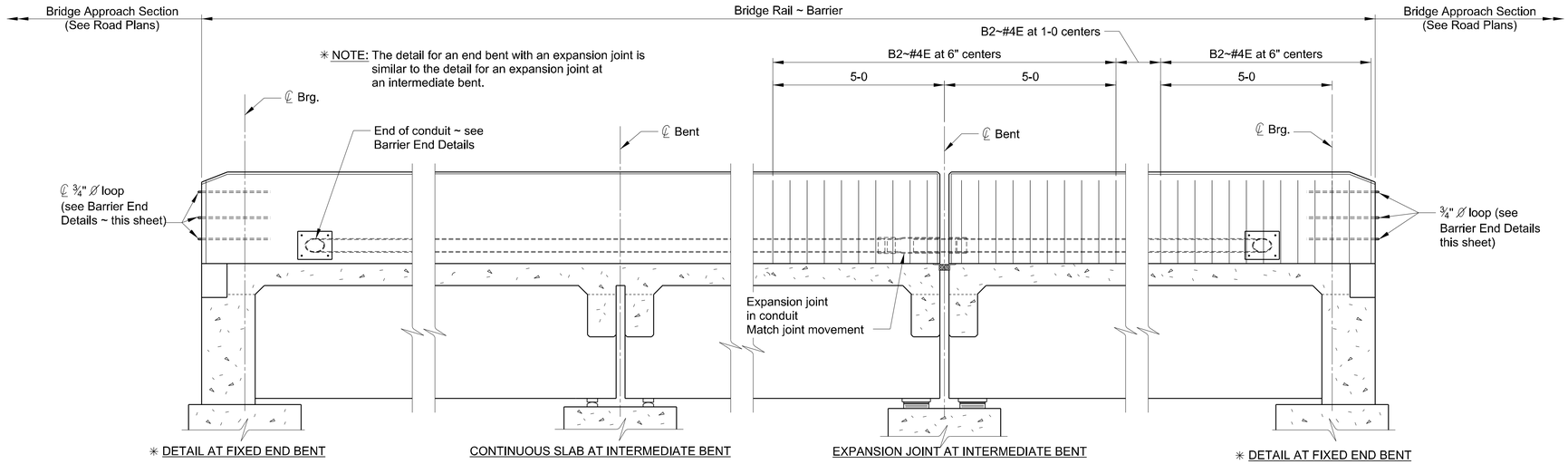


ELEVATION OF RAIL

NOTES

PLACEMENT: Do not place concrete barrier for at least 72 hours after concrete in slab has taken initial set.

REFLECTORS: Place a white reflector on top of concrete barrier at 30-0 spacing between ends of barrier. See Dtl. Dwg. No. 606-60 for reflector detail. Include the cost of reflectors in the unit price bid for Barrier Rail - Cast in Place - Br.

PAYMENT: Include all costs associated with reinforcing steel in the barrier in the unit price bid for Reinforcing Steel - Epoxy Coated. Include all other costs associated with the barrier in the unit price bid for Barrier Rail - Cast in Place - Br. See Specifications.

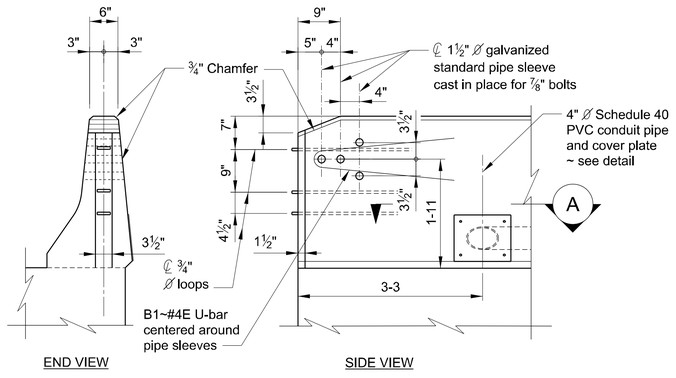
EXCEPTIONS: Use details shown on this drawing only as they apply to the project. Anchorage details may vary. Refer to other drawings for variations in these details.

RAIL WEIGHT: For informational purposes only, the rail weight is approximately 355.0 lb/ft.

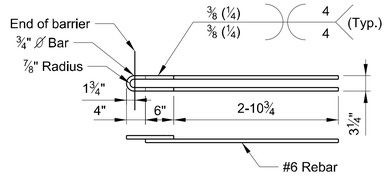
PVC CONDUIT PIPE: Omit 4" Ø PVC conduit pipe in barrier on interstate structures.

REINFORCING: The suffix E denotes epoxy coated reinforcing.

RAIL DESIGN CAPACITY
Rw = 55 kips
Le = 4'-9"
Mc = 106 Kip * in / ft



BARRIER END DETAILS

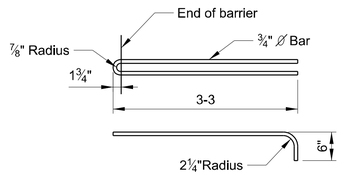


LOOP DETAIL

NOTE: Use reinforcing steel conforming to ASTM A 706, Grade 60 for rebar being welded to loops.

NOTE: Loop ends and the optional loop detail consist of smooth round bars conforming to AASHTO M 270, Grade 36.

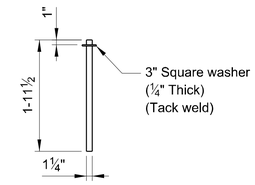
NOTE: Cold bend the loops by using a jig that will produce an accurate radius without marring the bar. Do not heat the bar to facilitate bending.



OPTIONAL LOOP DETAIL

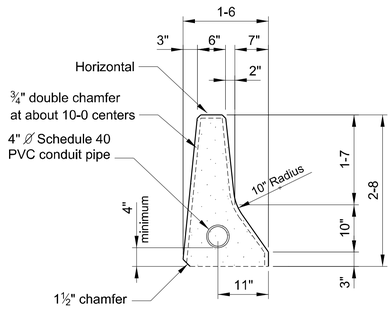
NOTE: Weld rebar to loops using ⅛" Ø E8018 rod. Do not tack weld the pieces together prior to welding. Use a certified welder in accordance with the current edition of AWS D1.4. Do not place the welded assembly in the form until it has been inspected.

NOTE: No additional welding is permitted on the smooth round bars or reinforcing steel.

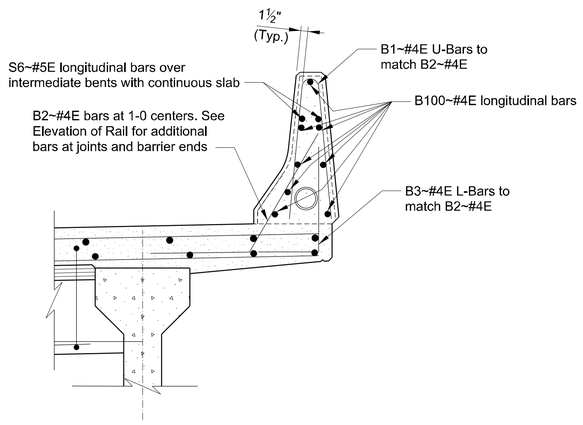


CONNECTING PIN DETAIL

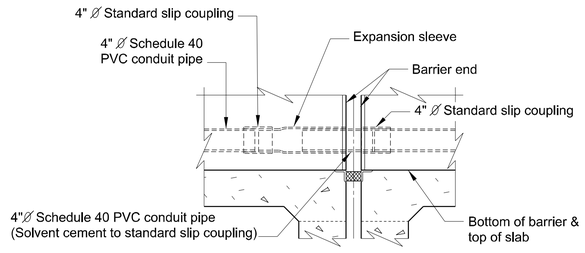
NOTE: Use connecting pins conforming to AASHTO M 270, Grade 36.



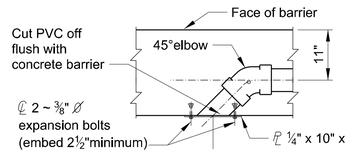
BARRIER DETAIL



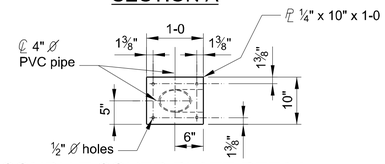
BARRIER REINFORCING DETAILS



CONDUIT EXPANSION JOINT DETAIL



SECTION A



CONDUIT COVER PLATE DETAIL

NOTE: Galvanize plates in accordance with AASHTO M 111. Galvanize expansion bolts, nuts and washers in accordance with ASTM A 653 or AASHTO M 111.

STANDARD BRIDGE RAIL
TYPE BARRIER

No Scale

MDT
MONTANA DEPARTMENT OF TRANSPORTATION
BRIDGE BUREAU

REVISED		D.F.J.	$FILEABBREV$
REVISED	6-18-14	S.L.F.B.	$TIME$
REVISED	1-2-12	D.F.J.	$DATE$
APPROVED	2-1-11	D.F.J.	
CHECKED	3-26-08	D.J.R.	
DRAWN	3-12-08	T.J.B.	
	3-3-08		

DRAWING NO.
SBR-BRR