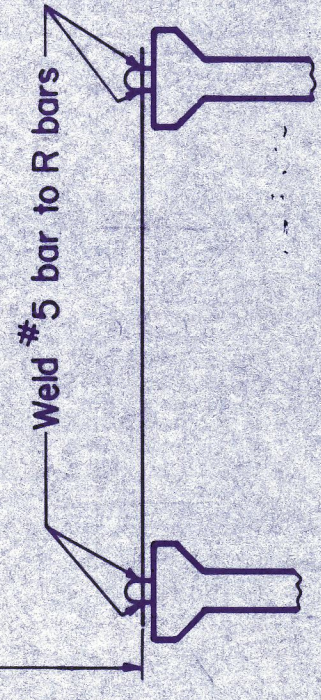
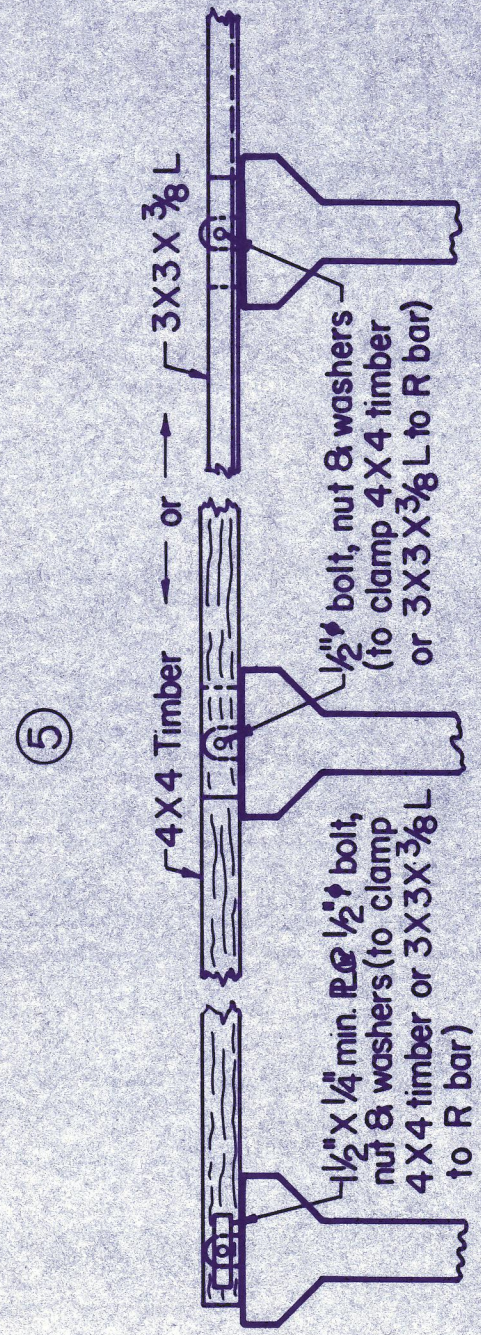


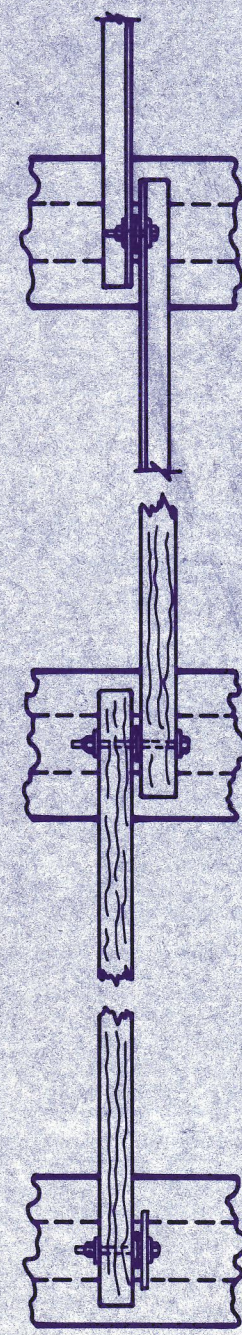
Place # 5 bar in plane of bottom slab reinforcement.



PERMANENT TOP BRACING

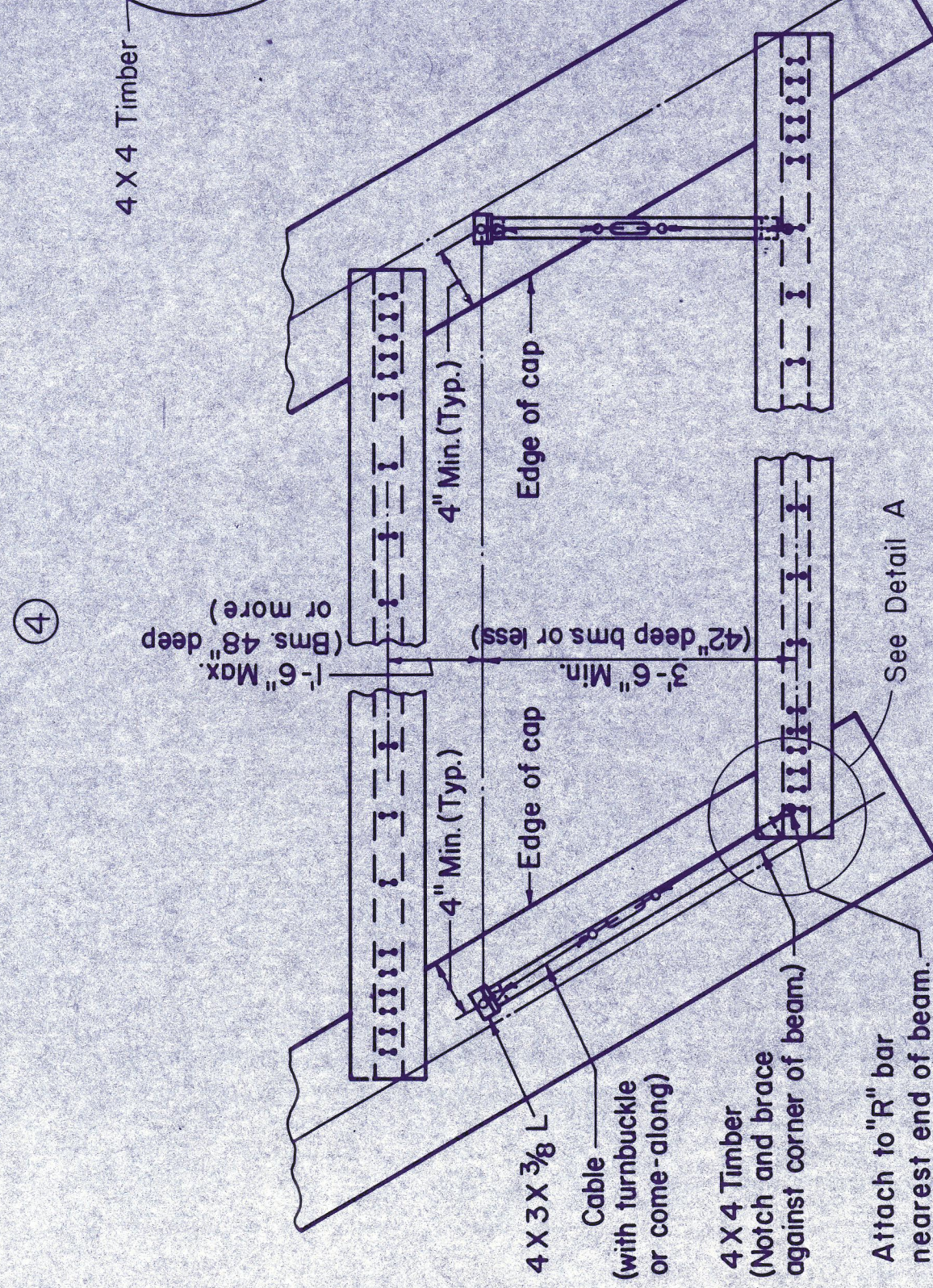


ELEVATION



PLAN

TEMPORARY TOP BRACING



PLAN

Wood blocking as req'd. to prevent breaking of beam edge.
R Bar

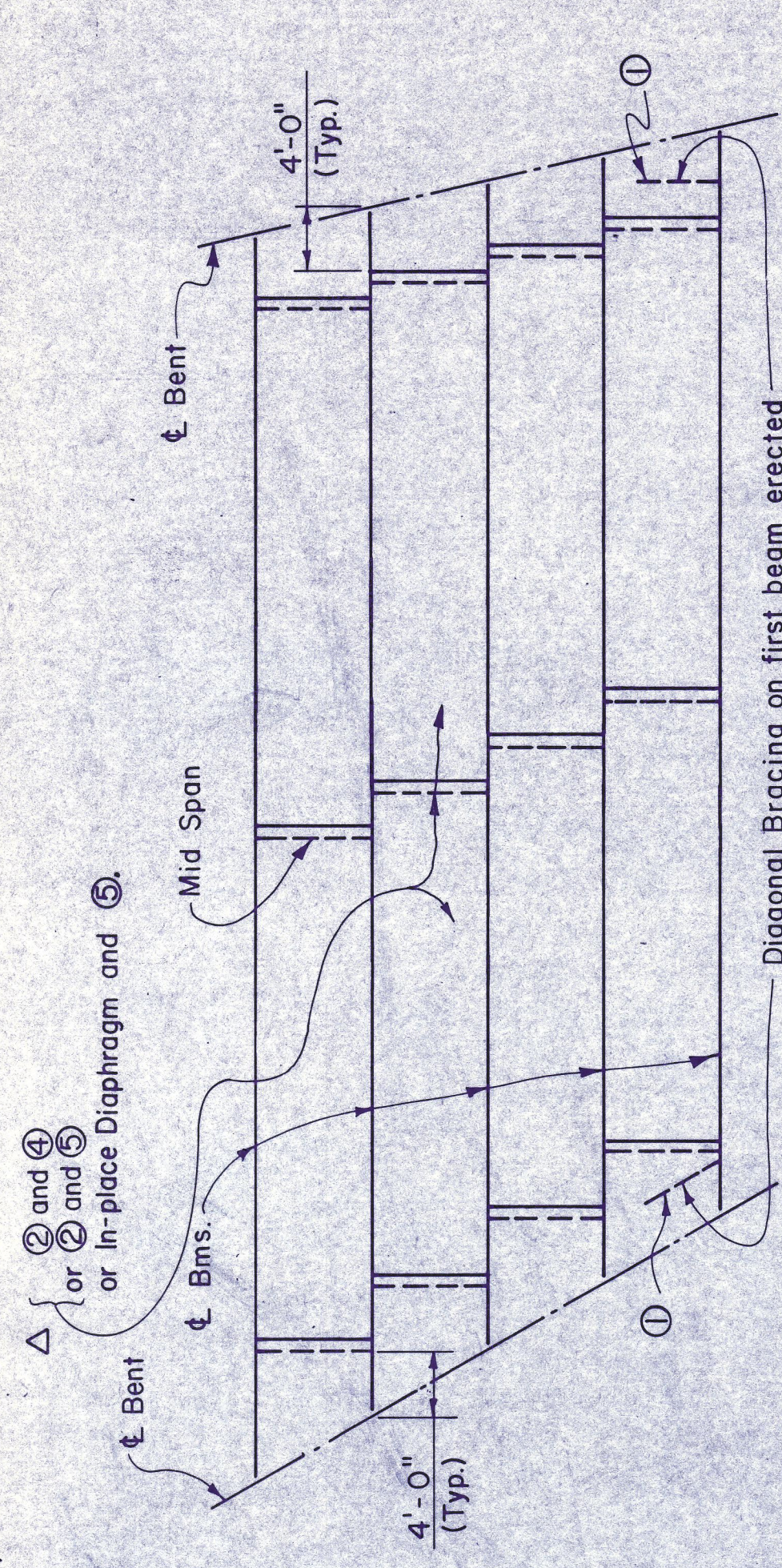
1/4" (Min.) cable through 42" height.
3/8" (Min.) cable over 42" height.
(Min. breaking strength of cable = 1/4" - 5 Kips, 3/8" - 10 Kips)

4x4 Timber (Min.)
Cable Clamps
4x3x3/8 L x 0'-6" with eye welded to 4" leg for cable.
3/4" Bolt (Min.)
Cast-in-place structural insert.

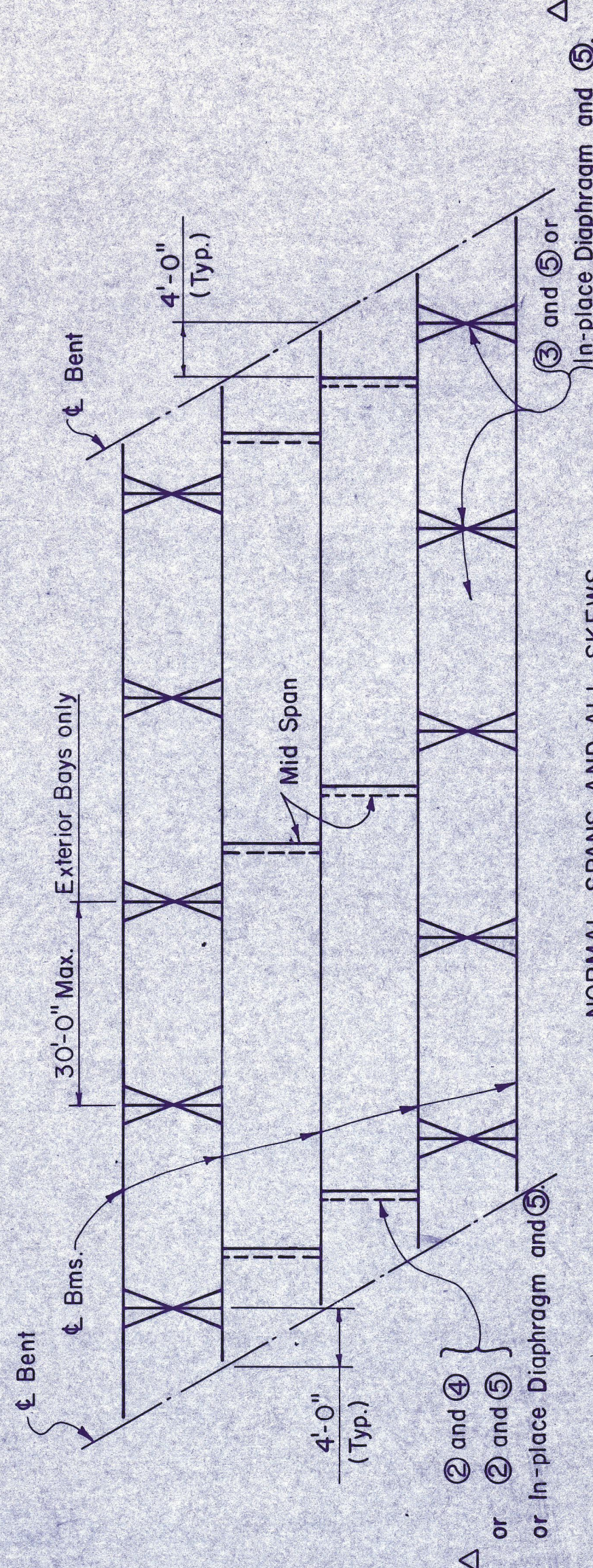
END VIEW

DIAGONAL BRACING DETAILS

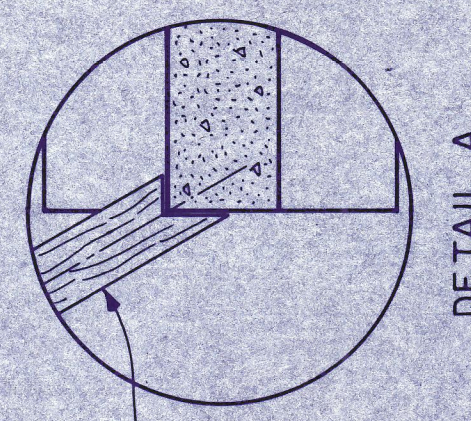
(To be used on both ends of the first beam erected in the span.)



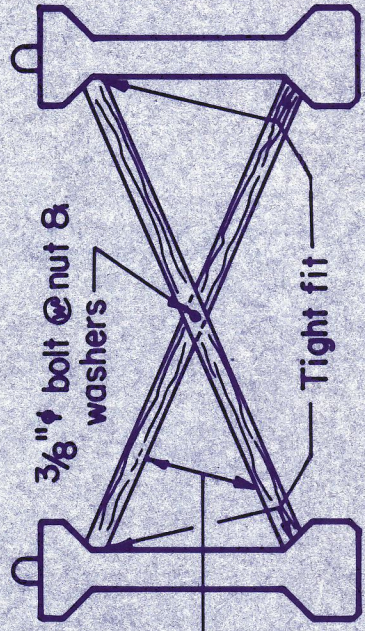
ERECTION BRACING



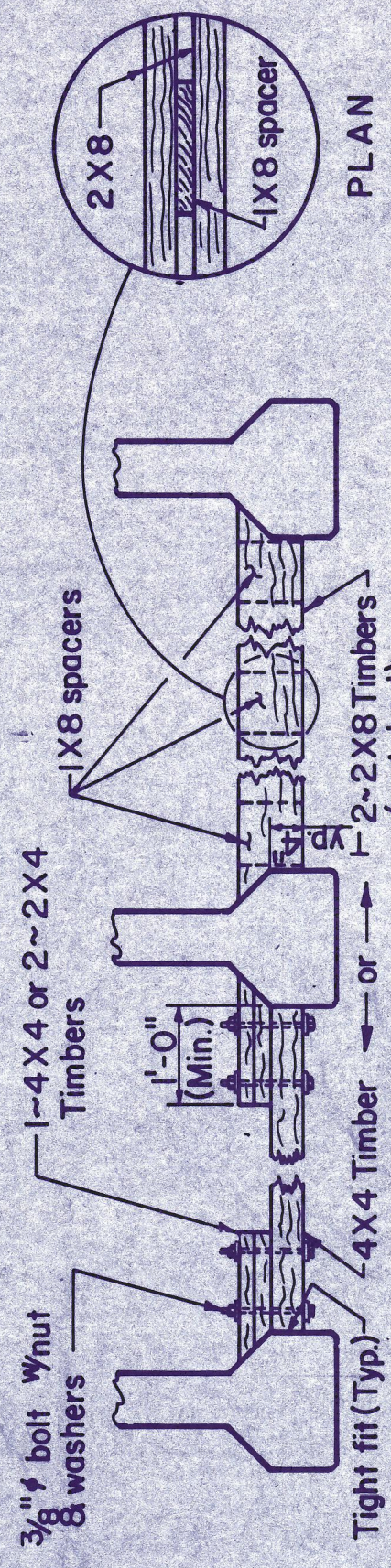
SLAB PLACEMENT BRACING



DETAIL A



"X" BRACING



ELEVATION

BOTTOM FLANGE BRACING DETAILS

GENERAL NOTES:
ERECTION BRACING

Erection bracing details are considered minimum for fulfilling the requirements of Specification Item 425 (Article 425.5), and Special Provisions thereto, for bracing Types A, B, C, III, IV, and V prestressed concrete beams erected in the span over a traveled way or railroad, and in those spans generally parallel to a traveled way or railroad and within a distance equal to the difference in elevation between the top of cap upon which the beams are being erected and the traveled way, or 30 feet, whichever is greater.

Required erection bracing shall be placed immediately after erection of each beam and remain in place until channel diaphragms are tightened and additional bracing as required for slab placement is in place.

The details for slab placement bracing are considered minimum for fulfilling the requirements of Specification Item 420, Article 420.9 (4) and special provisions thereto.

Required slab placement bracing shall remain in place until the slab concrete has attained a flexural strength of 500 p.s.i.

Bracing details for closely spaced beams (as on ramps or railroad structures) are not included herein. The Contractor shall submit his proposed bracing details for such conditions to the Engineer for approval prior to erection.

Systems equal to or better than those shown may be used provided details of such systems are submitted to and approved by the Engineer prior to erection.

Use of these systems and/or details does not relieve the Contractor of the responsibility for the adequacy of the bracing and the safety of the structure.

Removal of bracing for short periods of time to align beams is permissible.

Bottom flange bracing at beam ends may be omitted when all beams are fixed with dowel bars or when erection is on steel caps or floor beams containing bearing seats which restrict lateral movement.

All turn-buckles, come-alongs and other connections shall be capable of developing the full strength of the cable shown hereon.

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STANDARD DRAWING PCB-ME8R(1)
12-80

LEGEND

- △ Indicates Diagonal Bracing ①
- || Indicates Bottom Bracing ② with either Temporary Top Bracing ④ or Permanent Top Bracing ⑤, or an In-Place Diaphragm with Permanent Top Bracing ⑤.
- ✕ Indicates "X" Bracing ③ and Permanent Top Bracing ⑤ or an In-Place Diaphragm with Permanent Top Bracing ⑤.

NO.	General Revisions	REVISION	BY	DATE
			JFH	3-5-83
TEXAS TURNPIKE AUTHORITY DALLAS NORTH TOLLWAY PRESTRESSED CONCRETE BEAMS MINIMUM ERECTION AND BRACING REQUIREMENTS—TYPES C & IV BEAMS				
HNTB HOWARD NEEDLES TAMMEN & BERGENCOFF			SECTION VII	
DRAWN	THD	DATE	DESIGNED	THD
CHECKED	GZH	DATE	SCALE	DATE
		3-12-83		12-80
STANDARD DRAWING NO. 25				