

SECTION 6-B CULVERT RAILS

CITY OF SACHSE, TEXAS
DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS
MISCELLANEOUS DETAILS

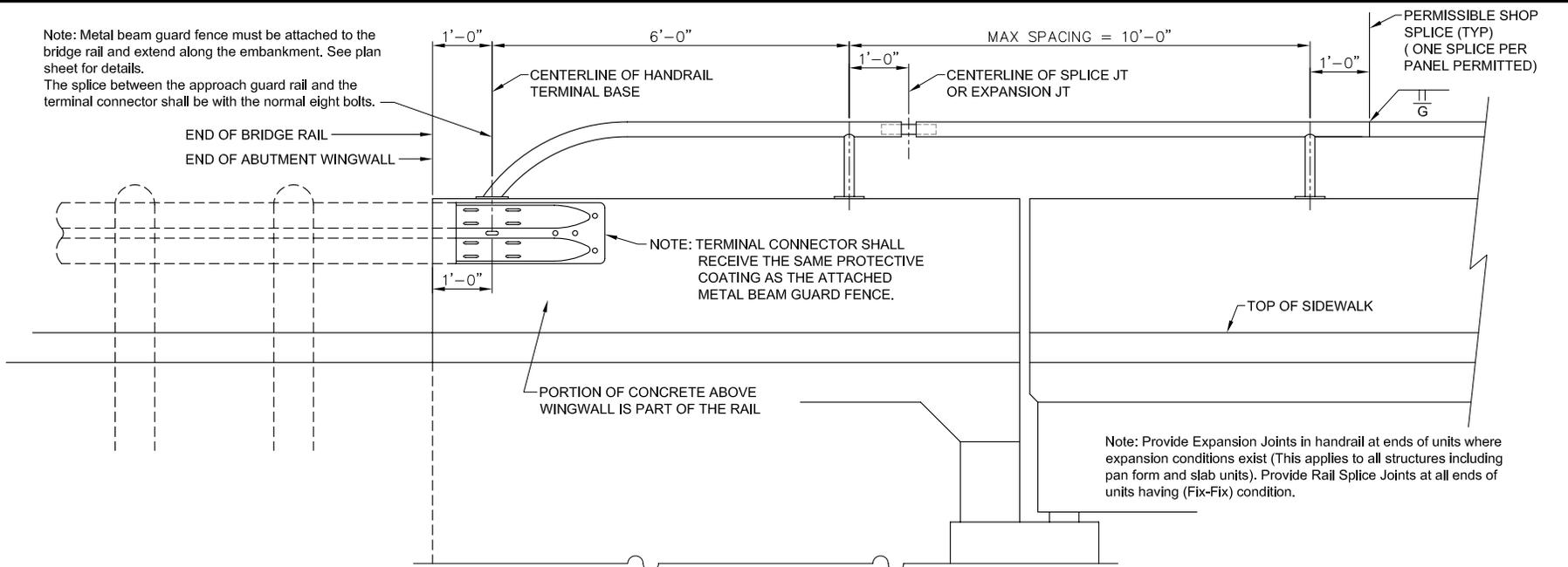
CULVERT RAILS

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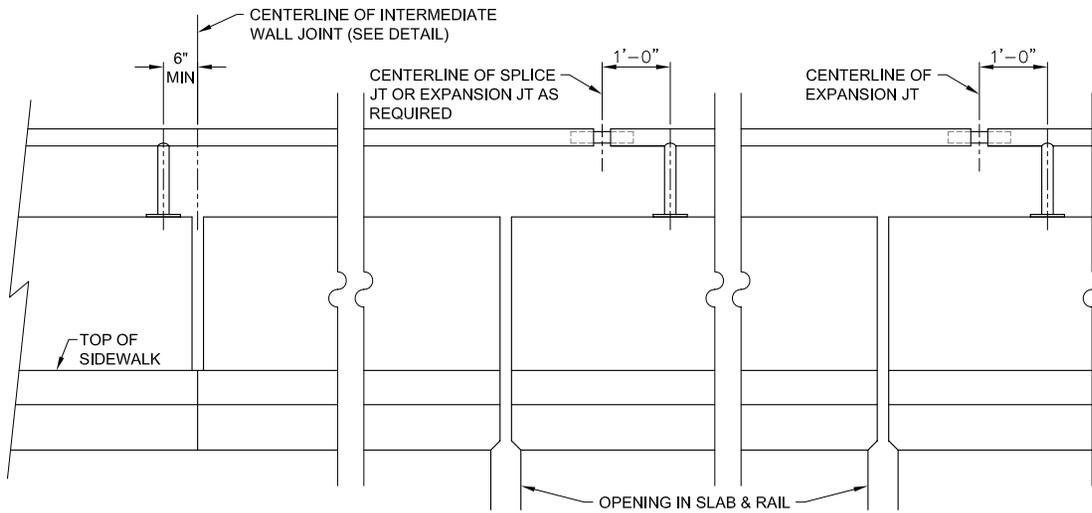
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Note: Metal beam guard fence must be attached to the bridge rail and extend along the embankment. See plan sheet for details.
The splice between the approach guard rail and the terminal connector shall be with the normal eight bolts.



AT ABUTMENT BENTS



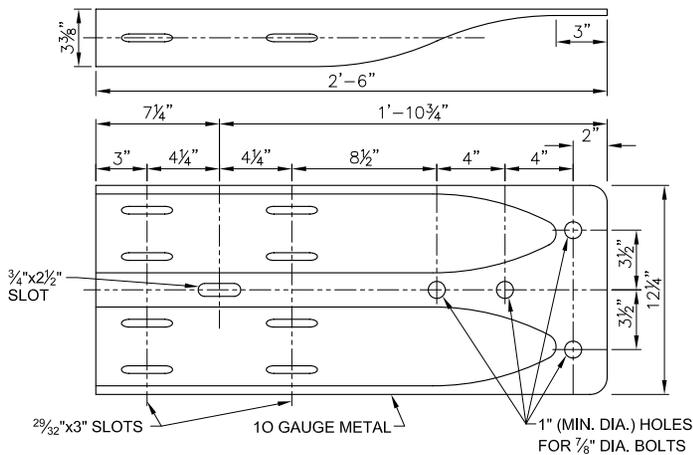
AT SLAB CONST. JTS.

AT ENDS OF UNITS

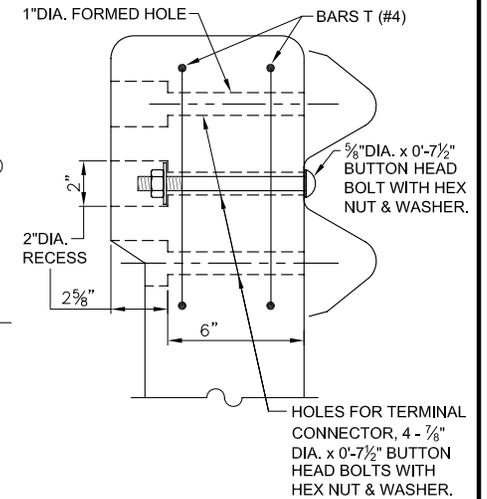
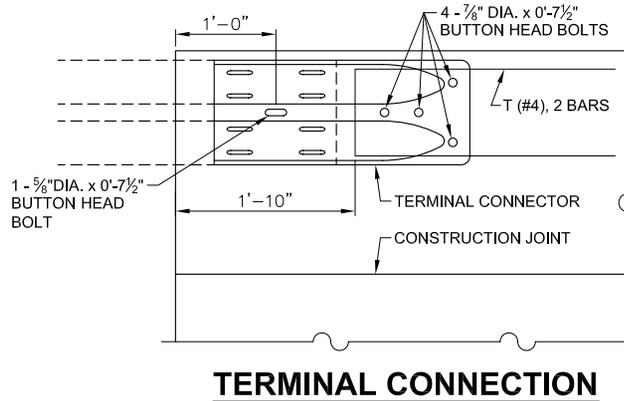
AT FINGER JTS.

ROADWAY ELEVATION OF RAIL

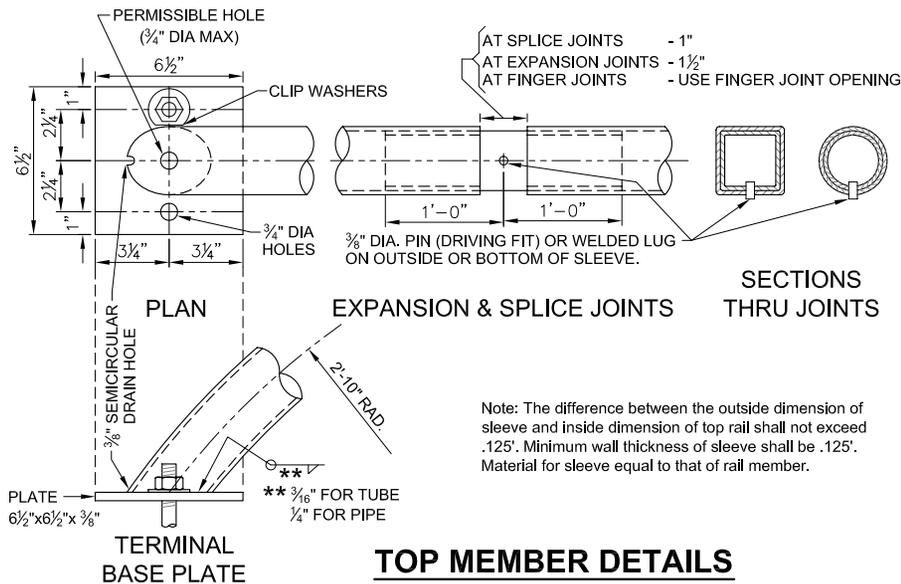
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TERMINAL CONNECTOR

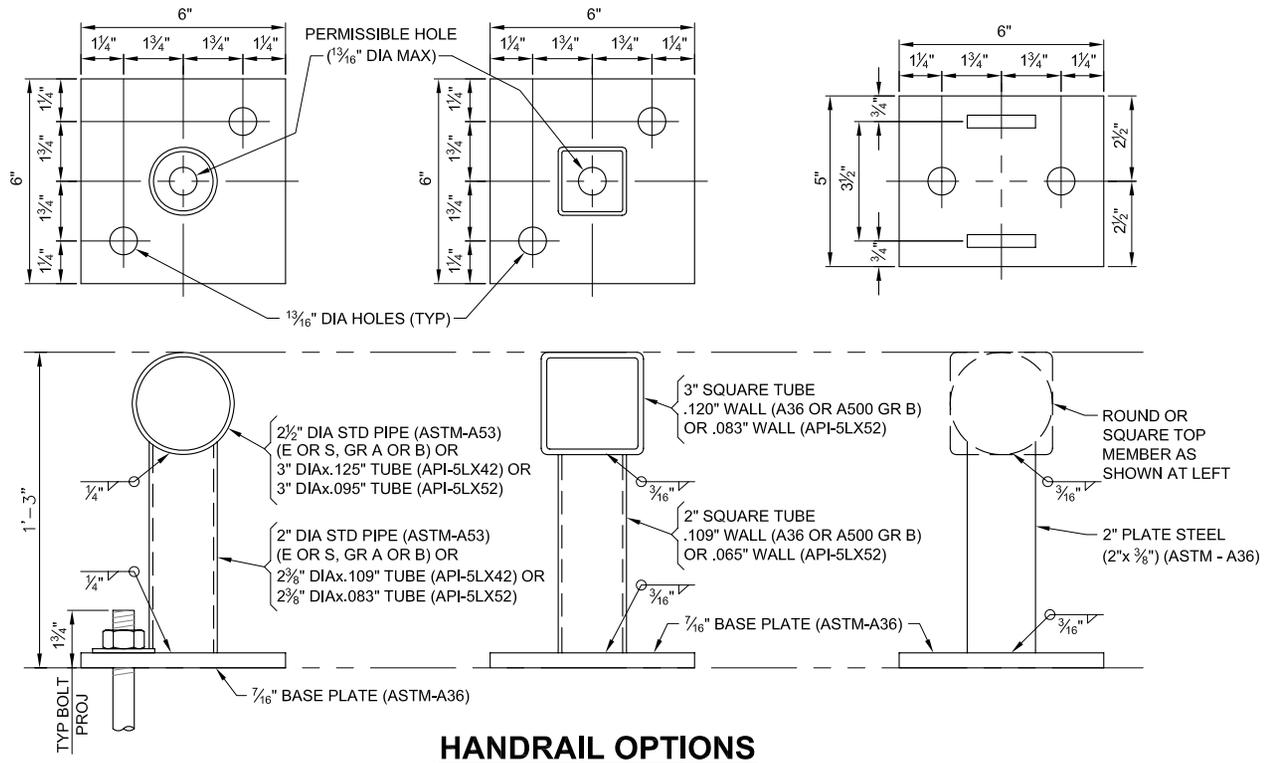


TYPICAL BEAM TO WALL CONNECTION



Note: Parallel or Flared Wingwalls shall be constructed in conformance with standard details of the State Department of Highways and Public Transportation. Details for raising height of Wingwalls should be included in the Plans, Also flared wingwalls must be adjusted for 3:1 channel slopes.

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GENERAL NOTES:

Designed in accordance with AASHTO 1977 Standard and current Interim Specifications.

All parapet concrete and reinforcing, including that embedded in the slab or wingwalls, the terminal connector and the connection to the deep beam guard rail are considered part of Type C201 Railing.

Concrete for railing wall shall be Class C. Chamfer all exposed corners 3/4" unless otherwise shown.

All steel connecting bolts and fasteners for aluminum or steel railing and all anchor bolts, nuts and washers shall be galvanized after fabrication.

Whichever of the various handrail options is selected for use shall be used throughout the entire project.

Handrail sections shall be made continuous over not less than two posts nor more than four (except at Abutments)

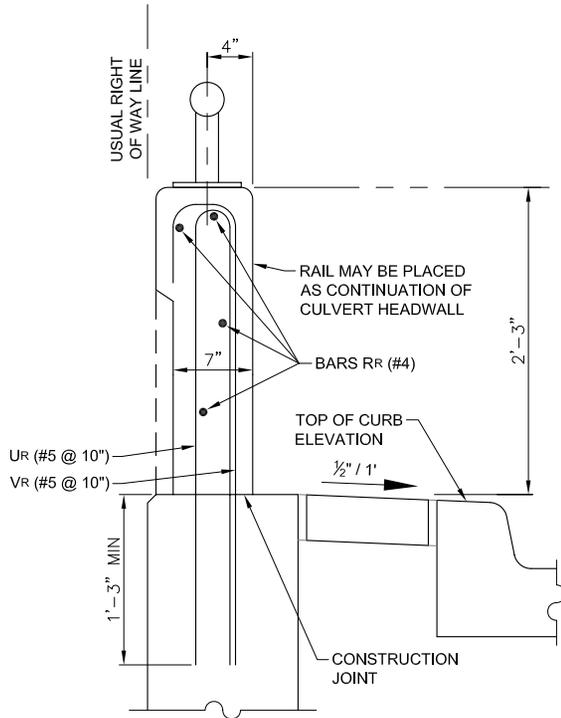
- Non Aluminum Railing Required -

◆ Loss of one half the tolerance provided between bolts and holes, or between splice sleeves and rail members has been allowed in determining these controls.

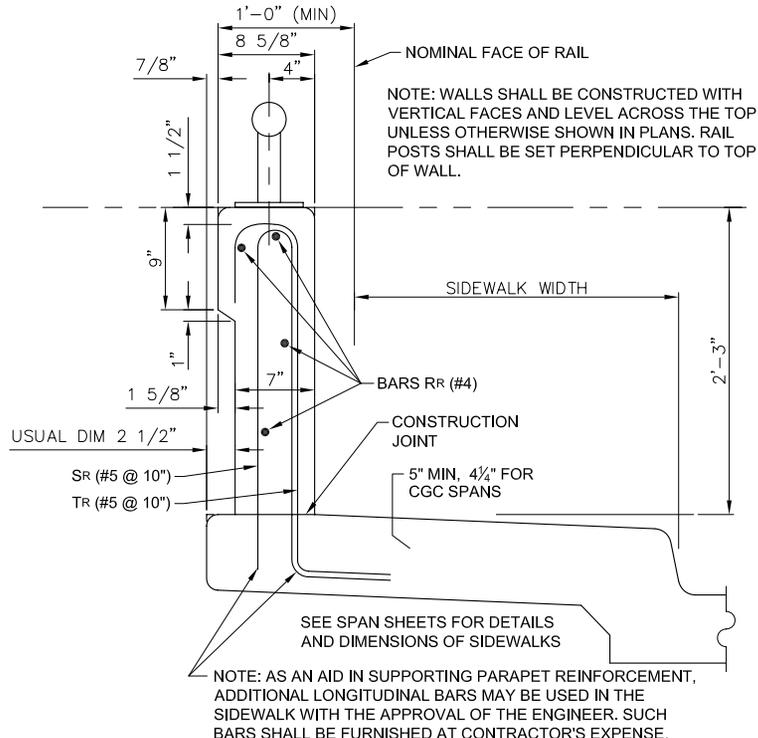
◆ RAILS ON HORIZONTAL CURVES

	Radius to Face of Rail	Max. Chord Length	Construction or Fabrication
Railing Wall	Over 3200'	33'-0"	Construct wall to the required radius or in chords shown
	Over 2000' - 3200'	20'-0"	
	Over 300' - 2000'	10'-0"	
	Thru 300'	0	Construct wall to the required radius
Handrail ◆	Over 2800'	29'-0"	Furnish in straight rail panels
	Over 1400' - 2800'	14'-6"	Bend chord sections or fabricate to the required radius
	Over 700' - 1400'	7'-3"	
	Thru 700'	0	Fabricate to the required radius

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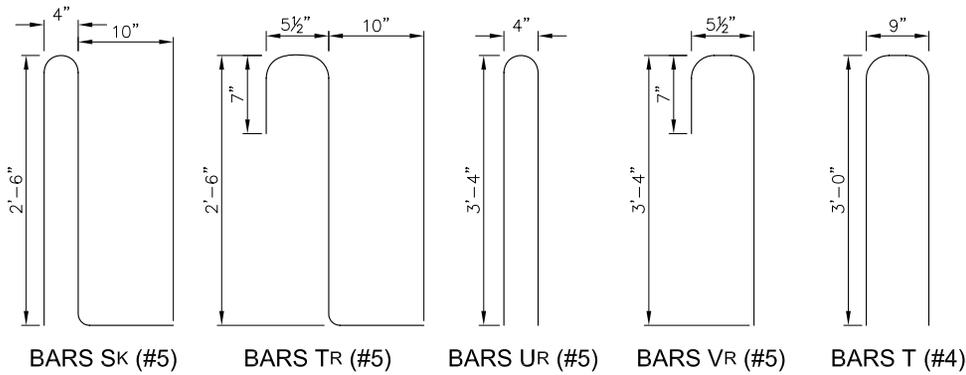


SEC. THRU RAIL ON ABUT. WING
OR CULVERT HEADWALL



SEC. THRU BRIDGE SIDEWALK

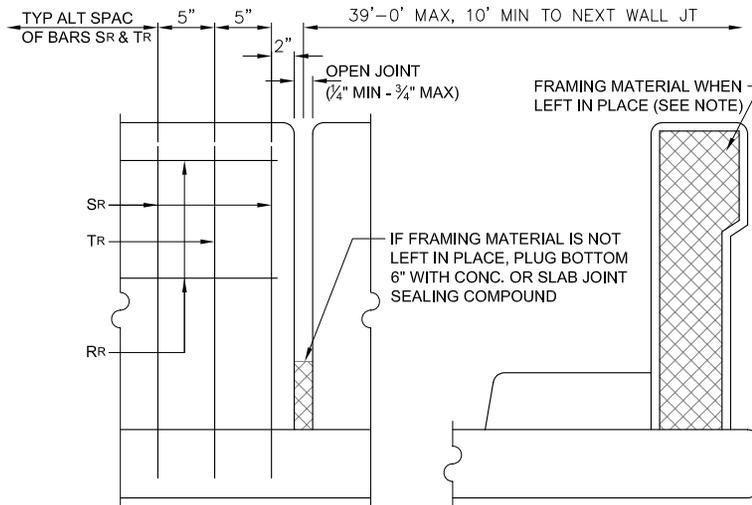
SECTIONS THRU RAIL



BARS SK (#5) BARS TR (#5) BARS UR (#5) BARS VR (#5) BARS T (#4)

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THIS STANDARD CONSTRUCTION DETAIL IS INCLUDED FOR INFORMATION PURPOSES ONLY. REVISIONS BY OTHERS MAY OCCUR.



Note: Provide intermediate wall joints over all slab construction joints, over interior supports on continuous units, and at equal intervals inbetween as necessary to maintain a 33' max. length of unbroken wall.

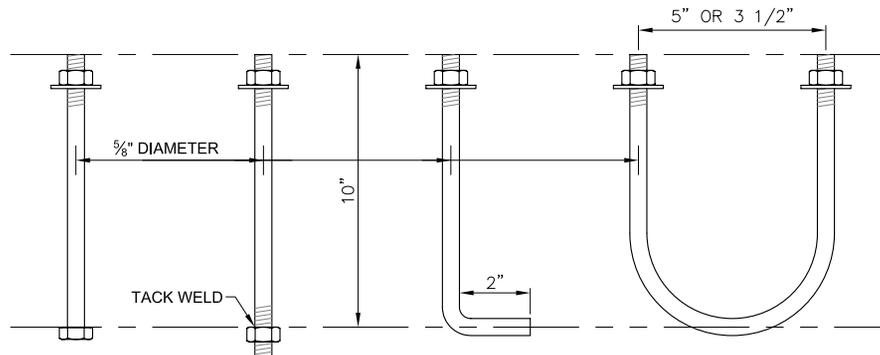
Material used in forming joint may be left in place if it is compressible and light in color such as the following materials: polystyrene, molded cork granules, sponge rubber sheet, etc.

INTERMEDIATE WALL JOINT

APPROX. P.L.F. QUANTITIES *		
CONCRETE	C.Y.	0.053
REINF. STEEL	LB.	13.89

* Note: P.L.F. Quantities shown are for concrete and reinforcing steel in railing wall above main slab, including portions of steel bars anchored in slab. These quantities are for Contractor's information only.

State Department of Highways and Public Transportation
combination Rail Type C201 Standard Detail.



ANCHOR BOLT OPTIONS FOR HANDRAIL

Threaded rods may be .557" minimum diameter with rolled threads.

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