

PLAN  
SPANS D1 THRU D4

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.		GIR. D1	GIR. D2	DIFF.
CL. BRL.	456.790	456.791	.000	FLOOR BEAM 13	446.216	445.717	.499
FLOOR BEAM 1	456.794	456.295	.499	SPLICE 7	446.167	445.668	.499
FLOOR BEAM 2	456.419	449.919	.499	FLOOR BEAM 14	446.061	445.561	.500
FLOOR BEAM 3	449.000	446.300	.000	FLOOR BEAM 15	445.996	446.497	.499
FLOOR BEAM 4	449.367	446.668	.499	FLOOR BEAM 16	446.791	445.292	.499
SPLICE 3	446.992	446.492	.500	SPLICE 9	445.685	445.186	.499
FLOOR BEAM 5	446.692	446.393	.499	FLOOR BEAM 17	445.677	445.178	.499
FLOOR BEAM 6	446.433	447.534	.499	FLOOR BEAM 18	445.441	445.142	.499
FLOOR BEAM 7	446.694	447.595	.499	FLOOR BEAM 19	445.894	445.100	.499
SPLICE 4	447.915	447.416	.499	SPLICE 10	445.397	445.097	.500
FLOOR BEAM 8	447.633	447.134	.499	FLOOR BEAM 20	445.642	445.143	.499
FLOOR BEAM 9	447.322	446.823	.499	FLOOR BEAM 21	445.789	445.290	.499
FLOOR BEAM 10	446.992	446.492	.500	FLOOR BEAM 22	445.737	445.238	.499
SPLICE 6	446.730	446.231	.499	FLOOR BEAM 23	445.789	445.294	.499
FLOOR BEAM 11	446.691	446.192	.499	CL. BRL.	445.795	445.296	.499
FLOOR BEAM 12	446.449	445.949	.499				

Notes:  
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plates. See Sketch Sheet No. 183

BILL OF MATERIAL	
*Structural Steel	Lbs. 468,170

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 10,970 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
SPANS D1 THRU D4  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT.70 ST. CLAIR CO. SECTION B2-3HVFB-E-1

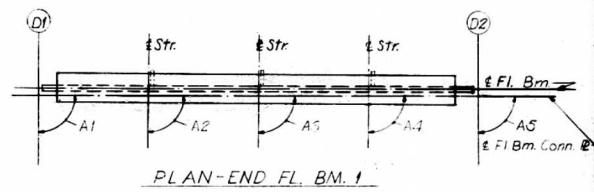
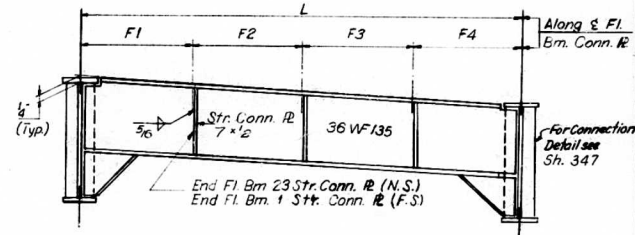
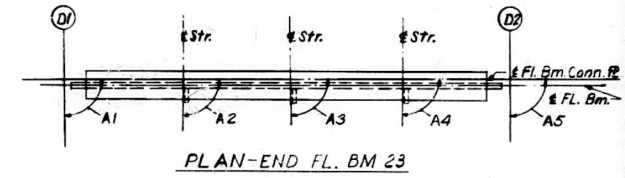
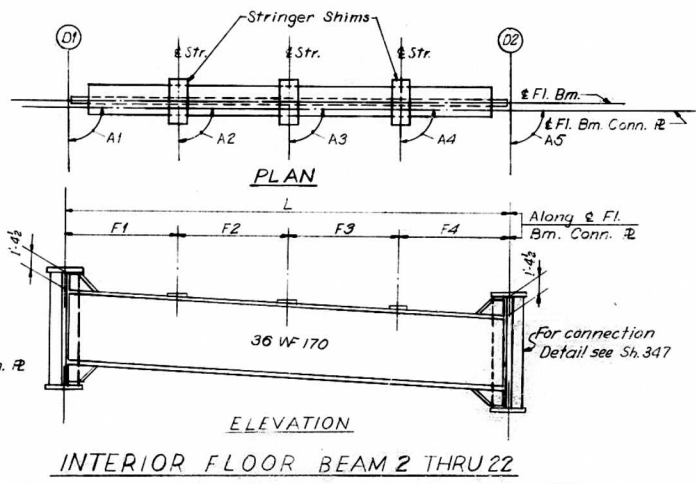
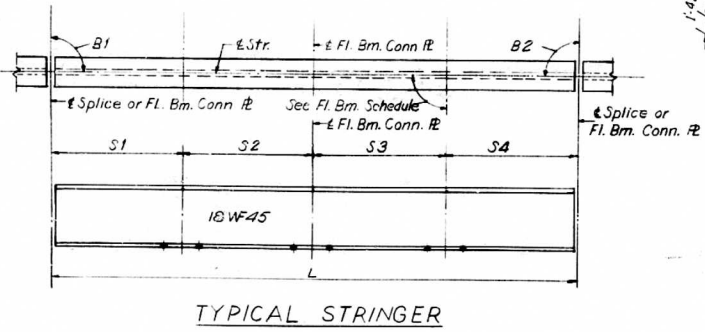
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
203P 285

DESIGNED BY: R.M.R.  
DRAWN BY: DCH  
CHECKED BY: A.J.C.  
APPROVED BY: K.A.

STR. ID	L	S1	S2	S3	S4	B1	B2
1	27'-9 9/16"	4'	7' 9/16"		15'-2"	90,00,00	90,00,00
2	27' 9 9/16"	4'	7' 9/16"		15' 2"	90,00,00	90,00,00
3	27' 9 9/16"	4'	7' 9/16"		15' 2"	90,00,00	90,00,00
4	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
5	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
6	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
7	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
8	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
9	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
10	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
11	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
12	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
13	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
14	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
15	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
16	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
17	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
18	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
19	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
20	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
21	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
22	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
23	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
24	28' 4"	4'	19' 2"		15' 2"	90,00,00	90,00,00
25	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
26	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
27	46' 4"	4'	19' 2"	19' 2"	4'	90,00,00	90,00,00
28	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
29	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
30	30' 4"	15' 2"			15' 2"	90,00,00	90,00,00
31	35' 2"	4'	19' 2"		4'	90,00,00	90,00,00
32	35' 2"	4'	19' 2"		4'	90,00,00	90,00,00
33	35' 2"	4'	19' 2"		4'	90,00,00	90,00,00

FL. BEAM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
1	27'-0"	8'-0"	8'-0"	8'-0"	8'-0"	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
2	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
3	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
4	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
5	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
6	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
7	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
8	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
9	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
10	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
11	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
12	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
13	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
14	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
15	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
16	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
17	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
18	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
19	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
20	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
21	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
22	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
23	28'	8'	8'	8'	8'	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00



END FLOOR BEAM 1 AND 23

Notes:  
Length L of Stringers and Fl. Bms is correct as given in the table except the increment lengths are given to the nearest 1/16".  
All dimensions are in the horizontal plane.  
For Connection Plate details see Sheet No. 348

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
STRINGER AND FLOOR BEAM  
SCHEDULE  
SPANS D1 THRU D4  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A. I. RT. 70 ST. CLAIR CO. SECTION B2-3MF&E  
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET 210058

DESIGNED BY: A.T.C.A.I.C.  
DRAWN BY: D.C.H.  
CHECKED BY: A.A.  
APPROVED BY: K.A.

FLOOR BEAM 2 THRU 4	T1	T2	T3	T4
STR. 1 THRU 6	1	1 1/8	3/8	1/8

FLOOR BEAM 5 THRU 7	T1	T2	T3	T4
STR. 7 THRU 9	1 5/16	1 1/16	7/16	9/16

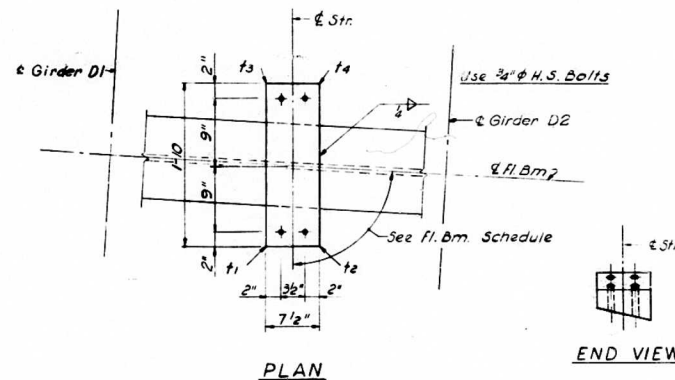
FLOOR BEAM 8 THRU 10	T1	T2	T3	T4
STR. 10 THRU 12	7/8	1	1/2	5/8

FLOOR BEAM 11 THRU 13	T1	T2	T3	T4
STR. 13 THRU 15	1 5/16	1 5/16	9/16	11/16

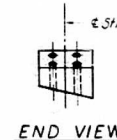
FLOOR BEAM 14 THRU 16	T1	T2	T3	T4
STR. 16 THRU 18	3/4	7/8	5/8	3/4

FLOOR BEAM 17 THRU 19	T1	T2	T3	T4
STR. 19 THRU 21	11/16	1 3/16	11/16	1 3/16

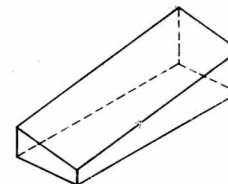
FLOOR BEAM 20 THRU 22	T1	T2	T3	T4
STR. 22 THRU 24	11/16	3/4	3/4	1 1/16



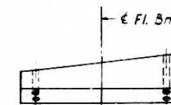
PLAN



END VIEW



ISOMETRIC VIEW

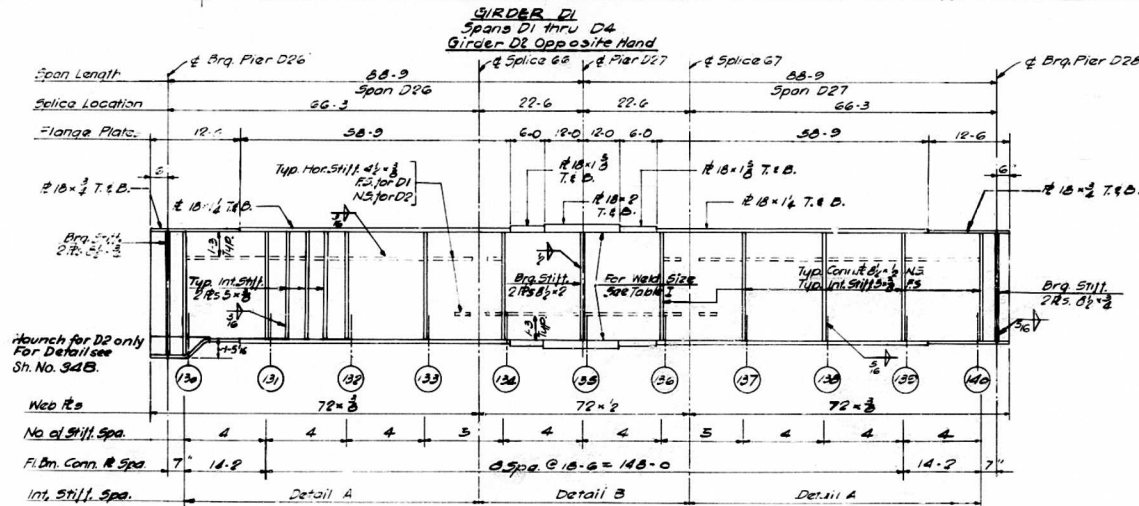
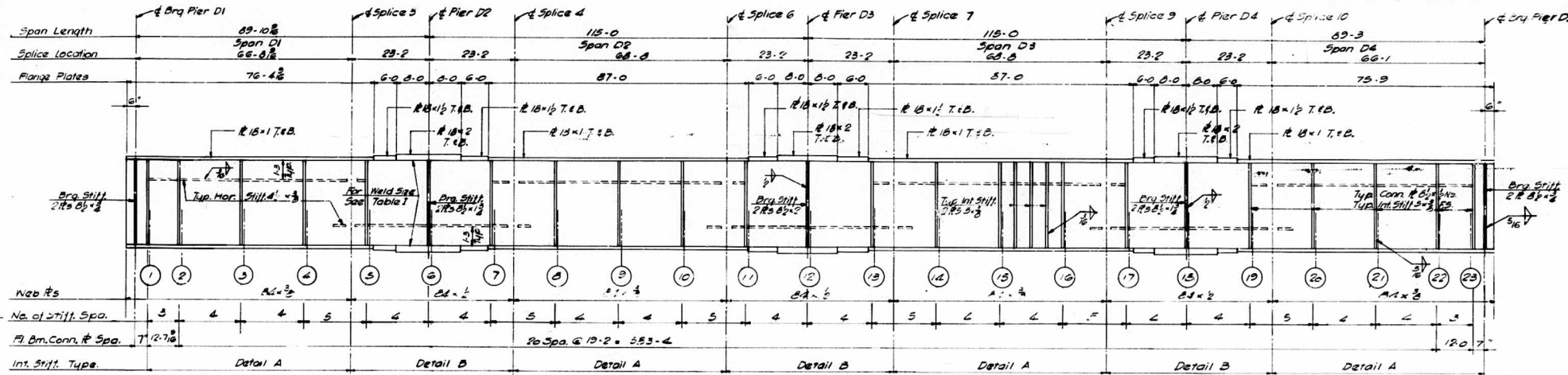


SIDE VIEW

SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	B2-3MV & E-1	ST. CLAIR	217	82
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



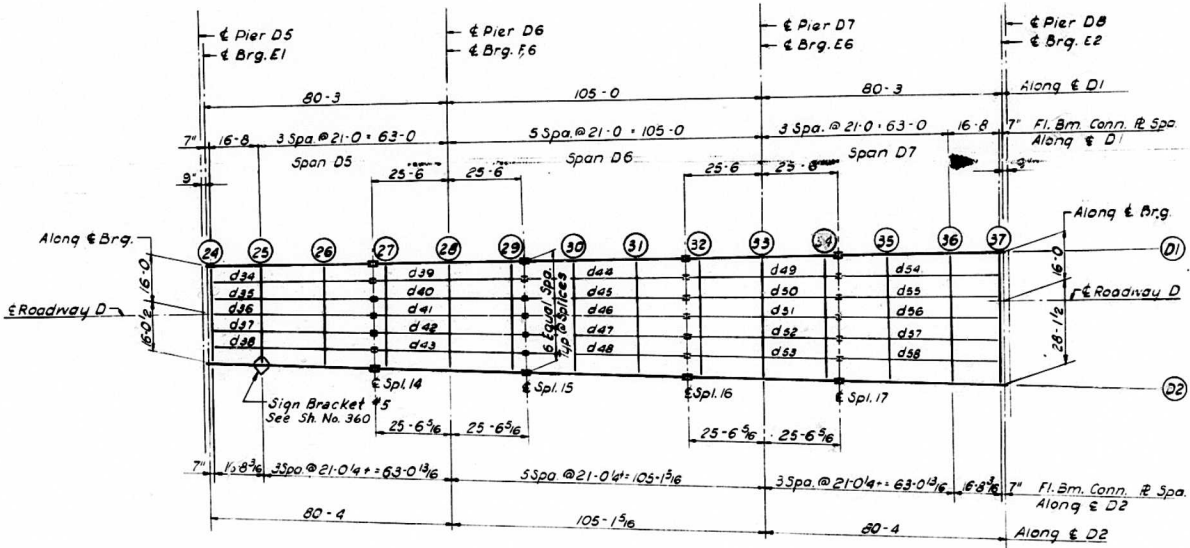
**Notes:**  
 All Longitudinal Dimensions shown are given along & of Web. See Sh. Nos 209 and 240.  
 All Bearing Stiffeners and Connection Plates are to be vertical.  
 For Splice, Stiffener, Connection Plate Details and Table I. See Sh. Nos. 34B, 349 and 350.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 GIRDERS D1 AND D2  
 SPANS D1 THRU D4, D26 & D27  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"  
 F.A.I. 70 ST. CLAIR CO. SECTION B2-3MV & E-1  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

DESIGNED BY AT  
 DRAWN BY ST  
 CHECKED BY EL  
 APPROVED BY KA

SHEET  
 210 of 217





**PLAN**  
SPANS D5 THRU D7

ELEVATION TOP OF GINGER MEN

	GR. D1	GR. D2	DIFF.
CL. BRG.	445.000	445.300	.300
FLOOR BEAM 24	445.000	445.300	.300
FLOOR BEAM 25	445.000	445.377	.377
FLOOR BEAM 26	445.004	445.457	.457
SPLICE 14	445.070	445.300	.230
FLOOR BEAM 27	445.000	445.307	.307
FLOOR BEAM 28	445.204	445.647	.447
FLOOR BEAM 29	445.300	445.797	.497
SPLICE 15	445.301	445.700	.399
FLOOR BEAM 30	445.414	445.677	.263
FLOOR BEAM 31	445.510	445.917	.407
SPLICE 16	445.501	445.900	.399
FLOOR BEAM 32	445.622	445.910	.288
FLOOR BEAM 33	445.717	445.112	.395
FLOOR BEAM 34	445.813	445.214	.401
SPLICE 17	445.820	445.226	.406
FLOOR BEAM 35	445.900	445.400	.500
FLOOR BEAM 36	445.771	445.770	.002
FLOOR BEAM 37	445.743	445.000	.743
CL. BRG.	445.745	445.000	.745

*Note:* Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	337,100

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are included as Structural Steel Est. Wt. 8,530 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
SPANS D5 THRU D7  
**POPLAR STREET BRIDGE APPROACHES**  
ROADWAY "D"

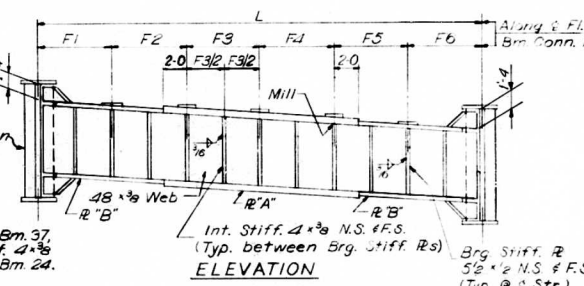
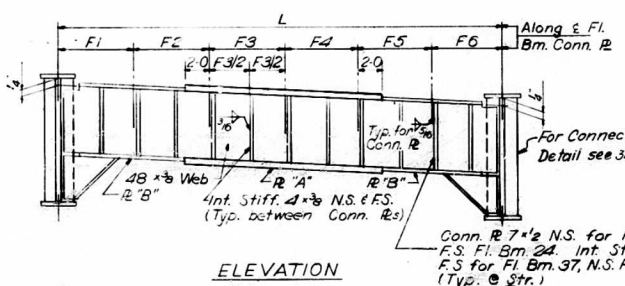
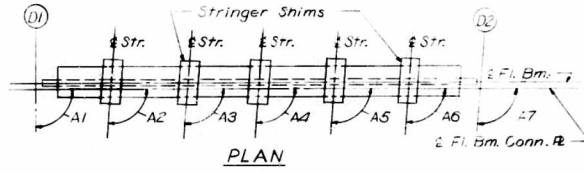
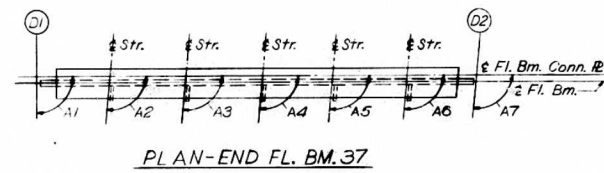
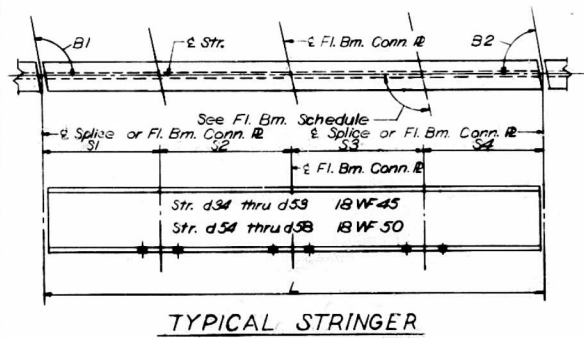
F.A.I. RT.70 ST. CLAIR CO. SECTION B2-3HVF8-E-1  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
214

DESIGNED BY *P.M.R.*  
DRAWN BY *I.M.*  
CHECKED BY *A.J.C.*  
APPROVED BY *K.A.*

SPR.D	L	S1	S2	S3	S4	S1	S2
26	24' 2"	16' 6"	○	21' 0"	16' 6"	90.25.05	90.25.05
27	24' 2 1/8"	16' 6"	○	21	16' 6"	90.25.10	90.27.50
28	24' 2 3/8"	16' 6 1/8"	○	21 1/8	16' 6 1/8"	91.15.14	90.41.05
29	24' 2 5/8"	16' 6 1/8"	○	21 1/8	16' 6 1/8"	91.44.18	90.15.42
30	24' 2 7/8"	16' 6 1/8"	○	21 3/8	16' 6 1/8"	92.10.21	97.49.39
31	24' 4"	16' 6"	○	21	16' 6"	90.25.05	90.25.05
40	31' 1/8"	16' 6"	○	21	16' 6"	90.25.10	90.27.50
41	31' 3/8"	16' 6"	○	21 1/8	16' 6"	91.15.14	90.41.05
42	31' 5/8"	16' 6"	○	21 1/8	16' 6"	91.44.18	90.15.42
43	31' 7/8"	16' 6 1/8"	○	21 3/8	16' 6 1/8"	92.10.21	97.49.39
44	34' 6"	16' 6"	○	21	16' 6"	90.25.05	90.25.05
45	34' 1/8"	16' 6"	○	21	16' 6"	90.25.10	90.27.50
46	34' 3/8"	16' 6 1/8"	○	21 1/8	16' 6 1/8"	91.15.14	90.41.05
47	34' 5/8"	16' 6 1/8"	○	21 1/8	16' 6 1/8"	91.44.18	90.15.42
48	34' 7/8"	16' 6 1/8"	○	21 3/8	16' 6 1/8"	92.10.21	97.49.39
49	31' 1/8"	16' 6"	○	21	16' 6"	90.25.05	90.25.05
50	31' 3/8"	16' 6"	○	21 1/8	16' 6"	91.15.14	90.41.05
51	31' 5/8"	16' 6"	○	21 1/8	16' 6"	91.44.18	90.15.42
52	31' 7/8"	16' 6 1/8"	○	21 3/8	16' 6 1/8"	92.10.21	97.49.39
53	34' 2"	16' 6"	○	21	16' 6"	90.25.05	90.25.05
54	34' 2 1/8"	16' 6"	○	21	16' 6"	90.25.10	90.27.50
55	34' 2 3/8"	16' 6 1/8"	○	21 1/8	16' 6 1/8"	91.15.14	90.41.05
56	34' 2 5/8"	16' 6 1/8"	○	21 1/8	16' 6 1/8"	91.44.18	90.15.42
57	34' 2 7/8"	16' 6 1/8"	○	21 3/8	16' 6 1/8"	92.10.21	97.49.39

FL. BM	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7	PLATE A T x B	PLATE B T x B
24	32' - 13/16"	5' 4 1/8"	5' 4 1/8"	5' 4 1/8"	5' 4 1/8"	5' 4 1/8"	5' 4 1/8"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1	12 x 3/4
25	32' 9 15/16"	5' 5 9/16"	5' 5 9/16"	5' 5 9/16"	5' 5 9/16"	5' 5 9/16"	5' 5 9/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1	12 x 3/4
26	33' 9 3/8"	5' 7 9/16"	5' 7 9/16"	5' 7 9/16"	5' 7 9/16"	5' 7 9/16"	5' 7 9/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/8	12 x 3/8
27	34' 8 7/8"	5' 9 1/2"	5' 9 1/2"	5' 9 1/2"	5' 9 1/2"	5' 9 1/2"	5' 9 1/2"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/8	12 x 3/8
28	35' 8 5/16"	5' 11 3/8"	5' 11 3/8"	5' 11 3/8"	5' 11 3/8"	5' 11 3/8"	5' 11 3/8"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 3/8
29	36' 7 13/16"	6' 1 5/16"	6' 1 5/16"	6' 1 5/16"	6' 1 5/16"	6' 1 5/16"	6' 1 5/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1
30	37' 7 1/4"	6' 3 3/16"	6' 3 3/16"	6' 3 3/16"	6' 3 3/16"	6' 3 3/16"	6' 3 3/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1
31	38' 6 3/4"	6' 5 1/8"	6' 5 1/8"	6' 5 1/8"	6' 5 1/8"	6' 5 1/8"	6' 5 1/8"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 3/8	12 x 1 1/8
32	39' 6 3/16"	6' 7 1/16"	6' 7 1/16"	6' 7 1/16"	6' 7 1/16"	6' 7 1/16"	6' 7 1/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 3/8	12 x 1 1/8
33	40' 5 11/16"	6' 8 15/16"	6' 8 15/16"	6' 8 15/16"	6' 8 15/16"	6' 8 15/16"	6' 8 15/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 3/8	12 x 1 1/4
34	41' 5 1/8"	6' 10 7/8"	6' 10 7/8"	6' 10 7/8"	6' 10 7/8"	6' 10 7/8"	6' 10 7/8"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1 1/4
35	42' 4 5/8"	7' 3/4"	7' 3/4"	7' 3/4"	7' 3/4"	7' 3/4"	7' 3/4"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1 1/4
36	43' 4 1/4"	7' 2 11/16"	7' 2 11/16"	7' 2 11/16"	7' 2 11/16"	7' 2 11/16"	7' 2 11/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1 1/4
37	44' 1 3/16"	7' 4 3/16"	7' 4 3/16"	7' 4 3/16"	7' 4 3/16"	7' 4 3/16"	7' 4 3/16"	90.00.00	90.25.05	90.25.10	91.15.14	91.44.18	92.10.21	92.36.23	12 x 1 1/4	12 x 1



**Notes:**  
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8".  
All dimensions are in the horizontal plane.  
For intermediate Stiffener Brg. Stiffener and Connection Plate Details see Sheet No. 348

**END FLOOR BEAM 24 AND 37**

DESIGNED BY A.T. & A.C.  
DRAWN BY DGH  
CHECKED BY A.A.  
APPROVED BY K.A.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
STRINGER AND FLOOR BEAM  
SCHEDULE  
SPANS D5 THRU D7  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 92-34VFB-2  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
214 OF 228

FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 24 THRU 26		3/8	1/2	1/2	5/8

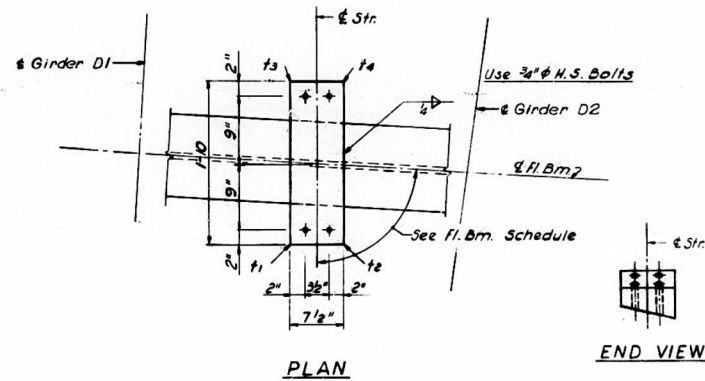
FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 30 THRU 40		3/8	1/2	1/2	5/8

FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 44 THRU 48		3/8	1/2	1/2	5/8

FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 49 THRU 50		3/8	1/2	1/2	5/8

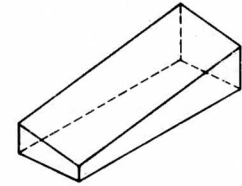
FLOOR BEAM	T1	T2	T3	T4
54	7/16	1/2	1/2	9/16
55	7/16	1/2	1/2	9/16
56	3/8	7/16	9/16	5/8
57	3/8	7/16	9/16	5/8
58	3/8	7/16	9/16	5/8

FLOOR BEAM	T1	T2	T3	T4
54	1/2	1/2	1/2	1/2
55	7/16	7/16	9/16	9/16
56	7/16	7/16	9/16	9/16
57	3/8	7/16	9/16	5/8
58	3/8	3/8	5/8	5/8

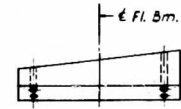


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

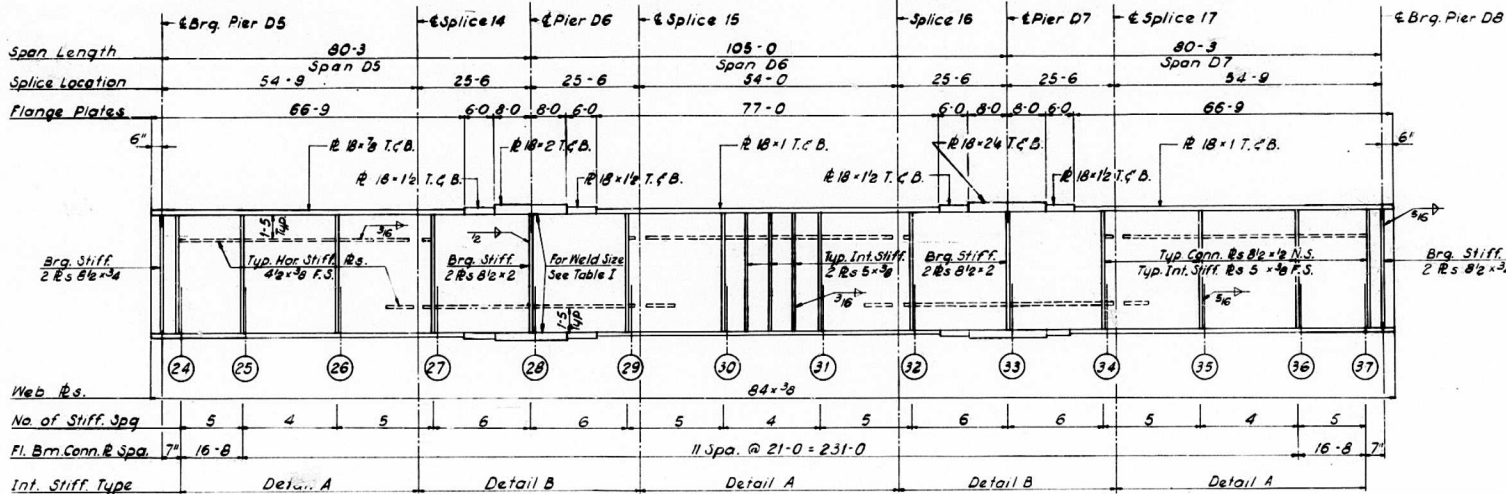
**STRINGER SHIMS**  
SPANS D5 THRU D7  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1  
H. W. LOCKNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

TOTAL SHEETS 247  
SHEET NO. 85  
215 of 526

DESIGNED BY A.J.C.  
DRAWN BY D.C.H.  
CHECKED BY A.S.  
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	02-3HV F & E-1	ST. CLAIR	247	86
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



### GIRDER D1

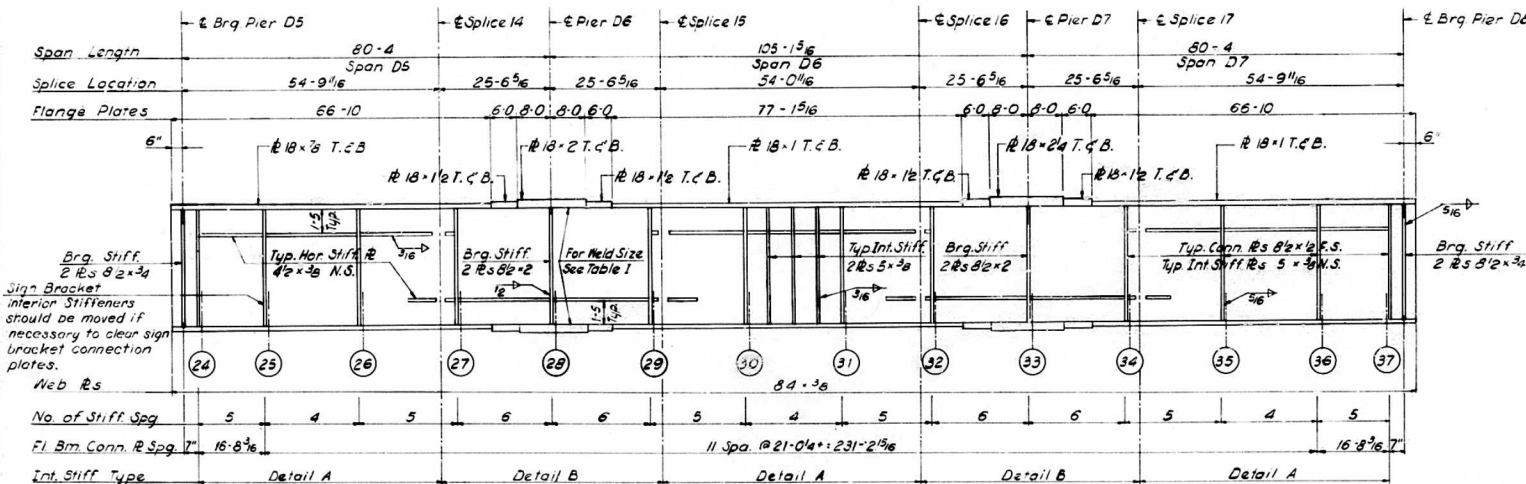
SPANS D5 THRU D7

**Notes:**  
All Longitudinal Dimensions shown are given along C of Web. See Sh. No. 213

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener Connection Plate Details and Table I. See Sh. Nos. 328, 349 and 350.

For Sign Bracket Detail see Sh No 360



### GIRDER D2

SPANS D5 THRU D7

DESIGNED BY: A.T.  
DRAWN BY: I.M.  
CHECKED BY: E.L.  
APPROVED BY: K.A.

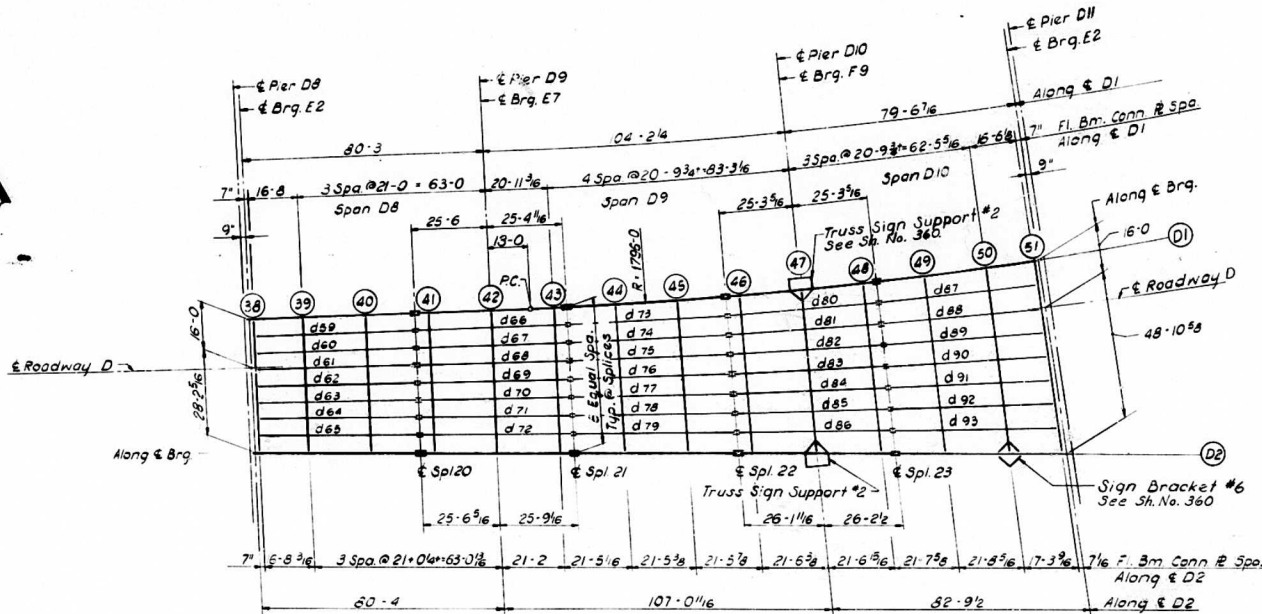
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2  
SPANS D5 THRU D7  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 02-3HV F & E-1

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET 260728



**PLAN**  
SPANS D8 THRU D10

ELEVATION TOP OF GIRDERS 483

	GIR. D1	GIR. D2	DIFF.
CL. BSL.	446.749	446.976	226
FLOOR BEAM 39	446.739	446.994	255
FLOOR BEAM 38	446.711	447.220	509
FLOOR BEAM 40	446.676	447.817	1,141
SPLICE 20	446.649	447.789	1,140
FLOOR BEAM 41	446.641	447.818	1,177
FLOOR BEAM 42	446.605	448.126	1,520
FLOOR BEAM 43	446.571	448.484	1,913
SPLICE 21	446.554	448.523	1,969
FLOOR BEAM 44	446.536	448.989	2,454
FLOOR BEAM 45	446.521	449.134	2,613
SPLICE 22	446.479	449.433	2,954
FLOOR BEAM 46	446.469	449.447	2,978
FLOOR BEAM 47	446.500	449.519	2,019
FLOOR BEAM 48	446.645	449.573	2,928
SPLICE 23	446.682	449.586	2,904
FLOOR BEAM 49	446.744	449.580	2,836
FLOOR BEAM 50	446.840	449.544	2,704
FLOOR BEAM 51	446.935	449.525	2,590
CL. BSL.	446.938	449.824	2,586

*Note:* Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183

BILL OF MATERIAL	
*Structural Steel	Lbs. 489,600

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 11,170 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
SPANS D8 THRU D10  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT.70 ST. CLAIR CO. SECTION B2-3HVFB-E-1  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

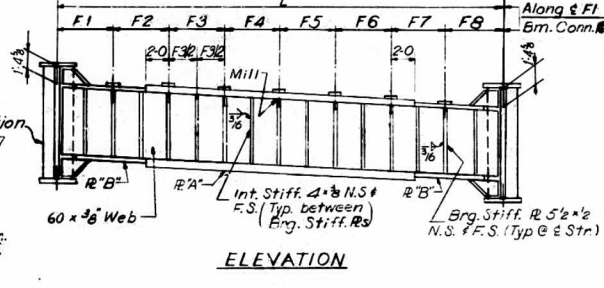
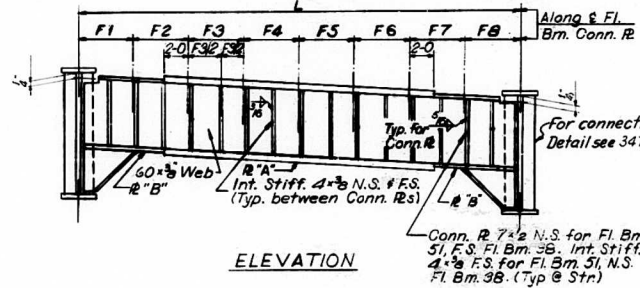
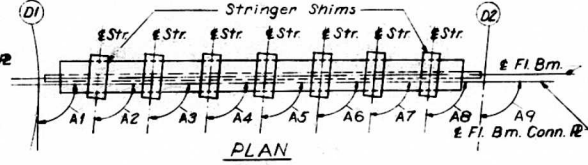
SHEET  
27 OF 247

STRINGER DIMENSIONS

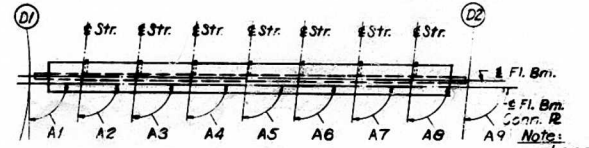
STRG	L	S1	S2	S3	S4	S1	S2
59	94'-2"	16'-8"		21'-0"	16'-6"	90,19,34	89,40,25
60	94'-2 1/8"	16'-8"			16'-6"	90,39,07	89,20,53
61	94'-2 1/8"	16'-8"		21'-1/16"	16'-6"	90,58,41	89,01,19
62	94'-2 3/8"	16'-8 1/16"		21'-1/16"	16'-6 1/16"	91,18,14	88,41,46
63	94'-2 3/8"	16'-8 1/16"		21'-1/8"	16'-6 1/16"	91,37,47	88,22,13
64	94'-2 3/8"	16'-8 1/8"		21'-1/8"	16'-6 3/16"	91,57,19	88,02,41
65	94'-2 1/2"	16'-8 1/8"		21'-3/16"	16'-6 1/8"	92,16,51	87,43,09
66	90'-11 3/16"	4'-6"	21'	20'-11 1/2"	4'-5 11/16"	90,17,09	89,19,08
67	90'-11 3/4"	4'-6"	21'	20'-11 13/16"	4'-5 7/8"	90,37,09	88,99,08
68	91'-5 1/16"	4'-6"	21'	1/16"	3/16"	90,57,07	88,39,10
69	91'-7/8"	4'-6"	21'	1/16"	1/2"	91,17,03	88,19,14
70	91'-1 7/16"	4'-6"	21'	1/8"	21'	91,36,57	87,59,20
71	91'-2 1/16"	4'-6"	21'	1/8"	21'-1 1/4"	91,56,48	87,39,29
72	91'-2 11/16"	4'-6 1/16"	21'	3/16"	21'-1 5/8"	92,16,37	87,19,40
73	93'-8 9/16"	16'-4 15/16"	20'-10 5/8"		16'-5"	89,38,27	88,39,06
74	93'-10 7/8"	16'-5 5/8"	20'-11 9/16"		16'-5 3/4"	90,07,55	88,09,38
75	94'-1 5/16"	16'-6 5/16"	21'-1/2"		16'-6 1/2"	90,37,09	87,40,24
76	94'-3 3/4"	16'-7"	21'-1 7/16"		16'-7 5/16"	91,06,11	87,11,22
77	94'-6 1/4"	16'-7 3/4"	21'-2 3/8"		16'-8 1/16"	91,35,00	86,42,33
78	94'-8 3/4"	16'-8 1/2"	21'-3 3/8"		16'-8 7/8"	92,03,35	86,13,58
79	94'-11 5/16"	16'-9 1/4"	21'-4 3/8"		16'-9 3/4"	92,31,57	85,45,36
80	90'-8 15/16"	4'-5 3/4"	20'-10 11/16"	20'-10 3/4"	4'-5 3/4"	89,54,14	88,29,01
81	90'-11 7/16"	4'-5 15/16"	20'-11 11/16"	20'-11 13/16"	4'-6"	90,36,30	87,46,45
82	91'-2 1/2"	4'-6 1/8"	21'-11 1/16"	21'-15 1/16"	4'-6 1/4"	91,18,25	87,04,30
83	91'-4 5/8"	4'-6 3/8"	21'-1 3/4"	21'-2 1/16"	4'-6 1/2"	91,59,59	86,23,16
84	91'-7 3/8"	4'-6 9/16"	21'-2 7/8"	21'-7 1/4"	4'-6 3/4"	92,41,11	85,42,04
85	91'-10 1/4"	4'-6 13/16"	21'-4"	21'-4 1/16"	4'-7"	93,22,01	85,01,14
86	92'-1 1/8"	4'-7 1/16"	21'-5 3/16"	21'-5 11/16"	4'-7 5/16"	94,02,28	84,20,46
87	93'-11"	16'-5 1/16"	20'-10 7/8"		16'-7 1/16"	90,04,24	88,10,19
88	94'-2 1/16"	16'-5 7/8"	21'		16'-8 1/8"	90,59,39	87,15,04
89	94'-5 5/16"	16'-6 13/16"	21'-1 1/4"		16'-9 1/4"	91,54,22	86,20,21
90	94'-8 3/4"	16'-7 3/4"	21'-2 1/2"		16'-10 7/16"	92,48,32	85,26,11
91	95'-5 1/16"	16'-8 3/4"	21'-3 7/8"		16'-11 5/8"	93,42,07	84,32,35
92	95'-4"	16'-9 13/16"	21'-5 5/16"		17'-15/16"	94,35,07	83,39,35
93	95'-7 7/8"	16'-10 7/8"	21'-6 3/4"		17'-2 1/4"	95,27,31	82,47,11

FLOOR BEAM DIMENSIONS

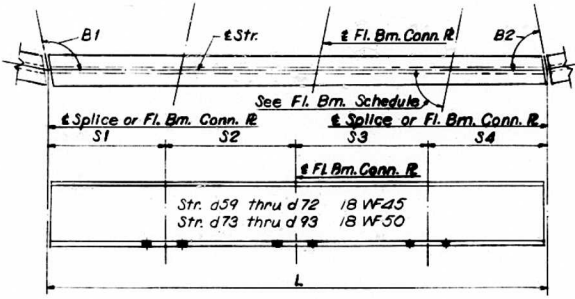
FL BM	L	F1	F2	F3	F4	F5	F6	F7	F8	A1	A2	A3	A4	A5	A6	A7	A8	A9	PLATE #	PLATE #
38	44'-2 11/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16"	90,00,00	90,19,34	90,39,07	90,58,41	91,18,14	91,37,47	91,57,19	92,16,51	92,36,23	12 x 1	12 x 3
39	44'-11 3/4"	5'-7 1/2"	5'-7 1/2"	5'-7 1/2"	5'-7 1/2"	5'-7 1/2"	5'-7 1/2"	5'-7 1/2"	5'-7 1/2"	90,00,00	90,19,34	90,39,07	90,58,41	91,18,14	91,37,47	91,57,19	92,16,51	92,36,23	12 x 1 1/2	12 x 3
40	45'-11 1/4"	5'-8 7/8"	5'-8 7/8"	5'-8 7/8"	5'-8 7/8"	5'-8 7/8"	5'-8 7/8"	5'-8 7/8"	5'-8 7/8"	90,00,00	90,19,34	90,39,07	90,58,41	91,18,14	91,37,47	91,57,19	92,16,51	92,36,23	12 x 1 1/2	12 x 3
41	46'-10 11/16"	5'-10 3/8"	5'-10 3/8"	5'-10 3/8"	5'-10 3/8"	5'-10 3/8"	5'-10 3/8"	5'-10 3/8"	5'-10 3/8"	90,00,00	90,17,09	90,37,09	90,57,07	91,17,03	91,36,57	91,56,48	92,16,37	92,36,23	12 x 1 1/2	12 x 3
42	47'-10 3/16"	5'-11 9/16"	5'-11 13/16"	5'-11 13/16"	5'-11 13/16"	5'-11 13/16"	5'-11 13/16"	5'-11 13/16"	5'-11 13/16"	90,00,00	90,17,09	90,37,09	90,57,07	91,17,03	91,36,57	91,56,48	92,16,37	92,36,23	12 x 1 1/2	12 x 3
43	48'-9 15/16"	6'-1"	6'-1 1/4"	6'-1 1/4"	6'-1 1/4"	6'-1 1/4"	6'-1 1/4"	6'-1 1/4"	6'-1 1/4"	90,00,00	90,36,20	90,52,20	91,12,18	91,28,14	91,42,09	91,51,08	92,0,47	92,34,34	12 x 1 1/2	12 x 3
44	50'-1/4"	6'-1 1/4"	6'-3 5/16"	6'-3 5/16"	6'-3 5/16"	6'-3 5/16"	6'-3 5/16"	6'-3 5/16"	6'-3 5/16"	90,00,00	90,09,45	90,39,13	91,0,28	91,13,29	91,28,14	91,42,09	93,03,15	93,31,24	12 x 1 1/2	12 x 1
45	51'-5 9/16"	6'-2 7/16"	6'-5 7/16"	6'-5 7/16"	6'-5 7/16"	6'-5 7/16"	6'-5 7/16"	6'-5 7/16"	6'-5 7/16"	90,00,00	90,49,36	91,19,03	91,48,18	92,17,20	92,46,08	93,14,44	93,43,06	94,11,15	12 x 1 1/2	12 x 1
46	53'-1 7/8"	6'-7 1/8"	6'-7 13/16"	6'-7 13/16"	6'-7 13/16"	6'-7 13/16"	6'-7 13/16"	6'-7 13/16"	6'-7 13/16"	90,00,00	90,02,46	90,45,02	91,26,57	92,08,31	92,49,43	93,30,33	94,11,01	94,51,05	12 x 1 1/2	12 x 1
47	55'-1 1/4"	6'-8 13/16"	6'-10 15/16"	6'-10 15/16"	6'-10 15/16"	6'-10 15/16"	6'-10 15/16"	6'-10 15/16"	6'-10 15/16"	90,00,00	90,42,36	91,24,52	92,06,48	92,48,21	93,29,34	94,10,24	94,50,51	95,30,56	12 x 1 1/2	12 x 1 1/2
48	57'-3 5/8"	7'-1 3/8"	7'-2 1/16"	7'-2 1/16"	7'-2 1/16"	7'-2 1/16"	7'-2 1/16"	7'-2 1/16"	7'-2 1/16"	90,00,00	91,22,27	92,04,43	92,46,38	93,28,12	94,09,24	94,50,14	95,30,42	96,10,46	12 x 2 1/2	12 x 1 1/2
49	59'-9 1/16"	7'-3 7/8"	7'-5 7/8"	7'-5 7/8"	7'-5 7/8"	7'-5 7/8"	7'-5 7/8"	7'-5 7/8"	7'-5 7/8"	90,00,00	90,35,42	91,30,57	92,25,40	93,19,50	94,13,25	95,08,26	95,58,50	96,30,27	12 x 2 1/2	12 x 1 1/2
50	62'-5 9/16"	7'-9 15/16"	7'-9 15/16"	7'-9 15/16"	7'-9 15/16"	7'-9 15/16"	7'-9 15/16"	7'-9 15/16"	7'-9 15/16"	90,00,00	91,15,32	92,10,47	93,05,30	93,59,40	94,53,16	95,46,16	96,38,40	97,30,27	12 x 2 1/2	12 x 1 1/2
51	64'-9 5/8"	8'-1 3/16"	8'-1 3/16"	8'-1 3/16"	8'-1 3/16"	8'-1 3/16"	8'-1 3/16"	8'-1 3/16"	8'-1 3/16"	90,02,33	91,49,41	92,44,45	93,39,29	94,33,49	95,27,25	96,20,25	97,12,49	98,04,36	12 x 1 1/2	12 x 1



INTERIOR FLOOR BEAM 39 THRU 50



END FLOOR BEAM 38 AND 51



DESIGNED BY A.T.E.A.I.C.  
 DRAWN BY D.C.H.  
 CHECKED BY A.A.  
 APPROVED BY K.A.

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8". All dimensions are in the horizontal plane. For Intermediate Stiffener, Erg. Stiffener and Connection Plate Details see Sheet No. 348.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 STRINGER AND FLOOR BEAM  
 SCHEDULE  
 SPANS D8 THRU D10  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"  
 F.A.I. RT 70 ST. CLAIR CO. SECTION B2-39VFB  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

FLOOR BEAM 38	T1	T2	T3	T4
STR.				
38	13/16	11/16	13/16	11/16
39	3/4	11/16	13/16	3/4
41	3/4	11/16	13/16	3/4
42	3/4	3/8	7/8	3/4
43	11/16	3/8	7/8	13/16
44	11/16	3/8	7/8	13/16
45	11/16	3/8	13/16	13/16

FLOOR BEAM 43	T1	T2	T3	T4
STR.				
46	7/8	3/8	7/8	3/8
47	7/8	3/8	13/16	3/8
48	13/16	3/8	13/16	11/16
49	13/16	3/8	13/16	11/16
70	13/16	1/2	1	11/16
71	3/4	1/2	1	3/4
72	3/4	7/16	1 1/16	3/4

FLOOR BEAM 46 THRU 49	T1	T2	T3	T4
STR. 46 THRU 49	13/16	1/2	1	3/16

FLOOR BEAM 49	T1	T2	T3	T4
STR.				
47	7/8	1/2	1	5/8
48	7/8	3/8	13/16	5/8
49	7/8	3/8	13/16	5/8
90	7/8	3/8	13/16	5/8
91	13/16	3/8	13/16	3/8
92	13/16	3/8	13/16	3/8
93	13/16	3/8	13/16	3/8

FLOOR BEAM 50	T1	T2	T3	T4
STR.				
47	7/8	3/8	13/16	5/8
48	7/8	3/8	13/16	5/8
49	7/8	3/8	13/16	5/8
50	7/8	3/8	13/16	5/8
91	7/8	3/8	13/16	5/8
92	13/16	3/8	13/16	3/8
93	13/16	3/8	13/16	3/8

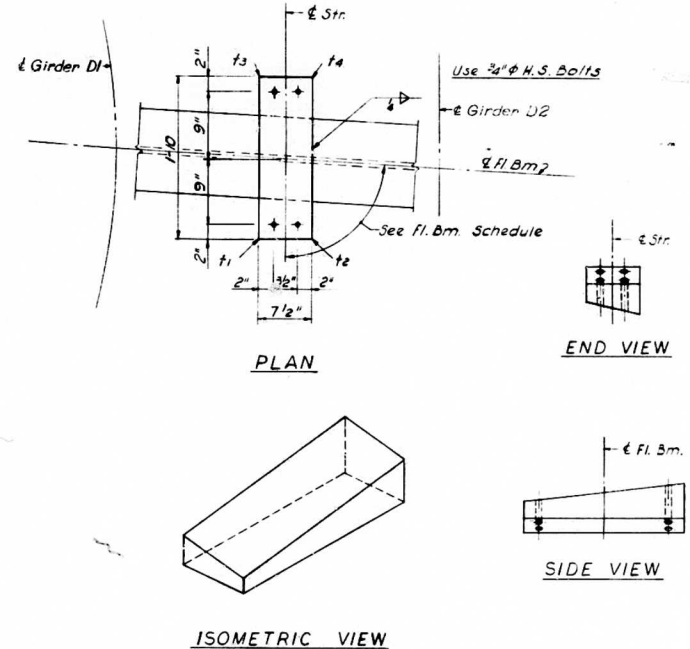
FLOOR BEAM 40	T1	T2	T3	T4
STR.				
50	13/16	11/16	13/16	11/16
49	13/16	3/8	7/8	11/16
61	3/4	3/8	7/8	3/4
62	3/4	3/8	7/8	3/4
63	3/4	3/8	13/16	3/4
64	11/16	3/8	13/16	13/16
65	11/16	3/8	13/16	13/16

FLOOR BEAM 44	T1	T2	T3	T4
STR.				
73	13/16	3/8	13/16	3/8
74	7/8	3/8	13/16	5/8
75	7/8	1/2	1	5/8
76	13/16	1/2	1	11/16
77	13/16	1/2	1	11/16
78	13/16	7/16	1 1/16	11/16
79	3/4	7/16	1 1/16	3/4

FLOOR BEAM 41	T1	T2	T3	T4
STR.				
66	13/16	3/8	7/8	11/16
67	13/16	3/8	7/8	11/16
68	13/16	3/8	7/8	11/16
69	3/4	3/8	13/16	3/4
70	3/4	3/8	13/16	3/4
71	3/4	3/8	13/16	3/4
72	11/16	1/2	1	13/16

FLOOR BEAM 45	T1	T2	T3	T4
STR.				
73	13/16	3/8	13/16	3/8
74	13/16	1/2	1	3/8
75	7/8	1/2	1	5/8
76	7/8	1/2	1	5/8
77	13/16	7/16	1 1/16	11/16
78	13/16	7/16	1 1/16	11/16
79	13/16	3/8	1 1/16	11/16

FLOOR BEAM 42	T1	T2	T3	T4
STR.				
46	7/8	3/8	7/8	3/8
47	13/16	3/8	7/8	11/16
48	13/16	3/8	13/16	11/16
49	13/16	3/8	13/16	11/16
70	3/4	3/8	13/16	3/4
71	3/4	1/2	1	3/4
72	3/4	1/2	1	3/4

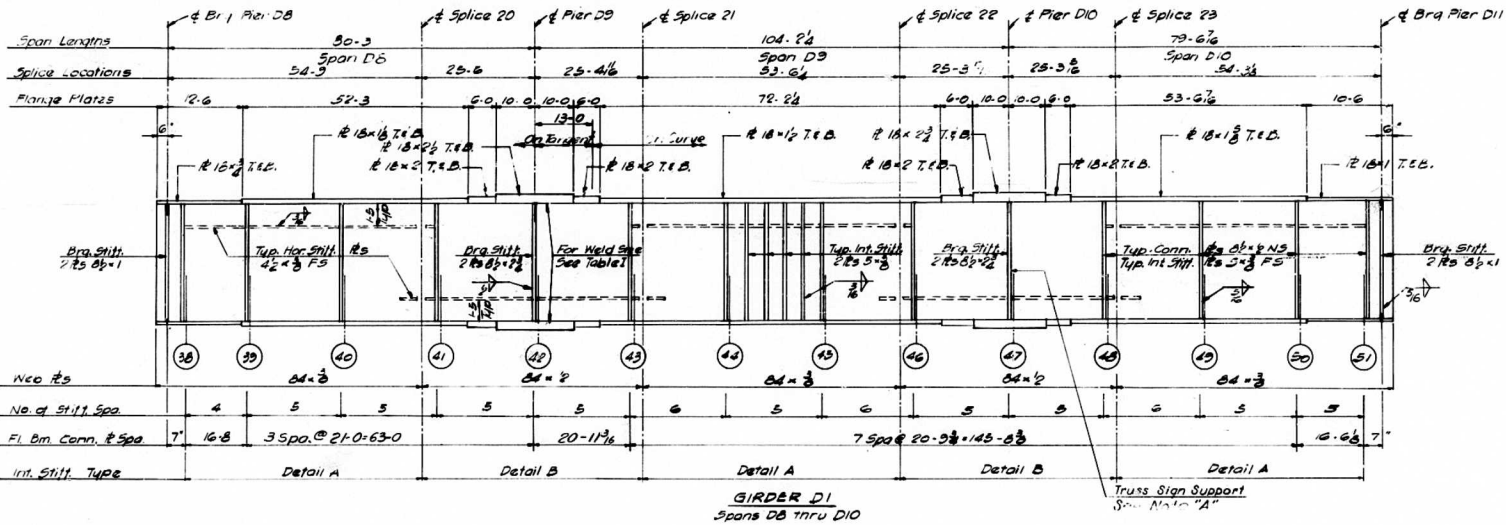


### SHIM DETAIL

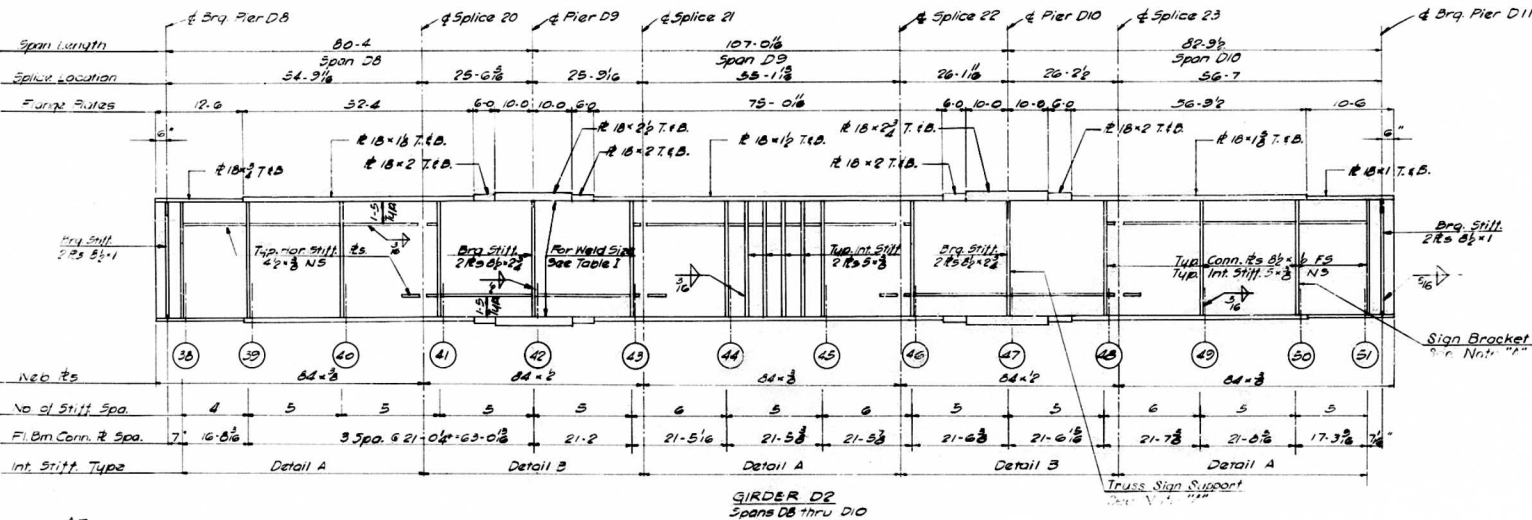
Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HV F & E-1	ST. CLAIR	297	90
FED. ROAD DIV. NO. 4	ILLINOIS		PROJECT	



Note "A"  
Interior Stiffeners should be moved if necessary to clear sign bracket Connection Plates.



Notes:  
All Longitudinal Dimensions shown are given along  $\epsilon$  of Web. See Sh. No. 217  
All Bearing Stiffeners and Connection Plates to be vertical.  
For Splice, Stiffener, Connection Plate Details, and Table I see Sh. No. 34B, 349 and 350.  
For Sign Bracket and Truss Sign Support Details see Sh. No. 360.

DESIGNED BY 4.7  
DRAWN BY 17  
CHECKED BY  
APPROVED BY M.A.

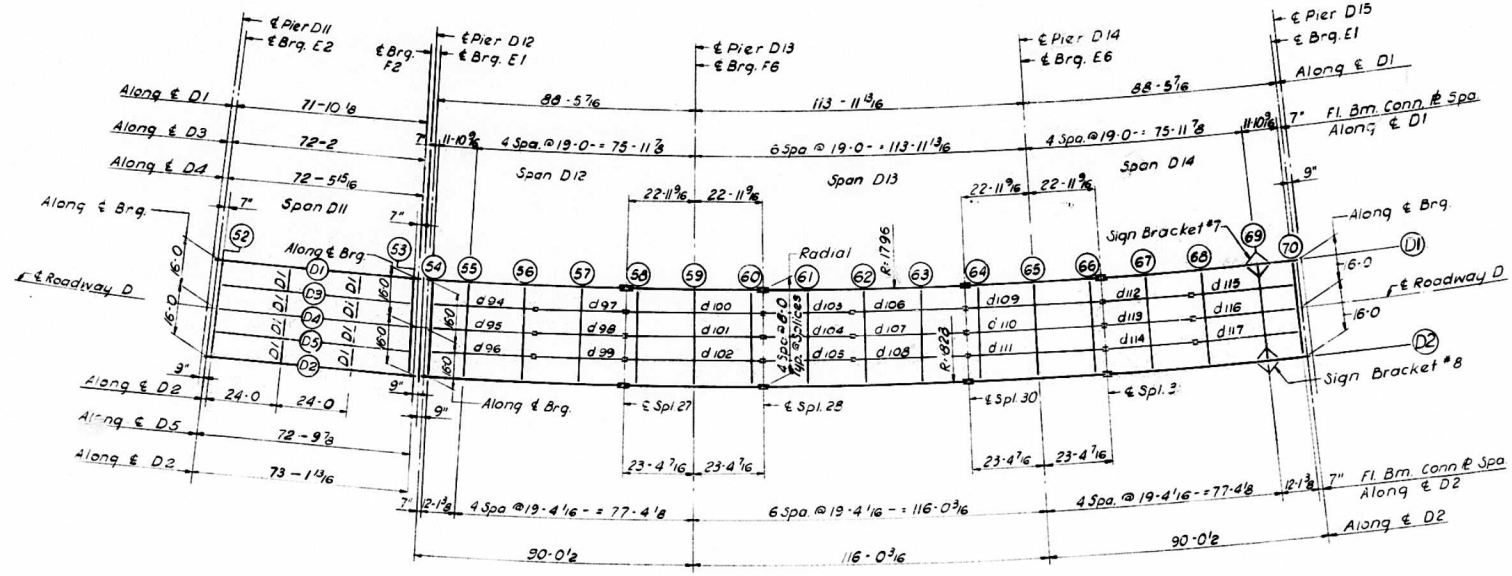
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

**GIRDERS D1 AND D2**  
SPANS D8 THRU D10  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HV F & E-1

N. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
220W 526



**PLAN**  
SPANS D11 THRU D14

ELEVATION TOP OF FLANGE

	STR. D1	STR. D2	DIFF.
CL. BRG.	447,151	449,061	2,510
FLOOR BEAM 5P	447,154	449,065	2,511
FLOOR BEAM 53	447,511	450,071	2,560
CL. BRG.	447,534	450,074	2,560

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.		GIR. D1	GIR. D2	DIFF.
CL. BRG.	447,313	449,073	2,500	FLOOR BEAM 63	448,000	449,630	2,500
FLOOR BEAM 54	447,316	449,076	2,500	SPLICE 30	448,102	449,772	2,500
FLOOR BEAM 55	447,376	449,036	2,500	FLOOR BEAM 64	448,174	449,734	2,500
FLOOR BEAM 56	447,472	490,002	2,500	FLOOR BEAM 65	448,276	449,736	2,500
FLOOR BEAM 57	447,507	490,127	2,500	FLOOR BEAM 66	448,370	449,830	2,500
SPLICE 27	447,643	490,303	2,500	SPLICE 31	448,390	449,890	2,500
FLOOR BEAM 58	447,683	490,223	2,500	FLOOR BEAM 67	448,310	449,870	2,500
FLOOR BEAM 59	447,739	490,319	2,500	FLOOR BEAM 68	448,336	449,836	2,500
FLOOR BEAM 60	447,935	490,415	2,500	FLOOR BEAM 69	448,367	449,867	2,500
SPLICE 28	447,975	490,435	2,500	FLOOR BEAM 70	448,378	449,838	2,500
FLOOR BEAM 61	447,939	490,400	2,500	CL. BRG.	448,378	490,878	2,500
FLOOR BEAM 62	448,019	490,579	2,500				

**Note:**  
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183 For Sign Bracket Detail see Sheet No. 260

BILL OF MATERIAL	
*Structural Steel	Lbs. 460,100

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are included as Structural Steel Est. Wt. 11,270 lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
FRAMING PLAN  
SPANS D11 THRU D14  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT-70 ST. CLAIR CO. SECTION 82-3MVFE-1  
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET  
221 OF 295

DESIGNED BY R.M.R.  
DRAWN BY J.M.  
CHECKED BY A.J.C.  
APPROVED BY R.A.

**STRINGER DIMENSIONS**

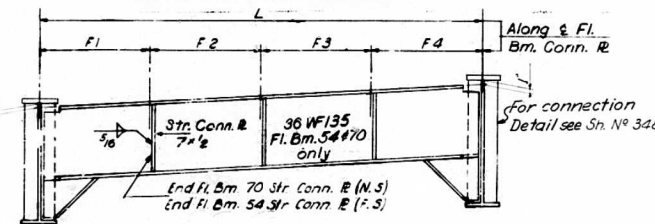
STR	L	S1	S2	S3	S4	B1	B2
94	35 1/16	11 11 1/4		19 1	3 11 13/16	89,24,06	89,26,39
95	35 2	12		19 2	4	89,24,07	89,26,38
96	35 3 15/16	12 11/16		19 3	4 3/16	89,24,07	89,26,38
97	30 2 3/8	15 1 3/16			15 1 3/16	89,31,14	89,31,14
98	30 4	15 2			15 2	89,31,14	89,31,14
99	30 5 5/8	15 2 13/16			15 2 13/16	89,31,14	89,31,14
100	46 1 1/2	3 11 13/16	19 1		3 11 13/16	89,16,03	89,16,03
101	46 4	4	19 2		4	89,16,03	89,16,03
102	46 6 7/16	4 3/16	19 3		4 3/16	89,16,03	89,16,03
103	30 2 3/8	15 1 3/16			15 1 3/16	89,31,14	89,31,14
104	30 4	15 2			15 2	89,31,14	89,31,14
105	30 5 5/8	15 2 13/16			15 2 13/16	89,31,14	89,31,14
106	38 1 15/16	3 11 13/16	19 1		3 11 13/16	89,23,38	89,23,38
107	38 4	4	19 2		4	89,23,38	89,23,38
108	38 6	4 3/16	19 3		4 3/16	89,23,38	89,23,38
109	46 1 1/2	3 11 13/16	19 1	19 1	3 11 13/16	89,16,03	89,16,03
110	46 4	4	19 2	19 2	4	89,16,03	89,16,03
111	46 6 7/16	4 3/16	19 3	19 3	4 3/16	89,16,03	89,16,03
112	30 2 3/8	15 1 3/16			15 1 3/16	89,31,14	89,31,14
113	30 4	15 2			15 2	89,31,14	89,31,14
114	30 5 5/8	15 2 13/16			15 2 13/16	89,31,14	89,31,14
115	35 1/16	3 11 13/16	19 1		3 11 13/16	89,26,39	89,24,06
116	35 2	4	19 2		4	89,26,38	89,24,07
117	35 3 15/16	4 3/16	19 3		4 3/16	89,26,38	89,24,07

**FLOOR BEAM DIMENSIONS**

FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
52	34'	0'	0'	0'	0'	89,49,48	89,49,48	89,49,48	89,49,48	89,49,48
53	34'	0	0	0	0	91,10,12	91,10,12	91,10,12	91,10,12	91,10,12
54	32'	8	8	8	8	89,27,27	89,24,06	89,24,07	89,24,07	89,27,29
55	32'	7 11 1/16	8	8	8	15/16	90,00,00	89,48,24	89,48,24	89,48,25
56	32'	7 11 9/16	8	8	8	7/16	90,00,00	90,25,46	90,25,46	90,25,47
57	32'	7 11 9/16	8	8	8	3/4	90,00,00	90,00,00	90,00,00	90,00,00
58	32'	7 11 7/16	8	8	8	9/16	90,00,00	89,23,38	89,23,38	89,23,38
59	32'	7 10 1/4	8	8	8	1 13/16	90,00,00	90,00,00	90,00,00	90,00,00
60	32'	7 11 7/16	8	8	8	9/16	90,00,00	90,38,22	90,38,22	90,38,22
61	32'	7 11 1/4	8	8	8	3/4	90,00,00	90,00,00	90,00,00	90,00,00
62	32'	7 11 9/16	8	8	8	7/16	90,00,00	90,00,00	89,31,14	89,31,14
63	32'	7 10 13/16	8	8	8	1 3/16	90,00,00	90,07,35	90,07,35	90,00,00
64	32'	7 11 7/16	8	8	8	9/16	90,00,00	89,23,38	89,23,38	89,23,38
65	32'	7 10 1/4	8	8	8	1 13/16	90,00,00	90,00,00	90,00,00	90,00,00
66	32'	7 11 7/16	8	8	8	9/16	90,00,00	90,38,22	90,38,22	90,38,22
67	32'	7 11 1/4	8	8	8	3/4	90,00,00	90,00,00	90,00,00	90,00,00
68	32'	7 11 9/16	8	8	8	7/16	90,00,00	89,31,14	89,31,14	89,31,13
69	32'	7 11 1/16	8	8	8	15/16	90,00,00	90,10,36	90,10,36	90,10,35
70	32'	0	0	0	0	90,02,33	90,35,54	90,35,53	90,35,53	90,02,31

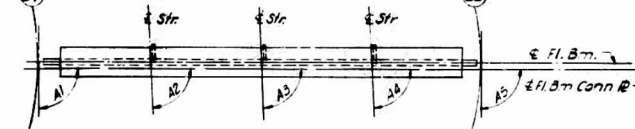


PLAN END FL. BM. 53 AND 70



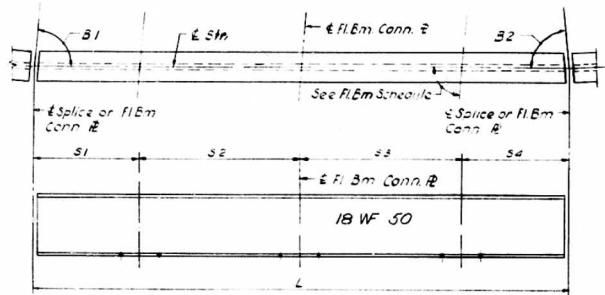
ELEVATION END FL. BM. 54 AND 70

Note: for Elevation and Detail of End Fl. Bm. 52 and 53 see Sh. No. 224

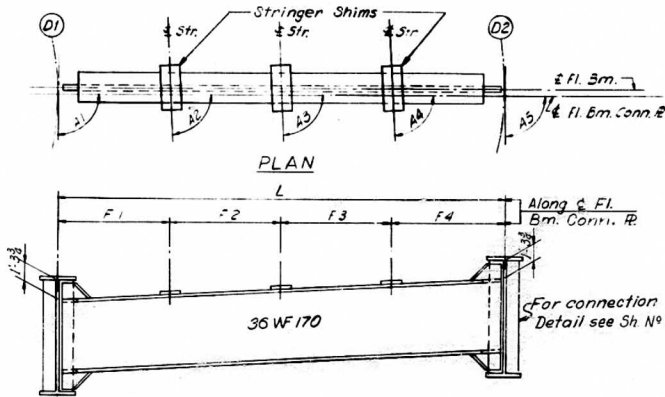


PLAN END FL. BM. 52 AND 54  
END FLOOR BEAM 52,53,54 AND 70

Notes:  
Length L of Stringers and Fl Bms is correct as given in the table except the increment lengths are given to the nearest 1/8".  
All dimensions are in the horizontal plane.  
For Details of Stringers in Span D11 see Sh. No. 224  
For Connection Plate Details see Sh. No. 348



TYPICAL STRINGER



ELEVATION  
INTERIOR FLOOR BEAM 55 THRU 69

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
STRINGER AND FLOOR BEAM  
SCHEDULE  
SPANS D11 THRU D14  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"  
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3WFB-E-1  
H. W. LOCHNER, INC.  
ENGINEER'S  
CHICAGO, ILLINOIS

DESIGNED BY: A.T.G.A.I.C.  
DRAWN BY: L.M.  
CHECKED BY: A.A.  
APPROVED BY: K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.-70	B2-3HVFBE-1	ST. CLAIR	247	93
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

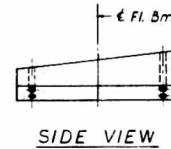
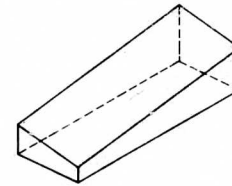
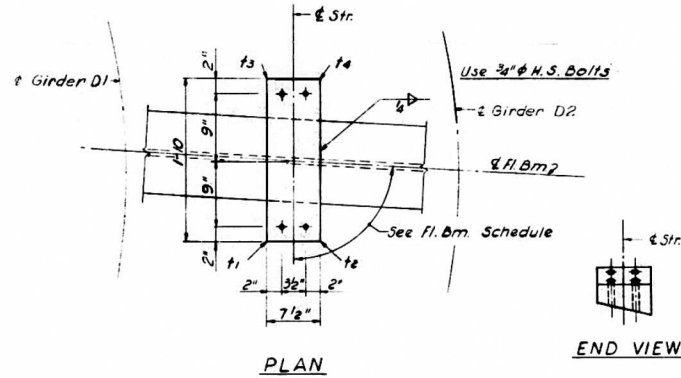
FLOOR BEAM	T1	T2	T3	T4
55 THRU 57				
STR. 94 THRU 96	1	3/8	1 1/8	1/2

FLOOR BEAM	T1	T2	T3	T4
58 THRU 60				
STR. 100 THRU 102	1	3/8	1 1/8	1/2

FLOOR BEAM	T1	T2	T3	T4
61 THRU 63				
STR. 103 THRU 105	1	3/8	1 1/8	1/2

FLOOR BEAM	T1	T2	T3	T4
64 THRU 66				
STR. 106 THRU 111	1	7/16	1 1/16	1/2

FLOOR BEAM	T1	T2	T3	T4
67 THRU 69				
STR. 112 THRU 117	1	1/16	7/16	1 1/16



ISOMETRIC VIEW

SIDE VIEW

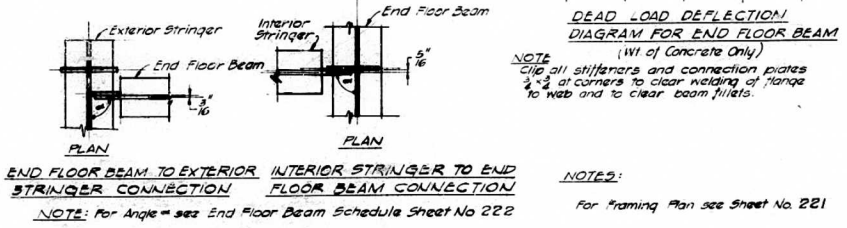
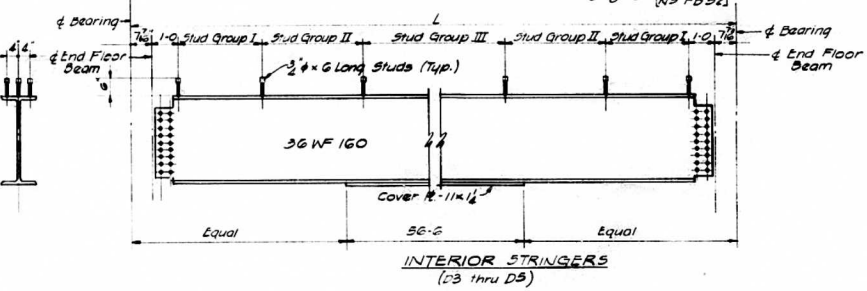
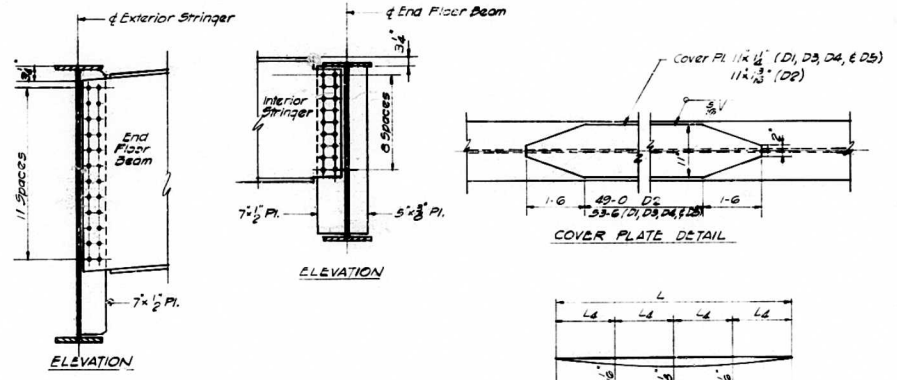
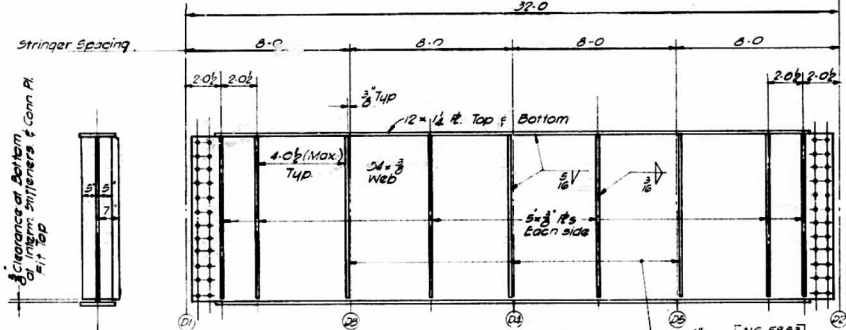
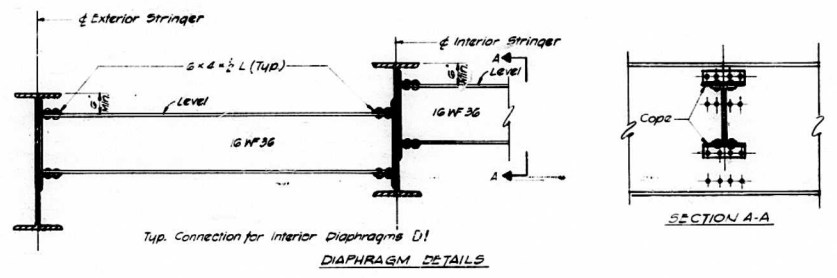
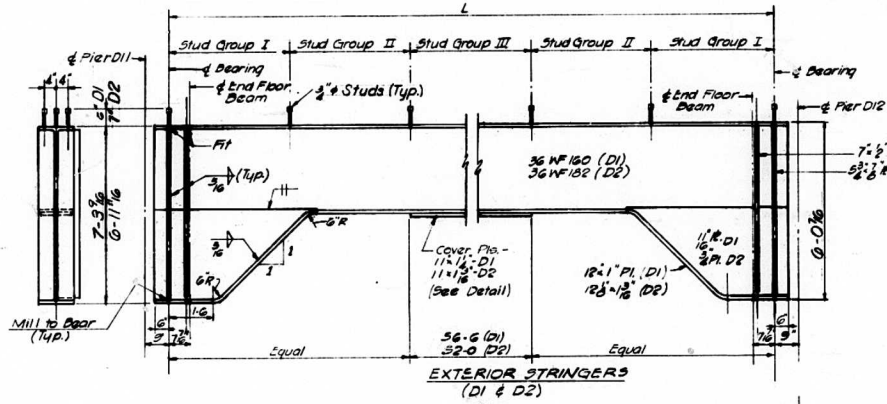
SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**STRINGER SHIMS**  
SPANS D12 THRU D14  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"  
F. A. I. RT. 70 ST. CLAIR CO. SECTION B2-3HVFBE-1  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
223 of 526

DESIGNED BY A.J.C.  
DRAWN BY D.C.H.  
CHECKED BY A.S.  
APPROVED BY R.A.



STRINGER LENGTH & SHEAR CONVL SPACING			
STRINGER	LENGTH	GROUP I	GROUP II
D1	71'-10 1/2"	36 @ 4 1/2"	28 @ 6 1/2"
D3	72'-2"	32 @ 4 1/2"	28 @ 6 1/2"
D4	72'-5 1/2"	32 @ 4 1/2"	30 @ 6 1/2"
D5	72'-3 1/2"	32 @ 4 1/2"	30 @ 6 1/2"
D2	73'-1 1/2"	36 @ 4 1/2"	28 @ 6 1/2"

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

**STEEL DETAILS**

SPAN D11  
**POPLAR STREET BRIDGE APPROACHES**  
ROADWAY "D"

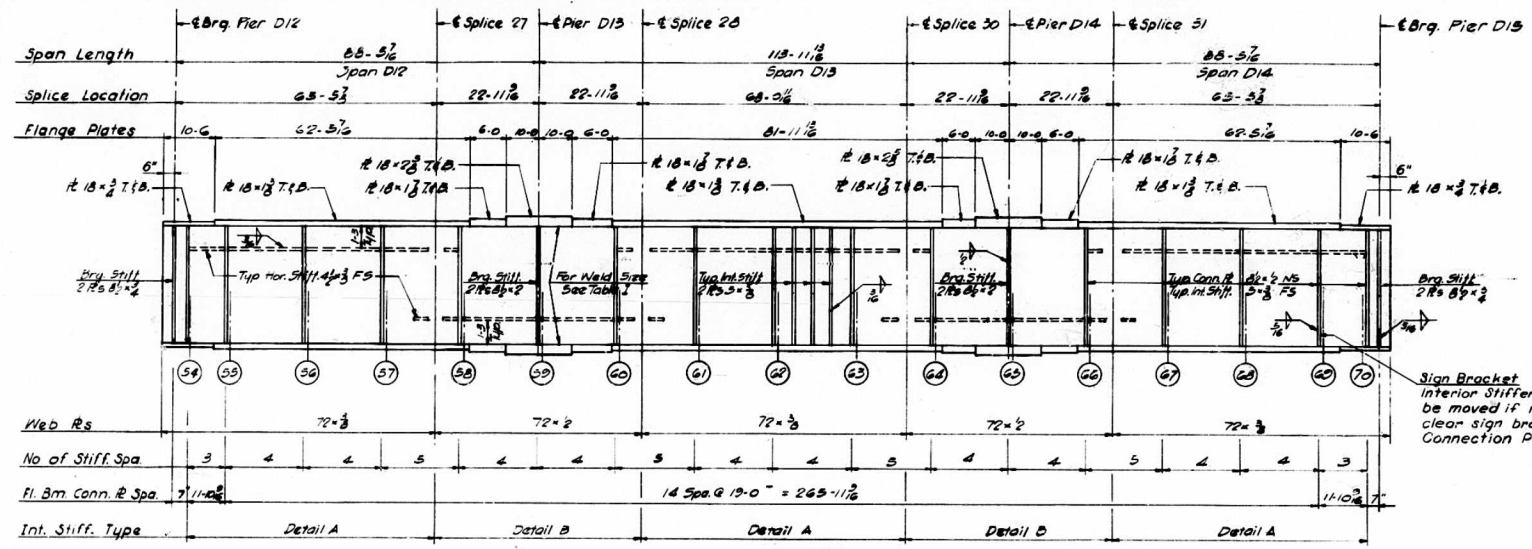
F.A.I. RT. TO ST. CLAIR CO. SECTION 82-3HVFB-E-1

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

**SHEET**  
247

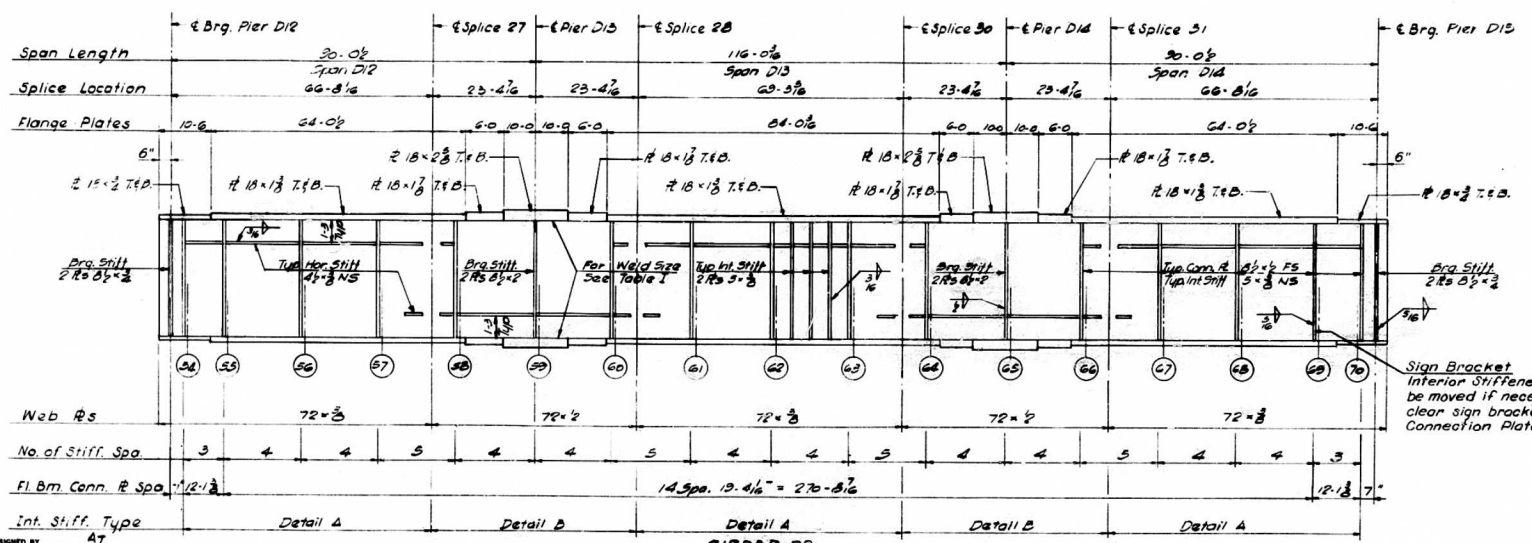
DESIGNED BY: H.J.  
DRAWN BY: J.P.  
CHECKED BY: L.W.  
APPROVED BY: K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	347	95
FED. ROAD DIV. NO. 4	ILLINOIS PROJECT			



GIRDER D1  
Spans D12 thru D14

Sign Bracket  
Interior Stiffeners should be moved if necessary to clear sign bracket Connection Plates.



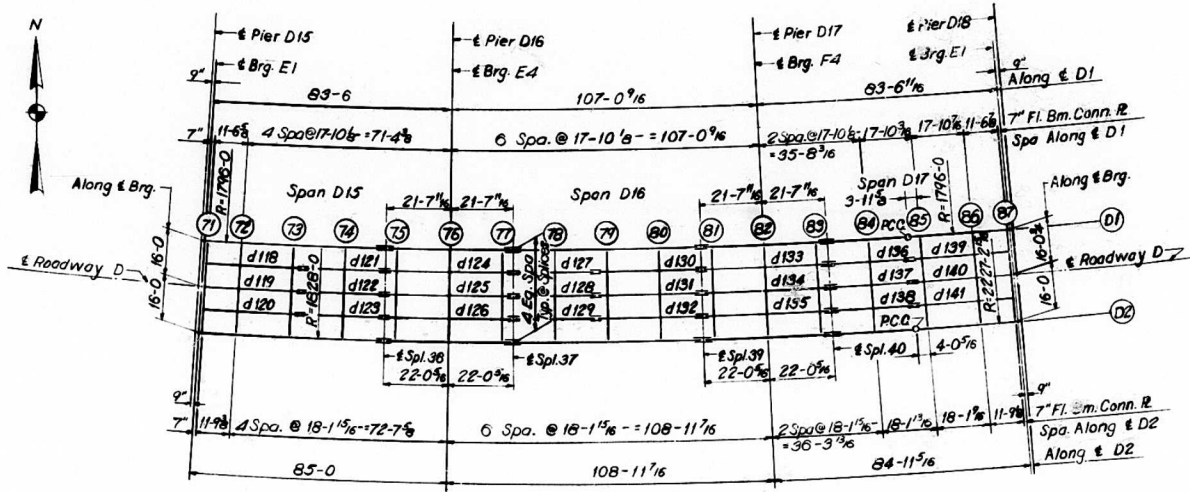
GIRDER D2  
Spans D12 thru D14

Sign Bracket  
Interior Stiffeners should be moved if necessary to clear sign bracket Connection Plates.

Notes:  
All Longitudinal Dimensions shown are given along @ of Web. See Sh. No. 221  
All Bearing Stiffeners and Connection Plates to be vertical.  
For Splice, Stiffener, Connection Plate Details, and Table I see Sh. No. 34B, 349 and 350.  
For Sign Bracket Detail see Sh. No. 360.

DESIGNED BY: AT  
DRAWN BY: VT  
CHECKED BY: E.L.  
APPROVED BY: KA

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
GIRDERS D1 AND D2  
SPANS D12 THRU D14  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"  
FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS



PLAN  
SPANS D15 THRU D17

ELEVATION TOP OF GIRDER MED

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	448.380	490.840	2.560
FLOOR BEAM 71	448.379	490.839	2.560
FLOOR BEAM 72	448.376	490.836	2.560
FLOOR BEAM 73	448.371	490.831	2.560
FLOOR BEAM 74	448.365	490.825	2.560
SPLICE 35	448.361	490.821	2.560
FLOOR BEAM 75	448.359	490.815	2.560
FLOOR BEAM 76	448.373	490.895	2.560
FLOOR BEAM 77	448.796	490.856	2.560
SPLICE 37	448.290	490.839	2.560
FLOOR BEAM 78	448.748	490.808	2.560
FLOOR BEAM 79	448.194	490.754	2.560
FLOOR BEAM 80	448.141	490.701	2.560
SPLICE 38	448.090	490.659	2.560
FLOOR BEAM 81	448.082	490.642	2.560
FLOOR BEAM 82	448.084	490.664	2.560
FLOOR BEAM 83	447.926	490.486	2.560
SPLICE 40	447.910	490.470	2.560
FLOOR BEAM 84	447.866	490.371	2.505
FLOOR BEAM 85	447.810	490.247	2.437
FLOOR BEAM 86	447.754	490.122	2.368
FLOOR BEAM 87	447.718	490.041	2.323
CL. BRG.	447.716	490.037	2.321

Note: Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see Sketch Sheet No.183

BILL OF MATERIAL	
*Structural Steel	Lbs. 324,670

\* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 696<sup>00</sup> lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
SPANS D15 THRU D17  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT.70 ST. CLAIR CO. SECTION 82-3HVFE-1  
H. W. LÖCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
2269 526

DESIGNED BY R.M.R.  
DRAWN BY D.G.H.  
CHECKED BY A.J.C.  
APPROVED BY K.A.

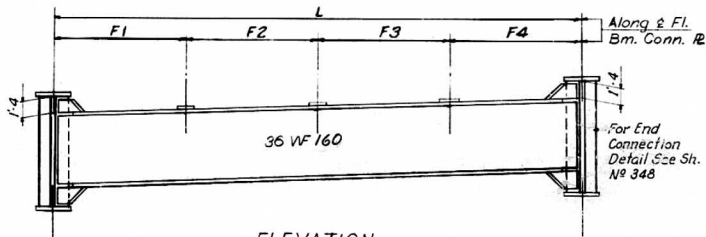
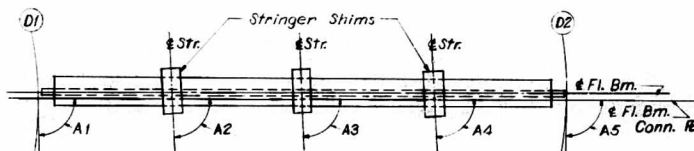
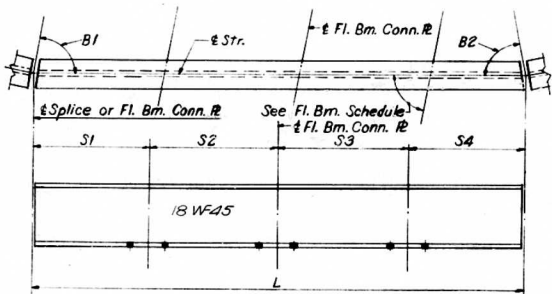


**STRINGER DIMENSIONS**

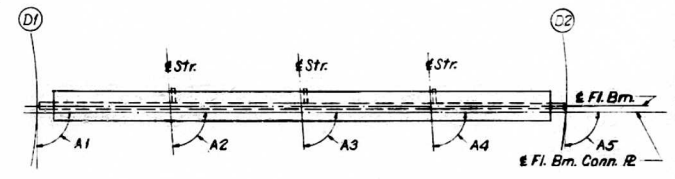
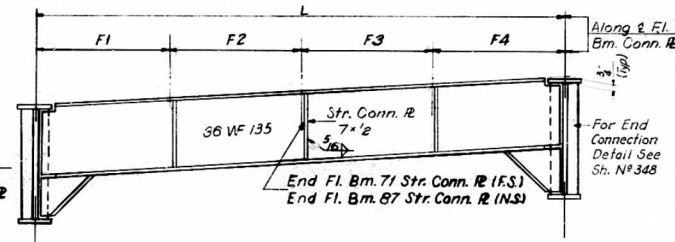
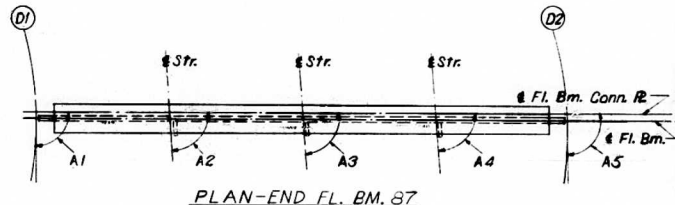
STRID	L	S1	S2	S3	S4	B1	B2
118	33'-8 1/8"	11'-7 5/16"		17'-11 1/16"	3'-9 13/16"	89.25.41"	89.26.14"
119	33' 6"	11' 8"		18'	3' 10"	89.25.42"	89.26.13"
120	33' 7 13/16"	11' 8 11/16"		18'	3' 10 3/16"	89.25.42"	89.26.13"
121	28' 2 1/2"	14' 1 1/4"				89.33.07"	89.33.07"
122	28' 4"	14' 2"				89.33.07"	89.33.07"
123	28' 5 1/2"	14' 2 3/4"				89.33.07"	89.33.07"
124	43' 5 11/16"	3' 9 13/16"	17' 11 1/16"	17' 11 1/16"	3' 9 13/16"	89.16.35"	89.16.35"
125	43' 8"	3' 10"	18'	18'	3' 10"	89.16.35"	89.16.35"
126	43' 10 5/16"	3' 10 3/16"	18' 15/16"	18' 15/16"	3' 10 3/16"	89.16.35"	89.16.35"
127	28' 2 1/2"	14' 1 1/4"				89.33.07"	89.33.08"
128	28' 4"	14' 2"				89.33.07"	89.33.08"
129	28' 5 1/2"	14' 2 3/4"				89.33.07"	89.33.08"
130	35' 10 1/16"	3' 9 13/16"	17' 11 1/16"		14' 1 1/4"	89.25.51"	89.25.51"
131	35'	3' 10"	18'		14' 2"	89.25.51"	89.25.51"
132	36' 1 7/8"	3' 10 3/16"	18' 15/16"		14' 2 3/4"	89.25.51"	89.25.51"
133	43' 5 11/16"	3' 9 13/16"	17' 11 1/16"	17' 11 1/16"	3' 9 13/16"	89.16.35"	89.16.35"
134	43' 8"	3' 10"	18'		3' 10"	89.16.35"	89.16.35"
135	43' 10 5/16"	3' 10 3/16"	18' 15/16"	18' 15/16"	3' 10 3/16"	89.16.35"	89.16.35"
136	28' 2 1/2"	14' 1 1/4"				89.33.07"	89.33.11"
137	28' 4"	14' 2"				89.33.07"	89.33.11"
138	28' 5 1/2"	14' 2 3/4"				89.33.07"	89.33.11"
139	33' 4 1/2"	3' 9 13/16"				89.25.36"	89.26.15"
140	33' 6"	3' 10"				89.31.04"	89.34.47"
141	33' 7 1/2"	3' 10 3/16"				89.26.31"	89.32.20"

**FLOOR BEAM DIMENSIONS**

FL. BM.	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
71	33'-8 1/8"	0'-0"	0'-0"	0'-0"	0'-0"	89.27.28"	89.26.41"	89.26.42"	89.25.42"	89.27.28"
72	33'	7' 11 3/8"	0'	0'	0' 7/8"	89.00.00"	89.00.21"	89.00.21"	89.00.22"	89.00.00"
73	33'	7' 11 5/8"	0'	0'	0' 3/8"	89.00.00"	89.04.30"	89.04.30"	89.04.31"	89.00.00"
74	33'	7' 11 5/16"	0'	0'	0' 11/16"	89.00.00"	89.00.00"	89.00.00"	89.00.00"	89.00.00"
75	33'	7' 11 1/2"	0'	0'	0' 1/2"	89.00.00"	89.25.51"	89.25.51"	89.25.51"	89.00.00"
76	33'	7' 10 7/16"	0'	0'	0' 1 9/16"	89.00.00"	89.00.00"	89.00.00"	89.00.00"	89.00.00"
77	33'	7' 11 1/2"	0'	0'	0' 1/2"	89.00.00"	89.34.09"	89.34.09"	89.34.09"	89.00.00"
78	33'	7' 11 5/16"	0'	0'	0' 11/16"	89.00.00"	89.00.00"	89.00.00"	89.00.00"	89.00.00"
79	33'	7' 11 5/16"	0'	0'	0' 11/16"	89.00.00"	89.33.07"	89.33.07"	89.33.07"	89.00.00"
80	33'	7' 11 3/16"	0'	0'	0' 7/16"	89.00.00"	89.33.07"	89.33.07"	89.33.07"	89.00.00"
81	33'	7' 11 1/2"	0'	0'	0' 1/2"	89.00.00"	89.07.16"	89.07.16"	89.07.16"	89.00.00"
82	33'	7' 11 1/2"	0'	0'	0' 1 9/16"	89.00.00"	89.25.51"	89.25.51"	89.25.51"	89.00.00"
83	33'	7' 10 7/16"	0'	0'	0' 1 9/16"	89.00.00"	89.00.00"	89.00.00"	89.00.00"	89.00.00"
84	33'	7' 11 1/2"	0'	0'	0' 1/2"	89.00.00"	89.34.09"	89.34.09"	89.34.09"	89.00.00"
85	33'	7' 11 5/16"	0'	0'	0' 11/16"	89.00.00"	89.00.00"	89.00.00"	89.00.00"	89.00.00"
86	33'	7' 11 5/8"	0'	0'	0' 5/8"	89.00.00"	89.36.33"	89.37.01"	89.36.33"	89.00.00"
87	33'	5' 1/8"	7' 11 1/4"	0' 1/8"	0' 13/16"	89.00.00"	89.05.22"	89.05.00"	89.05.27"	89.00.00"
88	33'	11' 1/8"	0' 3/16"	0' 3/16"	0' 3/16"	89.00.00"	89.23.45"	89.25.13"	89.26.40"	89.00.00"



**INTERIOR FLOOR BEAM 72 THRU 86**



**END FLOOR BEAM 71 AND 87**

**Notes:**  
 Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8".  
 All dimensions are in the horizontal plane.  
 For Connection Plate Details see Sheet No. 348

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 STRINGER AND FLOOR BEAM  
 SCHEDULE  
 SPANS D15 THRU D17  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

FA 1 R 70 ST. CLAIR CO. SECTION 82-3MFBE-1  
 H. W. LOC'NER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET 227 OF 288

DESIGNED BY A.T. & A.J.C.  
 DRAWN BY DCH  
 CHECKED BY A.A.  
 APPROVED BY K.A.

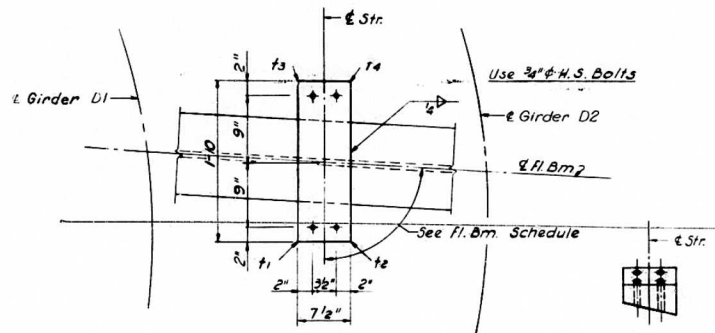
FLOOR BEAM	T1	T2	T3	T4
STR. 118 THRU 123	1 1/16	7/16	1 1/16	7/16

FLOOR BEAM	T1	T2	T3	T4
STR. 124 THRU 126	1 1/16	7/16	1 1/16	7/16

FLOOR BEAM	T1	T2	T3	T4
STR. 127 THRU 132	1 1/16	1/2	1	7/16

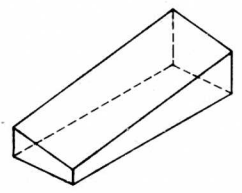
FLOOR BEAM	T1	T2	T3	T4
STR. 133 THRU 135	1 1/8	1/2	1	3/8

FLOOR BEAM	T1	T2	T3	T4
STR. 136 THRU 141	1 1/16	1/2	1	7/16

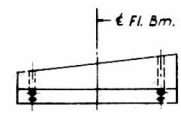


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.J.C.  
 DRAWN BY D.C.H.  
 CHECKED BY A.S.  
 APPROVED BY K.A.

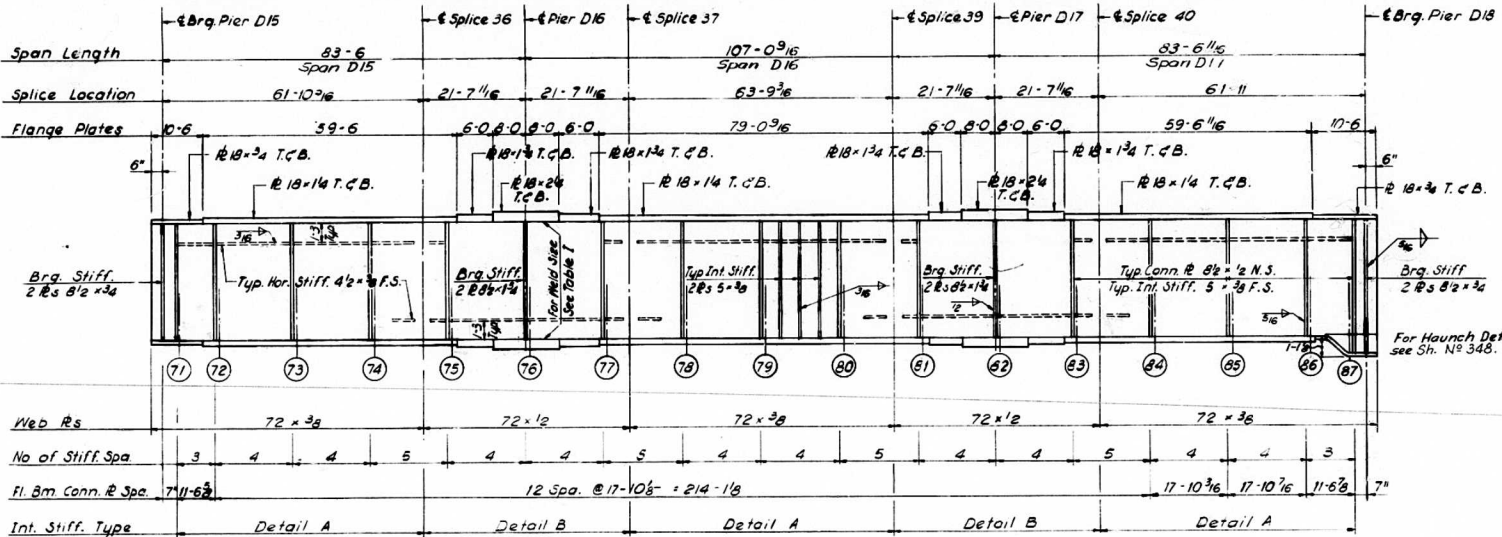
STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

**STRINGER SHIMS**  
 SPANS D15 THRU D17  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

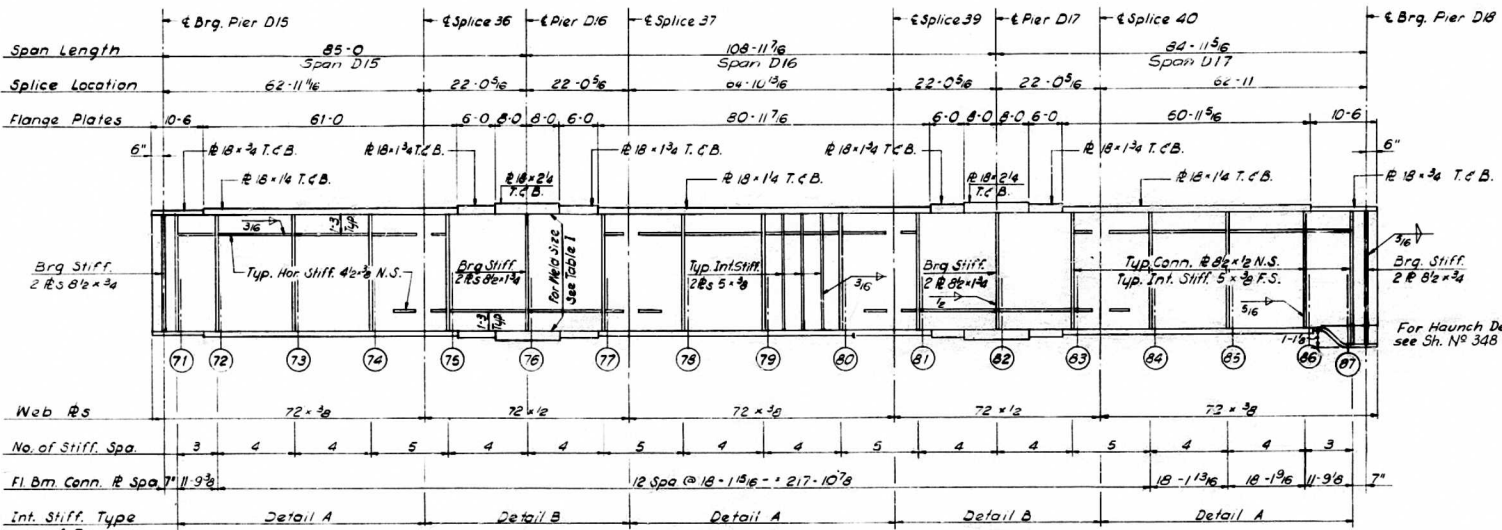
F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFB-E-1  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 228 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. 70	82-3HVF & E-1	ST. CLAIR	247	99
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



**GIRDER D1**  
SPANS D15 THRU D17



**GIRDER D2**  
SPANS D15 THRU D17

Notes  
All Longitudinal Dimensions shown are given along  $\epsilon$  of Web. See Sh. No. 22G.  
All Bearing Stiffeners and Connection Plates to be vertical.  
For Splice, Stiffener, Connection Plate Details and Table I see Sh. No. 34B, 349 and 350.

DESIGNED BY: A. T.  
DRAWN BY: J. M.  
CHECKED BY: E. L.  
APPROVED BY: K. A.

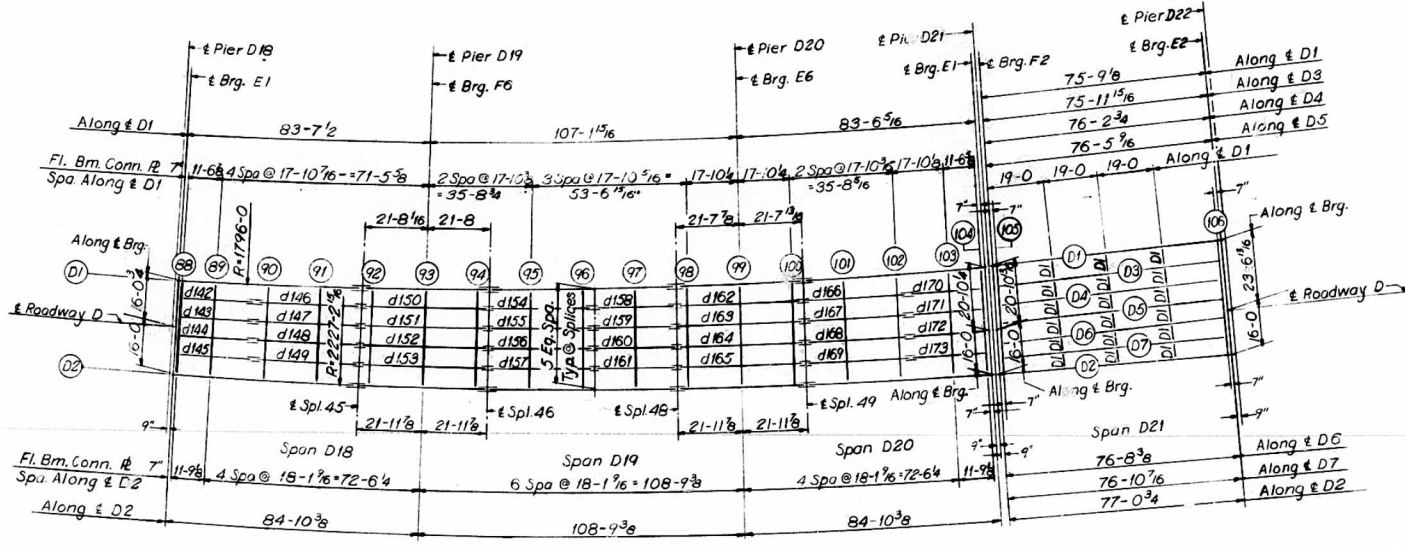
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2  
SPANS D15 THRU D17  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F. A. I. 70 ST. CLAIR CO SECTION 82-3HVF & E-1

N. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
2299/528



**PLAN**  
**SPANS D18 THRU D21**

ELEVATION TOP OF GIRDER LBS

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	447.700	450.029	2.321
FLOOR BEAM 88	447.785	450.027	2.222
FLOOR BEAM 89	447.641	449.860	2.227
FLOOR BEAM 90	447.542	449.878	2.336
FLOOR BEAM 91	447.443	449.790	2.345
SPLICE 45	447.366	449.717	2.351
FLOOR BEAM 92	447.263	449.606	2.350
FLOOR BEAM 93	447.236	449.600	2.370
FLOOR BEAM 94	447.132	449.518	2.386
SPLICE 46	447.110	449.499	2.389
FLOOR BEAM 95	447.021	449.428	2.407
FLOOR BEAM 96	446.908	449.336	2.430
FLOOR BEAM 97	446.796	449.248	2.452
SPLICE 48	446.707	449.177	2.470
FLOOR BEAM 98	446.607	449.156	2.476
FLOOR BEAM 99	446.502	449.080	2.506
FLOOR BEAM 100	446.442	449.978	2.536
SPLICE 49	446.417	449.930	2.542
FLOOR BEAM 101	446.317	449.898	2.571
FLOOR BEAM 102	446.191	449.798	2.607
FLOOR BEAM 103	446.080	449.708	2.643
FLOOR BEAM 104	445.963	449.630	2.667
CL. BRG.	445.978	448.647	2.669

ELEVATION TOP OF FLANGE

	STR. D1	STR. D2	DIFF.
CL. BRG.	446.176	448.848	2.672
FLOOR BEAM 105	446.172	448.845	2.673
FLOOR BEAM 106	445.605	448.460	2.853
CL. BRG.	445.600	448.465	2.863

Note: Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183

BILL OF MATERIAL	
*Structural Steel	Lbs. 483,295

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 11,270 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
SPANS D18 THRU D21  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFB-E-1  
H. W. LOCHNER, INC. ENGINEERS  
CHICAGO, ILLINOIS

DESIGNED BY R. M. R.  
DRAWN BY DCH  
CHECKED BY A. J. C.  
APPROVED BY K. A.

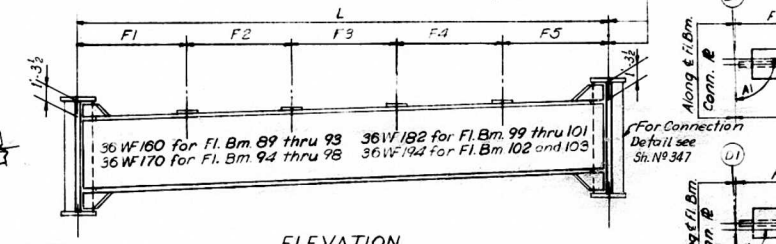
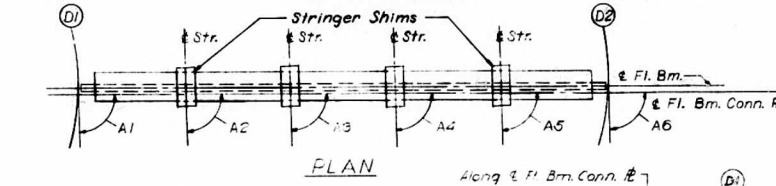
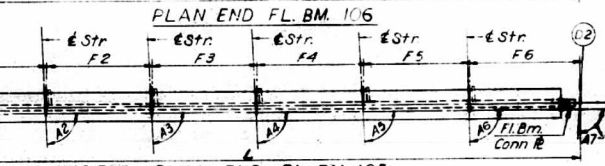
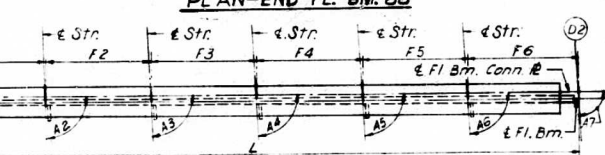
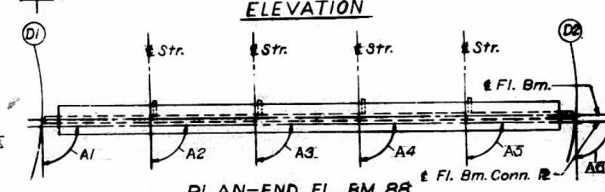
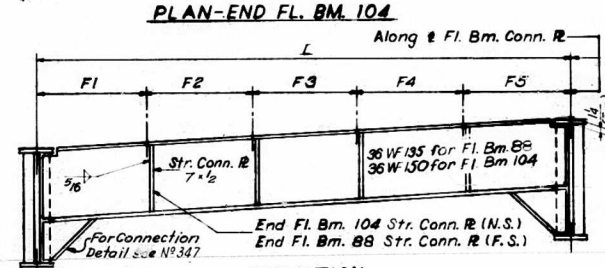
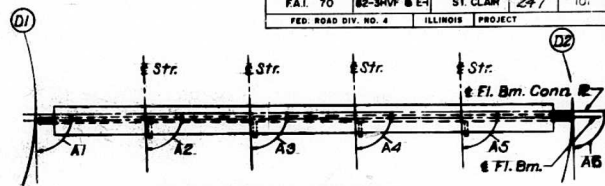
STRINGER DIMENSIONS

STRG	L	#1	#2	S3	S4	B1	B2
142	25'-8 9/16"	11'-7 3/16"	○	○	14'-1 1/4"	89,24,16	89,53,30
143	25 9 1/16"	11 7 3/4"	○	○	14 1 3/4"	89,27,42	89,50,04
144	25 10 7/16"	11 8 3/16"	○	○	14 2 1/4"	89,31,06	89,46,40
145	25 11 7/16"	11 9 11/16"	○	○	14 2 3/4"	89,34,29	89,43,17
146	35 10 1/16"	3 9 13/16"	○	○	14 1 3/4"	89,09,55	89,54,07
147	35 11 5/16"	3 9 15/16"	○	○	14 1 3/4"	89,15,30	89,48,32
148	36 5/8"	3 10 1/16"	○	○	14 2 1/4"	89,21,02	89,43,00
149	36 1 7/8"	3 10 3/16"	○	○	14 2 3/4"	89,26,32	89,37,29
150	43 5 5/8"	3 9 13/16"	○	○	17 11"	88,53,00	89,59,07
151	43 7 1/8"	3 9 15/16"	○	○	17 11 5/8"	89,01,20	89,50,47
152	43 8 11/16"	3 10 1/16"	○	○	18 1/4"	89,09,37	89,42,29
153	43 10 1/4"	3 10 3/16"	○	○	18 5/16"	89,17,52	89,34,15
154	35 9 15/16"	14 1 3/16"	○	○	3 9 3/4"	88,46,00	90,16,02
155	35 11 1/4"	14 1 11/16"	○	○	3 9 15/16"	88,59,06	90,04,56
156	36 1/2"	14 2 1/4"	○	○	3 10 1/16"	89,10,08	89,53,54
157	36 1 11/16"	14 2 3/4"	○	○	3 10 3/16"	89,21,07	89,46,55
158	26 2 5/16"	14 1 3/16"	○	○	14 1 1/8"	88,45,07	90,30,52
159	28 3 3/8"	14 1 11/16"	○	○	11 1 11/16"	88,58,27	90,17,30
160	28 4 3/8"	14 2 3/16"	○	○	11 2 3/16"	89,11,42	90,04,15
161	28 5 7/16"	14 2 11/16"	○	○	11 2 11/16"	89,24,53	89,51,04
162	43 5 5/16"	3 9 3/4"	○	○	17 10 15/16"	89,23,19	90,28,47
163	43 6 15/16"	3 9 15/16"	○	○	17 11 9/16"	88,39,79	90,12,58
164	43 8 1/2"	3 10 1/16"	○	○	18 1/4"	88,54,53	89,57,14
165	43 10 1/8"	3 10 3/16"	○	○	18 7/8"	89,10,31	89,41,36
166	25 9 11/16"	14 1 1/8"	○	○	3 9 3/4"	88,18,22	90,45,39
167	25 11"	14 1 5/8"	○	○	3 9 7/8"	88,36,58	90,27,04
168	26 3/8"	14 2 3/16"	○	○	3 10 1/16"	88,55,26	90,05,26
169	26 1 3/4"	14 2 11/16"	○	○	3 10 3/16"	89,13,47	89,55,15
170	25 8 1/8"	14 1 1/16"	○	○	11 7 1/16"	88,17,51	90,59,55
171	25 9 3/16"	14 1 9/16"	○	○	11 7 9/16"	88,36,34	90,39,11
172	25 10 1/4"	14 2 1/2"	○	○	11 8 1/4"	88,59,10	90,18,36
173	25 11 5/16"	14 2 11/16"	○	○	11 8 5/8"	3,19,36	89,58,10

FLOOR BEAM DIMENSIONS

FL. BM.	L	F1	F2	F3	F4	F5	A1	A2	A3	A4	A5	A6
88	25'-0 13/16"	6'-4 15/16"	6'-4 15/16"	6'-4 15/16"	6'-4 15/16"	6'-4 15/16"	89,45,21	89,24,16	89,27,42	89,31,06	89,34,29	89,57,56
89	32 1 3/8"	6 4 9/16"	6 5 1/8"	6 5 1/8"	6 5 1/8"	6 5 9/16"	89,43,25	89,44,29	89,47,54	89,51,19	89,54,42	90,00,00
90	32 2 5/8"	6 4 15/16"	6 5 5/16"	6 5 5/16"	6 5 5/16"	6 5 11/16"	89,37,12	89,15,53	89,21,27	89,27,00	89,32,30	90,00,00
91	32 4 1/4"	6 4 11/16"	6 5 11/16"	6 5 11/16"	6 5 11/16"	6 6 1/2"	89,30,59	89,43,52	89,49,26	89,56,59	90,00,29	90,00,00
92	36 6 1/4"	6 5 9/16"	6 6 1/16"	6 6 1/16"	6 6 1/16"	6 6 1/2"	89,24,46	88,58,57	89,07,18	89,15,35	89,23,49	90,00,00
93	32 8 5/8"	6 5	6 6 9/16"	6 6 9/16"	6 6 9/16"	6 7 7/16"	89,18,33	89,26,36	89,35,17	89,43,34	89,51,48	90,00,00
94	32 11 1/8"	6 6 5/8"	6 7 1/8"	6 7 1/8"	6 7 1/8"	6 7 1/2"	89,12,20	89,54,55	90,03,16	90,11,33	90,19,47	90,00,00
95	33 2 9/16"	6 6 3/4"	6 7 3/4"	6 7 3/4"	6 7 3/4"	6 8 9/16"	89,08,08	89,10,01	89,21,07	89,32,10	89,43,08	90,00,00
96	33 6 1/8"	6 8	6 8 7/16"	6 8 7/16"	6 8 7/16"	6 8 3/4"	88,59,56	89,38,00	89,49,07	90,00,09	90,11,07	90,00,00
97	33 10 1/16"	6 8 9/16"	6 9 1/4"	6 9 1/4"	6 9 1/4"	6 9 13/16"	88,53,44	89,07,09	89,20,23	89,33,44	89,46,54	90,00,00
98	34 2 3/8"	6 9 3/16"	6 10 1/16"	6 10 1/16"	6 10 1/16"	6 10 1/2"	88,47,32	88,29,17	88,45,07	89,00,51	89,16,29	90,00,00
99	34 7 1/16"	6 9 1/2"	6 11 1/16"	6 11 1/16"	6 11 1/16"	7 3/8"	88,41,20	88,57,16	89,13,06	89,28,50	89,44,28	90,00,00
100	35 3/16"	6 11 9/16"	7 1/16"	7 1/16"	7 1/16"	7 1/2"	88,35,09	89,25,15	89,41,05	89,50,19	90,12,27	90,00,00
101	35 5 11/16"	7 1/8"	7 1 3/16"	7 1 3/16"	7 1 3/16"	7 2	88,28,58	88,40,24	88,58,59	89,17,27	89,35,48	90,00,00
102	35 11 1/2"	7 2 5/16"	7 2 5/16"	7 2 5/16"	7 2 5/16"	7 2 5/8"	88,22,46	89,08,23	89,26,58	89,45,26	89,70,47	90,00,00
103	36 5 3/4"	7 3	7 3 9/16"	7 3 9/16"	7 3 9/16"	7 4	88,16,37	88,39,52	89,00,36	89,21,11	89,41,38	90,00,00
104	36 7 4 3/8"	7 4 3/8"	7 4 3/8"	7 4 3/8"	7 4 3/8"	7 4 3/8"	88,14,44	89,00,05	89,20,49	89,41,24	90,01,50	90,02,04

FL. BM.	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7
105	40 11	6 8	6 8	6 8	6 8	5 1 1/2"	5 1 1/2"	88,59,14	88,59,14	88,59,14	88,59,14	88,59,14	87,58,57	88,59,24
106	43 6 9/16"	6 7 7/8"	6 7 7/8"	6 7 7/8"	6 7 7/8"	6 5 1/2"	6 5 1/2"	89,59,30	88,59,30	88,59,30	88,59,30	88,59,30	90,00,12	91,00,12

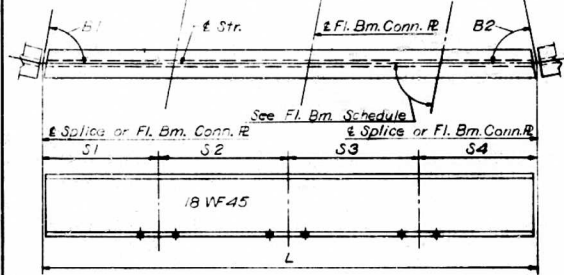


INTERIOR FLOOR BFAM 89 THRU 103

Note: For Elevation and Detail of End FL. BM. 105 and 106 See Sh. No.

PLAN END FL. BM. 105 AND 106

Notes: Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "16". All dimensions are in the horizontal plane. For Connection Plate Details see Sh. N° 348 For Details of Stringers in Span D21 see Sheet No. 234



DESIGNED BY: A.T.A.I.C.  
 DRAWN BY: DCH  
 CHECKED BY: A.A.  
 APPROVED BY: K.A.

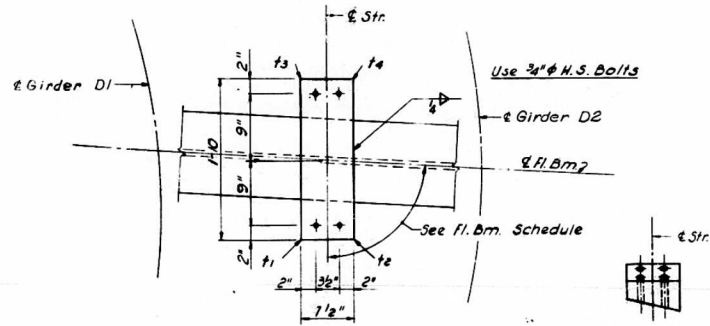
FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 142	THRU 149	1 1/16	9/16	15/16	7/16

FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 150	THRU 153	1 1/16	9/16	15/16	7/16

FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 154	THRU 161	1 1/16	9/16	15/16	7/16

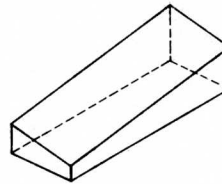
FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 162	THRU 165	1 1/16	9/16	15/16	7/16

FLOOR BEAM	THRU	T1	T2	T3	T4
STR. 166	THRU 173	1 1/8	9/16	15/16	3/8

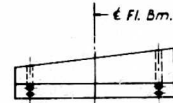


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

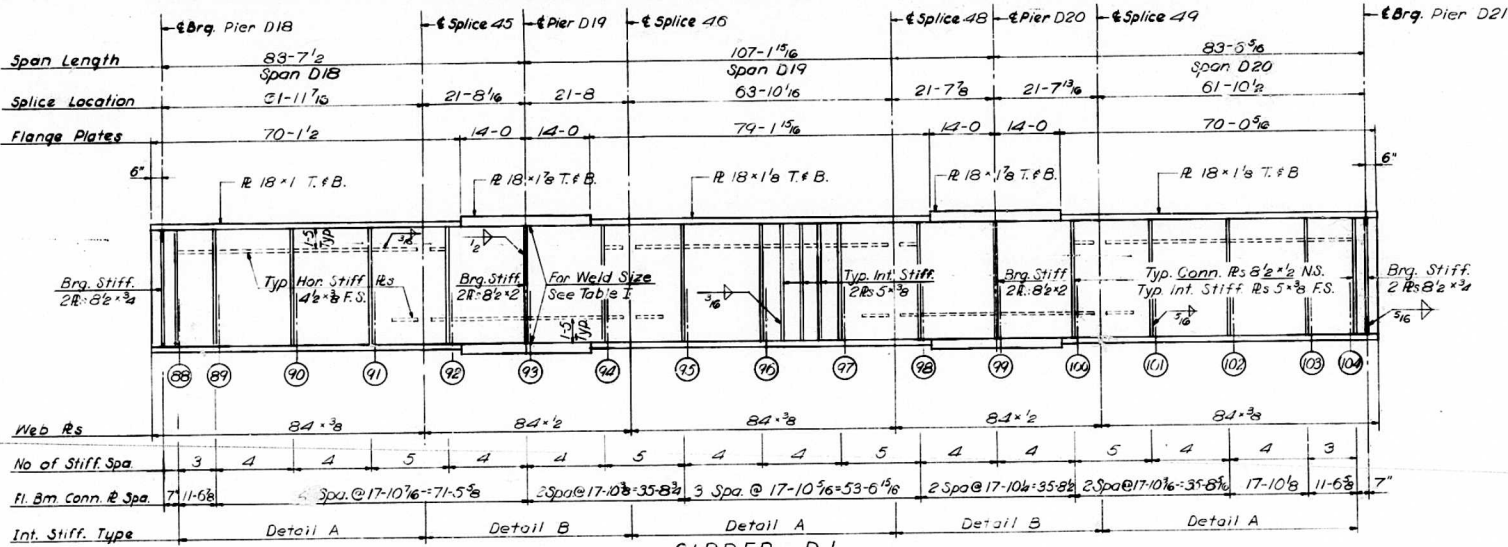
SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

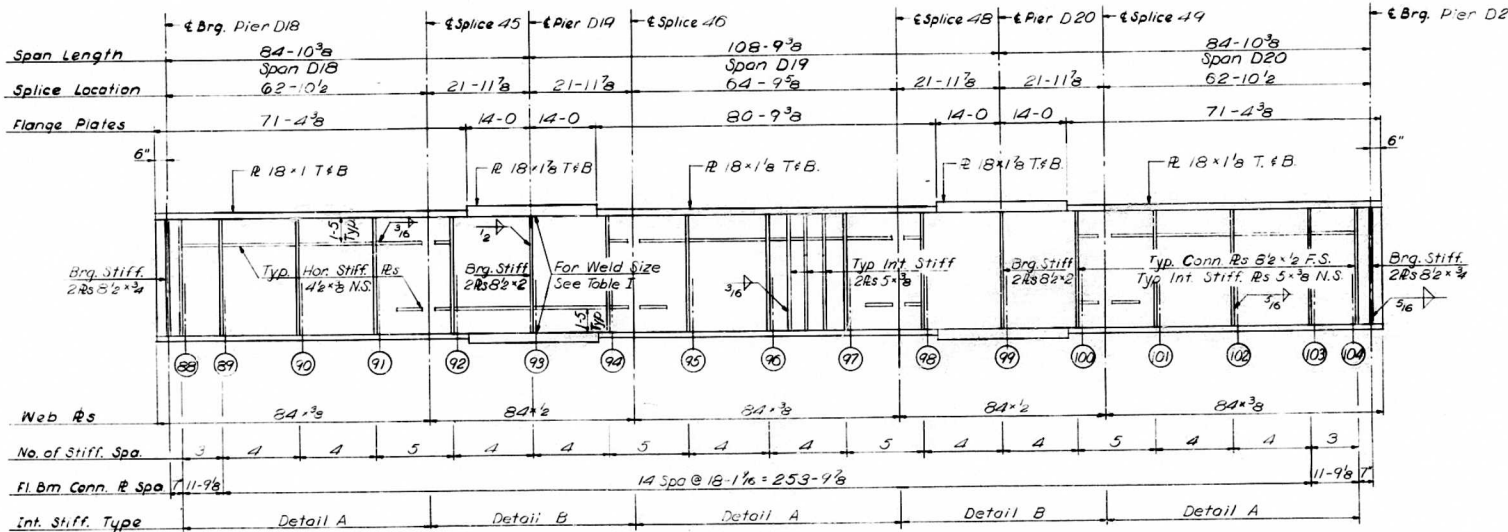
DESIGNED BY A.J.C.  
 DRAWN BY G.C.H.  
 CHECKED BY A.S.  
 APPROVED BY K.A.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BLDGS. DIVISION OF HIGHWAYS	
STRINGER SHIMS SPANS D18 THRU D20	
POPLAR STREET BRIDGE APPROACHES ROADWAY "D"	
F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFB-E-1	SHEET
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS	232 of 236

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HV F & E	ST. CLAIR	247	103
FED. ROAD DIV. NO. 4		ILLINOIS		PROJECT



**GIRDER D1**  
SPANS D18 thru D20



**GIRDER D2**  
SPANS D18 thru D20

**Notes:**  
All Longitudinal Dimensions shown are given along  $\epsilon$  of Web. See Sh. No. 230.  
All Bearing Stiffeners and Connection Plates to be vertical.  
For Splice, Stiffener, Connection Plate Details and Table I see Sh. Nos. 34B, 349 and 350.

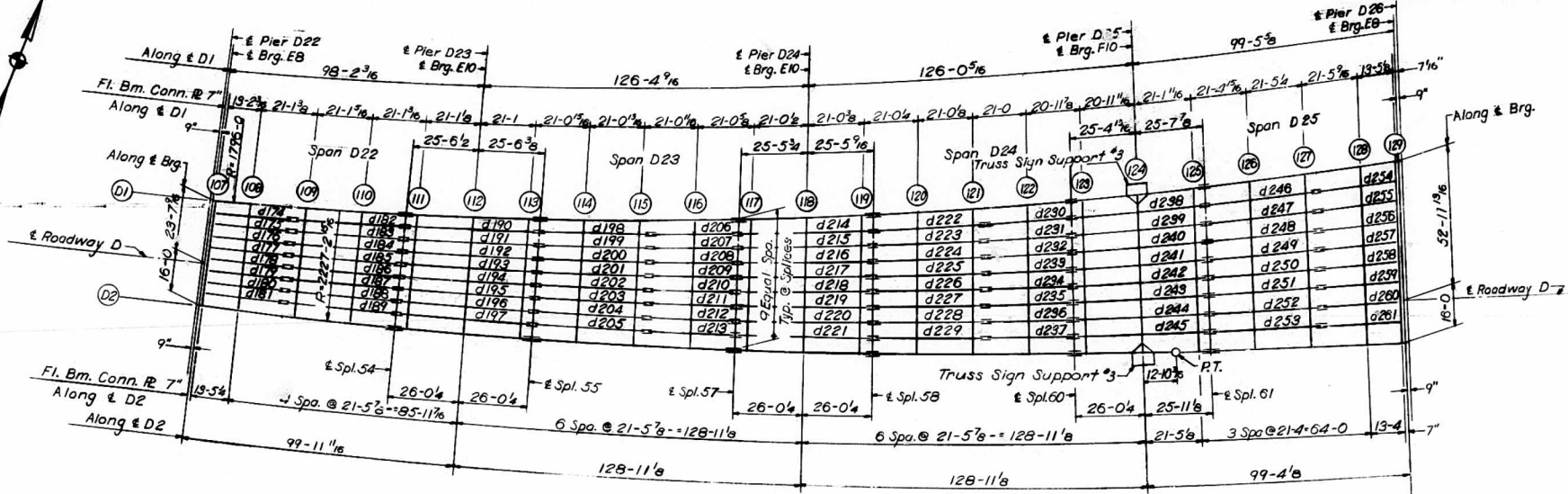
DESIGNED BY: A. T.  
DRAWN BY: D. C. H.  
CHECKED BY: E. L.  
APPROVED BY: K. A.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
GIRDERS D1 AND D2  
SPANS D18 THRU D20  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"  
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HV F & E-1  
N. W. LOCKNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
233 OF 262







PLAN  
SPANS D22 THRU D25

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.		GIR. D1	GIR. D2	DIFF.
CL. BRG.	445,300	448,249	2,869	FLOOR BEAM 119	443,775	447,998	3,783
FLOOR BEAM 107	445,376	448,247	2,871	SPLICE 58	443,766	447,569	3,803
FLOOR BEAM 108	445,268	448,180	2,912	FLOOR BEAM 120	443,809	447,663	3,854
FLOOR BEAM 109	445,096	448,073	2,977	FLOOR BEAM 121	443,863	447,781	3,918
FLOOR BEAM 110	444,924	447,966	3,042	FLOOR BEAM 122	443,917	447,899	3,982
SPLICE 54	444,788	447,882	3,094	SPLICE 60	443,960	447,992	4,032
FLOOR BEAM 111	444,750	447,860	3,110	FLOOR BEAM 123	444,017	448,008	3,991
FLOOR BEAM 112	444,569	447,733	3,164	FLOOR BEAM 124	444,300	448,083	3,783
FLOOR BEAM 113	444,387	447,646	3,259	FLOOR BEAM 125	444,584	448,157	3,573
SPLICE 55	444,349	447,624	3,275	SPLICE 61	444,645	448,173	3,528
FLOOR BEAM 114	444,243	447,584	3,341	FLOOR BEAM 126	444,918	448,240	3,322
FLOOR BEAM 115	444,108	447,538	3,426	FLOOR BEAM 127	445,264	448,326	3,062
FLOOR BEAM 116	443,973	447,483	3,510	FLOOR BEAM 128	445,611	448,412	2,801
SPLICE 57	443,867	447,444	3,577	FLOOR BEAM 129	445,828	448,465	2,637
FLOOR BEAM 117	443,858	447,455	3,597	CL. BRG.	445,837	448,468	2,631
FLOOR BEAM 118	443,817	447,506	3,689				

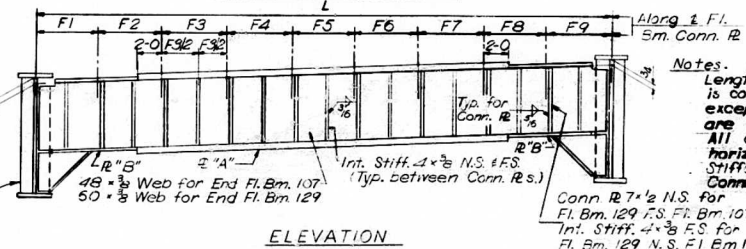
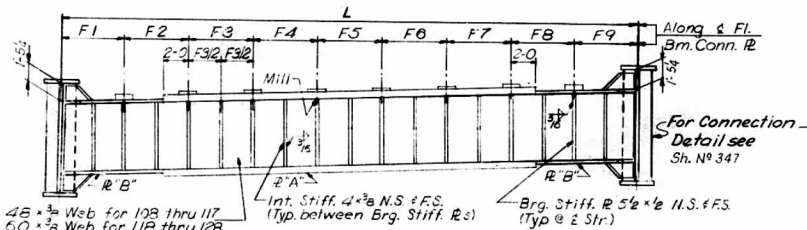
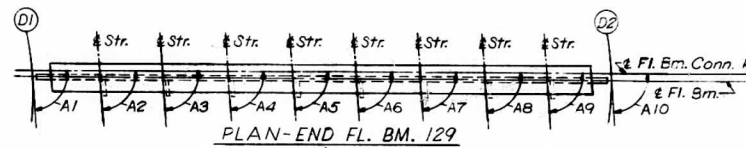
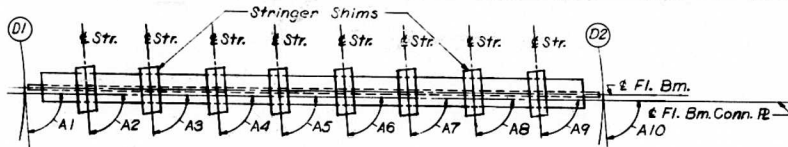
Note: Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate. see Sketch Sheet NO. 153 For Truss Sign Support Detail see Sh. No. 360.

BILL OF MATERIAL	
*Structural Steel	Lbs. 1016290

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 24,650 Lbs.

FLOOR BEAM DIMENSIONS

FL. BM.	L	F1	F2	F3	F4	F5	F6	F7	F8	F9	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	PLAN A L x B	PLAN B L x B
107	35'-7 13/16"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	87,42.88	87,205.16	87,045.88	86,801.41	86,571.18	86,322.82	86,048.22	85,002.46	84,161.11	83,575.58	12 x 1	12 x 3/8
108	40'-2 1/8"	4'-4 7/8"	4'-5 9/16"	4'-5 9/16"	4'-5 9/16"	4'-5 9/16"	4'-5 9/16"	4'-5 9/16"	4'-5 9/16"	4'-5 9/16"	87,403.23	87,233.02	86,987.47	86,734.29	86,400.08	86,155.40	85,111.30	84,265.35	83,411.58	82,000.00	12 x 1/2	12 x 3/8
109	41'-11 1/16"	4'-6 3/16"	4'-6 3/4"	4'-6 3/4"	4'-6 3/4"	4'-6 3/4"	4'-6 3/4"	4'-6 3/4"	4'-6 3/4"	4'-6 3/4"	87,331.18	87,181.38	86,935.46	86,672.50	86,398.30	86,106.46	85,432.38	84,000.00	83,171.10	81,000.00	12 x 1/2	12 x 3/8
110	41'-11 3/4"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	4'-6 9/16"	87,285.04	87,151.46	86,908.88	86,658.00	86,403.00	86,138.88	85,144.48	84,333.36	83,500.00	81,000.00	12 x 1/2	12 x 3/8
111	42'-11 5/16"	4'-8 9/16"	4'-8 1/4"	4'-8 1/4"	4'-8 1/4"	4'-8 1/4"	4'-8 1/4"	4'-8 1/4"	4'-8 1/4"	4'-8 1/4"	87,161.51	86,937.00	86,716.25	86,481.18	86,244.08	86,012.47	85,311.25	84,498.38	83,000.00	80,000.00	12 x 1/2	12 x 3/8
112	43'-11 7/16"	4'-8 7/16"	4'-10 9/8"	4'-10 9/8"	4'-10 9/8"	4'-10 9/8"	4'-10 9/8"	4'-10 9/8"	4'-10 9/8"	4'-10 9/8"	87,111.38	87,000.40	86,746.76	86,488.28	86,227.15	86,046.87	85,041.38	84,233.00	83,411.37	80,000.00	12 x 1 1/4	12 x 1
113	46'-1 1/8"	4'-11 5/16"	5	5	5	5	5	5	5	5	87,041.27	86,830.30	86,622.46	86,411.38	86,000.25	85,181.07	84,977.45	84,358.18	80,144.47	80,000.00	12 x 1 1/2	12 x 1
114	46'-1 9/16"	5	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	86,571.18	87,081.38	87,000.20	87,500.88	86,111.32	86,321.01	86,821.84	86,121.42	85,321.84	80,000.00	12 x 1 1/2	12 x 1 1/8
115	47'-3	5	5 2/16"	5 3	5 3	5 3	5 3	5 3	5 3	5 3	86,500.08	87,421.85	86,830.30	86,841.08	86,441.42	86,051.11	86,251.34	86,451.31	85,051.04	80,000.00	12 x 1 1/2	12 x 1 1/8
116	48'-5 3/16"	5 3 11/16"	5 4 3/8"	5 4 9/8"	5 4 5/8"	5 4 5/8"	5 4 5/8"	5 4 5/8"	5 4 5/8"	5 4 5/8"	86,421.58	87,031.15	87,211.25	87,491.32	86,111.32	86,331.25	86,851.13	86,161.85	86,381.31	80,000.00	12 x 2	12 x 1 1/4
117	48'-7 18/16"	5 5 9/16"	5 6 1/4"	5 6 1/4"	5 6 1/4"	5 6 1/4"	5 6 1/4"	5 6 1/4"	5 6 1/4"	5 6 1/4"	86,381.80	86,191.89	86,431.17	87,011.59	87,301.38	87,541.03	86,171.25	86,401.80	85,031.49	80,000.00	12 x 2	12 x 1 1/4
118	50'-11 3/16"	5 5 3/4"	5 7 18/16"	5 7 15/16"	5 7 15/16"	5 7 15/16"	5 7 15/16"	5 7 15/16"	5 7 15/16"	5 7 15/16"	86,211.38	87,451.49	87,661.77	87,401.08	86,831.44	86,271.15	86,301.38	86,131.80	86,381.89	80,000.00	12 x 1 1/2	12 x 1 1/8
119	52'-2 18/16"	5 9	5 9 11/16"	5 9 11/16"	5 9 11/16"	5 9 11/16"	5 9 11/16"	5 9 11/16"	5 9 11/16"	5 9 11/16"	86,141.38	86,311.48	86,571.23	87,221.51	87,461.11	86,131.25	86,381.30	86,031.28	86,281.70	80,000.00	12 x 1 1/2	12 x 1
120	53'-7 3/16"	5 10 1/16"	5 11 1/2"	5 11 1/2"	5 11 1/2"	5 11 1/2"	5 11 1/2"	5 11 1/2"	5 11 1/2"	5 11 1/2"	86,141.38	86,311.48	86,571.23	87,221.51	87,461.11	86,131.25	86,381.30	86,031.28	86,281.70	80,000.00	12 x 1 1/2	12 x 1
121	55	6 1 5/16"	6 1 5/16"	6 1 5/16"	6 1 5/16"	6 1 5/16"	6 1 5/16"	6 1 5/16"	6 1 5/16"	6 1 5/16"	86,071.31	87,041.88	87,201.03	87,581.01	86,211.41	86,461.28	86,111.40	86,381.38	80,121.70	80,000.00	12 x 1 1/2	12 x 1
122	56 5 1/4"	6 2 3/8"	6 3 1/4"	6 3 1/4"	6 3 1/4"	6 3 1/4"	6 3 1/4"	6 3 1/4"	6 3 1/4"	6 3 1/4"	86,001.29	86,871.38	86,841.40	87,211.33	87,481.19	86,141.25	86,411.25	86,071.45	86,331.57	80,000.00	12 x 1 1/2	12 x 1
123	57'-11 1/16"	6 4 9/16"	6 5 1/4"	6 5 1/4"	6 5 1/4"	6 5 1/4"	6 5 1/4"	6 5 1/4"	6 5 1/4"	6 5 1/4"	85,931.29	86,421.00	86,101.06	86,381.30	87,081.07	87,361.28	86,041.59	86,351.16	86,101.25	80,000.00	12 x 2	12 x 1 1/8
124	58'-5 3/8"	6 5 1/8"	6 7 3/16"	6 7 5/16"	6 7 5/16"	6 7 5/16"	6 7 5/16"	6 7 5/16"	6 7 5/16"	6 7 5/16"	85,861.30	86,181.10	86,431.38	87,121.40	87,411.17	86,071.46	86,381.08	86,081.25	86,341.35	80,000.00	12 x 2	12 x 1 1/8
125	61'-1/2	6 8 11/16"	6 9 7/16"	6 9 7/16"	6 9 7/16"	6 9 7/16"	6 9 7/16"	6 9 7/16"	6 9 7/16"	6 9 7/16"	86,251.32	86,381.00	87,031.46	87,321.31	86,011.07	86,291.26	86,581.00	86,281.16	86,541.25	80,000.00	12 x 2 1/2	12 x 1 1/4
126	62'-10 1/2	6 10 1/2"	7	7	7	7	7	7	7	7	84,441.83	86,121.00	86,471.32	86,231.47	86,591.44	86,351.45	86,111.47	86,471.51	86,231.85	80,000.00	12 x 2 1/2	12 x 1 1/4
127	64'-11 9/16"	7 2 1/16"	7 2 11/16"	7 2 11/16"	7 2 11/16"	7 2 11/16"	7 2 11/16"	7 2 11/16"	7 2 11/16"	7 2 11/16"	86,031.51	86,121.00	86,471.32	86,231.47	86,591.44	86,351.45	86,111.47	86,471.51	86,231.85	80,000.00	12 x 2 1/2	12 x 1 1/4
128	66'-10 18/16"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	83,221.46	84,081.34	84,531.07	85,361.47	86,201.32	87,041.20	87,481.12	86,321.08	86,161.03	80,000.00	12 x 2 3/8	12 x 1 1/2
129	66'-10 18/16"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	7 7 7/8"	82,571.04	84,081.34	84,531.07	85,361.47	86,201.32	87,041.20	87,481.12	86,321.08	86,161.03	80,000.00	12 x 1 1/2	12 x 1 1/2



Notes:  
 Length L of Floor Beams is correct as given in the table except the increment lengths are given to the nearest 1/8".  
 All dimensions are in the horizontal plane. For intermediate Stiffener Brg. Stiffener and Connection Plate Details see Sheet No. 348.

DESIGNED BY A.T.C.A.S.C.  
 DRAWN BY D.C.H.  
 CHECKED BY A.A.  
 APPROVED BY K.A.

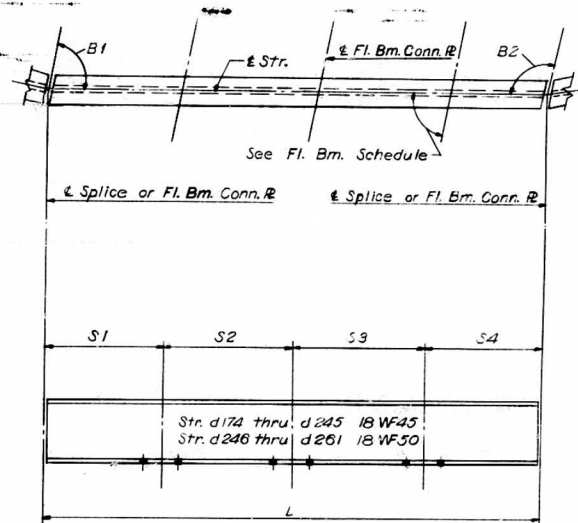
INTERIOR FLOOR BEAM 108 THRU 128

END FLOOR BEAM 107 AND 129

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3MF&E-1	ST. CLAIR	217	107
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2	STR	L	S1	S2	S3	S4	B1	B2
176	29' 10 3/8"	13'-2 9/16"			16'-8 1/4"	87,30,14"	91,20,49"	218	81'-0 3/8"	4'-8 7/8"	21'-3 3/8"	21'-3 1/4"	4'-5 13/16"	87,47,00"	90,89,37"
175	28' 11 9/16"	13'-2 7/8"			16'-8 11/16"	87,46,58"	91,25,02"	219	81' 7 13/16"	4'-6"	21'-4"	21'-3 7/8"	4'-5 13/16"	86,10,25"	90,29,15"
174	30' 1/4"	13'-3 1/4"			16'-9 1/16"	88,01,41"	91,09,21"	220	81'-0 3/8"	4'-8 1/8"	21'-4 9/16"	21'-4 1/2"	4'-6 1/8"	88,33,41"	90,08,00"
177	30' 1"	13'-3 9/16"			16'-9 7/16"	88,17,10"	90,53,44"	221	81' 10 7/8"	4'-6 1/4"	21'-5 3/16"	21'-5 3/16"	4'-6 1/4"	88,55,49"	89,42,52"
178	30' 1 3/4"	13'-3 7/8"			16'-9 13/16"	88,32,82"	90,38,10"	222	42' 1 7/16"	16' 7 9/16"	21' 5/8"		4'-5 1/4"	88,05,38"	92,48,02"
179	30' 2 1/2"	13'-4 1/4"			16' 10 1/4"	88,48,22"	90,22,40"	223	42' 2 5/8"	16'-8"	21' 1 1/4"		4'-5 3/8"	88,31,13"	92,22,27"
180	30' 3 1/4"	13'-4 9/16"			16' 10 5/8"	88,03,48"	90,07,14"	224	42' 3 7/8"	16'-8 1/2"	21' 1 7/8"		4'-5 1/2"	88,58,41"	91,56,59"
181	30' 4"	13'-4 15/16"			16' 11 1/8"	88,18,11"	89,51,51"	225	42' 5 1/8"	16'-9 15/16"	21' 2 1/2"		4'-5 11/16"	87,22,01"	91,31,39"
182	42' 3 1/2"	4'-5 9/16"	21' 1 13/16"		16'-8 1/8"	87,11,39"	91,42,02"	226	42' 6 3/8"	16'-9 7/16"	21' 3 1/8"		4'-5 13/16"	87,47,14"	91,06,28"
183	42' 4 1/2"	4'-5 11/16"	21' 2 1/4"		16'-8 1/2"	87,28,48"	91,24,54"	227	42' 7 5/8"	16'-9 19/16"	21' 3 13/16"		4'-5 15/16"	88,12,20"	90,41,20"
184	42' 5 7/16"	4'-5 3/4"	21' 2 3/4"		16'-9 18/16"	87,46,50"	91,07,50"	228	42' 9"	16' 10 7/16"	21' 4 7/16"		4'-6 1/16"	88,37,18"	90,16,22"
185	42' 6 1/2"	4'-5 7/8"	21' 3 1/4"		16'-9 5/16"	88,02,51"	90,50,50"	229	42' 10 3/8"	16' 10 15/16"	21' 5 1/8"		4'-6 1/4"	88,02,08"	89,51,32"
186	42' 7 1/2"	4'-5 15/16"	21' 3 3/4"		16'-9 3/4"	88,18,47"	90,33,53"	230	33' 2 1/2"	16' 7 3/8"			16' 7 3/8"	88,01,29"	93,08,11"
187	42' 8 1/2"	4'-6 1/16"	21' 4 1/4"		16' 10 3/16"	88,38,38"	90,17,01"	231	33' 3 1/2"	16' 7 13/16"			16' 7 13/16"	88,28,30"	92,38,10"
188	42' 9 9/16"	4'-6 3/16"	21' 4 13/16"		16' 10 5/8"	88,53,27"	90,00,16"	232	33' 4 1/2"	16' 8 5/16"			16' 8 5/16"	88,35,23"	92,12,16"
189	42' 10 5/8"	4'-6 5/8"	21' 5 1/16"		16' 11"	88,10,10"	89,43,30"	233	33' 5 1/2"	16' 8 13/16"			16' 9 11/16"	87,22,09"	91,45,31"
190	51' 2 1/16"	4'-5 9/16"	21' 1 11/16"	21' 1 7/16"	4'-5 7/16"	88,50,30"	91,49,10"	234	33' 6 1/2"	16' 9 5/16"			16' 9 5/16"	87,48,46"	91,16,54"
191	51' 3 9/16"	4'-5 5/8"	21' 2 3/16"	21' 2"	4'-5 9/16"	87,00,25"	91,30,14"	235	33' 7 9/16"	16' 9 19/16"			16' 9 19/16"	88,16,14"	90,82,25"
192	51' 4 9/16"	4'-5 3/4"	21' 2 1/2"	21' 2 1/2"	4'-5 11/16"	87,28,16"	91,11,22"	236	33' 8 11/16"	16' 10 3/8"			16' 10 3/8"	88,41,38"	90,28,05"
193	51' 5 7/8"	4'-5 7/8"	21' 3 3/16"	21' 3 1/16"	4'-5 13/16"	87,47,05"	90,52,35"	237	33' 9 13/16"	16' 10 7/8"			16' 10 7/8"	88,07,47"	89,58,53"
194	51' 7 1/8"	4'-5 15/16"	21' 3 11/16"	21' 3 9/16"	4'-5 7/8"	88,05,48"	90,32,53"	238	51' 1 11/16"	4'-5 5/8"	21' 7/16"	21' 1 7/8"	4'-6 1/8"	88,35,00"	93,25,00"
195	51' 8 7/16"	4'-6 1/16"	21' 4 3/16"	21' 4 1/8"	4'-6"	88,24,28"	90,15,15"	239	51' 2 3/4"	4'-5 7/8"	21' 1 1/16"	21' 2 1/4"	4'-6 1/16"	88,03,48"	92,58,12"
196	51' 9 3/4"	4'-6 3/16"	21' 4 3/4"	21' 4 11/16"	4'-6 1/8"	88,42,58"	89,38,42"	240	51' 3 7/8"	4'-5 9/8"	21' 1 11/16"	21' 2 9/16"	4'-6 1/16"	88,32,31"	92,27,28"
197	51' 11 1/8"	4'-6 1/4"	21' 5 5/16"	21' 5 1/4"	4'-6 1/4"	88,01,27"	89,38,14"	241	51' 5"	4'-5 11/16"	21' 2 15/16"	21' 4 3/16"	4'-6 1/16"	87,01,07"	91,58,53"
198	42' 2 3/4"	16'-8 1/16"	21' 1 5/16"		4'-5 3/8"	88,43,25"	82,10,15"	242	51' 6 3/16"	4'-5 13/16"	21' 3"	21' 3 3/8"	4'-6"	87,29,37"	91,30,24"
199	42' 3 13/16"	16'-8 7/16"	21' 1 13/16"		4'-5 1/2"	87,04,08"	91,49,31"	243	51' 7 3/8"	4'-5 15/16"	21' 3 11/16"	21' 3 3/4"	4'-6"	87,58,00"	91,02,00"
200	42' 4 7/8"	16'-8 7/8"	21' 2 3/8"		4'-5 5/8"	87,24,48"	91,28,52"	244	51' 8 11/16"	4'-6 1/8"	21' 4 3/8"	21' 4 3/16"	4'-6"	88,29,16"	90,33,44"
201	42' 5 15/16"	16'-9 1/4"	21' 2 15/16"		4'-5 3/4"	87,48,22"	91,08,18"	245	51' 10"	4'-6 1/4"	21' 5 1/8"	21' 4 5/8"	4'-6"	88,54,25"	90,05,35"
202	42' 7 1/16"	16'-9 11/16"	21' 3 1/2"		4'-5 7/8"	88,05,51"	90,47,49"	246	42' 9 13/16"	16' 10 11/16"	21' 4 7/8"		4'-6 3/16"	88,12,00"	91,48,00"
203	42' 8 3/16"	16' 10 1/8"	21' 4 1/16"		4'-6"	88,26,14"	90,27,28"	247	42' 9 3/8"	16' 10 9/16"	21' 4 11/16"		4'-6 1/8"	88,47,52"	91,12,08"
204	42' 9 3/8"	16' 10 9/16"	21' 4 5/8"		4'-6 1/8"	88,46,31"	90,07,08"	248	42' 9"	16' 10 3/8"	21' 4 1/2"		4'-6 1/8"	88,23,47"	93,36,13"
205	42' 10 1/2"	16' 11"	21' 5 1/4"		4'-6 1/4"	88,06,43"	89,46,57"	249	42' 8 11/16"	16' 10 1/4"	21' 4 3/8"		4'-6 1/16"	86,58,45"	89,00,15"
206	33' 3 9/16"	16' 7 7/8"			16' 7 11/16"	88,39,05"	82,28,35"	250	42' 8 7/16"	16' 10 3/16"	21' 4 1/4"		4'-6 1/16"	87,35,45"	92,24,15"
207	33' 4 7/16"	16' 8 5/16"			16' 8 1/8"	87,01,16"	82,08,23"	251	42' 8 1/4"	16' 10 1/8"	21' 4 1/8"		4'-6"	88,11,47"	91,48,13"
208	33' 5 5/16"	16' 9 11/16"			16' 8 5/8"	87,23,22"	91,44,18"	252	42' 8 1/8"	16' 10 1/16"	21' 4 1/16"		4'-6"	88,47,51"	91,12,09"
209	33' 6 3/16"	16' 9 1/8"			16' 9 1/16"	87,45,21"	91,22,18"	253	42' 8"	16' 10"	21' 4"		4'-6"	88,23,35"	90,36,05"
210	33' 7 1/8"	16' 9 5/8"			16' 9 1/2"	88,07,15"	91,00,24"	254	30' 3 7/8"	16' 11 1/8"			13' 4 13/16"	84,08,34"	85,50,26"
211	33' 8 1/16"	16' 10 1/16"			16' 10"	88,29,03"	90,38,37"	255	30' 3 7/16"	16' 10 13/16"			13' 4 5/8"	84,53,07"	85,06,53"
212	33' 9"	16' 10 1/2"			16' 10 1/2"	88,50,45"	90,16,55"	256	30' 3 1/16"	16' 10 9/16"			13' 4 7/16"	85,36,47"	84,23,13"
213	33' 9 15/16"	16' 11"			16' 10 15/16"	89,12,20"	89,55,19"	257	30' 2 3/4"	16' 10 7/16"			13' 4 5/16"	86,20,31"	87,39,29"
214	51' 11 1/16"	4'-5 7/16"	21' 1 1/8"	21' 13/16"	4'-5 5/16"	88,12,29"	92,27,11"	258	30' 2 1/2"	16' 10 1/4"			13' 4 3/16"	87,04,20"	92,85,40"
215	51' 2 1/16"	4'-5 9/16"	21' 1 11/16"	21' 1 7/16"	4'-5 7/16"	88,36,18"	92,03,23"	259	30' 2 1/4"	16' 10 1/8"			13' 4 1/8"	87,48,12"	92,11,48"
216	51' 3 7/16"	4'-5 5/8"	21' 2 1/4"	21' 2"	4'-5 9/16"	88,58,59"	91,39,41"	260	30' 2 1/8"	16' 10 1/16"			13' 4 1/16"	88,32,05"	91,27,54"
217	51' 4 7/8"	4'-5 3/4"	21' 2 13/16"	21' 2 5/8"	4'-5 11/16"	87,23,35"	91,16,08"	261	30' 2"	16' 10"			13' 4"	88,16,03"	90,43,37"



TYPICAL STRINGER

Notes:  
 Length L of stringers is correct as given in the table except the increment lengths are given to the nearest 1/8".  
 All dimensions are in the horizontal plane.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

STRINGER SCHEDULE  
 SPANS D22 THRU D25

POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT 70 ST. CLAIR CO SECTION 82-3MF&E-1

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET 237 of 256

DESIGNED BY A.T. & A.C.  
 CHECKED BY A.A.  
 APPROVED BY A.A.

FLOOR BEAM 100 THRU 110	T1	T2	T3	T4
STR. 174 THRU 180	1 1/8	9/16	15/16	3/8

FLOOR BEAM 111 THRU 113	T1	T2	T3	T4
STR. 180 THRU 187	1 1/8	9/16	15/16	3/8

FLOOR BEAM 114	T1	T2	T3	T4
STR.				
190	1 1/16	9/16	15/16	7/16
199	1 1/16	9/16	15/16	7/16
200	1 1/16	9/16	15/16	7/16
201	1 1/16	1/2	1	7/16
202	1 1/16	1/2	1	7/16
203	1 1/16	1/2	1	7/16
204	1 1/16	1/2	1	7/16
205	1 1/16	1/2	1	7/16

FLOOR BEAM 115	T1	T2	T3	T4
STR.				
198	1 1/16	9/16	15/16	7/16
199	1 1/16	9/16	15/16	7/16
200	1 1/16	9/16	15/16	7/16
201	1 1/16	1/2	1	7/16
202	1 1/16	1/2	1	7/16
203	1 1/16	1/2	1	7/16
204	1 1/16	1/2	1	7/16
205	1 1/16	1/2	1	7/16

FLOOR BEAM 116	T1	T2	T3	T4
STR.				
206	1 1/16	9/16	15/16	7/16
207	1 1/16	9/16	15/16	7/16
208	1 1/16	9/16	15/16	7/16
209	1 1/16	1/2	1	7/16
210	1 1/16	1/2	1	7/16
211	1 1/16	1/2	1	7/16
212	1 1/16	1/2	1	7/16
213	1 1/16	1/2	1	7/16

FLOOR BEAM 117	T1	T2	T3	T4
STR.				
214	1 1/16	1/2	1	7/16
215	1 1/16	1/2	1	7/16
216	1	1/2	1	1/2
217	1	1/2	1	1/2
218	1	1/2	1	1/2
219	1	7/16	1 1/16	1/2
220	1	7/16	1 1/16	1/2
221	1	7/16	1 1/16	1/2

FLOOR BEAM 118	T1	T2	T3	T4
STR.				
214	1 1/16	1/2	1	7/16
215	1 1/16	1/2	1	7/16
216	1	1/2	1	1/2
217	1	1/2	1	1/2
218	1	1/2	1	1/2
219	1	7/16	1 1/16	1/2
220	1	7/16	1 1/16	1/2
221	1	7/16	1 1/16	1/2

FLOOR BEAM 119	T1	T2	T3	T4
STR.				
214	1 1/16	1/2	1	7/16
215	1 1/16	1/2	1	7/16
216	1	1/2	1	1/2
217	1	1/2	1	1/2
218	1	1/2	1	1/2
219	1	7/16	1 1/16	1/2
220	1	7/16	1 1/16	1/2
221	1	7/16	1 1/16	1/2

FLOOR BEAM 120 THRU 122	T1	T2	T3	T4
STR. 222 THRU 237	1	7/16	1 1/16	1/2

FLOOR BEAM 123	T1	T2	T3	T4
STR.				
238	7/8	3/8	1 1/8	5/8
239	7/8	3/8	1 1/8	5/8
240	7/8	3/8	1 1/8	5/8
241	15/16	3/8	1 1/8	9/16
242	15/16	3/8	1 1/8	9/16
243	15/16	7/16	1 1/16	9/16
244	15/16	7/16	1 1/16	9/16
245	15/16	7/16	1 1/16	9/16

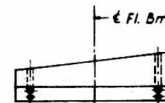
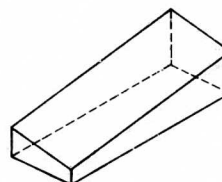
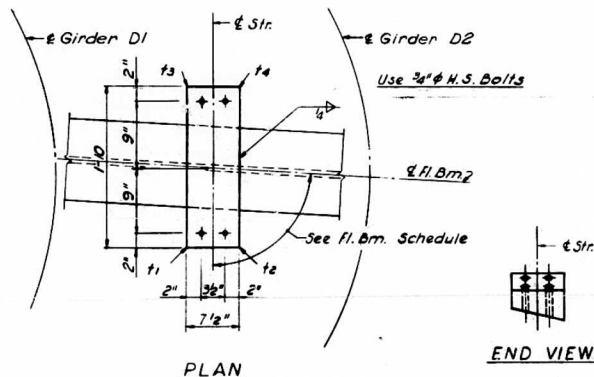
FLOOR BEAM 124	T1	T2	T3	T4
STR.				
238	7/8	3/8	1 1/8	5/8
239	7/8	3/8	1 1/8	5/8
240	7/8	3/8	1 1/8	5/8
241	7/8	7/16	1 1/16	5/8
242	7/8	7/16	1 1/16	5/8
243	15/16	7/16	1 1/16	9/16
244	15/16	7/16	1 1/16	9/16
245	15/16	7/16	1 1/16	9/16

FLOOR BEAM 125	T1	T2	T3	T4
STR.				
238	13/16	3/8	1 1/8	11/16
239	7/8	7/16	1 1/16	5/8
240	7/8	7/16	1 1/16	5/8
241	7/8	7/16	1 1/16	5/8
242	7/8	7/16	1 1/16	5/8
243	7/8	7/16	1 1/16	5/8
244	13/16	7/16	1 1/16	9/16
245	13/16	1/2	1	9/16

FLOOR BEAM 126	T1	T2	T3	T4
STR.				
246	13/16	3/8	1 1/8	11/16
247	13/16	3/8	1 1/8	11/16
248	13/16	7/16	1 1/16	11/16
249	13/16	7/16	1 1/16	11/16
250	7/8	7/16	1 1/16	5/8
251	7/8	7/16	1 1/16	5/8
252	7/8	1/2	1	5/8
253	7/8	1/2	1	5/8

FLOOR BEAM 127	T1	T2	T3	T4
STR.				
246	3/4	7/16	1 1/16	3/4
247	3/4	7/16	1 1/16	3/4
248	13/16	7/16	1 1/16	11/16
249	13/16	7/16	1 1/16	11/16
250	13/16	1/2	1	11/16
251	13/16	1/2	1	11/16
252	7/8	1/2	1	5/8
253	7/8	1/2	1	5/8

FLOOR BEAM 128	T1	T2	T3	T4
STR.				
254	3/4	7/16	1 1/16	3/4
255	3/4	7/16	1 1/16	3/4
256	3/4	7/16	1 1/16	3/4
257	13/16	1/2	1	11/16
258	13/16	1/2	1	11/16
259	13/16	1/2	1	11/16
260	13/16	1/2	1	11/16
261	7/8	9/16	15/16	5/8



ISOMETRIC VIEW

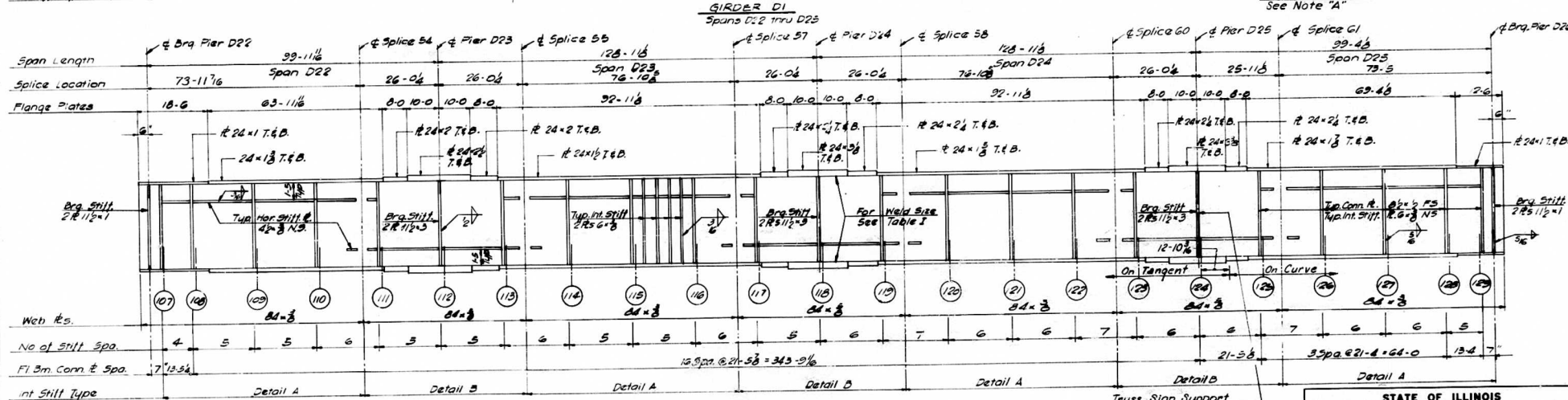
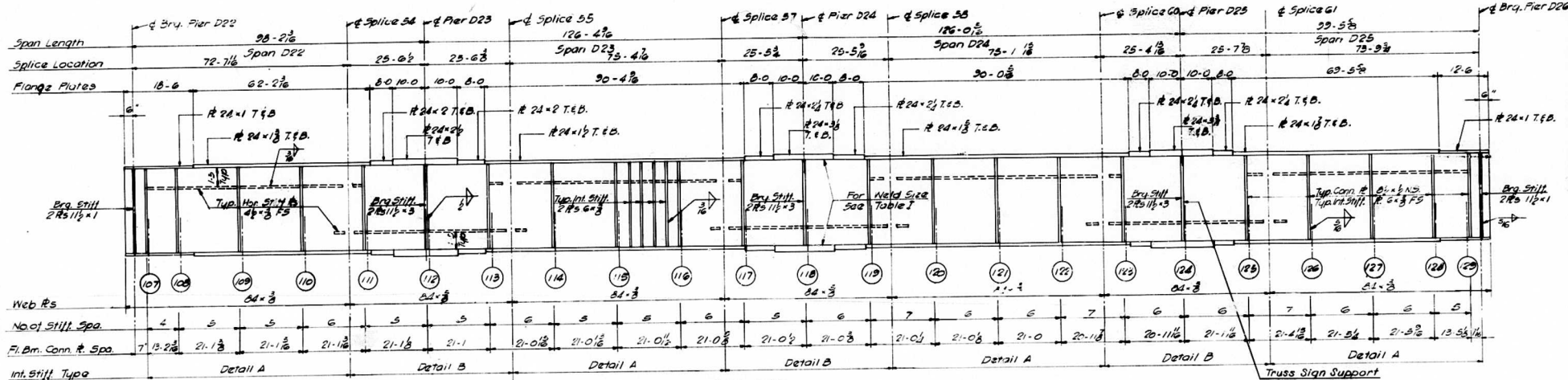
SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.J.C.  
 DRAWN BY J.G.H.  
 CHECKED BY A.S.  
 APPROVED BY K.A.



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI. 70	82-3WF & E-1	ST. CLAIR	247	109
FED. ROAD DIV. NO. 4			ILLINOIS PROJECT	



**Note "A"**  
Interior Stiffeners should be moved if necessary to clear Truss Sign Support Connection Plate.

**GIRDER D2**  
Spans D22 thru D25

**Notes:**  
All Longitudinal Dimensions shown are given along & of Web. See Sh. No. 235.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. Nos. 348, 349 and 350.

For Truss Sign Support Detail see Sh. No. 360.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

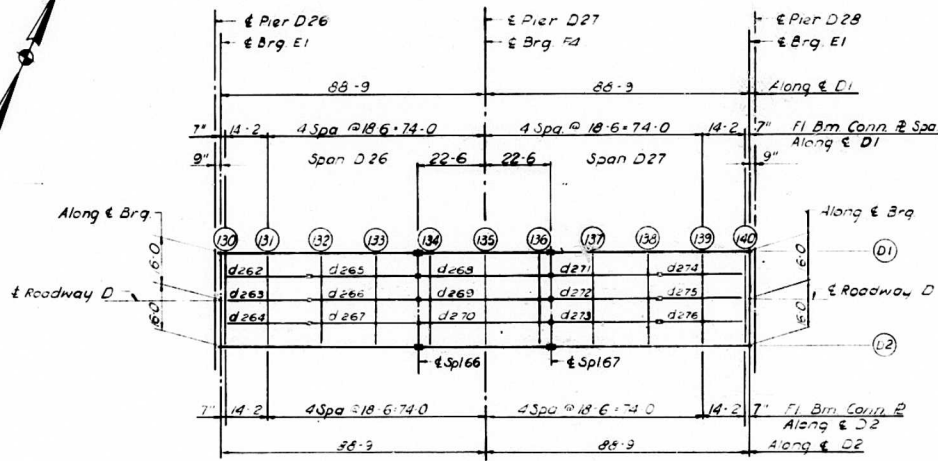
GIRDERS D1 AND D2  
SPANS D22 THRU D25  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

FAI 70 TO ST. CLAIR CO. SECTION 82-3WF & E-1

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
239 OF 247

DESIGNED BY: A. T.  
DRAWN BY: J. L.  
CHECKED BY: E. L.  
APPROVED BY: K. A.



PLAN  
SPANS D26 AND D27

LOCATION TOP OF GIRDER END

	GIR.D1	GIR.D2	DIFF.
CL. BRG.	447,984	453,474	.490
FLOOR BEAM 130	447,993	453,476	.483
FLOOR BEAM 131	448,700	453,733	.133
FLOOR BEAM 132	449,516	458,407	.091
FLOOR BEAM 133	449,911	451,681	.170
FLOOR BEAM 134	449,043	451,730	.204
FLOOR BEAM 135	449,107	449,755	.357
FLOOR BEAM 136	449,402	448,130	.577
FLOOR BEAM 136	449,495	448,104	.795
FLOOR BEAM 137	449,763	448,120	.843
FLOOR BEAM 137	449,894	449,978	1.016
FLOOR BEAM 138	450,290	449,059	1.231
FLOOR BEAM 139	450,586	449,177	1.459
FLOOR BEAM 140	450,817	449,183	1.679
CL. BRG.	450,877	449,186	1.696

Notes:  
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate See Sketch Sheet No. 183 For Girder Details see sheet No. 212.

BILL OF MATERIAL	
*Structural Steel	Lbs. 205,630

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 4,300 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
FRAMING PLAN  
SPANS D26 THRU D27  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT.70 ST. CLAIR CO. SECTION B2-3HVFB-E-1

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
240 OF 266

DESIGNED BY R.M.R.  
DRAWN BY I.M.  
CHECKED BY A.J.C.  
APPROVED BY K.A.

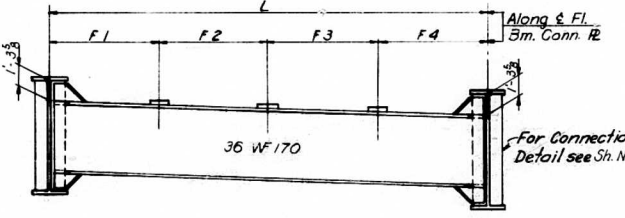
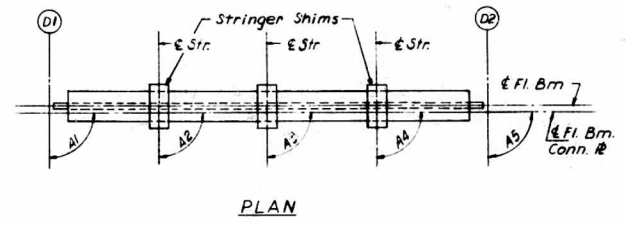
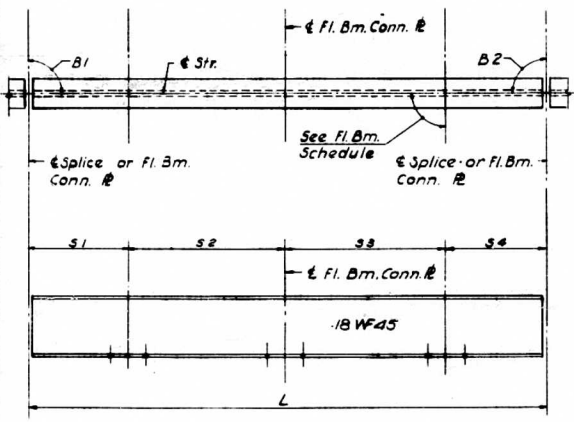


**STRINGER DIMENSIONS**

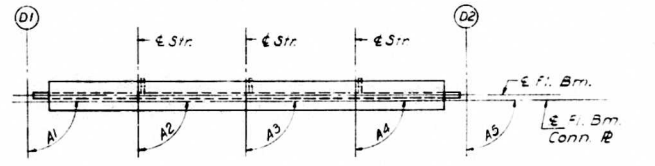
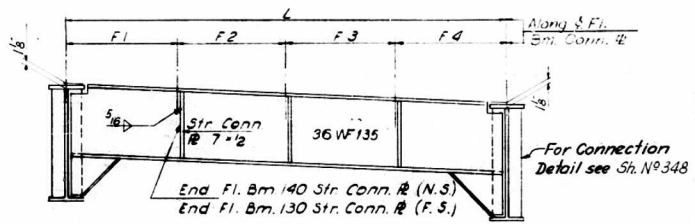
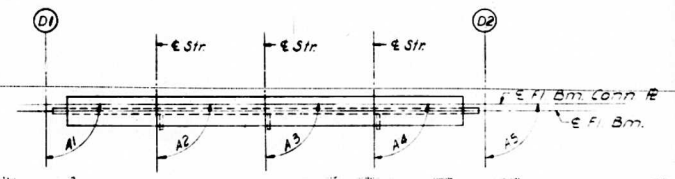
STRG	L	S1	S2	S3	S4	B1	B2
262	28 8	14 2	0		14 6	90,00,00	90,00,00
263	28 8	14 2	0		14 6	90,00,00	90,00,00
264	28 8	14 2	0		14 6	90,00,00	90,00,00
265	37	4	18 6		14 6	90,00,00	90,00,00
266	37	4	18 6		14 6	90,00,00	90,00,00
267	37	4	18 6		14 6	90,00,00	90,00,00
268	45	4	18 6	18 6	4	90,00,00	90,00,00
269	45	4	18 6	18 6	4	90,00,00	90,00,00
270	45	4	18 6	18 6	4	90,00,00	90,00,00
271	37	14 6	18 6		4	90,00,00	90,00,00
272	37	14 6	18 6		4	90,00,00	90,00,00
273	37	14 6	18 6		4	90,00,00	90,00,00
274	28 8	14 6	C		18 2	90,00,00	90,00,00
275	28 8	14 6	0		14 2	90,00,00	90,00,00
276	28 8	14 6	0		14 2	90,00,00	90,00,00

**FLOOR BEAM DIMENSIONS**

FL. BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
130	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
131	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
132	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
133	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
134	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
135	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
136	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
137	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
138	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
139	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
140	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00



**INTERIOR FLOOR BEAM 131 THRU 139**



**END FLOOR BEAM 130 AND 140**

**Notes:**  
 Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8".  
 All dimensions are in the horizontal plane.  
 For Connection Plate Details see Sheet No. 348

DESIGNED BY: A.T.C.A.I.C.  
 DRAWN BY: D.C.H.  
 CHECKED BY: A.A.  
 APPROVED BY: K.A.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 STRINGER AND FLOOR BEAM  
 SCHEDULE  
 SPANS D26 AND D27  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"  
 F.A.I. RT.70 ST. CLAIR CO. SECTION 02-3MFBE-1  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

**SHEET**  
 241 of 256

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.-70	82-3HVFB E-1	ST. CLAIR	247	112
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

FLOOR BEAM 131	T1	T2	T3	T4
STR.				
262	9/16	1/2	7/8	15/16
263	9/8	3/16	13/16	3/4
264	5/8	9/16	13/16	3/4

FLOOR BEAM 132	T1	T2	T3	T4
STR.				
265	9/16	9/16	13/16	13/16
266	9/16	9/16	13/16	13/16
267	5/8	9/8	3/4	3/4

FLOOR BEAM 133	T1	T2	T3	T4
STR.				
268	1/2	9/16	13/16	7/8
269	9/16	9/16	13/16	13/16
267	5/8	5/8	3/4	3/4

FLOOR BEAM 134	T1	T2	T3	T4
STR.				
268	1/2	9/16	13/16	7/8
269	9/16	5/8	3/4	13/16
270	9/16	9/8	3/4	13/16

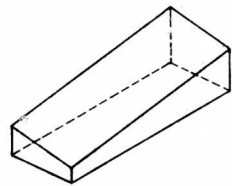
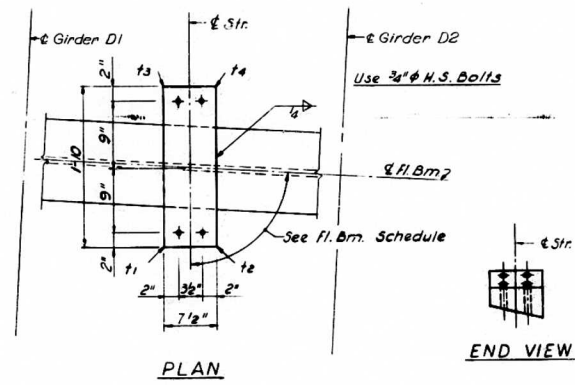
FLOOR BEAM 135	T1	T2	T3	T4
STR.				
269	1/2	5/8	3/4	7/8
269	1/2	5/8	3/4	7/8
270	9/16	11/16	11/16	13/16

FLOOR BEAM 136	T1	T2	T3	T4
STR.				
269	7/16	5/8	3/4	15/16
269	1/2	11/16	11/16	7/8
270	1/2	11/16	11/16	7/8

FLOOR BEAM 137	T1	T2	T3	T4
STR.				
271	7/16	11/16	11/16	15/16
272	7/16	11/16	11/16	15/16
273	1/2	3/4	5/8	7/8

FLOOR BEAM 138	T1	T2	T3	T4
STR.				
271	3/8	11/16	11/16	1
272	7/16	3/4	5/8	15/16
273	7/16	3/4	5/8	15/16

FLOOR BEAM 139	T1	T2	T3	T4
STR.				
274	3/8	11/16	11/16	1
275	7/16	3/4	5/8	15/16
276	7/16	13/16	9/16	15/16



ISOMETRIC VIEW

SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.J.C  
 DRAWN BY D.C.H  
 CHECKED BY A.S  
 APPROVED BY K.A

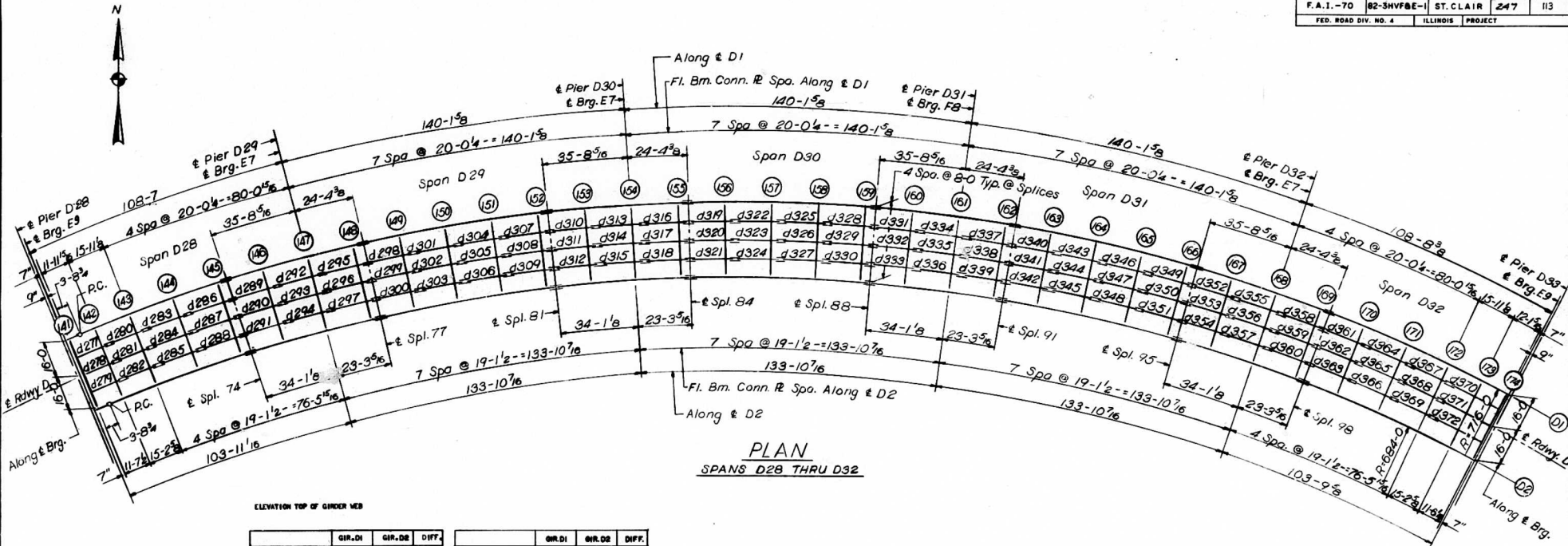
STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

STRINGER SHIMS  
 SPANS D26 AND D27  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F A I RT. 70 ST. CLAIR CO. SECTION 82-3HVFB E-1

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 242 of 506



ELEVATION TOP OF GROUND MB

	GIR.D1	GIR.D2	DIFF.		GIR.D1	GIR.D2	DIFF.
CL. BRG.	450,846	449,192	1,654	FLOOR BEAM 158	454,514	451,954	2,560
FLOOR BEAM 141	450,855	449,194	1,661	FLOOR BEAM 159	454,710	452,150	2,560
FLOOR BEAM 142	451,047	449,237	1,810	SPLICE 88	454,752	452,192	2,560
FLOOR BEAM 143	451,302	449,294	2,008	FLOOR BEAM 160	454,906	452,346	2,560
FLOOR BEAM 144	451,622	449,366	2,256	FLOOR BEAM 161	455,101	452,541	2,560
FLOOR BEAM 145	451,943	449,437	2,505	FLOOR BEAM 162	455,297	452,737	2,560
SPLICE 74	452,012	449,452	2,560	SPLICE 91	455,339	452,779	2,560
FLOOR BEAM 146	452,186	449,606	2,580	FLOOR BEAM 163	455,493	452,933	2,560
FLOOR BEAM 147	452,361	449,801	2,560	FLOOR BEAM 164	455,688	453,128	2,560
FLOOR BEAM 148	452,557	449,997	2,560	FLOOR BEAM 165	455,884	453,324	2,560
SPLICE 77	452,599	450,039	2,560	FLOOR BEAM 166	456,080	453,520	2,560
FLOOR BEAM 149	452,753	450,193	2,560	SPLICE 95	456,122	453,562	2,560
FLOOR BEAM 150	452,948	450,388	2,560	FLOOR BEAM 167	456,275	453,715	2,560
FLOOR BEAM 151	453,144	450,584	2,560	FLOOR BEAM 168	456,470	453,910	2,560
FLOOR BEAM 152	453,340	450,780	2,560	FLOOR BEAM 169	456,665	454,105	2,560
SPLICE 81	453,382	450,822	2,560	SPLICE 98	456,707	454,147	2,560
FLOOR BEAM 153	453,536	450,976	2,560	FLOOR BEAM 170	456,788	454,228	2,560
FLOOR BEAM 154	453,731	451,171	2,560	FLOOR BEAM 171	456,891	454,331	2,560
FLOOR BEAM 155	453,927	451,367	2,560	FLOOR BEAM 172	456,993	454,433	2,560
SPLICE 84	453,969	451,409	2,560	FLOOR BEAM 173	457,075	454,515	2,560
FLOOR BEAM 156	454,123	451,563	2,560	FLOOR BEAM 174	457,137	454,577	2,560
FLOOR BEAM 157	454,318	451,758	2,560	CL. BRG.	457,140	454,580	2,560

PLAN SPANS D28 THRU D32

Note: Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate. See Sketch Sheet No. 183

BILL OF MATERIAL	
*Structural Steel	Lbs. 1,051,470

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 13,780 Lbs.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
 SPANS D28 THRU D32  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.1.RT.70 ST. CLAIR CO. SECTION 82-3HVFB-E-1  
 H. W. LOCKNER, INC. ENGINEERS  
 CHICAGO, ILLINOIS

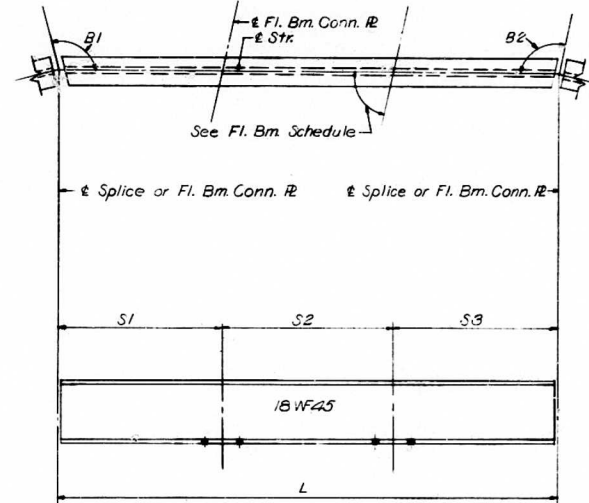
SHEET 247 OF 247

DESIGNED BY R.M.R.  
 DRAWN BY D.G.H.  
 CHECKED BY A.J.C.  
 APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	B2-3 MVFB E	ST. CLAIR	247	114
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	S3	B1	B2	STR	L	S1	S2	S3	B1	B2
277	15-2 1/4	11-10 13/16	○	3-3 7/16	90,21,00	90,34,39	325	19-9 9/16	15-5 15/16	○	4-3 9/16	90,48,03	90,48,04
278	15 11/16	11 9 11/16	○	3 3	90,20,56	90,34,43	326	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,04
279	14 11 3/16	11 8 9/16	○	3 2 9/16	90,20,53	90,34,46	327	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,04
280	16 9 1/8	12 5 9/16	○	4 3 9/16	90,40,41	90,40,41	328	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
281	16 6 7/8	12 3 7/8	○	4 3	90,40,41	90,40,41	329	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
282	16 4 9/16	12 2 3/16	○	4 2 7/16	90,40,41	90,40,41	330	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
283	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	331	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,04
284	19 5 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	332	19 6 7/8	15 3 7/8	○	4 3	90,48,04	90,48,04
285	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	333	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,04	90,48,04
286	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	334	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,04
287	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	335	19 6 7/8	15 3 7/8	○	4 3	90,48,04	90,48,04
288	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	336	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,04	90,48,04
289	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	337	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
290	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	338	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
291	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	339	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
292	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	340	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
293	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	341	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
294	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	342	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
295	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	343	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
296	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	344	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
297	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	345	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
298	19 9 9/16	15 5 15/16	○	4 2 9/16	90,48,03	90,48,03	346	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
299	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	347	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
300	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	348	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
301	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	349	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
302	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	350	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
303	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	351	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
304	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	352	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
305	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	353	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
306	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	354	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
307	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03	355	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,04
308	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	356	19 6 7/8	15 3 7/8	○	4 3	90,48,04	90,48,04
309	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	357	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,04	90,48,04
310	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,04	358	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
311	19 6 7/8	15 3 7/8	○	4 3	90,48,04	90,48,04	359	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
312	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,04	90,48,04	360	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
313	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,04	361	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
314	19 6 7/8	15 3 7/8	○	4 3	90,48,04	90,48,04	362	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
315	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,04	90,48,04	363	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
316	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,03	364	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,03
317	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03	365	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,03
318	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03	366	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,03
319	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,04	90,48,02	367	19 9 9/16	15 5 15/16	○	3 3 7/16	90,45,36	90,45,36
320	19 6 7/8	15 3 7/8	○	4 3	90,48,04	90,48,03	368	19 6 7/8	15 3 7/8	○	3 3	90,45,36	90,45,36
321	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,04	90,48,03	369	19 4 3/16	15 1 3/4	○	3 2 9/16	90,45,36	90,45,36
322	19 9 9/16	15 5 15/16	○	4 3 9/16	90,48,03	90,48,04	370	24 5 1/16	12 5 1/4	○	11 11 1/2	90,59,18	91,05,48
323	19 6 7/8	15 3 7/8	○	4 3	90,48,03	90,48,04	371	24 1 9/16	12 3 7/8	○	11 9 11/16	90,59,15	91,05,48
324	19 4 3/16	15 1 3/4	○	4 2 7/16	90,48,03	90,48,04	372	23 10 1/16	12 2 3/16	○	11 7 7/8	90,59,13	91,05,50



TYPICAL STRINGER

Note:  
Length L of stringers is correct as given in the table except the increment lengths are given to the nearest 1/8".  
All dimensions are in the horizontal plane.

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

STRINGER SCHEDULE  
SPANS D28 THRU D32  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT 70 ST. CLAIR CO SECTION B2-3 MVFB E  
H. W. LOPNER, INC  
ENGINEERS  
CHICAGO, ILLINOIS

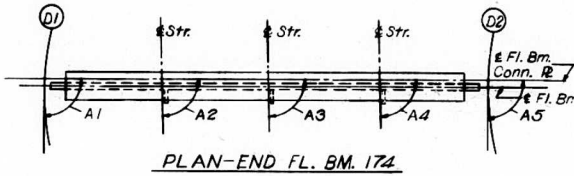
SHEET  
244 OF 526

DESIGNED BY AT & A I C  
DRAWN BY C. C. H.  
CHECKED BY A. A.  
APPROVED BY R. A.

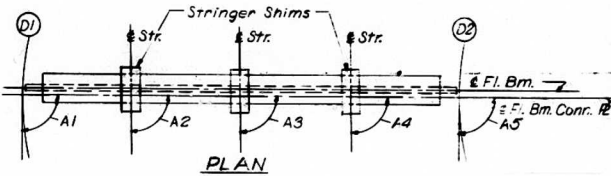
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HV/E	ST. CLAIR	277	115
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

FLOOR BEAM DIMENSIONS

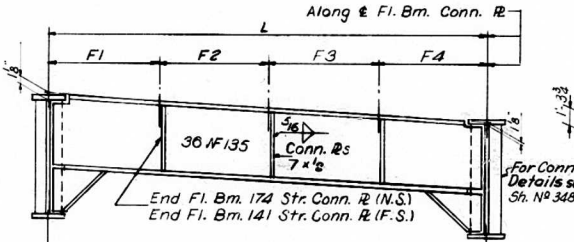
FL. BM.	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
141	12	0	0	0	0	90,00,00	90,21,00	90,20,53	90,20,07	90,00,00
142	12	8 5/16	0	0	0	90,00,00	89,41,16	89,41,15	89,41,11	90,00,00
143	12	0	7 7/16	0	0	90,00,00	89,40,11	89,40,11	89,40,11	90,00,00
144	12	0	3/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
145	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
146	12	0	3/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
147	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
148	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
149	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
150	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
151	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
152	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
153	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
154	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
155	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
156	12	0	9/16	0	0	90,00,00	89,32,50	89,32,50	89,32,50	90,00,00
157	12	0	9/16	0	0	90,00,00	89,32,48	89,32,48	89,32,48	90,00,00
158	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
159	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
160	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
161	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
162	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
163	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
164	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
165	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
166	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
167	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
168	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
169	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
170	12	0	9/16	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
171	12	6 9/16	0	0	0	90,00,00	89,32,49	89,32,49	89,32,49	90,00,00
172	12	0	7/16	0	0	90,00,00	89,30,21	89,30,21	89,30,21	90,00,00
173	12	8 1 1/4	0	0	0	90,00,00	89,58,47	89,58,45	89,58,42	90,00,00
174	12	0	0	0	0	89,53,35	88,54,14	88,54,12	88,54,10	89,53,18



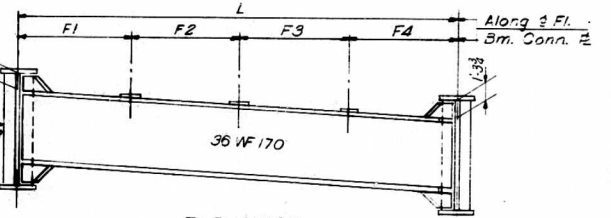
PLAN-END FL. BM. 174



PLAN

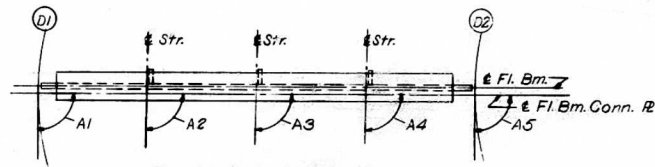


ELEVATION



ELEVATION

INTERIOR FLOOR BEAM 142THRU 173



PLAN-END FL. BM. 141

END FLOOR BEAM 141 AND 174

Notes:  
 Length L of Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 16".  
 All dimensions are in the horizontal plane.  
 For Connection Plate Details see Sh. N<sup>o</sup> 348.

DESIGNED BY A.T.S.A.I.C.  
 DRAWN BY D.C.H.  
 CHECKED BY A.A.  
 APPROVED BY K.A.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

FLOOR BEAM SCHEDULE  
 SPANS D28 THRU D32  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO SECTION 82-3HV/E  
 H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS SHEET 345 OF 348

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HWFB-E-1	ST. CLAIR	247	116
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 142	T1	T2	T3	T4
STR.				
277	7/16	7/8	3/4	1 3/16
278	1/2	15/16	11/16	1 1/8
279	1/2	15/16	11/16	1 1/8

FLOOR BEAM 143	T1	T2	T3	T4
STR.				
280	7/16	7/8	3/4	1 3/16
281	7/16	15/16	11/16	1 3/16
282	1/2	1	5/8	1 1/8

FLOOR BEAM 144	T1	T2	T3	T4
STR.				
283	3/8	15/16	11/16	1 1/4
284	7/16	15/16	11/16	1 3/16
285	1/2	1	5/8	1 1/8

FLOOR BEAM 145	T1	T2	T3	T4
STR.				
286	3/8	15/16	11/16	1 1/4
287	7/16	1	5/8	1 3/16
288	7/16	1	5/8	1 3/16

FLOOR BEAM 146 THRU 148	T1	T2	T3	T4
STR. 289 THRU 297	3/8	1	5/8	1 1/4

FLOOR BEAM 149 THRU 152	T1	T2	T3	T4
STR. 298 THRU 309	3/8	1	5/8	1 1/4

FLOOR BEAM 153 THRU 155	T1	T2	T3	T4
STR. 310 THRU 318	3/8	1	5/8	1 1/4

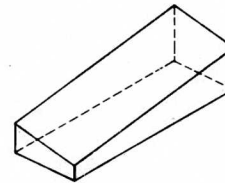
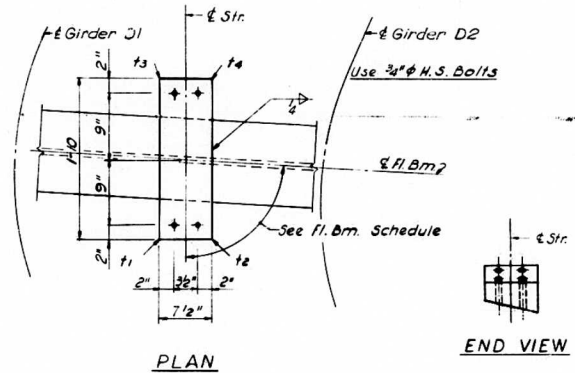
FLOOR BEAM 156 THRU 159	T1	T2	T3	T4
STR. 319 THRU 330	3/8	1	5/8	1 1/4

FLOOR BEAM 160 THRU 162	T1	T2	T3	T4
STR. 331 THRU 339	3/8	1	5/8	1 1/4

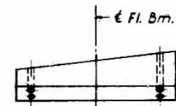
FLOOR BEAM 163 THRU 166	T1	T2	T3	T4
STR. 340 THRU 351	3/8	1	5/8	1 1/4

FLOOR BEAM 167 THRU 169	T1	T2	T3	T4
STR. 352 THRU 360	3/8	1	5/8	1 1/4

FLOOR BEAM 170 THRU 178	T1	T2	T3	T4
STR. 361 THRU 372	7/16	1 1/16	9/16	1 3/16



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

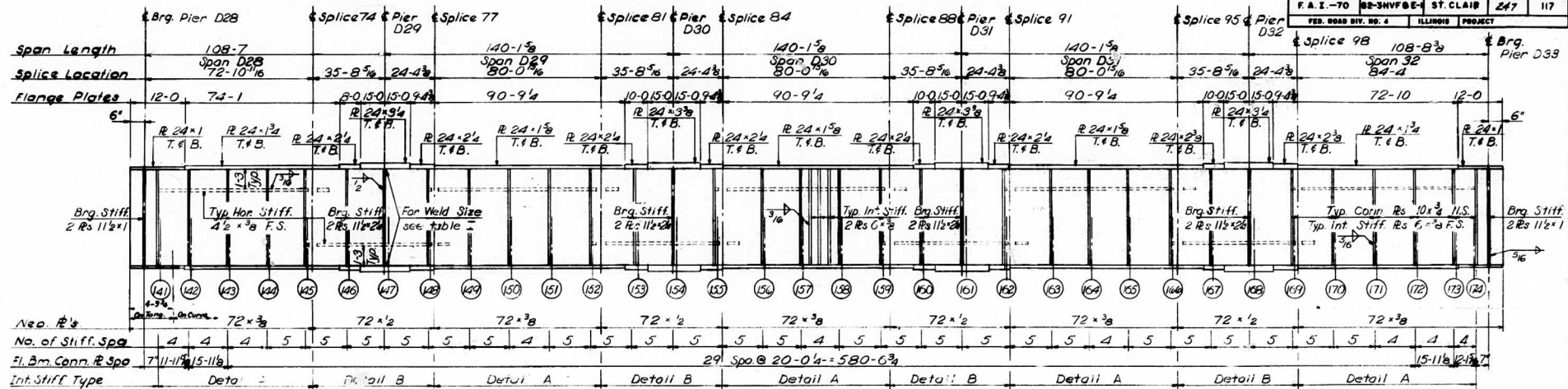
DESIGNED BY A.J.C.  
 DRAWN BY L.N.  
 CHECKED BY A.S.  
 APPROVED BY K.A.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

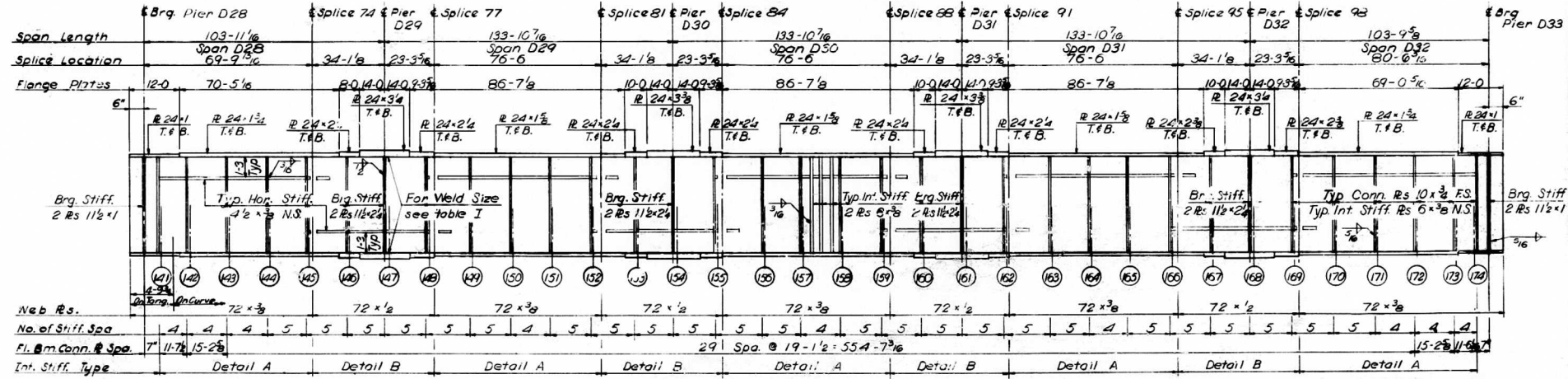
STRINGER SHIMS  
 SPANS 028 THRU 032  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HWFB-E-1  
 H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS  
 SHEET 246 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 70	82-3HVF 8-E	ST. CLAIR	247	117
FED. ROAD DIV. NO. 2	ILLINOIS PROJECT			



**GIRDER D1**  
SPANS D28 thru D32



**GIRDER D2**  
SPANS D28 thru D32

**Notes:**  
All Longitudinal Dimensions shown are given along & of Web. See Sh. No. 245.  
All Bearing Stiffeners and Connection Plates to be vertical.  
For Splice, Stiffener, Connection Plate Details and Table I see Sh. No. 34B, 349, and 350.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

**GIRDERS D1 AND D2**  
SPANS D28 THRU D32  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

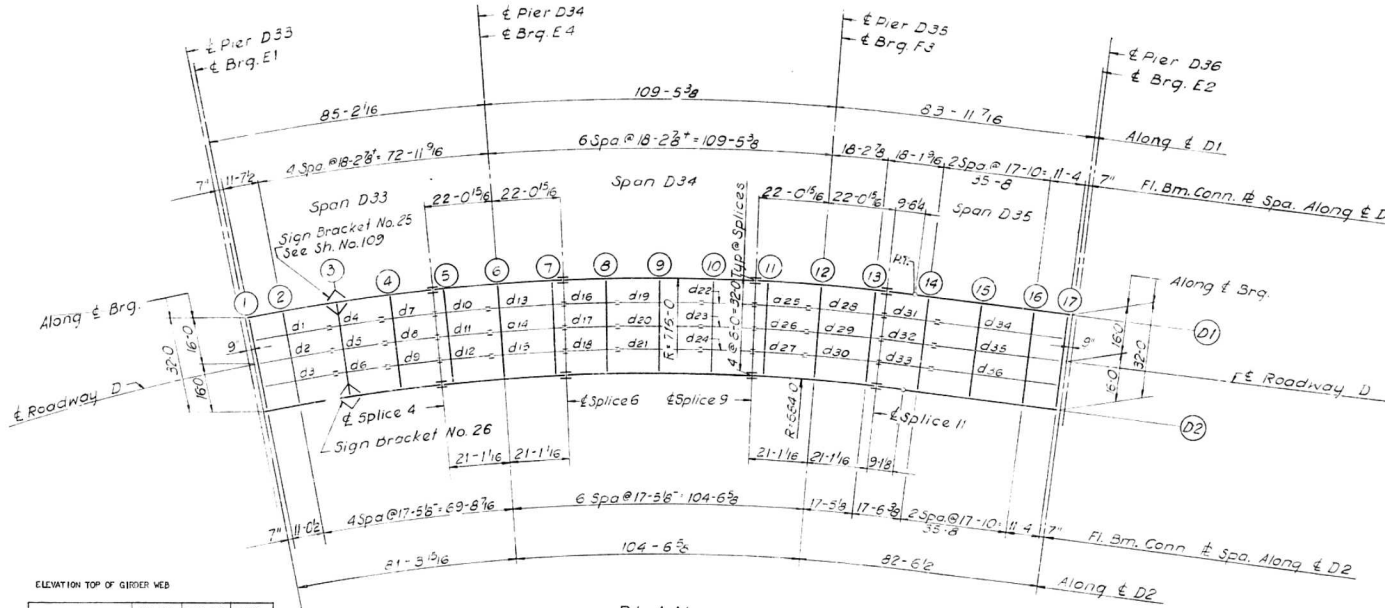
F. A. I. R. 70 ST. CLAIR CO. SECTION 82-3HVF 8-E-1  
H. W. LOCKNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
247 OF 250

DESIGNED BY A.T.  
DRAWN BY D.C.H.  
CHECKED BY E.L.  
APPROVED BY R.A.



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA.1-70	82-3HVB-3	ST. CLAIR	262	144
FED. ROAD DIV. NO. 4			ILLINOIS	PROJECT



PLAN  
SPANS D33 THRU D35

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	457,141	454,521	2,560
FLOOR BEAM 1	457,140	454,580	2,560
FLOOR BEAM 2	457,116	454,556	2,560
FLOOR BEAM 3	457,079	454,519	2,560
FLOOR BEAM 4	457,041	454,481	2,560
SPLICE 4	457,011	454,451	2,560
FLOOR BEAM 5	456,984	454,424	2,560
FLOOR BEAM 6	456,852	454,292	2,560
FLOOR BEAM 7	456,721	454,161	2,560
SPLICE 6	456,633	454,133	2,560
FLOOR BEAM 8	456,495	453,969	2,526
FLOOR BEAM 9	456,245	453,782	2,463
FLOOR BEAM 10	455,994	453,554	2,440
SPLICE 9	455,796	453,390	2,406
FLOOR BEAM 11	455,700	453,344	2,356
FLOOR BEAM 12	455,244	453,126	2,118
FLOOR BEAM 13	454,788	452,907	1,081
SPLICE 11	454,692	452,861	1,831
FLOOR BEAM 14	454,253	452,618	1,635
FLOOR BEAM 15	453,705	452,305	1,400
FLOOR BEAM 16	453,157	451,992	1,165
FLOOR BEAM 17	452,409	451,793	1,016
CL. BRG.	452,791	451,782	1,009

Note  
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see Sketch Sheet No. 60

BILL OF MATERIAL	
# Structural Steel	Lbs. 356,270

\* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are included as Structural Steel Est. Wt. 7980 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION HIGHWAYS

FRAMING PLAN  
SPANS D33 THRU D35  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

FA.1 RT. 70 ST. CLAIR CO. SECTION 82-3HVB-3

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
77 OF 163

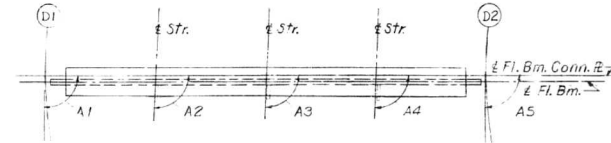
DESIGNED BY A.T.  
DRAWN BY I.M.  
CHECKED BY S.A.B.  
APPROVED BY R.A.

**STRINGER DIMENSIONS**

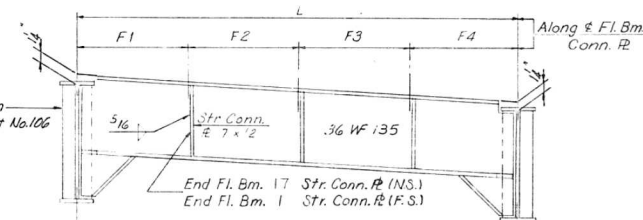
STR	L	S1	S2	S3	B1	B2
1	25'-8 5/8"	11'-5 3/4"		14'-2 15/16"	91.06.55"	91.06.27"
2	25 5	11 4		14 1	91.06.58	91.06.25
3	25 1 5/16	11 2 1/4		13 11 1/16	91.09.00	91.06.22
4	18 7/16	3 9 1/2		14 2 15/16	90.43.47	90.43.47
5	17 10	3 9		14 1	90.43.47	90.43.47
6	17 7 9/16	3 8 1/2		13 11 1/16	90.43.47	90.43.47
7	16 7/16	3 9 1/2		14 2 15/16	90.43.47	90.43.47
8	17 10	3 9		14 1	90.43.47	90.43.47
9	17 7 9/16	3 8 1/2		13 11 1/16	90.43.47	90.43.47
10	18 7/16	3 9 1/2		14 2 15/16	90.43.47	90.43.47
11	17 10	3 9		14 1	90.43.47	90.43.47
12	17 7 9/16	3 8 1/2		13 11 1/16	90.43.47	90.43.47
13	25 7 7/16	3 9 1/2	18 7/16	3 9 1/2	91.02.12	91.02.12
14	25 4	3 9	17 10	3 9	91.02.12	91.02.12
15	25 1/2	3 8 1/2	17 7 1/2	3 8 1/2	91.02.12	91.02.12
16	18 7/16	14 2 15/16		3 9 1/2	90.43.47	90.43.47
17	17 10	14 1		3 9	90.43.47	90.43.47
18	17 7 9/16	13 11 1/16		3 8 1/2	90.43.47	90.43.47
19	28 5 13/16	14 2 15/16		14 2 15/16	91.09.10	91.09.10
20	28 2	14 1		14 1	91.09.10	91.09.10
21	27 10 1/8	13 11 1/16		13 11 1/16	91.09.10	91.09.10
22	18 7/16	3 9 1/2		14 2 15/16	90.43.47	90.43.47
23	17 10	3 9		14 1	90.43.47	90.43.47
24	17 7 9/16	3 8 1/2		13 11 1/16	90.43.47	90.43.47
25	18 7/16	3 9 1/2		14 2 15/16	90.43.47	90.43.47
26	17 10	3 9		14 1	90.43.47	90.43.47
27	17 7 9/16	3 8 1/2		13 11 1/16	90.43.47	90.43.47
28	25 7 7/16	3 9 1/2	18 7/16	3 9 1/2	91.02.12	91.02.12
29	25 4	3 9	17 10	3 9	91.02.12	91.02.12
30	25 1/2	3 8 1/2	17 7 1/2	3 8 1/2	91.02.12	91.02.12
31	17 11 1/4	14 2 1/4		3 9	90.33.43	90.12.00
32	17 10	14 1		3 9	90.33.47	90.11.56
33	17 8 3/4	13 11 3/4		3 9	90.33.51	90.11.52
34	43 3	14 1	17 10	11 4	90.00.00	90.00.00
35	43 3	14 1	17 10	11 4	90.00.00	90.00.00
36	43 3	14 1	17 10	11 4	90.00.00	90.00.00

**FLOOR BEAM DIMENSIONS**

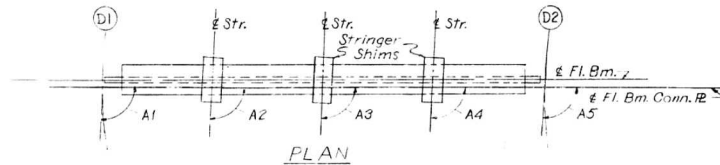
FL. BM.	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
1	32'-0"	8'-0"	8'-0"	8'-0"	8'-0"	90.06.24	91.06.95	91.06.58	91.09.00	90.06.42
2	32	8 1 3/8	8	8	7 10 5/8	90.00.00	90.06.43	90.06.45	90.06.47	90.00.00
3	32	8 7/16	8	8	7 11 9/16	90.00.00	90.25.22	90.25.22	90.25.22	90.00.00
4	32	8 7/16	8	8	7 11 9/16	90.00.00	90.25.22	90.25.22	90.25.22	90.00.00
5	32	8 7/16	8	8	7 11 9/16	90.00.00	90.25.22	90.25.22	90.25.22	90.00.00
6	32	8 11/16	8	8	7 11 5/16	90.00.00	90.43.47	90.43.47	90.43.47	90.00.00
7	32	8 11/16	8	8	7 11 5/16	90.00.00	89.16.13	89.16.13	89.16.13	90.00.00
8	32	8 7/16	8	8	7 11 9/16	90.00.00	89.34.38	89.34.38	89.34.38	90.00.00
9	32	8 1 3/4	8	8	7 10 5/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
10	32	8 7/16	8	8	7 11 9/16	90.00.00	90.25.22	90.25.22	90.25.22	90.00.00
11	32	8 7/16	8	8	7 11 9/16	90.00.00	90.25.22	90.25.22	90.25.22	90.00.00
12	32	8 11/16	8	8	7 11 5/16	90.00.00	90.43.47	90.43.47	90.43.47	90.00.00
13	32	8 11/16	8	8	7 11 5/16	90.00.00	89.16.13	89.16.13	89.16.13	90.00.00
14	32	8 7/16	8	8	7 11 9/16	90.00.00	89.46.00	89.46.00	89.46.00	90.00.00
15	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
16	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
17	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00



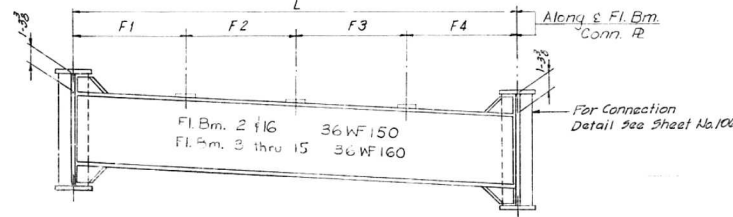
PLAN-END FL. BM. 17



ELEVATION

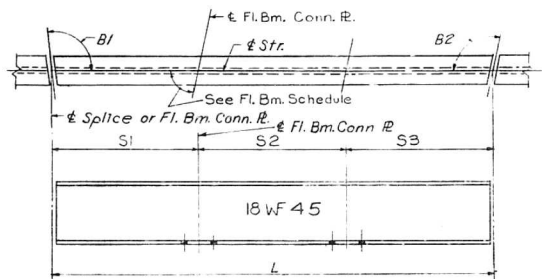


PLAN



ELEVATION

INTERIOR FLOOR BEAM 2 THRU 16



TYPICAL STRINGER

**Notes:**

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8". All dimensions are in the horizontal plane. For Connection Plate Details see Sheet No. 106

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**STRINGER AND FLOOR BEAM SCHEDULE**  
SPANS 0.33 THRU 0.35  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70	ST. CLAIR CC.	SECTION 82-SHV8-3
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS		SHEET 78 of 103

DESIGNED BY: A.T.  
DRAWN BY: O.C.H.  
CHECKED BY: S.A.B.  
APPROVED BY: K.A.

FLOOR BEAM	2 THRU 4	T1	T2	T3	T4
STR.	1 THRU 9	5/8	1 3/16	9/16	1 1/8

FLOOR BEAM	5 THRU 7	T1	T2	T3	T4
STR.	10 THRU 15	5/8	1 1/4	1/2	1 1/8

FLOOR BEAM	8 THRU 10	T1	T2	T3	T4
STR.	16 THRU 24	3/4	1 5/16	7/16	1

FLOOR BEAM	11	T1	T2	T3	T4
STR.	25	13/16	1 3/8	3/8	15/16
	26	13/16	1 3/8	3/5	15/16
	27	3/4	1 5/16	7/16	1

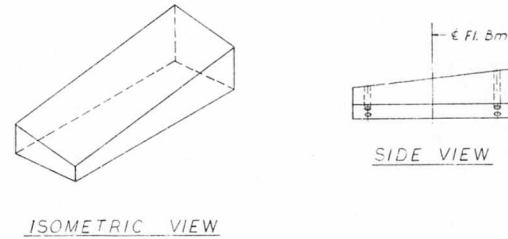
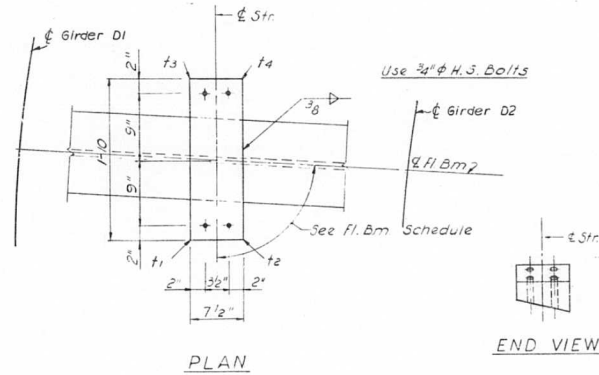
FLOOR BEAM	12	T1	T2	T3	T4
STR.	28	7/8	1 3/8	3/8	7/8
	29	13/16	1 5/16	7/16	15/16
	30	13/16	1 5/16	7/16	15/16

FLOOR BEAM	13	T1	T2	T3	T4
STR.	28	7/8	1 5/16	7/16	7/8
	29	7/8	1 5/16	7/16	7/8
	30	13/16	1 1/4	1/2	15/16

FLOOR BEAM	14	T1	T2	T3	T4
STR.	31	1	1 3/8	3/8	3/4
	32	15/16	1 5/16	7/16	13/16
	33	15/16	1 5/16	7/16	13/16

FLOOR BEAM	15	T1	T2	T3	T4
STR.	34	1	1 5/16	7/16	3/4
	35	1	1 5/16	7/16	3/4
	36	15/16	1 1/4	1/2	13/16

FLOOR BEAM	16	T1	T2	T3	T4
STR.	34	1 1/16	1 5/16	7/16	11/16
	35	1	1 1/4	1/2	3/4
	36	15/16	1 1/4	1/2	13/16



SHIM DETAIL

Shim thickness  $t_1, t_2, t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.T.  
 DRAWN BY L.M.  
 CHECKED BY S.A.B.  
 APPROVED BY K.B.

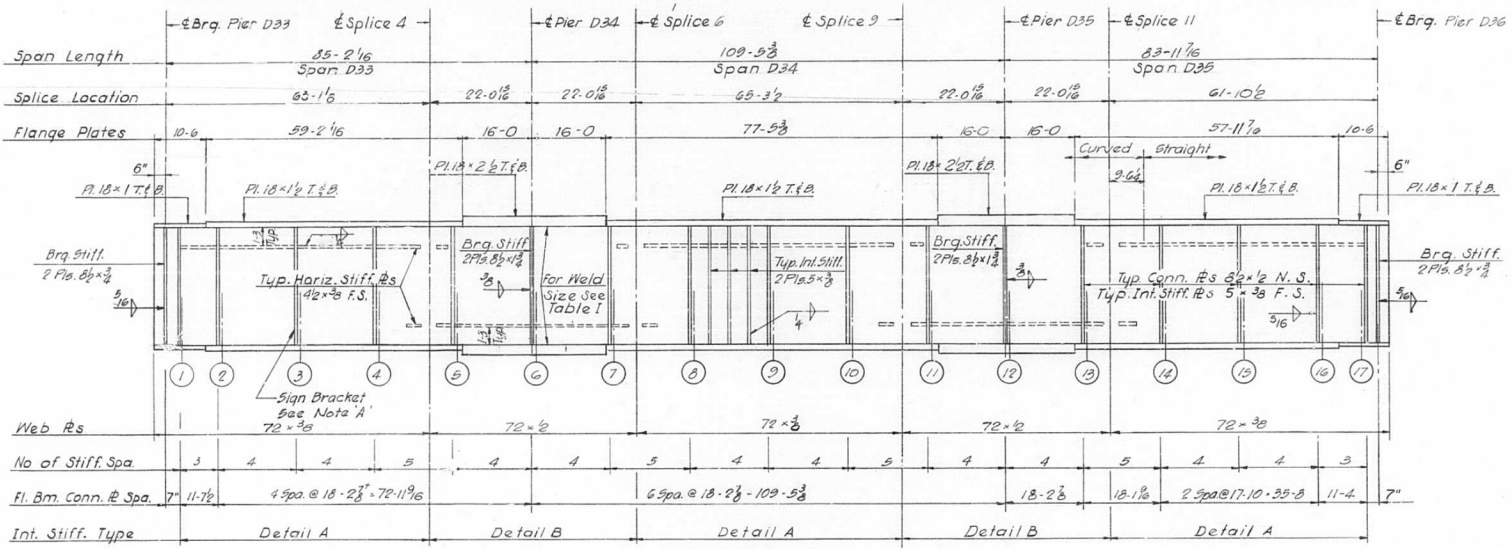
STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

STRINGER SHIMS  
 SPANS D33 THRU D35  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVB-3

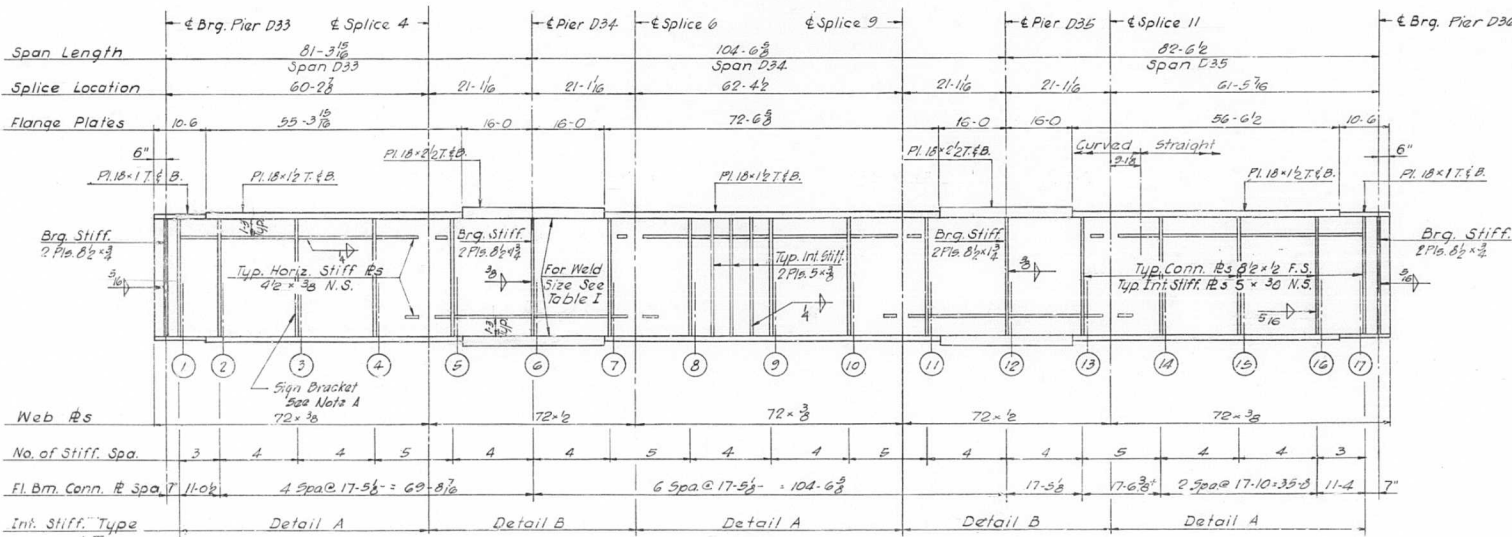
H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 79 OF 163



GIRDER D1  
Spans D33 thru D35

NOTES:  
 All longitudinal dimensions shown are given along  $\epsilon$  of Web see Sheet No. 77  
 All Bearing Stiffeners and Connection Plates to be vertical.  
 For Splice Stiffener, Connection Plate Details and Table I see Sheet No. 106 & 107



NOTE A  
 Intermediate Stiffeners should be moved if necessary to clear sign bracket connection plates

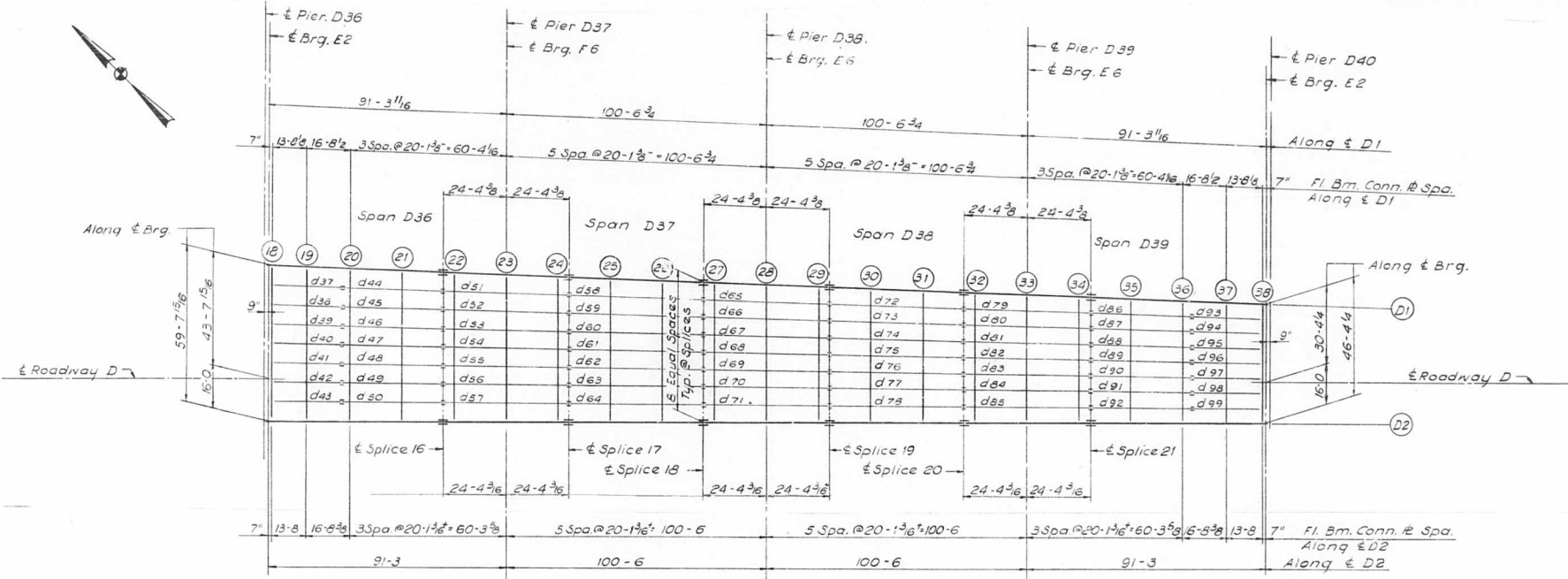
GIRDER D2  
Spans D33 thru D35

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

GIRDERS D1 AND D2  
 SPANS D33 THRU D35  
 PO-LAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVB-3  
 H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS SHEET 80 OF 103

DESIGNED BY: A. T.  
 DRAWN BY: A. M.  
 CHECKED BY: A. T.  
 APPROVED BY: K. A.



**PLAN**  
SPANS D36 THRU D39

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.		
CL. BRG.	453.141	451.751	1.390		
FLOOR BEAM 18	453.113	451.737	1.376	.583	.583
FLOOR BEAM 19	452.443	451.413	1.030	13.675	13.667
FLOOR BEAM 20	451.626	451.016	.610	16.710	16.700
FLOOR BEAM 21	450.641	450.539	.102	20.112	20.100
SPLICE 16	449.865	450.162	-.297	66.940	63.900
FLOOR BEAM 22	449.709	450.038	-.329	4.253	4.250
FLOOR BEAM 23	448.969	449.447	.477	20.112	20.100
FLOOR BEAM 24	448.230	448.897	-.627	20.112	20.100
SPLICE 17	448.074	448.736	-.653	48.730	48.700
FLOOR BEAM 25	447.660	448.257	-.597	15.860	15.850
FLOOR BEAM 26	447.137	447.654	-.517	20.112	20.100
SPLICE 18	446.723	447.178	-.455	51.832	51.800
FLOOR BEAM 27	446.399	447.051	-.652	4.253	4.250

	GIR. D1	GIR. D2	DIFF.		
FLOOR BEAM 28	446.010	446.448	-.438	20.112	20.100
FLOOR BEAM 29	445.462	445.545	-.423	20.112	20.100
SPLICE 19	445.297	445.717	-.420	48.730	48.700
FLOOR BEAM 30	444.635	445.242	-.409	15.860	15.850
FLOOR BEAM 31	444.245	444.639	-.393	20.112	20.100
SPLICE 20	443.781	444.163	-.382	51.832	51.800
FLOOR BEAM 32	443.657	444.036	-.379	4.253	4.250
FLOOR BEAM 33	443.068	443.433	-.365	20.112	20.100
FLOOR BEAM 34	442.480	442.830	-.350	20.112	20.100
SPLICE 21	442.355	442.702	-.347	48.730	48.700
FLOOR BEAM 35	441.891	442.227	-.336	15.860	15.850
FLOOR BEAM 36	441.303	441.624	-.321	20.112	20.100
FLOOR BEAM 37	440.814	441.123	-.309	16.710	16.700
FLOOR BEAM 38	440.413	440.713	-.300	13.675	13.667
CL. BRG.	440.396	440.695	-.299	66.940	66.900

BILL OF MATERIAL	
*Structural Steel	Lbs. 727,470

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 13,610 Lbs.

*Note*  
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see Sketch Sheet No. 60

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

**FRAMING PLAN**  
SPANS D36 THRU D39  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HV8-3

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

DESIGNED BY: A. T.  
DRAWN BY: L. M.  
CHECKED BY: A. T.  
APPROVED BY: K. A.

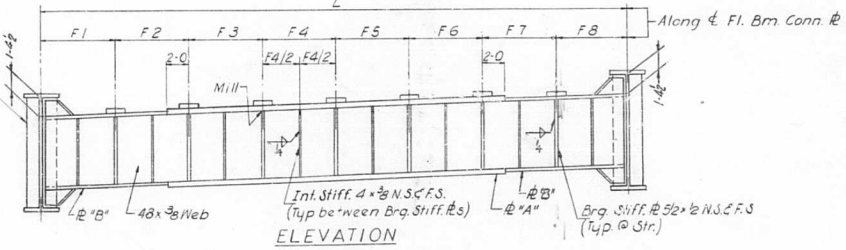
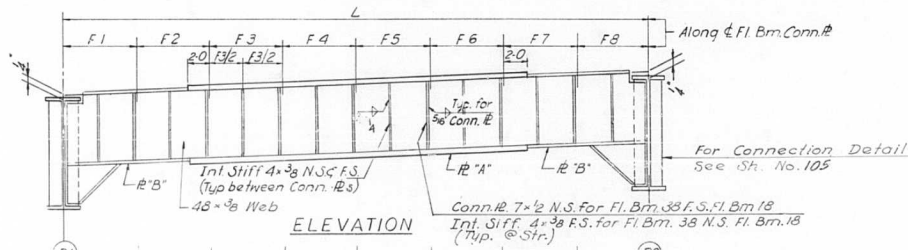
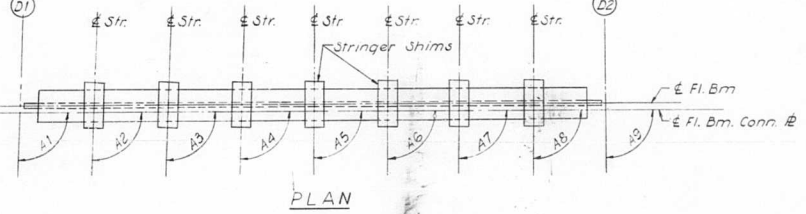
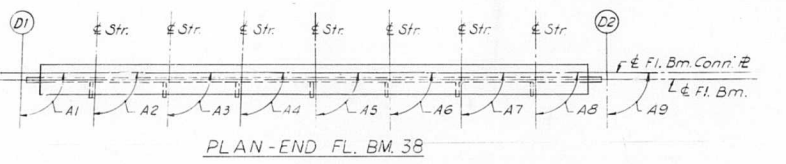
FLOOR BEAM DIMENSIONS

FL. BM.	L	F1	F2	F3	F4	F5	F6	F7	F8	A1	A2	A3	A4	A5	A6	A7	A8	A9	Plate "A" Top S. Bol.	Plate "B" Top S. Bol.
18	59'-7 11/16"	7'-5 7/16"	7'-5 7/16"	7'-5 7/16"	7'-5 7/16"	7'-5 7/16"	7'-3 7/16"	7'-5 7/16"	7'-5 7/16"	91.59,12"	91.44,19"	91.29,25"	91.14,31"	90.99,37"	90.44,43"	90.29,49"	90.14,54"	90.00,00"	12 x 1 3/8	12 x 1
19	59' 2"	7 4 3/4	7 4 3/4	7 4 3/4	7 4 3/4	7 4 3/4	7 4 3/4	7 4 3/4	7 4 3/4	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/8	12 x 1 3/8
20	58' 7"	7 3 7/8	7 3 7/8	7 3 7/8	7 3 7/8	7 3 7/8	7 3 7/8	7 3 7/8	7 3 7/8	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 3/8	12 x 1 3/8
21	57' 10 11/16"	7 2 13/16	7 2 13/16	7 2 13/16	7 2 13/16	7 2 13/16	7 2 13/16	7 2 13/16	7 2 13/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 3/8	12 x 1 3/8
22	57' 2 5/16"	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 3/8	12 x 1 3/8
23	56' 5 15/16"	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 3/8	12 x 1 3/8
24	55' 9 9/16"	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/2	12 x 1 1/2
25	55' 1 3/16	6 10 5/8	6 10 5/8	6 10 5/8	6 10 5/8	6 10 5/8	6 10 5/8	6 10 5/8	6 10 5/8	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/2	12 x 1 1/2
26	54' 4 13/16	6 9 5/8	6 9 5/8	6 9 5/8	6 9 5/8	6 9 5/8	6 9 5/8	6 9 5/8	6 9 5/8	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/2	12 x 1 1/2
27	53' 8 7/16	6 8 9/16	6 8 9/16	6 8 9/16	6 8 9/16	6 8 9/16	6 8 9/16	6 8 9/16	6 8 9/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/2	12 x 1 1/2
28	53' 1/8	6 7 1/2	6 7 1/2	6 7 1/2	6 7 1/2	6 7 1/2	6 7 1/2	6 7 1/2	6 7 1/2	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/2	12 x 1 1/2
29	52' 3 3/4	6 6 7/16	6 6 7/16	6 6 7/16	6 6 7/16	6 6 7/16	6 6 7/16	6 6 7/16	6 6 7/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2 1/2	12 x 1 1/2
30	51' 7 3/8	6 5 1/16	6 5 1/16	6 5 1/16	6 5 1/16	6 5 1/16	6 5 1/16	6 5 1/16	6 5 1/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2	12 x 1 1/4
31	50' 11	6 4 3/8	6 4 3/8	6 4 3/8	6 4 3/8	6 4 3/8	6 4 3/8	6 4 3/8	6 4 3/8	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 2	12 x 1 1/4
32	50' 2 5/8	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 7/8	12 x 1 1/4
33	49' 6 1/4	6 2 5/16	6 2 5/16	6 2 5/16	6 2 5/16	6 2 5/16	6 2 5/16	6 2 5/16	6 2 5/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 7/8	12 x 1 1/4
34	48' 9 7/8	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 7/8	12 x 1 1/4
35	48' 1 1/2	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 3/4	12 x 1
36	47' 5 3/16	5 11 1/8	5 11 1/8	5 11 1/8	5 11 1/8	5 11 1/8	5 11 1/8	5 11 1/8	5 11 1/8	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 3/4	12 x 1
37	46' 10 3/16	5 10 1/4	5 10 1/4	5 10 1/4	5 10 1/4	5 10 1/4	5 10 1/4	5 10 1/4	5 10 1/4	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 3/4	12 x 7/8
38	46' 4 1/2	5 9 9/16	5 9 9/16	5 9 9/16	5 9 9/16	5 9 9/16	5 9 9/16	5 9 9/16	5 9 9/16	91.59,12	91.44,19	91.29,25	91.14,31	90.99,37	90.44,43	90.29,49	90.14,54	90.00,00	12 x 1 1/2	12 x 3/4

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVB-3	ST. CLAIR	262	149
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

NOTES:

Length L of Fl. Bms is correct as given in the table, except the increment lengths are given to the nearest 1/8".  
 All dimensions are in the horizontal plane.  
 For Intermediate Stiffener, Brg. Stiffener and Connection Plate Details see Sh. No. 106



PLAN END FL. BM. 18  
 END FLOOR BEAM 18 AND 38

INTERIOR FLOOR BEAM 19 THRU 37

DESIGNED BY: A.T.  
 DRAWN BY: J.M.  
 CHECKED BY: A.T.  
 APPROVED BY: K.A.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 FLOOR BEAM SCHEDULE  
 SPANS D36 THRU D39  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVB-3

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 82 OF 363

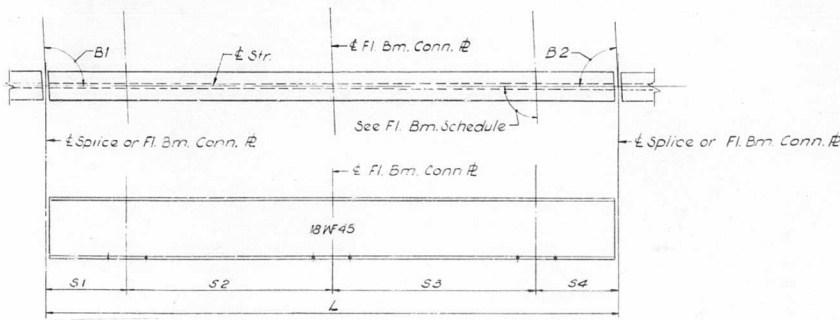
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 70	82-3HV8-3	ST. CLAIR	262	150
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2
37	26'-10 9/16"	13'-8 1/16"	○	○	13'-2 1/2"	91'44.19"	88'15.41"
38	26 10 1/2	13 8 1/16	↑	↑	13 2 7/16	91,29,25	88,30,35
39	26 10 1/2	13 8	↑	↑	13 2 7/16	91,14,31	88,45,29
40	26 10 7/16	13 8	↑	↑	13 2 7/16	90,59,37	89,00,23
41	26 10 7/16	13 8	↑	↑	13 2 7/16	90,44,43	89,15,17
42	26 10 7/16	13 8	↑	↑	13 2 3/8	90,29,49	89,30,11
43	26 10 3/8	13 8	○	○	13 2 3/8	90,14,54	89,45,06
44	39 5 5/8	3 6	20 1 5/16	20 1 5/16	15 10 5/16	91,44,19	88,15,41
45	39 5 9/16	3 6	20 1 5/16	20 1 5/16	15 10 1/4	91,29,25	88,30,35
46	39 5 1/2	3 6	20 1 1/4	20 1 1/4	15 10 1/4	91,14,31	88,45,29
47	39 5 1/2	3 6	20 1 1/4	20 1 1/4	15 10 1/4	90,59,37	89,00,23
48	39 5 7/16	3 6	20 1 1/4	20 1 1/4	15 10 3/16	90,44,43	89,15,17
49	39 5 7/16	3 6	20 1 3/16	20 1 3/16	15 10 3/16	90,29,49	89,30,11
50	39 5 3/8	3 6	20 1 3/16	20 1 3/16	15 10 3/16	90,14,54	89,45,06
51	48 8 11/16	4 3	20 1 5/16	20 1 5/16	4 3	91,44,19	88,15,41
52	48 8 5/8	4 3	20 1 5/16	20 1 5/16	4 3	91,29,25	88,30,35
53	48 8 9/16	4 3	20 1 1/4	20 1 1/4	4 3	91,14,31	88,45,29
54	48 8 1/2	4 3	20 1 1/4	20 1 1/4	4 3	90,59,37	89,00,23
55	48 8 7/16	4 3	20 1 1/4	20 1 1/4	4 3	90,44,43	89,15,17
56	48 8 7/16	4 3	20 1 3/16	20 1 3/16	4 3	90,29,49	89,30,11
57	48 8 3/8	4 3	20 1 3/16	20 1 3/16	4 3	90,14,54	89,45,06
58	51 9 7/8	15 10 5/16	20 1 5/16	20 1 5/16	15 10 5/16	91,44,19	88,15,41
59	51 9 13/16	15 10 1/4	20 1 5/16	20 1 5/16	15 10 1/4	91,29,25	88,30,35
60	51 9 3/4	15 10 1/4	20 1 1/4	20 1 1/4	15 10 1/4	91,14,31	88,45,29
61	51 9 11/16	15 10 1/4	20 1 1/4	20 1 1/4	15 10 1/4	90,59,37	89,00,23
62	51 9 5/8	15 10 3/16	20 1 1/4	20 1 1/4	15 10 3/16	90,44,43	89,15,17
63	51 9 5/8	15 10 3/16	20 1 3/16	20 1 3/16	15 10 3/16	90,29,49	89,30,11
64	51 9 5/8	15 10 3/16	20 1 3/16	20 1 3/16	15 10 3/16	90,14,54	89,45,06
65	48 8 11/16	4 3	20 1 5/16	20 1 5/16	4 3	91,44,19	88,15,41
66	48 8 5/8	4 3	20 1 5/16	20 1 5/16	4 3	91,29,25	88,30,35
67	48 8 9/16	4 3	20 1 1/4	20 1 1/4	4 3	91,14,31	88,45,29
68	48 8 1/2	4 3	20 1 1/4	20 1 1/4	4 3	90,59,37	89,00,23

STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2
65	48'-8 7/16"	4'-3"	20'-1 1/4"	20'-1 1/4"	4'-3"	90'44.43"	89'15.17"
46	8 7/16	4 3	20 1 3/16	20 1 3/16	4 3	90,29,49	89,30,11
71	48 8 3/8	4 3	20 1 3/16	20 1 3/16	4 3	90,14,54	89,45,06
72	51 9 7/8	15 10 5/16	20 1 5/16	20 1 5/16	15 10 5/16	91,44,19	88,15,41
73	51 9 13/16	15 10 1/4	20 1 5/16	20 1 5/16	15 10 1/4	91,29,25	88,30,35
74	51 9 3/4	15 10 1/4	20 1 1/4	20 1 1/4	15 10 1/4	91,14,31	88,45,29
75	51 9 11/16	15 10 1/4	20 1 1/4	20 1 1/4	15 10 1/4	90,59,37	89,00,23
76	51 9 5/8	15 10 3/16	20 1 1/4	20 1 1/4	15 10 3/16	90,44,43	89,15,17
77	51 9 5/8	15 10 3/16	20 1 3/16	20 1 3/16	15 10 3/16	90,29,49	89,30,11
78	51 9 5/8	15 10 3/16	20 1 3/16	20 1 3/16	15 10 3/16	90,14,54	89,45,06
79	48 8 11/16	4 3	20 1 5/16	20 1 5/16	4 3	91,44,19	88,15,41
80	48 8 5/8	4 3	20 1 5/16	20 1 5/16	4 3	91,29,25	88,30,35
81	48 8 9/16	4 3	20 1 1/4	20 1 1/4	4 3	91,14,31	88,45,29
82	48 8 1/2	4 3	20 1 1/4	20 1 1/4	4 3	90,59,37	89,00,23
83	48 8 7/16	4 3	20 1 1/4	20 1 1/4	4 3	90,44,43	89,15,17
84	48 8 7/16	4 3	20 1 3/16	20 1 3/16	4 3	90,29,49	89,30,11
85	48 8 3/8	4 3	20 1 3/16	20 1 3/16	4 3	90,14,54	89,45,06
86	39 5 5/8	15 10 5/16	20 1 5/16	20 1 5/16	3 6	91,44,19	88,15,41
87	39 5 9/16	15 10 1/4	20 1 5/16	20 1 5/16	3 6	91,29,25	88,30,35
88	39 5 1/2	15 10 1/4	20 1 1/4	20 1 1/4	3 6	91,14,31	88,45,29
89	39 5 1/2	15 10 1/4	20 1 1/4	20 1 1/4	3 6	90,59,37	89,00,23
90	39 5 7/16	15 10 3/16	20 1 1/4	20 1 1/4	3 6	90,44,43	89,15,17
91	39 5 7/16	15 10 3/16	20 1 3/16	20 1 3/16	3 6	90,29,49	89,30,11
92	39 5 3/8	15 10 3/16	20 1 3/16	20 1 3/16	3 6	90,14,54	89,45,06
93	26 10 9/16	13 2 1/2	○	○	13 8 1/16	91,44,19	88,15,41
94	26 10 1/2	13 2 7/16	↑	↑	13 8 1/16	91,29,25	88,30,35
95	26 10 1/2	13 2 7/16	↑	↑	13 8	91,14,31	88,45,29
96	26 10 7/16	13 2 7/16	↑	↑	13 8	90,59,37	89,00,23
97	26 10 7/16	13 2 7/16	↑	↑	13 8	90,44,43	89,15,17
98	26 10 7/16	13 2 3/8	↑	↑	13 8	90,29,49	89,30,11
99	26 10 3/8	13 2 3/8	○	○	13 8	90,14,54	89,45,06



TYPICAL STRINGER

NOTES:  
 Length L of Stringer is correct as given in the table, except the increment lengths are given to the nearest 1/16".  
 All dimensions are in the horizontal plane.

DESIGNED BY A. T.  
 DRAWN BY I. M.  
 CHECKED BY A. T.  
 APPROVED BY K. A.

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
**STRINGER SCHEDULE**  
 SPANS D36 THRU D39  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HV8-3

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 83 of 163



FLOOR BEAM 19	T1	T2	T3	T4
STR.				
37	1 3/8	1 1/2	3/8	1/2
38	1 5/16	1 1/2	3/8	9/16
39	1 5/16	1 7/16	7/16	9/16
40	1 1/4	1 3/8	1/2	5/8
41	1 1/4	1 3/8	1/2	5/8
42	1 3/16	1 5/16	9/16	11/16
43	1 3/16	1 5/16	9/16	11/16

FLOOR BEAM 20	T1	T2	T3	T4
STR.				
44	1 3/8	1 1/2	3/8	1/2
45	1 3/8	1 7/16	7/16	1/2
46	1 5/16	1 7/16	7/16	9/16
47	1 5/16	1 3/8	1/2	9/16
48	1 1/4	1 5/16	9/16	5/8
49	1 1/4	1 5/16	9/16	5/8
50	1 3/16	1 1/4	5/8	11/16

FLOOR BEAM 21	T1	T2	T3	T4
STR.				
44	1 7/16	1 7/16	7/16	7/16
45	1 3/8	1 7/16	7/16	1/2
46	1 3/8	1 3/8	1/2	1/2
47	1 5/16	1 5/8	1/2	9/16
48	1 5/16	1 5/16	9/16	9/16
49	1 1/4	1 1/4	5/8	5/8
50	1 1/4	1 1/4	5/8	5/8

FLOOR BEAM 22	T1	T2	T3	T4
STR.				
51	1 3/8	1 5/16	9/16	1/2
52	1 5/16	1 5/16	9/16	9/16
53	1 5/16	1 5/16	9/16	9/16
54	1 5/16	1 1/4	5/8	9/16
55	1 5/16	1 1/4	5/8	9/16
56	1 5/16	1 1/4	5/8	9/16
57	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 23	T1	T2	T3	T4
STR.				
51	1 3/8	1 5/16	9/16	1/2
52	1 3/8	1 5/16	9/16	1/2
53	1 5/16	1 1/4	5/8	9/16
54	1 5/16	1 1/4	5/8	9/16
55	1 5/16	1 1/4	5/8	9/16
56	1 5/16	1 1/4	5/8	9/16
57	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 24	T1	T2	T3	T4
STR.				
51	1 3/8	1 5/16	9/16	1/2
52	1 3/8	1 1/4	5/8	1/2
53	1 3/8	1 1/4	5/8	1/2
54	1 5/16	1 1/4	5/8	9/16
55	1 5/16	1 1/4	5/8	9/16
56	1 5/16	1 1/4	5/8	9/16
57	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 25	T1	T2	T3	T4
STR.				
58	1 1/4	1 3/16	11/16	5/8
59	1 1/4	1 3/16	11/16	5/8
60	1 1/4	1 3/16	11/16	5/8
61	1 5/16	1 3/16	11/16	9/16
62	1 5/16	1 3/16	11/16	9/16
63	1 5/16	1 3/16	11/16	9/16
64	1 5/16	1 1/4	5/8	9/16

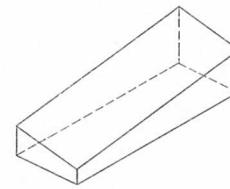
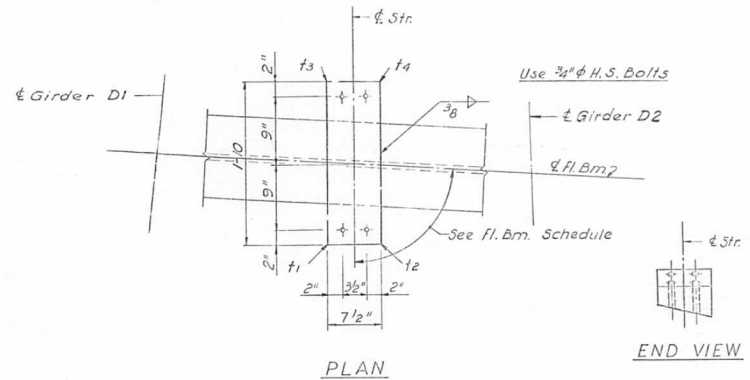
FLOOR BEAM 26	T1	T2	T3	T4
STR.				
58	1 1/4	1 3/16	11/16	5/8
59	1 1/4	1 3/16	11/16	5/8
60	1 1/4	1 3/16	11/16	5/8
61	1 5/16	1 3/16	11/16	9/16
62	1 5/16	1 3/16	11/16	9/16
63	1 5/16	1 1/4	5/8	9/16
64	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 27 THRU 29	T1	T2	T3	T4
STR. 65 THRU 71	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 30 THRU 31	T1	T2	T3	T4
STR. 72 THRU 78	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 32 THRU 34	T1	T2	T3	T4
STR. 79 THRU 85	1 5/16	1 1/4	5/8	9/16

FLOOR BEAM 35 THRU 37	T1	T2	T3	T4
STR. 86 THRU 99	1 5/16	1 1/4	5/8	9/16



ISOMETRIC VIEW

SHIM DETAIL

Shim thickness  $t_1, t_2, t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

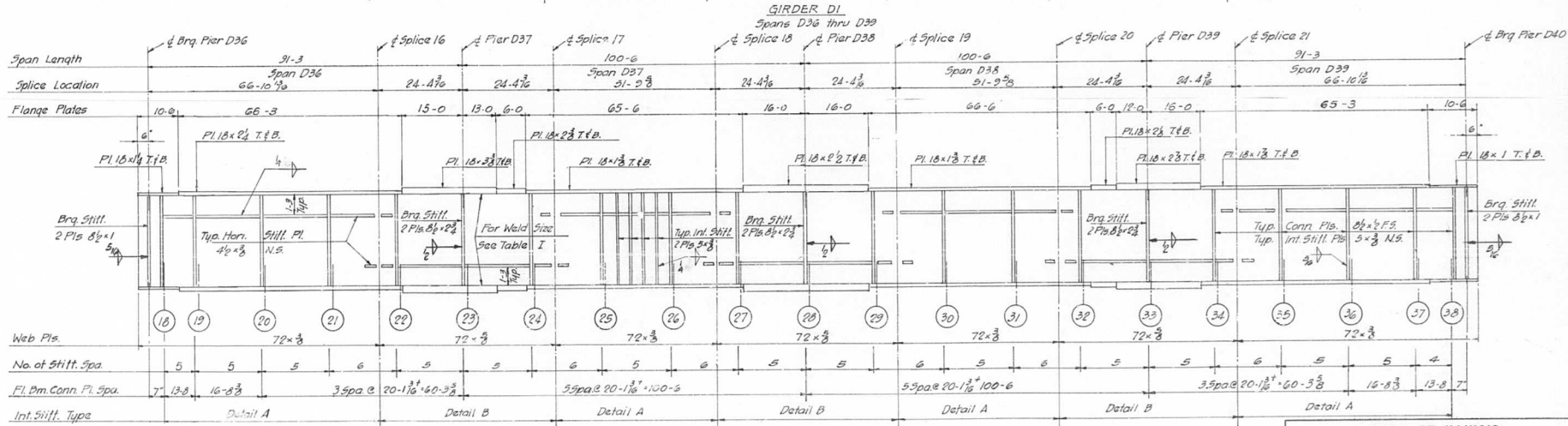
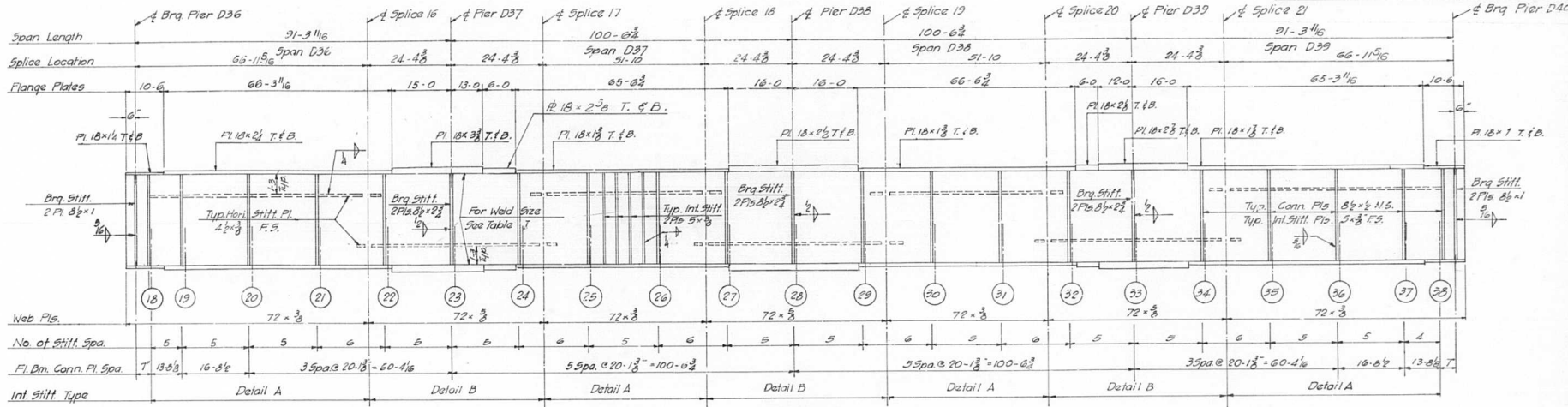
STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

STRINGER SHIMS  
 SPANS D36 THRU 39  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT.-70 ST. CLAIR CO. SECTION 02-3HVB-3  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 84 of 163

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVB-3	ST. CLAIR	262	152
FED. ROAD DIV. NO. 4			ILLINOIS PROJECT	



**NOTES:**  
 All Longitudinal Dimensions shown are given along  $\pm$  of web. See Sheet No. 81  
 All Bearing Stiffeners and Connection Plates to be vertical.  
 For Splice Stiffeners, Connection Plate Details and Table I see Sheet No. 105, 106, & 107

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

**GIRDERS D1 AND D2**  
 SPANS D36 THRU D39

POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "B"

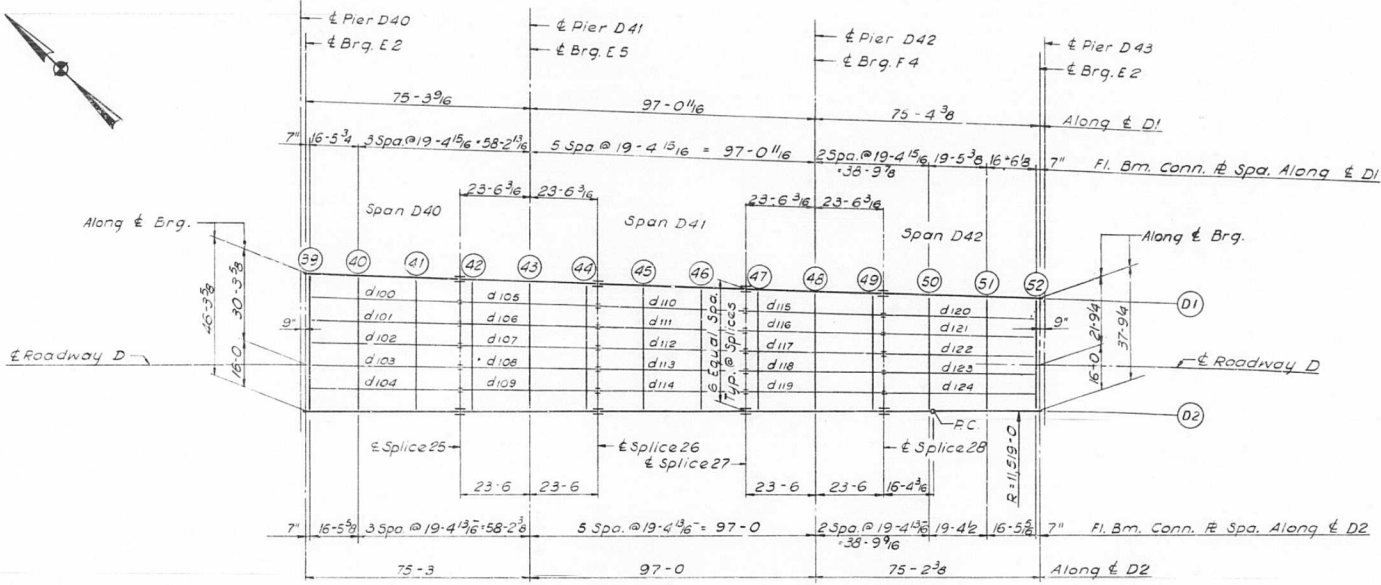
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVB-3

H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS

SHEET  
 85 OF 103

DESIGNED BY: A.T.  
 DRAWN BY: W.C.  
 CHECKED BY: A.T.  
 APPROVED BY: H.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVB-3	ST. CLAIR	262	153
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



ELEVATION TOP OF GIRDER MEN

	GIR. D 1	GIR. D 2	DIFF.
CL. BRG.	440,352	440,650	.298
FLOOR BEAM 39	440,335	440,633	.298
FLOOR BEAM 40	439,653	440,139	.285
FLOOR BEAM 41	439,285	439,556	.271
SPLICE 25	438,637	439,047	.410
FLOOR BEAM 42	438,717	438,974	.257
FLOOR BEAM 43	438,149	438,332	.183
FLOOR BEAM 44	437,581	437,810	.229
SPLICE 26	437,461	437,687	.226
FLOOR BEAM 45	437,013	437,228	.215
FLOOR BEAM 46	436,445	436,646	.201
SPLICE 27	435,237	436,187	.190
FLOOR BEAM 47	435,677	436,064	.187
FLOOR BEAM 48	435,309	435,482	.173
FLOOR BEAM 49	434,741	434,900	.159
SPLICE 28	434,621	434,777	.156
FLOOR BEAM 50	434,173	434,318	.145
FLOOR BEAM 51	433,604	433,736	.132
FLOOR BEAM 52	433,121	433,243	.121
CL. BRG.	433,104	433,225	.121

PLAN  
SPANS D40 THRU D42

Note

Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see Sketch Sheet No. 60

BILL OF MATERIAL		
*Structural Steel	Lbs.	347,470

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. w/ 9540 lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

FRAMING PLAN  
SPANS D40 THRU D42  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVB-3

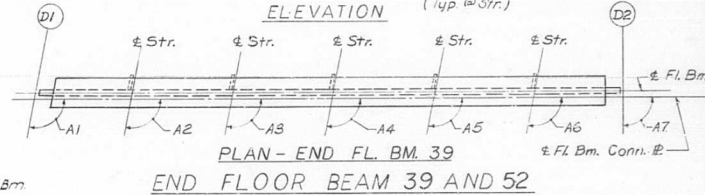
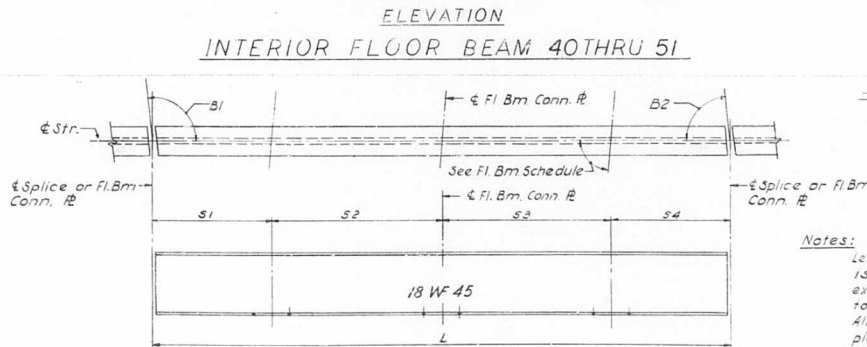
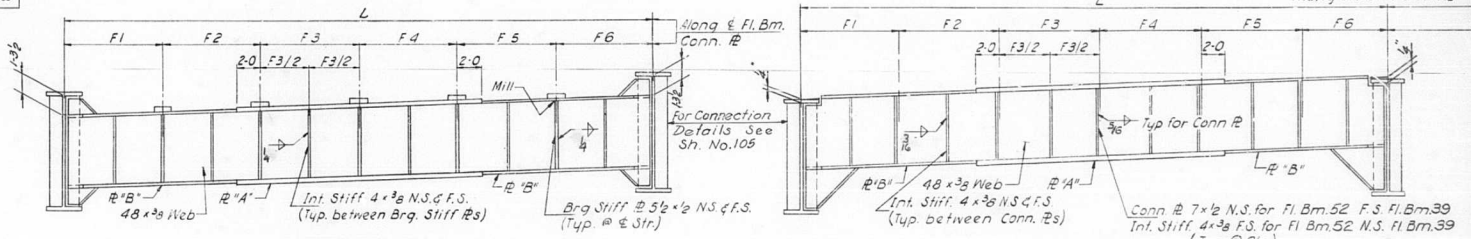
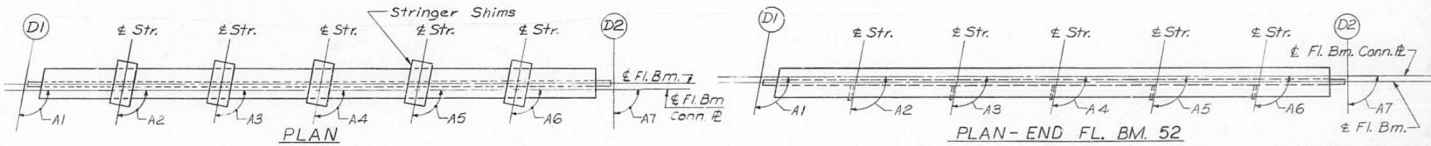
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
96 of 163

DESIGNED BY A.T.  
DRAWN BY I.M.  
CHECKED BY A.T.  
APPROVED BY K.A.

STRINGER DIMENSIONS							
STR	L	S1	S2	S3	S4	B1	B2
100	51-2 1/4"	16-5 11/16"	○	19-4 7/8"	15-3 11/16"	91.39.21"	88.20.39"
101	51-2 3/16"	16-5 5/8"	↑	19-4 7/8"	15-3 5/8"	91.19.29	88.40.31"
102	51-2 1/16"	16-5 5/8"	↑	19-4 13/16"	15-3 5/8"	90.59.37	89.00.23"
103	51-2 1/16"	16-5 5/8"	↑	19-4 13/16"	15-3 5/8"	90.39.45	89.20.15"
104	51-2	16-5 9/16"	○	19-4 13/16"	15-3 5/8"	90.19.52	89.40.08"
105	47-1/4"	4-1 1/4"	19-4 7/8"	19-4 7/8"	4-1 1/4"	91.39.21"	88.20.39"
106	47-1/8"	4-1 3/16"	19-4 7/8"	19-4 7/8"	4-1 3/16"	91.19.29	88.40.31"
107	47-1/16"	4-1 3/16"	19-4 13/16"	19-4 13/16"	4-1 3/16"	90.59.37	89.00.23"
108	47-1/16"	4-1 3/16"	19-4 13/16"	19-4 13/16"	4-1 3/16"	90.39.45	89.20.15"
109	47-1/8"	4-1 3/16"	19-4 13/16"	19-4 13/16"	4-1 3/16"	90.19.52	89.40.08"
110	50-1/4"	15-3 11/16"	19-4 7/8"	19-4 7/8"	15-3 11/16"	91.39.21"	88.20.39"
111	50-3/16"	15-3 5/8"	19-4 7/8"	19-4 7/8"	15-3 5/8"	91.19.29	88.40.31"
112	50-1/16"	15-3 5/8"	19-4 13/16"	19-4 13/16"	15-3 5/8"	90.59.37	89.00.23"
113	50-1/16"	15-3 5/8"	19-4 13/16"	19-4 13/16"	15-3 5/8"	90.39.45	89.20.15"
114	50-1/8"	15-3 5/8"	19-4 13/16"	19-4 13/16"	15-3 5/8"	90.19.52	89.40.08"
115	47-1/4"	4-1 1/4"	19-4 7/8"	19-4 7/8"	4-1 1/4"	91.39.21"	88.20.39"
116	47-1/8"	4-1 3/16"	19-4 7/8"	19-4 7/8"	4-1 3/16"	91.19.29	88.40.31"
117	47-1/16"	4-1 3/16"	19-4 13/16"	19-4 13/16"	4-1 3/16"	90.59.37	89.00.23"
118	47-1/16"	4-1 3/16"	19-4 13/16"	19-4 13/16"	4-1 3/16"	90.39.45	89.20.15"
119	47-1/8"	4-1 3/16"	19-4 13/16"	19-4 13/16"	4-1 3/16"	90.19.52	89.40.08"
120	51-2 13/16"	15-3 11/16"	19-5 3/16"	19-5 3/16"	16-5 15/16"	91.39.58	88.30.48"
121	51-2 1/2"	15-3 5/8"	19-5 1/8"	19-5 1/8"	16-5 13/16"	91.20.43	88.50.03"
122	51-2 3/16"	15-3 5/8"	19-4 7/8"	19-4 7/8"	16-5 11/16"	91.01.27	89.09.20"
123	51-1 15/16"	15-3 5/8"	19-4 3/4"	19-4 3/4"	16-5 9/16"	90.42.10	89.28.37"
124	51-1 5/8"	15-3 5/8"	19-4 5/8"	19-4 5/8"	16-5 7/16"	90.22.51	89.47.55"

FLOOR BEAM DIMENSIONS																
FL. BM.	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7	Plate A Top f Btm	Plate B Top f Btm
39	46-3 7/16"	7-8 9/16"	7-8 9/16"	7-8 9/16"	7-8 9/16"	7-8 9/16"	7-8 9/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1
40	45-0 9/16"	7-7 7/16"	7-7 7/16"	7-7 7/16"	7-7 7/16"	7-7 7/16"	7-7 7/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1
41	45-1/2"	7-6 1/16"	7-6 1/16"	7-6 1/16"	7-6 1/16"	7-6 1/16"	7-6 1/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1 1/4
42	44-4 3/8"	7-4 3/4"	7-4 3/4"	7-4 3/4"	7-4 3/4"	7-4 3/4"	7-4 3/4"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1 1/4
43	43-8 5/16"	7-3 3/8"	7-3 3/8"	7-3 3/8"	7-3 3/8"	7-3 3/8"	7-3 3/8"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1 1/8
44	43-1/4"	7-2 1/16"	7-2 1/16"	7-2 1/16"	7-2 1/16"	7-2 1/16"	7-2 1/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1 1/8
45	42-4 3/16"	7-11/16"	7-11/16"	7-11/16"	7-11/16"	7-11/16"	7-11/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1 1/8
46	41-8 1/8"	6-11 3/8"	6-11 3/8"	6-11 3/8"	6-11 3/8"	6-11 3/8"	6-11 3/8"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1 1/8
47	41-1/8"	6-10	6-10	6-10	6-10	6-10	6-10	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1
48	40-3 15/16"	6-8 11/16"	6-8 11/16"	6-8 11/16"	6-8 11/16"	6-8 11/16"	6-8 11/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1
49	39-7 7/8"	6-7 5/16"	6-7 5/16"	6-7 5/16"	6-7 5/16"	6-7 5/16"	6-7 5/16"	91.59.12	91.39.21"	91.19.29	90.59.37	90.39.45	90.19.52	90.00.00	12 x 1 1/2	12 x 1
50	38-11 13/16"	6-6	6-6	6-6	6-6	6-6	6-6	91.59.12	91.39.58	91.20.43	91.01.27	90.42.10	90.22.51	90.00.00	12 x 1 1/2	12 x 1
51	38-3 7/8"	6-4 11/16"	6-4 11/16"	6-4 11/16"	6-4 11/16"	6-4 11/16"	6-4 7/16"	91.53.44	91.34.30	91.15.15	90.55.59	90.36.41	90.17.23	90.00.00	12 x 1 1/4	12 x 5/8
52	37-9 1/2"	6-3 9/16"	6-3 9/16"	6-3 9/16"	6-3 9/16"	6-3 9/16"	6-3 9/16"	91.48.26	91.29.12	91.09.57	90.50.40	90.31.23	90.12.05	89.59.36	12 x 1 1/4	12 x 5/8



Notes:  
 Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8".  
 All dimensions are in the horizontal plane.  
 For Intermediate Stiffener, End Stiffener and Connection Plate Details see Sh. No. 106

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
**STRINGER AND FLOOR BEAM SCHEDULE**  
 SPANS 040THRU D 42  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "B"  
 F.A. 1. RT. 70 ST. CLAIR CO. SECTION 82-3HV8-3  
 H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS  
 SHEET 87 OF 154

DESIGNED BY: A.T.  
 DRAWN BY: I.M.  
 CHECKED BY: S.P.B.  
 APPROVED BY: K.A.

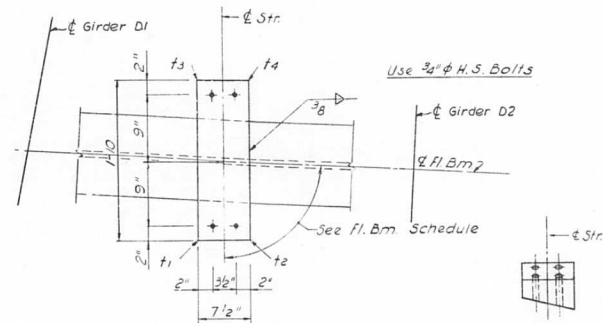
FLOOR BEAM 40 & 41	T1	T2	T3	T4
STR. 100 THRU 104	1 1/8	1 1/16	7/16	3/8

FLOOR BEAM 42 THRU 44	T1	T2	T3	T4
STR. 105 THRU 109	1 1/8	1 1/16	7/16	3/8

FLOOR BEAM 45 THRU 46	T1	T2	T3	T4
STR. 110 THRU 114	1 1/16	1 1/16	7/16	7/16

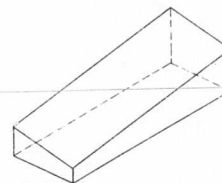
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STR. 115 THRU 119	1 1/16	1 1/16	7/16	7/16

FLOOR BEAM 50 & 51	T1	T2	T3	T4
STR. 120 THRU 124	1 1/16	1 1/16	7/16	7/16

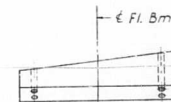


PLAN

END VIEW



ISOMETRIC VIEW

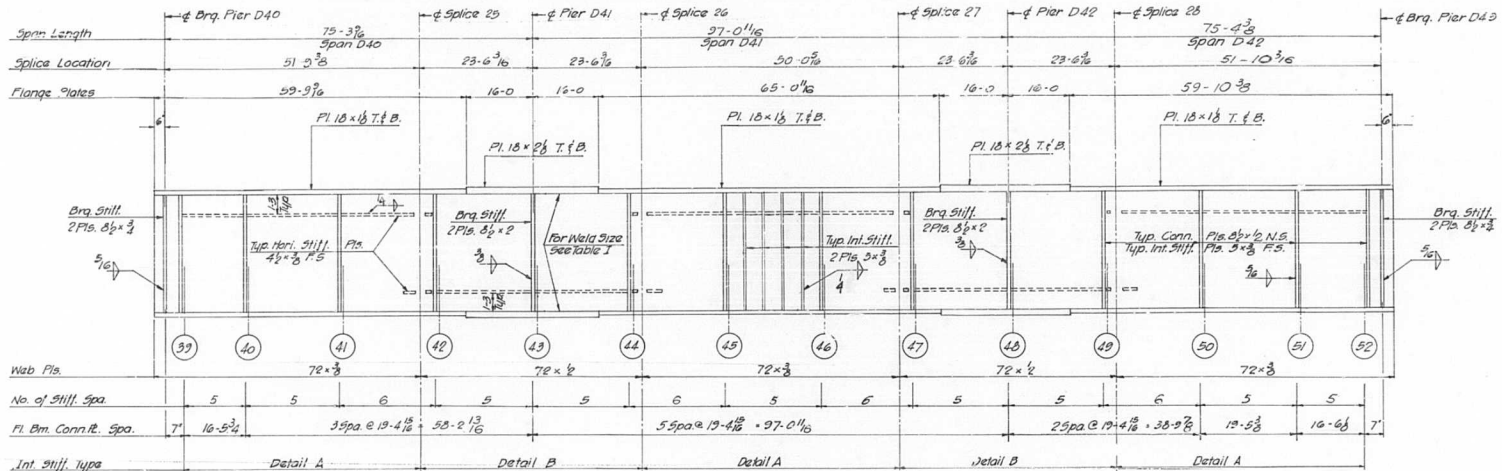


SIDE VIEW

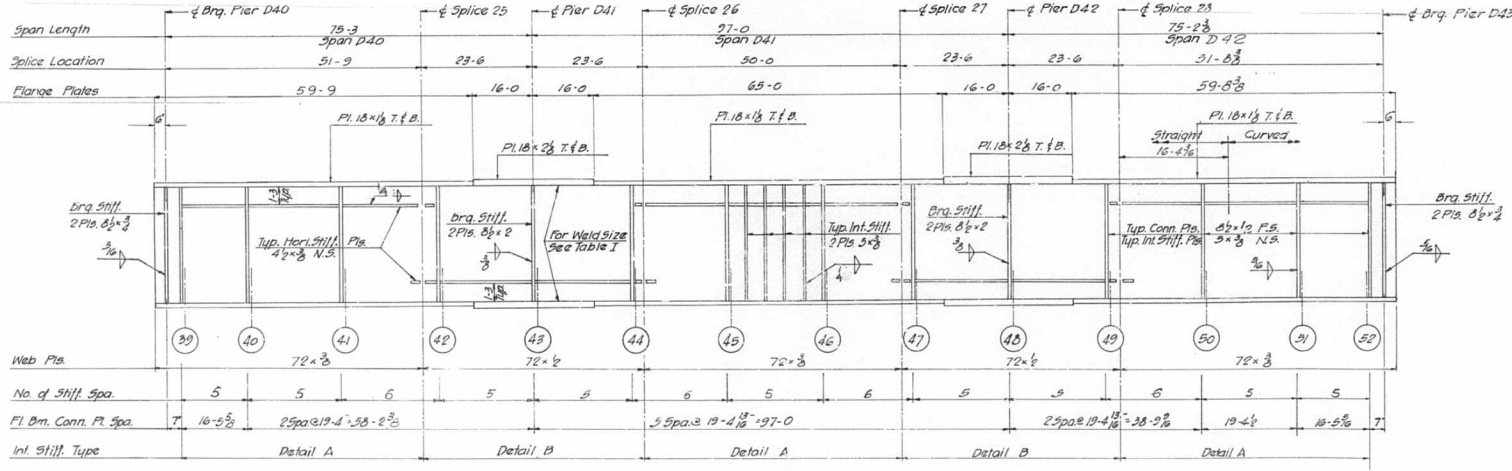
SHIM DETAIL

Shim thickness  $t_1$ ,  $t_2$ ,  $t_3$  &  $t_4$  shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.T.  
 DRAWN BY I.M.  
 CHECKED BY A.T.  
 APPROVED BY K.A.



GIRDER D1  
Spans D40 thru D42



GIRDER D2  
Spans D40 thru D42

NOTES:  
All longitudinal dimensions shown are given along  $\phi$  of web see Sheet No. 86  
All Bearing Stiffeners and Connection Plates to be vertical.  
For splice stiffener, Connection Plate Details and Table I see Sheet No. 105, 106, & 107

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

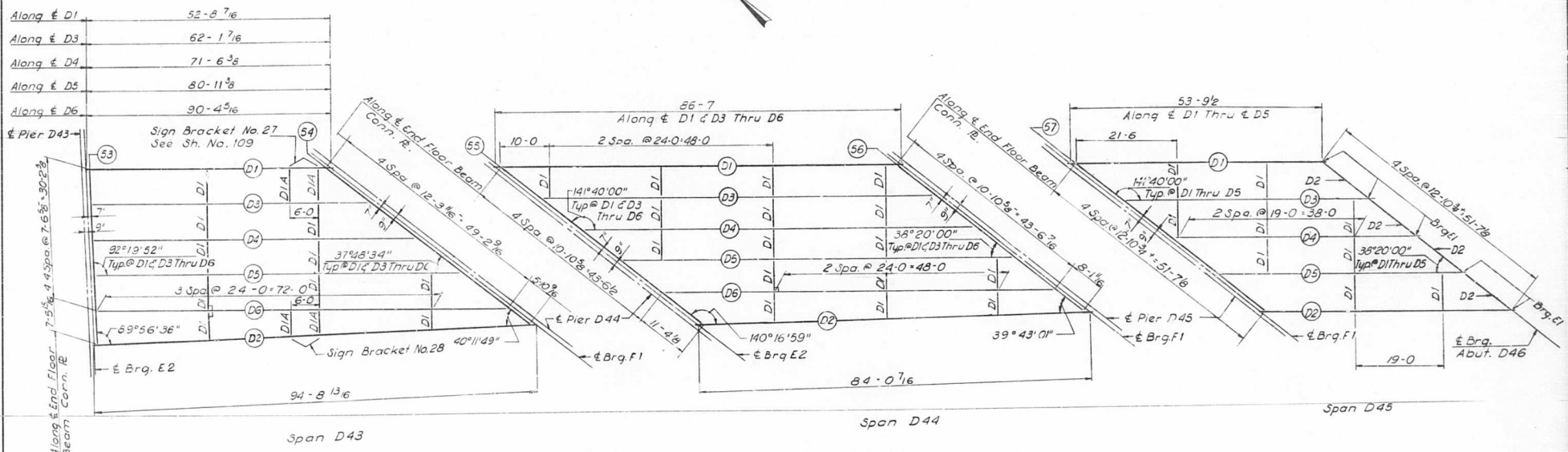
GIRDERS D1 AND D2  
SPANS D40 THRU D42  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

F. A. I. RT. 70 ST. CLAIR CO SECTION 82-3HVB-3

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET  
89 of 163

DESIGNED BY: A.T.  
DRAWN BY: J.C.  
CHECKED BY: A.T.  
APPROVED BY: K.A.



PLAN  
SPANS D43 THRU D45

ELEVATION TOP OF GIRDER WEB SPAN D 43  
ELEVATION TOP OF FLANGE SPANS D44 & D45

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	433,061	433,180	1.119
FLOOR BEAM 53	433,044	433,163	1.119
FLOOR BEAM 54	431,554	430,371	1.183
CL. BRG.	431,526	430,344	1.182
CL. BRG.	431,663	430,483	1.180
FLOOR BEAM 55	431,635	430,456	1.179
FLOOR BEAM 56	429,130	427,933	1.146
CL. BRG.	429,112	427,967	1.145
CL. BRG.	429,041	427,895	1.146
FLOOR BEAM 57	429,013	427,866	1.147
CL. BRG.	427,448	426,264	1.184

BILL OF MATERIAL	
*Structural Steel	Lbs. 355,670

\*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 14,730 Lbs.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

FRAMING PLAN  
SPANS D43 THRU D45  
POPLAR STREET BRIDGE APPROACHES  
ROADWAY "D"

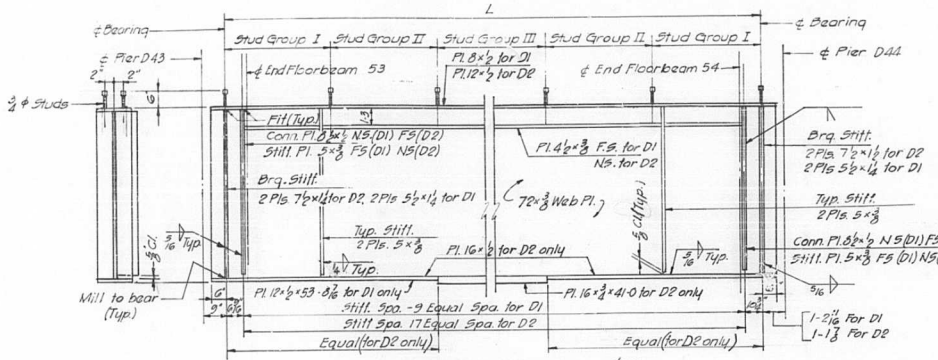
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HV-3

H. W. LOCKNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

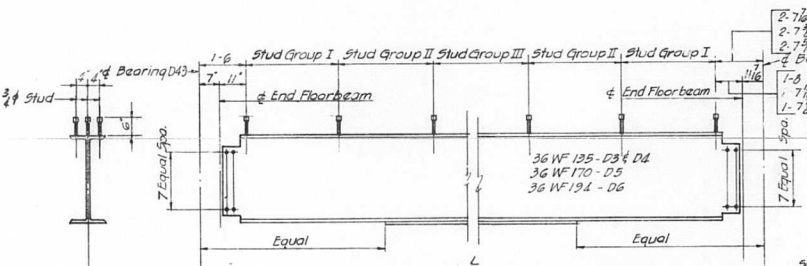
SHEET  
90 OF 163

DESIGNED BY A.T.  
DRAWN BY I.M.  
CHECKED BY A.T.  
APPROVED BY K.A.

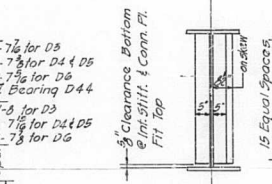




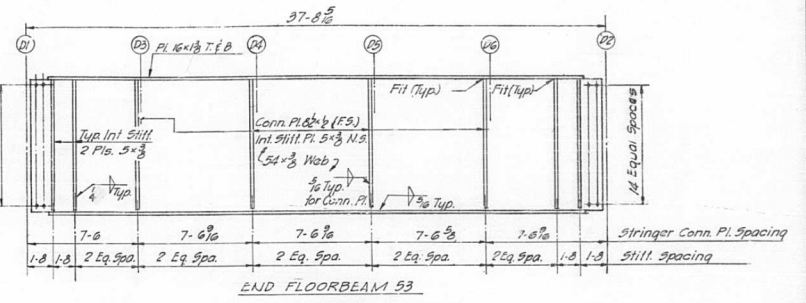
EXTERIOR STRINGER D1 & D2  
SPAN D43



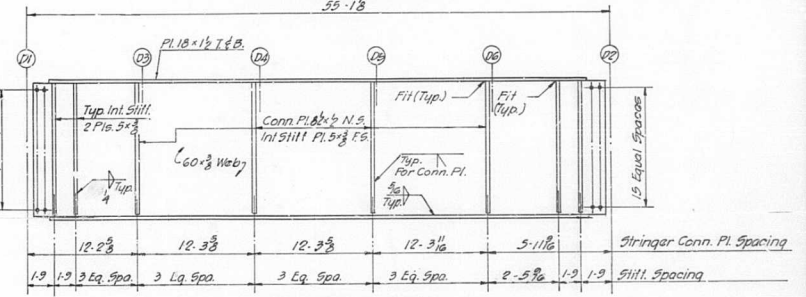
INTERIOR STRINGER D3, D4, D5, & D6  
SPAN D43



COVER PLATE DETAIL



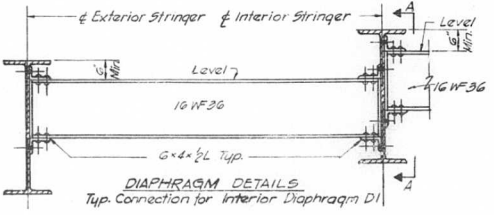
END FLOORBEAM 53



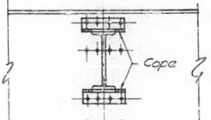
END FLOORBEAM 54

STRINGER	LENGTH (L)	BOTTOM COVER PL. GROUP I	STUD GROUP II	STUD GROUP III
D1	58'-8 1/8"	18'9 1/2" x 11"	18'9 1/2" x 11"	18'9 1/2" x 11"
D2	62'-8 1/8"	18'9 1/2" x 11"	18'9 1/2" x 11"	18'9 1/2" x 11"
D3	62'-1 1/8"	18'9 1/2" x 11"	18'9 1/2" x 11"	18'9 1/2" x 11"
D4	71'-6 3/8"	18'9 1/2" x 11"	18'9 1/2" x 11"	18'9 1/2" x 11"
D5	80'-11 3/8"	18'9 1/2" x 11"	18'9 1/2" x 11"	18'9 1/2" x 11"
D6	90'-4 1/8"	18'9 1/2" x 11"	18'9 1/2" x 11"	18'9 1/2" x 11"

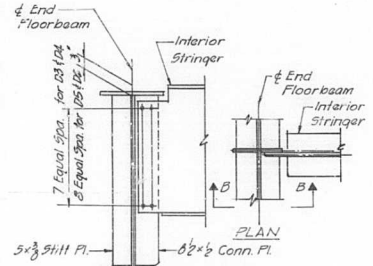
STRINGER & COVER PL. LENGTHS - SHEAR CONN. SPACING



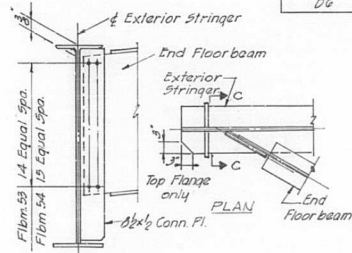
DIAPHRAGM DETAILS  
Top Connection for Interior Diaphragm D1



SECTION A-A



SECTION B-B  
INTERIOR STRINGER TO END FLOORBEAM CONNECTION



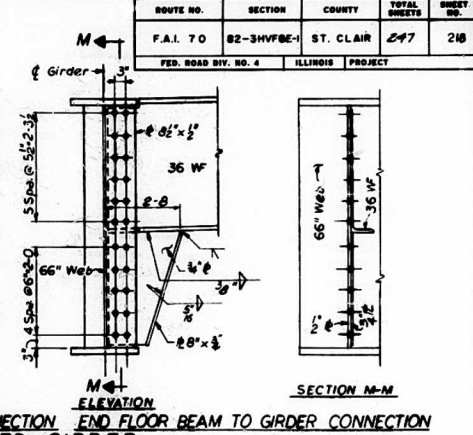
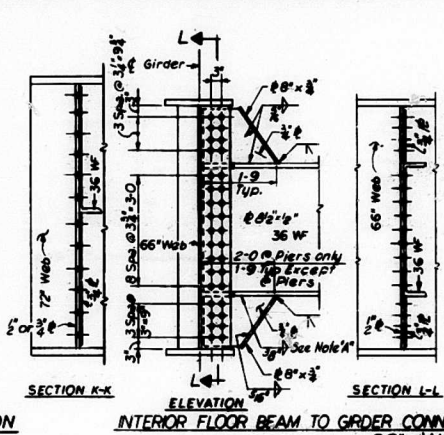
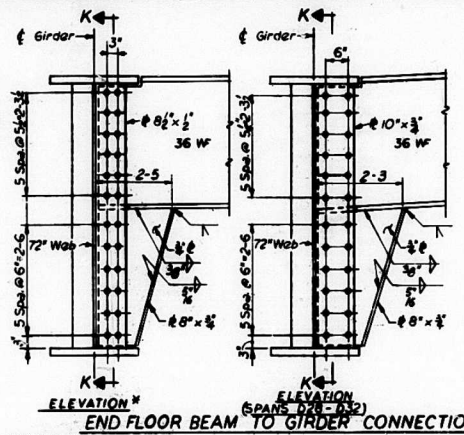
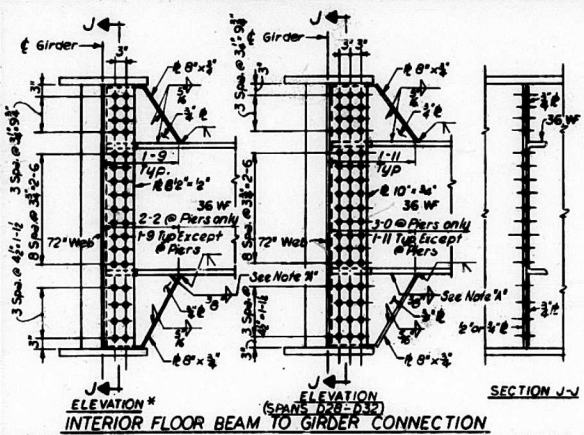
SECTION C-C  
END FLOORBEAM TO EXTERIOR STRINGER CONNECTION

DESIGNED BY A.T.  
DRAWN BY V.T.  
CHECKED BY A.T.  
APPROVED BY K.A.





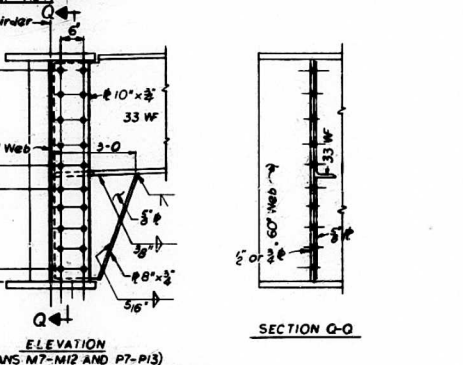
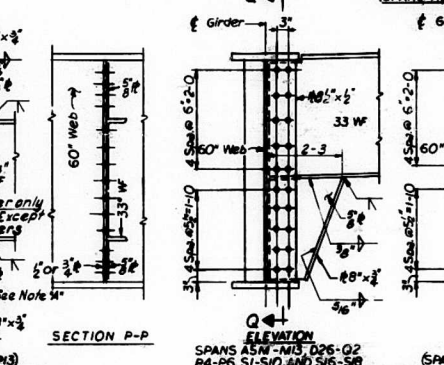
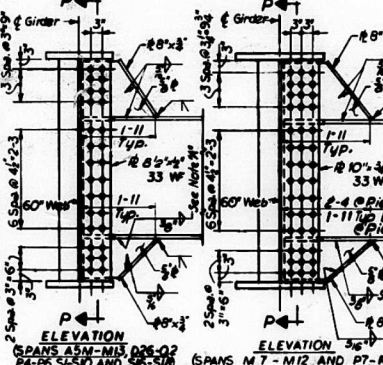
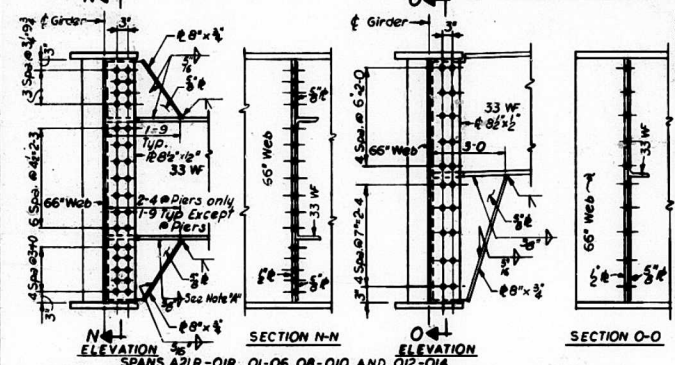
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFB-1	ST. CLAIR	247	218
FED. ROAD DIV. NO. 4		ILLINOIS PROJECT		



**72" WEB GIRDER**

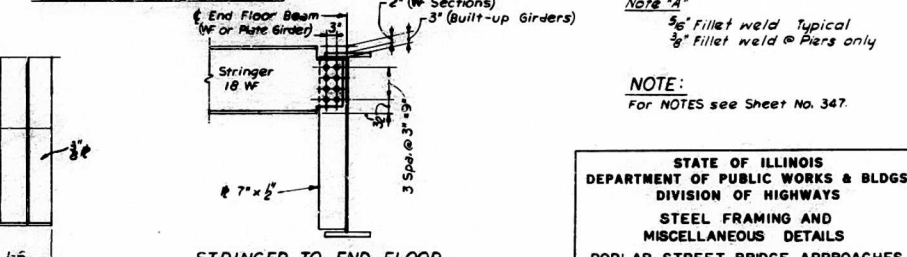
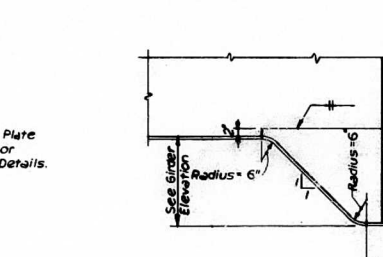
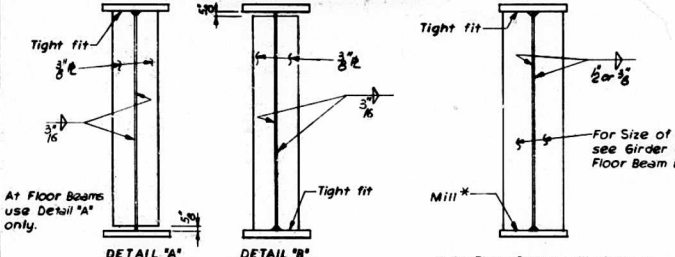
**66" WEB GIRDER**

**60" WEB GIRDER**



**66" WEB GIRDER**

**60" WEB GIRDER**



DESIGNED BY I.L.  
DRAWN BY R.A.S.  
CHECKED BY A.A.  
APPROVED BY K.A.

FOR GIRDERS AND FLOOR BEAMS

At Floor Beams use Detail "A" only.

\* At Floor Beams mill plate at upper flange and tight fit at lower flange.

**BEARING STIFFENERS**  
FOR GIRDERS AND FLOOR BEAMS

HAUNCH DETAIL  
For Location see Girder Elevation

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS

STEEL FRAMING AND  
MISCELLANEOUS DETAILS

POPLAR STREET BRIDGE APPROACHES

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFB-1

H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

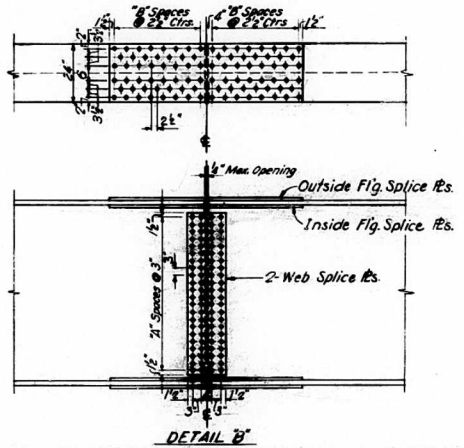
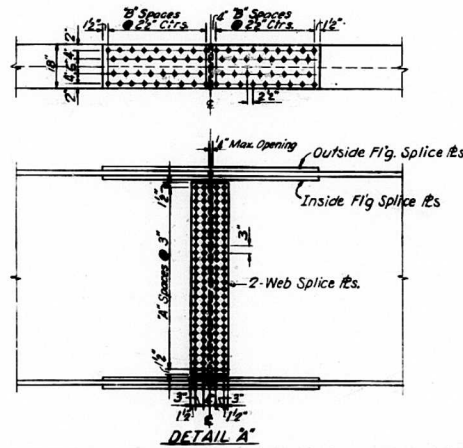
SHEET  
348 of 558



LOCATION	SPLICE NO.	DWG. NO.	DETAIL	GIRDER SECTION		WEB SPLICE		FLANGE SPLICE			
				WEB PLATE	FLANGE PLATES	FILL PLATES	SPLICE PLATES	A	OUTSIDE PLATES	INSIDE PLATES	B
Rdwy. "A"	2,3,4	186	A	3/8" x 84	18 x 1 3/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/8 x 5-7	4-8 x 7/8 x 5-7	12
	5,6	186	A	3/8" x 84	18 x 1 1/2	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/8 x 5-7	4-8 x 7/8 x 5-7	12
	7	186	A	3/8" x 84	18 x 1 7/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 1 x 7-3	4-8 x 1/4 x 7-3	16
	10, 11, 12, 13	190	A	3/8" x 72	18 x 1	—	2-13 x 3/8 x 5-6	21	2-18 x 2 x 3-11	4-8 x 3/8 x 3-11	8
	17, 18, 20, 21	191	A	3/8" x 72	18 x 1 1/2	—	2-13 x 3/8 x 5-6	21	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
	26, 27, 29	196	A	3/8" x 72	18 x 1 3/8	2-64 x 1/6 x 5-6	2-13 x 3/8 x 5-6	21	2-18 x 3/8 x 6-5	4-8 x 1 x 6-5	14
	30	196	A	3/8" x 72	18 x 1 7/8	2-64 x 1/6 x 5-6	2-13 x 3/8 x 5-6	21	2-18 x 1 x 7-3	4-8 x 1/8 x 7-3	16
	35	200	A	3/8" x 84	18 x 1 1/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14
	36, 38, 39	200	A	3/8" x 84	18 x 1 3/4	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14
	44	204	A	3/8" x 84	18 x 1 3/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14
	45, 47	204	A	3/8" x 84	18 x 1 3/4	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14
	48	204	A	3/8" x 84	18 x 2	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 1 x 7-3	4-8 x 1/4 x 7-3	16
	53	208	A	3/8" x 66	18 x 1 3/8	2-64 x 1/6 x 5-0	2-13 x 3/8 x 5-0	19	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
	54, 56, 57, 59	208	A	3/8" x 66	18 x 1 1/4	2-64 x 1/6 x 5-0	2-13 x 3/8 x 5-0	19	2-18 x 3/4 x 4-9	4-8 x 3/4 x 4-9	10
	61	208	A	3/8" x 66	18 x 1 3/4	2-64 x 1/6 x 5-0	2-13 x 3/8 x 5-0	19	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14

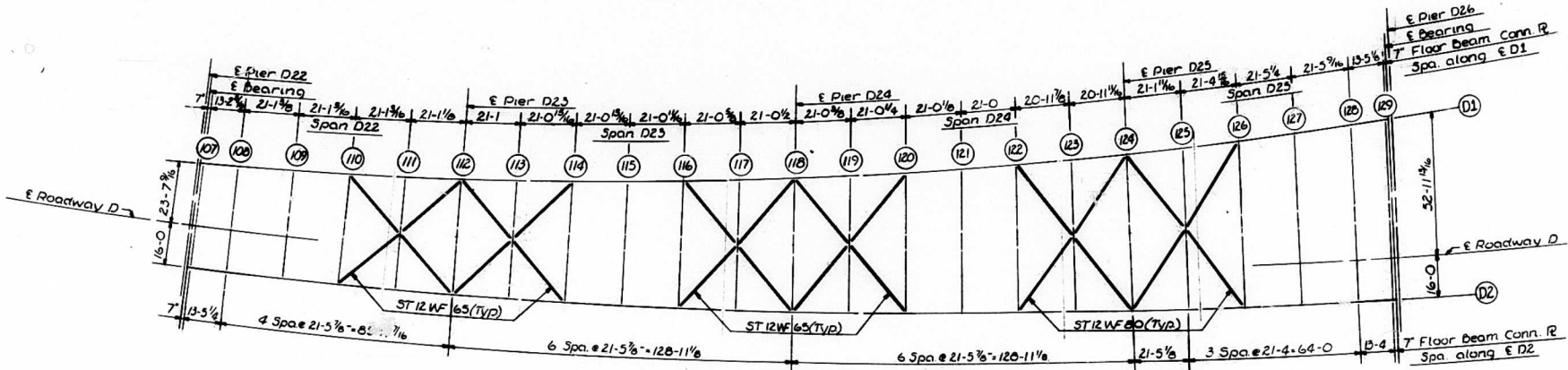
LOCATION	SPLICE NO.	DWG. NO.	DETAIL	GIRDER SECTION		WEB SPLICE		FLANGE SPLICE				
				WEB PLATE	FLANGE PLATES	FILL PLATES	SPLICE PLATES	A	OUTSIDE PLATES	INSIDE PLATES	B	
Rdwy. "D" Conf'd	45	233	A	3/8" x 84	18 x 1	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 2 x 3-11	4-8 x 3/8 x 3-11	5	
	46, 48, 49	233	A	3/8" x 84	18 x 1 1/4	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/8 x 4-9	4-8 x 3/4 x 4-9	10	
	54	239	B	3/8" x 84	24 x 1 3/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-24 x 4 x 4-9	4-11 x 7/8 x 4-9	10	
	55, 57	239	B	3/8" x 84	24 x 1 1/2	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-24 x 4 x 4-9	4-11 x 7/8 x 4-9	10	
	58, 60	239	B	3/8" x 84	24 x 1 5/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-24 x 3 x 5-7	4-11 x 1 x 5-7	12	
	61	239	B	3/8" x 84	24 x 1 7/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-24 x 1 x 6-5	4-11 x 1/8 x 6-5	14	
	74	247	B	3/8" x 72	24 x 1 3/4	2-64 x 1/6 x 5-6	2-13 x 3/8 x 5-6	21	2-24 x 1 x 6-5	4-11 x 1/8 x 6-5	14	
	77, 84, 91*	247	B	3/8" x 72	24 x 1 3/8	2-64 x 1/6 x 5-6	2-13 x 3/8 x 5-6	21	2-24 x 1 x 6-5	4-11 x 1/8 x 6-5	14	
	81, 88, 95	247	B	3/8" x 72	24 x 1 3/8	2-64 x 1/6 x 5-6	2-13 x 3/8 x 5-6	21	2-24 x 1 x 6-5	4-11 x 1/8 x 6-5	14	
	98*	247	B	3/8" x 72	24 x 1 3/4	2-64 x 1/6 x 5-6	2-13 x 3/8 x 5-6	21	2-24 x 1 x 6-5	4-11 x 1/8 x 6-5	14	
	Rdwy. "G"	3	252	A	3/8" x 84	18 x 1 1/2	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
		4,5	252	A	3/8" x 84	18 x 1 3/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
		7, 9, 10	252	A	3/8" x 84	18 x 1 1/4	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
		15, 16, 18, 19, 21, 22	256	A	3/8" x 84	18 x 1 1/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
		27, 28, 30, 31	260	A	3/8" x 84	18 x 1 1/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12
Rdwy. "H"	35	264	A	3/8" x 84	18 x 1 1/2	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	14	
	36	264	A	3/8" x 84	18 x 1 1/4	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12	
Ramp "R"	3, 7	268	A	3/8" x 84	18 x 1 3/8	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14	
	4, 6	268	A	3/8" x 84	18 x 1 1/2	2-64 x 1/6 x 6-6	2-13 x 3/8 x 6-6	25	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14	
Ramp "R"	14, 16, 18, 20	330	A	3/8" x 66	18 x 1 1/2	—	2-13 x 3/8 x 5-0	19	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12	
	5, 7	326	A	3/8" x 66	18 x 1 1/2	—	2-13 x 3/8 x 5-0	19	2-18 x 3/4 x 5-7	4-8 x 7/8 x 5-7	12	
	8, 9	326	A	3/8" x 66	18 x 1 3/8	—	2-13 x 3/8 x 5-0	19	2-18 x 7/8 x 6-5	4-8 x 1 x 6-5	14	

\* Require Flg. Fill Pls. 24 x 5/8 x 3-24

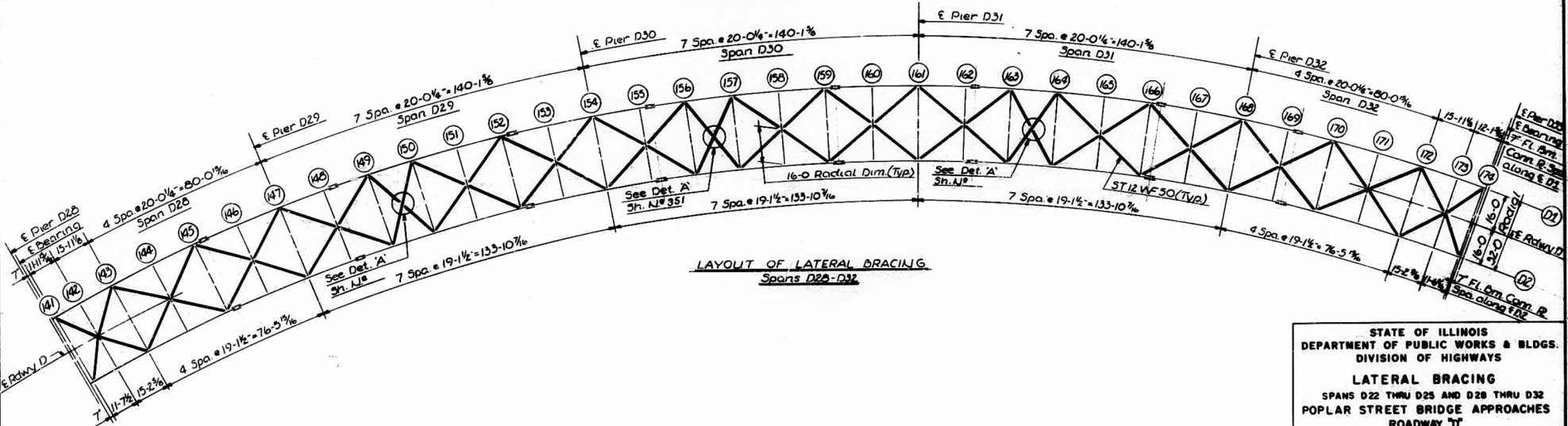


DESIGNED BY: A.A.  
 DRAWN BY: O.H.  
 CHECKED BY: S.K.  
 APPROVED BY: K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFB-E-1	ST. CLAIR	247	222
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



LAYOUT OF LATERAL BRACING  
Spans D22-D25



LAYOUT OF LATERAL BRACING  
Spans D26-D32

DESIGNED BY RMR  
 DRAWN BY WVA  
 CHECKED BY RMR  
 APPROVED BY KA

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS

**LATERAL BRACING**  
 SPANS D22 THRU D25 AND D26 THRU D32  
 POPLAR STREET BRIDGE APPROACHES  
 ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFB-E-1  
 H. W. LOCHNER, INC. ENGINEERS  
 CHICAGO, ILLINOIS

SWEET  
 373207 2/52