

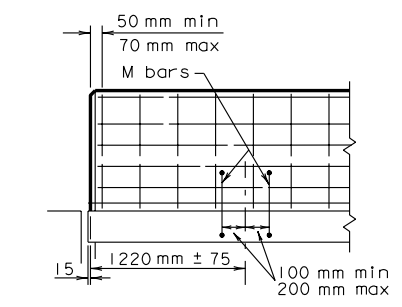
CAST-IN-PLACE ON NEW SLABS

CAST-IN-PLACE ON NEW OR EXISTING SLABS

CAST-IN-PLACE WITH PCP SLABS

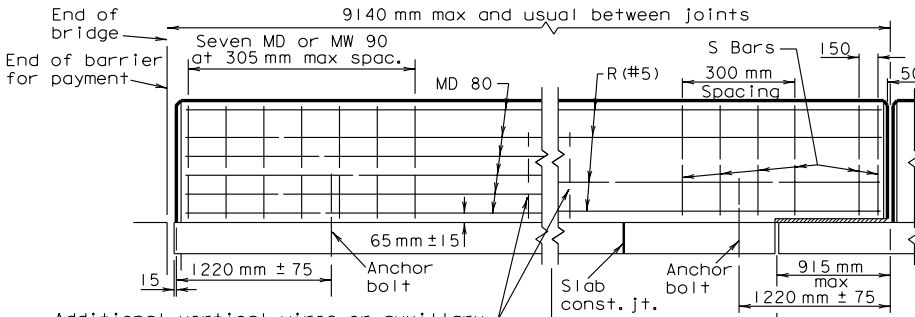
PRECAST ON NEW OR EXISTING SLABS

Notes: Some longer span structures with open median joints will require separate railing due to potential differential deflections (CPI and precast). When B0 is less than 50mm M bars or anchor bolts shall be placed as detailed on elevation of traffic barrier. When B0 is greater than 50mm an additional anchor bolt or pair of M bars will be placed at the midpoint (±100mm) of the segment.

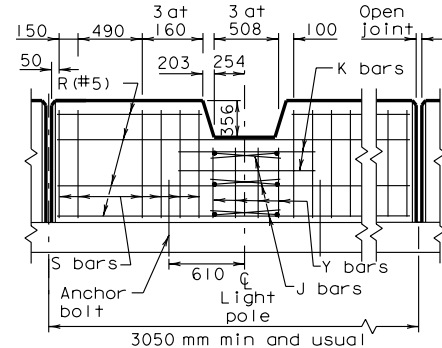


ELEVATION OF TRAFFIC BARRIER (M Bar Anchorage Option)

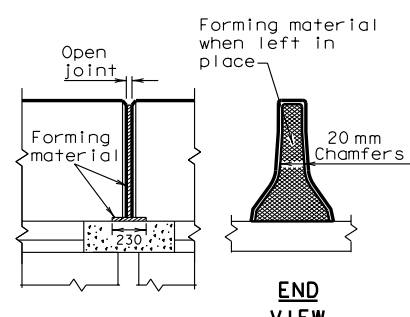
WWF Shown, placement is identical with reinf. steel



ELEVATION OF TRAFFIC BARRIER



ELEVATION AT LIGHT POLE
(Symmetrical about C)

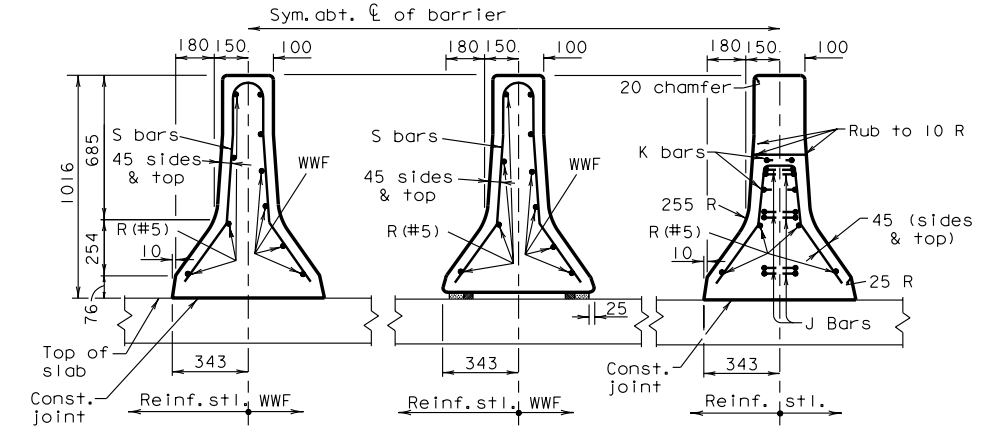


BARrier JOINT FOR PRESTR. CONC. BOX BEAM

END VIEW

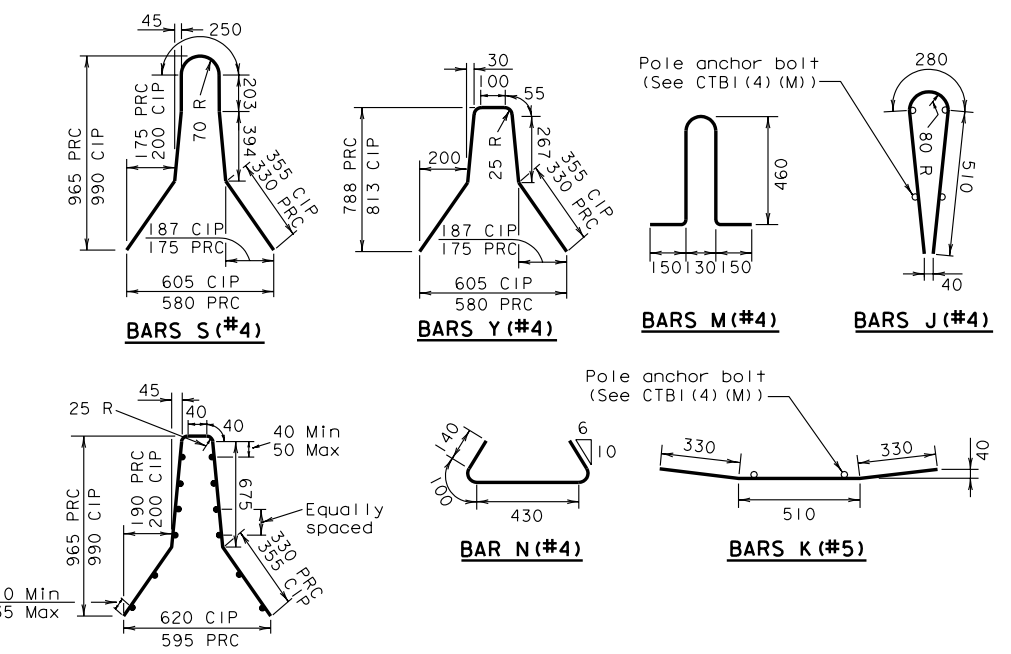
GENERAL NOTES

- All concrete, reinforcement, anchor bolts, blocking, grout etc., as shown are considered as part of the barrier for payment.
- A cast-in-place section of barrier shall be provided as shown if illumination poles are to be installed. See sheet CTBI(4) for the light pole, anchor bolt, and conduit details.
- Concrete for barrier shall be class C or H.
- Welded wire fabric may be used as an option to the conventional reinforcement for precast or cast-in-place barrier. Only conventional reinforcement is to be used for the 3050 mm sections at light poles. Welded wire fabric shall be made in accordance with ASTM A497.
- Grout for precast barriers shall consist of two parts sand and one part cement. Latex adhesive may be added to the grout if directed by the Engineer. Wood or other material approved by the Engineer shall be used for blocking. Enough firm blocking must be used to properly align and grade the barrier sections. At other locations, any suitable material may be used to retain the grout.
- Joints shall be located near end of spans, at ends of light pole sections, and at intervals in between as necessary to maintain 9140 mm maximum and 4570 mm minimum section lengths. When barrier is cast-in-place, a joint shall be placed at interior supports of continuous units. Joint openings shall be 10 mm minimum and 25 mm maximum or 10 mm wider than adjacent open slab joints. No forming material shall be left in place adjacent to slab expansion joints. Otherwise, forming material may be left in place if it is compressible and light in color. Where portions of barriers project over adjacent spans, similar materials may be used to provide 20 mm nominal clearance. If forming material is not left in place and barrier is on low side of roadway, the bottom 150 mm shall be plugged with concrete or joint sealing compound.
- Anchor bolts and associated nuts, washers, and plates for the barrier to slab attachment shall be galvanized in accordance with the governing specification. Bolts shall conform to ASTM A307 (or A36 threaded rod with tack welded nut). Threaded rods may be 0.906 inch minimum diameter with rolled threads.
- The centerline axis of the barrier shall be vertical except where the slab is superelevated in which case it shall be normal to the cross slope unless otherwise shown in the plans or directed by the Engineer.
- The maximum offset from the center of the barrier to the true circular centerline shall be 25 mm for precast segments installed on horizontal curves. If this would require segment lengths of less than 4570 mm, then the barrier shall be cast-in-place to the correct radius.
- Shop drawings are not required for this barrier. Anchor systems equal or stronger than those shown may be used provided the details of such systems are submitted to and approved by the Engineer prior to placement.
- Cast-in-place barrier may be slip formed. Additional reinforcement may be tack welded to the upper two-thirds of the reinforcing cage to provide bracing. Do not weld to M bars or anchor bolts.



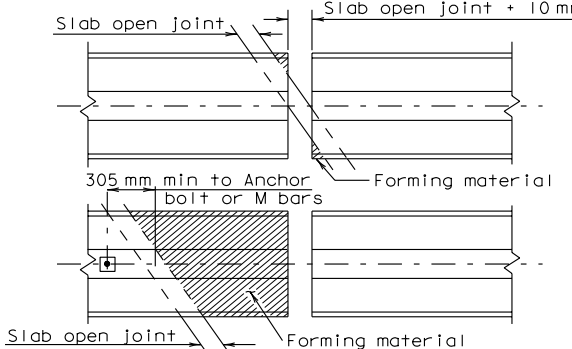
TYPICAL SECTIONS

Note: If bridge deck has asphaltic concrete overlay, the height of cast-in-place and precast barriers and full height anchor bolts must be adjusted accordingly. The height of the reinforcement will be adjusted when overlays are greater than 50 mm. See bridge layout sheet(s) for overlay thickness.



Detail shown is for MD 80 longitudinal wires and MD or MW 90 vertical wires. Combinations of reinforcing steel and welded wire fabric or configurations of welded wire fabric other than detailed will be permitted when conditions below are satisfied.

DESCRIPTION	LONGITUDINAL WIRES	VERTICAL WIRES
1. Min. (cumulative total) wire area	800 sq. mm	80 sq. mm per longitudinal 305mm (end 1900 mm of all sections)
2. No. of wires Minimum Maximum	6 14	7 at 305 mm 19 at 102 mm
3. Maximum wire size differential	The small wire shall have an area of 40% or more of the larger wire.	



PLAN AT SLAB OPEN JOINTS

WWF - WELDED WIRE FABRIC
 PRC - PRECAST
 CIP - CAST-IN-PLACE
 R = Radius
 D = Diameter

All unit-less dimensions are millimeters

REVISONS:

Texas Department of Transportation
CONCRETE TRAFFIC BARRIER TYPE I
 PRECAST OR CAST-IN-PLACE (BRIDGE)
 CTBI (1) - 95 (FW) (M)

ORIG DRAW DATE:	DESIGN:	FED. REG.	STATE	FEDERAL AID PROJ NO.	HIGHWAY
FEB. 1996	CHECKED:	6	TEXAS		
	DRAWN:	DISTRICT	COUNTY	CONTROL SECTION	JOB SHEET
	CHECKED:	FTW			

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