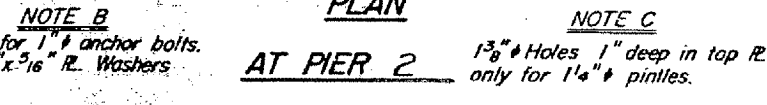
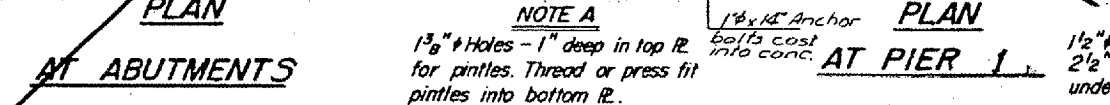
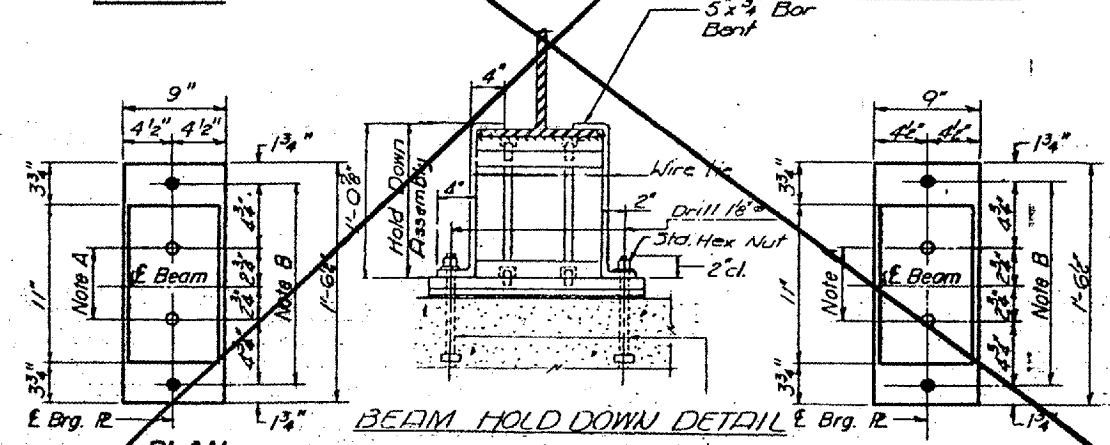
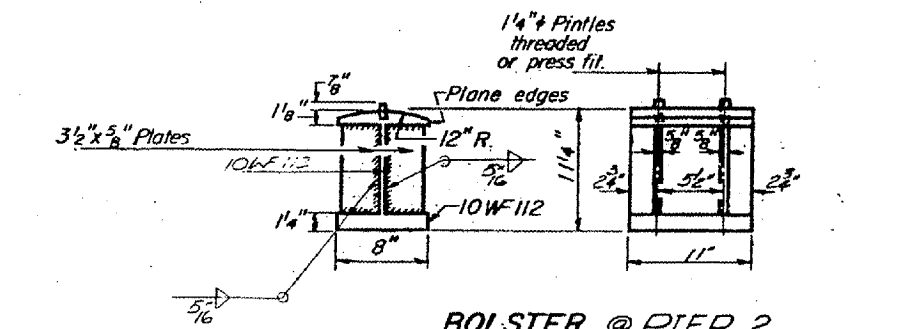
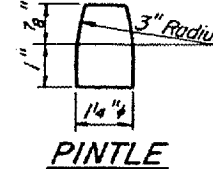
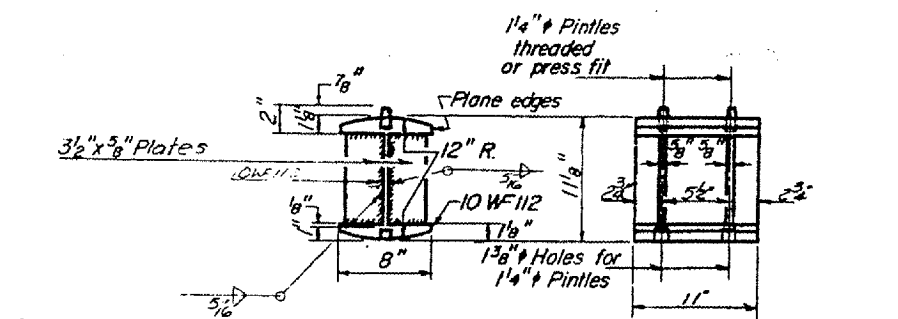
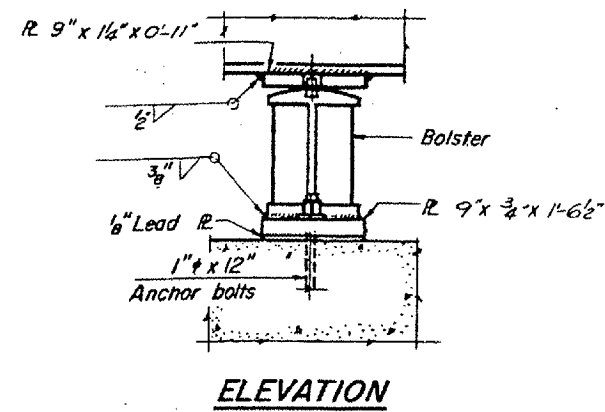
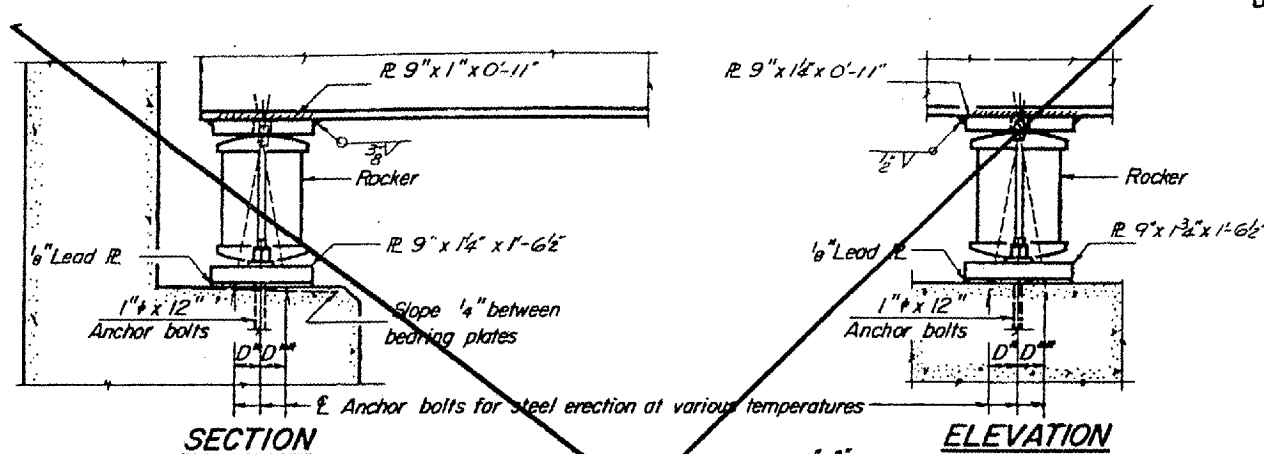


STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

DATE	SECTION	SUBJECT	SCALE	DATE	SHEET NO.
1/24/65	3/38	MASSAC	44	24	19 SHEETS



NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
 $D^* = \frac{1}{8}''$ per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
 $D^{**} = \frac{1}{8}''$ per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

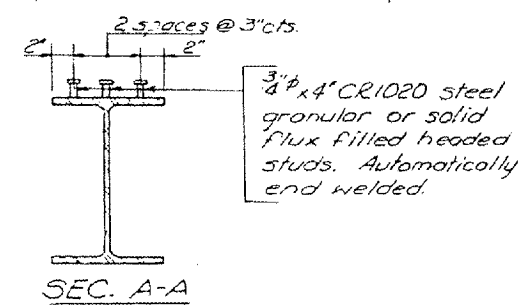
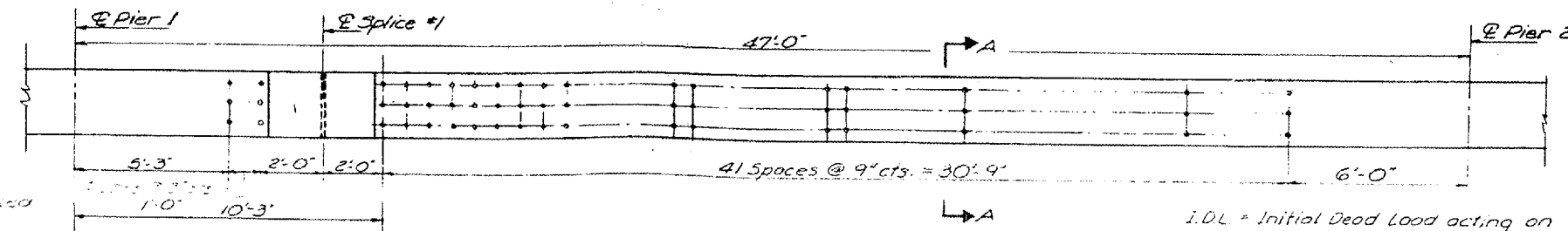
b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be placed in place, except as noted. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS

- NOTE A: 1 3/8 inch holes - 1 inch deep in top R. for pintles. Thread or press fit pintles into bottom R.
- NOTE B: 1 1/2 inch holes for 1 inch anchor bolts. 2 1/2 x 2 1/2 x 5/16 inch R. Washers under nut.
- NOTE C: 1 3/8 inch holes 1 inch deep in top R. only for 1 1/4 inch pinholes.

Note: See Sheet #11 for Framing Plan, Splice & Diaphragm Details.

Note: Beams shall be held down at the Abutment on the opposite end of Bridge from which the deck pour is commenced. After pouring is completed the Hold Down Assembly shall be removed and nuts placed on Anchor Bolts. Cost of Hold Down Assembly, incidental to Class X Concrete.



SHEAR STUD SPACING
 Typical for all beams in Span 2

STRESS TABLE - INTERIOR BMS

	Moments (FT-KIPS)				Reactions (KIPS)				
	4 Span Pier 1	5 Span Pier 2	6 Span N. Abut	7 Span Pier 1	8 Span Pier 2	9 Span S. Abut	10 Span	11 Span	
I.D.L.	26.8	138.4	100.4	152.1	51.3	7.4	37.9	40.3	9.8
S.D.L.	15.2	43.6	50.6	50.4	21.4	3.3	14.4	15.6	4.1
L.L.	42.0	130.0	206.0	141.9	177.6	31.4	44.5	44.5	35.4
Imp.	42.9	39.1	82.4	42.6	53.3	9.4	13.4	13.3	10.6
Total	226.9	351.1	519.4	387.0	306.6	51.5	110.2	113.7	59.9

PROPERTIES

Steel Section	
I _s	3266.7 in ⁴
I _c	225.5 in ⁴
I _{sc}	282.8 in ⁴

Composite Section	
I _c	9386.0 in ⁴
I _{sc}	1172.0 in ⁴
I _{cc}	365.8 in ⁴

- I.D.L. = Initial Dead Load acting on steel section
- S.D.L. = Superimposed Dead Load acting on composite section
- L.L. = Live Load
- I = Impact
- I_s = Moment of inertia steel section
- I_c = Sec. Mod top steel section
- I_{sc} = Sec. Mod batt steel
- I_c = Moment of inertia cor
- I_{sc} = Sec. Mod top comp. sec
- I_{cc} = Sec. Mod batt comp sec

DESIGNED	Jan 23 1965
CHECKED	Examined
DRAWN	Passed
CHECKED	Approved

FOR INFORMATION ONLY:
 BRIDGE NO. 3 STRUCTURE 064-0030
 BRIDGE NO. 4 STRUCTURE 064-0031