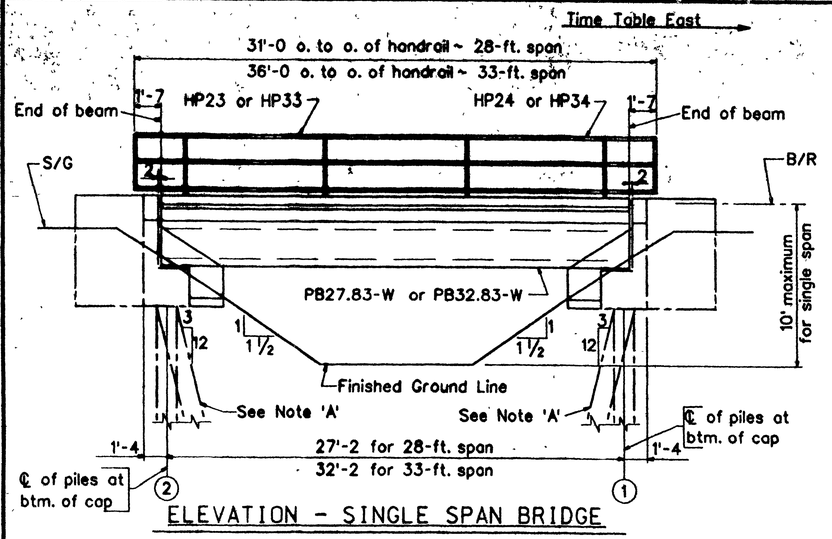
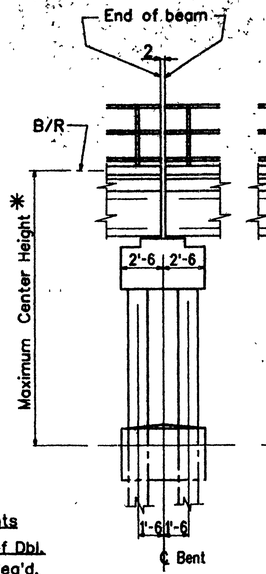


ELEVATION - SINGLE SPAN BRIDGE

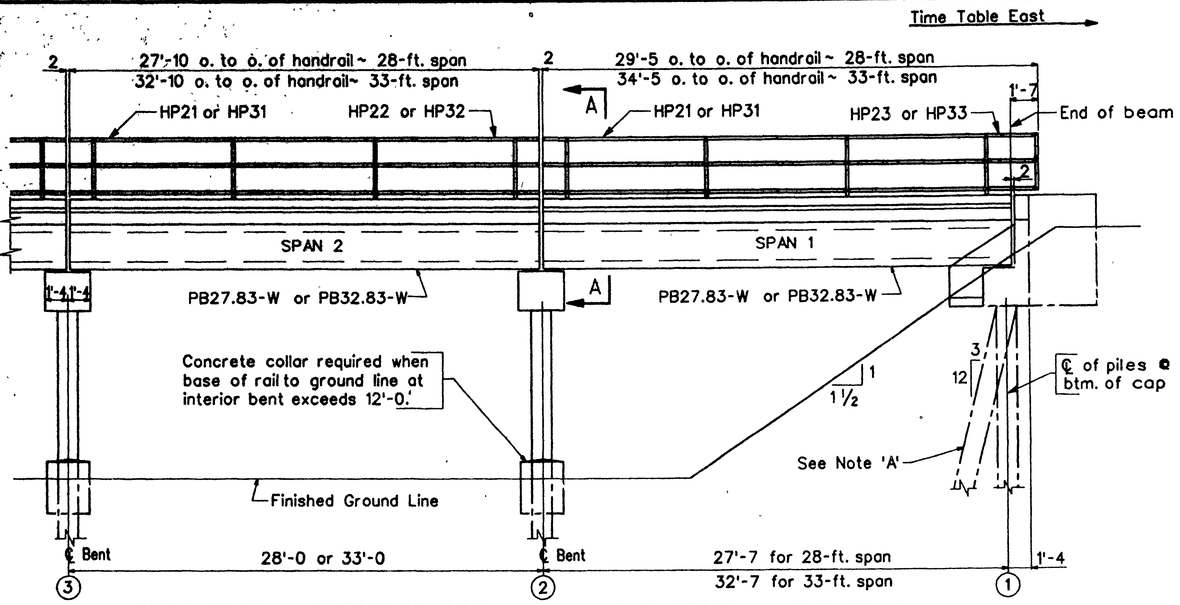
Where walk and handrail are not required, substitute PB27.83-C for PB27.83-W and PB32.83-C for PB32.83-W. See 'Typical Half Sections A-A.'



ELEVATION DOUBLE BENT

Double Bent Requirements

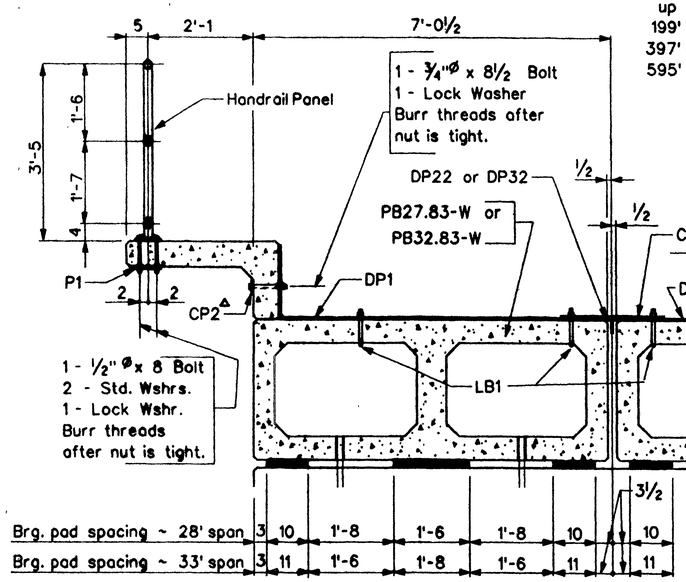
Lin. Ft. of Bridge	Min. No of Dbl. Bents Req'd.
up to 198'	None
199' to 396'	One
397' to 594'	Two
595' to 792'	Three



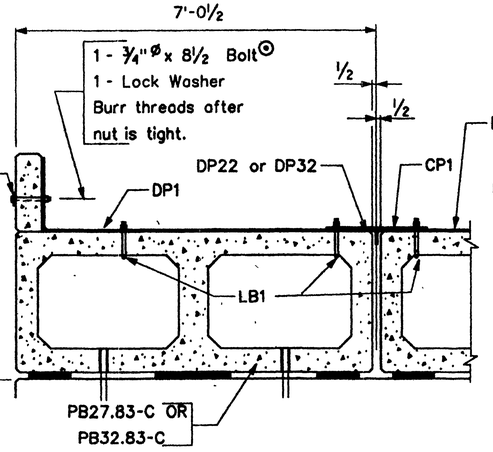
ELEVATION - INTERIOR SPAN

ELEVATION - END SPAN

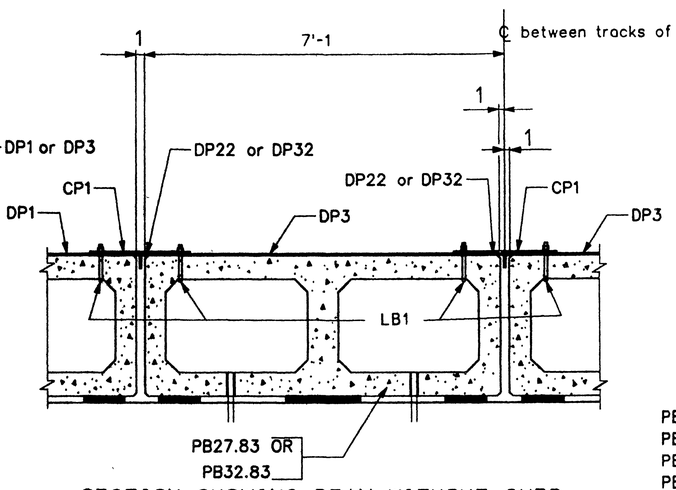
Where walk and handrail are not required, substitute PB27.83-C for PB27.83-W and PB32.83-C for PB32.83-W. See 'Typical Half Sections A-A.'



SECTION SHOWING BEAM WITH CURB & WALK



SECTION SHOWING BEAM WITH CURB



SECTION SHOWING BEAM WITHOUT CURB

AS BUILT DRAWINGS

LIFTING WEIGHTS

PB32.83-W	=	27.83 TONS
PB32.83-C	=	24.66 TONS
PB32.83	=	22.82 TONS
PB27.83-W	=	23.59 TONS
PB27.83-C	=	20.90 TONS
PB27.83	=	19.34 TONS

TYPICAL HALF SECTIONS A-A

Notes:

After erection of beams, burn off lifting loops one inch below surface of concrete and patch resulting recesses with epoxy mortar.

Two span bridge consists of two end spans.

△ At end bents, substitute Curb Angle CA2 for Curb Plate CP2. See 'Bearing Details' on Sheet 2.

⊙ For Type IV, V and VI Beam Arrangements, a ¾"ø x 16½ bolt shall be substituted to retain Deck Plates DP1 tight against curbs located between tracks of a double track bridge, and CP2 or CA2 shall be omitted.

Note 'A':

When necessary to clear an existing pile, piles battered in the direction of the track may also be battered slightly in the direction normal to the track.

(*) 17'-0 for two spans
21'-0 for three spans
30'-0 for four spans
40'-0 for five or more spans

See Sheet 32 for those drawings required for each individual project.
Sheets 5, 7, 8, 9, 11 and 13 thru 24 are not required for any 1994 Capital Projects.

LIST OF DRAWINGS

SHEET NO.	TITLE
1	GENERAL PLAN
2	MISCELLANEOUS DETAILS
3 thru 9	METAL SHELL PILE BENTS
10 thru 24	STEEL BEARING PILE BENTS
25	METAL SHELL PILE BENT DETAILS
26	STEEL BEARING PILE BENT DETAILS
27 & 28	PRECAST CONCRETE MEMBERS
29 & 30	STEEL DETAILS
31	REINFORCING STEEL DETAILS & GENERAL NOTES
32 thru 35	BILL OF MATERIAL

B.E.S. 2944-A
MONROE STREET AT A.T. & S.F.
The A.T. & S.F. Railway Company
28-FT. & 33-FT. PRESTRESSED CONCRETE SPANS
PRECAST CONCRETE CAPS ON STEEL PILES
GENERAL PLAN R-3594

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Chk'd. By:		Sheet 1 of 35 Drawings
Ex'd. By:		

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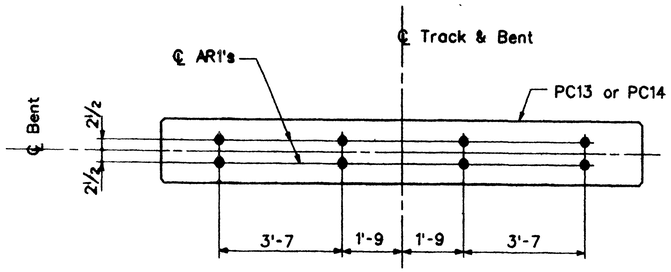
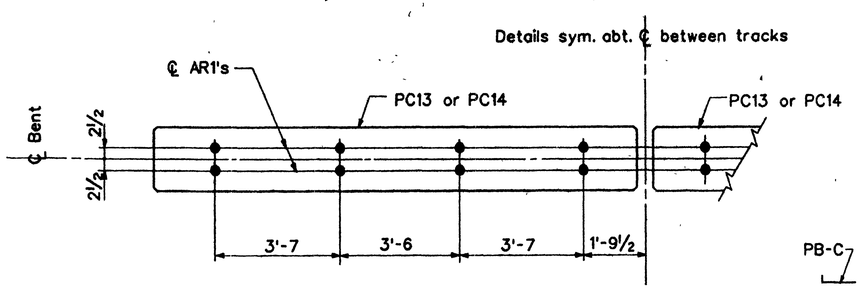


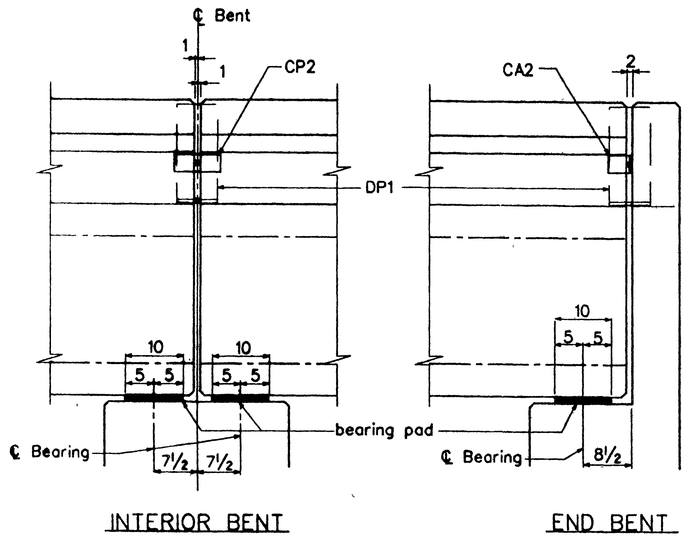
SINGLE TRACK BRIDGE



DOUBLE TRACK BRIDGE

ANCHOR ROD LOCATION PLANS

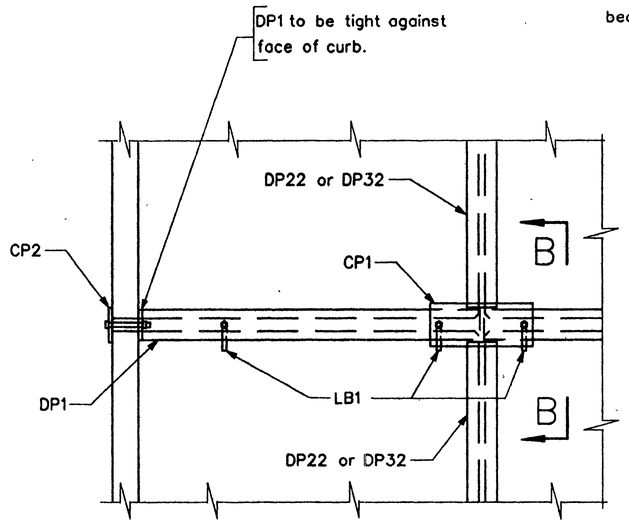
Note: Anchor rods AR1 must be placed within 1/4" of plan location or beams will not fit.



INTERIOR BENT END BENT

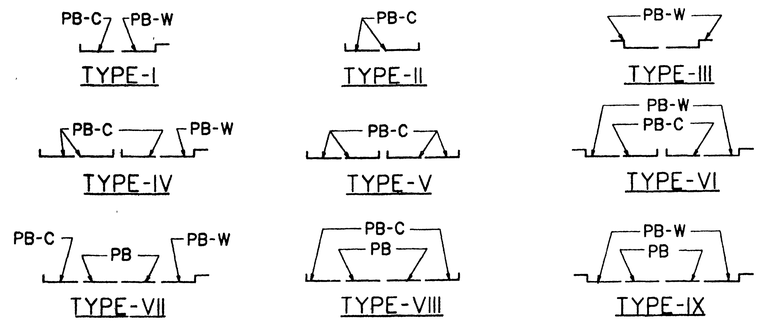
BEARING DETAILS

Note: Handrails not shown.



TYP. PLACEMENT OF DECK PLATES

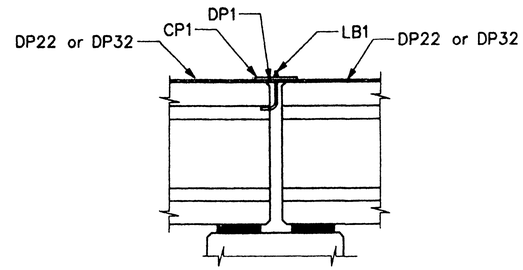
Assemble complete transverse line of deck plates by placing CP1's and LB1's. Turn leg of LB1's to permit placement between beams or between beam and parapet wall and then turn LB1's as shown and tighten nut. Burn off projecting portion of bolt after nut is tight.



BEAM ARRANGEMENT DIAGRAMS

PB denotes beam without curb or walk. PB-C denotes beam with curb only. PB-W denotes beam with curb and walk.

AS BUILT DRAWINGS



SECTION B-B

B.E.S. 2944-A
MONROE STREET AT A.T. & S.F.
The A.T. & S.F. Railway Company
28-FT. & 33-FT. PRESTRESSED CONCRETE SPANS
PRECAST CONCRETE CAPS ON STEEL PILES
MISCELLANEOUS DETAILS R-3594

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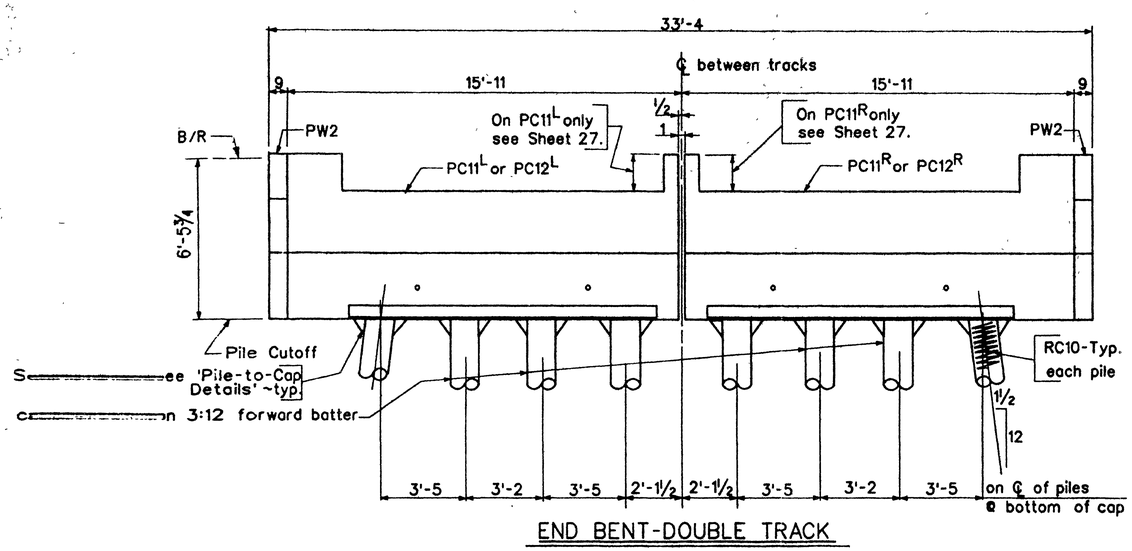
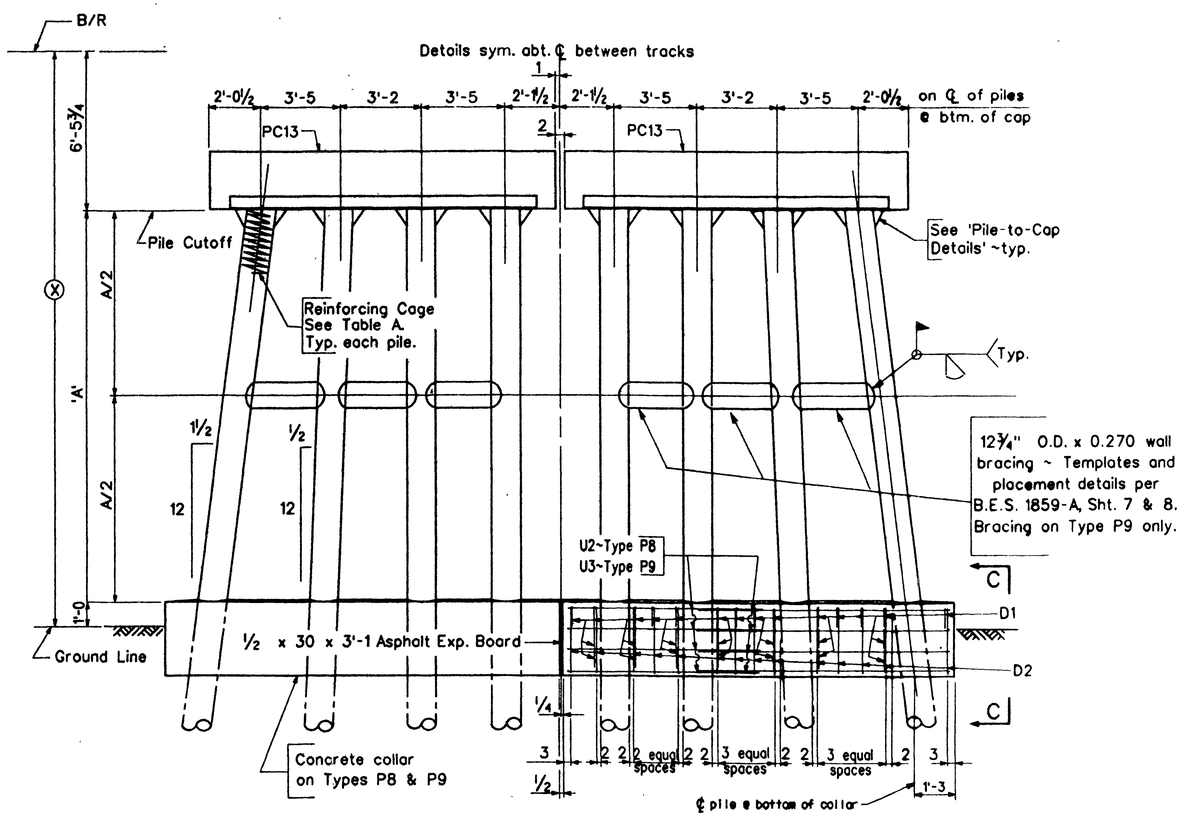


END BENT-DOUBLE TRACK



SINGLE BENT-DOUBLE TRACK

TYPE P7-'X' UP TO 12'-0 (No Collar or Bracing)
TYPE P8-'X' = 12'-1 TO 20'-0 (Collar, no Bracing)
TYPE P9-'X' = 20'-1 TO 30'-0 (Collar and Bracing)

AS BUILT DRAWINGS

TABLE A	
Reinf. Cage	'X'
RC10	up to 12'-0
RC11	12'-1 to 17'-0
RC12	17'-1 to 22'-0
RC13	22'-1 to 27'-0
RC14	27'-1 to 30'-0

REINFORCING STEEL REQUIRED PER CONCRETE COLLAR		
BENT TYPE		REINFORCING STEEL MARK
P8	P9	
56	56	D1
28	28	D2
16	-	U2
-	16	U3

ESTIMATED QUANTITIES PER COLLAR	
BENT TYPE	REINFORCING STEEL (LBS.)
P8	471
P9	492

The following formula will give estimated quantities of concrete in the concrete collars in cubic yards.

Bents P8 & P9 $0.07 * "X" + 6.3$

where "X" is the distance from Base of Rail to Ground Line in feet.

Notes:

All piles are 14" O. D. x 0.250 wall metal shell piles, each containing a reinforcing cage centered in the pile and flush with top of pile. Each pile is to be filled with 3000 p.s.i. concrete.

Estimated quantity of 3000 p.s.i. concrete in metal shell piles: 0.0368 cu. yd. per lin. ft. of pile.

After precast concrete members are set, fill recesses at lift anchors with cement grout to top of surrounding concrete.

For 'Alternate Pile Splice Details,' 'Pile-to-Cap Details,' 'Wing Wall to End Cap Detail,' Head of Bank Details' and 'View C-C,' see Sheet 25.

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28-FT. & 33-FT. PRESTRESSED CONCRETE SPANS
PRECAST CONCRETE CAPS ON STEEL PILES
METAL SHELL PILE BENTS
R-3594

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Est'd. By:		

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