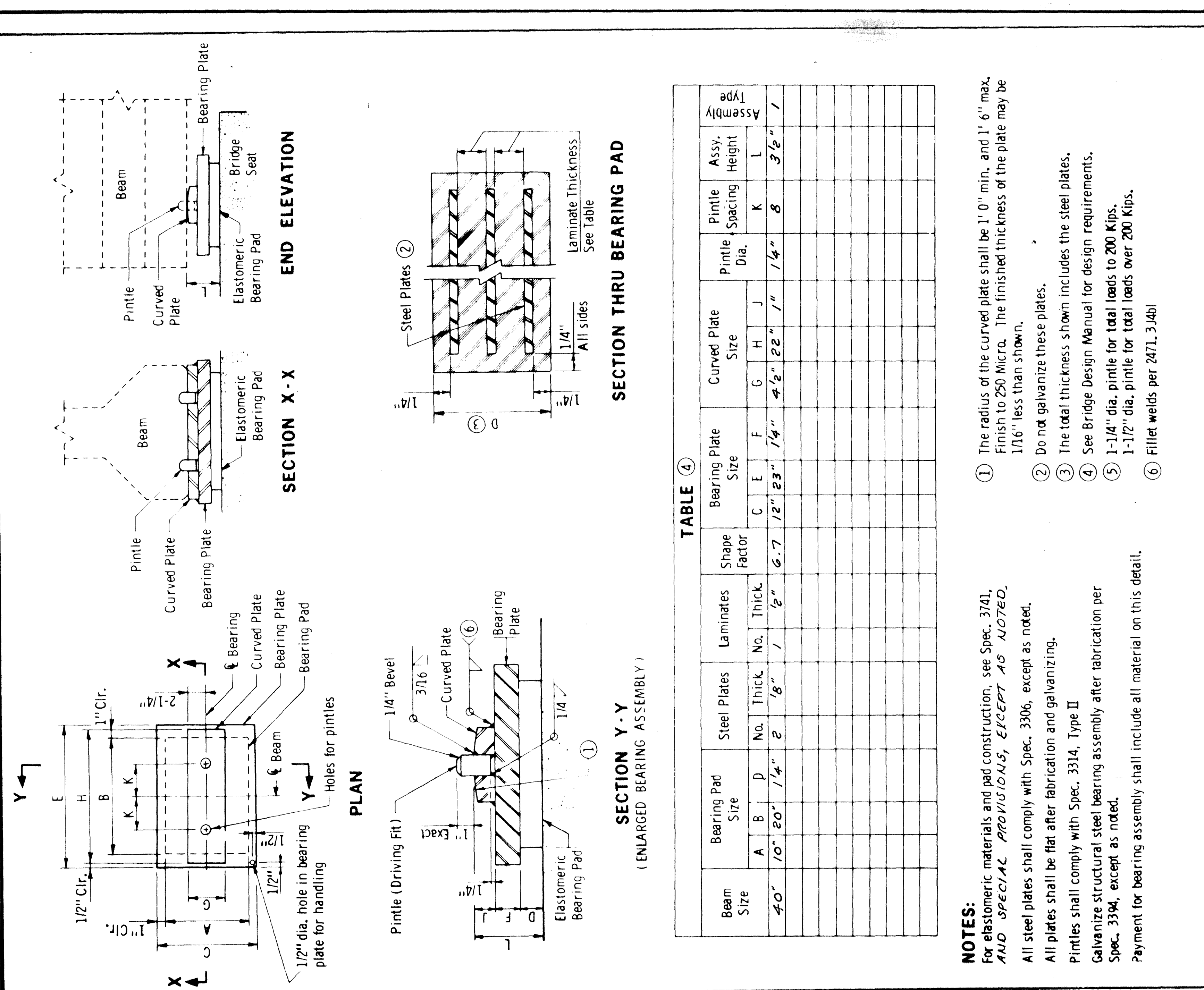


APPROVED: Oct. 20, 1976
 DEVELOPED BY: OFFICE OF ENGINEERING STANDARDS AND BRIDGE DESIGN
 ISSUED BY: OFFICE OF ENGINEERING STANDARDS

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
CONCRETE END DIAPHRAGM
(28" x 54" PRESTRESSED CONCRETE BEAM
SPAN WITH PILE BENT ABUTMENT)

REVISION: July 25, 1980
 DETAIL NO: **B810**



APPROVED: May 25, 1982
 DEVELOPED BY: ENGINEERING STANDARDS AND BRIDGE DESIGN OFFICES
 ISSUED BY: OFFICE OF ENGINEERING STANDARDS

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
CURVED PLATE BEARING ASSEMBLY
PRESTRESSED CONCRETE BEAMS
(EXPANSION)

REVISION: August 19, 1982
 August 19, 1982
 Jan. 27, 1984
 DETAIL NO: **B311**

TABLE ④

Beam Size	Bearing Pad Size		Steel Plates No. Thick	Laminates No. Thick	Shape Factor	Bearing Plate Size						Curved Plate Size	Pindle Dia.	Pindle Spacing	Assty. Height	Assembly Type
	A	B				C	E	F	G	H	J					
40"	10"	20"	2	1	6.7	12"	23"	14"	4 1/2"	22"	1"	1 1/4"	8	3 1/2"	1	

- NOTES:**
- The radius of the curved plate shall be 1'-0" min. and 1'-6" max. Finish to 250 Micro. The finished thickness of the plate may be 1/16" less than shown.
 - Do not galvanize these plates.
 - The total thickness shown includes the steel plates.
 - See Bridge Design Manual for design requirements.
 - 1-1/4" dia. pindle for total loads to 200 Kips.
1-1/2" dia. pindle for total loads over 200 Kips.
 - Fillet welds per 247I, 3.14b)
- For elastomeric materials and pad construction, see Spec. 374I, AND SPECIAL PROVISIONS, EXCEPT AS NOTED.
 All steel plates shall comply with Spec. 3306, except as noted.
 All plates shall be flat after fabrication and galvanizing.
 Pindles shall comply with Spec. 3314, Type II
 Galvanize structural steel bearing assembly after fabrication per Spec. 3394, except as noted.
 Payment for bearing assembly shall include all material on this detail.