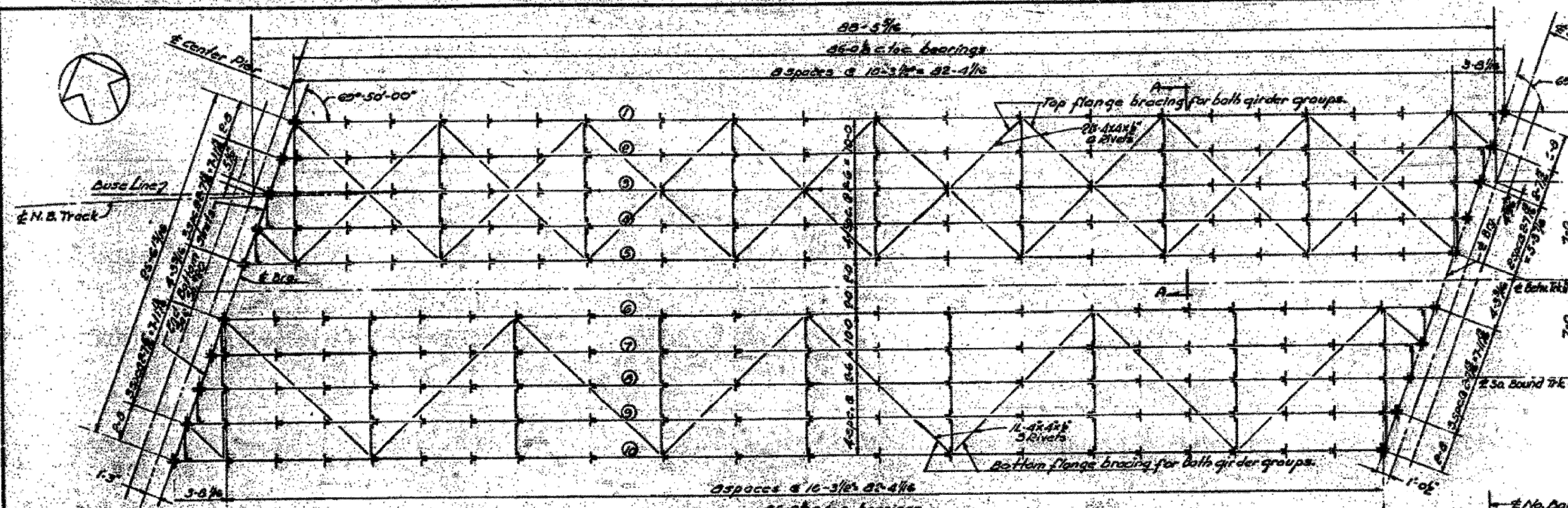


PROJECT NO.	SEC.	COUNTY	TOWNSHIP	RANGE
FA-70	2-22	St. Clair	1-1	19
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

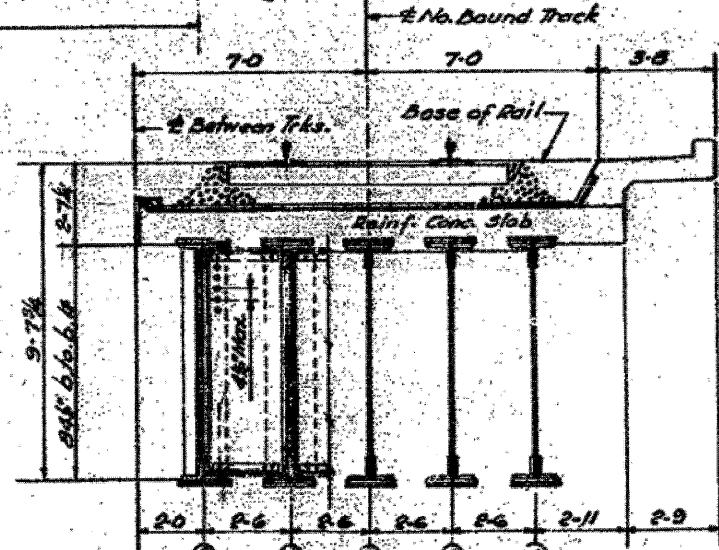
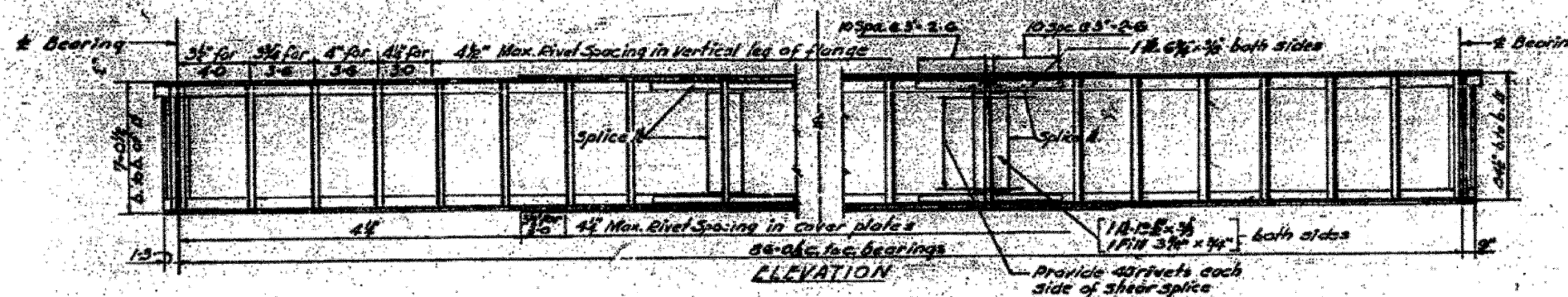


ELEVATIONS BACK OF BOTTOM FLANGE ANGLES & BEARING SHIM THICKNESS REQUIRED

Girder	Brg. Center Pier		Brg. South Pier	
	Elev.	Shim.	Elev.	Shim.
1	407.67	—	407.60	1/8"
2	407.67	1/8"	407.61	1/8"
3	407.67	1/8"	407.61	1/8"
4	407.67	1/8"	407.61	1/8"
5	407.65	1/8"	407.61	1/8"
6	407.66	3/16"	407.62	1/8"
7	407.66	1/8"	407.62	1/8"
8	407.66	1/8"	407.62	1/8"
9	407.65	1/8"	407.62	1/8"
10	407.65	3/16"	407.63	1/8"

Elevations are given @ the intersection of 4 Brg. & 6 Girder. Shim thickness is the total theoretical thickness req'd

FRAMING PLAN - SPANS



DEAD LOAD PER TRACK

Ballast, Ties & Rail	2.73K
Slab, Water, roof & Walk	3.00K
Total	5.73K
D.L. Girder 10-1	1.15K
D.L. Deck 5-1/2	.48
D.L. Steel	.43
Total	2.06K

MOMENTS & SHEAR FOR GIRDER No. 1 *

End Shear	Max. Moment
DL 82.5K	DL 1050'K
LL 96.0	LL 1010
Imp. 622K	Imp. 1172
Total 800.5K	Total 2232K

*Computed for 87' Span

SECTION - ALL GIRDERS BOTH FLANGES

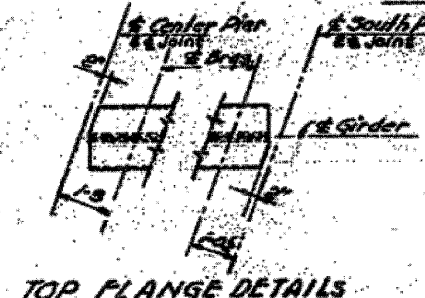
Area	Gross	Net
2 Web 2-1/2"	4.60"	4.60"
2 Flange 3-1/2"	22.00"	19.50"
12-17-1/2"	10.63"	9.22"
12-17-1/2"	10.63"	9.22"
Total	46.74"	42.54"

Gross I = 17312.4 in⁴ Gross S.M. = 3900 in³
 Net I = 14625.6 in⁴ Net S.M. = 3582 in³
 Allow 10,000 in²/in²
 Unit Stress = 1032 x 1000 x I₂ / 3582 = 17,550 in²

IMPACT
 Vertical 60-80% = 45%
 Rolling 20% = 20%
 Total 65% girder Load

ADDITIONAL MATERIAL

- Web 6x7/16 = 36.75"
- End Stiff. 4x7x4x5/16
- Use 16 Rivets per pair (Min)
- 2 End Fills 14x3/8
- Intermed. Stiff. 2x6x3/8x1/2 on fills of Diaphragms.
- 2x6x3/8x1/2 on fills elsewhere.
- Rivet diameter = 1"
- End Diaphragms & Intermed. Diaphragms 8 Ls. Top & Bottom 4x4x1/2 = 36" Web.
- Lateral Plates & Horizontal Gusses 7/8"
- Top Laterals 2x4x1/2 @ Rivets.
- Bottom Laterals 1x4x1/2 @ Rivets.
- Web Splices at 12' points approx.
- Max. distance c.c. rivets on outside gage line of cover plates shall be 8 1/2"
- Min pitch 3 1/2" in bottom cover plate near 1/2 of span on account of net section.



- NOTES**
- For details of diaphragms, lateral bracing, and connections see Sheet 20.
 - For details of bearings see Sheet 21.
 - For General Notes see 3h.l.
 - For Beamng Notes see 3h.l.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 &
 CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY
 L. & N. R. R. OVER WEST BOUND EXPWAY, RAMP 2, EAST BOUND EXPWAY AND RAMP 1

FRAMING PLAN SPAN 3
 H. W. LOCHNER, INC.
 ENGINEERS
 DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 18

Designed By: L.K.
 Drawn By: H.M.A.
 Checked By: R.K. & P.R.E.