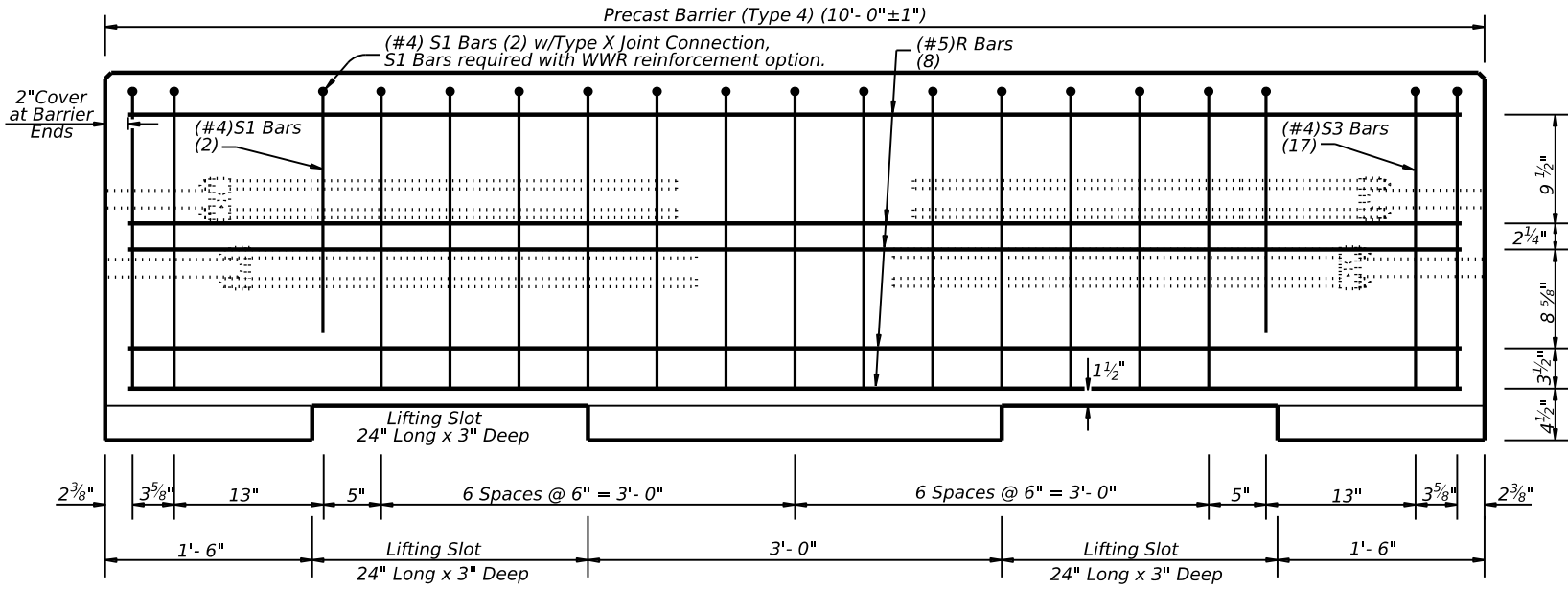
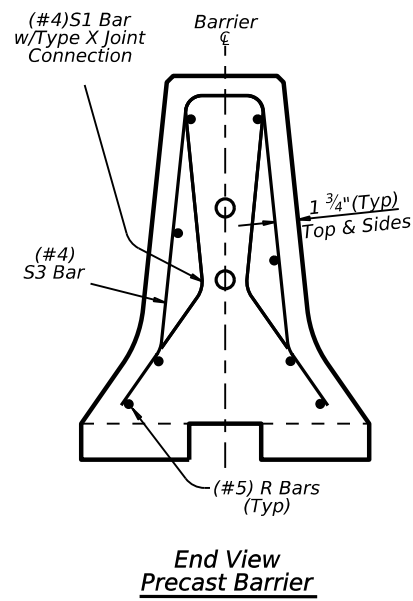
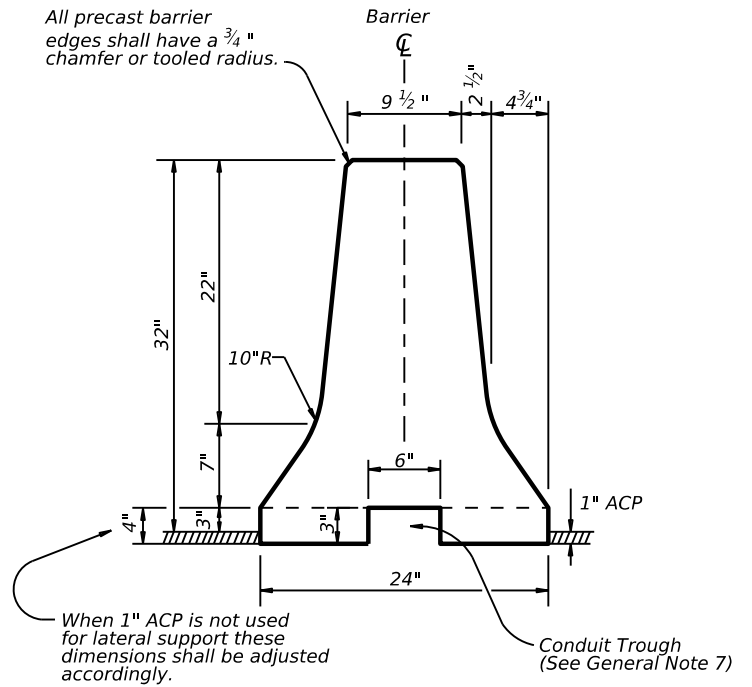


DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



**Reinforcement for (10 ft) Precast Concrete Safety Barrier (Type 4)**



**Concrete Safety Barrier**

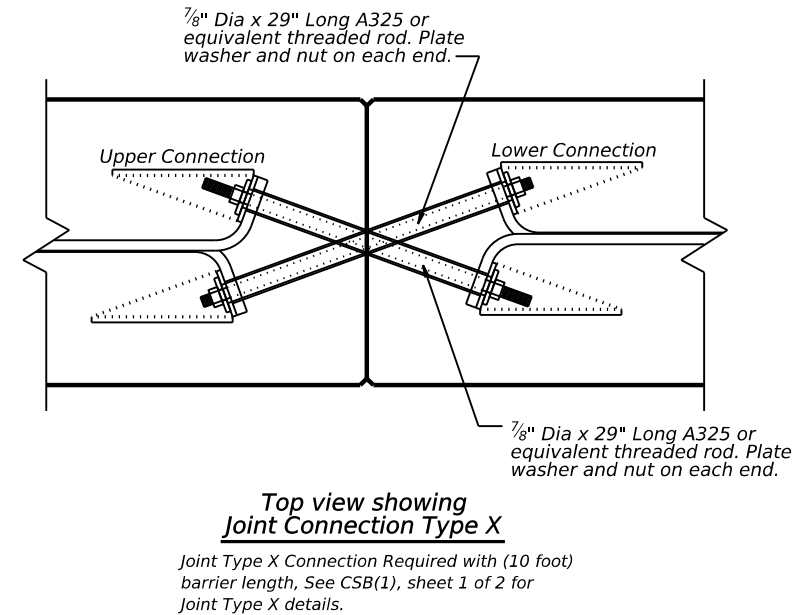
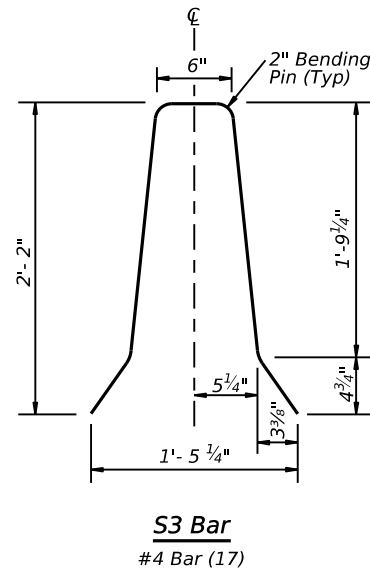
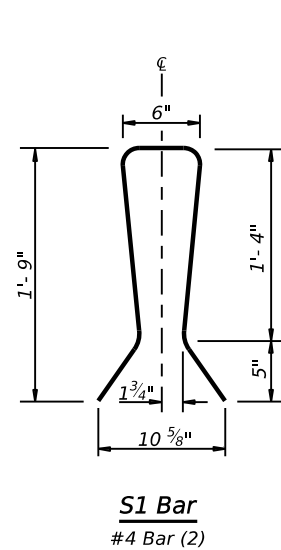
**General Notes**

- The 10 foot barrier is intended for maintenance applications of short duration periods. The 10 foot barrier is limited to use in temporary work zone conditions not to exceed 2 calendar months, unless approved in writing by the TxDOT engineer, noting the duration and location of the barrier placement in the written approval.
- 30 ft. (Type 1) barrier and 10 ft. (Type 4) barrier sections shall not be mixed in a single run of barrier.
- Barrier lengths other than 10 ft. for (Type 4) barrier are not allowed.
- Concrete shall be Class H, with a minimum compressive strength of 3,600 psi.
- Where used, rebar reinforcement shall be Grade 60 and conform to ASTM A615.
- Only the Type X joint connection system is to be used with Type 4 barrier and is considered subsidiary. See CSB(1), Sheet 1 of 2, for (Type X) connection details.
- Conduit trough may be omitted, as shown elsewhere or as directed by the Engineer.

Schedule of reinforcement for each 10 foot precast section.

BAR	SIZE	QUANTITY
S1	#4	2
R3	#4	17
R	#5	8

Note: Two S1 Bars are required with the use of WWR reinforcement option. The S1 Bars may need a slight modification to fit within the WWR cage, as directed by the Engineer.



Approximate Per L.F. Quantities		
		Precast
Concrete	CY.	0.108
Rebar	LB.	14.8

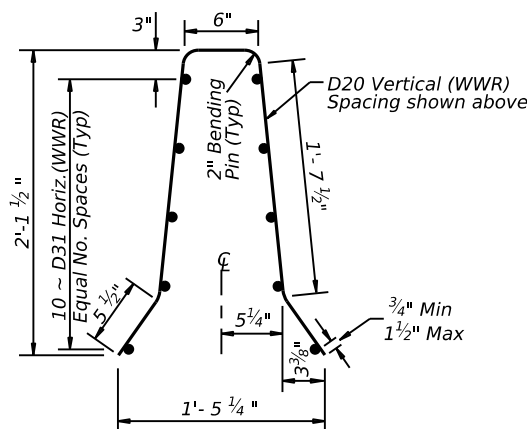
For Contractor's information only  
Weight of one Precast 10 ft. unit = Approx. 2 Tons

NOTE:  
USAGE OF THE 10 FT (TYPE 4) CSB BARRIER REQUIRES A MINIMUM OF 100 LINEAR FEET.  
SHORTER LENGTHS THAN THESE SHOULD BE DISCUSSED WITH THE DESIGN DIVISION.

**Welded Wire Reinforcement (WWR) Option for Bars R and S3**

(WWR) General Notes

- Deformed Welded Wire Reinforcement (WWR) shall conform to ASTM A497.
- Welded wire cage may be cut or bent to accommodate the Type X joint connection and drainage slots, as directed by the Engineer.
- All reinforcement shall comply with Item 440, "Reinforcing Steel."
- Combinations of reinforcing steel and WWR will be permitted, as directed by the Engineer. The dimension from the end of the barrier section to the first wire shall not exceed 3".



DATE:  
FILE:

		<b>Design Division Standard</b>	
<b>CONCRETE SAFETY BARRIER (F-SHAPE) PRECAST BARRIER (TYPE 4) (10 FOOT, BARRIER SEGMENT) CSB(8) - 10</b>			
FILE:	csb810.dgn	DN:	TxDOT
© TxDOT	December 2010	CK:	AM
REVISIONS		DW:	BD
		CK:	
		CON:	SECT:
		JOB:	HIGHWAY:
		DIST:	COUNTY:
			SHEET NO.: