INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET, INDEX OF SHEETS
2	TYPICAL SECTIONS FAI 180
3	GENERAL PLAN AND PROFILE
4	GENERAL PLAN AND ELEVATION AND SUMMARY OF QUANTITIES
-11	TOP OF SLAB ELEVATIONS
12	TYPICAL CROSS SECTION AND DETAILS
3-17	DECK REINFORCEMENT PLAN
18	DECK WORK POINTS AND DETAILS
19	REINFORCEMENT BAR LIST
20	HANDRAIL ELEVATIONS
21	ALUMINUM HANDRAIL
22	ALUMINUM MEDIAN RAIL
23	NAVIGATION LIGHTING SYSTEM
1-27	FRAMING PLAN
28	DEFLECTION JOINTS AT PIERS 1, 2, 4 & 5
29	STRESS TABLE AND STEEL DETAILS
30	STANDARDS 2114 AND 2153-6

OJECT I-180-7(7)11, SECTION (06-3,78-1)D INCLUDES FURNISHING ALL MATERIALS
D THE COMPLETE CONSTRUCTION OF THE DECK AND THE INSTALLATION OF THE
VIGATION LIGHTING SYSTEM COMPLETE FOR A PLATE GIRDER DECK STRUCTURE
NSISTING OF (A) NINE APPROACH SPANS (3@135' AND 6@179'), (B) A THREE
AN UNIT OVER THE MAIN CHANNEL (2@300' AND 1@175') AND (C) A THREE
AN UNIT OVER THE SECONDARY CHANNEL (2@200' AND 1@280') CARRYING
A.I. ROUTE 180 OVER THE ILLINOIS RIVER AT HENNEPIN.

OJECT I-180-7(8)11, SECTION (06-3,78-1)P INCLUDES FURNISHING ALL MATERIALS
D FIELD PAINTING ALL STRUCTURAL STEEL FOR THE ABOVE DESCRIBED STRUCTURE.

E SIGN CONFORMING TO STANDARD 2153-6 SHALL BE ERECTED AT A LOCATION DESIGNATED
THE ENGINEER.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED

*(06-3,78-1) D&P
**I-180-7(7)11 &I-180-7(8)11

F.A.I. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
180	*	BUREAU-PUTNAM	30	1
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT **		

SN 078-0001
IL 180 OVER ILLINOIS RV

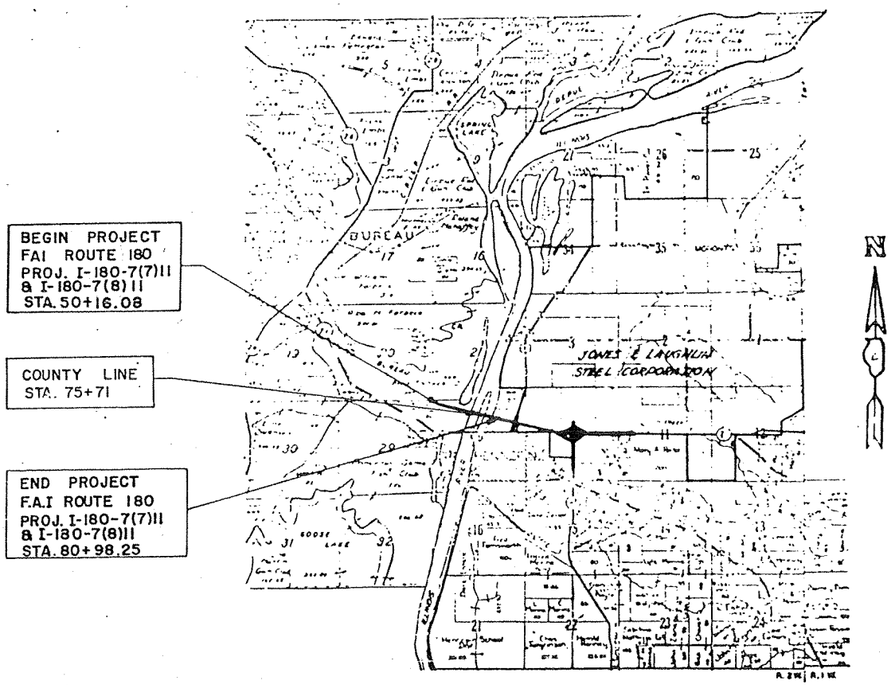
P-92-007-67

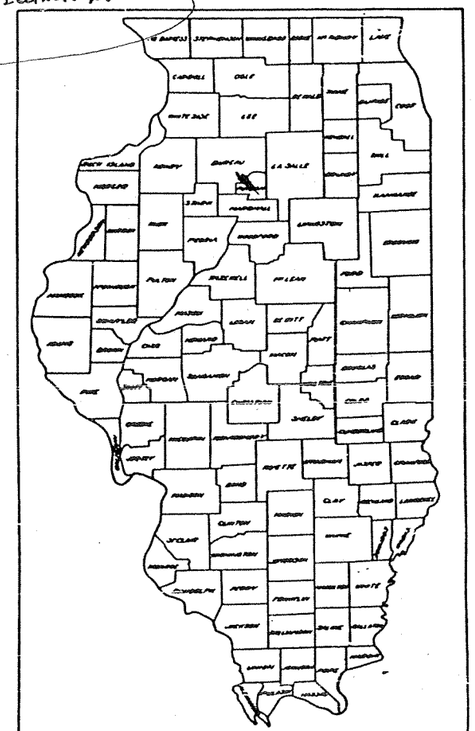
SCALES

PLAN	1 INCH =	FT
PROFILE, HOR	1 INCH =	FT
PROFILE, VERT	1 INCH =	FT
CROSS SECTIONS	1 INCH =	FT

F.A.I. ROUTE 180 - SECTION (06-3 / 78-1) D&P
BUREAU PUTNAM COUNTIES
PROJECT I-180-7(7)11 & I-180-7(8)11

C-92-047-67 C-92-048-67





LOCATION OF SECTION INDICATED THUS:—

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

SUBMITTED Jan 19 1968
D. E. Sunmark
DISTRICT ENGINEER

EXAMINED Jan 22 1968
A. Van Ausdall
BUREAU OF ROAD PLANS AND CONTRACTS

PASSED Jan 22 1968
W. P. Baumann
ENGINEER OF DESIGN

APPROVED Jan 23 1968
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED Jan 23 1968
Grant Hollowell
DIRECTOR

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER DATE

APPROVED
FOR STRUCTURAL DETAILS ONLY
Carl E. Thunman
ENGINEER OF BRIDGE AND GRADE SEPARATION STRUCTURES

LENGTH OF PROJECT I-180-7(7)11 = 3082.17' = 0.584 MILES

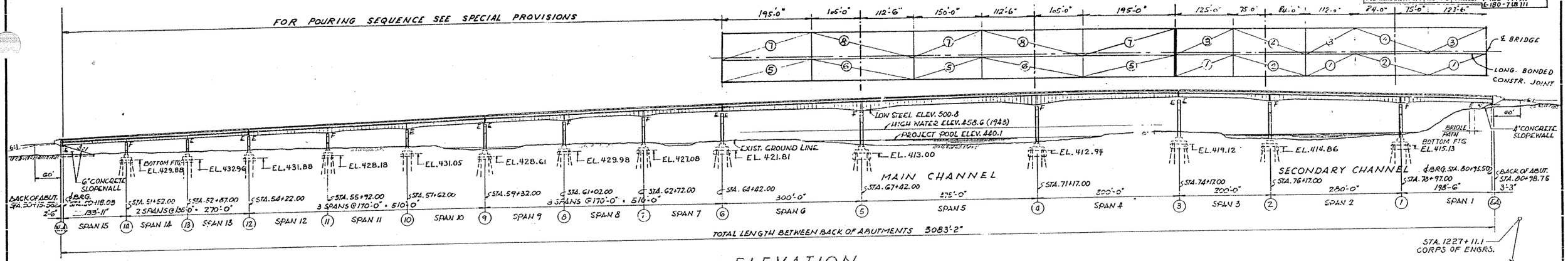
2-72

RACT NO. 25509

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 180	06-3, 78-1)D&P	BUREAU-PUTNAM	30	4
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	I-180-7(7)11 I-180-7(8)11	

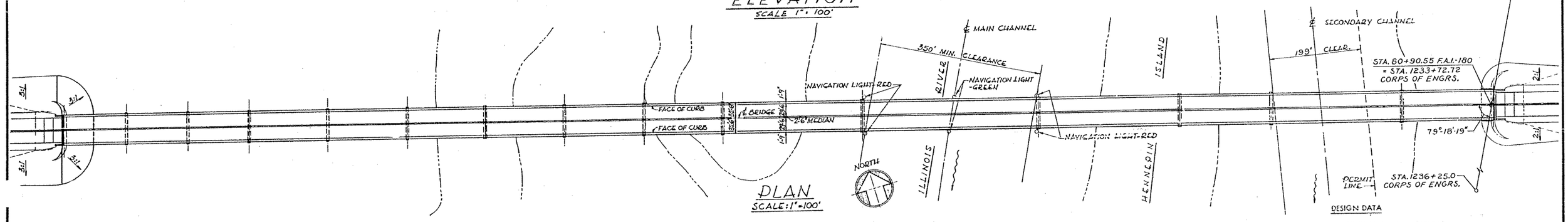
POURING SEQUENCE

SEGMENTS OF ROADWAY SLAB SHOWN WITH SAME NUMBERS ARE TO BE POURED SIMULTANEOUSLY. SEE SPECIAL PROVISIONS.



ELEVATION

SCALE 1" = 100'



PLAN

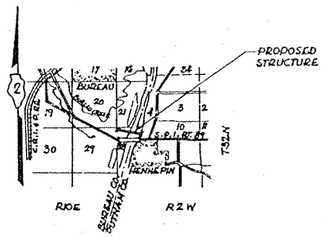
SCALE: 1" = 100'

P.V.I. Sta. 73+79.00
Elev. 538.43
1700' V.C.

+3.00 %

-3.00 %

PROFILE F.A.I. ROUTE 180



LOCATION SKETCH

SUMMARY OF QUANTITIES
SECTION (06-3,78-1)D&P

PROJECT	QUANTITY	UNIT	ITEM	CODE
I-180-7(7)11	6,484.4	CU. YD.	CLASS X CONCRETE	052003
	1,665,530	LB.	REINFORCEMENT BARS	059001
	306	EACH	FLOOR DRAINS	051001
	24,430	SQ. YD.	PROTECTIVE COAT	052021
	28,252	EACH	STUD SHEAR CONNECTORS	054022
	6,160	LIN. FT.	ALUMINUM HANDRAIL	Z0000#
	1	EACH	ENGINEERS FIELD OFFICE TYPE A	Z0139B
	3,080	LIN. FT.	ALUMINUM MEDIAN RAIL	Z0164B
	236	LIN. FT.	PREFORMED JOINT SEALER	Z0120#
	1	L. SUM	* NAVIGATION LIGHTING SYSTEM COMPLETE	L0494T
I-180-7(8)11	10,250,000	LB.	* PAINTING STRUCTURAL STEEL	056001

* SPECIALTY ITEM

PAINTING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SECTION 56 OF THE STANDARD SPECIFICATIONS AND SHALL CONSIST OF REQUIRED SPOT PAINTING AND TWO FIELD COATS OF ALUMINUM PAINT.

1-10-68

DESIGN DATA

HIGHWAY CLASSIFICATION
CLASS " " ROAD DHV: ( ) SPEED: 70 M.P.H.

DESIGN LOADS
L.L. = H520-44 AND ALT.
FUTURE D.L. = 1" BITUMINOUS WEARING SURFACE

DESIGN STRESSES
CONCRETE
- f'_c = 3,500 P.S.I.
- f_c = 1,400 P.S.I.
- f_a = 1,000 P.S.I. (WITH EARTH PRESSURE)
- v = 75 P.S.I. (FOOTINGS)
- n = 10

REINFORCING STEEL
- f_s = 20,000 P.S.I.

STRUCTURAL STEEL
- f_s = 20,000 P.S.I. (A36)
- f_s = 27,000 P.S.I. (A441 3/4" AND UNDER)
- f_s = 25,000 P.S.I. (A441 3/4" TO 1-1/2" INCL.)
- f_s = 23,000 P.S.I. (A441 1-1/2" TO 4" INCL.)

PILE LOADS
- P = 40 TONS (STEEL)

MAX. L.L. DEFLECTION
- $\Delta \leq$ L/1000 (NON-COMPOSITE)
- $\Delta \leq$ L/1200 (COMPOSITE)

DECEMBER 29, 1967

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(7)11 & I-180-7(8)11
SECTION (06-3,78-1)D&P
BUREAU AND PUTNAM COUNTIES
STATION 80+98.75

REV 2/15/68 KWG

REV 1-23-68

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	5
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		D1

SPAN 15

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5018.083	29.250	467.779	467.779
	2.	5018.083	19.500	467.931	467.931
	3.	5018.083	9.750	468.084	468.084
℄ BRG. W ABUT	4.	5018.083	.000	468.236	468.236
	5.	5018.083 -	9.750	468.084	468.084
	6.	5018.083 -	19.500	467.931	467.931
	7.	5018.083 -	29.250	467.779	467.779
	1.	5028.083	29.250	468.011	468.051
	2.	5028.083	19.500	468.163	468.203
	3.	5028.083	9.750	468.315	468.356
15-1	4.	5028.083	.000	468.468	468.508
	5.	5028.083 -	9.750	468.315	468.356
	6.	5028.083 -	19.500	468.163	468.203
	7.	5028.083 -	29.250	468.011	468.051
	1.	5038.083	29.250	468.247	468.324
	2.	5038.083	19.500	468.400	468.476
	3.	5038.083	9.750	468.552	468.629
15-2	4.	5038.083	.000	468.704	468.781
	5.	5038.083 -	9.750	468.552	468.629
	6.	5038.083 -	19.500	468.400	468.476
	7.	5038.083 -	29.250	468.247	468.324
	1.	5048.083	29.250	468.488	468.594
	2.	5048.083	19.500	468.640	468.747
	3.	5048.083	9.750	468.793	468.899
15-3	4.	5048.083	.000	468.945	469.051
	5.	5048.083 -	9.750	468.793	468.899
	6.	5048.083 -	19.500	468.640	468.747
	7.	5048.083 -	29.250	468.488	468.594
	1.	5058.083	29.250	468.733	468.861
	2.	5058.083	19.500	468.885	469.013
	3.	5058.083	9.750	469.038	469.165
15-4	4.	5058.083	.000	469.190	469.318
	5.	5058.083 -	9.750	469.038	469.165
	6.	5058.083 -	19.500	468.885	469.013
	7.	5058.083 -	29.250	468.733	468.861
	1.	5068.083	29.250	468.982	469.123
	2.	5068.083	19.500	469.135	469.275
	3.	5068.083	9.750	469.287	469.427
15-5	4.	5068.083	.000	469.439	469.580
	5.	5068.083 -	9.750	469.287	469.427
	6.	5068.083 -	19.500	469.135	469.275
	7.	5068.083 -	29.250	468.982	469.123
	1.	5071.083	29.250	469.058	469.201
	2.	5071.083	19.500	469.210	469.353
	3.	5071.083	9.750	469.363	469.505
15X	4.	5071.083	.000	469.515	469.658
	5.	5071.083 -	9.750	469.363	469.505
	6.	5071.083 -	19.500	469.210	469.353
	7.	5071.083 -	29.250	469.058	469.201
	1.	5078.083	29.250	469.236	469.380
	2.	5078.083	19.500	469.388	469.532
	3.	5078.083	9.750	469.541	469.685
15-6	4.	5078.083	.000	469.693	469.837
	5.	5078.083 -	9.750	469.541	469.685
	6.	5078.083 -	19.500	469.388	469.532
	7.	5078.083 -	29.250	469.236	469.380
	1.	5088.083	29.250	469.494	469.631
	2.	5088.083	19.500	469.646	469.783
	3.	5088.083	9.750	469.799	469.935
15-7	4.	5088.083	.000	469.951	470.088
	5.	5088.083 -	9.750	469.799	469.935
	6.	5088.083 -	19.500	469.646	469.783
	7.	5088.083 -	29.250	469.494	469.631
	1.	5098.083	29.250	469.756	469.879
	2.	5098.083	19.500	469.908	470.031
	3.	5098.083	9.750	470.061	470.183
15-8	4.	5098.083	.000	470.213	470.336
	5.	5098.083 -	9.750	470.061	470.183
	6.	5098.083 -	19.500	469.908	470.031
	7.	5098.083 -	29.250	469.756	469.879
	1.	5108.083	29.250	470.023	470.124
	2.	5108.083	19.500	470.175	470.277
	3.	5108.083	9.750	470.327	470.429
15-9	4.	5108.083	.000	470.480	470.582
	5.	5108.083 -	9.750	470.327	470.429
	6.	5108.083 -	19.500	470.175	470.277
	7.	5108.083 -	29.250	470.023	470.124
	1.	5118.083	29.250	470.293	470.369
	2.	5118.083	19.500	470.446	470.522
	3.	5118.083	9.750	470.598	470.674
15-10	4.	5118.083	.000	470.750	470.826
	5.	5118.083 -	9.750	470.598	470.674
	6.	5118.083 -	19.500	470.446	470.522
	7.	5118.083 -	29.250	470.293	470.369
	1.	5122.000	29.250	470.400	470.467
	2.	5122.000	19.500	470.553	470.619
	3.	5122.000	9.750	470.705	470.771
SPL 15Y	4.	5122.000	.000	470.858	470.924
	5.	5122.000 -	9.750	470.705	470.771
	6.	5122.000 -	19.500	470.553	470.619
	7.	5122.000 -	29.250	470.400	470.467
	1.	5128.083	29.250	470.568	470.619
	2.	5128.083	19.500	470.721	470.771
	3.	5128.083	9.750	470.873	470.924
15-11	4.	5128.083	.000	471.025	471.076
	5.	5128.083 -	9.750	470.873	470.924
	6.	5128.083 -	19.500	470.721	470.771
	7.	5128.083 -	29.250	470.568	470.619

SPAN 15 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5138.083	29.250	470.848	470.874
	2.	5138.083	19.500	471.000	471.026
	3.	5138.083	9.750	471.152	471.179
15-12	4.	5138.083	.000	471.305	471.331
	5.	5138.083 -	9.750	471.152	471.179
	6.	5138.083 -	19.500	471.000	471.026
	7.	5138.083 -	29.250	470.848	470.874
	1.	5152.000	29.250	471.244	471.244
	2.	5152.000	19.500	471.396	471.396
	3.	5152.000	9.750	471.548	471.548
℄ BRG. PIER 14	4.	5152.000	.000	471.701	471.701
	5.	5152.000 -	9.750	471.548	471.548
	6.	5152.000 -	19.500	471.396	471.396
	7.	5152.000 -	29.250	471.244	471.244

SPAN 14

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5162.000	29.250	471.533	471.522
	2.	5162.000	19.500	471.685	471.675
	3.	5162.000	9.750	471.838	471.827
14-1	4.	5162.000	.000	471.990	471.979
	5.	5162.000 -	9.750	471.838	471.827
	6.	5162.000 -	19.500	471.685	471.675
	7.	5162.000 -	29.250	471.533	471.522
	1.	5172.000	29.250	471.827	471.811
	2.	5172.000	19.500	471.979	471.963
	3.	5172.000	9.750	472.132	472.116
14-2	4.	5172.000	.000	472.284	472.268
	5.	5172.000 -	9.750	472.132	472.116
	6.	5172.000 -	19.500	471.979	471.963
	7.	5172.000 -	29.250	471.827	471.811
	1.	5182.000	29.250	472.125	472.109
	2.	5182.000	19.500	472.277	472.261
	3.	5182.000	9.750	472.430	472.413
14-3	4.	5182.000	.000	472.582	472.566
	5.	5182.000 -	9.750	472.430	472.413
	6.	5182.000 -	19.500	472.277	472.261
	7.	5182.000 -	29.250	472.125	472.109
	1.	5192.000	29.250	472.425	472.411
	2.	5192.000	19.500	472.577	472.563
	3.	5192.000	9.750	472.730	472.716
14-4	4.	5192.000	.000	472.882	472.868
	5.	5192.000 -	9.750	472.730	472.716
	6.	5192.000 -	19.500	472.577	472.563
	7.	5192.000 -	29.250	472.425	472.411
	1.	5196.500	29.250	472.560	472.548
	2.	5196.500	19.500	472.712	472.700
	3.	5196.500	9.750	472.865	472.853
SPL 14X	4.	5196.500	.000	473.017	473.005
	5.	5196.500 -	9.750	472.865	472.853
	6.	5196.500 -	19.500	472.712	472.700
	7.	5196.500 -	29.250	472.560	472.548
	1.	5202.000	29.250	472.725	472.715
	2.	5202.000	19.500	472.877	472.867
	3.	5202.000	9.750	473.030	473.020
14-5	4.	5202.000	.000	473.182	473.172
	5.	5202.000 -	9.750	473.030	473.020
	6.	5202.000 -	19.500	472.877	472.867
	7.	5202.000 -	29.250	472.725	472.715
	1.	5212.000	29.250	473.025	473.018
	2.	5212.000	19.500	473.177	473.170
	3.	5212.000	9.750	473.330	473.323
14-6	4.	5212.000	.000	473.482	473.475
	5.	5212.000 -	9.750	473.330	473.323
	6.	5212.000 -	19.500	473.177	473.170
	7.	5212.000 -	29.250	473.025	473.018

SPAN 14 (CONT.)

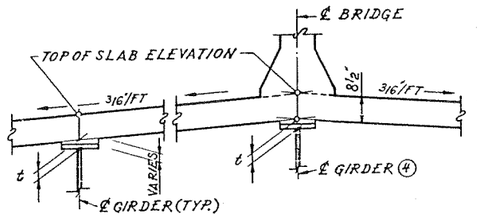
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5222.000	29.250	473.325	473.318
	2.	5222.000	19.500	473.477	473.470
	3.	5222.000	9.750	473.630	473.623
	4.	5222.000	.000	473.782	473.775
14-7	5.	5222.000 -	9.750	473.630	473.623
	6.	5222.000 -	19.500	473.477	473.470
	7.	5222.000 -	29.250	473.325	473.318
	1.	5232.000	29.250	473.625	473.616
	2.	5232.000	19.500	473.777	473.769
	3.	5232.000	9.750	473.930	473.921
14-8	4.	5232.000	.000	474.082	474.073
	5.	5232.000 -	9.750	473.930	473.921
	6.	5232.000 -	19.500	473.777	473.769
	7.	5232.000 -	29.250	473.625	473.616
	1.	5242.000	29.250	473.925	473.913
	2.	5242.000	19.500	474.077	474.065
	3.	5242.000	9.750	474.230	474.218
14-9	4.	5242.000	.000	474.382	474.370
	5.	5242.000 -	9.750	474.230	474.218
	6.	5242.000 -	19.500	474.077	474.065
	7.	5242.000 -	29.250	473.925	473.913
	1.	5242.500	29.250	473.940	473.928
	2.	5242.500	19.500	474.092	474.080
	3.	5242.500	9.750	474.245	474.233
SPL 14Y	4.	5242.500	.000	474.397	474.385
	5.	5242.500 -	9.750	474.245	474.233
	6.	5242.500 -	19.500	474.092	474.080
	7.	5242.500 -	29.250	473.940	473.928
	1.	5252.000	29.250	474.225	474.209
	2.	5252.000	19.500	474.377	474.362
	3.	5252.000	9.750	474.530	474.514
14-10	4.	5252.000	.000	474.682	474.666
	5.	5252.000 -	9.750	474.530	474.514
	6.	5252.000 -	19.500	474.377	474.362
	7.	5252.000 -	29.250	474.225	474.209
	1.	5262.000	29.250	474.525	474.508
	2.	5262.000	19.500	474.677	474.661
	3.	5262.000	9.750	474.830	474.813
14-11	4.	5262.000	.000	474.982	474.965
	5.	5262.000 -	9.750	474.830	474.813
	6.	5262.000 -	19.500	474.677	474.661
	7.	5262.000 -	29.250	474.525	474.503
	1.	5272.000	29.250	474.825	474.811
	2.	5272.000	19.500	474.977	474.963
	3.	5272.000	9.750	475.130	475.115
14-12	4.	5272.000	.000	475.282	475.268
	5.	5272.000 -	9.750	475.130	475.115
	6.	5272.000 -	19.500	474.977	474.963
	7.	5272.000 -	29.250	474.825	474.811
	1.	5282.000	29.250	475.125	475.119
	2.	5282.000	19.500	475.277	475.271
	3.	5282.000	9.750	475.430	475.424
14-13	4.	5282.000	.000	475.582	475.576
	5.	5282.000 -	9.750	475.430	475.424
	6.	5282.000 -	19.500	475.277	475.271
	7.	5282.000 -	29.250	475.125	475.119
	1.	5287.000	29.250	475.275	475.275
	2.	5287.000	19.500	475.427	475.427
	3.	5287.000	9.750	475.580	475.580
℄ BRG. PIER 13	4.	5287.000	.000	475.732	475.732
	5.	5287.000 -	9.750	475.580	475.580
	6.	5287.000 -	19.500	475.427	475.427
	7.	5287.000 -	29.250	475.275	475.275

SPAN 13

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5297.000	29.250	475.575	475.593
	2.	5297.000	19.500	475.727	475.745
	3.	5297.000	9.750	475.880	475.898
13-1	4.	5297.000	.000	476.032	476.050
	5.	5297.000 -	9.750	475.880	475.898
	6.	5297.000 -	19.500	475.727	475.745
	7.	5297.000 -	29.250	475.575	475.593
	1.	5307.000	29.250	475.875	475.916
	2.	5307.000	19.500	476.027	476.068
	3.	5307.000	9.750	476.180	476.221
13-2	4.	5307.000	.000	476.332	476.373
	5.	5307.000 -	9.750	476.180	476.221
	6.	5307.000 -	19.500	476.027	476.068
	7.	5307.000 -	29.250	475.875	475.916
	1.	5317.000	29.250	476.175	476.241
	2.	5317.000	19.500	476.327	476.394
	3.	5317.000	9.750	476.480	476.546
SPL 13X	4.	5317.000	.000	476.632	476.698
	5.	5317.000 -	9.750	476.480	476.546
	6.	5317.000 -	19.500	476.327	476.394
	7.	5317.000 -	29.250	476.175	476.241
	1.	5327.000	29.250	476.475	476.568
	2.	5327.000	19.500	476.627	476.720
	3.	5327.000	9.750	476.780	476.872
13-3	4.	5327.000	.000	476.932	477.025
	5.	5327.000 -	9.750	476.780	476.872
	6.	5327.000 -	19.500	476.627	476.720
	7.	5327.000 -	29.250	476.475	476.568
	1.	5337.000	29.250	476.775	476.890
	2.	5337.000	19.500	476.927	477.042
	3.	5337.000	9.750	477.080	477.195
13-4	4.	5337.000	.000	477.232	477.347
	5.	5337.000 -	9.750	477.080	477.195
	6.	5337.000 -	19.500	476.927	477.042
	7.	5337.000 -	29.250	476.775	476.890
	1.	5347.000	29.250	477.075	477.208
	2.	5347.000	19.500	477.227	477.360
	3.	5347.000	9.750	477.380	477.512
13-5	4.	5347.000	.000	477.532	477.665
	5.	5347.000 -	9.750	477.380	477.512
	6.	5347.000 -	19.500	477.227	477.360
	7.	5347.000 -	29.250	477.075	477.208
	1.	5357.000	29.250	477.375	477.517
	2.	5357.000	19.500	477.527	477.669
	3.	5357.000	9.750	477.680	477.822
13-6	4.	5357.000	.000	477.832	477.974
	5.	5357.000 -	9.750	477.680	477.822
	6.	5357.000 -	19.500	477.527	477.669
	7.	5357.000 -	29.250	477.375	477.517
	1.	5367.000	29.250	477.675	477.818
	2.	5367.000	19.500	477.827	477.970
	3.	5367.000	9.750	477.980	478.123
13-7	4.	5367.000	.000	478.132	478.275
	5.	5367.000 -	9.750	477.980	478.123
	6.	5367.000 -	19.500	477.827	477.970
	7.	5367.000 -	29.250	477.675	477.818
	1.	5367.916	29.250	477.703	477.846
	2.	5367.916	19.500	477.855	477.998
	3.	5367.916	9.750	478.008	478.150
SPL 13Y	4.	5367.916	.000	478.160	478.303
	5.	5367.916 -	9.750	478.008	478.150
	6.	5367.916 -	19.500	477.855	477.998
	7.	5367.916 -	29.250	477.703	477.846

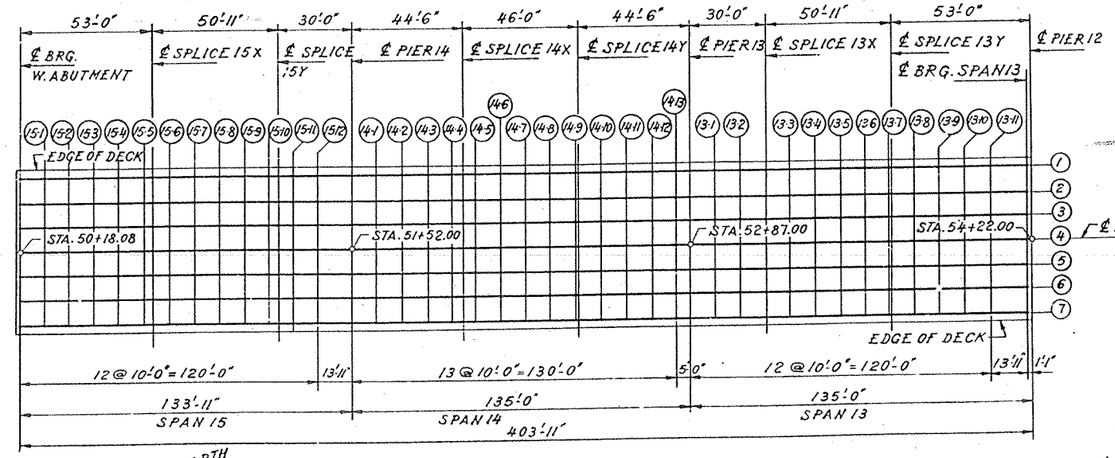
SPAN 13 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5377.000	29.250	477.975	478.109
	2.	5377.000	19.500	478.127	478.261
	3.	5377.000	9.750	478.280	478.413
13-8	4.	5377.000	.000	478.432	478.566
	5.	5377.000 -	9.750	478.280	478.413
	6.	5377.000 -	19.500	478.127	478.261
	7.	5377.000 -	29.250	477.975	478.109
	1.	5387.000	29.250	478.275	478.391
	2.	5387.000	19.500	478.427	478.543
	3.	5387.000	9.750	478.580	478.696
13-9	4.	5387.000	.000	478.732	478.848
	5.	5387.000 -	9.750	478.580	478.696
	6.	5387.000 -	19.500	478.427	478.543
	7.	5387.000 -	29.250	478.275	478.391
	1.	5397.000	29.250	478.575	478.664
	2.	5397.000	19.500	478.727	478.816
	3.	5397.000	9.750	478.880	478.969
13-10	4.	5397.000	.000	479.032	479.121
	5.	5397.000 -	9.750	478.880	478.969
	6.	5397.000 -	19.500	478.727	478.816
	7.	5397.000 -	29.250	478.575	478.664
	1.	5407.000	29.250	478.875	478.931
	2.	5407.000	19.500	479.027	479.083
	3.	5407.000	9.750	479.180	479.236
13-11	4.	5407.000	.000	479.332	479.388
	5.	5407.000 -	9.750	479.180	479.236
	6.	5407.000 -	19.500	479.027	479.083
	7.	5407.000 -	29.250	478.875	478.931
	1.	5420.916	29.250	479.293	479.293
	2.	5420.916	19.500	479.445	479.445
	3.	5420.916	9.750	479.597	479.597
℄ BRG. PIER 12	4.	5420.916	.000	479.750	479.750
	5.	5420.916 -	9.750	479.597	479.597
	6.	5420.916 -	19.500	479.445	479.445
	7.	5420.916 -	29.250	479.293	479.293



DIMENSION "t"

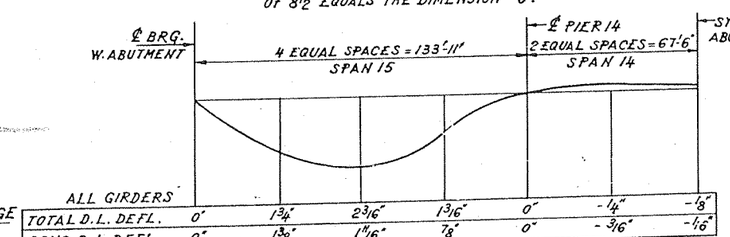
AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP OF FLANGE PLATES OF THE GIRDERS SHALL BE TAKEN AT THE LOCATIONS SHOWN AND THE FLANGE PLATE THICKNESS AT THOSE LOCATIONS SHALL BE SUBTRACTED FROM THE MEASURED ELEVATION. THE ELEVATIONS OF THE TOP OF OF THE WEB PLATE SO OBTAINED SHALL THEN BE SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION". THE DIMENSION SO DERIVED MINUS THE SLAB THICKNESS OF 8½" EQUALS THE DIMENSION "t".



DIAM

SCALE 1" = 30'-0"

GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.



DEAD LOAD DEFLECTION DIAGRAM

JULY 18, 1967

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Brummer
Engineer of Bridge & Traffic Structures
7-26-67

#1300

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

TOP OF SLAB ELEVATIONS-SPANS 13, 14 & 15
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION 0312.96

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	06-3,78-1 D&P	BUREAU - PUTNAM	30	6
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		D2

SPAN 3

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7418.500	29.250	525.257	525.257
	2.	7418.500	19.500	525.410	525.410
℄ BRG. PIER 3	3.	7418.500	9.750	525.562	525.562
	4.	7418.500	.000	525.714	525.714
	5.	7418.500 -	9.750	525.562	525.562
	6.	7418.500 -	19.500	525.410	525.410
	7.	7418.500 -	29.250	525.257	525.257
	1.	7428.500	29.250	525.242	525.278
	2.	7428.500	19.500	525.394	525.430
	3.	7428.500	9.750	525.546	525.583
	4.	7428.500	.000	525.699	525.735
3-1	5.	7428.500 -	9.750	525.546	525.583
	6.	7428.500 -	19.500	525.394	525.430
	7.	7428.500 -	29.250	525.242	525.278
	1.	7438.500	29.250	525.222	525.293
	2.	7438.500	19.500	525.375	525.445
	3.	7438.500	9.750	525.527	525.598
	4.	7438.500	.000	525.680	525.750
3-2	5.	7438.500 -	9.750	525.527	525.598
	6.	7438.500 -	19.500	525.375	525.445
	7.	7438.500 -	29.250	525.222	525.293
	1.	7448.500	29.250	525.200	525.300
	2.	7448.500	19.500	525.352	525.453
	3.	7448.500	9.750	525.504	525.605
	4.	7448.500	.000	525.657	525.757
3-3	5.	7448.500 -	9.750	525.504	525.605
	6.	7448.500 -	19.500	525.352	525.453
	7.	7448.500 -	29.250	525.200	525.300
	1.	7458.500	29.250	525.173	525.298
	2.	7458.500	19.500	525.326	525.450
	3.	7458.500	9.750	525.478	525.603
	4.	7458.500	.000	525.630	525.755
3-4	5.	7458.500 -	9.750	525.478	525.603
	6.	7458.500 -	19.500	525.326	525.450
	7.	7458.500 -	29.250	525.173	525.298
	1.	7465.750	29.250	525.152	525.289
	2.	7465.750	19.500	525.305	525.441
	3.	7465.750	9.750	525.457	525.594
SPL 3W	4.	7465.750	.000	525.609	525.746
	5.	7465.750 -	9.750	525.457	525.594
	6.	7465.750 -	19.500	525.305	525.441
	7.	7465.750 -	29.250	525.152	525.289
	1.	7468.500	29.250	525.144	525.285
	2.	7468.500	19.500	525.296	525.437
	3.	7468.500	9.750	525.448	525.590
	4.	7468.500	.000	525.601	525.742
3-5	5.	7468.500 -	9.750	525.448	525.590
	6.	7468.500 -	19.500	525.296	525.437
	7.	7468.500 -	29.250	525.144	525.285
	1.	7478.500	29.250	525.110	525.262
	2.	7478.500	19.500	525.263	525.415
	3.	7478.500	9.750	525.415	525.567
3-6	4.	7478.500	.000	525.567	525.719
	5.	7478.500 -	9.750	525.415	525.567
	6.	7478.500 -	19.500	525.263	525.415
	7.	7478.500 -	29.250	525.110	525.262
	1.	7488.500	29.250	525.073	525.229
	2.	7488.500	19.500	525.226	525.382
	3.	7488.500	9.750	525.378	525.534
3-7	4.	7488.500	.000	525.530	525.686
	5.	7488.500 -	9.750	525.378	525.534
	6.	7488.500 -	19.500	525.226	525.382
	7.	7488.500 -	29.250	525.073	525.229

SPAN 3 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7498.500	29.250	525.033	525.185
	2.	7498.500	19.500	525.185	525.338
	3.	7498.500	9.750	525.338	525.490
3-8	4.	7498.500	.000	525.490	525.642
	5.	7498.500 -	9.750	525.338	525.490
	6.	7498.500 -	19.500	525.185	525.338
	7.	7498.500 -	29.250	525.033	525.185
	1.	7508.500	29.250	524.989	525.131
	2.	7508.500	19.500	525.141	525.283
	3.	7508.500	9.750	525.294	525.436
3-9	4.	7508.500	.000	525.446	525.588
	5.	7508.500 -	9.750	525.294	525.436
	6.	7508.500 -	19.500	525.141	525.283
	7.	7508.500 -	29.250	524.989	525.131
	1.	7513.000	29.250	524.968	525.103
	2.	7513.000	19.500	525.120	525.256
	3.	7513.000	9.750	525.273	525.408
SPL 3X	4.	7513.000	.000	525.425	525.560
	5.	7513.000 -	9.750	525.273	525.408
	6.	7513.000 -	19.500	525.120	525.256
	7.	7513.000 -	29.250	524.968	525.103
	1.	7518.500	29.250	524.942	525.068
	2.	7518.500	19.500	525.094	525.220
	3.	7518.500	9.750	525.246	525.373
3-10	4.	7518.500	.000	525.399	525.525
	5.	7518.500 -	9.750	525.246	525.373
	6.	7518.500 -	19.500	525.094	525.220
	7.	7518.500 -	29.250	524.942	525.068
	1.	7528.500	29.250	524.891	524.997
	2.	7528.500	19.500	525.043	525.149
	3.	7528.500	9.750	525.195	525.301
3-11	4.	7528.500	.000	525.348	525.454
	5.	7528.500 -	9.750	525.195	525.301
	6.	7528.500 -	19.500	525.043	525.149
	7.	7528.500 -	29.250	524.891	524.997
	1.	7538.500	29.250	524.836	524.919
	2.	7538.500	19.500	524.988	525.071
	3.	7538.500	9.750	525.141	525.224
3-12	4.	7538.500	.000	525.293	525.376
	5.	7538.500 -	9.750	525.141	525.224
	6.	7538.500 -	19.500	524.988	525.071
	7.	7538.500 -	29.250	524.836	524.919
	1.	7548.500	29.250	524.778	524.837
	2.	7548.500	19.500	524.930	524.989
	3.	7548.500	9.750	525.083	525.141
3-13	4.	7548.500	.000	525.235	525.294
	5.	7548.500 -	9.750	525.083	525.141
	6.	7548.500 -	19.500	524.930	524.989
	7.	7548.500 -	29.250	524.778	524.837
	1.	7558.500	29.250	524.716	524.752
	2.	7558.500	19.500	524.869	524.905
	3.	7558.500	9.750	525.021	525.057
3-14	4.	7558.500	.000	525.173	525.209
	5.	7558.500 -	9.750	525.021	525.057
	6.	7558.500 -	19.500	524.869	524.905
	7.	7558.500 -	29.250	524.716	524.752
	1.	7559.000	29.250	524.713	524.748
	2.	7559.000	19.500	524.865	524.900
	3.	7559.000	9.750	525.018	525.053
SPL 3Y	4.	7559.000	.000	525.170	525.205
	5.	7559.000 -	9.750	525.018	525.053
	6.	7559.000 -	19.500	524.866	524.900
	7.	7559.000 -	29.250	524.713	524.748

SPAN 3 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATIO	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7568.500	29.250	524.651	524.668
	2.	7568.500	19.500	524.804	524.820
	3.	7568.500	9.750	524.956	524.972
3-15	4.	7568.500	.000	525.108	525.125
	5.	7568.500 -	9.750	524.956	524.972
	6.	7568.500 -	19.500	524.804	524.820
	7.	7568.500 -	29.250	524.651	524.668
	1.	7578.500	29.250	524.583	524.585
	2.	7578.500	19.500	524.735	524.737
	3.	7578.500	9.750	524.887	524.889
3-16	4.	7578.500	.000	525.040	525.042
	5.	7578.500 -	9.750	524.887	524.889
	6.	7578.500 -	19.500	524.735	524.737
	7.	7578.500 -	29.250	524.583	524.585
	1.	7588.500	29.250	524.510	524.505
	2.	7588.500	19.500	524.663	524.657
	3.	7588.500	9.750	524.815	524.810
3-17	4.	7588.500	.000	524.967	524.962
	5.	7588.500 -	9.750	524.815	524.810
	6.	7588.500 -	19.500	524.663	524.657
	7.	7588.500 -	29.250	524.510	524.505
	1.	7589.500	29.250	524.503	524.497
	2.	7589.500	19.500	524.655	524.649
	3.	7589.500	9.750	524.808	524.802
SPL 3Z	4.	7589.500	.000	524.960	524.954
	5.	7589.500 -	9.750	524.808	524.802
	6.	7589.500 -	19.500	524.655	524.649
	7.	7589.500 -	29.250	524.503	524.497
	1.	7598.500	29.250	524.435	524.426
	2.	7598.500	19.500	524.587	524.578
	3.	7598.500	9.750	524.739	524.731
3-18	4.	7598.500	.000	524.892	524.883
	5.	7598.500 -	9.750	524.739	524.731
	6.	7598.500 -	19.500	524.587	524.578
	7.	7598.500 -	29.250	524.435	524.426
	1.	7608.500	29.250	524.355	524.349
	2.	7608.500	19.500	524.508	524.502
	3.	7608.500	9.750	524.660	524.654
3-19	4.	7608.500	.000	524.813	524.807
	5.	7608.500 -	9.750	524.660	524.654
	6.	7608.500 -	19.500	524.508	524.502
	7.	7608.500 -	29.250	524.355	524.349
	1.	7617.000	29.250	524.285	524.285
	2.	7617.000	19.500	524.438	524.438
	3.	7617.000	9.750	524.590	524.590
℄ BRG. PIER 2	4.	7617.000	.000	524.742	524.742
	5.	7617.000 -	9.750	524.590	524.590
	6.	7617.000 -	19.500	524.438	524.438
	7.	7617.000 -	29.250	524.285	524.285

SPAN 2

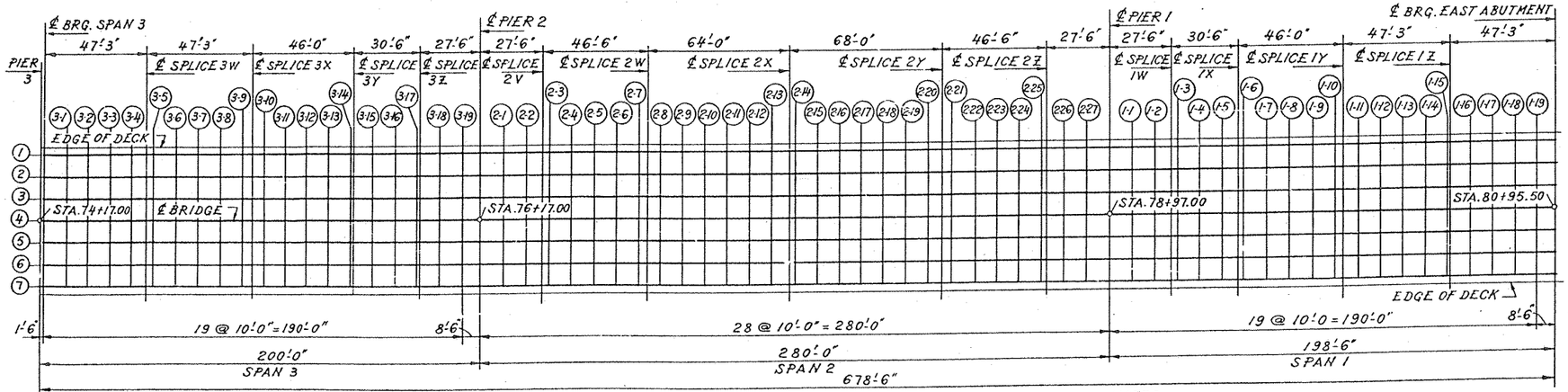
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7627.000	29.250	524.200	524.216
	2.	7627.000	19.500	524.352	524.368
	3.	7627.000	9.750	524.504	524.521
2-1	4.	7627.000	.000	524.657	524.673
	5.	7627.000 -	9.750	524.504	524.521
	6.	7627.000 -	19.500	524.352	524.368
	7.	7627.000 -	29.250	524.200	524.216
	1.	7637.000	29.250	524.110	524.147
	2.	7637.000	19.500	524.263	524.300
	3.	7637.000	9.750	524.415	524.452
2-2	4.	7637.000	.000	524.567	524.604
	5.	7637.000 -	9.750	524.415	524.452
	6.	7637.000 -	19.500	524.263	524.300
	7.	7637.000 -	29.250	524.110	524.147
	1.	7644.500	29.250	524.041	524.096
	2.	7644.500	19.500	524.193	524.248
	3.	7644.500	9.750	524.346	524.401
SPL 2V	4.	7644.500	.000	524.498	524.553
	5.	7644.500 -	9.750	524.346	524.401
	6.	7644.500 -	19.500	524.193	524.248
	7.	7644.500 -	29.250	524.041	524.096
	1.	7647.000	29.250	524.017	524.079
	2.	7647.000	19.500	524.170	524.232
	3.	7647.000	9.750	524.322	524.384
2-3	4.	7647.000	.000	524.475	524.537
	5.	7647.000 -	9.750	524.322	524.384
	6.	7647.000 -	19.500	524.170	524.232
	7.	7647.000 -	29.250	524.017	524.079
	1.	7657.00	29.250	523.921	524.013
	2.	7657.000	19.500	524.073	524.165
	3.	7657.000	9.750	524.226	524.318
2-4	4.	7657.000	.000	524.378	524.470
	5.	7657.000 -	9.750	524.226	524.318
	6.	7657.000 -	19.500	524.073	524.165
	7.	7657.000 -	29.250	523.921	524.013
	1.	7667.000	29.250	523.821	523.948
	2.	7667.000	19.500	523.974	524.100
	3.	7667.000	9.750	524.126	524.253
2-5	4.	7667.000	.000	524.278	524.405
	5.	7667.000 -	9.750	524.126	524.253
	6.	7667.000 -	19.500	523.974	524.100
	7.	7667.000 -	29.250	523.821	523.948
	1.	7677.000	29.250	523.718	523.882
	2.	7677.000	19.500	523.870	524.034
	3.	7677.000	9.750	524.023	524.187
2-6	4.	7677.000	.000	524.175	524.339
	5.	7677.000 -	9.750	524.023	524.187
	6.	7677.000 -	19.500	523.870	524.034
	7.	7677.000 -	29.250	523.718	523.882
	1.	7687.000	29.250	523.611	523.815
	2.	7687.000	19.500	523.763	523.967
	3.	7687.000	9.750	523.916	524.120
2-7	4.	7687.000	.000	524.068	524.272
	5.	7687.000 -	9.750	523.916	524.120
	6.	7687.000 -	19.500	523.763	523.967
	7.	7687.000 -	29.250	523.611	523.815

SPAN 2 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7691.000	29.250	523.567	523.787
	2.	7691.000	19.500	523.719	523.939
	3.	7691.000	9.750	523.872	524.092
SPL 2W	4.	7691.000	.000	524.024	524.244
	5.	7691.000 -	9.750	523.872	524.092
	6.	7691.000 -	19.500	523.719	523.939
	7.	7691.000 -	29.250	523.567	523.787
	1.	7697.000	29.250	523.500	523.744
	2.	7697.000	19.500	523.653	523.897
	3.	7697.000	9.750	523.805	524.049
2-8	4.	7697.000	.000	523.957	524.201
	5.	7697.000 -	9.750	523.805	524.049
	6.	7697.000 -	19.500	523.653	523.897
	7.	7697.000 -	29.250	523.500	523.744
	1.	7707.000	29.250	523.386	523.668
	2.	7707.000	19.500	523.539	523.820
	3.	7707.000	9.750	523.691	523.973
2-9	4.	7707.000	.000	523.843	524.125
	5.	7707.000 -	9.750	523.691	523.973
	6.	7707.000 -	19.500	523.539	523.820
	7.	7707.000 -	29.250	523.386	523.668
	1.	7717.000	29.250	523.269	523.584
	2.	7717.000	19.500	523.421	523.737
	3.	7717.000	9.750	523.574	523.889
2-10	4.	7717.000	.000	523.726	524.041
	5.	7717.000 -	9.750	523.574	523.889
	6.	7717.000 -	19.500	523.421	523.737
	7.	7717.000 -	29.250	523.269	523.584
	1.	7727.000	29.250	523.148	523.490
	2.	7727.000	19.500	523.300	523.643
	3.	7727.000	9.750	523.453	523.795
2-11	4.	7727.000	.000	523.605	523.947
	5.	7727.000 -	9.750	523.453	523.795
	6.	7727.000 -	19.500	523.300	523.643
	7.	7727.000 -	29.250	523.148	523.490
	1.	7737.000	29.250	523.023	523.385
	2.	7737.000	19.500	523.176	523.537
	3.	7737.000	9.750	523.328	523.690
2-12	4.	7737.000	.000	523.480	523.842
	5.	7737.000 -	9.750	523.328	523.690
	6.	7737.000 -	19.500	523.176	523.537
	7.	7737.000 -	29.250	523.023	523.385
	1.	7747.000	29.250	522.895	523.269
	2.	7747.000	19.500	523.047	523.422
	3.	7747.000	9.750	523.200	523.574
2-13	4.	7747.000	.000	523.352	523.726
	5.	7747.000 -	9.750	523.200	523.574
	6.	7747.000 -	19.500	523.047	523.422
	7.	7747.000 -	29.250	522.895	523.269

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
9-21-67
Engineer of Bridge & Traffic Structures

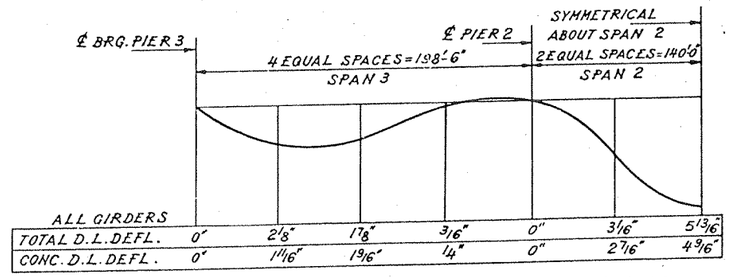
FOR CONTINUATION SEE SHEET D3.



NORTH

D I A M

SCALE 1" = 30'-0"



DEAD LOAD DEFLECTION DIAGRAM

NOTES
FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.

SEPTEMBER 6, 1967

TOP OF SLAB ELEVATIONS-SPANS 1, 2 & 3
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION 50+16.08 TO STA. 80+98.25

#1300

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
10 S. WABASH AVE. CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	7
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		D3

SPAN 2 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7755.000	29.250	522.790	523.169
	2.	7755.000	19.500	522.942	523.321
	3.	7755.000	9.750	523.095	523.474
SPL 2X	4.	7755.000	.000	523.247	523.626
	5.	7755.000 -	9.750	523.095	523.474
	6.	7755.000 -	19.500	522.942	523.321
	7.	7755.000 -	29.250	522.790	523.169
	1.	7757.000	29.250	522.763	523.143
	2.	7757.000	19.500	522.916	523.296
	3.	7757.000	9.750	523.068	523.448
2-14	4.	7757.000	.000	523.221	523.601
	5.	7757.000 -	9.750	523.068	523.448
	6.	7757.000 -	19.500	522.916	523.296
	7.	7757.000 -	29.250	522.763	523.143
	1.	7767.000	29.250	522.628	523.003
	2.	7767.000	19.500	522.781	523.155
	3.	7767.000	9.750	522.933	523.307
2-15	4.	7767.000	.000	523.085	523.460
	5.	7767.000 -	9.750	522.933	523.307
	6.	7767.000 -	19.500	522.781	523.155
	7.	7767.000 -	29.250	522.628	523.003
	1.	7777.000	29.250	522.490	522.851
	2.	7777.000	19.500	522.642	523.004
	3.	7777.000	9.750	522.794	523.156
2-16	4.	7777.000	.000	522.947	523.308
	5.	7777.000 -	9.750	522.794	523.156
	6.	7777.000 -	19.500	522.642	523.004
	7.	7777.000 -	29.250	522.490	522.851
	1.	7787.000	29.250	522.347	522.690
	2.	7787.000	19.500	522.500	522.842
	3.	7787.000	9.750	522.652	522.995
2-17	4.	7787.000	.000	522.804	523.147
	5.	7787.000 -	9.750	522.652	522.995
	6.	7787.000 -	19.500	522.500	522.842
	7.	7787.000 -	29.250	522.347	522.690
	1.	7797.000	29.250	522.202	522.517
	2.	7797.000	19.500	522.354	522.669
	3.	7797.000	9.750	522.506	522.822
2-18	4.	7797.000	.000	522.659	522.974
	5.	7797.000 -	9.750	522.506	522.822
	6.	7797.000 -	19.500	522.354	522.669
	7.	7797.000 -	29.250	522.202	522.517
	1.	7807.000	29.250	522.052	522.334
	2.	7807.000	19.500	522.205	522.486
	3.	7807.000	9.750	522.357	522.638
2-19	4.	7807.000	.000	522.509	522.791
	5.	7807.000 -	9.750	522.357	522.638
	6.	7807.000 -	19.500	522.205	522.486
	7.	7807.000 -	29.250	522.052	522.334
	1.	7817.000	29.250	521.899	522.143
	2.	7817.000	19.500	522.052	522.296
	3.	7817.000	9.750	522.204	522.448
2-20	4.	7817.000	.000	522.357	522.601
	5.	7817.000 -	9.750	522.204	522.448
	6.	7817.000 -	19.500	522.052	522.296
	7.	7817.000 -	29.250	521.899	522.143
	1.	7823.000	29.250	521.806	522.026
	2.	7823.000	19.500	521.958	522.178
	3.	7823.000	9.750	522.111	522.331
SPL 2Y	4.	7823.000	.000	522.263	522.483
	5.	7823.000 -	9.750	522.111	522.331
	6.	7823.000 -	19.500	521.958	522.178
	7.	7823.000 -	29.250	521.806	522.026

SPAN 2 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7827.000	29.250	521.743	521.947
	2.	7827.000	19.500	521.895	522.099
	3.	7827.000	9.750	522.048	522.252
2-21	4.	7827.000	.000	522.200	522.404
	5.	7827.000 -	9.750	522.048	522.252
	6.	7827.000 -	19.500	521.895	522.099
	7.	7827.000 -	29.250	521.743	521.947
	1.	7837.000	29.250	521.583	521.747
	2.	7837.000	19.500	521.736	521.900
	3.	7837.000	9.750	521.888	522.052
2-22	4.	7837.000	.000	522.040	522.204
	5.	7837.000 -	9.750	521.888	522.052
	6.	7837.000 -	19.500	521.736	521.900
	7.	7837.000 -	29.250	521.583	521.747
	1.	7847.000	29.250	521.420	521.546
	2.	7847.000	19.500	521.572	521.699
	3.	7847.000	9.750	521.725	521.851
2-23	4.	7847.000	.000	521.877	522.003
	5.	7847.000 -	9.750	521.725	521.851
	6.	7847.000 -	19.500	521.572	521.699
	7.	7847.000 -	29.250	521.420	521.546
	1.	7857.000	29.250	521.253	521.345
	2.	7857.000	19.500	521.405	521.497
	3.	7857.000	9.750	521.558	521.650
2-24	4.	7857.000	.000	521.710	521.802
	5.	7857.000 -	9.750	521.558	521.650
	6.	7857.000 -	19.500	521.405	521.497
	7.	7857.000 -	29.250	521.253	521.345
	1.	7867.000	29.250	521.082	521.144
	2.	7867.000	19.500	521.235	521.297
	3.	7867.000	9.750	521.387	521.449
2-25	4.	7867.000	.000	521.539	521.601
	5.	7867.000 -	9.750	521.387	521.449
	6.	7867.000 -	19.500	521.235	521.297
	7.	7867.000 -	29.250	521.082	521.144
	1.	7869.500	29.250	521.039	521.094
	2.	7869.500	19.500	521.192	521.246
	3.	7869.500	9.750	521.344	521.399
SPL 2Z	4.	7869.500	.000	521.496	521.551
	5.	7869.500 -	9.750	521.344	521.399
	6.	7869.500 -	19.500	521.192	521.246
	7.	7869.500 -	29.250	521.039	521.094
	1.	7877.000	29.250	520.908	520.946
	2.	7877.000	19.500	521.061	521.098
	3.	7877.000	9.750	521.213	521.250
2-26	4.	7877.000	.000	521.365	521.403
	5.	7877.000 -	9.750	521.213	521.250
	6.	7877.000 -	19.500	521.061	521.098
	7.	7877.000 -	29.250	520.908	520.946
	1.	7887.000	29.250	520.731	520.747
	2.	7887.000	19.500	520.883	520.900
	3.	7887.000	9.750	521.036	521.052
2-27	4.	7887.000	.000	521.188	521.204
	5.	7887.000 -	9.750	521.036	521.052
	6.	7887.000 -	19.500	520.883	520.900
	7.	7887.000 -	29.250	520.731	520.747
	1.	7897.000	29.250	520.550	520.550
	2.	7897.000	19.500	520.702	520.702
	3.	7897.000	9.750	520.855	520.855
℄ BRG. PIER 1	4.	7897.000	.000	521.007	521.007
	5.	7897.000 -	9.750	520.855	520.855
	6.	7897.000 -	19.500	520.702	520.702
	7.	7897.000 -	29.250	520.550	520.550

SPAN 1

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7907.000	29.250	520.365	520.358
	2.	7907.000	19.500	520.518	520.511
	3.	7907.000	9.750	520.670	520.663
1-1	4.	7907.000	.000	520.822	520.815
	5.	7907.000 -	9.750	520.670	520.663
	6.	7907.000 -	19.500	520.518	520.511
	7.	7907.000 -	29.250	520.365	520.358
	1.	7917.000	29.250	520.177	520.168
	2.	7917.000	19.500	520.329	520.321
	3.	7917.000	9.750	520.482	520.473
1-2	4.	7917.000	.000	520.634	520.625
	5.	7917.000 -	9.750	520.482	520.473
	6.	7917.000 -	19.500	520.329	520.321
	7.	7917.000 -	29.250	520.177	520.168
	1.	7924.500	29.250	520.034	520.028
	2.	7924.500	19.500	520.186	520.180
	3.	7924.500	9.750	520.338	520.332
SPL 1W	4.	7924.500	.000	520.491	520.485
	5.	7924.500 -	9.750	520.338	520.332
	6.	7924.500 -	19.500	520.186	520.180
	7.	7924.500 -	29.250	520.034	520.028
	1.	7927.000	29.250	519.985	519.981
	2.	7927.000	19.500	520.138	520.133
	3.	7927.000	9.750	520.290	520.285
1-3	4.	7927.000	.000	520.443	520.438
	5.	7927.000 -	9.750	520.290	520.285
	6.	7927.000 -	19.500	520.138	520.133
	7.	7927.000 -	29.250	519.985	519.981
	1.	7937.000	29.250	519.790	519.794
	2.	7937.000	19.500	519.943	519.946
	3.	7937.000	9.750	520.095	520.098
1-4	4.	7937.000	.000	520.247	520.251
	5.	7937.000 -	9.750	520.095	520.098
	6.	7937.000 -	19.500	519.943	519.946
	7.	7937.000 -	29.250	519.790	519.794
	1.	7947.000	29.250	519.592	519.610
	2.	7947.000	19.500	519.744	519.763
	3.	7947.000	9.750	519.896	519.915
1-5	4.	7947.000	.000	520.049	520.067
	5.	7947.000 -	9.750	519.896	519.915
	6.	7947.000 -	19.500	519.744	519.763
	7.	7947.000 -	29.250	519.592	519.610
	1.	7955.000	29.250	519.430	519.465
	2.	7955.000	19.500	519.582	519.617
	3.	7955.000	9.750	519.735	519.770
SPL 1X	4.	7955.000	.000	519.887	519.922
	5.	7955.000 -	9.750	519.735	519.770
	6.	7955.000 -	19.500	519.582	519.617
	7.	7955.000 -	29.250	519.430	519.465
	1.	7957.000	29.250	519.389	519.428
	2.	7957.000	19.500	519.542	519.581
	3.	7957.000	9.750	519.694	519.733
1-6	4.	7957.000	.000	519.846	519.885
	5.	7957.000 -	9.750	519.694	519.733
	6.	7957.000 -	19.500	519.542	519.581
	7.	7957.000 -	29.250	519.389	519.428
	1.	7967.000	29.250	519.184	519.246
	2.	7967.000	19.500	519.336	519.398
	3.	7967.000	9.750	519.488	519.551
1-7	4.	7967.000	.000	519.641	519.703
	5.	7967.000 -	9.750	519.488	519.551
	6.	7967.000 -	19.500	519.336	519.398
	7.	7967.000 -	29.250	519.184	519.246
	1.	7977.000	29.250	518.974	519.061
	2.	7977.000	19.500	519.127	519.213
	3.	7977.000	9.750	519.279	519.365
1-8	4.	7977.000	.000	519.431	519.518
	5.	7977.000 -	9.750	519.279	519.365
	6.	7977.000 -	19.500	519.127	519.213
	7.	7977.000 -	29.250	518.974	519.061
	1.	7987.000	29.250	518.761	518.871
	2.	7987.000	19.500	518.914	519.023
	3.	7987.000	9.750	519.066	519.176
1-9	4.	7987.000	.000	519.219	519.328
	5.	7987.000 -	9.750	519.066	519.176
	6.	7987.000 -	19.500	518.914	519.023
	7.	7987.000 -	29.250	518.761	518.871
	1.	7997.000	29.250	518.545	518.674
	2.	7997.000	19.500	518.697	518.827
	3.	7997.000	9.750	518.850	518.979
1-10	4.	7997.000	.000	519.002	519.131
	5.	7997.000 -	9.750	518.850	518.979
	6.	7997.000 -	19.500	518.697	518.827
	7.	7997.000 -	29.250	518.545	518.674

SPAN 1 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	8001.000	29.250	518.458	518.593
	2.	8001.000	19.500	518.610	518.745
	3.	8001.000	9.750	518.762	518.897
SPL 1Y	4.	8001.000	.000	518.915	519.050
	5.	8001.000 -	9.750	518.762	518.897
	6.	8001.000 -	19.500	518.610	518.745
	7.	8001.000 -	29.250	518.458	518.593
	1.	8007.000	29.250	518.325	518.469
	2.	8007.000	19.500	518.478	518.621
	3.	8007.000	9.750	518.630	518.774
1-11	4.	8007.000	.000	518.782	518.926
	5.	8007.000 -	9.750	518.630	518.774
	6.	8007.000 -	19.500	518.478	518.621
	7.	8007.000 -	29.250	518.325	518.469
	1.	8017.000	29.250	518.102	518.255
	2.	8017.000	19.500	518.254	518.407
	3.	8017.000	9.750	518.407	518.560
1-12	4.	8017.000	.000	518.559	518.712
	5.	8017.000 -	9.750	518.407	518.560
	6.	8017.000 -	19.500	518.254	518.407
	7.	8017.000 -	29.250	518.102	518.255
	1.	8027.000	29.250	517.975	518.031
	2.	8027.000	19.500	518.027	518.183
	3.	8027.000	9.750	518.180	518.335
1-13	4.	8027.000	.000	518.332	518.488
	5.	8027.000 -	9.750	518.180	518.335
	6.	8027.000 -	19.500	518.027	518.183
	7.	8027.000 -	29.250	517.875	518.031
	1.	8037.000	29.250	517.644	517.795
	2.	8037.000	19.500	517.797	517.948
	3.	8037.000	9.750	517.949	518.100
1-14	4.	8037.000	.000	518.101	518.252
	5.	8037.000 -	9.750	517.949	518.100
	6.	8037.000 -	19.500	517.797	517.948
	7.	8037.000 -	29.250	517.644	517.795
	1.	8047.000	29.250	517.410	517.550
	2.	8047.000	19.500	517.563	517.702
	3.	8047.000	9.750	517.715	517.854
1-15	4.	8047.000	.000	517.867	518.007
	5.	8047.000 -	9.750	517.715	517.854
	6.	8047.000 -	19.500	517.563	517.702
	7.	8047.000 -	29.250	517.410	517.550
	1.	8048.250	29.250	517.381	517.518
	2.	8048.250	19.500	517.533	517.670
	3.	8048.250	9.750	517.686	517.823
SPL 1Z	4.	8048.250	.000	517.838	517.975
	5.	8048.250 -	9.750	517.686	517.823
	6.	8048.250 -	19.500	517.533	517.670
	7.	8048.250 -	29.250	517.381	517.518
	1.	8057.000	29.250	517.173	517.294
	2.	8057.000	19.500	517.325	517.446
	3.	8057.000	9.750	517.478	517.599
1-16	4.	8057.000	.000	517.630	517.751
	5.	8057.000 -	9.750	517.478	517.599
	6.	8057.000 -	19.500	517.325	517.446
	7.	8057.000 -	29.250	517.173	517.294
	1.	8067.000	29.250	516.932	517.028
	2.	8067.000	19.500	517.084	517.180
	3.	8067.000	9.750	517.237	517.333
1-17	4.	8067.000	.000	517.389	517.485
	5.	8067.000 -	9.750	517.237	517.333
	6.	8067.000 -	19.500	517.084	517.180
	7.	8067.000 -	29.250	516.932	517.028
	1.	8077.000	29.250	516.687	516.753
	2.	8077.000	19.500	516.840	516.905
	3.	8077.000	9.750	516.992	517.057
1-18	4.	8077.000	.000	517.144	517.210
	5.	8077.000 -	9.750	516.992	517.057
	6.	8077.000 -	19.500	516.840	516.905
	7.	8077.000 -	29.250	516.687	516.753
	1.	8087.000	29.250	516.439	516.470
	2.	8087.000	19.500	516.591	516.622
	3.	8087.000	9.750	516.744	516.775
1-19	4.	8087.000	.000	516.896	516.927
	5.	8087.000 -	9.750	516.744	516.775
	6.	8087.000 -	19.500	516.591	516.622
	7.	8087.000 -	29.250	516.439	516.470
	1.	8095.500	29.250	516.225	516.225
	2.	8095.500	19.500	516.378	516.378
	3.	8095.500	9.750	516.530	516.530
℄ BRG. E ABUT	4.	8095.500	.000	516.682	516.682
	5.	8095.500 -	9.750	516.530	516.530
	6.	8095.500 -	19.500	516.378	516.378
	7.	8095.500 -	29.250	516.225	516.225

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thumm Jr. 9-21-67
Engineer of Bridge & Traffic Structures

#1300
#Revised

SEPTEMBER 6, 1967

TOP OF SLAB ELEVATIONS-SPANS 1, 2 & 3
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D4P	BUREAU-PUTNAM	30	8
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		D4

SPAN 9

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5933.083	29.250	494.658	494.658
	2.	5933.083	19.500	494.810	494.810
	3.	5933.083	9.750	494.963	494.963
℄ Brg. Pier 9	4.	5933.083	.000	495.115	495.115
	5.	5933.083	- 9.750	494.963	494.963
	6.	5933.083	- 19.500	494.810	494.810
	7.	5933.083	- 29.250	494.658	494.658
	1.	5943.083	29.250	494.958	495.002
	2.	5943.083	19.500	495.110	495.155
	3.	5943.083	9.750	495.262	495.307
	4.	5943.083	.000	495.415	495.460
9-1	5.	5943.083	- 9.750	495.262	495.307
	6.	5943.083	- 19.500	495.110	495.155
	7.	5943.083	- 29.250	494.958	495.002
	1.	5953.083	29.250	495.258	495.344
	2.	5953.083	19.500	495.410	495.497
	3.	5953.083	9.750	495.562	495.649
	4.	5953.083	.000	495.715	495.801
9-2	5.	5953.083	- 9.750	495.562	495.649
	6.	5953.083	- 19.500	495.410	495.497
	7.	5953.083	- 29.250	495.258	495.344
	1.	5963.083	29.250	495.558	495.681
	2.	5963.083	19.500	495.710	495.833
	3.	5963.083	9.750	495.862	495.986
	4.	5963.083	.000	496.015	496.138
9-3	5.	5963.083	- 9.750	495.862	495.986
	6.	5963.083	- 19.500	495.710	495.833
	7.	5963.083	- 29.250	495.558	495.681
	1.	5973.083	29.250	495.858	496.011
	2.	5973.083	19.500	496.010	496.164
	3.	5973.083	9.750	496.162	496.316
	4.	5973.083	.000	496.315	496.468
9-4	5.	5973.083	- 9.750	496.162	496.316
	6.	5973.083	- 19.500	496.010	496.164
	7.	5973.083	- 29.250	495.858	496.011
	1.	5983.083	29.250	496.158	496.335
	2.	5983.083	19.500	496.310	496.487
	3.	5983.083	9.750	496.462	496.639
	4.	5983.083	.000	496.615	496.792
9-5	5.	5983.083	- 9.750	496.462	496.639
	6.	5983.083	- 19.500	496.310	496.487
	7.	5983.083	- 29.250	496.158	496.335
	1.	5993.083	29.250	496.458	496.650
	2.	5993.083	19.500	496.610	496.802
	3.	5993.083	9.750	496.762	496.955
	4.	5993.083	.000	496.915	497.107
9-6	5.	5993.083	- 9.750	496.762	496.955
	6.	5993.083	- 19.500	496.610	496.802
	7.	5993.083	- 29.250	496.458	496.650
	1.	5994.500	29.250	496.500	496.694
	2.	5994.500	19.500	496.652	496.846
	3.	5994.500	9.750	496.805	496.999
Splice 9-X	4.	5994.500	.000	497.151	497.151
	5.	5994.500	- 9.750	496.805	496.999
	6.	5994.500	- 19.500	496.652	496.846
	7.	5994.500	- 29.250	496.500	496.694
	1.	6003.083	29.250	496.758	496.957
	2.	6003.083	19.500	496.910	497.110
	3.	6003.083	9.750	497.062	497.262
	4.	6003.083	.000	497.215	497.414
9-7	5.	6003.083	- 9.750	497.062	497.262
	6.	6003.083	- 19.500	496.910	497.110
	7.	6003.083	- 29.250	496.758	496.957
	1.	6013.083	29.250	497.058	497.257
	2.	6013.083	19.500	497.210	497.409
	3.	6013.083	9.750	497.362	497.561
	4.	6013.083	.000	497.515	497.714
9-8	5.	6013.083	- 9.750	497.362	497.561
	6.	6013.083	- 19.500	497.210	497.409
	7.	6013.083	- 29.250	497.058	497.257
	1.	6023.083	29.250	497.358	497.549
	2.	6023.083	19.500	497.510	497.701
	3.	6023.083	9.750	497.662	497.853
	4.	6023.083	.000	497.815	498.006
9-9	5.	6023.083	- 9.750	497.662	497.853
	6.	6023.083	- 19.500	497.510	497.701
	7.	6023.083	- 29.250	497.358	497.549
	1.	6033.083	29.250	497.658	497.834
	2.	6033.083	19.500	497.810	497.986
	3.	6033.083	9.750	497.962	498.138
	4.	6033.083	.000	498.115	498.291
9-10	5.	6033.083	- 9.750	497.962	498.138
	6.	6033.083	- 19.500	497.810	497.986
	7.	6033.083	- 29.250	497.658	497.834
	1.	6043.083	29.250	497.958	498.113
	2.	6043.083	19.500	498.110	498.265
	3.	6043.083	9.750	498.262	498.417
	4.	6043.083	.000	498.415	498.570
9-11	5.	6043.083	- 9.750	498.262	498.417
	6.	6043.083	- 19.500	498.110	498.265
	7.	6043.083	- 29.250	497.958	498.113
	1.	6053.083	29.250	498.258	498.386
	2.	6053.083	19.500	498.410	498.538
	3.	6053.083	9.750	498.562	498.691
9-12	4.	6053.083	.000	498.715	498.843
	5.	6053.083	- 9.750	498.562	498.691
	6.	6053.083	- 19.500	498.410	498.538
	7.	6053.083	- 29.250	498.258	498.386
	1.	6062.000	29.250	498.525	498.627
	2.	6062.000	19.500	498.677	498.780
	3.	6062.000	9.750	498.830	498.932
9-1	5.	6062.000	- 9.750	498.830	498.932
	6.	6062.000	- 19.500	498.677	498.780
	7.	6062.000	- 29.250	498.525	498.627

SPAN 9 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6063.083	29.250	498.558	498.657
	2.	6063.083	19.500	498.710	498.809
	3.	6063.083	9.750	498.862	498.961
9-13	4.	6063.083	.000	499.015	499.114
	5.	6063.083	- 9.750	498.862	498.961
	6.	6063.083	- 19.500	498.710	498.809
	7.	6063.083	- 29.250	498.558	498.657
	1.	6073.083	29.250	498.858	498.927
	2.	6073.083	19.500	499.010	499.079
	3.	6073.083	9.750	499.162	499.232
9-14	4.	6073.083	.000	499.315	499.384
	5.	6073.083	- 9.750	499.162	499.232
	6.	6073.083	- 19.500	499.010	499.079
	7.	6073.083	- 29.250	498.858	498.927
	1.	6083.083	29.250	499.158	499.200
	2.	6083.083	19.500	499.310	499.352
	3.	6083.083	9.750	499.462	499.504
9-15	4.	6083.083	.000	499.615	499.657
	5.	6083.083	- 9.750	499.462	499.504
	6.	6083.083	- 19.500	499.310	499.352
	7.	6083.083	- 29.250	499.158	499.200
	1.	6093.083	29.250	499.458	499.475
	2.	6093.083	19.500	499.610	499.628
	3.	6093.083	9.750	499.762	499.780
9-16	4.	6093.083	.000	499.915	499.932
	5.	6093.083	- 9.750	499.762	499.780
	6.	6093.083	- 19.500	499.610	499.628
	7.	6093.083	- 29.250	499.458	499.475

SPAN 8

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6102.000	29.250	499.725	499.725
	2.	6102.000	19.500	499.877	499.877
	3.	6102.000	9.750	500.030	500.030
	4.	6102.000	.000	500.182	500.182
℄ Brg. Pier 8	5.	6102.000	- 9.750	500.030	500.030
	6.	6102.000	- 19.500	499.877	499.877
	7.	6102.000	- 29.250	499.725	499.725
	1.	6107.000	29.250	499.875	499.868
	2.	6107.000	19.500	500.027	500.020
	3.	6107.000	9.750	500.180	500.173
Splice 8-V	4.	6107.000	.000	500.332	500.325
	5.	6107.000	- 9.750	500.180	500.173
	6.	6107.000	- 19.500	500.027	500.020
	7.	6107.000	- 29.250	499.875	499.868
	1.	6112.000	29.250	500.025	500.011
	2.	6112.000	19.500	500.177	500.164
	3.	6112.000	9.750	500.330	500.316
8-1	4.	6112.000	.000	500.482	500.468
	5.	6112.000	- 9.750	500.330	500.316
	6.	6112.000	- 19.500	500.177	500.164
	7.	6112.000	- 29.250	500.025	500.011
	1.	6122.000	29.250	500.325	500.302
	2.	6122.000	19.500	500.477	500.454
	3.	6122.000	9.750	500.630	500.607
8-2	4.	6122.000	.000	500.782	500.759
	5.	6122.000	- 9.750	500.630	500.607
	6.	6122.000	- 19.500	500.477	500.454
	7.	6122.000	- 29.250	500.325	500.302
	1.	6132.000	29.250	500.625	500.597
	2.	6132.000	19.500	500.777	500.749
	3.	6132.000	9.750	500.930	500.901
8-3	4.	6132.000	.000	501.082	501.054
	5.	6132.000	- 9.750	500.930	500.901
	6.	6132.000	- 19.500	500.777	500.749
	7.	6132.000	- 29.250	500.625	500.597
	1.	6142.000	29.250	500.925	500.896
	2.	6142.000	19.500	501.077	501.048
	3.	6142.000	9.750	501.230	501.200
Splice 8-W	4.	6142.000	.000	501.382	501.353
	5.	6142.000	- 9.750	501.230	501.200
	6.	6142.000	- 19.500	501.077	501.048
	7.	6142.000	- 29.250	500.925	500.896
	1.	6152.000	29.250	501.225	501.198
	2.	6152.000	19.500	501.377	501.351
	3.	6152.000	9.750	501.530	501.503
8-4	4.	6152.000	.000	501.682	501.653
	5.	6152.000	- 9.750	501.530	501.503
	6.	6152.000	- 19.500	501.377	501.351
	7.	6152.000	- 29.250	501.225	501.198
	1.	6162.000	29.250	501.525	501.503
	2.	6162.000	19.500	501.677	501.655
	3.	6162.000	9.750	501.830	501.807
8-5	4.	6162.000	.000	501.982	501.960
	5.	6162.000	- 9.750	501.830	501.807
	6.	6162.000	- 19.500	501.677	501.655
	7.	6162.000	- 29.250	501.525	501.503
	1.	6172.000	29.250	501.825	501.807
	2.	6172.000	19.500	501.977	501.959
	3.	6172.000	9.750	502.130	502.112
8-6	4.	6172.000	.000	502.282	502.264
	5.	6172.000	- 9.750	502.130	502.112
	6.	6172.000	- 19.500	501.977	501.959
	7.	6172.000	- 29.250	501.825	501.807
	1.	6182.000	29.250	502.125	502.109
	2.	6182.000	19.500	502.277	502.261
	3.	6182.000	9.750	502.430	502.414
8-7	4.	6182.000	.000	502.582	502.566
	5.	6182.000	- 9.750	502.430	502.414
	6.	6182.000	- 19.500	502.277	502.261
	7.	6182.000	- 29.250	502.125	502.109

SPAN 8 (CONT.)

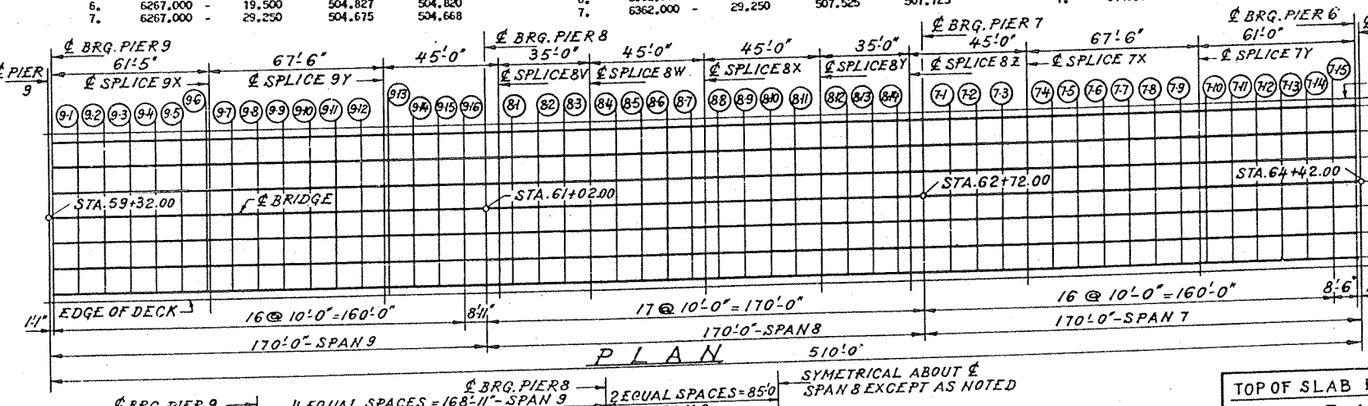
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6187.000	29.250	502.275	502.260
	2.	6187.000	19.500	502.427	502.412
	3.	6187.000	9.750	502.580	502.564
Splice 8-X	4.	6187.000	.000	502.732	502.717
	5.	6187.000	- 9.750	502.580	502.564
	6.	6187.000	- 19.500	502.427	502.412
	7.	6187.000	- 29.250	502.275	502.260
	1.	6192.000	29.250	502.425	502.409
	2.	6192.000	19.500	502.577	502.561
	3.	6192.000	9.750	502.730	502.714
8-8	4.	6192.000	.000	502.882	502.866
	5.	6192.000	- 9.750	502.730	502.714
	6.	6192.000	- 19.500	502.577	502.561
	7.	6192.000	- 29.250	502.425	502.409
	1.	6202.000	29.250	502.725	502.707
	2.	6202.000	19.500	502.877	502.859
	3.	6202.000	9.750	503.030	503.012
8-9	4.	6202.000	.000	503.182	503.164
	5.	6202.000	- 9.750	503.030	503.012
	6.	6202.000	- 19.500	502.877	502.859
	7.	6202.000	- 29.250	502.725	502.707
	1.	6212.000	29.250	503.025	503.003
	2.	6212.000	19.500	503.177	503.155
	3.	6212.000	9.750	503.330	503.307
8-10	4.	6212.000	.000	503.482	503.460
	5.	6212.000	- 9.750	503.330	503.307
	6.	6212.000	- 19.500	503.177	503.155
	7.	6212.000	- 29.250	503.025	503.003
	1.	6222.000	29.250	503.325	503.298
	2.	6222.000	19.500	503.477	503.451
	3.	6222.000	9.750	503.630	503.603
8-11	4.	6222.000	.000	503.782	503.755
	5.	6222.000	- 9.750	503.630	503.603
	6.	6222.000	- 19.500	503.477	503.451
	7.	6222.000	- 29.250	503.325	503.298
	1.	6232.000	29.250	503.625	503.596
	2.	6232.000	19.500	503.777	503.748
	3.	6232.000	9.750	503.930	503.900
Splice 8-Y	4.	6232.000	.000	504.082	504.053
	5.	6232.000	- 9.750	503.930	503.900
	6.	6232.000	- 19.500	503.777	503.748
	7.	6232.000	- 29.250	503.625	503.596
	1.	6242.000	29.250	503.925	503.897
	2.	6242.000	19.500	504.077	504.049
	3.	6242.000	9.750	504.230	504.201
8-12	4.	6242.000	.000	504.382	504.354
	5.	6242.000	- 9.750	504.230	504.201
	6.	6242.000	- 19.500	504.077	504.049
	7.	6242.000	- 29.250	503.925	503.897
	1.	6252.000	29.250	504.225	504.202
	2.	6252.000	19.500	504.377	504.354
	3.	6252.000	9.750	504.530	504.507
8-13	4.	6252.000	.000	504.682	504.659
	5.	6252.000	- 9.750	504.530	504.507
	6.	6252.000	- 19.500	504.377	504.354
	7.	6252.000	- 29.250	504.225	504.202
	1.	6262.000	29.250	504.525	504.511
	2.	6262.000	19.500	504.677	504.664
	3.	6262.000	9.750	504.830	504.816
8-14	4.	6262.000	.000	504.982	504.968
	5.	6262.000	- 9.750	504.830	504.816
	6.	6262.000	- 19.500	504.677	504.664
	7.	6262.000	- 29.250	504.525	504.511
	1.	6267.000	29.250	504.675	504.668
	2.	6267.000	19.500	504.827	504.820
	3.	6267.000	9.750	504.980	504.973
Splice 8-Z	4.	6267.000	.000	505.132	505.125
	5.	6267.000	- 9.750	504.980	504.973
	6.	6267.000	- 19.500	504.827	504.820
	7.	6267.000	- 29.250	504.675	504.668

SPAN 7

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6272.000	29.250	504.825	504.825
	2.	6272.000	19.500	504.977	504.977
	3.	6272.000	9.750	505.130	505.130
℄ Brg. Pier 7	4.	6272.000	.000	505.282	505.282
	5.	6272.000	- 9.750	505.130	505.130
	6.	6272.000	- 19.500	504.977	504.977
	7.	6272.000	- 29.250	504.825	504.825
	1.	6282.000	29.250	505.125	505.145
	2.	6282.000	19.500	505.277	505.298
	3.	6282.000	9.750	505.430	505.450
7-1	4.	6282.000	.000	505.582	505.603
	5.	6282.000	- 9.750	505.430	505.450
	6.	6282.000	- 19.500	505.277	505.298
	7.	6282.000	- 29.250	505.125	505.145
	1.	6292.000	29.250	505.425	505.470
	2.	6292.000	19.500	505.577	505.622
	3.	6292.000	9.750	505.730	505.775
7-2	4.	6292.000	.000	505.882	505.927
	5.	6292.000	- 9.750	505.730	505.775
	6.	6292.000	- 19.500	505.577	505.622
	7.	6292.000	- 29.250	505.425	505.470
	1.	6302.000	29.250	505.725	505.798
	2.	6302.000	19.500	505.877	505.950
	3.	6302.000	9.750	506.030	506.102
7-3	4.	6302.000	.000	506.182	506.255
	5.	6302.000	- 9.750	506.030	506.102
	6.	6302.000	- 19.500	505.877	505.950
	7.	6302.000	- 29.250	505.725	505.798
	1.	6312.000	29.250	506.025	506.128
	2.	6312.000	19.500	506.177	506.280
	3.	6312.000	9.750	506.330	506.432
Splice 7-X	4.	6312.000	.000	506.482	506.585
	5.	6312.000	- 9.750	506.330	506.432
	6.	6312.000	- 19.500	506.177	506.280
	7.	6312.000	- 29.250	506.025	506.128
	1.	6322.000	29.250	506.325	506.457
	2.	6322.000	19.500	506.477	506.609
	3.	6322.000	9.750	506.630	506.762
7-4	4.	6322.000	.000	506.782	506.914
	5.	6322.000	- 9.750	506.630	506.762
	6.	6322.000	- 19.500	506.477	506.609
	7.	6322.000	- 29.250	506.325	506.457
	1.	6332.000	29.250	506.625	506.783
	2.	6332.000	19.500	506.777	506.935
	3.	6332.000	9.750	506.930	507.087
7-5	4.	6332.000	.000	507.082	507.240
	5.	6332.000	- 9.750	506.930	507.087
	6.	6332.000	- 19.500	506.777	506.935
	7.	6332.000	- 29.250	506.625	506.783
	1.	6342.000	29.250	506.925	507.103
	2.	6342.000	19.500	507.077	507.256
	3.	6342.000	9.750	507.230	507.408
7-6	4.	6342.000	.000	507.382	507.560
	5.	6342.000	- 9.750	507.230	507.408
	6.	6342.000	- 19.500	507.077	507.256
	7.	6342.000	- 29.250	506.925	507.103
	1.	6352.000	29.250	507.225	507.417
	2.	6352.000	19.500	507.377	507.570
	3.	6352.000	9.750	507.530	507.722
7-7	4.	6352.000	.000	507.682	507.874
	5.	6352.000	- 9.750	507.530	507.722
	6.	6352.000	- 19.500	507.377	507.570
	7.	6352.000	- 29.250	507.225	507.417
	1.	6362.000	29.250	507.525	507.725
	2.	6362.000	19.500	507.677	507.877
	3.	6362.000	9.750	507.830	508.029
℄ Brg. Pier 6	4.	6362.000	.000	507.982	508.182
	5.	6362.000	- 9.750	507.830	508.029
	6.	6362.000	- 19.500	507.677	507.877
	7.	6362.000	- 29.250	507.525	507.725

SPAN 7 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6372.000	29.250	507.825	508.024
	2.	6372.000	19.500	507.977	508.177
	3.	6372.000	9.750	508.130	508.329
7-9	4.	6372.000	.000	508.282	508.481
	5.	6372.000	- 9.750	508.130	508.329
	6.	6372.000	- 19.500	507.977	508.177
	7.	6372.000	- 29.250	507.825	508.024
	1.	6379.500	29.250	508.050	508.244
	2.	6379.500	19.500	508.202	508.396
	3.	6379.500	9.750	508.355	508.548
Splice 7-Y	4.	6379.500	.000	508.507	508.701
	5.	6379.500	- 9.750	508.355	508.548
	6.	6379.500	- 19.500	508.202	508.396
	7.	6379.500	- 29.250	508.050	508.244
	1.	6382.000	29.250	508.125	508.316
	2.	6382.000	19.500	508.277	508.468
	3.	6382.000	9.750	508.430	508.621
7-10	4.	6382.000	.000	508.582	508.773
	5.	6382.000	- 9.750	508.430	508.621
	6.	6382.000	- 19.500	508.277	508.468
	7.	6382.000	- 29.250	508.125	508.316
	1.	6392.000	29.250	508.425	508.599
	2.	6392.000	19.500	508.577	508.751
	3.	6392.000	9.750	508.730	508.904
7-11	4.	6392.000	.000	508.882	509.056
	5.	6392.000	- 9.750	508.730	508.904
	6.	6392.000	- 19.500	508.577	508.751
	7.	6392.000	- 29.250	508.425	508.599
	1.	6402.000	29.250	508.725	508.875
	2.	6402.000	19.500	508.877	509.027
	3.	6402.000	9.750	509.030	509.180
7-12	4.	6402.000	.000	509.182	509.332
	5.	6402.000	- 9.750	509.030	509.180
	6.	6402.000	- 19.500	508.877	509.027
	7.	6402.000	- 29.250	508.725	508.875
	1.	6412.000	29.250	509.025	509.144
	2.	6412.000	19.500	509.177	509.296
	3.	6412.000	9.750	509.330	509.448
7-13	4.	6412.000	.000	509.482	509.601
	5.	6412.000	- 9.750	509.330	509.448
	6.	6412.000	- 19.500	509.177	509.296
	7.	6412.000	- 29.250	509.025	509.144
	1.	6422.000	29.250	509.325	509.406
	2.	6422.000	19.500	509.477	509.559
	3.	6422.000	9.750	509.630	509.711
7-14	4.	6422.000	.000	509.782	509.863
	5.	6422.000	- 9.750	509.630	509.711
	6.	6422.000	- 19.500	509.477	509.559
	7.	6422.000	- 29.250	509.325	509.406
	1.	6432.000	29.250	509.625	509.664
	2.	6432.000	19.500	509.777	509.816
	3.	6432.000	9.750	509.930	509.968
7-15	4.	6432.000	.000	510.082	510.121
	5.	6432.000	- 9.750	509.930	509.968
	6.	6432.000	- 19.500	509.777	509.816
	7.	6432.000	- 29.250	509.625	509.664
	1.	6440.500	29.250	509.880	509.880
	2.	6440.500	19.500	510.032	510.032
	3.	6440.500	9.750	510.185	510.185
	4.	6440.500	.000	510.337	510.337
℄ Brg. Pier 6	5.	6440.500	- 9.750	510.185	510.185
	6.	6440.500	- 19.500	510.032	510.032
	7.	6440.500	- 29.250	509.880	509.880



DEAD LOAD DEFLECTION DIAGRAM

SYMETRICAL ABOUT ℄ SPAN 8 EXCEPT AS NOTED

NOTES

FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "6" SEE SHEET D1.

GIRDER OFFSETS ARE REFERENCED TO

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
9-27-67
Engineer of Bridges & Structures

SEPTEMBER 27, 1967

1459

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

TOP OF SLAB ELEVATIONS-SPANS 7,8 & 9
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D4P
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,7&1)D&P	BUREAU-PUTNAM	30	9
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		D5

SPAN 12

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5423.083	29.250	479.358	479.358
	2.	5423.083	19.500	479.510	479.510
	3.	5423.083	9.750	479.663	479.663
℄ BRG. PIER 12	4.	5423.083	.000	479.815	479.815
	5.	5423.083	- 9.750	479.663	479.663
	6.	5423.083	- 19.500	479.510	479.510
	7.	5423.083	- 29.250	479.358	479.358
	1.	5433.083	29.250	479.658	479.702
	2.	5433.083	19.500	479.810	479.855
	3.	5433.083	9.750	479.962	480.007
12-1	4.	5433.083	.000	480.115	480.160
	5.	5433.083	- 9.750	479.962	480.007
	6.	5433.083	- 19.500	479.810	479.855
	7.	5433.083	- 29.250	479.658	479.702
	1.	5443.083	29.250	479.958	480.044
	2.	5443.083	19.500	480.110	480.197
	3.	5443.083	9.750	480.262	480.349
12-2	4.	5443.083	.000	480.415	480.501
	5.	5443.083	- 9.750	480.262	480.349
	6.	5443.083	- 19.500	480.110	480.197
	7.	5443.083	- 29.250	479.958	480.044
	1.	5453.083	29.250	480.258	480.381
	2.	5453.083	19.500	480.410	480.533
	3.	5453.083	9.750	480.562	480.686
12-3	4.	5453.083	.000	480.715	480.838
	5.	5453.083	- 9.750	480.562	480.686
	6.	5453.083	- 19.500	480.410	480.533
	7.	5453.083	- 29.250	480.258	480.381
	1.	5463.083	29.250	480.558	480.711
	2.	5463.083	19.500	480.710	480.864
	3.	5463.083	9.750	480.862	481.016
12-4	4.	5453.083	.000	481.015	481.168
	5.	5463.083	- 9.750	480.862	481.016
	6.	5463.083	- 19.500	480.710	480.864
	7.	5463.083	- 29.250	480.558	480.711
	1.	5473.083	29.250	480.858	481.035
	2.	5473.083	19.500	481.010	481.187
	3.	5473.083	9.750	481.162	481.339
12-5	4.	5473.083	.000	481.315	481.492
	5.	5473.083	- 9.750	481.162	481.339
	6.	5473.083	- 19.500	481.010	481.187
	7.	5473.083	- 29.250	480.858	481.035
	1.	5483.083	29.250	481.158	481.350
	2.	5483.083	19.500	481.310	481.502
	3.	5483.083	9.750	481.462	481.655
12-6	4.	5483.083	.000	481.615	481.807
	5.	5483.083	- 9.750	481.462	481.655
	6.	5483.083	- 19.500	481.310	481.502
	7.	5483.083	- 29.250	481.158	481.350
	1.	5484.500	29.250	481.200	481.394
	2.	5484.500	19.500	481.352	481.546
	3.	5484.500	9.750	481.505	481.699
SPLICE 12X	4.	5484.500	.000	481.657	481.851
	5.	5484.500	- 9.750	481.505	481.699
	6.	5484.500	- 19.500	481.352	481.546
	7.	5484.500	- 29.250	481.200	481.394
	1.	5493.083	29.250	481.458	481.657
	2.	5493.083	19.500	481.610	481.810
	3.	5493.083	9.750	481.762	481.962
12-7	4.	5493.083	.000	481.915	482.114
	5.	5493.083	- 9.750	481.762	481.962
	6.	5493.083	- 19.500	481.610	481.810
	7.	5493.083	- 29.250	481.458	481.657
	1.	5503.083	29.250	481.758	481.957
	2.	5503.083	19.500	481.910	482.109
	3.	5503.083	9.750	482.062	482.261
12-8	4.	5503.083	.000	482.215	482.414
	5.	5503.083	- 9.750	482.062	482.261
	6.	5503.083	- 19.500	481.910	482.109
	7.	5503.083	- 29.250	481.758	481.957
	1.	5513.083	29.250	482.058	482.249
	2.	5513.083	19.500	482.210	482.401
	3.	5513.083	9.750	482.362	482.553
12-9	4.	5513.083	.000	482.515	482.706
	5.	5513.083	- 9.750	482.362	482.553
	6.	5513.083	- 19.500	482.210	482.401
	7.	5513.083	- 29.250	482.058	482.249
	1.	5523.083	29.250	482.358	482.534
	2.	5523.083	19.500	482.510	482.685
	3.	5523.083	9.750	482.662	482.838
12-10	4.	5523.083	.000	482.815	482.991
	5.	5523.083	- 9.750	482.662	482.838
	6.	5523.083	- 19.500	482.510	482.686
	7.	5523.083	- 29.250	482.358	482.534
	1.	5533.083	29.250	482.658	482.813
	2.	5533.083	19.500	482.810	482.965
	3.	5533.083	9.750	482.962	483.117
12-11	4.	5533.083	.000	483.115	483.270
	5.	5533.083	- 9.750	482.962	483.117
	6.	5533.083	- 19.500	482.810	482.965
	7.	5533.083	- 29.250	482.658	482.813
	1.	5543.083	29.250	482.958	483.086
	2.	5543.083	19.500	483.110	483.238
	3.	5543.083	9.750	483.262	483.391
12-12	4.	5543.083	.000	483.415	483.543
	5.	5543.083	- 9.750	483.262	483.391
	6.	5543.083	- 19.500	483.110	483.238
	7.	5543.083	- 29.250	482.958	483.086
	1.	5552.000	29.250	483.225	483.327
	2.	5552.000	19.500	483.377	483.480
	3.	5552.000	9.750	483.530	483.632
12Y	5.	5552.000	- 9.750	483.530	483.632
	6.	5552.000	- 19.500	483.377	483.480
	7.	5552.000	- 29.250	483.225	483.327

SPAN 12 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5553.083	29.250	483.258	483.357
	2.	5553.083	19.500	483.410	483.509
	3.	5553.083	9.750	483.562	483.661
12-13	4.	5553.083	.000	483.715	483.814
	5.	5553.083	- 9.750	483.562	483.661
	6.	5553.083	- 19.500	483.410	483.509
	7.	5553.083	- 29.250	483.258	483.357
	1.	5563.083	29.250	483.558	483.627
	2.	5563.083	19.500	483.710	483.779
	3.	5563.083	9.750	483.862	483.932
12-14	4.	5563.083	.000	484.015	484.084
	5.	5563.083	- 9.750	483.862	483.932
	6.	5563.083	- 19.500	483.710	483.779
	7.	5563.083	- 29.250	483.558	483.627
	1.	5573.083	29.250	483.858	483.900
	2.	5573.083	19.500	484.010	484.052
	3.	5573.083	9.750	484.162	484.204
12-15	4.	5573.083	.000	484.315	484.357
	5.	5573.083	- 9.750	484.162	484.204
	6.	5573.083	- 19.500	484.010	484.052
	7.	5573.083	- 29.250	483.858	483.900
	1.	5583.083	29.250	484.158	484.175
	2.	5583.083	19.500	484.310	484.328
	3.	5583.083	9.750	484.462	484.480
12-16	4.	5583.083	.000	484.615	484.632
	5.	5583.083	- 9.750	484.462	484.480
	6.	5583.083	- 19.500	484.310	484.328
	7.	5583.083	- 29.250	484.158	484.175

SPAN 11

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5592.000	29.250	484.425	484.425
	2.	5592.000	19.500	484.577	484.577
	3.	5592.000	9.750	484.730	484.730
℄ Brg. PIER 11	4.	5592.000	.000	484.882	484.882
	5.	5592.000	- 9.750	484.730	484.730
	6.	5592.000	- 19.500	484.577	484.577
	7.	5592.000	- 29.250	484.425	484.425
	1.	5597.000	29.250	484.575	484.568
	2.	5597.000	19.500	484.727	484.720
	3.	5597.000	9.750	484.880	484.873
SPLICE 11V	4.	5597.000	.000	485.032	485.025
	5.	5597.000	- 9.750	484.880	484.873
	6.	5597.000	- 19.500	484.727	484.720
	7.	5597.000	- 29.250	484.575	484.568
	1.	5602.000	29.250	484.725	484.711
	2.	5602.000	19.500	484.877	484.864
	3.	5602.000	9.750	485.030	485.016
11-1	4.	5602.000	.000	485.182	485.168
	5.	5602.000	- 9.750	485.030	485.016
	6.	5602.000	- 19.500	484.877	484.864
	7.	5602.000	- 29.250	484.725	484.711
	1.	5612.000	29.250	485.025	485.002
	2.	5612.000	19.500	485.177	485.154
	3.	5612.000	9.750	485.330	485.307
11-2	4.	5612.000	.000	485.482	485.459
	5.	5612.000	- 9.750	485.330	485.307
	6.	5612.000	- 19.500	485.177	485.154
	7.	5612.000	- 29.250	485.025	485.002
	1.	5622.000	29.250	485.325	485.297
	2.	5622.000	19.500	485.477	485.449
	3.	5622.000	9.750	485.630	485.601
11-3	4.	5622.000	.000	485.782	485.754
	5.	5622.000	- 9.750	485.630	485.601
	6.	5622.000	- 19.500	485.477	485.449
	7.	5622.000	- 29.250	485.325	485.297
	1.	5632.000	29.250	485.625	485.596
	2.	5632.000	19.500	485.777	485.748
	3.	5632.000	9.750	485.930	485.900
SPLICE 11W	4.	5632.000	.000	486.082	486.053
	5.	5632.000	- 9.750	485.930	485.900
	6.	5632.000	- 19.500	485.777	485.748
	7.	5632.000	- 29.250	485.625	485.596
	1.	5642.000	29.250	485.925	485.898
	2.	5642.000	19.500	486.077	486.051
	3.	5642.000	9.750	486.230	486.203
11-4	4.	5642.000	.000	486.382	486.355
	5.	5642.000	- 9.750	486.230	486.203
	6.	5642.000	- 19.500	486.077	486.051
	7.	5642.000	- 29.250	485.925	485.898
	1.	5652.000	29.250	486.225	486.203
	2.	5652.000	19.500	486.377	486.355
	3.	5652.000	9.750	486.530	486.507
11-5	4.	5652.000	.000	486.682	486.660
	5.	5652.000	- 9.750	486.530	486.507
	6.	5652.000	- 19.500	486.377	486.355
	7.	5652.000	- 29.250	486.225	486.203
	1.	5662.000	29.250	486.525	486.507
	2.	5662.000	19.500	486.677	486.659
	3.	5662.000	9.750	486.830	486.812
	4.	5662.000	.000	486.982	486.964
11-6	5.	5662.000	- 9.750	486.830	486.812
	6.	5662.000	- 19.500	486.677	486.659
	7.	5662.000	- 29.250	486.525	486.507
	1.	5672.000	29.250	486.825	486.809
	2.	5672.000	19.500	486.977	486.961
	3.	5672.000	9.750	487.130	487.114
11-7	4.	5672.000	.000	487.282	487.266
	5.	5672.000	- 9.750	487.130	487.114
	6.	5672.000	- 19.500	486.977	486.961
	7.	5672.000	- 29.250	486.825	486.809

SPAN 11 (CONT.)

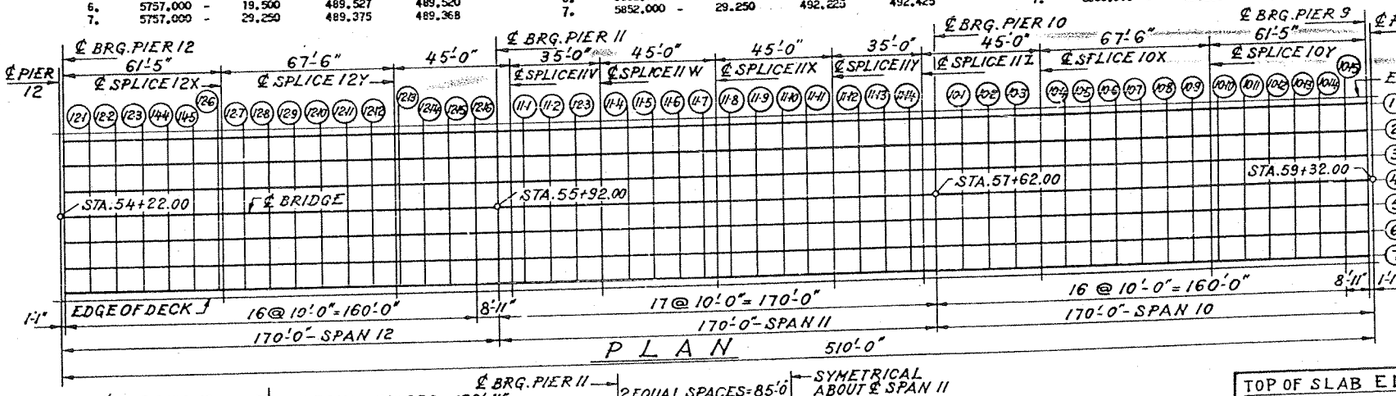
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5677.000	29.250	486.975	486.950
	2.	5677.000	19.500	487.127	487.112
	3.	5677.000	9.750	487.280	487.264
SPLICE 11X	4.	5677.000	.000	487.432	487.417
	5.	5677.000	- 9.750	487.280	487.264
	6.	5677.000	- 19.500	487.127	487.112
	7.	5677.000	- 29.250	486.975	486.960
	1.	5682.000	29.250	487.125	487.109
	2.	5682.000	19.500	487.277	487.261
	3.	5682.000	9.750	487.430	487.414
11-8	4.	5682.000	.000	487.582	487.566
	5.	5682.000	- 9.750	487.430	487.414
	6.	5682.000	- 19.500	487.277	487.261
	7.	5682.000	- 29.250	487.125	487.109
	1.	5692.000	29.250	487.425	487.407
	2.	5692.000	19.500	487.577	487.559
	3.	5692.000	9.750	487.730	487.712
11-9	4.	5692.000	.000	487.882	487.864
	5.	5692.000	- 9.750	487.730	487.712
	6.	5692.000	- 19.500	487.577	487.559
	7.	5692.000	- 29.250	487.425	487.407
	1.	5702.000	29.250	487.725	487.703
	2.	5702.000	19.500	487.877	487.855
	3.	5702.000	9.750	488.030	488.007
11-10	4.	5702.000	.000	488.182	488.160
	5.	5702.000	- 9.750	488.030	488.007
	6.	5702.000	- 19.500	487.877	487.855
	7.	5702.000	- 29.250	487.725	487.703
	1.	5712.000	29.250	488.025	487.998
	2.	5712.000	19.500	488.177	488.151
	3.	5712.000	9.750	488.330	488.303
11-11	4.	5712.000	.000	488.482	488.455
	5.	5712.000	- 9.750	488.330	488.303
	6.	5712.000	- 19.500	488.177	488.151
	7.	5712.000	- 29.250	488.025	487.998
	1.	5722.000	29.250	488.325	488.296
	2.	5722.000	19.500	488.477	488.448
	3.	5722.000	9.750	488.630	488.600
SPLICE 11Y	4.	5722.000	.000	488.782	488.753
	5.	5722.000	- 9.750	488.630	488.600
	6.	5722.000	- 19.500	488.477	488.448
	7.	5722.000	- 29.250	488.325	488.296
	1.	5732.000	29.250	488.625	488.597
	2.	5732.000	19.500	488.777	488.749
	3.	5732.000	9.750	488.930	488.901
11-12	4.	5732.000	.000	489.082	489.054
	5.	5732.000	- 9.750	488.930	488.901
	6.	5732.000	- 19.500	488.777	488.749
	7.	5732.000	- 29.250	488.625	488.597
	1.	5742.000	29.250	488.925	488.902
	2.	5742.000	19.500	489.077	489.054
	3.	5742.000	9.750	489.230	489.207
11-13	4.	5742.000	.000	489.382	489.359
	5.	5742.000	- 9.750	489.230	489.207
	6.	5742.000	- 19.500	489.077	489.054
	7.	5742.000	- 29.250	488.925	488.902
	1.	5752.000	29.250	489.225	489.211
	2.	5752.000	19.500	489.377	489.364
	3.	5752.000	9.750	489.530	489.516
11-14	4.	5752.000	.000	489.682	489.668
	5.	5752.000	- 9.750	489.530	489.516
	6.	5752.000	- 19.500	489.377	489.364
	7.	5752.000	- 29.250	489.225	489.211
	1.	5757.000	29.250	489.375	489.368
	2.	5757.000	19.500	489.527	489.520
	3.	5757.000	9.750	489.680	489.673
SPLICE 11Z	4.	5757.000	.000	489.832	489.815
	5.	5757.000	- 9.750	489.680	489.673
	6.	5757.000	- 19.500	489.527	489.520
	7.	5757.000	- 29.250	489.375	489.368

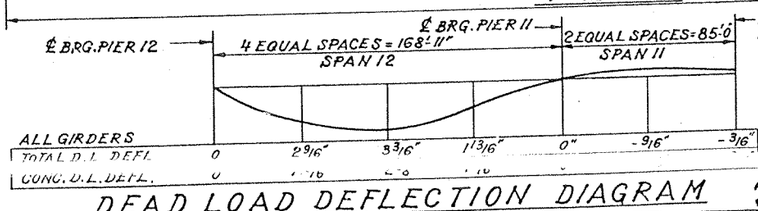
SPAN 10

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5762.000	29.250	489.525	489.525
	2.	5762.000	19.500	489.677	489.677
	3.	5762.000	9.750	489.830	489.830
℄ Brg. PIER 10	4.	5762.000	.000	489.982	489.982
	5.	5762.000	- 9.750	489.830	489.830
	6.	5762.000	- 19.500	489.677	489.677
	7.	5762.000	- 29.250	489.525	489.525
	1.	5772.000	29.250	489.825	489.845
	2.	5772.000	19.500	489.977	489.998
	3.	5772.000	9.750	490.130	490.150
10-1	4.	5772.000	.000	490.282	490.302
	5.	5772.000	- 9.750	490.130	490.150
	6.	5772.000	- 19.500	489.977	489.998
	7.	5772.000	- 29.250	489.825	489.845
	1.	5782.000	29.250	490.125	490.170
	2.	5782.000	19.500	490.277	490.322
	3.	5782.000	9.750	490.430	490.475
10-2	4.	5782.000	.000	490.582	490.627
	5.	5782.000	- 9.750	490.430	490.475
	6.	5782.000	- 19.500	490.277	490.322
	7.	5782.000	- 29.250	490.125	490.170
	1.	5792.000	29.250	490.425	490.498
	2.	5792.000	19.500	490.577	490.650
	3.	5792.000	9.750	490.730	490.802
10-3	4.	5792.000	.000	490.882	490.955
	5.	5792.000	- 9.750	490.730	490.802
	6.	5792.000	- 19.500	490.577	490.650
	7.	5792.000	- 29.250	490.425	490.498
	1.	5802.000	29.250	490.725	490.827
	2.	5802.000	19.500	490.877	490.980
	3.	5802.000	9.750	491.030	491.132
SPLICE 10X	4.	5802.000	.000	491.182	491.284
	5.	5802.000	- 9.750	491.030	491.132
	6.	5802.000	- 19.500	490.877	490.980
	7.	5802.000	- 29.250	490.725	490.827
	1.	5812.000	29.250	491.025	491.157
	2.	5812.000	19.500	491.177	491.309
	3.	5812.000	9.750	491.330	491.461
10-4	4.	5812.000	.000	491.482	491.614
	5.	5812.000	- 9.750	491.330	491.461
	6.	5812.000	- 19.500	491.177	491.309
	7.	5812.000	- 29.250	491.025	491.157
	1.	5822.000	29.250	491.325	491.482
	2.	5822.000	19.500	491.477	491.635
	3.	5822.000	9.750	491.630	491.787
10-5	4.	5822.000	.000	491.782	491.940
	5.	5822.000	- 9.750	491.630	491.787
	6.	5822.000	- 19.500	491.477	491.635
	7.	5822.000	- 29.250	491.325	491.482
	1.	5832.000	29.250	491.625	491.803
	2.	5832.000	19.500	491.777	491.955
	3.	5832.000	9.750	491.930	492.108
10-6	4.	5832.000	.000	492.082	492.260
	5.	5832.000	- 9.750	491.930	492.108
	6.	5832.000	- 19.500	491.777	491.955
	7.	5832.000	- 29.250	491.625	491.803
	1.	5842.000	29.250	491.925	492.117
	2.	5842.000	19.500	492.077	492.270
	3.	5842.000	9.750	492.230	492.422
10-7	4.	5842.000	.000	492.382	492.574
	5.	5842.000	- 9.750	492.230	492.422
	6.	5842.000	- 19.500	492.077	492.270
	7.	5842.000	- 29.250	491.925	492.117
	1.	5852.000	29.250	492.225	492.425
	2.	5852.000	19.500	492.377	492.577
	3.	5852.000	9.750	492.530	492.729
10-8	4.	5852.000	.000	492.682	492.882
	5.	5852.000	- 9.750	492.530	492.729
	6.	5852.000	- 19.500	492.377	492.577
	7.	5852.000	- 29.250	492.225	492.425

SPAN 10 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5862.000	29.250	492.525	492.724
	2.	5862.000	19.500	492.677	492.877
	3.	5862.000	9.750	492.830	493.029
10-9	4.	5862.000	.000	492.982	493.181
	5.	5862.000	- 9.750	492.830	493.029
	6.	5862.000	- 19.500	492.677	492.877
	7.	5862.000	- 29.250	492.525	492.724
	1.	5869.500	29.250	492.750	492.944
	2.	5869.500	19.500	492.902	493.096
	3.	5869.500	9.750	493.055	493.249
SPLICE 10Y	4.	5869.500	.000	493.207	493.406
	5.	5869.500	- 9.750	493.055	493.249
	6.	5869.500	- 19.500	492.902	493.096
	7.	5869.500	- 29.250	492.750	492.944
	1.	5872.000	29.250	492.825	493.017
	2.	5872.000	19.500	492.977	493.169
	3.	5872.000	9.750	493.130	493.321
10-10	4.	5872.000	.000	493.282	493.474
	5.	5872.000	- 9.750	493.130	493.321
	6.	5872.000	- 19.500	492.977	493.169
	7.	5872.000	- 29.250	492.825	493.017
	1.	5882.000	29.250	493.125	493.300
	2.	5882.000	19.500	493.277	493.452
	3.	5882.000	9.750	493.430	493.604
10-11	4.	5882.000	.000	493.582	493.757
	5.	5882.000	- 9.750	493.430	493.604
	6.	5882.000	- 19.500	493.277	493.452
	7.	5882.000	- 29.250	493.125	493.300
	1.	5892.000	29.250	493.425	493.576
	2.	5892.000	19.500	493.577	493.728
	3.	5892.000	9.750	493.730	493.880
10-12	4.	5892.000	.000	493.882	494.033
	5.	5892.000	- 9.750	493.730	493.880
	6.	5892.000	- 19.500	493.577	493.728
	7.	5892.000	- 29.250	493.425	493.576
	1.	5902.000	29.250	493.725	493.845
	2.	5902.000	19.500	493.877	493.997
	3.	5902.000	9.750	494.030	494.149
10-13	4.	5902.000	.000	494.182	494.302
	5.	5902.000	- 9.750	494.030	494.149
	6.	5902.000	- 19.500	493.877	493.997
	7.	5902.000	- 29.250	493.725	493.845
	1.	5912.000	29.250	494.025	494.108
	2.	5912.000	19.500	494.177	494.260
	3.	5912.000	9.750	494.330	494.412
10-14	4.	5912.000	.000	494.482	494.565
	5.	5912.000	- 9.750	494.330	494.412
	6.	5912.000	- 19.500	494.177	494.260
	7.	5912.000	- 29.250	494.025	494.108
	1.	5922.000	29.250	494.325	494.365
	2.	5922.000	19.500	494.477	494.518
	3.	5922.000	9.750	494.630	494.670
10-15	4.	5922.000	.000	494.782	494.822
	5.	5922.000	- 9.750	494.630	494.670
	6.	5922.000	- 19.500	494.477	494.518
	7.	5922.000	- 29.250	494.325	494.365
	1.	5930.916	29.250	494.593	494.593
	2.	5930.916	19.500	494.745	494.745
	3.	5930.916	9.750	494.897	494.897
℄ Brg. PIER 9	4.	5930.916	.000	495.050	495.050
	5.	5930.916	- 9.750	494.897	494.897
	6.	5930.916	- 19.500	494.745	494.745
	7.	5930.916	- 29.250	494.593	494.593





DEAD LOAD DEFLECTION DIAGRAM

NOTES

FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "C" SEE SHEET D1.

GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE

APPROVED FOR STRUCTURAL ADEQUACY ONLY 9-27-67 Engineer of Bridges and Structures

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

SEPTEMBER 27, 1967

TOP OF SLAB ELEVATIONS-SPANS 10, 11 & 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,7&1) D&P
STATION 69+29.50

1459

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	11
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT		D7

SPAN 5 (CONT.)

LINE	BEAM OR GIRDER	STATION		OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6822.000		29.250	519.810	519.898
	2.	6822.000		19.500	519.962	520.062
	3.	6822.000		9.750	520.115	520.214
5-7	4.	6822.000		.000	520.267	520.366
	5.	6822.000	-	9.750	520.115	520.214
	6.	6822.000	-	19.500	519.962	520.062
	7.	6822.000	-	29.250	519.810	519.898
	1.	6832.000		29.250	520.005	520.120
	2.	6832.000		19.500	520.157	520.287
	3.	6832.000		9.750	520.309	520.439
5-8	4.	6832.000		.000	520.462	520.591
	5.	6832.000	-	9.750	520.309	520.439
	6.	6832.000	-	19.500	520.157	520.287
	7.	6832.000	-	29.250	520.005	520.120
	1.	6842.000		29.250	520.196	520.339
	2.	6842.000		19.500	520.348	520.510
	3.	6842.000		9.750	520.501	520.663
5-9	4.	6842.000		.000	520.653	520.815
	5.	6842.000	-	9.750	520.501	520.663
	6.	6842.000	-	19.500	520.348	520.510
	7.	6842.000	-	29.250	520.196	520.339
	1.	6852.000		29.250	520.384	520.557
	2.	6852.000		19.500	520.536	520.732
	3.	6852.000		9.750	520.689	520.884
5-10	4.	6852.000		.000	520.841	521.036
	5.	6852.000	-	9.750	520.689	520.884
	6.	6852.000	-	19.500	520.536	520.732
	7.	6852.000	-	29.250	520.384	520.557
	1.	6862.000		29.250	520.568	520.770
	2.	6862.000		19.500	520.720	520.949
	3.	6862.000		9.750	520.873	521.101
5-11	4.	6862.000		.000	521.025	521.254
	5.	6862.000	-	9.750	520.873	521.101
	6.	6862.000	-	19.500	520.720	520.949
	7.	6862.000	-	29.250	520.568	520.770
	1.	6864.500		29.250	520.614	520.822
	2.	6864.500		19.500	520.766	521.002
	3.	6864.500		9.750	520.918	521.155
SPL. 5V	4.	6864.500		.000	521.071	521.307
	5.	6864.500	-	9.750	520.918	521.155
	6.	6864.500	-	19.500	520.766	521.002
	7.	6864.500	-	29.250	520.614	520.822
	1.	6872.000		29.250	520.749	520.979
	2.	6872.000		19.500	520.901	521.162
	3.	6872.000		9.750	521.053	521.314
5-12	4.	6872.000		.000	521.206	521.467
	5.	6872.000	-	9.750	521.053	521.314
	6.	6872.000	-	19.500	520.901	521.162
	7.	6872.000	-	29.250	520.749	520.979
	1.	6882.000		29.250	520.926	521.181
	2.	6882.000		19.500	521.078	521.367
	3.	6882.000		9.750	521.231	521.519
5-13	4.	6882.000		.000	521.383	521.671
	5.	6882.000	-	9.750	521.231	521.519
	6.	6882.000	-	19.500	521.078	521.367
	7.	6882.000	-	29.250	520.926	521.181
	1.	6892.000		29.250	521.100	521.378
	2.	6892.000		19.500	521.252	521.567
	3.	6892.000		9.750	521.404	521.719
5-14	4.	6892.000		.000	521.557	521.872
	5.	6892.000	-	9.750	521.404	521.719
	6.	6892.000	-	19.500	521.252	521.567
	7.	6892.000	-	29.250	521.100	521.378
	1.	6902.000		29.250	521.270	521.564
	2.	6902.000		19.500	521.422	521.755
	3.	6902.000		9.750	521.574	521.908
5-15	4.	6902.000		.000	521.727	522.060
	5.	6902.000	-	9.750	521.574	521.908
	6.	6902.000	-	19.500	521.422	521.755
	7.	6902.000	-	29.250	521.270	521.564
	1.	6912.000		29.250	521.436	521.745
	2.	6912.000		19.500	521.589	521.938
	3.	6912.000		9.750	521.741	522.091
5-16	4.	6912.000		.000	521.893	522.243
	5.	6912.000	-	9.750	521.741	522.091
	6.	6912.000	-	19.500	521.589	521.938
	7.	6912.000	-	29.250	521.436	521.745
	1.	6922.000		29.250	521.599	521.913
	2.	6922.000		19.500	521.752	522.107
	3.	6922.000		9.750	521.904	522.260
5-17	4.	6922.000		.000	522.056	522.412
	5.	6922.000	-	9.750	521.904	522.260
	6.	6922.000	-	19.500	521.752	522.107
	7.	6922.000	-	29.250	521.599	521.913
	1.	6929.000		29.250	521.711	522.029
	2.	6929.000		19.500	521.864	522.223
	3.	6929.000		9.750	522.016	522.376
SPL. 5W	4.	6929.000		.000	522.168	522.528
	5.	6929.000	-	9.750	522.016	522.376
	6.	6929.000	-	19.500	521.864	522.223
	7.	6929.000	-	29.250	521.711	522.029
	1.	6932.000		29.250	521.759	522.076
	2.	6932.000		19.500	521.911	522.270
	3.	6932.000		9.750	522.064	522.422
5-18	4.	6932.000		.000	522.216	522.574
	5.	6932.000	-	9.750	522.064	522.422
	6.	6932.000	-	19.500	521.911	522.270
	7.	6932.000	-	29.250	521.759	522.076
	1.	6942.000		29.250	521.915	522.226
	2.	6942.000		19.500	522.067	522.420
	3.	6942.000		9.750	522.220	522.572
5-19	4.	6942.000		.000	522.372	522.725
	6.	6942.000	-	19.500	522.067	522.420
	7.	6942.000	-	29.250	521.915	522.226

SPAN 5 (CONT.)

LINE	BEAM OR GIRDER	STATION		OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6952.000		29.250	522.067	522.369
	2.	6952.000		19.500	522.220	522.562
	3.	6952.000		9.750	522.372	522.714
5-20	4.	6952.000		.000	522.524	522.867
	5.	6952.000	-	9.750	522.372	522.714
	6.	6952.000		19.500	522.220	522.562
	7.	6952.000	-	29.250	522.067	522.369
	1.	6962.000		29.250	522.216	522.502
	2.	6962.000		19.500	522.369	522.693
	3.	6962.000		9.750	522.521	522.845
5-21	4.	6962.000		.000	522.673	522.997
	5.	6962.000	-	9.750	522.521	522.845
	6.	6962.000	-	19.500	522.369	522.693
	7.	6962.000	-	29.250	522.216	522.502
	1.	6972.000		29.250	522.362	522.628
	2.	6972.000		19.500	522.514	522.816
	3.	6972.000		9.750	522.666	522.968
5-22	4.	6972.000		.000	522.819	523.120
	5.	6972.000	-	9.750	522.666	522.968
	6.	6972.000	-	19.500	522.514	522.816
	7.	6972.000	-	29.250	522.362	522.628
	1.	6982.000		29.250	522.504	522.746
	2.	6982.000		19.500	522.656	522.931
	3.	6982.000		9.750	522.808	523.083
5-23	4.	6982.000		.000	522.961	523.236
	5.	6982.000	-	9.750	522.808	523.083
	6.	6982.000	-	19.500	522.656	522.931
	7.	6982.000	-	29.250	522.504	522.746
	1.	6992.000		29.250	522.642	522.858
	2.	6992.000		19.500	522.794	523.039
	3.	6992.000		9.750	522.947	523.191
5-24	4.	6992.000		.000	523.099	523.344
	5.	6992.000	-	9.750	522.947	523.191
	6.	6992.000	-	19.500	522.794	523.039
	7.	6992.000	-	29.250	522.642	522.858
	1.	6994.500		29.250	522.676	522.885
	2.	6994.500		19.500	522.828	523.065
	3.	6994.500		9.750	522.981	523.217
SPL. 5X	4.	6994.500		.000	523.133	523.370
	5.	6994.500	-	9.750	522.981	523.217
	6.	6994.500	-	19.500	522.828	523.065
	7.	6994.500	-	29.250	522.676	522.885
	1.	7002.000		29.250	522.777	522.964
	2.	7002.000		19.500	522.929	523.141
	3.	7002.000		9.750	523.081	523.294
5-25	4.	7002.000		.000	523.234	523.446
	5.	7002.000	-	9.750	523.081	523.294
	6.	7002.000	-	19.500	522.929	523.141
	7.	7002.000	-	29.250	522.777	522.964
	1.	7012.000		29.250	522.908	523.066
	2.	7012.000		19.500	523.060	523.239
	3.	7012.000		9.750	523.213	523.392
5-26	4.	7012.000		.000	523.365	523.544
	5.	7012.000	-	9.750	523.213	523.392
	6.	7012.000	-	19.500	523.060	523.239
	7.	7012.000	-	29.250	522.908	523.066
	1.	7022.000		29.250	523.036	523.165
	2.	7022.000		19.500	523.188	523.333
	3.	7022.000		9.750	523.341	523.486
5-27	4.	7022.000		.000	523.493	523.638
	5.	7022.000	-	9.750	523.341	523.486
	6.	7022.000	-	19.500	523.188	523.333
	7.	7022.000	-	29.250	523.036	523.165
	1.	7032.000		29.250	523.160	523.262
	2.	7032.000		19.500	523.312	523.427
	3.	7032.000		9.750	523.465	523.579
5-28	4.	7032.000		.000	523.617	523.732
	5.	7032.000	-	9.750	523.465	523.579
	6.	7032.000	-	19.500	523.312	523.427
	7.	7032.000	-	29.250	523.160	523.262
	1.	7042.000		29.250	523.281	523.356
	2.	7042.000		19.500	523.433	523.517
	3.	7042.000		9.750	523.585	523.669
5-29	4.	7042.000		.000	523.738	523.822
	5.	7042.000	-	9.750	523.585	523.669
	6.	7042.000	-	19.500	523.433	523.517
	7.	7042.000	-	29.250	523.281	523.356
	1.	7047.000		29.250	523.340	523.404
	2.	7047.000		19.500	523.492	523.564
	3.	7047.000		9.750	523.645	523.717
SPL. 5Y	4.	7047.000		.000	523.797	523.869
	5.	7047.000	-	9.750	523.645	523.717
	6.	7047.000	-	19.500	523.492	523.564
	7.	7047.000	-	29.250	523.340	523.404
	1.	7052.000		29.250	523.398	523.452
	2.	7052.000		19.500	523.550	523.610
	3.	7052.000		9.750	523.703	523.763
5-30	4.	7052.000		.000	523.855	523.915
	5.	7052.000	-	9.750	523.703	523.763
	6.	7052.000	-	19.500	523.550	523.610
	7.	7052.000	-	29.250	523.398	523.452
	1.	7062.000		29.250	523.512	523.545
	2.	7062.000		19.500	523.664	523.701
	3.	7062.000		9.750	523.816	523.853
5-31	4.	7062.000		.000	523.969	524.006
	5.	7062.000	-	9.750	523.816	523.853
	6.	7062.000	-	19.500	523.664	523.701
	7.	7062.000	-	29.250	523.512	523.545
	1.	7072.000		29.250	523.622	523.642
	2.	7072.000		19.500	523.774	523.796
	3.	7072.000		9.750	523.926	523.949
5-32	4.	7072.000		.000	524.079	524.101
	6.	7072.000	-	19.500	523.774	523.796
	7.	7072.000	-	29.250	523.622	523.642

SPAN 5 (CONT.)

LINE	BEAM OR GIRDER	STATION		OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7082.000		29.250	523.728	523.737
	2.	7082.000		19.500	523.881	523.890
	3.	7082.000		9.750	524.033	524.042
5-33	4.	7082.000		.000	524.185	524.195
	5.	7082.000	-	9.750	524.033	524.042
	6.	7082.000	-	19.500	523.881	523.890
	7.	7082.000	-	29.250	523.728	523.737
	1.	7083.000		29.250	523.739	523.747
	2.	7083.000		19.500	523.891	523.900
	3.	7083.000		9.750	524.043	524.052
SPL. 5Z	4.	7083.000		.000	524.196	524.204
	5.	7083.000	-	9.750	524.043	524.052
	6.	7083.000	-	19.500	523.891	523.900
	7.	7083.000	-	29.250	523.739	523.747
	1.	7092.000		29.250	523.831	523.833
	2.	7092.000		19.500	523.984	523.986
	3.	7092.000		9.750	524.136	524.138
5-34	4.	7092.000		.000	524.288	524.291
	5.	7092.000	-	9.750	524.136	524.138
	6.	7092.000	-	19.500	523.984	523.986
	7.	7092.000	-	29.250	523.831	523.833
	1.	7102.000		29.250	523.931	523.929
	2.	7102.000		19.500	524.083	524.082
	3.	7102.000		9.750	524.236	524.234
5-35	4.	7102.000		.000	524.388	524.386
	5.	7102.000	-	9.750	524.236	524.234
	6.	7102.000	-	19.500	524.083	524.082
	7.	7102.000	-	29.250	523.931	523.929
	1.	7112.000		29.250	524.027	524.026
	2.	7112.000		19.500	524.179	524.179
	3.	7112.000		9.750	524.332	524.331
5-36	4.	7112.000		.000	524.484	524.483
	5.	7112.000	-	9.750	524.332	524.331
	6.	7112.000	-	19.500	524.179	524.179
	7.	7112.000	-	29.250	524.027	524.026
	1.	7117.000		29.250	524.074	524.074
	2.	7117.000		19.500	524.226	524.226
	3.	7117.000		9.750	524.378	524.378
BRG. PIER 4	4.	7117.000		.000	524.531	524.531
	5.	7117.000	-	9.750	524.378	524.378
	6.	7117.000	-	19.500	524.226	524.226
	7.	7117.000	-	29.250	524.074	524.074

SPAN 4

LINE	BEAM OR GIRDER	STATION		OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7127.000		29.250	524.164	524.171
	2.	7127.000		19.500	524.317	524.325
	3.	7127.000		9.750	524.469	524.477
4-1	4.	7127.000		.000	524.621	524.629
	5.	7127.000	-	9.750	524.469	524.477
	6.	7127.000	-	19.500	524.317	524.325
	7.	7127.000	-	29.250	524.164	524.171
	1.	7137.000		29.250	524.251	524.268
	2.	7137.000		19.500	524.404	524.423
	3.	7137.000		9.750	524.556	524.575
4-2	4.	7137.000		.000	524.709	524.727
	5.	7137.000	-	9.750	524.556	524.575
	6.	7137.000	-	19.500	524.404	524.423
	7.	7137.000	-	29.250	524.251	524.268
	1.	7147.000		29.250	524.335	524.363
	2.	7147.000		19.500	524.487	524.520
	3.	7147.000		9.750	524.640	524.672
4-3	4.	7147.000		.000	524.792	524.824
	5.	7147.000	-	9.750	524.640	524.672
	6.	7147.000	-	19.500	524.487	524.520
	7.	7147.000	-	29.250	524.335	524.363
	1.	7151.000		29.250	524.368	524.403
	2.	7151.000		19.500	524.520	524.560
	3.	7151.000		9.750	524.672	524.713
SPL. 4V	4.	7151.000		.000	524.825	524.865
	5.	7151.000	-	9.750	524.672	524.713
	6.	7151.000	-	19.500	524.520	524.560
	7.	7151.000	-	29.250	524.368	524.403
	1.	7157.000		29.250	524.415	524.461
	2.	7157.000		19.500	524.568	524.620
	3.	7157.000		9.750	524.720	524.773
4-4	4.	7157.000		.000	524.872	524.925
	5.	7157.000	-	9.750	524.720	524.773
	6.	7157.000	-	19.500	524.568	524.620
	7.	7157.000	-	29.250	524.415	524.461
	1.	7167.000		29.250	524.492	524.559
	2.	7167.000		19.500	524.644	524.721
	3.	7167.000		9.750	524.797	524.873
4-5	4.	7167.000		.000	524.949	525.025
	5.	7167.000	-	9.750	524.797	524.873
	6.	7167.000	-	19.500	524.644	524.721
	7.	7167.000	-	29.250	524.492	524.559
	1.	7177.000		29.250	524.565	524.655
	2.	7177.000		19.500	524.717	524.820
	3.	7177.000		9.750	524.870	524.972
4-6	4.	7177.000		.000	525.022	525.124
	5.	7177.000	-	9.750	524.870	524.972
	6.	7177.000	-	19.500	524.717	524.820
	7.	7177.000	-	29.250	524.565	524.655
	1.	7187.000		29.250	524.634	524.754
	2.	7187.000		19.500	524.787	524.922
	3.	7197.000		9.750	524.939	525.074
SPL. 4W	4.	7187.000		.000	525.091	525.227
	6.	7187.000	-	19.500	524.787	524.922
	7.	7187.000	-	29.250	524.634	524.754

SPAN 4 (CONT.)

LINE	BEAM OR GIRDER	STATION		OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7197.000		29.250	524.700	524.850
	2.	7197.000		19.500	524.853	525.023
	3.	7197.000		9.750	525.005	525.175
4-7	4.	7197.000		.000	525.157	525.327
	5.	7197.000	-	9.750	525.005	525.175
	6.	7197.000	-	19.500	524.853	525.023
	7.	7197.000	-	29.250	524.700	524.850
	1.	7207.000		29.250	524.763	524.944
	2.	7207.000		19.500	524.915	525.121
	3.	7207.000		9.750	525.068	525.274
4-8	4.	7207.000		.000	525.220	525.426
	5.	7207.000	-	9.750	525.068	525.274
	6.	7207.000	-	19.500	524.915	525.121
	7.	7207.000	-	29.250	524.763	524.944
	1.	7217.000		29.250	524.822	525.036
	2.	7217.000		19.500	524.974	525.218
	3.	7217.000		9.750	525.127	525.371
4-9	4.	7217.000		.000	525.279	525.523
	5.	7217.000	-	9.750	525.127	525.371
	6.	7217.000	-	19.500	524.974	525.218
	7.	7217.000	-	29.250	524.822	525.036
	1.	7227.000		29.250	524.877	525.124
	2.	7227.000		19.500	525.030	525.310
	3.	7227.000		9.750	525.182	525.463
4-10	4.	7227.000		.000	525.334	525.615
	5.	7227.000	-	9.750	525.182	525.463
	6.	7227.000	-	19.500	525.030	525.310
	7.	7227.000	-	29.250	524.877	525.124
	1.	7237.000		29.250	524.929	525.207
	2.	7237.000		19.500	525.081	525.398
	3.	7237.000		9.750	525.234	525.550
4-11	4.	7237.000		.000	525.386	525.702
	5.	7237.000	-	9.750	525.234	525.550
	6.	7237.000	-	19.500	525.081	525.398
	7.	7237.000	-	29.250	524.929	525.207
	1.	7244.500		29.250	524.966	525.264
	2.	7244.500		19.500	525.118	525.458
	3.	7244.500		9.750	525.270	525.610
SPL. 4X	4.	7244.500		.000	525.423	525.762
	5.	7244.500	-	9.750	525.270	525.610
	6.	7244.500	-	19.500	525.118	525.458
	7.	7244.500	-	29.250	524.966	525.264
	1.	7247.000		29.250	524.977	525.283
	2.	7247.000		19.500	525.130	525.477
	3.	7247.000		9.750	525.282	525.630
4-12	4.	7247.000		.000	525.435	525.782
	5.	7247.000	-	9.750	525.282	525.630
	6.	7247.000	-	19.500	525.130	525.477
	7.	7247.000	-	29.250	524.977	525.283
	1.	7257.000		29.250	525.022	525.352
	2.	7257.000		19.500	525.175	525.550
	3.	7257.000		9.750	525.327	525.702
4-13	4.	7257.000		.000	525.479	525.855
	5.	7257.000	-	9.750	525.327	525.702
	6.	7257.000	-	19.500	525.175	525.550
	7.	7257.000	-	29.250	525.022	525.352
	1.	7267.000		29.250	525.064	525.415
	2.	7267.000		19.500	525.216	525.616
	3.	7267.000		9.750	525.368	525.768
4-14	4.	7267.000		.000	525.521	525.920
	5.	7267.000	-	9.750	525.368	525.768
	6.	7267.000	-	19.500	525.216	525.616
	7.	7267.000	-	29.250	525.064	525.415
	1.	7277.000		29.250	525.101	525.468
	2.	7277.000		19.500	525.254	525.670
	3.	7277.000		9.750	525.406	525.822
4-15	4.	7277.000		.000	525.558	525.975
	5.	7277.000	-	9.750	525.406	525.822
	6.	7277.000	-	19.500	525.254	525.670
	7.	7277.000	-	29.250	525.101	525.468
	1.	7287.000		29.250	525.136	525.512
	2.	7287.000		19.500	525.288	525.716
	3.	7287.000		9.750	525.440	525.869
4-16	4.	7287.000		.000	525.593	526.021
	5.	7287.000	-	9.750	525.440	525.869
	6.	7287.000	-	19.500	525.288	525.716
	7.	7287.000	-	29.250	525.136	525.512
	1.	7297.000		29.250	525.166	525.549
	2.	7297.000		19.500	525.319	525.755
	3.	7297.000		9.750	525.471	525.907
4-17	4.	7297.000		.000	525.623	526.059
	5.	7297.000	-	9.750	525.471	525.907
	6.	7297.000	-	19.500	525.319	525.755
	7.	7297.000	-	29.250	525.166	525.549
	1.	7302.000		29.250	525.180	525.562
	2.	7302.000		19.500	525.333	525.767
	3.	7302.000		9.750	525.485	525.920
SPL. 4Y	4.	7302.000		.000	525.637	526.072
	5.	7302.000	-	9.750	525.485	525.920
	6.	7302.000	-	19.500	525.333	525.767
	7.	7302.000	-	29.250	525.180	525.562
	1.	7307.000		29.250	525.193	525.574
	2.	7307.000		19.500	525.346	525.779
	3.	7307.000		9.750	525.498	525.931
4-18	4.	7307.000		.000	525.651	526.084
	5.	7307.000	-	9.750	525.498	525.931
	6.	7307.000	-	19.500	525.346	525.779
	7.	7307.000	-	29.250	525.193	525.574
	1.	7317.000		29.250	525.217	525.591
	2.	7317.000		19.500	525.369	525.794
	3.	7317.000		9.750	525.522	525.947
4-19	4.	7317.000		.000	525.674	526.099
	5.	7317.000	-	9.750	525.522	525.947
	6.	7317.000	-	19.500	525.369	525.794
	7.	7317.000	-	29.250	525.217	525.591

SPAN 4 (CONT.)

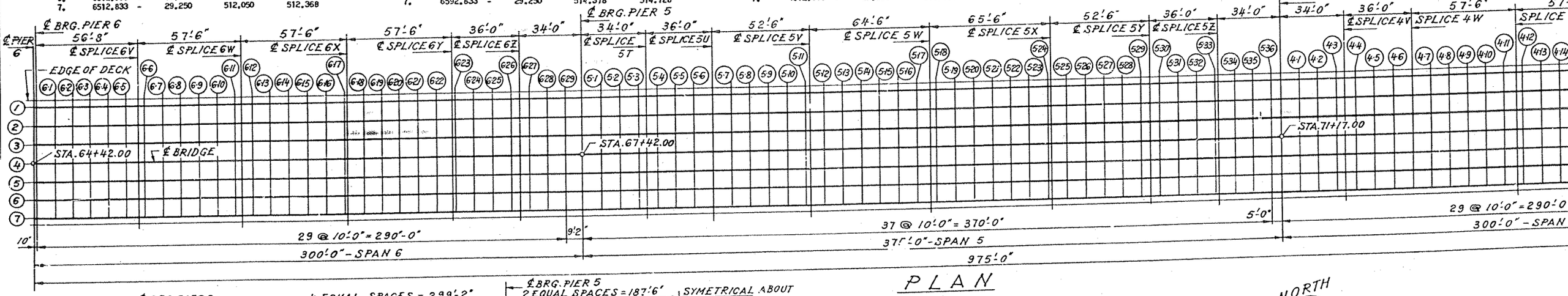
LINE	BEAM OR GIRDER	STATION		OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7327.000		29.250	525.237	525.599
	2.	7327.000		19.500	525.390	525.801
	3.	7327.000		9.750	525.542	525.954
4-20	4.	7327.000		.000	525.694	526.106
	5.	7327.000	-	9.750	525.542	525.954
	6.	7327.000	-	19.500	525.390	525.801
	7.	7327.000	-	29.250	525.237	525.599
	1.	7337.000		29.250	525.254	525.595
	2.	7337.000		19.500	525.406	525.794
	3.	7337.000		9.750	525.559	525.947
4-21	4.	7337.000		.000	525.711	526.099
	5.	7337.000	-	9.750	525.559	525.947
	6.	7337.000	-	19.500	525.406	525.794
	7.	7337.000	-	29.250	525.254	525.595
	1.	7347.000		29.250	525.267	525.582
	2.	7347.000		19.500	525.419	525.778
	3.	7347.000		9.750	525.572	525.930
4-22	4.	7347.000		.000	525.724	526.083
	5.	7347.000	-	9.750	525.572	525.930
	6.	7347.000	-	19.500	525.419	525.778
	7.	7347.000	-	29.250	525.267	525.582
	1.	7357.000		29.250	525.276	525.561
	2.	7357.000		19.500	525.429	525.753
	3.	7357.000		9.750	525.581	525.905
4-23	4.	7357.000		.000	525.733	526.058
	5.	7357.000	-	9.750	525.581	525.905
	6.	7357.000	-	19.500	525.429	525.753
	7.	7357.000	-	29.250	525.276	525.561
	1.	7359.500		29.250	525.278	525.553
	2.	7359.500		19.500	525.431	525.744
	3.	7359.500		9.750	525.583	525.896
SPL. 4Z	4.	7359.500		.000	525.735	526.049
	5.	7359.500	-	9.750	525.583	525.896
	6.	7359.500	-	19.500	525.431	525.744
	7.	7359.500	-	29.250	525.278	525.553
	1.	7367.000		29.250	525.282	525.529
	2.	7367.000		19.500	525.435	525.715
	3.	7367.000		9.750	525.587

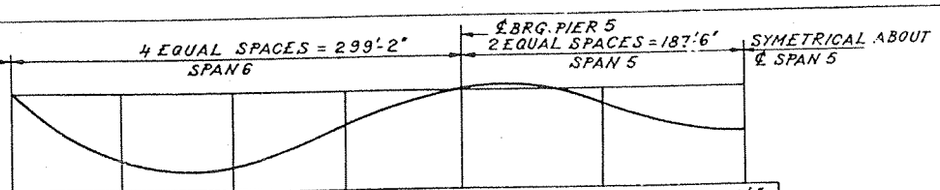
SPANS

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6442.833	29.250	509.950	509.950
	2.	6442.833	19.500	510.102	510.102
	3.	6442.833	9.750	510.255	510.255
BRG.	4.	6442.833	.000	510.407	510.407
PIER 6	5.	6442.833 -	9.750	510.255	510.255
	6.	6442.833 -	19.500	510.102	510.102
	7.	6442.833 -	29.250	509.950	509.950
	1.	6452.833	29.250	510.250	510.306
	2.	6452.833	19.500	510.402	510.466
	3.	6452.833	9.750	510.555	510.619
6-1	4.	6452.833	.000	510.707	510.771
	5.	6452.833 -	9.750	510.555	510.619
	6.	6452.833 -	19.500	510.402	510.466
	7.	6452.833 -	29.250	510.250	510.306
	1.	6462.833	29.250	510.550	510.660
	2.	6462.833	19.500	510.702	510.828
	3.	6462.833	9.750	510.855	510.981
6-2	4.	6462.833	.000	511.007	511.133
	5.	6462.833 -	9.750	510.855	510.981
	6.	6462.833 -	19.500	510.702	510.828
	7.	6462.833 -	29.250	510.550	510.660
	1.	6472.833	29.250	510.850	511.012
	2.	6472.833	19.500	511.002	511.188
	3.	6472.833	9.750	511.155	511.340
6-3	4.	6472.833	.000	511.307	511.492
	5.	6472.833 -	9.750	511.155	511.340
	6.	6472.833 -	19.500	511.002	511.188
	7.	6472.833 -	29.250	510.850	511.012
	1.	6482.833	29.250	511.150	511.358
	2.	6482.833	19.500	511.302	511.539
	3.	6482.833	9.750	511.455	511.692
6-4	4.	6482.833	.000	511.607	511.844
	5.	6482.833 -	9.750	511.455	511.692
	6.	6482.833 -	19.500	511.302	511.539
	7.	6482.833 -	29.250	511.150	511.358
	1.	6492.833	29.250	511.450	511.700
	2.	6492.833	19.500	511.602	511.786
	3.	6492.833	9.750	511.755	511.938
6-5	4.	6492.833	.000	511.907	512.090
	5.	6492.833 -	9.750	511.755	511.938
	6.	6492.833 -	19.500	511.602	511.786
	7.	6492.833 -	29.250	511.450	511.700
	1.	6499.500	29.250	511.650	511.925
	2.	6499.500	19.500	511.802	511.884
	3.	6499.500	9.750	511.955	512.036
SPL. 6V	4.	6499.500	.000	512.107	512.188
	5.	6499.500 -	9.750	511.955	512.036
	6.	6499.500 -	19.500	511.802	511.884
	7.	6499.500 -	29.250	511.650	511.925
	1.	6502.833	29.250	511.750	512.037
	2.	6502.833	19.500	511.902	511.935
	3.	6502.833	9.750	512.055	512.087
6-6	4.	6502.833	.000	512.207	512.240
	5.	6502.833 -	9.750	512.055	512.087
	6.	6502.833 -	19.500	511.902	511.935
	7.	6502.833 -	29.250	511.750	512.037
	1.	6512.833	29.250	512.050	512.368
	2.	6512.833	19.500	512.202	512.238
	3.	6512.833	9.750	512.355	512.391
6-7	4.	6512.833	.000	512.507	512.543
	5.	6512.833 -	9.750	512.355	512.391
	6.	6512.833 -	19.500	512.202	512.238
	7.	6512.833 -	29.250	512.050	512.368
	1.	6522.833	29.250	512.350	512.693
	2.	6522.833	19.500	512.502	512.671
	3.	6522.833	9.750	512.655	512.823
6-8	4.	6522.833	.000	512.807	512.975
	5.	6522.833 -	9.750	512.655	512.823
	6.	6522.833 -	19.500	512.502	512.671
	7.	6522.833 -	29.250	512.350	512.693
	1.	6532.833	29.250	512.650	513.013
	2.	6532.833	19.500	512.802	513.215
	3.	6532.833	9.750	512.954	513.368
6-9	4.	6532.833	.000	513.107	513.520
	5.	6532.833 -	9.750	512.954	513.368
	6.	6532.833 -	19.500	512.802	513.215
	7.	6532.833 -	29.250	512.650	513.013
	1.	6542.833	29.250	512.947	513.321
	2.	6542.833	19.500	513.099	513.525
	3.	6542.833	9.750	513.251	513.677
6-10	4.	6542.833	.000	513.404	513.830
	5.	6542.833 -	9.750	513.251	513.677
	6.	6542.833 -	19.500	513.099	513.525
	7.	6542.833 -	29.250	512.947	513.321
	1.	6552.833	29.250	513.240	513.621
	2.	6552.833	19.500	513.392	513.826
	3.	6552.833	9.750	513.545	513.978
6-11	4.	6552.833	.000	513.697	514.130
	5.	6552.833 -	9.750	513.545	513.978
	6.	6552.833 -	19.500	513.392	513.826
	7.	6552.833 -	29.250	513.240	513.621
	1.	6557.000	29.250	513.361	513.743
	2.	6557.000	19.500	513.513	513.948
	3.	6557.000	9.750	513.666	514.100
SPL. 6W	4.	6557.000	.000	513.818	514.253
	5.	6557.000 -	9.750	513.666	514.100
	6.	6557.000 -	19.500	513.513	513.948
	7.	6557.000 -	29.250	513.361	513.743
	1.	6562.833	29.250	513.530	513.913
	2.	6562.833	19.500	513.682	514.118
	3.	6562.833	9.750	513.834	514.270
6-12	4.	6562.833	.000	513.987	514.423
	5.	6562.833 -	9.750	513.834	514.270
	6.	6562.833 -	19.500	513.682	514.118
	7.	6562.833 -	29.250	513.530	513.913
	1.	6572.833	29.250	513.816	514.192
	2.	6572.833	19.500	513.968	514.396
	3.	6572.833	9.750	514.121	514.548
6-13	4.	6572.833	.000	514.273	514.701
	5.	6572.833 -	9.750	514.121	514.548
	6.	6572.833 -	19.500	513.968	514.396
	7.	6572.833 -	29.250	513.816	514.192
	1.	6582.833	29.250	514.099	514.464
	2.	6582.833	19.500	514.251	514.666
	3.	6582.833	9.750	514.404	514.819
6-14	4.	6582.833	.000	514.556	514.971
	5.	6582.833 -	9.750	514.404	514.819
	6.	6582.833 -	19.500	514.251	514.666
	7.	6582.833 -	29.250	514.099	514.464
	1.	6592.833	29.250	514.378	514.728
	2.	6592.833	19.500	514.530	514.928
	3.	6592.833	9.750	514.683	515.081
6-15	4.	6592.833	.000	514.835	515.233
	5.	6592.833 -	9.750	514.683	515.081
	6.	6592.833 -	19.500	514.530	514.928
	7.	6592.833 -	29.250	514.378	514.728
	1.	6602.833	29.250	514.654	514.982
	2.	6602.833	19.500	514.806	515.179
	3.	6602.833	9.750	514.958	515.332
6-16	4.	6602.833	.000	515.111	515.484
	5.	6602.833 -	9.750	514.958	515.332
	6.	6602.833 -	19.500	514.806	515.179
	7.	6602.833 -	29.250	514.654	514.982
	1.	6612.833	29.250	514.926	515.229
	2.	6612.833	19.500	515.078	515.423
	3.	6612.833	9.750	515.231	515.575
6-17	4.	6612.833	.000	515.383	515.728
	5.	6612.833 -	9.750	515.231	515.575
	6.	6612.833 -	19.500	515.078	515.423
	7.	6612.833 -	29.250	514.926	515.229
	1.	6614.500	29.250	514.971	515.269
	2.	6614.500	19.500	515.123	515.463
	3.	6614.500	9.750	515.276	515.615
SPL. 6X	4.	6614.500	.000	515.428	515.768
	5.	6614.500 -	9.750	515.276	515.615
	6.	6614.500 -	19.500	515.123	515.463
	7.	6614.500 -	29.250	514.971	515.269
	1.	6622.833	29.250	515.195	515.470
	2.	6622.833	19.500	515.347	515.660
	3.	6622.833	9.750	515.499	515.812
6-18	4.	6622.833	.000	515.652	515.965
	5.	6622.833 -	9.750	515.499	515.812
	6.	6622.833 -	19.500	515.347	515.660
	7.	6622.833 -	29.250	515.195	515.470
	1.	6632.833	29.250	515.460	515.704
	2.	6632.833	19.500	515.612	515.890
	3.	6632.833	9.750	515.764	516.042
6-19	4.	6632.833	.000	515.917	516.195
	5.	6632.833 -	9.750	515.764	516.042
	6.	6632.833 -	19.500	515.612	515.890
	7.	6632.833 -	29.250	515.460	515.704
	1.	6642.833	29.250	515.721	515.933
	2.	6642.833	19.500	515.874	516.115
	3.	6642.833	9.750	516.026	516.267
6-20	4.	6642.833	.000	516.178	516.419
	5.	6642.833 -	9.750	516.026	516.267
	6.	6642.833 -	19.500	515.874	516.115
	7.	6642.833 -	29.250	515.721	515.933
	1.	6652.833	29.250	515.979	516.158
	2.	6652.833	19.500	516.132	516.335
	3.	6652.833	9.750	516.284	516.487
6-21	4.	6652.833	.000	516.436	516.639
	5.	6652.833 -	9.750	516.284	516.487
	6.	6652.833 -	19.500	516.132	516.335
	7.	6652.833 -	29.250	515.979	516.158
	1.	6662.833	29.250	516.234	516.381
	2.	6662.833	19.500	516.386	516.553
	3.	6662.833	9.750	516.539	516.705
6-22	4.	6662.833	.000	516.691	516.858
	5.	6662.833 -	9.750	516.539	516.705
	6.	6662.833 -	19.500	516.386	516.553
	7.	6662.833 -	29.250	516.234	516.381
	1.	6672.000	29.250	516.464	516.583
	2.	6672.000	19.500	516.616	516.752
	3.	6672.000	9.750	516.769	516.904
SPL. 6Y	4.	6672.000	.000	516.921	517.056
	5.	6672.000 -	9.750	516.769	516.904
	6.	6672.000 -	19.500	516.616	516.752
	7.	6672.000 -	29.250	516.464	516.583
	1.	6672.833	29.250	516.485	516.602
	2.	6672.833	19.500	516.637	516.770
	3.	6672.833	9.750	516.790	516.922
6-23	4.	6672.833	.000	516.942	517.074
	5.	6672.833 -	9.750	516.790	516.922
	6.	6672.833 -	19.500	516.637	516.770
	7.	6672.833 -	29.250	516.485	516.602
	1.	6682.833	29.250	516.732	516.821
	2.	6682.833	19.500	516.885	516.985
	3.	6682.833	9.750	517.037	517.137
6-24	4.	6682.833	.000	517.189	517.290
	5.	6682.833 -	9.750	517.037	517.137
	6.	6682.833 -	19.500	516.885	516.985
	7.	6682.833 -	29.250	516.732	516.821
	1.	6692.833	29.250	516.976	517.041
	2.	6692.833	19.500	517.129	517.203
	3.	6692.833	9.750	517.281	517.355
6-25	4.	6692.833	.000	517.433	517.508
	5.	6692.833 -	9.750	517.281	517.355
	6.	6692.833 -	19.500	517.129	517.203
	7.	6692.833 -	29.250	516.976	517.041
	1.	6702.833	29.250	517.217	517.261
	2.	6702.833	19.500	517.369	517.420
	3.	6702.833	9.750	517.521	517.573
6-26	4.	6702.833	.000	517.674	517.725
	5.	6702.833 -	9.750	517.521	517.573
	6.	6702.833 -	19.500	517.369	517.420
	7.	6702.833 -	29.250	517.217	517.261
	1.	6708.000	29.250	517.340	517.375
	2.	6708.000	19.500	517.492	517.532
	3.	6708.000	9.750	517.644	517.685
SPL. 6Z	4.	6708.000	.000	517.797	517.837
	5.	6708.000 -	9.750	517.644	517.685
	6.	6708.000 -	19.500	517.492	517.532
	7.	6708.000 -	29.250	517.340	517.375
	1.	6712.833	29.250	517.454	517.481
	2.	6712.833	19.500	517.606	517.637
	3.	6712.833	9.750	517.758	517.789
6-27	4.	6712.833	.000	517.911	517.942
	5.	6712.833 -	9.750	517.758	517.789
	6.	6712.833 -	19.500	517.606	517.637
	7.	6712.833 -	29.250	517.454	517.481
	1.	6722.833	29.250	517.687	517.702
	2.	6722.833	19.500	517.839	517.857
	3.	6722.833	9.750	517.992	518.009
6-28	4.	6722.833	.000	518.144	518.162
	5.	6722.833 -	9.750	517.992	518.009
	6.	6722.833 -	19.500	517.839	517.857
	7.	6722.833 -	29.250	517.687	517.702
	1.	6732.833	29.250	517.917	517.923
	2.	6732.833	19.500	518.069	518.076
	3.	6732.833	9.750	518.221	518.229
6-29	4.	6732.833	.000	518.374	518.381
	5.	6732.833 -	9.750	518.221	518.229
	6.	6732.833 -	19.500	518.069	518.076
	7.	6732.833 -	29.250	517.917	517.923
	1.	6742.000	29.250	518.124	518.124
	2.	6742.000	19.500	518.277	518.277
	3.	6742.000	9.750	518.429	518.429
BRG.	4.	6742.000	.000	518.581	518.581
PIER 5	5.	6742.000 -	9.750	518.429	518.429
	6.	6742.000 -	19.500	518.277	518.277
	7.	6742.000 -	29.250	518.124	518.124

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6752.000	29.250	516.602	516.602
	2.	6752.000	19.500	516.754	516.754
	3.	6752.000	9.750	516.907	516.907
5-1	4.	6752.000	.000	517.059	517.059
	5.	6752.000 -	9.750	516.907	516.907
	6.	6752.000 -	19.500	516.754	516.754
	7.	6752.000 -	29.250	516.602	516.602
	1.	6762.000	29.250	516.906	516.906
	2.	6762.000	19.500	517.058	517.058
	3.	6762.000	9.750	517.211	517.211
5-2	4.	6762.000	.000	517.363	517.363
	5.	6762.000 -	9.750	517.211	517.211
	6.	6762.000 -	19.500	517.058	517.058
	7.	6762.000 -	29.250	516.906	516.906
	1.	6772.000	29.250	517.210	517.210
	2.	6772.000	19.500	517.362	517.362
	3.	6772.000	9.750	517.515	517.515
5-3	4.	6772.000	.000	517.667	517.667
	5.	6772.000 -	9.750	517.515	517.515
	6.	6772.000 -	19.500	517.362	517.362
	7.	6772.000 -	29.250	517.210	517.210
	1.	6776.000	29.250	517.514	517.514
	2.	6776.000	19.500	517.666	517.666
	3.	6776.000	9.750	517.819	517.819
SPL. 5T	4.	6776.000	.000	517.971	517.971
	5.	6776.000 -	9.750	517.819	517.819
	6.	6776.000 -	19.500	517.666	517.666
	7.	6776.000 -	29.250	517.514	517.514
	1.	6782.000	29.250	517.818	517.818
	2.	6782.000	19.500	517.970	517.970
	3.	6782.000	9.750	518.123	518.123
5-4	4.	6782.000	.000	518.275	518.275
	5.	6782.000 -	9.750	518.123	518.123
	6.	6782.000 -	19.500	517.970	517.970
	7.	6782.000 -	29.250	517.818	517.818
	1.	6792.000	29.250	518.122	518.122
	2.	6792.000	19.500	518.274	518.274
	3.	6792.000	9.750	518.427	518.427
5-5	4.	6792.000	.000	518.579	518.579
	5.	6792.000 -	9.750	518.427	518.427
	6.	6792.000 -	19.500	518.274	518.274
	7.	6792.000 -	29.250	518.122	518.122
	1.	6802.000	29.250	518.426	518.426
	2.	6802.000	19.500	518.578	518.578
	3.	6802.000	9.750	518.731	518.731
5-6	4.	6802.000	.000	518.883	518.883
	5.	6802.000 -	9.750	518.731	518.731
	6.	6802.000 -	19.500	518.578	518.578
	7.	6802.000 -	29.250	518.426	518.426
	1.	6812.000	29.250	518.730	518.730
	2.	6812.000	19.500	518.882	518.882
	3.	6812.000	9.750	519.035	519.035
SPL. 5U	4.	6812.000	.000	519.187	519.187
	5.	6812.000 -	9.750	519.035	519.035
	6.	6812.000 -	19.500	518.882	518.882
	7.	6812.000 -	29.250	518.730	518.730

FOR CONTINUATION SEE





GIRS.						
	TOTAL D.L. DEFL.	7 1/4"	7 15/16"	3 3/8"	0"	1 7/16	4 1/2"
1 & 7	CONCR. D.L. DEFL.	4"	4 3/16"	1 9/16"	0"	1 1/2	3 13/16"
GIRS.	TOTAL D.L. DEFL.	7 13/16"	8 1/2"	3 5/8"	0"	1 5/8	5 1/16"

DEAD LOAD DEFLECTION DIAGRAM

PLAN

NOTES

FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "C" SEE SHEET D1.
GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.

NORTH

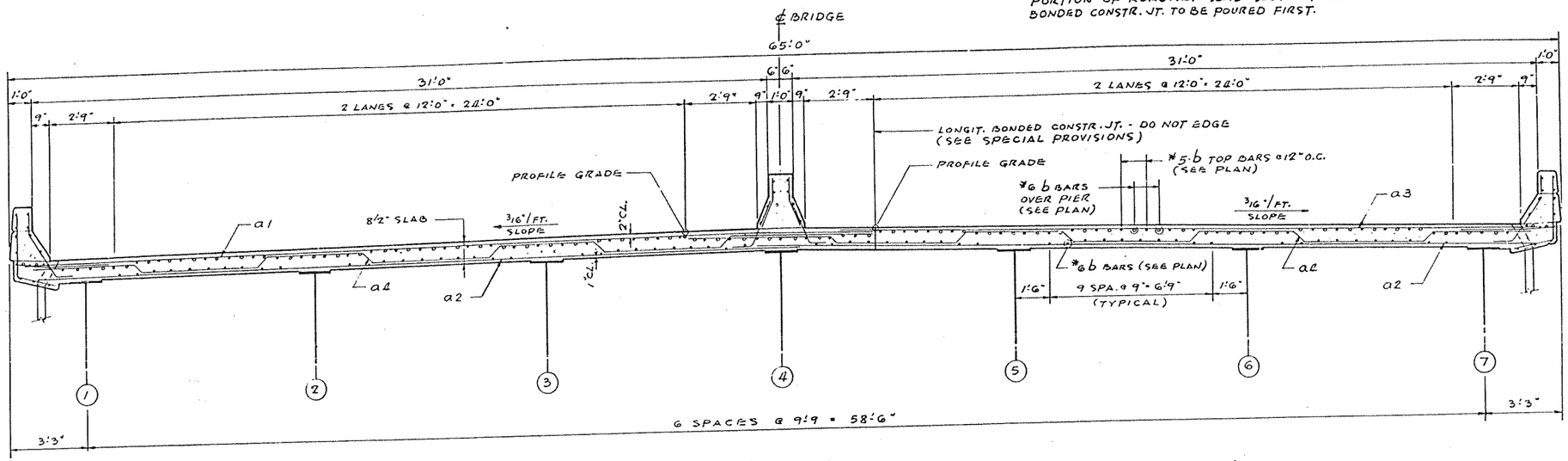
APPROVED
FOR STRUCTURAL ACCURACY ONLY
12-1-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

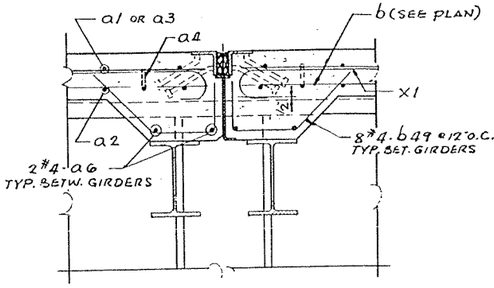
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D4P	BUREAU-PUTNAM	30	12
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 6	ILLINOIS	PROJECT		

DB

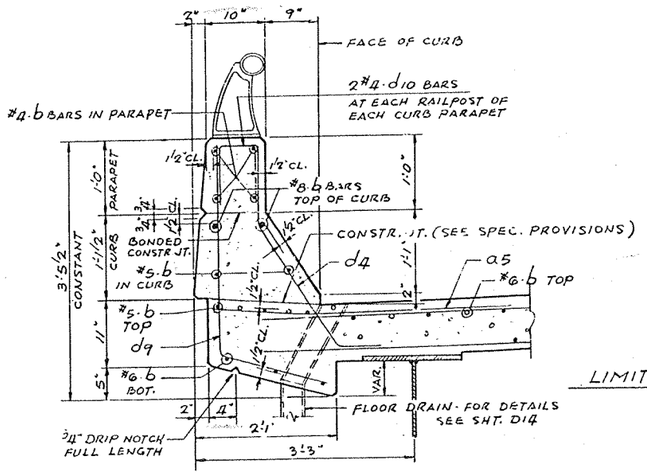
NOTE!
PORTION OF ROADWAY SLAB SOUTH OF LONGIT. BONDED CONSTR. JT. TO BE POURED FIRST.



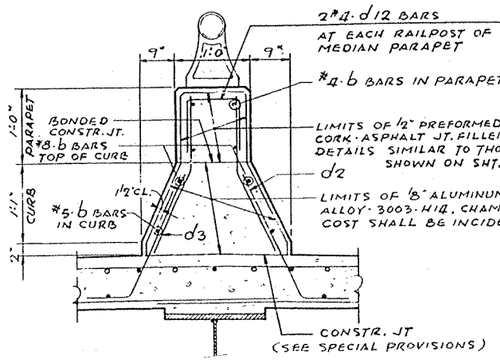
TYPICAL CROSS SECTION (LOOKING EAST)
SCALE: 3/8" = 1'-0"



SECTION "E-E"
AT PIERS 1, 2, 4 & 5
SCALE: 1" = 1'-0"

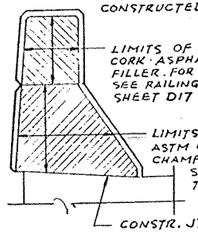


OUTSIDE CURB AND PARAPET
SCALE: 1" = 1'-0"

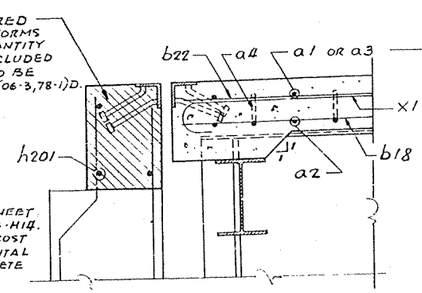


MEDIAN CURB AND PARAPET

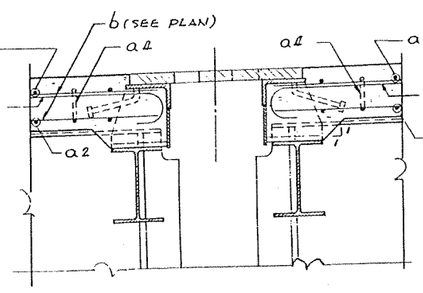
NOTE "A"
HATCHED AREA TO BE POURED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED. QUANTITY OF CLASS X CONCRETE INCLUDED WITH SUPERSTRUCTURE. TO BE CONSTRUCTED UNDER SECT. (06-3,78-1)D.



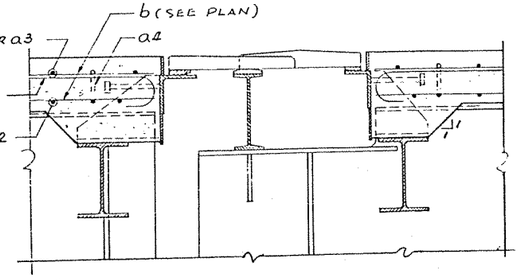
LIMITS OF 1/2" JT. FILLER & 1/8" ALUM. SHEET AT CURBS



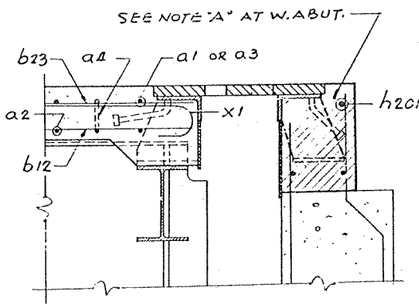
SECTION "A-A"
AT WEST ABUT.
SCALE: 1" = 1'-0"



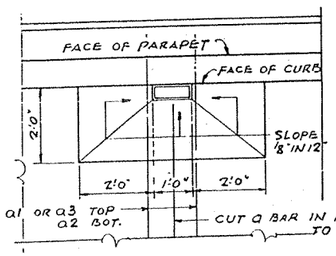
SECTION "B-B"
AT PIERS 9 & 12
SCALE: 1" = 1'-0"



SECTION "C-C"
AT PIERS 3 & 6
SCALE: 1" = 1'-0"



SECTION "D-D"
AT EAST ABUT.
SCALE: 1" = 1'-0"



TYP. DETAIL AT DRAIN
SCALE: 1/2" = 1'-0"
FOR ADDITIONAL DETAILS OF FLOOR DRAIN SEE SHT. D14.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
[illegible] 1-10-68
DIVISION OF HIGHWAYS BRIDGE ENGINEER

GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT AS OTHERWISE NOTED. CONCRETE FOR FLOOR SLABS SHALL BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN EXPANSION GUARDS AS SPECIFIED IN THE SPECIAL PROVISIONS AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS. FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PROVISIONS.

COARSE AGGREGATE TO BE USED IN PARAPET HANDRAILS MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

ALL REINFORCEMENT BARS SHALL BE LAPPED 20 DIAMETERS UNLESS OTHERWISE SHOWN.

STUD SHEAR CONNECTORS ON THE GIRDER FLANGES SHALL BE PLACED IN THE FIELD AFTER THE STEEL HAS BEEN ERECTED AND THE DECK FORMS ARE IN PLACE.

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 1/4 OF THE SPAN EACH WAY FROM THE PIER ON THE TOP FLANGES OF GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED BY THE DEPARTMENT OF PUBLIC WORKS AND BUILDINGS, JANUARY 2, 1958 SHALL APPLY.

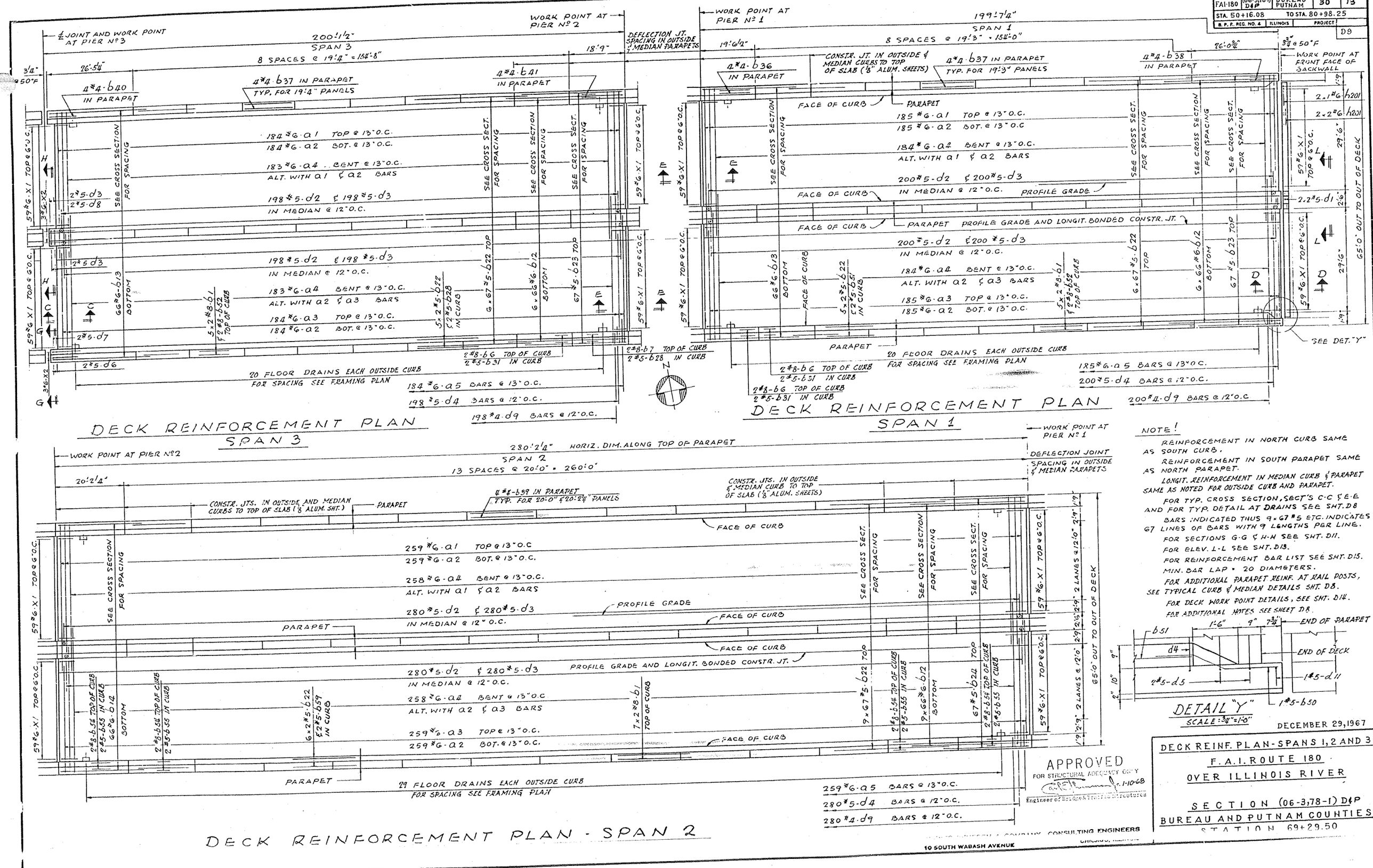
THE SUPPLEMENTAL SPECIFICATIONS EFFECTIVE JANUARY 3, 1966 ALSO APPLY TO THIS WORK.

DECEMBER 29, 1967

TYPICAL CROSS SECTION AND DETAILS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D4P
BUREAU AND PUTNAM COUNTIES
STATION 83+25.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU PUTNAM	30	13
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		D9



NOTE!

REINFORCEMENT IN NORTH CURB SAME AS SOUTH CURB.

REINFORCEMENT IN SOUTH PARAPET SAME AS NORTH PARAPET.

LONGIT. REINFORCEMENT IN MEDIAN CURB & PARAPET SAME AS NOTED FOR OUTSIDE CURB AND PARAPET.

FOR TYP. CROSS SECTION, SECT'S C-C & E-E AND FOR TYP. DETAIL AT DRAINS SEE SHT. D8

BARS INDICATED THUS 9-G7 #5 ETC. INDICATES G7 LINES OF BARS WITH 9 LENGTHS PER LINE.

FOR SECTIONS G-G & H-H SEE SHT. D11.

FOR ELEV. L-L SEE SHT. D13.

FOR REINFORCEMENT BAR LIST SEE SHT. D15.

MIN. BAR LAP = 20 DIAMETERS.

FOR ADDITIONAL PARAPET REINF. AT RAIL POSTS, SEE TYPICAL CURB & MEDIAN DETAILS SHT. D8.

FOR DECK WORK POINT DETAILS, SEE SHT. D14.

FOR ADDITIONAL NOTES SEE SHEET D8

DETAIL "Y"
SCALE: ¾"=1'-0"

DECEMBER 29, 1967

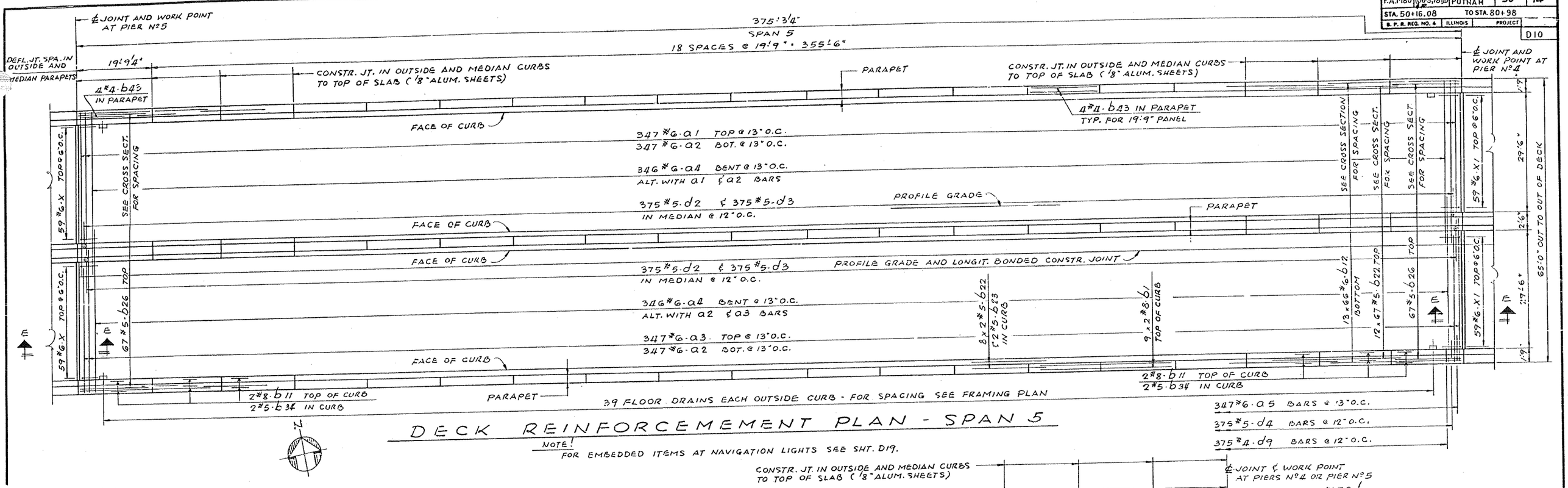
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
1-10-68
Engineer of Bridges & Structures

DECK REINF. PLAN-SPANS 1, 2 AND 3
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

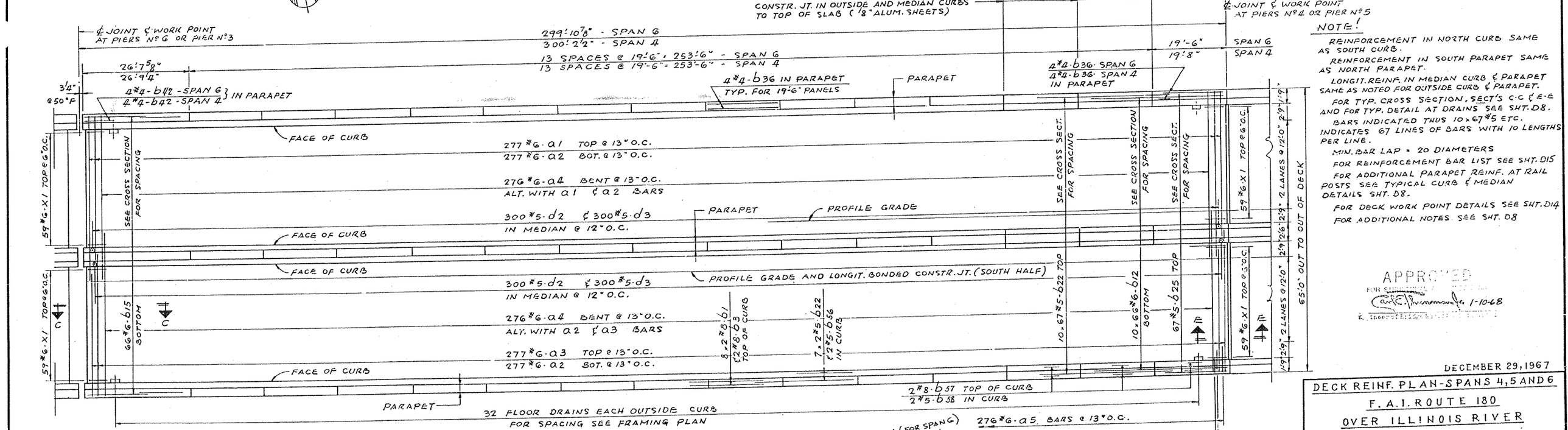
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-180	(06-3,78)D	BUREAU-PUTNAM	30	14
STA. 50+16.08		TO STA. 80+98		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT		

D10



DECK REINFORCEMENT PLAN - SPAN 5

NOTE!
FOR EMBEDDED ITEMS AT NAVIGATION LIGHTS SEE SHT. D19.



DECK REINFORCEMENT PLAN - SPANS 4 & 6

SPAN 6 SHOWN - SPAN 4 SAME BY 180° ROTATION EXCEPT AS NOTED

NOTE!

REINFORCEMENT IN NORTH CURB SAME AS SOUTH CURB.

REINFORCEMENT IN SOUTH PARAPET SAME AS NORTH PARAPET.

LONGIT. REINF. IN MEDIAN CURB & PARAPET SAME AS NOTED FOR OUTSIDE CURB & PARAPET.

FOR TYP. CROSS SECTION, SECT'S C-C & E-E AND FOR TYP. DETAIL AT DRAINS SEE SHT. D8.

BARS INDICATED THUS 10-67 #5 ETC. INDICATES 67 LINES OF BARS WITH 10 LENGTHS PER LINE.

MIN. BAR LAP = 20 DIAMETERS

FOR REINFORCEMENT BAR LIST SEE SHT. D15

FOR ADDITIONAL PARAPET REINF. AT RAIL POSTS SEE TYPICAL CURB & MEDIAN DETAILS SHT. D8.

FOR DECK WORK POINT DETAILS SEE SHT. D14

FOR ADDITIONAL NOTES SEE SHT. D8

APPROVED
FOR SUPERSEDED
[illegible] 1-10-68
E. [illegible] ENGINEER

DECEMBER 29, 1967

DECK REINF. PLAN-SPANS 4, 5 AND 6
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION

ALFRED BENESCH & COMPANY
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

DECK REINFORCEMENT PLAN - SPANS 8 & 9

SPAN 9
8 SPACES @ 19'-2" = 153'-4"
7 SPACES @ 19'-0" = 133'-0"
16'-7⅝"
18'-6"
2³⁄₈"
@ 50°F
4#4-b44 IN PARAPET
4#4-b37 IN PARAPET TYP. FOR 19'-2"
4#4-b45 IN PARAPET TYP. FOR 18'-6" PANELS
CONSTR. JOINTS IN OUTSIDE & MEDIAN CURBS TO TOP OF SLAB (⅛" ALUM. SHEETS)
4#4-b46 IN PARA
TYP. FOR 19'-0" P
PARAPET
FACE OF CURB
30'-0"
11'-6"
47'-6"
2'-0" LAP
b16
b17
#6-a1 TOP @ 13" O.C.
#6-a2 BOT. @ 13" O.C.
#6-a4 BENT @ 13" O.C.
ALT. WITH a1 & a2 BARS
#5-d2 & #5-d3
IN MEDIAN @ 12" O.C.
32#6-b16 & 32#6-b17
TOP OF SLAB OVER PIER
STAGGERED AS SHOWN
ALTERNATE WITH b22
PROFILE GRADE
PROFILE GRADE AND LONGIT. BONDED CONSTR. JT.
8'-0"
B
SEE CROSS SECT. FOR SPACING
SEE CROSS SECTION FOR SPACING
59#6-X1 TOP @ 6" O.C.
57#6-X1 TOP @ 6" O.C.
67#5-b23 TOP
66#6-b12 BOT.
4×2#8-b5 TOP OF CURB
4×2#5-b27 IN CURB
2#5-b31 IN CURB
2#8-b6 TOP OF CURB
2#5-b28 IN CURB
2#8-b7 TOP OF CURB
2#5-b29 IN CURB
2#8-b8 TOP OF CURB
3×2#5-b30 IN CURB
3×2#8-b9 TOP OF CURB
2#5-b29 IN CURB
2#8-b8 TOP OF CURB
32 FLOOR DRAINS EACH OUTSIDE CURB - FOR SPACING SEE FRAMING PLAN
#6-a5 BARS @ 13" O.C.
#5-d4 BARS @ 12" O.C.
#4-d9 BARS @ 12" O.C.

NOTE!
REINFORCEMENT
REINFORCEMENT
LONGITUDINAL R
SAME AS NOTED FOR
FOR TYP. CROSS
DETAIL AT DRAIN
BARS INDICATED
OF BARS WITH 16
MIN. BAR LAP =
FOR REINFORCE
FOR ADDITIONAL
TYPICAL CURB AN
FOR DECK WOR
FOR ADDITIONAL

WORK POINT AT PIER Nº 7
℄ JOINT ℄ WORK POINT AT PIER Nº 6
170'-1"
SPAN 7
8 SPACES @ 19'-2" = 153'-4"
16'-5¾"
¾"
@ 50°F
DEFLECTION JOINT SPACING IN OUTSIDE AND MEDIAN PARAPETS
4#4-b37 IN PARAPET TYP. FOR 19'-2" PANELS
4#4-b47 IN PARAPET
PARAPET
FACE OF CURB
47'-6"
11'-6"
30'-0"
2'-0" LAP
8'-0"
b16
b17
32#6-b16 & 32#6-b17
TOP OF SLAB OVER PIER
STAGGERED AS SHOWN
ALTERNATE WITH b22
470#6-a1 TOP @ 13" O.C.
470#6-a2 BOT. @ 13" O.C.
470#6-a4 BENT @ 13" O.C.
ALT. WITH a1 & a2 BARS
510#5-d2 & 510#5-d3
IN MEDIAN @ 12" O.C.
510#5-d2 & 510#5-d3
IN MEDIAN @ 12" O.C.
470#6-a4 BENT @ 13" O.C.
ALT. WITH a2 & a3 BARS
470#6-a3 TOP @ 13" O.C.
470#6-a2 BOT. @ 13" O.C.
PROFILE GRADE
PROFILE GRADE AND LONGIT. BONDED CONSTRUCTION JT.
SEE CROSS SECT. FOR SPACING
SEE CROSS SECTION FOR SPACING
3#6-X2
59#6-X1 TOP @ 6" O.C.
2#5-d3
2#5-d8
2#5-d7
2#5-d6
16×67#5-b22 TOP
67#5-b32 TOP
17×66#6-b12 BOT.
65'-0" OUT TO OUT OF DECK
2'-7½"
2'-9"
2 LANES @ 12'-0"
2'-6"
2'-9"
2'-9"
4×2#8-b5 TOP OF CURB
4×2#5-b27 IN CURB
2#8-b6 TOP OF CURB
2#5-b31 IN CURB
16 FLOOR DRAINS EACH OUTSIDE CURB FOR SPACING SEE FRAMING PLAN
470#6-a5 BARS @ 13" O.C.
510#5-d4 BARS @ 12" O.C.
510#4-d9 BARS @ 12" O.C.

d6
b47 OR b40
b27 OR b22
b12 OR b13

SECTION
SCALE: 3/4" =

NOTE!
FOR DIMENS

APPROVE
FOR STRUCTURAL
Engineer of Str

DECK REINFORCEMENT PLAN - SPAN 7
SCALE: 3/32" = 1'-0"

10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	16
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		

DEFLECTION JOINT SPA. IN OUTSIDE & MEDIAN PARAPETS D12

DECK REINFORCEMENT PLAN - SPANS 11 & 12

℄ JOINT AND WORK POINT AT PIER N°12

169'-10 5/8" SPAN 12

8 SPACES @ 19'-2" = 153'-4"

16'-4 7/8"

3/4" @ 50°F

4#4-b44 IN PARAPET

4#4-b37 IN PARAPET TYP. FOR 19'-2" PANELS

WORK POINT AT PIER N°11

170'-0" SPAN 11

7 SPACES @ 19'-0" = 133'-0"

HORIZ. DIM. ALONG TOP OF PARAPET

18'-6"

4#4-b45 IN PARAPET TYP. FOR 18'-6" PANELS

CONSTR. JOINTS IN OUTSIDE AND MEDIAN CURBS TO TOP OF SLAB (1/8" ALUM. SHEETS)

WORK POINT AT PIER N°10

4#4-b46 IN PARAPET TYP. FOR 19'-0" PANELS

18'-6"

DEFLECTION JOINT SPA. IN OUTSIDE & MEDIAN PARAPETS

FACE OF CURB

PARAPET

30'-0"

11'-6"

47'-6"

2'-0" LAP

b16

b17

32#6-b16 & 32#6-b17 TOP OF SLAB OVER PIER STAGGERED AS SHOWN ALTERNATE WITH b22

PROFILE GRADE

PROFILE GRADE AND LONGIT. BONDED CONSTR. JT.

59#6-X1 TOP @ 6"O.C.

#6-a1 TOP @ 13"O.C.

#6-a2 BOT. @ 13"O.C.

#6-a4 BENT @ 13"O.C. ALT. WITH a1 & a2 BARS

#5-d2 & #5-d3 IN MEDIAN @ 12"O.C.

SEE CROSS SECT. FOR SPACING

67#5-b23 TOP

66#6-b14 BOT.

#5-d2 & #5-d3 IN MEDIAN @ 12"O.C.

#6-a4 BENT @ 13"O.C. ALT. WITH a2 & a3 BARS

#6-a3 TOP @ 13"O.C.

#6-a2 BOT. @ 13"O.C.

59#6-X1 TOP @ 6"O.C.

4-2#8-b5 TOP OF CURB

4-2#5-b27 IN CURB

2#5-b31 IN CURB

2#8-b6 TOP OF CURB

2#5-b28 IN CURB

2#8-b7 TOP OF CURB

2#5-b29 IN CURB

2#8-b8 TOP OF CURB

3-2#5-b30 IN CURB

3-2#8-b9 TOP OF CURB

2#5-b29 IN CURB

2#8-b8 TOP OF CURB

2#5-b28 IN CURB

2#8-b7 TOP OF CURB

29'-6"

2'-6"

29'-6"

65'-0" OUT TO OUT OF DECK

32 FLOOR DRAINS EACH OUTSIDE CURB - FOR SPACING SEE FRAMING PLAN

#6-a5 BARS @ 13"O.C.

#5-d4 BARS @ 12"O.C.

#4-d9 BARS @ 12"O.C.

N

NOTE!

REINFORCEMENT IN NORTH CURB SAME AS SOUTH CURB.
REINFORCEMENT IN SO. PARAPET SAME AS NO. PARAPET.
LONGITUDINAL REINFORCEMENT IN MEDIAN CURB & PARAPET SAME AS NOTED FOR OUTSIDE CURB & PARAPET.
FOR TYP. CROSS SECTION, SECTION B-B & FOR TYP. DETAIL AT DRAINS SEE SHT. D8.
BARS INDICATED THUS 16-67#5-b ETC. INDICATES 67 LINES OF BARS WITH 16 LENGTHS PER LINE.
MIN. BAR LAP = 20 DIAMETER UNLESS OTHERWISE NOTED.
FOR REINFORCEMENT BAR LIST SEE SHT. D15.
FOR ADDITIONAL PARAPET REINF. AT RAIL POSTS SEE TYPICAL CURB & MEDIAN DETAILS SHT. D8.
FOR DECK WORK POINT DETAILS SEE SHT. D14
FOR ADDITIONAL NOTES SEE SHEET D8.

DECK REINFORCEMENT PLAN - SPAN 10

HORIZ. DIM. ALONG TOP OF PARAPET

DEFLECTION JOINT SPACING IN OUTSIDE AND MEDIAN PARAPETS

WORK POINT AT PIER N°10

170'-1" SPAN 10

8 SPACES @ 19'-2" = 153'-4"

℄ JOINT & WORK POINT AT PIER N°9

16'-6 5/8"

2 3/8" @ 50°F

4#4-b47 IN PARAPET

4#4-b37 IN PARAPET TYP. FOR 19'-2" PANELS

PARAPET

FACE OF CURB

47'-6"

11'-6"

30'-0"

2'-0" LAP

b17

b16

32#6-b16 & 32#6-b17 TOP OF SLAB OVER PIER STAGGERED AS SHOWN ALTERNATE WITH b22

PROFILE GRADE & LONGIT. BONDED CONSTRUCTION JOINT

PROFILE GRADE

470#6-a1 TOP @ 13"O.C.

470#6-a2 BOT. @ 13"O.C.

469#6-a4 BENT @ 13"O.C. ALT. WITH a1 & a2 BARS

510#5-d2 & 510#5-d3 IN MEDIAN @ 12"O.C.

SEE CROSS SECT. FOR SPACING

16-67#5-b22 TOP

67#5-b32 TOP

17-66#6-b12 BOT.

59#6-X1 TOP @ 6"O.C.

2 LANES @ 12'-0"

65'-0" OUT TO OUT OF DECK

510#5-d2 & 510#5-d3 IN MEDIAN @ 12"O.C.

469#6-a4 BENT @ 13"O.C. ALT. WITH a2 & a3 BARS

470#6-a3 TOP @ 13"O.C.

470#6-a2 BOT. @ 13"O.C.

4-2#8-b5 TOP OF CURB

2-2#5-b27 IN CURB

2#8-b6 TOP OF CURB

2#5-b31 IN CURB

16 FLOOR DRAINS EACH OUTSIDE CURB - FOR SPA. SEE FRAMING PLAN

470#6-a5 BARS @ 13"O.C.

510#5-d4 BARS @ 12"O.C.

510#4-d9 BARS @ 12"O.C.

N

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
C. E. Shumway Jr. 1-10-68
Engineer of Bridge & Traffic Structures

DECEMBER 29, 1967

DECK REINF. PLAN-SPANS 10, 11 AND 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	17
STA. 50+16.08		TO STA. 80+98.25		
B.P.R. REQ. NO. 4	ILLINOIS	PROJECT		

DEFLECTION JOINT SPACING IN OUTSIDE AND MEDIAN PARAPETS — D13

DECK REINFORCEMENT PLAN - SPANS 14 & 15

HORIZ. DIM. ALONG TOP OF PARAPET

W.P. & END OF DECK AT WEST ABUT.

134'-5 7/8" SPAN 15 — 5 SPACES @ 19'-7" = 97'-11"

WORK POINT AT PIER Nº 14

135'-0" SPAN 14 — 5 SPACES @ 19'-4" = 96'-8"

WORK POINT AT PIER Nº 13

16'-10" | 19'-8 7/8" | 19'-2" | 19'-2"

1/2" JT. @ 50°F

4#4-b48 IN PARAPET

4#4-b36 IN PARAPET TYP. FOR 19'-7 PANELS

4#4-b43 IN PARAPET

4#4-b37 IN PARAPET

CONSTR. JTS. IN OUTSIDE & MEDIAN CURBS TO TOP OF SLAB (1/8" ALUM. SHEETS)

4#4-b37 IN PARAPET TYP. FOR 19'-4" PANELS

PARAPET — FACE OF CURB

23'-6" b19 b20 | 36'-6" 2'-0" LAP b21 b12 | 2'-0" LAP 8'-6" 8'-0"

32#6-b19 & 32#6-b20 TOP OF SLAB OVER PIER STAGGERED AS SHOWN. ALTERNATE WITH b22

32#6-b21 & 32#6-b12 TOP OF SLAB OVER PIER STAGGERED AS SHOWN ALTERNATE WITH b22

PROFILE GRADE

b21 b12 | 36'-6" 2'-0" LAP | 2'-0" LAP 8'-0" 8'-6"

23'-6" b19 b20

32#6-b19 & 32#6-b20 TOP OF SLAB OVER PIER STAGGERED AS SHOWN ALTERNATE WITH b22

65'-0" OUT TO OUT OF DECK

1'-9" | 29'-6" | 2'-6" | 2'-6" | 1'-9"

2 x 1#6-h201

2 x 2#6-h201

59 #6-X1 TOP @ 6" O.C.

66 #6-b18 BOT. SEE CROSS SECTION FOR SPACING

#6-a1 TOP @ 13" O.C.
#6-a2 BOT. @ 13" O.C.

#6-a2 BENT @ 13" O.C. ALT. WITH a1 & a2 BARS

#5-d2 & #5-d3 IN MEDIAN @ 12" O.C.

2 x 2#5-d1

#5-d2 & #5-d3 IN MEDIAN @ 12" O.C.

#6-a2 BENT @ 13" O.C. ALT. WITH a2 & a3 BARS

#6-a3 TOP @ 13" O.C.
#6-a2 BOT. @ 13" O.C.

3 x 2#5-b10 TOP OF CURB | 3 x 2#5-b33 IN CURB

2#8-b11 TOP OF CURB | 2#5-b34 IN CURB | 2#8-b6 TOP OF CURB | 2#5-b31 IN CURB | 2#8-b6 TOP OF CURB | 2#5-b31 IN CURB

2 x 2#8-b1 TOP OF CURB | 2 x 2#5-b35 IN CURB | 2#8-b6 TOP OF CURB | 2 x 2#5-b31 IN CURB | 2#8-b6 TOP OF CURB | 2#5-b31 IN CURB

PROFILE GRADE AND LONGIT. BONDED CONSTR. JT.

FACE OF CURB — PARAPET

DETAIL "X"

23 FLOOR DRAINS EACH OUTSIDE CURB - FOR SPACING SEE FRAMING PLAN

#6-a5 BARS @ 13" O.C.
#5-d4 BARS @ 12" O.C.
#4-d9 BARS @ 12" O.C.

N

NOTE!

REINFORCEMENT IN NORTH CURB SAME AS SOUTH CURB.
REINFORCEMENT IN SO. PARAPET SAME AS NO. PARAPET.
LONGITUDINAL REINFORCEMENT IN MEDIAN CURB & PARAPET SAME AS NOTED FOR OUTSIDE CURB AND PARAPET.
FOR TYP. CROSS SECTION, SECTIONS A-A, B-B & FOR TYP. DETAIL AT DRAINS SEE SHT. D8.
BARS INDICATED THUS : 14 x 67 #5 ETC. INDICATES 67 LINES OF BARS WITH 14 LENGTHS PER LINE
MIN. BAR LAP = 20 DIAMETER UNLESS OTHERWISE NOTED.
FOR REINFORCEMENT BAR LIST SEE SHT. D15.
FOR ADDITIONAL PARAPET REINF. AT RAIL POSTS SEE TYPICAL CURB AND MEDIAN DETAILS SHT. D8.
FOR DECK WORK POINT DETAILS SEE SHT. D14.
FOR ADDITIONAL NOTES SEE SHT. D8.

9" 1'-0" 9" | d1 | h201 | CONSTR. JT.

NOTE: FOR ADDITIONAL DETAILS SEE WEST ABUTMENT.

ELEVATION 'L-L'
SCALE: 1/2"=1'-0"

DECK REINFORCEMENT PLAN - SPAN 13

WORK POINT AT PIER Nº 13

134'-11 5/8" SPAN 13 — 5 SPACES @ 19'-8" = 98'-4"

℄ JOINT AND WORK POINT AT PIER Nº 12

HORIZ. DIM. ALONG TOP OF PARAPET

16'-9" | 19'-8 7/8"

DEFLECTION JT. SPACING IN OUTSIDE AND MEDIAN PARAPETS

1 3/4" @ 50°F

4#4-b43 IN PARAPET TYP. FOR 19'-8" PANELS

4#4-b48 IN PARAPET

PARAPET — FACE OF CURB — PROFILE GRADE — PROFILE GRADE AND LONGIT. BONDED CONSTR. JT.

373#6-a1 TOP @ 13" O.C.
373#6-a2 BOT. @ 13" O.C.

372#6-a4 BENT @ 13" O.C. ALT. WITH a1 & a2 BARS

405#5-d2 & 405#5-d3 IN MEDIAN @ 12" O.C.

405#5-d2 & 405#5-d3 IN MEDIAN @ 12" O.C.

372#6-a4 BENT @ 13" O.C. ALT. WITH a2 & a3 BARS

373#6-a3 TOP @ 13" O.C.
373#6-a2 BOT. @ 13" O.C.

SEE CROSS SECTION FOR SPACING | SEE CROSS SECT. FOR SPACING | SEE CROSS SECTION FOR SPACING

13 x 66 #6-b12 BOT. | 14 x 67 #5-b22 TOP | 66 #6-b18 BOT.

59 #6-X1 TOP @ 6" O.C. | 2 LANES @ 12'-0" | 2'-9" | 2'-9" | 1'-9" | 29'-9"

59 #6-X1 TOP @ 6" O.C. | 2 LANES @ 12'-0" | 1'-9" | 29'-9" | 65'-0" OUT TO OUT OF DECK

2#5-b34 IN CURB | 2#8-b11 TOP OF CURB | 3 x 2#8-b10 TOP OF CURB | 3 x 2#5-b33 IN CURB

12 FLOOR DRAINS EACH OUTSIDE CURB FOR SPACING SEE FRAMING PLAN

373#6-a5 BARS @ 13" O.C.
405#5-d4 BARS @ 12" O.C.
405#4-d9 BARS @ 12" O.C.

1#5-b60 | 9" 1'-6" | FACE OF CURB | b33 | d1 | 2#5-d5 | 6" 10" 1 1/2" | END OF DECK AND PARAPET

DETAIL "X"
SCALE: 3/4"=1'-0"

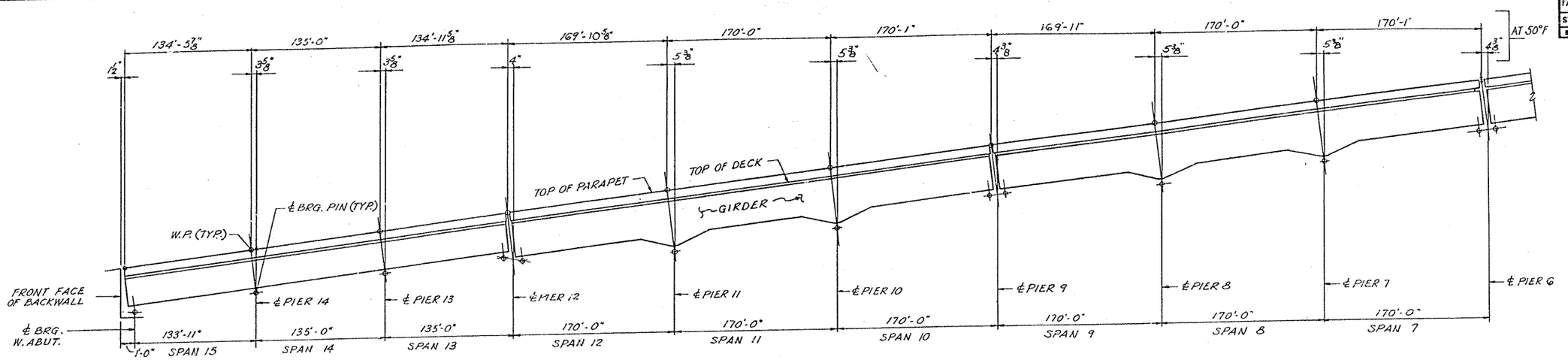
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Hummel 1-10-68
Engineer of Bridges & Structures

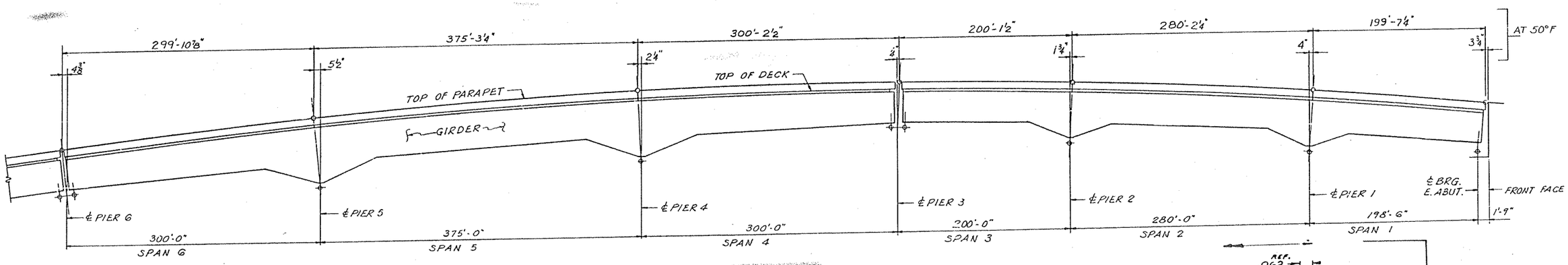
DECEMBER 29, 1967

DECK REINF. PLAN-SPANS 13, 14 AND 15
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

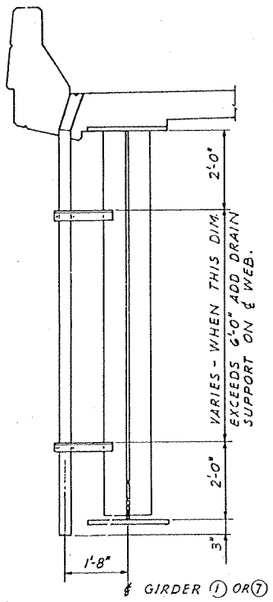
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	50	18
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT		D14





ELEVATION OF DECK WORK POINTS

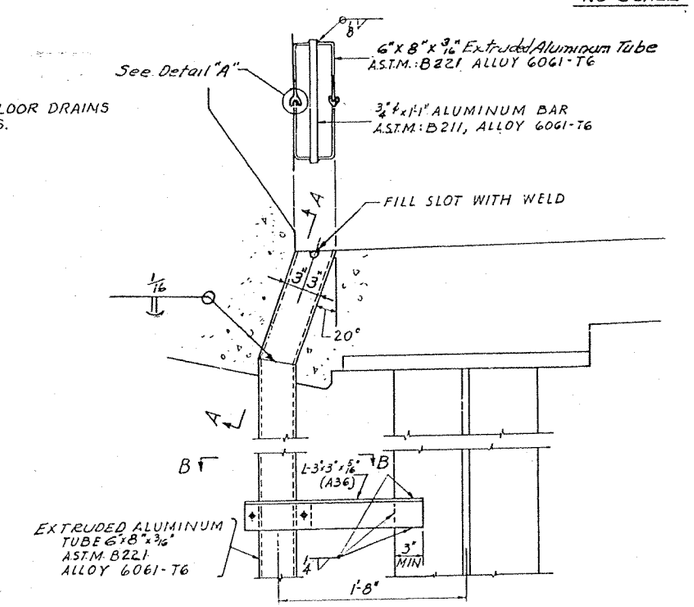
NO SCALE



FLOOR DRAIN ASSEMBLY

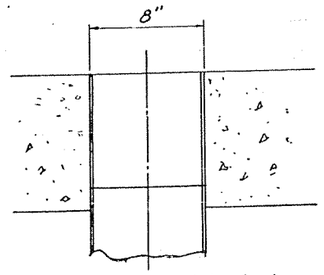
SCALE: 1/2" = 1'-0"

NOTE:
FOR LOCATION OF FLOOR DRAINS SEE FRAMING PLANS.

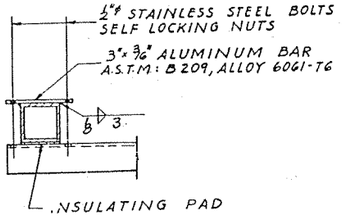


FLOOR DRAIN DETAILS

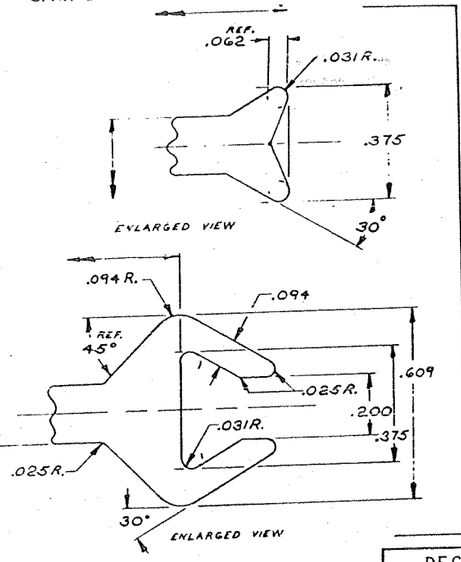
SCALE: 1 1/2" = 1'-0"



SECTION A-A



SECTION B-B



DETAIL "A"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
1-10-68
Engineer of Bridges & Traffic Cur

DECEMBER 29, 1967

DECK WORK POINTS AND DETAILS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

BILL OF MATERIAL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	19
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT		D15

SPAN 1

BAR	NO.	SIZE	LENGTH	SHAPE
a1	185	#6	35-6	
a2	370	#6	32-3	
a3	185	#6	29-0	
a4	368	#6	36-9	
a5	370	#6	4-0	
a6	12	#4	7-6	
b1	30	#8	30-0	
b6	12	#8	19-0	
b52	6	#8	20-6	
b12	396	#6	30-0	
b13	66	#6	27-0	
b22	432	#5	30-0	
b23	67	#5	26-0	
b31	12	#5	19-0	
b50	2	#5	4-0	
b51	6	#5	17-0	
b36	12	#4	19-3	
b37	96	#4	19-0	
b38	12	#4	25-9	
b49	48	#4	3-3	
d1	4	#5	3-6	
d2	400	#5	2-6	
d3	400	#5	2-3	
d4	400	#5	3-6	
d5	4	#5	4-0	
d11	2	#5	3-6	
d9	400	#4	4-5	
d10	84	#4	2-3	
d12	42	#4	2-5	
h201	6	#6	32-0	
X1	236	#6	4-3	

SPAN 2

BAR	NO.	SIZE	LENGTH	SHAPE
a1	259	#6	35-6	
a2	518	#6	32-3	
a3	259	#6	29-0	
a4	516	#6	36-9	
a5	518	#6	4-0	
a6	24	#4	7-6	
b1	42	#8	30-0	
b54	24	#8	19-9	
b12	594	#6	30-0	
b14	66	#6	21-6	
b22	639	#5	30-0	
b24	67	#5	20-0	
b55	24	#5	19-9	
b59	6	#5	27-0	
b39	168	#4	19-9	
b49	96	#4	3-3	
d2	560	#5	2-6	
d3	560	#5	2-3	
d4	560	#5	3-6	
d9	560	#4	4-5	
d10	112	#4	2-3	
d12	56	#4	2-5	
X1	236	#6	4-3	

SPAN 3

BAR	NO.	SIZE	LENGTH	SHAPE
a1	184	#6	35-6	
a2	368	#6	32-3	
a3	184	#6	29-0	
a4	366	#6	36-9	
a5	368	#6	4-0	
a6	12	#4	7-6	
b1	30	#8	30-0	
b6	6	#8	19-0	
b7	6	#8	18-3	
b52	6	#8	20-6	
b12	396	#6	30-0	
b13	66	#6	27-0	
b22	432	#5	30-0	
b23	67	#5	26-0	
b28	12	#5	18-3	
b31	6	#5	19-0	
b37	96	#4	19-0	
b40	12	#4	26-0	
b41	12	#4	18-6	
b49	48	#4	3-3	
d2	396	#5	2-6	
d3	400	#5	2-3	
d4	396	#5	3-6	
d6	4	#5	4-1	
d7	4	#5	4-0	
d8	2	#5	6-1	
d9	396	#4	4-5	
d10	84	#4	2-3	
d12	42	#4	2-5	
X1	236	#6	4-3	
X2	9	#6	5-3	

SPAN 4

BAR	NO.	SIZE	LENGTH	SHAPE
a1	277	#6	35-6	
a2	554	#6	32-3	
a3	277	#6	29-0	
a4	552	#6	36-9	
a5	552	#6	4-0	
a6	12	#4	7-6	
b1	48	#8	30-0	
b3	6	#8	16-0	
b57	18	#8	19-3	
b12	660	#6	30-0	
b15	66	#6	12-6	
b22	712	#5	30-0	
b25	67	#5	11-0	
b56	6	#5	39-0	
b58	18	#5	19-3	
b36	168	#4	19-3	
b42	12	#4	26-3	
b49	48	#4	3-3	
d2	600	#5	2-6	
d3	600	#5	2-3	
d4	600	#5	3-6	
d9	600	#4	4-5	
d10	124	#4	2-3	
d12	62	#4	2-5	
X1	236	#6	4-3	
X2	9	#6	5-3	

SPAN 5

BAR	NO.	SIZE	LENGTH	SHAPE
a1	347	#6	35-6	
a2	694	#6	32-3	
a3	347	#6	29-0	
a4	692	#6	36-9	
a5	694	#6	4-0	
a6	24	#4	7-6	
b1	54	#8	30-0	
b11	36	#8	19-6	
b12	858	#6	30-0	
b22	852	#5	30-0	
b23	6	#5	26-0	
b26	134	#5	15-0	
b34	36	#5	19-6	
b43	228	#4	19-6	
b49	96	#4	3-3	
d2	750	#5	2-6	
d3	750	#5	2-3	
d4	750	#5	3-6	
d9	750	#4	4-5	
d10	152	#4	2-3	
d12	76	#4	2-5	
X1	236	#6	4-3	

SPANS 7, 8 & 9

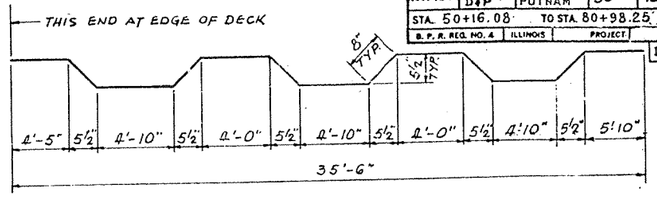
BAR	NO.	SIZE	LENGTH	SHAPE
a1	470	#6	35-6	
a2	940	#6	32-3	
a3	470	#6	29-0	
a4	940	#6	36-9	
a5	940	#6	4-0	
b5	48	#8	39-0	
b6	12	#8	19-0	
b7	12	#8	18-3	
b8	12	#8	18-9	
b9	18	#8	32-9	
b12	1122	#6	30-0	
b14	66	#6	21-3	
b16	128	#6	41-6	
b17	128	#6	38-0	
b22	1072	#5	30-0	
b23	67	#5	26-0	
b27	48	#5	38-6	
b28	12	#5	18-3	
b29	12	#5	18-9	
b30	18	#5	32-6	
b31	12	#5	19-0	
b32	67	#5	22-0	
b37	192	#4	19-0	
b44	12	#4	16-0	
b45	24	#4	18-3	
b46	84	#4	18-9	
b47	12	#4	16-3	
d2	1020	#5	2-6	
d3	1024	#5	2-3	
d4	1020	#5	3-6	
d6	4	#5	4-1	
d7	4	#5	4-0	
d8	2	#5	6-1	
d9	1020	#4	4-5	
d10	216	#4	2-3	
d12	108	#4	2-5	
X1	236	#6	4-3	
X2	9	#6	5-3	

SPANS 10, 11 & 12

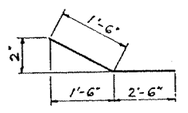
BAR	NO.	SIZE	LENGTH	SHAPE
a1	470	#6	35-6	
a2	940	#6	32-3	
a3	470	#6	29-0	
a4	938	#6	36-9	
a5	940	#6	4-0	
b5	48	#8	39-0	
b6	12	#8	19-0	
b7	12	#8	18-3	
b8	12	#8	18-9	
b9	18	#8	32-9	
b12	1122	#6	30-0	
b14	66	#6	21-3	
b16	128	#6	41-6	
b17	128	#6	38-0	
b22	1072	#5	30-0	
b23	67	#5	26-0	
b27	48	#5	38-6	
b28	12	#5	18-3	
b29	12	#5	18-9	
b30	18	#5	32-6	
b31	12	#5	19-0	
b32	67	#5	22-0	
b37	192	#4	19-0	
b44	12	#4	16-0	
b45	24	#4	18-3	
b46	84	#4	18-9	
b47	12	#4	16-3	
d2	1020	#5	2-6	
d3	1020	#5	2-3	
d4	1020	#5	3-6	
d9	1020	#4	4-5	
d10	216	#4	2-3	
d12	108	#4	2-5	
X1	236	#6	4-3	

SPANS 13, 14 & 15

BAR	NO.	SIZE	LENGTH	SHAPE
a1	373	#6	35-6	
a2	746	#6	32-3	
a3	373	#6	29-0	
a4	744	#6	36-9	
a5	746	#6	4-0	
b1	12	#8	30-0	
b6	24	#8	19-0	
b10	36	#8	39-6	
b11	12	#8	19-6	
b12	922	#6	30-0	
b18	132	#6	16-0	
b19	64	#6	40-0	
b20	64	#6	32-0	
b21	64	#6	22-0	
b22	938	#5	30-0	
b31	24	#5	19-0	
b33	36	#5	39-0	
b34	12	#5	19-6	
b35	12	#5	29-6	
b60	2	#5	3-6	
b36	60	#4	19-3	
b37	84	#4	19-0	
b43	84	#4	19-6	
b48	24	#4	16-6	
d1	4	#5	3-6	
d2	810	#5	2-6	
d3	810	#5	2-3	
d4	810	#5	3-6	
d5	4	#5	4-0	
d9	810	#4	4-5	
d10	168	#4	2-3	
d12	84	#4	2-5	
h201	6	#6	32-0	
X1	236	#6	4-3	



BAR "a4"



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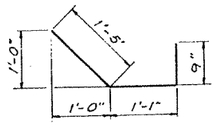
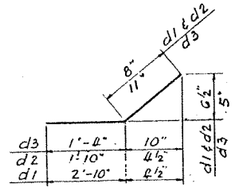
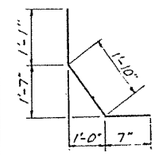


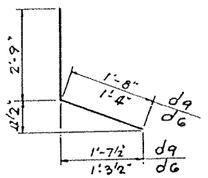
BAR "b49"



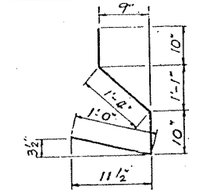
BARS "d1, d2 & d3"



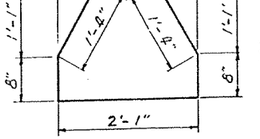
BAR d4



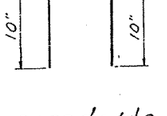
BARS "d6 & d9"



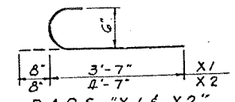
BAR "d7"



BAR "d8"



BARS d10 & d12



BARS "X1 & X2"

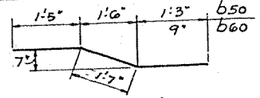
NOTE

ALL DIMENSIONS ARE OUT TO OUT.
DIMENSIONS OMITTED ARE ZERO.

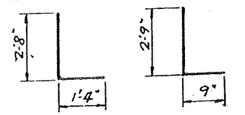
BILL OF MATERIAL

ITEM	UNIT	SPANS 1,2 & 3	SPANS 4,5 & 6	SPANS 7,8 & 9	SPANS 10,11 & 12	SPANS 13,14 & 15
CLASS X CONCRETE	CU.YDS	1,436.7	2,077.3	1,062.0	1,064.4	844.0
REINFORCEMENT BARS	LBS.	360,200	514,690	283,010	282,770	224,860

APPROVED
FOR SECRETARY OF ROADS
1-10-68



BARS b50 & b60



BAR d5 BAR d11

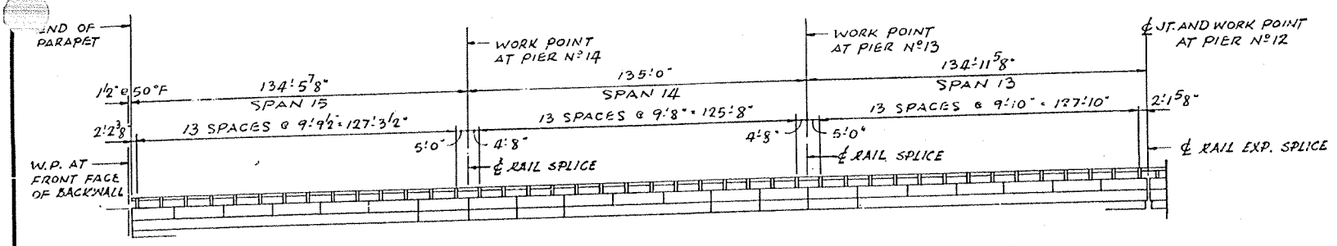
DECEMBER 29, 1967

REINFORCEMENT BAR LIST
F.A.I. ROUTE 180
OVER ILLINOIS RIVER

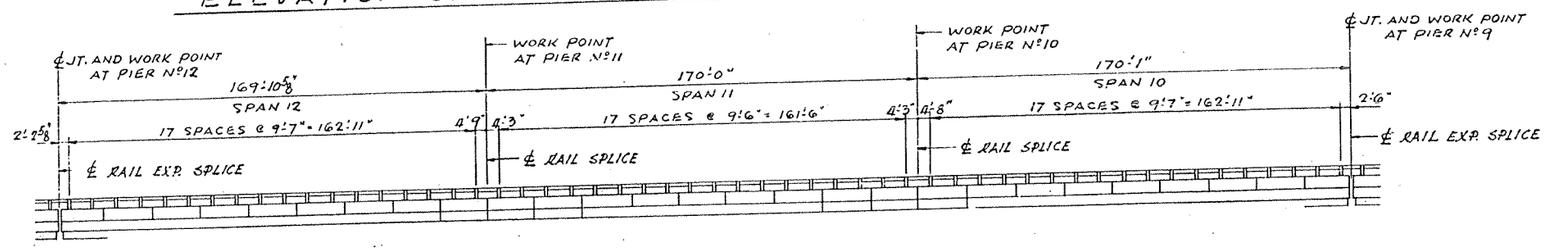
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION 651+00.00

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

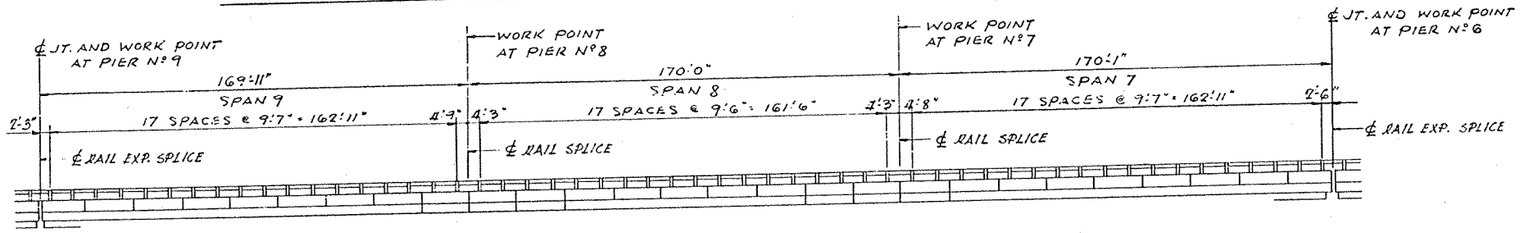
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU PUTNAM	30	20
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. I. J. NO. 4	ILLINOIS	PROJECT		
			D16	



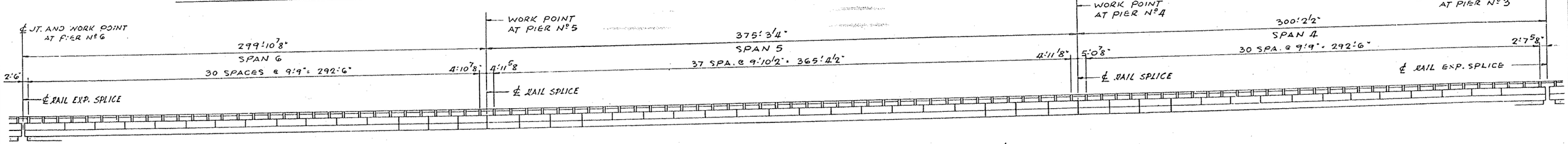
ELEVATION OF HANDRAIL - SPANS 13,14 & 15



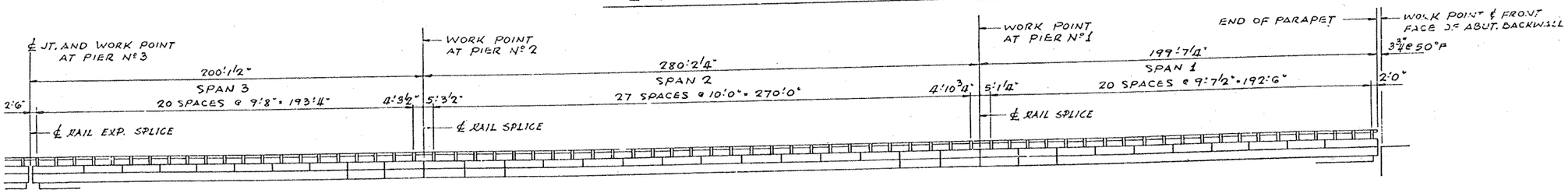
ELEVATION OF HANDRAIL - SPANS 10,11 & 12



ELEVATION OF HANDRAIL - SPANS 7,8 & 9



ELEVATION OF HANDRAIL - SPANS 4,5 & 6



ELEVATION OF HANDRAIL - SPANS 1,2 & 3

NOTES :

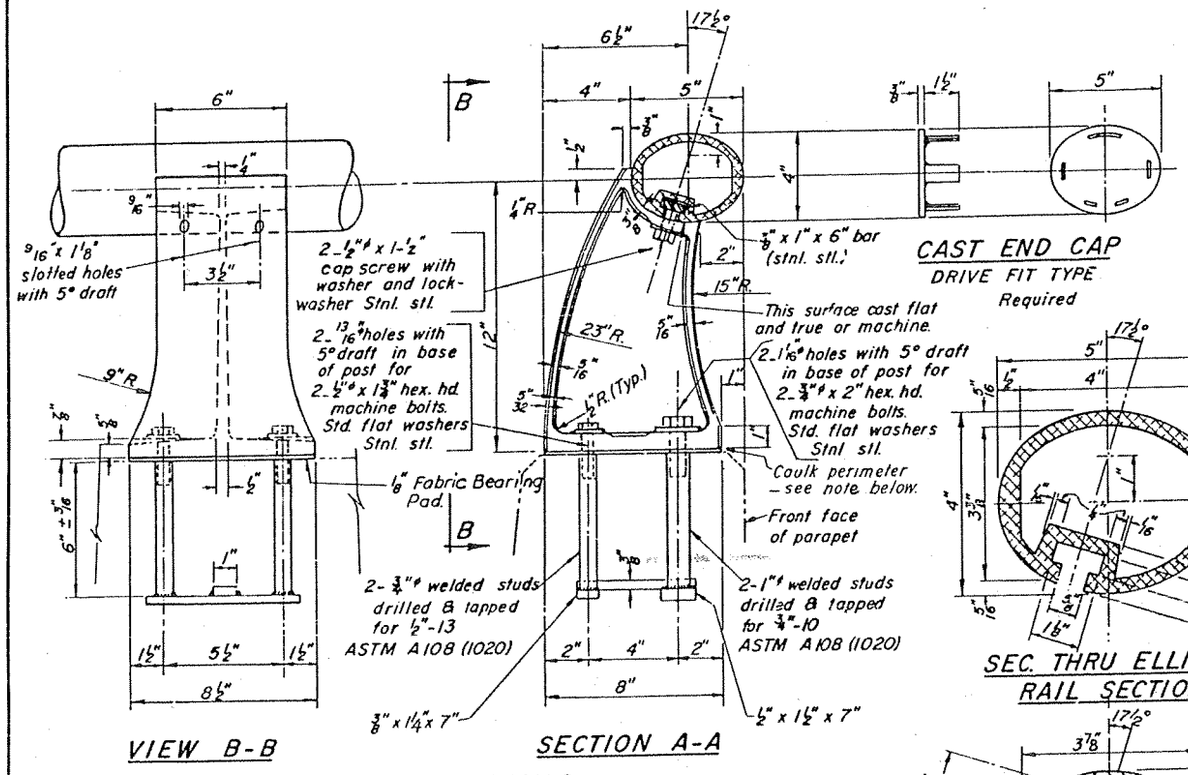
ELEVATIONS OF HANDRAIL SHOWN ARE SAME FOR NORTH AND SOUTH RAILS AND FOR MEDIAN.
FOR DETAILS OF HANDRAIL SEE SHT. D17.
FOR DETAILS OF MEDIAN RAIL SEE SHT. D18.
FOR DECK WORK POINTS SEE SHT. D14.
ALL POST SPACINGS ARE GIVEN HORIZONTALLY.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl C. Thummel 1-10-68
Engineer of Bridge & Traffic Structures

DEC. 29, 1967

HANDRAIL ELEVATIONS-ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1) D&P
BUREAU AND PUTNAM COUNTIES
STATION 50+16.08 TO STA. 80+98.25

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



NOTES:

ALL POSTS SHALL BE NORMAL TO PARAPET.

ALL ALUMINUM ALLOY EXTRUDED RAIL SHALL CONFORM TO A.S.T.M. SPECIFICATION B-221 ALLOY 6061-T6 AND SHALL BE SUPPLIED IN MODULAR LENGTHS OF 30 FEET, EXCEPT AT THE END OF BRIDGE OR OVER OPEN JOINTS IN BRIDGE DECK WHERE THE RAIL SHALL BE ATTACHED TO A MINIMUM OF 2 POSTS. IF THE RAIL IS ON A HORIZONTAL CURVE OF 2,300 FOOT RADIUS OR LESS, THE MODULAR LENGTHS MAY BE REDUCED BUT SHALL BE ATTACHED TO A MINIMUM OF 2 POSTS.

ALL JOINTS IN RAIL SHALL BE SPLICED PER DETAIL.

SEE SPECIAL PROVISIONS FOR FOLLOWING MATERIAL SPECIFICATIONS.

CAST ALUMINUM ALLOY BRIDGE POST - ALLOY A344-T4

STAINLESS STEEL BARS, CAP SCREWS, WASHERS AND LOCKWASHERS

FABRIC BEARING PAD

METHOD OF MEASUREMENT: ALUMINUM HANDRAIL SHALL BE MEASURED IN LINEAL FEET. THE LENGTH PAID FOR SHALL BE THE OVERALL LENGTH ALONG THE TOP LONGITUDINAL RAILING MEMBER THRU ALL POSTS AND GAPS.

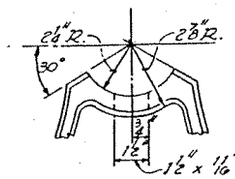
BASIS OF PAYMENT: ALUMINUM HANDRAIL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR ALUMINUM HANDRAIL, MEASURED AS SPECIFIED, WHICH PRICE SHALL BE PAYMENT IN FULL FOR ALL MATERIALS, FABRICATION, TRANSPORTATION, AND ERECTION.

COST OF RAIL SPLICE, END CAPS, AND HARDWARE TO BE INCIDENTAL TO ITEM ALUMINUM HANDRAIL.

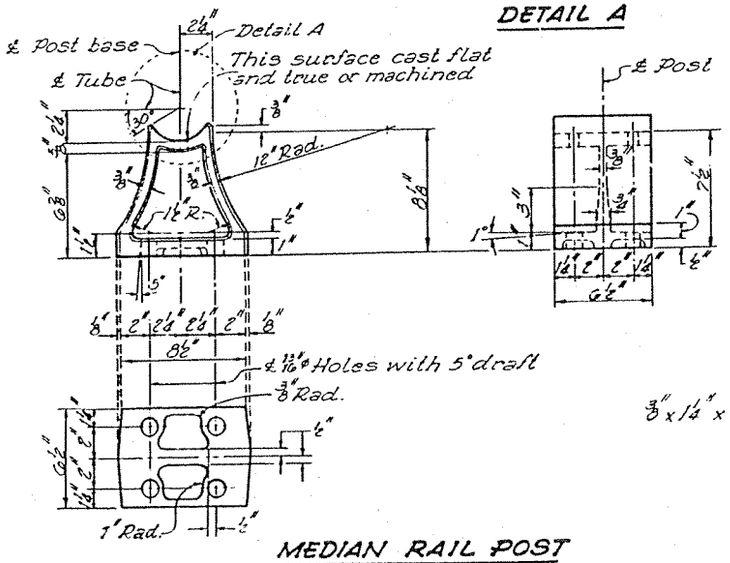
PROVIDE 1 - 1/8" AND 2 - 1/16" ALUMINUM SHIMS FOR 25% OF THE POSTS. RAIL ELEMENT SHALL BE PARALLEL TO GRADE - HIGH SPOTS SHALL BE GROUND, AND LOW SPOTS SHIMMED.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

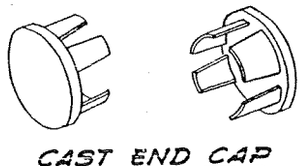
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



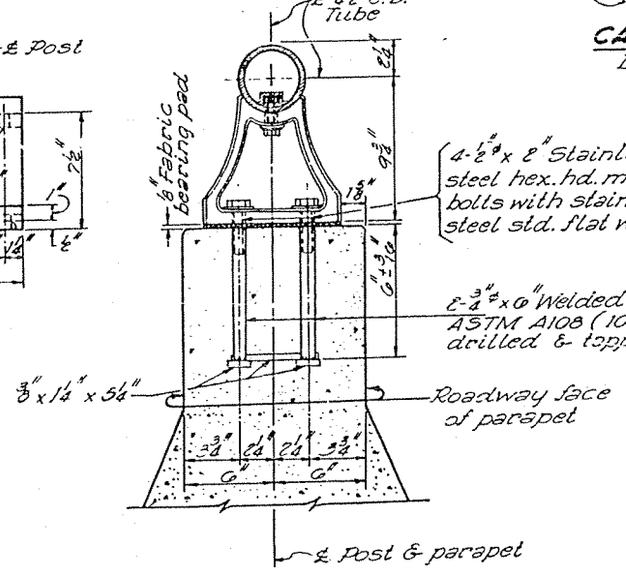
DETAIL A



MEDIAN RAIL POST

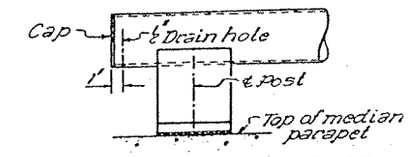


CAST END CAP
Drive fit type Required

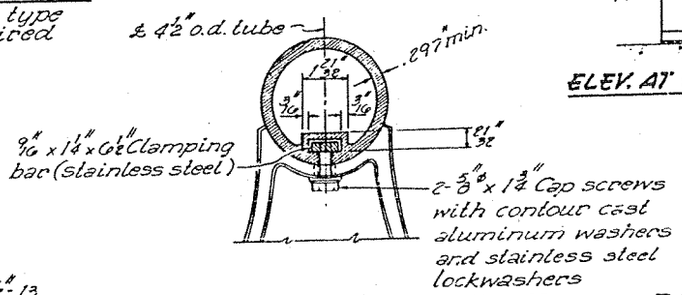


SEC. THRU PARAPET & RAIL

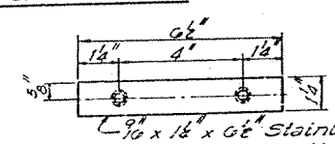
Note:
Seal base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers-



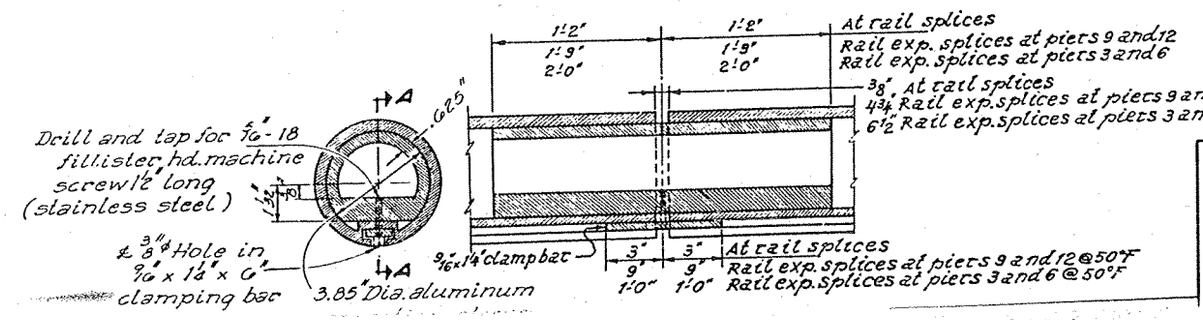
ELEV. AT END RAIL POST



RAIL ATTACHMENT TO POST

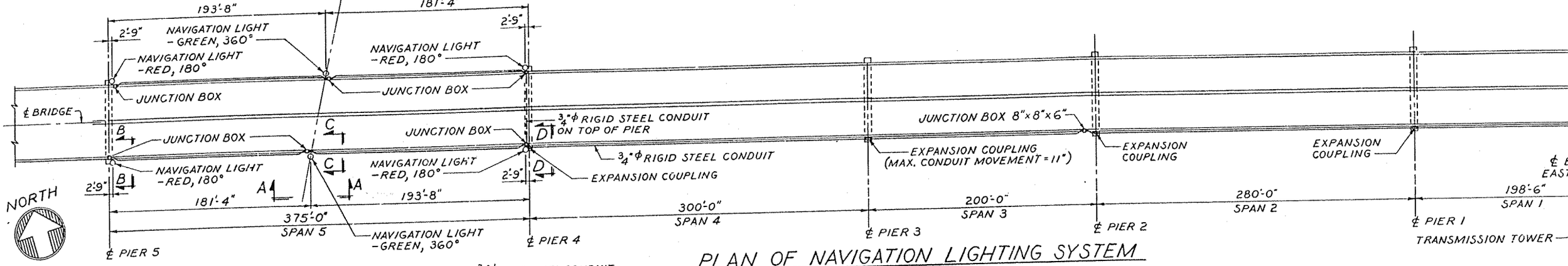


RAIL ATTACHMENT CLAMP BAR



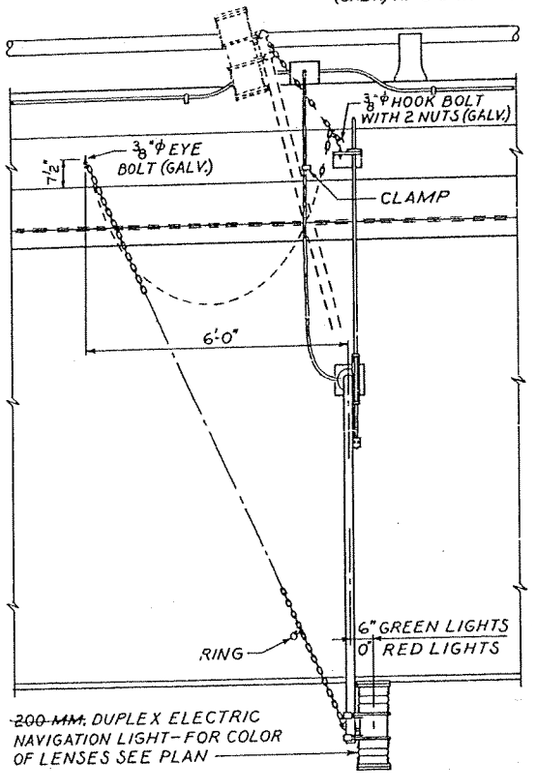
RAIL SPLICE OR EXPANSION SECTION A-A

CONSULTING ENGINEERS
10 S. WABASH AVE. CHICAGO, ILLINOIS



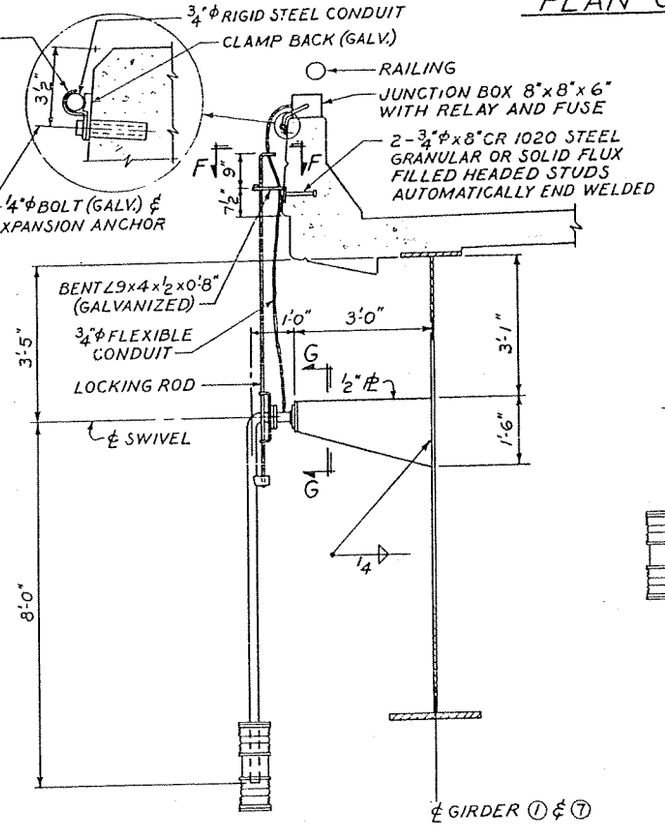
PLAN OF NAVIGATION LIGHTING SYSTEM

SCALE: 1" = 50'



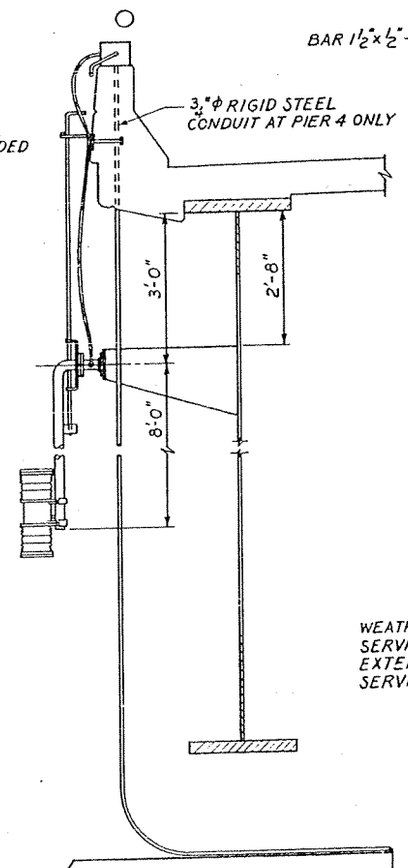
ELEVATION A-A

SCALE: 1/2" = 1'-0"



SECTION C-C

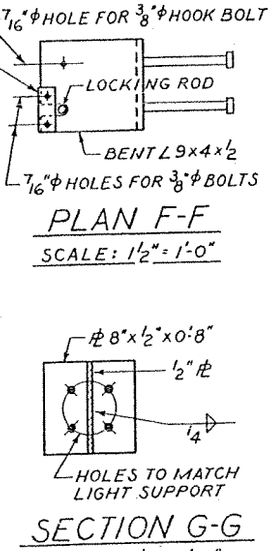
SCALE: 1/2" = 1'-0"



SECTION D-D

SECTION B-B SIMILAR

SCALE: 1/2" = 1'-0"

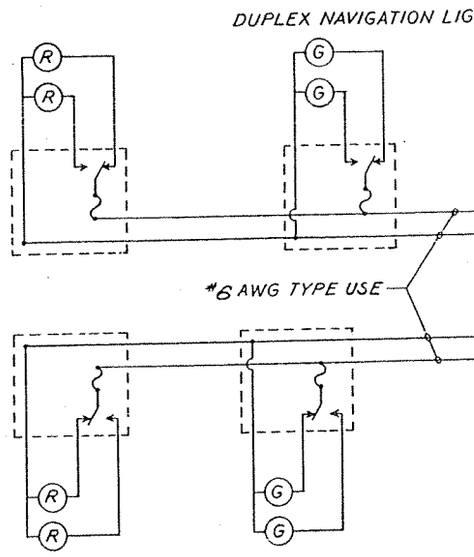


PLAN F-F

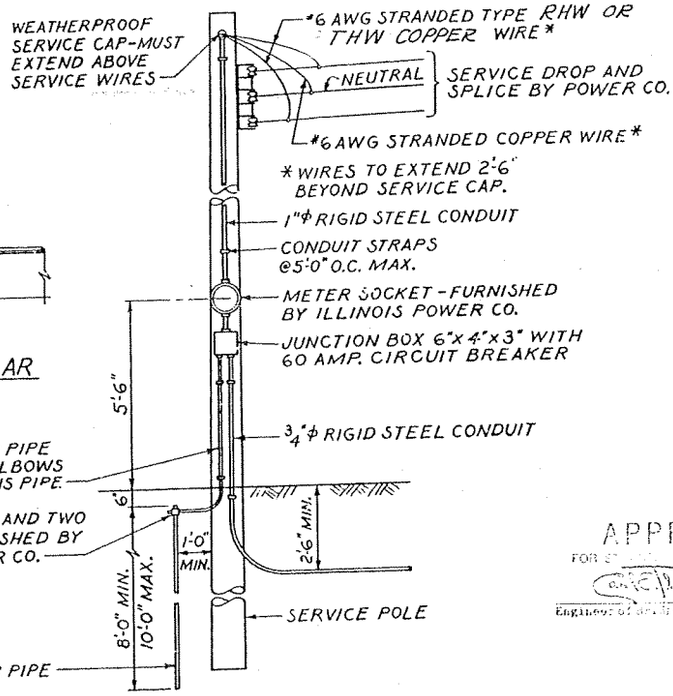
SCALE: 1 1/2" = 1'-0"

SECTION G-G

SCALE: 1 1/2" = 1'-0"



WIRING DIAGRA



SERVICE POLE

SCALE: 3/8" = 1'-0"

ALL CABLE FROM THE NAVIG
NEOPRENE COVERED MARINE C

ALL JUNCTION BOXES SHAL
AND TAPPED FOR CONDUIT

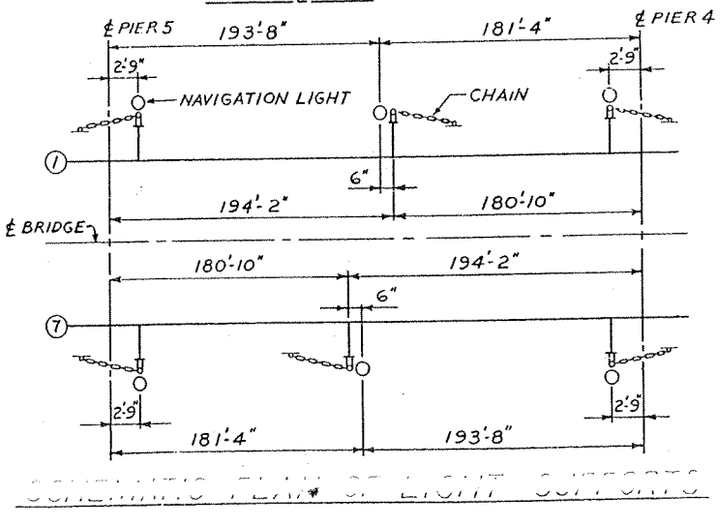
ANGLES AND PLATES USED

LOCKING ROD AND CHAIN

FURNISHING AND INSTALL
PLETE IN PLACE, IS INCLUD
EXCEPT AS OTHERWISE NOT

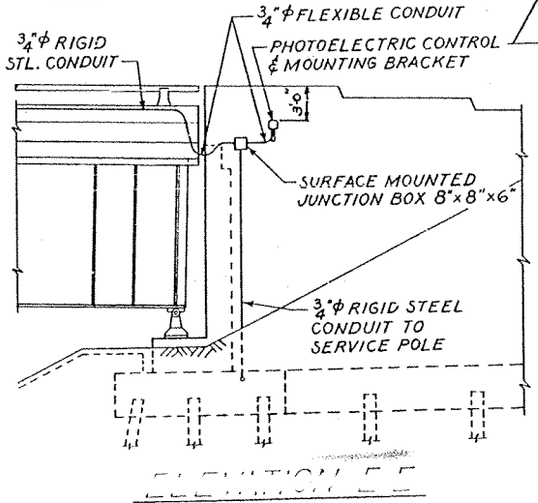
FOR OTHER REQUIREMENTS,
ALL INSPECTION CHA
OF SUFFICIENT STE
LIGHT TO THE LEV

APPROVED
FOR CONSTRUCTION ONLY
1-10-68
Engineer of Bridges & Public Structures



SCHEMATIC PLAN OF LIGHT SUPPORTS

NO SCALE



ELEVATION E-E

SCALE: 3/16" = 1'-0"

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) D&P	BUREAU-PUTNAM	30	24
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		

NORTH

℄ PIER 3

1'-6"

198'-6" SPAN 1 OR 3

140'-0" HALF SPAN 2

94'-6" | 46'-0" | 58'-0" | 74'-0" | 66'-0"

SYMMETRICAL ABOUT ℄ SPAN 2 EXCEPT AS SHOWN OR NOTED

℄ BRG. PIER 3 OR E. ABUT.
STA. 74+18.50 PIER 3
STA. 80+95.50 E. ABUT.

℄ SHOP WELDED WEB SPLICE 1Z OR 3W

℄ BOLTED FIELD SPLICE 1Y OR 3X

℄ BOLTED FIELD SPLICE 1X OR 3Y

℄ SHOP WELDED WEB SPLICE 1W OR 3Z

℄ BRG. PIER 1 OR 2
STA. 76+17.00 PIER 2
STA. 78+97.00 PIER 1

℄ SHOP WELDED WEB SPLICE 2V OR 2Z

℄ BOLTED FIELD SPLICE 2W OR 2Y

℄ SHOP WELDED WEB SPLICE 2X ON THIS HALF ONLY

NORTH EDGE OF DECK

3'-3"

6 SPACES @ 9'-9" = 58'-6"

℄ BRIDGE

SOUTH EDGE OF DECK

3'-3"

XA-1 XA-2 XA-3 XA-4 XA-5 XA-6 XA-7 XA-8 XA-9 XA-10

90°-00'-00"

AT E. ABUT. STIFFENER SPACING

CROSS FRAME SPACING

TYP. END X-FRAME

AT PIER 3

TYP. INT. X-FRAME EXCEPT AT HAUNCH

BOTTOM LATERAL BRACING ST 5WF 10.5 (TYP.)

Indicates Floor Drain Supports. For Detail see Sheet D No.

TYP. INT. X-FRAME AT HAUNCH

TYP. X-FRAME AT PIERS 1 & 2

4@5'-0" = 20'-0" | 4@6'-3" = 25'-0" | 3@8'-4" = 25'-0" | 2@6'-3" | 12'-6" | 4'-9" | 7'-9" | 5@5'-0" = 25'-0" | 3@4'-5" | 13'-3" | 2@5'-10½" | 11'-9" | 2@5'-6" | 11'-0" | 2@7'-0" | 14'-0" | 2@7'-8" | 15'-4" | 7'-7" | 7'-7" | 7'-10" | 2@7'-11" | 15'-10" | 4@4'-10" | 19'-4" | 4'-11" | 4@5'-7½" = 22'-6" | 4'-8" | 4@4'-7" | 18'-4" | 4@5'-9" = 23'-0" | 3@7'-8" = 23'-0"

2@2'-6" = 5'-0" | 7 SPACES @ 25'-0" = 175'-0" | 23'-6" | 7'-7" | 2 SPACES @ 24'-3" = 48'-6" | 22'-6" | 3 SPACES @ 23'-0" = 69'-0"

FRAMING PLAN

SCALE: 3/32" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE

SHEAR CONNECTOR HEIGHT = 5"

℄ BRG. PIER 3 OR E. ABUT.

℄ BRG. PIER 1 OR 2

SHEAR CONNECTOR HEIGHT = 5"

SYMMETRICAL ABOUT ℄ SPAN 2 EXCEPT AS SHOWN OR NOTED

94'-6" | 30'-0" | 16'-0" | 26'-0" | 32'-0" | 32'-0" | 42'-0" | 20'-0" | 46'-0"

TOP FLANGE: 16"×¾" | 18"×1½" | 18"×1½" (A441) | 20"×2⅜" (A441) | 18"×1⅞" (A441) | 12"×1" (A441) | 16"×¾" (A441)

*SHEAR CONNECTOR SPACING: 2'-6" (SPAN 3) | 1'-3" (SPAN 1)

8@15"-10'-0" (SPAN 3) | 9@15"-11'-3" (SPAN 1) | 9@18"-13'-6" | 7@21"-12'-3" | 2G@24" = 52'-0" | 2@12"-2'-0" | 4@24"-15'-0" | 8@21"-14'-0" | 11@18"-16'-6" | OMIT SHEAR CONNECTORS | OMIT SHEAR CONNECTORS | 10@18"-15'-0" G@22"-10'-6" | 19@24"-38'-0"

INT. STIFF. TYPE: TYPE 'C' AT X-FRAMES, TYPE 'A' BETWEEN X-FRAMES | TYPE 'C' AT X-FRAMES, TYPE 'B' BETWEEN X-FRAMES | TYPE 'C' AT X-FRAMES, TYPE 'A' BETWEEN X-FRAMES

INT. STIFFS. 2 RES - 6"×⅜" | INT. STIFFS. 2 RES - 7"×½" | INT. STIFFS. 2 RES - 7"×½" | INT. STIFFS. 2 RES - 6"×⅜"

CUT TOP OF GIRDERS AT PIER 3 ONLY. SEE END OF GIRDER DETAIL SHEET (F&E) 10

SHOWN FOR PIER 3 | E. ABUT. SEE END OF GIRDER DETAIL SHT. (F&E) 10

CUT TOP OF GIRDERS AT E. ABUT. SEE END OF GIRDER DETAIL SHEET (F&E) 10

8'-8"

2 BRG. STIFF. RES 6½"×¾"

⅜" WEB | 5/16 TYP. EXCEPT AS NOTED | ⅜" WEB | TYP. ¼ | ⅜" WEB | 1'-9" | 1'-9" | 7/16" WEB (A441) | 13'-0" | 2'-7" | ½ FOR 2⅜" FLANGE | ⅝" WEB (A441) | BRG. STIFF. 4 RES - 9½"×⅞" | 7/16" WEB (A441) | 8'-8" | 1'-9" | ⅜" WEB (A441) | 1'-9" | ⅜ FOR ⅞" FLANGE | 2'-0"

LONG. STIFF. ** 5½"×⅜" | ⅜ FOR 1¾" FLANGE | LONG. STIFF. ** 6"×7/16" | LONG. STIFF. ** 5"×⅜"

48'-0" | 48'-0"

30'-0" | 64'-6" | 30'-0" | 16'-0" | 26'-0" | 32'-0" | 32'-0" | 42'-0" | 20'-0" | 46'-0"

BOTTOM FLANGE: 18"×1" | 18"×1¾" | 18"×1¾" | 18"×1½" | 18"×1½" (A441) | 20"×2⅜" (A441) | 18"×1⅞" (A441) | 18"×1" (A441) | 20"×1⅞" (A441)

47'-3" | 47'-3" | 46'-0" | 30'-6" | 27'-6" | 27'-6" | 46'-6" | 66'-0"

198'-6" | 140'-0"

6½" AT E. ABUTMENT
1'-2½" AT PIER 3

℄ SHOP WELDED WEB SPLICE 1Z OR 3W

℄ BOLTED FIELD SPLICE 1Y OR 3X

℄ BOLTED FIELD SPLICE 1X OR 3Y

℄ SHOP WELDED WEB SPLICE 1W OR 3Z

℄ SHOP WELDED WEB SPLICE 2V OR 2Z

℄ BOLTED FIELD SPLICE 2W OR 2Y

℄ SHOP WELDED WEB SPLICE 2X ON THIS HALF ONLY SEPT. 18, 1967

GIRDER ELEVATION

NO SCALE

** PLACE LONG. STIFFS. ON ONE SIDE ONLY OF ALL GIRDERS.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
9-21-67
Engineer of Bridge & Traffic Structures

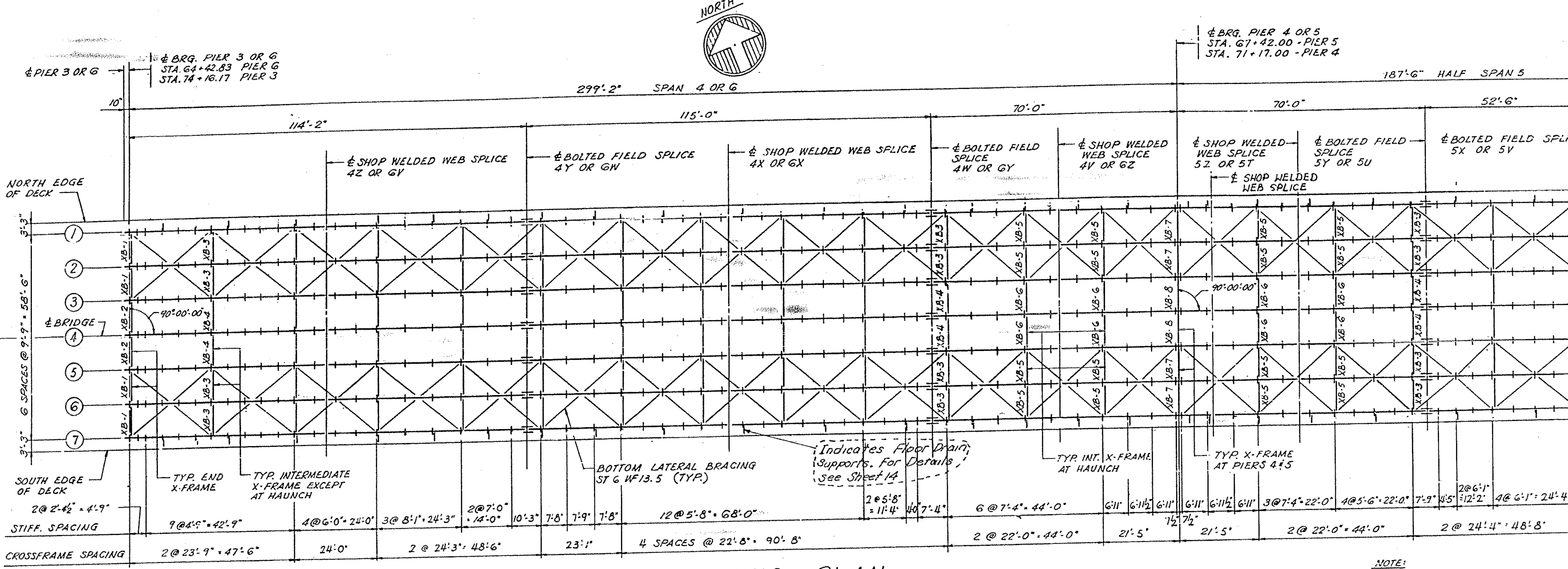
* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1) D.

FOR NOTES SEE SHEET (F&E) 3.
FOR TOP OF WEB ELEVATIONS SEE SHEET (F&E) 11.

+/300

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

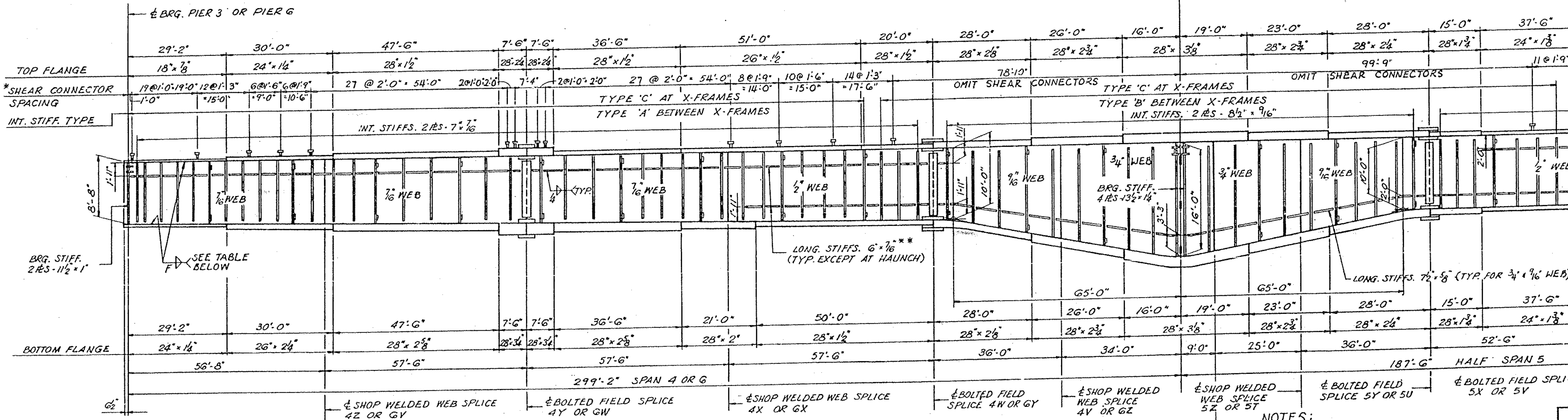
FRAMING PLAN - SPANS 1, 2 & 3
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
SECTION (06-3,78-1)D&P
BUREAU AND PUTNAM COUNTIES
STATION 50+16.08 TO STATION 80+98.25



FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE



NOTES:
FOR TOP OF WEB ELEVATIONS SEE SHEET (F & E) 19.
ALL GIRDER WEB PLATES AND FLANGE PLATES TO BE A441 STEEL.
FOR OTHER NOTES, SEE SHEET (F&E) 3.

F	FLANGE THICKNESS
5/16	1½" MAX.
3/8	2¼" MAX.
½	OVER 2¼"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
10-3-67
Engineer of Bridge & Traffic Structures

GIRDER ELEVATION

NO SCALE

** LONGITUDINAL STIFFENERS TO BE ON [illegible] ON GIRDERS ① & ⑦ TO BE ON INSIDE.

* SHEAR CONNECTORS TO BE FURNISHED HEIGHT TO BE 5".

Samuel Barnow

ALFRED BENESCH & COMPANY CONSULTING [illegible]
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

℄ PIER
PIER 9 OR 12
PIER 6
1'-1"
1'-6"
168'-6" SPAN 7
168'-11" SPAN 9, 10, OR 12
128'-6" SPAN 7
128'-11" SPAN 9, 10, OR 12
40'-0"
40'-0"
45'-0"
SYMMETRICAL AB
℄ SPAN 8 OR 11
AS SHOWN OR NOT
℄ BRG. PIER 6, 9 OR 12
STA. 64 + 40.50 PIER 6
STA. 59 + 33.08 SPAN 9
STA. 59 + 30.92 SPAN 10
STA. 54 + 23.08 PIER 12
PIER 9
℄ SHOP WELDED WEB SPLICE
7Y, 9X, 10Y OR 12X
℄ BOLTED FIELD
SPLICE 7X, 9Y, 10X OR 12Y
℄ BRG. PIER 7, 8, 10 OR 11
STA. 62+72.00 PIER 7
STA. 61+02.00 PIER 8
STA. 57+62.00 PIER 10
STA. 55+92.00 PIER 11
℄ SHOP WELDED WEB SPLICE
8Z, 8V, 11Z OR 11V
℄ BOLTED FIELD SPLICE
8Y, 8W, 11Y OR 11W
℄ SHOP WELDED WEB SPLICE
8X OR 11X
NORTH EDGE OF DECK
3'-3"
1
2
3
℄ BRIDGE
4
5
6
SOUTH EDGE OF DECK
7
3'-3"
6 SPACES AT 9'-9" = 58'-6"
XC-1
XC-9
XC-3
XC-2
XC-10
XC-4
XC-5
XC-7
XC-6
XC-8
90°-00'-00"
END X-FRAME
TYP. ℄ PIER 9 OR 12
FOR SPANS 9, 10 & 12
TYP. ℄ PIER 6
FOR SPAN 7
Indicates Floor Drain Supports. For Detail see Sheet D 14
TYP. INT. X-FRAME EXCEPT AT HAUNCH
BOTTOM LATERAL BRACING STG WF 13.5 (TYP.)
TYP. INT. X-FRAME AT HAUNCH
TYPICAL X-FRAME AT PIER 7, 8, 10 OR 11
STIFFENER SPACING
2@2'-3" = 4'-6"
2@2'-3½" = 4'-7"
STIFFENER SPACING
4@4'-6" = 18'-0"
SPAN 7
4@4'-7" = 18'-4"
SPAN 9, 10 OR 12
4 SPACES @ 6'-3" = 25'-0"
3@8'-4" = 25'-0"
4@6'-3" = 25'-0"
4@5'-6" = 22'-0"
5'-10"
6'-4"
2@6'-5" = 12'-10"
4 @ 5'-11" = 23'-8"
4"
6'-2"
3@6'-2" = 18'-6"
4@6'-0" = 24'-0"
4@6'-0" = 24'-0"
8'-0"
4'-0"
CROSS FRAME SPACING
22'-6" SPAN 7
22'-11" SPAN 9, 10 OR 12
3 SPACES @ 25'-0" = 75'-0"
22'-0"
25'-0"
24'-4"
24'-8"
2 SPACES @ 24'-0" = 48'-0"
12'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.

FRAMING PLAN
SCALE: 3/32" = 1'-0"

SYMMETRICAL ABOUT ℄ SPAN 8 OR 11 EXCEPT AS SHOWN OR NOTED

℄ BRG. PIER 6, 9 OR 12
℄ BRG. PIER 7, 8, 10 OR 11
41'-0" SPAN 7
41'-5" SPAN 9, 10, OR 12
51'-0"
36'-6"
22'-0"
18'-0"
27'-0"
13'-0"
45'-0"
14" × 5⅞"
16" × ¾"
14" × 5⅞"
16" × ⅞"
42'-3" SPAN 7
42'-8" SPAN 9, 10 OR 12
16" × ⅞"
16" × 1⅛"
16" × ⅞"
14" × 5⅞"
TOP FLANGE
*SHEAR CONNECTOR SPACING
SPAN 9, 10 OR 12:
12@1'-3" = 15'-0"
6@1'-6"
4@1'-9"
11@1'-3" = 13'-9"
9"
2'-0"
FOR SPAN 7 ONLY
9'-9"
7'-0"
37 SPACES @ 2'-0" = 74'-0"
4@1'-9" = 7'-0"
9@1'-6" = 13'-6"
OMIT SHEAR CONNECTORS
INTERMEDIATE STIFFS. 2 PLS - 5½" × ⅜"
TYPE 'C' AT X-FRAMES, TYPE 'A' BETWEEN X-FRAMES
INT. STIFFS. 2 PLS - 7" × 7/16
TYPE 'C' AT X-FRAMES, TYPE 'B' BETWEEN X-FRAMES
INT. STIFFS. 2 PLS - 5½" × ⅜"
TYPE 'C' AT X-FRAMES
TYPE 'B' TYPE 'A' BETWEEN X-FRAMES
⅜" FOR 1⅞" FLANGE
CUT TOP OF GIRDERS. SEE END OF GIRDER DETAILS, SHT. (F&E) 16
3'-8"
FOR PIER 9
FOR PIER 6
SEE END OF GIRDER DETAIL, SHEET (F&E) 16
2 BRG. STIFF. PLS 7½" × ¾"
⅜" WEB
½" WEB
⅜" WEB
TYP.
BRG. STIFF. 4 PLS 7½" × ¾"
1'-9"
2'-8"
2'-4"
11'-8"
5/16 TYP. EXCEPT AS NOTED
⅜ FOR 1⅞" FLANGE
LONG. STIFFS. ** 1 PR - 5½" × ⅜" (TYP.)
36'-0"
36'-0"
27'-6" SPAN 7
27'-11" SPAN 9, 10, OR 12
80'-0"
21'-0"
22'-0"
18'-0"
27'-0"
13'-0"
45'-0"
16" × 1"
16" × 1⅛"
16" × ⅞"
16" × 1⅛"
16" × ⅞"
14" × 5⅞"
BOTTOM FLANGE
61'-0" SPAN 7
61'-5" SPAN 9, 10 OR 12
67'-6"
40'-0"
5'-0"
35'-0"
45'-0"
168'-6" SPAN 7
168'-11" SPAN 9, 10 OR 12
85'-0" HALF SPAN 8 OR 11
10" FOR GIRDERS ① & ⑦
7" FOR GIRDERS ② TO ⑥
IN SPANS 9, 10 & 12
1'-2½" FOR ALL GIRDERS IN SPAN 7
℄ SHOP WELDED WEB SPLICE
7Y, 9X, 10Y OR 12X
℄ BOLTED FIELD SPLICE
7X, 9Y, 10X OR 12Y
℄ SHOP WELDED WEB SPLICE
8Z, 8V, 11Z OR 11V
℄ BOLTED FIELD SPLICE
8Y, 8W 11Y OR 11W
℄ SHOP WELDED WEB SPLICE
8X OR 11X

* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION 506-3.28.1.D.

** LONGITUDINAL STIFFENERS TO BE ON 1 SIDE ONLY OF ALL GIRDERS. STIFFENERS ON GIRDERS ① & ⑦ TO BE ON INSIDE.

GIRDER ELEVATION

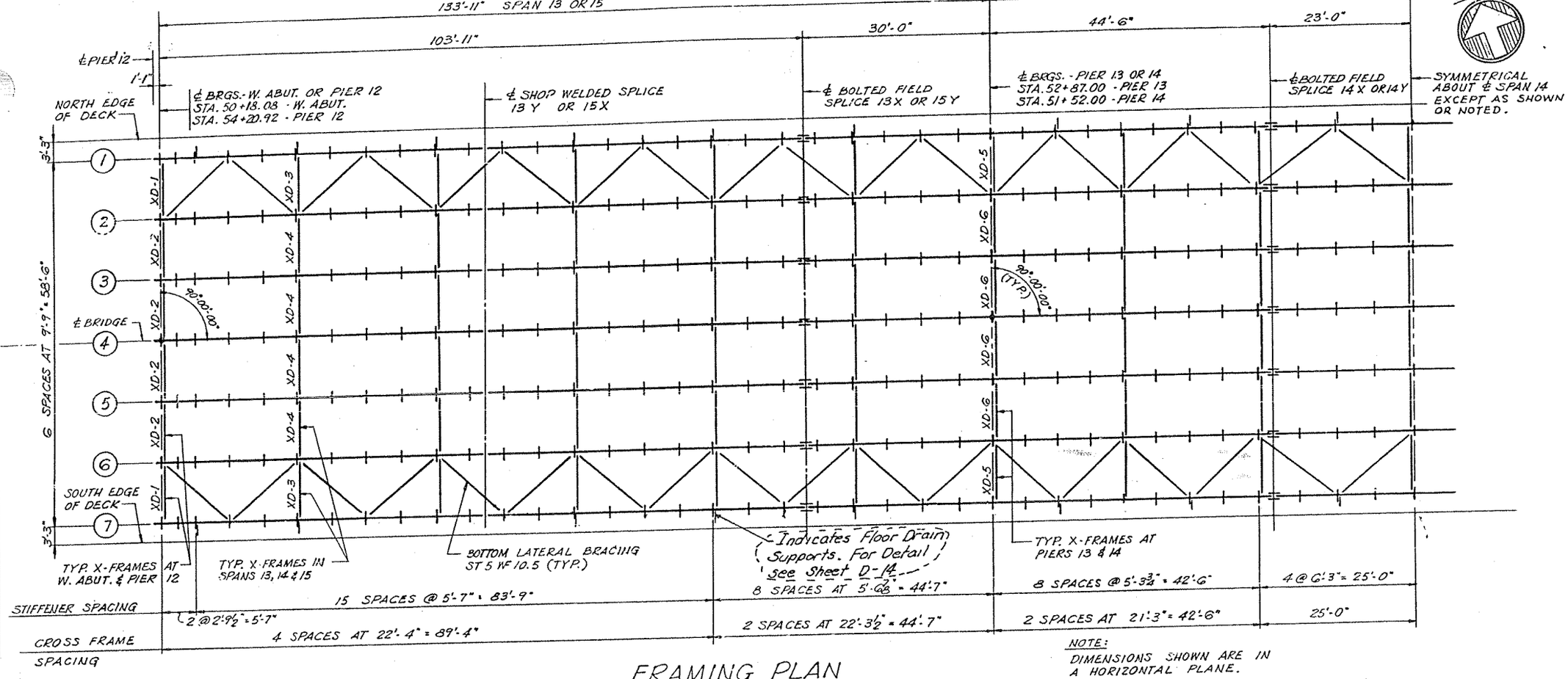
LOCATION
℄ BRG. PIER
℄ SHOP SPLI
℄ FIELD SPL
℄ BRG. PIER
℄ SHOP SPL
℄ FIELD SPL
℄ SHOP SPLI
℄ FIELD SPL
℄ SHOP SPL
℄ BRG. PIE
℄ FIELD SPL
℄ SHOP SPL
℄ BRG. PIE

LOCATION
℄ BRG. PIE
℄ SHOP SPLI
℄ FIELD SPL
℄ BRG. PIE
℄ SHOP SPLI
℄ FIELD SPL
℄ SHOP SPL
℄ FIELD SPL
℄ SHOP SPL
℄ BRG. PIE
℄ FIELD SPL
℄ SHOP SPL
℄ BRG. PIE

1459

Samuel Cornow

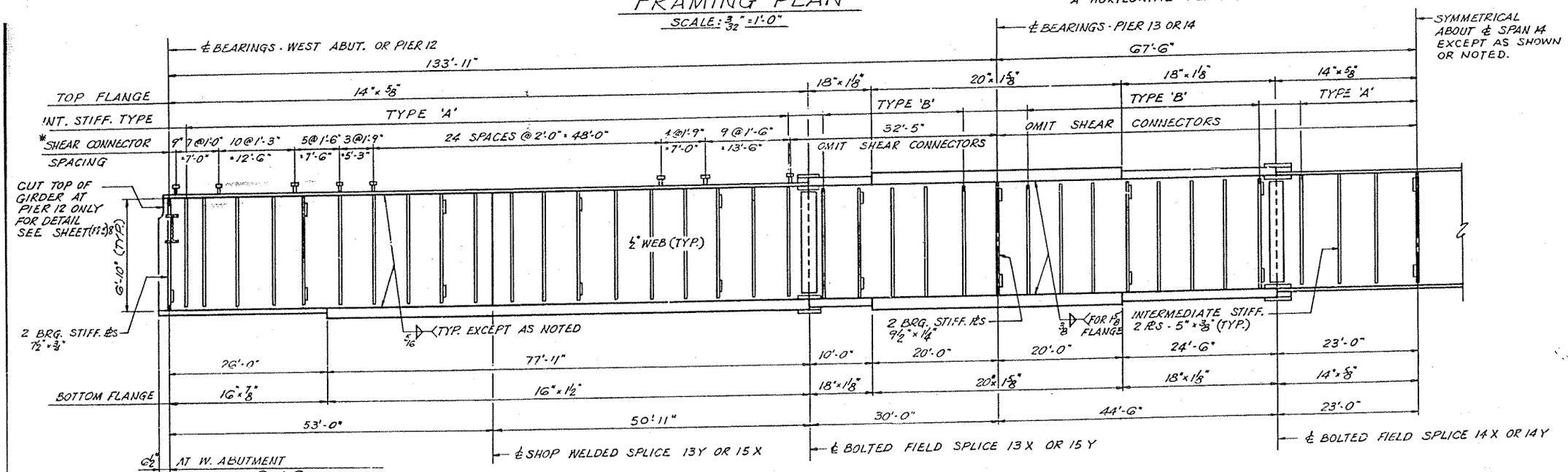
ALFRED BENESCH & COMPANY CONSULTING
18 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.

FRAMING PLAN

SCALE: 3/32" = 1'-0"



GIRDER ELEVATION

NO SCALE

* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1) D.

TOP OF WEB ELE… FOR FABRICATIO… (UNDEFLECTED GIR…

LOCATION \ GIRDER	1 & 7	
℄ BRG. W. ABUT.	466.998	4
℄ SHOP SPLICE 15X	468.460	4
℄ FIELD SPLICE 15Y	469.620	4
℄ BRG. PIER 14	470.380	4
℄ FIELD SPLICE 14X	471.682	4
℄ FIELD SPLICE 14Y	473.062	4
℄ BRG. PIER 13	474.396	4
℄ FIELD SPLICE 13X	475.395	4
℄ SHOP SPLICE 13Y	477.105	4
℄ BRG. PIER 12	478.512	4

NOTES FO…

ALL STRUCTURAL STEEL SHALL CONFORM TO A. S…

SHOP CONNECTIONS SHALL BE WELDED EXCEPT … WELDING SHALL BE IN ACCORDANCE WITH CURR… RAILWAY BRIDGES OF THE AMERICAN WELDING … SPECIAL PROVISIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH … ALL HIGH STRENGTH BOLTS SHALL BE 3/4" DIAM… HOLES FOR SPLICES IN GIRDERS AND SPLICE PLA… IN DIAMETER FOR 3/4" BOLTS AND TO 3/16" SM… GREATER THAN 3/4" IN DIAMETER AND REAMED … UNIT ASSEMBLED IN THE SHOP IN PROPER POSITI… OUT CROSSFRAMES. LEAVE ASSEMBLED FOR INS…

ROADWAY EXPANSION GUARDS SHALL BE FABRI… 51. 13 (d) OF THE STANDARD SPECIFICATIONS AN… STEEL (CARBON). ESTIMATED WEIGHT = … IN THE SHOP IN PROPER POSITION AND LEFT AS … FLAME CUT AS PROVIDED IN ARTICLE 54. 5 (1) OF…

STRUCTURAL STEEL SHALL BE SHOP PAINTED UND… SECTION (06-3, 78-1) P. STRUCTURAL STEEL SHA… TWO FIELD COATS OF ALUMINUM PAINT EXCEPT … AND APPLIED BY THE CONTRACTOR. SEE ARTICL… FICATIONS AND THE SPECIAL PROVISIONS. THE… BE GIVEN TWO SHOP COATS OF RED LEAD PAINT … COAT OF RED LEAD PAINT. ANCHOR STUDS SHA…

SHOP INSPECTION OF THE STRUCTURAL STEEL SH… PAINTING.

FIELD WELDING OF CONSTRUCTION ACCESSORI… 1/4 OF THE SPAN EACH WAY FROM THE INTERIO… FLANGES OF GIRDERS WILL NOT BE PERMITTED. … ONLY WHEN APPROVED BY THE ENGINEER.

FOR NOTES FOR BEARINGS SEE SHEET (F & E) 1.

STANDARD SPECIFICATIONS FOR ROAD AND BRI… PUBLIC WORKS AND BUILDINGS, JANUARY 2, 1… EFFECTIVE JANUARY 3, 1966, ALSO APPLY TO TH…

FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PR…

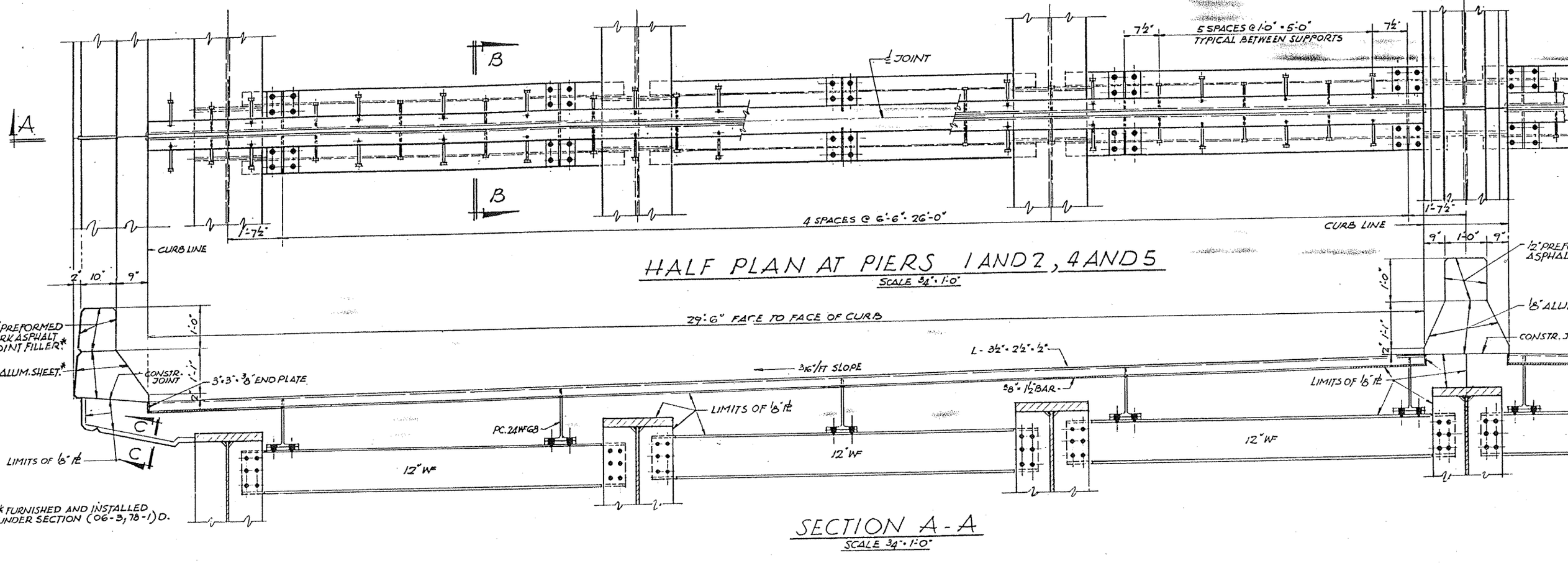
APPROVED
FOR STRUCTURAL ADEQUACY
Carl E. Thummel
Engineer of Bridges & Traffic Struc…
7-26-67

#1200

F…

B…

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

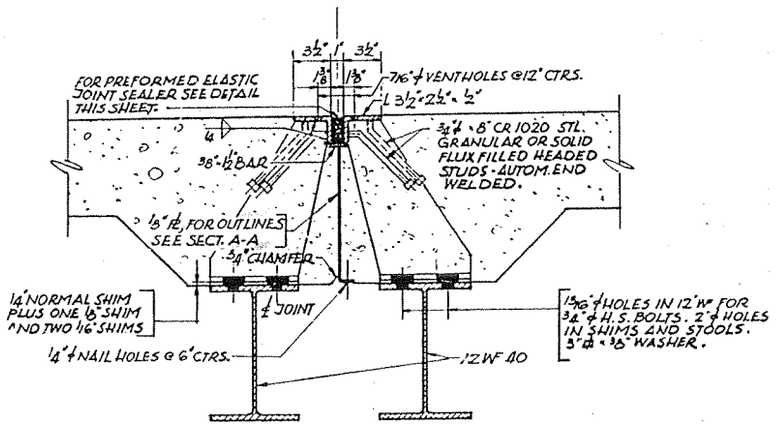


HALF PLAN AT PIERS 1 AND 2, 4 AND 5

SCALE 3/4" = 1'-0"

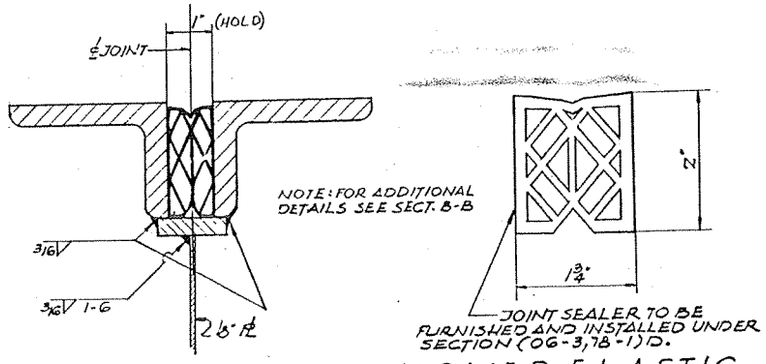
SECTION A-A

SCALE 3/4" = 1'-0"



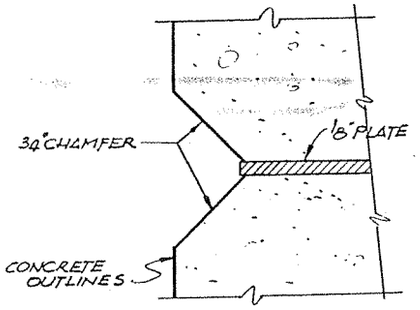
SECTION B-B

SCALE: 1½" = 1'-0"



DETAIL OF PREFORMED ELASTIC JOINT SEALER

NOTE : TWO HALVES OF DEFLECTION JOINT AND ⅛" PL TO BE BOLTED TOGETHER FOR SHIPMENT WITH TEMPORARY SPREADERS.



SECTION C-C

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Peterson Jr. 11-27-67

Samuel Gannow

ALFRED BENESCH & COMPANY
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

STRESS TABLE

MAXIMUM MOMENTS (IN FOOT KIPS)

	SPANS 1 & 3*	PIERS 1 & 2	SPAN 2	SPANS 4 & 6*	PIERS 4 & 5	SPAN 5	SPANS 7, 9, 10 & 12*	PIERS 7, 8, 10 & 11	SPANS 8 & 11	SPANS 13 & 15*	PIERS 13 & 14	SPAN 14
D.L.	+2,437	-10,754	+3,399	+8,927	-24,733	+4,349	+2,957	-4,441	+349	+1,792	-2,795	+266
S.D.L.	+605	-1,892	+930	+1,548	-3,863	+1,199	+643	-859	+182	+410	-524	+132
LL.	+2,960	-4,950	+3,570	+6,150	-10,055	+5,711	+2,330	-2,570	+1,272	+1,606	-1,630	+1,013
IMP.	+456	-681	+444	+716	-1,081	+571	+398	-437	+216	+310	-313	+194
S.D.L+LL+IMP.	+4,021	—	+4,944	+8,414	—	+7,481	+3,371	—	—	+2,326	—	—
TOTAL	+6,458	-18,277	+8,343	+17,341	-39,732	+11,830	+6,328	-8,307	+2,019	+4,118	-5,262	+1,605

SECTION PROPERTIES (I* IN IN.4, S* IN IN.3)

STEEL SECTION	Is	143,112	793,487	152,377	402,352	2,108,238	246,782	140,787	375,094	83,048	74,183	136,627	52,842
	Srs	2,191	9,872	2,238	5,898	21,269	3,318	2,179	5,237	1,578	1,475	3,205	1,269
	Sbs	3,475	9,872	3,953	8,523	21,269	5,128	3,350	5,237	1,578	2,194	3,205	1,269
COMP SECTION	Ic (n=9)	328,257	—	359,038	663,820	—	517,318	320,545	—	—	183,515	—	—
	Src	9,942	—	10,044	14,365	—	11,791	9,919	—	—	7,905	—	—
	Sbc	4,467	—	5,065	9,590	—	6,579	4,314	—	—	3,013	—	—

REACTIONS (IN KIPS)

	EAST ABUT.	PIERS 1 & 2	PIER 3 SPAN 3	PIER 3 SPAN 4	PIERS 4 & 5	PIER 6 SPAN 6	PIER 6 SPAN 7	PIERS 7, 8, 10 & 11	PIER 9 SPAN 9	PIER 9 SPAN 10	PIER 12 SPAN 12	PIER 12 SPAN 13	PIERS 13 & 14	WEST ABUT.
D.L.	84.7	417.7	84.7	171.2	701.6	171.2	89.3	261.9	89.3	89.3	89.3	68.8	207.4	68.8
S.D.L.	19.1	78.4	19.1	30.2	110.0	30.2	19.2	53.9	19.2	19.2	19.2	15.4	42.6	15.4
LL.	74.7	188.0	74.7	100.5	258.5	100.5	68.4	138.8	68.4	68.4	68.4	58.9	114.3	58.9
IMP.	11.6	25.6	11.6	11.8	28.0	11.8	11.6	23.6	11.6	11.6	11.6	11.3	21.9	11.3
S.D.L+LL+IMP.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	190.1	709.7	190.1	313.7	1098.1	313.7	188.5	478.2	188.5	188.5	188.5	154.4	386.2	154.4

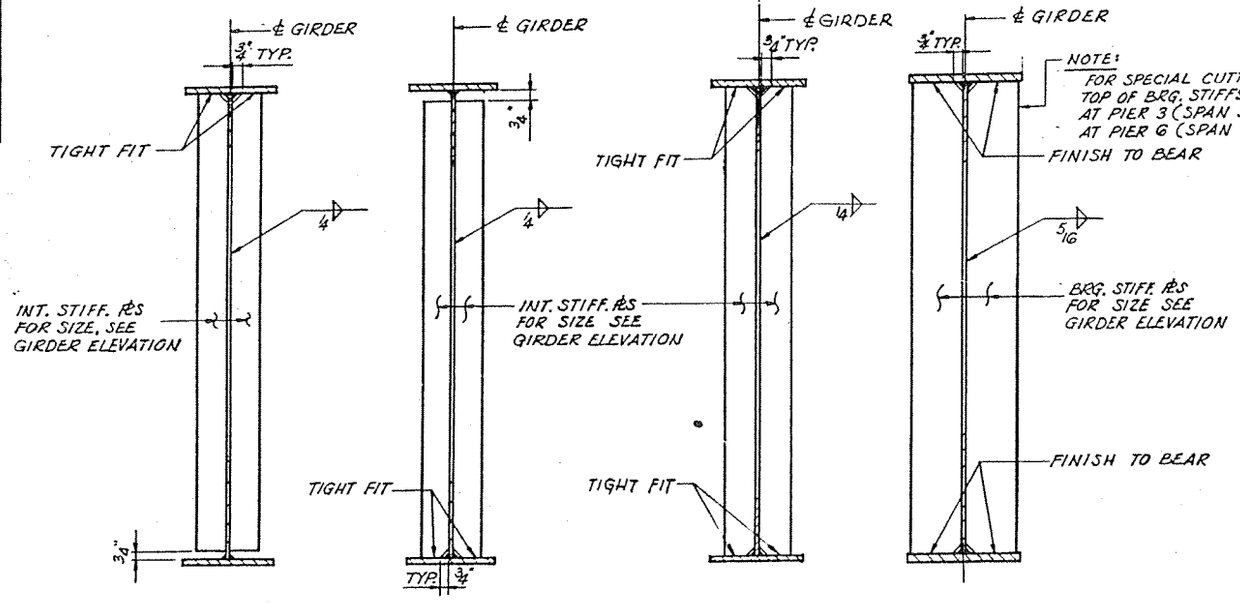
LEGEND

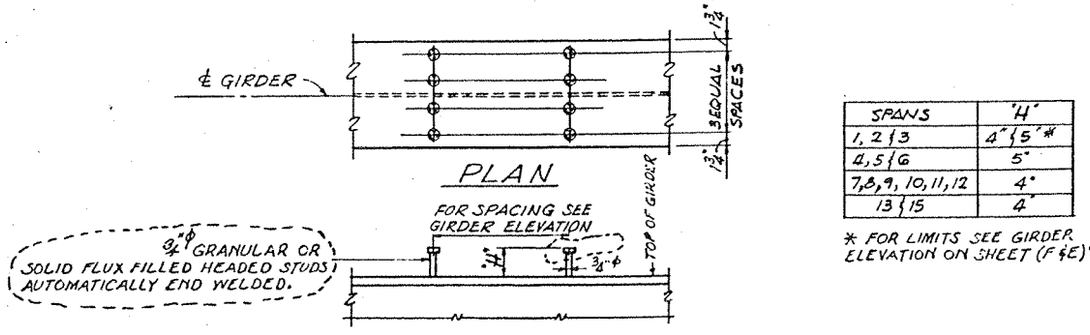
D.L. DEAD LOAD.
S.D.L. SUPERIMPOSED DEAD LOAD ACTING ON COMPOSITE SECTION.
L.L. LIVE LOAD.
IMP. IMPACT.
Is MOMENT OF INERTIA OF STEEL SECTION. AT LOCATION OF MAXIMUM MOMENT.
Srs SECTION MODULUS FOR TOP OF STEEL SECT.
Sbs SECTION MODULUS FOR BOTT. OF STEEL SECT.
Ic MOMENT OF INERTIA OF COMPOSITE SECT. AT LOCATION OF MAXIMUM MOMENT.
Src SECTION MODULUS FOR TOP STEEL OF COMPOSITE SECTION.
Sbc SECTION MODULUS FOR BOTT. STEEL OF COMPOSITE SECTION.
* MOMENTS & SECTION PROPERTIES SHOWN FOR A LOCATION AT 0.4*L FROM THE EXT. SUPP. WHERE L* THE LENGTH OF SPAN UNDER CONSIDERATION

SHEARS (IN KIPS)

	SPANS 1 & 3 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 2 SUPPORT	1/4	1/2	SPANS 4 & 6 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 5 SUPPORT	1/4	1/2
D.L.	+84.7	+16.8	-52.7	-123.4	-206.1	+211.6	+98.7	0	+171.2	+49.2	-81.0	-210.6	-364.7	+336.9	+148.0	0
S.D.L.	+19.1	+4.8	-9.5	-23.8	-38.1	+40.3	+20.2	0	+30.2	+8.6	-12.9	-34.5	-56.0	+54.0	+27.0	0
L.L.	+74.7	+43.8	-45.0	-71.0	-100.8	+110.0	+69.1	+36.0	+100.5	+57.6	-58.5	-95.3	-138.6	+143.3	+90.5	±48.6
IMP.	+11.6	+8.1	-10.1	-13.1	-15.7	+13.4	+10.3	+6.8	+11.8	+8.2	-10.6	-13.6	-15.9	+14.3	+11.1	±7.8
S.D.L+LL+IMP.	+105.4	+56.7	-64.6	-107.9	-154.6	+163.7	+99.6	+42.8	+142.5	+74.4	-82.0	-143.4	-210.5	+211.6	+128.6	±56.4
TOTAL	+190.1	+73.5	-117.3	-231.3	-360.7	+375.3	+198.3	+42.8	+313.7	+123.6	-163.0	-354.0	-575.2	+548.5	+276.6	±56.4

	SPANS 7, 9, 10 & 12 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPANS 8 & 11 SUPPORT	1/4	1/2	SPANS 13 & 15 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 14 SUPPORT	1/4	1/2
D.L.	+89.3	+32.3	-26.5	-84.1	-145.2	+116.7	+55.3	0	+68.8	+24.5	-20.5	-65.7	-114.0	+93.4	+44.7	0
S.D.L.	+19.2	+7.1	-5.1	-17.3	-29.4	+24.5	+12.2	0	+15.4	+5.7	-3.9	-13.6	-23.2	+19.4	+9.7	0
L.L.	+68.4	+41.7	-34.5	-57.3	-83.4	+78.5	+42.8	+29.2	+58.9	+39.9	-31.7	-49.1	-70.6	+67.0	+45.5	+26.6
IMP.	+11.6	+8.2	-8.2	-11.3	-14.1	+13.4	+8.5	+6.9	+11.3	+8.9	-8.2	-10.9	-13.5	+12.8	+10.1	+6.9
S.D.L+LL+IMP.	+99.2	+57.0	-47.8	-85.9	-126.9	+116.4	+63.5	+36.1	+85.6	+54.5	-43.8	-73.6	-107.3	+99.2	+65.3	+33.5
TOTAL	+188.5	+89.3	-74.3	-170.0	-272.1	+233.1	+118.8	+36.1	+154.4	+79.0	-64.3	-139.3	-221.3	+192.6	+110.0	+33.5



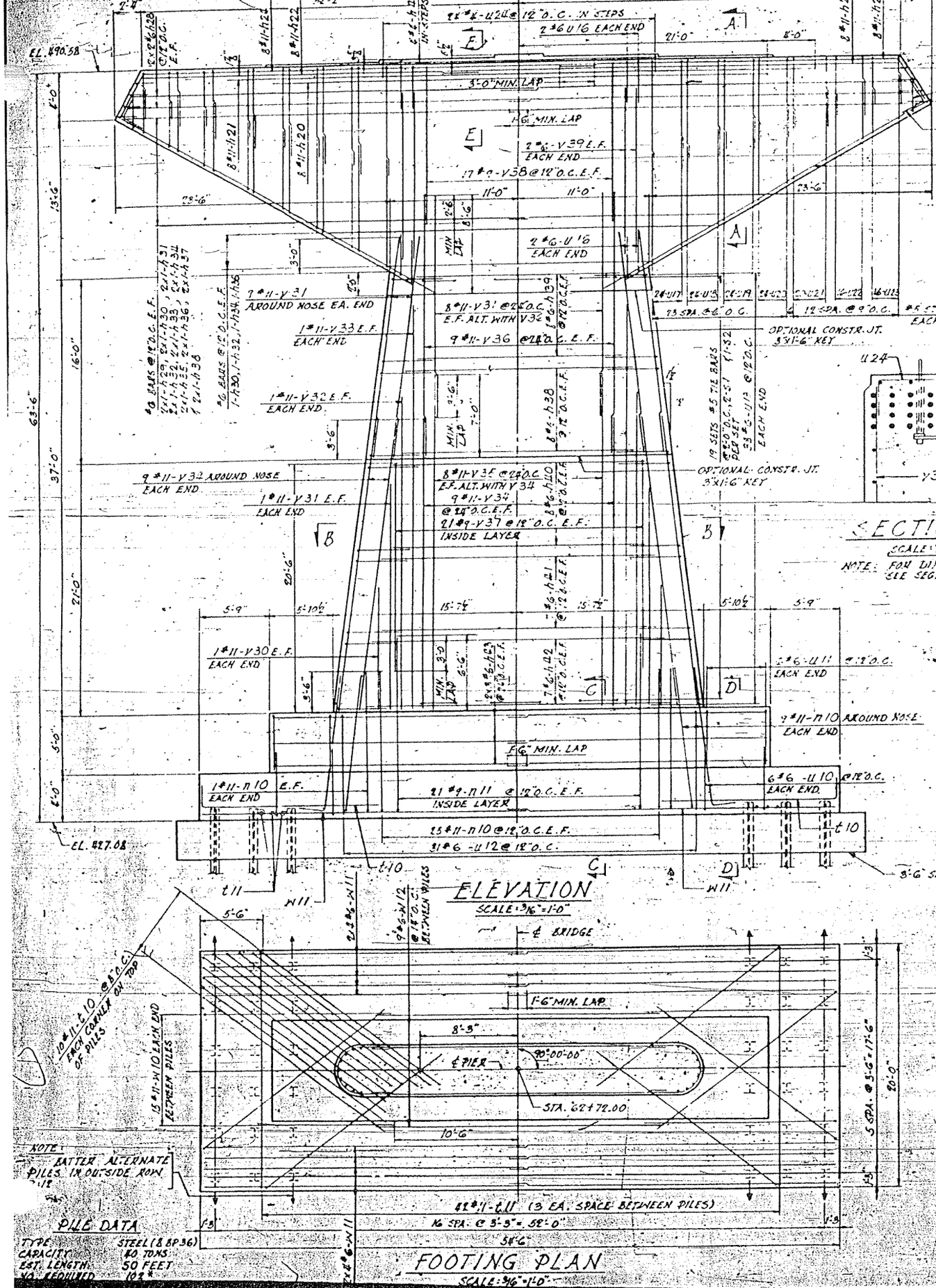


SPANS	'H'
1, 2 & 3	4" & 5"*
4, 5 & 6	5"
7, 8, 9, 10, 11, 12	4"
13 & 15	4"

* FOR LIMITS SEE GIRDER ELEVATION ON SHEET (F&E)9.

GRIND SMOOTH OUTSIDE FACE OF GIRDERS 1 AND 7 AT ALL SPLICES. IN ADDITION GRIND SMOOTH BOTH FACES OF THE WEB OF ALL GIRDERS AT THE FOLLOWING LOCATIONS:

1. LOWER 1'-3" AT SPLICES 13Y AND 15X.
2. LOWER 1'-6" AT SPLICES 1Z, 2X AND 3W.
3. UPPER 2'-0" AT SPLICES 1W, 2V, 2Z, AND 3Z.
4. LOWER 1'-6" AT SPLICES 7Y, 8X, 9X, 10Y, 11X, AND 12X.
5. FULL DEPTH OF WEB AT SPLICES 8V, 8Z, 11V AND 11Z.
6. LOWER 1'-9" AT SPLICES 4X, 4Z, 5W, 6V, AND 6X.
7. UPPER 2'-3" AT SPLICES 4V, 5T, 5Z AND 6Z.
8. UPPER 2'-9" AT SPLICES 9'-0" FROM PIER 4 AND PIER 5 IN SPAN 5.


EL. 830.58
EL. 827.08
ELEVATION
SCALE: 3/16" = 1'-0"
FOOTING PLAN
SCALE: 3/16" = 1'-0"
PILE DATA
TYPE STEEL (8 BP 36)
CAPACITY 80 TONS
EST. LENGTH 50 FEET
NO. REQUIRED 102 *
NOTE:
* LATTER ALTERNATE PILES IN OUTSIDE ROW
℄ BRIDGE
℄ PIER
STA. 62+72.00
5 SPA. @ 5'-6" = 27'-6"
10 SPA. @ 5'-9" = 57'-6"
54'-6"
10'-6"
90°-00'-00"
8'-3"
1'-6" MIN. LAP
82 #11-t11 (3 EA. SPACE BETWEEN PILES)
16 SPA. @ 3'-9" = 58'-0"
15 #11-n10 EACH END BETWEEN PILES
10 #11-t10 @ 8" O.C. EACH CORNER OF PILES
9 #6-n12 @ 18" O.C. BETWEEN PILES
2 #6-n12
1 #11-n10 E.F. EACH END
21 #9-n11 @ 12" O.C. E.F. INSIDE LAYER
25 #11-n10 @ 12" O.C. E.F.
31 #6-u12 @ 18" O.C.
6 #6-u10 @ 18" O.C. EACH END.
9 #11-n10 AROUND NOSE EACH END
1 #6 MIN. LAP
2 #11-v30 E.F. EACH END
2 #6-u11 @ 12" O.C. EACH END
2 #6 MIN. LAP
2 #6-u16 EACH END
2 #6-u15 EACH END
1 #6-u14 EACH END
6 #6-h27 EACH END
6 #7-h26 BOTT. OF CAP EACH END
2 #6-v39 E.F. EACH END
17 #9-v38 @ 12" O.C. E.F.
11'-0"
8 #11-v35 @ 12" O.C. E.F. ALT. WITH V34
9 #11-v34 @ 12" O.C. E.F.
21 #9-v37 @ 12" O.C. E.F. INSIDE LAYER
8 #6-h40 @ 12" O.C. E.F.
7 #6-h41 @ 12" O.C. E.F.
8 #11-v31 @ 12" O.C. E.F. ALT. WITH V32
9 #11-v36 @ 12" O.C. E.F.
8 #6-h39 @ 12" O.C. E.F.
8 #11-v31 @ 12" O.C. E.F.
9 #11-v31 AROUND NOSE EA. END
1 #11-v33 E.F. EACH END
1 #11-v32 E.F. EACH END
9 #11-v32 AROUND NOSE EACH END
1 #11-v31 E.F. EACH END
1 #11-v30 E.F. EACH END
#6 BARS @ 12" O.C. E.F. 1-h29, 8-h30, 2-h31, 2-h32, 2-h33, 2-h34, 2-h35, 2-h36, 2-h37, 1-h38
#6 BARS @ 12" O.C. E.F. 1-h30, 1-h32, 1-h34, 1-h36
19 SETS #5 TIE BARS @ 1'-0" O.C. E.F. SET: 1-s1, 2-s2, 1-s3 @ 12" O.C.
OPTIONAL CONSTR. JT. 3"x1'-6" KEY
19 SPA. @ 6" O.C.
12 SPA. @ 9" O.C.
#5 STIRRUPS IN SETS OF 3 EACH END
SECTION E-E
SCALE: 1/2" = 1'-0"
NOTE: FOR DIMENSIONS NOT SHOWN SEE SECTION A-A
u24
h24
h22
h23
h21
h20
h28
v38
END VIEW
SCALE: 3/16" = 1'-0"
3'-6" SEAL COAT
HALF TOP PLAN
SCALE: 3/16" = 1'-0"
NORTH
SYMMETRICAL ABOUT ℄ BRIDGE
VARIES
v31
v32
v33
v34
v35
v37
s1
s2
u13
h40
1'-6" MIN. LAP
HALF SECTION B-B
SCALE: 3/8" = 1'-0"
2 3/4" CL.
CONSTR. JOINT 3"x1'-6" KEY
OPTIONAL CONSTR. JOINT 3"x1'-6" KEY
h42
n10
n11
t11
w11
w12
SECTION C-C
SCALE: 3/8" = 1'-0"
u11
w10
SECTION D-D
SCALE: 3/8" = 1'-0"
NOTES:
THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 682.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B9.
BILL OF MATERIALS
ITEM | UNIT | QUANTITIES
CLASS "X" CONCRETE | CU. YDS. | 535.9
SEAL COAT CONCRETE | CU. YDS. | 181.0
REINFORCEMENT BARS | LBS. | 65,740
FURNISHING STEEL PILES (8 BP 36) | LIN. FT. | 5,050
DRIVING STEEL PILES | LIN. FT. | 5,050
TEST PILE, STEEL (8 BP 36) | EACH | 1
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
8-4-67
AS BUILT
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS
B

EL. 830.58

EL. 827.08

ELEVATION
SCALE: 3/16" = 1'-0"

END VIEW
SCALE 3/16" = 1'-0"

HALF TOP PLAN
SCALE: 3/16" = 1'-0"

HALF SECTION B-B
SCALE: 3/16" = 1'-0"

SECTION E-E
SCALE: 1/2" = 1'-0"

NOTE: FOR DIMENSIONS NOT SHOWN SEE SECTION A-A

SECTION C-C
SCALE: 1/2" = 1'-0"

SECTION D-D
SCALE: 1/2" = 1'-0"

FOOTING PLAN
SCALE: 3/16" = 1'-0"

NOTE:
BATTER ALTERNATE PILES IN OUTSIDE ROW 1:12

PILE DATA

TYPE	STEEL (ASTM A36)
CAPACITY	80 TONS
EST. LENGTH	50 FEET
NO. REQUIRED	102*

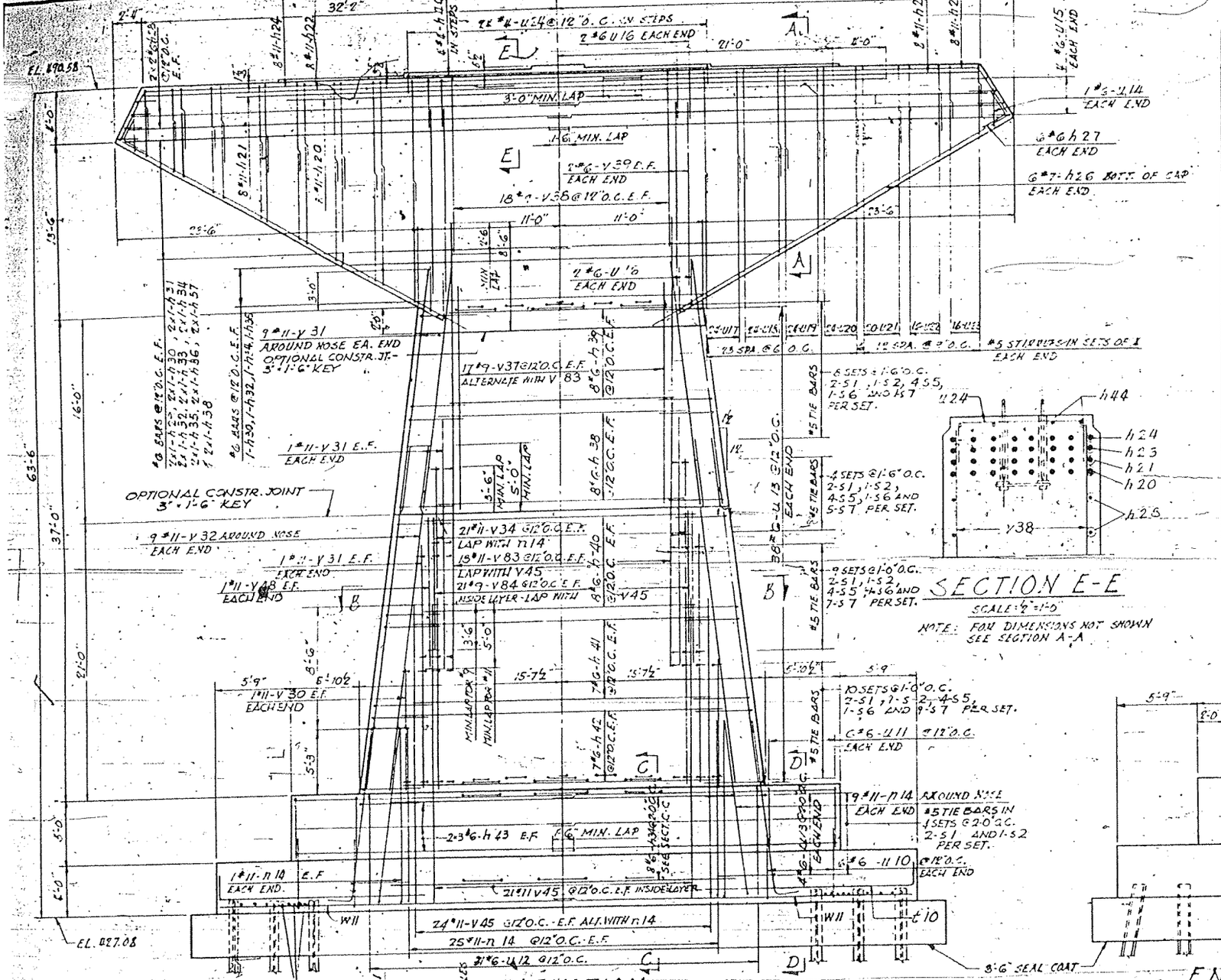
NOTES:
1. THE CONTRACTOR SHALL DRIVE ONE STEEL (ASTM A36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES. DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 822.
2. FOR ADDITIONAL NOTES SEE SHEET 88.
3. FOR REINFORCEMENT BAR LIST SEE SHEET 89.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	535.9
SEAL COAT CONCRETE	CU. YDS.	181.0
REINFORCEMENT BARS	LBS.	65,740 + 6990
FURNISHING STEEL PILES (ASTM A36)	LIN. FT.	5,050
DRIVING STEEL PILES	LIN. FT.	5,050
TEST PILE, STEEL (ASTM A36)	EACH	1

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridge & Traffic Structures
8-4-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
CHICAGO, ILLINOIS



NOTES:

THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 682.
FOR ADDITIONAL NOTES SEE SHEET B 4.
FOR REINFORCEMENT BAR LIST SEE SHEET 898.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	535.9
SEAL COAT CONCRETE	CU. YDS.	181.0
REINFORCEMENT BARS	LBS.	87,700
FURNISHING STEEL PILES (8 BP 36)	LIN. FT.	5,050
DRIVING STEEL PILES	LIN. FT.	5,050
TEST PILE, STEEL (8 BP 36)	EACH	1

F1300

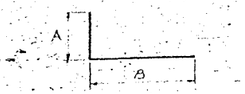
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
CHICAGO, ILLINOIS

BILL OF MATERIAL

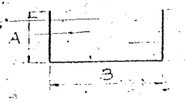
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,78) B	BUREAU-PUTNAM		
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 6	ILLINOIS	PROJECT I-180-7(6)0		B-9

PIER 7

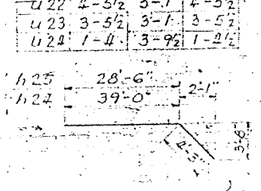
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	22-0	
	8	#11	50-0	
	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	14	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n10	12	#11	12-0	
n11	42	#11	16-0	
s1	38	#5	15-6	
s2	19	#5	17-6	
t10	40	#11	21-0	
	42	#11	23-6	
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	76	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
v30	4	#11	10-6	
v31	38	#11	19-0	
v32	4	#11	26-0	
v33	4	#11	34-0	
v34	36	#11	24-6	
v35	16	#11	28-0	
v36	18	#11	22-6	
v37	42	#9	17-6	
v38	34	#9	13-6	
v39	8	#6	14-6	
w30		#11	18-6	
w11	16	#6	27-9	
w12	9	#6	24-0	



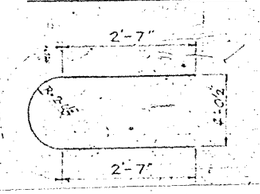
MARK	A	B
h27	2-0	2-3
n10	2-0	12-0
n11	1-0	15-0
t10	2-0	19-0
w10	2-0	16-6



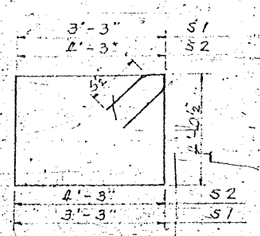
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	2-9	8-2	2-9
u12	5-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½



BARS h24 & h25



BAR u13



BARS S1 & S2

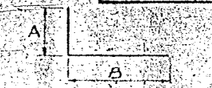
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

PIER 8

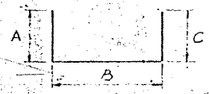
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	22-0	
	8	#11	50-0	
	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	14	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n10	12	#11	12-0	
n11	42	#11	16-0	
s1	38	#5	15-6	
s2	19	#5	17-6	
t10	40	#11	21-0	
	42	#11	23-6	
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	76	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
v30	4	#11	10-6	
v31	38	#11	19-0	
v32	4	#11	26-0	
v33	4	#11	34-0	
v34	36	#11	24-6	
v35	16	#11	28-0	
v36	18	#11	22-6	
v37	42	#9	17-6	
v38	34	#9	13-6	
v39	8	#6	14-6	
w30		#11	18-6	
w11	16	#6	27-9	
w12	9	#6	24-0	

PIER 10

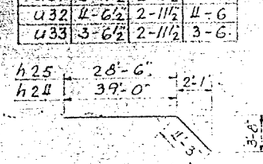
BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	
h23	7	#11	39-0	
h24	7	#11	43-3	
h25	7	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	4	#6	19-6	
h45	4	#11	38-0	
h46	7	#11	46-0	
h47	7	#11	54-0	
h48	20	#6	17-9	
h49	18	#6	20-0	
h50	12	#6	21-0	
h51	4	#4	24-0	
n12	40	#10	13-3	
n13	20	#10	16-6	
s1	20	#5	15-6	
s2	10	#5	17-6	
t12	40	#11	22-0	
t13	52	#9	23-6	
u10	14	#6	18-3	
u13	38	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	25	#4	6-6	
u25	27	#6	23-9	
u26	12	#6	16-8	
u27	48	#5	21-6	
u28	48	#5	20-0	
u29	48	#5	18-0	
u30	48	#5	16-6	
u31	40	#5	14-6	
u32	32	#5	12-0	
u33	32	#5	10-0	
v39	8	#6	14-6	
v40	34	#8	13-3	
v41	18	#10	20-9	
v42	18	#10	24-3	
v43	4	#10	9-0	
v44	16	#10	21-0	
w18	30	#11	20-9	
w10	16	#6	27-6	
w15	9	#6	19-0	



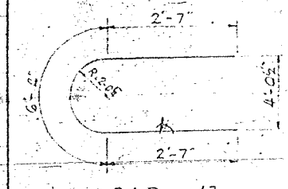
MARK	A	B
h27	2-0	2-0
n12	2-0	11-3
n13	2-0	14-6
t12	2-0	20-6
w13	2-0	18-9



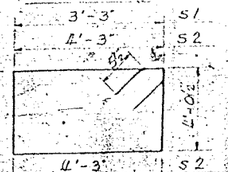
MARK	A	B	C
t13	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u27	9-3½	2-11½	9-3
u28	8-6½	2-11½	8-6
u29	7-6½	2-11½	7-6
u30	6-9½	2-11½	6-9
u31	5-9½	2-11½	5-9
u32	4-6½	2-11½	4-6
u33	3-6½	2-11½	3-6



BARS h24 & h25



BAR u13



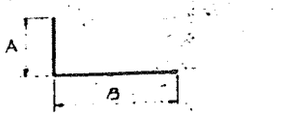
BARS S1 & S2

JULY 28, 1967

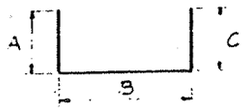
REINFORCEMENT BAR LISTS-PIERS 7, 8, 9 & 10
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (063,78) B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY, CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE, CHICAGO, ILLINOIS

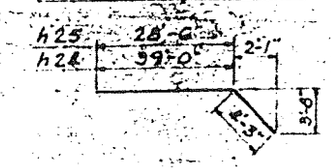
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	32-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	12	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n10	72	#11	14-0	
n11	#2	#9	16-0	
s1	38	#5	15-6	
s2	19	#5	17-6	
t10	40	#11	21-0	
t11	42	#11	23-6	
	76			
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	76	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
v30	4	#11	10-6	
v31	38	#11	19-0	
v32	4	#11	26-0	
v33	2	#11	34-0	
v34	36	#11	24-6	
v35	16	#11	28-0	
v36	18	#11	22-6	
v37	42	#9	17-6	
v38	34	#9	13-6	
v39	8	#6	14-6	
w10	30	#11	18-6	
w11	16	#6	27-9	
w12	9	#6	24-0	



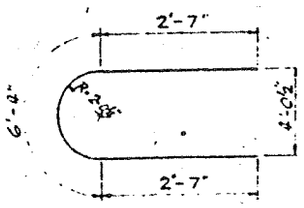
MARK	A	B
h27	2-0	2-0
n10	2-0	12-0
n11	1-0	15-0
t10	2-0	19-0
w10	2-0	16-6



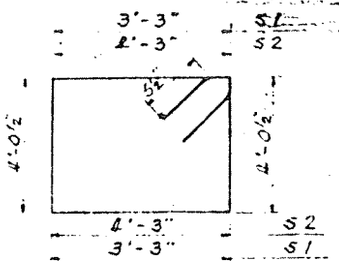
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	2-9	8-2	2-9
u12	5-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½



BARS h24 & h25



BAR u13



BARS S1 & S2

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	
h23	7	#11	39-0	
h24	7	#11	43-3	
h25	7	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	32-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	4	#6	19-6	
h45	4	#11	38-0	
h46	7	#11	45-0	
h47	7	#11	52-0	
h48	20	#6	17-9	
h49	18	#6	20-0	
h50	12	#6	21-0	
h51	4	#4	24-0	
n12	40	#10	13-3	
n13	20	#10	16-6	
s1	20	#5	15-6	
s2	10	#5	17-6	
t12	40	#11	22-0	
t13	52	#9	23-6	
	71			
u10	14	#6	18-3	
u19	38	#6	11-6	
u18	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	25	#4	6-6	
u25	27	#6	23-9	
u26	14	#6	16-8	
u27	48	#5	21-6	
u28	48	#5	20-0	
u29	48	#5	18-0	
u30	48	#5	16-6	
u31	40	#5	14-6	
u32	32	#5	12-0	
u33	32	#5	10-0	
v39	8	#6	14-6	
v40	34	#8	13-3	
v41	18	#10	20-9	
v42	28	#10	24-3	
v43	4	#10	9-0	
v44	16	#10	21-0	
w13	30	#11	20-9	
w14	16	#6	27-6	
w15	9	#6	19-0	

APPROVED
8-4-67

ALFRED BENESCH & COMPANY - CONSULTING ENGINEERS
CHICAGO, ILLINOIS

R.E

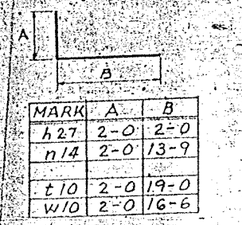
BU

BILL OF MATERIAL

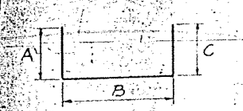
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,7,8)BR-1	BUREAU-PUTNAM		
STA. 50+00.00 BK	STA. 50+00.00 AH	STA. 80+98.25		
B.P.R. SEC. NO.	ILLINOIS	PROJECT I-180(7)0		B.9B

PIER 7

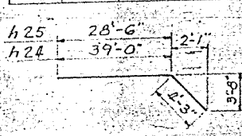
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	L
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	14	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	14	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n12	72	#11	15-9	
S1	70	#5	15-6	
S2	35	#5	17-6	
S5	124	#5	13-2	
S6	131	#5	15-2	
S7	181	#5	5-1	
t10	40	#11	21-0	
t11	76	#11	23-6	
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	84	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
V30	4	#11	10-6	
V31	26	#11	19-0	
V32	18	#11	26-0	
V34	42	#11	24-6	
V45	90	#11	22-3	
V48	4	#11	12-0	
V83	36	#11	34-9	
V37	34	#9	17-6	
V38	36	#9	13-6	
V84	42	#9	10-6	
V39	8	#6	14-6	
70	30	#11	18-6	
W11	16	#6	27-9	
W12	9	#6	24-0	



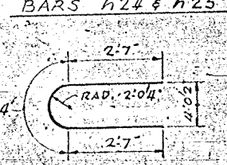
MARK	A	B
h27	2-0	2-0
n14	2-0	13-9
t10	2-0	19-0
W10	2-0	16-6



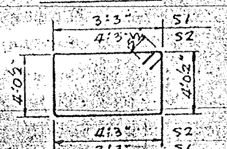
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	4-9	8-2	4-9
u12	8-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½



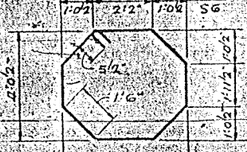
BARS h24 & h25



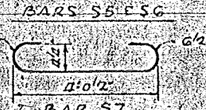
BAR U13



BARS S1 & S2



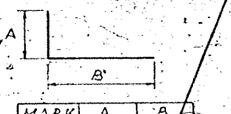
BARS S5 & S6



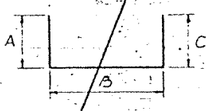
BAR S7

PIER 8

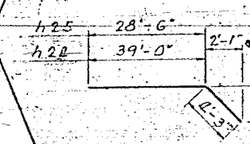
BAR	NO.	SIZE	LENGTH	SHAPE
h20	6	#11	42-0	
h21	6	#11	50-0	
h22	6	#11	28-6	
h23	6	#11	39-0	
h24	6	#11	43-3	
h25	6	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	L
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	14	#6	21-6	
h43	16	#6	22-3	
h44	4	#4	23-0	
h45	12	#6	23-6	
n12	40	#10	13-3	
n13	24	#10	16-6	
S1	30	#5	15-6	
S2	15	#5	17-6	
t12	36	#11	22-0	
t14	52	#10	23-6	
u10	14	#6	18-3	
u13	58	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	24	#4	6-6	
u25	30	#6	23-9	
u26	14	#6	16-8	
u78	40	#6	21-0	
u79	40	#6	18-3	
u80	32	#6	15-3	
u81	32	#6	13-0	
u82	32	#6	10-9	
V39	8	#6	14-6	
V40	34	#8	13-3	
V77	34	#10	19-0	
V81	56	#10	16-9	
V82	22	#10	22-3	
W11	16	#6	27-9	
W20	30	#11	19-6	
W21	9	#6	22-0	



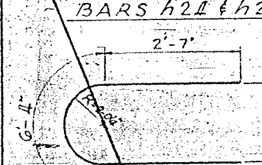
MARK	A	B
h27	2-0	2-0
n12	2-0	11-3
n13	2-0	16-6
t12	2-0	20-0
W20	2-0	17-6



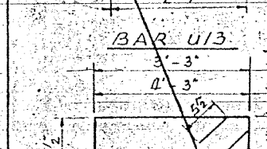
MARK	A	B	C
t19	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u78	9-2½	2-7	9-2½
u79	7-10	2-7	7-10
u80	6-4	2-7	6-4
u81	5-2½	2-7	5-2½
u82	4-1	2-7	4-1



BARS h24 & h25



BAR U13

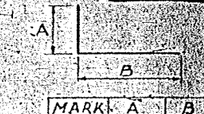


BARS S1 & S2

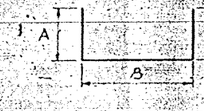
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

PIER 10

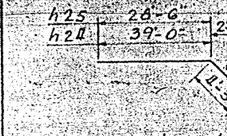
BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	
h23	7	#11	39-0	
h24	7	#11	43-3	
h25	7	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	L
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	4	#6	19-6	
h45	4	#11	38-0	
h46	7	#11	46-0	
h47	7	#11	54-0	
h48	20	#6	17-9	
h49	18	#6	20-0	
h50	12	#6	21-0	
h51	4	#4	24-0	
n12	40	#10	13-3	
n13	20	#10	16-6	
S1	20	#5	15-6	
S2	10	#5	17-6	
t12	40	#11	22-0	
t13	52	#9	23-6	
u10	14	#6	18-3	
u13	38	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	25	#4	6-6	
u25	27	#6	23-9	
u26	14	#6	16-8	
u27	48	#5	21-6	
u28	48	#5	20-0	
u29	48	#5	18-0	
u30	48	#5	16-6	
u31	40	#5	14-6	
u32	32	#5	12-0	
u33	32	#5	10-0	
V39	8	#6	14-6	
V40	34	#8	13-3	
V41	18	#10	20-9	
V42	18	#10	24-3	
V43	4	#10	9-0	
V44	16	#10	21-0	
W13	30	#11	20-9	
W14	16	#6	27-6	
W15	9	#6	19-0	



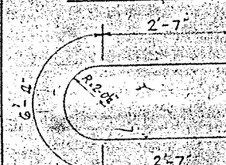
MARK	A	B
h27	2-0	2-0
n12	2-0	11-3
n13	2-0	14-6
t12	2-0	20-0
W13	2-0	18-9



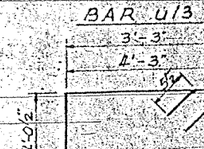
MARK	A	B	C
t13	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u27	9-3½	2-11½	9-3
u28	8-6½	2-11½	8-6
u29	7-6½	2-11½	7-6
u30	6-9½	2-11½	6-9
u31	5-9½	2-11½	5-9
u32	4-6½	2-11½	4-6
u33	3-6½	2-11½	3-6



BARS h24 & h25



BAR U13



BARS S1 & S2

SEPTEMBER 19, 1967

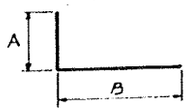
REINFORCEMENT BAR LISTS PIERS 7, 8, 9 & 10

F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,7,8)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

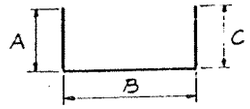
ALFRED BENESCH & COMPANY, CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 7

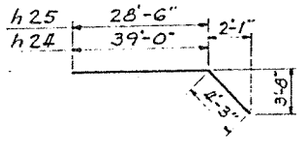
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	14	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	14	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n14	72	#11	15-9	
S1	70	#5	15-6	
S2	35	#5	17-6	
S5	124	#5	13-2	
S6	31	#5	15-2	
S7	181	#5	5-1	
t10	40	#11	21-0	
t11	76	#11	23-6	
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	84	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
v30	4	#11	10-6	
v31	26	#11	19-0	
v32	18	#11	26-0	
v34	22	#11	24-6	
v45	90	#11	22-3	
v48	4	#11	12-0	
v83	36	#11	34-9	
v37	34	#9	17-6	
v38	36	#9	13-6	
v84	42	#9	10-6	
v39	8	#6	14-6	
w10	30	#11	18-6	
w11	16	#6	27-9	
w12	9	#6	24-0	



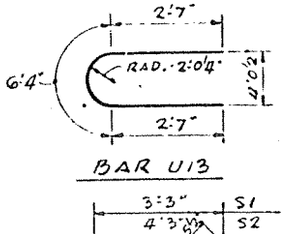
MARK	A	B
h27	2-0	2-0
n14	2-0	13-9
t10	2-0	19-0
w10	2-0	16-6



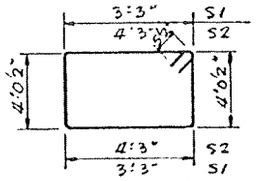
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	4-9	8-2	4-9
u12	8-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½



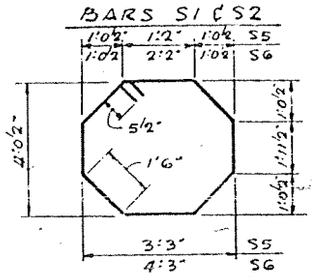
BARS h24 & h25



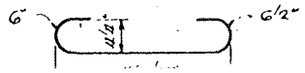
BAR U13



BARS S1 & S2



BARS S5 & S6



BAR S7

PIER

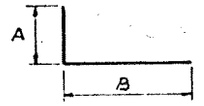
BAR	NO.	SIZE	LENGTH	SHAPE

APPROVED 9-27-67

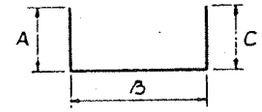
NOTS!

ARE OUT TO OUT.

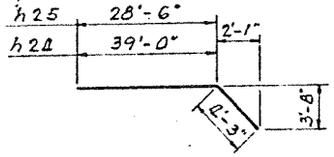
BAR	NO.	SIZE	LENGTH	SHAPE
h20	6	#11	42-0	
h21	6	#11	50-0	
h22	6	#11	28-6	
h23	6	#11	39-0	
h24	6	#11	43-3	
h25	6	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	14	#6	21-6	
h43	16	#6	22-3	
h44	4	#4	23-0	
h95	12	#6	23-6	
n10	40	#11	14-0	
n16	36	#11	21-9	
n11	24	#9	16-0	
S1	30	#5	15-6	
S2	15	#5	17-6	
t19	52	#10	23-6	
u10	14	#6	18-3	
u13	58	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	24	#4	6-6	
u25	30	#6	23-9	
u26	14	#6	16-8	
u78	40	#6	21-0	
u79	40	#6	18-3	
u80	32	#6	15-3	
u81	32	#6	13-0	
u82	32	#6	10-9	
v39	8	#6	14-6	
v40	34	#8	13-3	
v77	34	#10	19-0	
v81	56	#10	16-6	
v82	22	#10	22-3	
w11	16	#6	27-9	
w20	30	#11	19-6	
w21	9	#6	22-0	



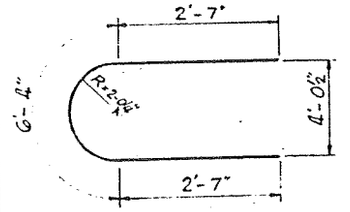
MARK	A	B
h27	2-0	2-0
m10	2-0	12-0
m11	1-0	15-0
n16	1-6	20-3
w20	2-0	17-6



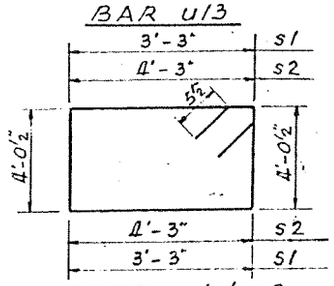
MARK	A	B	C
t19	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u78	9-2½	2-7	9-2½
u79	7-10	2-7	7-10
u80	6-4	2-7	6-4
u81	5-2½	2-7	5-2½
u82	4-1	2-7	4-1



BARS h24 & h25



BAR U13



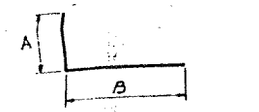
BARS S1 & S2

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	
h23	7	#11	39-0	
h24	7	#11	43-3	
h25	7	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	4	#6	19-6	
h45	4	#11	38-0	
h46	7	#11	46-0	
h47	7	#11	54-0	
h48	20	#6	17-9	
h49	18	#6	20-0	
h50	12	#6	21-0	
h51	4	#4	24-0	
n12	40	#10	13-3	
n13	20	#10	16-6	
S1	20	#5	15-6	
S2	10	#5	17-6	
t12	40	#11	22-0	
t13	52	#9	23-6	
u10	14	#6	18-3	
u13	38	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	25	#4	6-6	
u25	27	#6	23-9	
u26	14	#6	16-8	
u27	48	#5	21-6	
u28	48	#5	20-0	
u29	48	#5	18-0	
u30	48	#5	16-6	
u31	40	#5	14-6	
u32	32	#5	12-0	
u33	32	#5	10-0	
v39	8	#6	14-6	
v40	34	#8	13-3	
v41	18	#10	20-9	
v42	18	#10	24-3	
v43	4	#10	9-0	
v44	16	#10	21-0	
w13	30	#11	20-9	
w14	16	#6	27-6	
w15	9	#6	19-0	

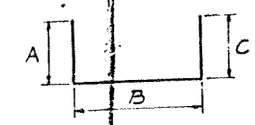
110 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 7

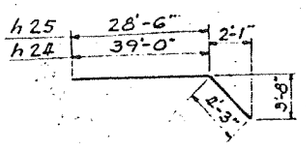
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	14	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	14	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n14	72	#11	15-9	
S1	70	#5	15-6	
S2	35	#5	17-6	
S5	124	#5	13-2	
S6	31	#5	15-2	
S7	181	#5	5-1	
t10	40	#11	21-0	
t11	76	#11	23-6	
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	84	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
V30	4	#11	10-6	
V31	26	#11	19-0	
V32	18	#11	26-0	
V34	42	#11	24-6	
V45	90	#11	22-3	
V48	4	#11	12-0	
V83	36	#11	34-9	
V37	34	#9	17-6	
V38	36	#9	13-6	
V84	42	#9	10-6	
V39	8	#6	14-6	
W10	30	#11	18-6	
W11	16	#6	27-9	



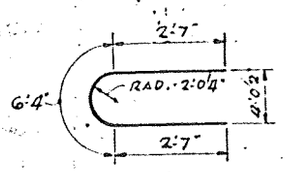
MARK	A	B
h27	2-0	2-0
n14	2-0	13-9
t10	2-0	19-0
W10	2-0	16-6



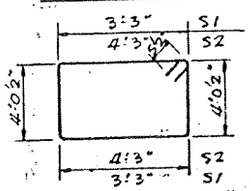
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	4-9	8-2	4-9
u12	8-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½



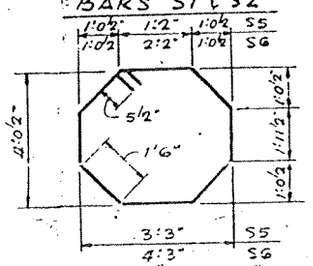
BARS "h24 & h25"



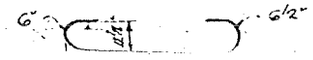
BAR "U13"



BARS "S1 & S2"

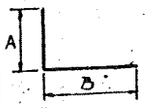


BARS "S5 & S6"

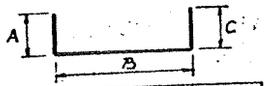


PIER 8

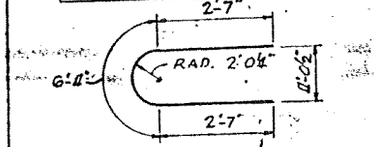
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	14	#6	21-6	
h42	8	#6	25-0	
h43	12	#6	22-3	
h95	12	#6	23-6	
h44	4	#4	23-0	
n14	68	#11	15-9	**
n16	4	#11	21-9	*
n33	40	#11	28-6	
S1	58	#5	15-6	
S2	29	#5	17-6	
S5	100	#5	13-2	
S6	25	#5	15-2	
S7	107	#5	5-1	
t11	48	#11	23-6	
t12	40	#11	22-0	
u10	14	#6	18-3	
u11	14	#6	17-8	
u12	30	#6	24-3	
u13	66	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
V31	18	#11	19-0	*** #
V36	18	#11	22-6	
V38	34	#9	13-6	
V39	8	#6	14-6	
V55	4	#11	16-0	
V94	36	#11	18-3	
V95	20	#11	23-0	
V96	16	#11	17-6	
W11	16	#6	27-9	
W20	30	#11	19-6	
W21	9	#6	22-0	



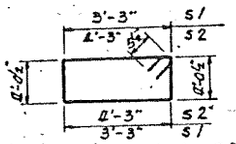
MARK	A	B
h27	2-0	2-0
n14	2-0	13-1"
n16	1-6	20-3
n33	2-0	26-6
t12	2-0	20-0
W20	2-0	17-6



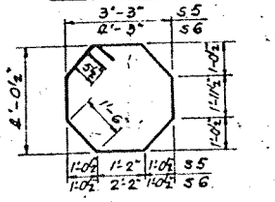
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	4-9	8-2	4-9
u12	8-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½



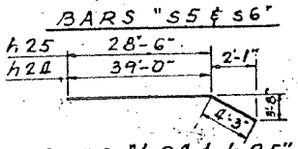
BAR "U13"



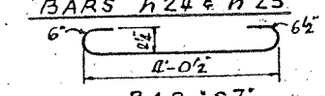
BARS "S1 & S2"



BARS "S5 & S6"



BARS "h24 & h25"



BAR "S7"

* DO NOT ORDER. THESE BARS ARE AVAILABLE AT SITE FROM PIER 1.

** ORDER 32 n14 BARS ONLY. 36 ARE AVAILABLE AT SITE FROM PIER 1.

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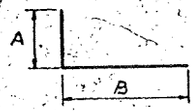
10-3-67

*** ORDER 6 V31 BARS ONLY. 12 ARE AVAILABLE AT SITE FROM PIER 7.

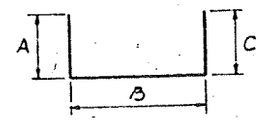
\# ORDER 12 V36 BARS ONLY. 6 ARE AVAILABLE AT SITE FROM PIER 7.

ALL BAR DIMENSIONS ARE OUT TO OUT.

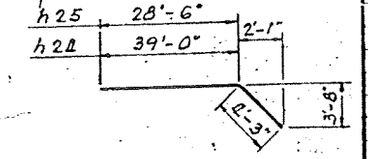
BAR	NO.	SIZE	LENGTH	SHAPE
h20	6	#11	42-0	
h21	6	#11	50-0	
h22	6	#11	28-6	
h23	6	#11	39-0	
h24	6	#11	43-3	
h25	6	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	14	#6	21-6	
h43	16	#6	22-3	
h44	4	#4	23-0	
h95	12	#6	23-6	
n10	40	#11	14-0	
n16	36	#11	21-9	
n11	24	#9	16-0	
S1	30	#5	15-6	
S2	15	#5	17-6	
t19	52	#10	23-6	
u10	14	#6	18-3	
u13	58	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	24	#4	6-6	
u25	30	#6	23-9	
u26	14	#6	16-8	
u78	40	#6	21-0	
u79	40	#6	18-3	
u80	32	#6	15-3	
u81	32	#6	13-0	
u82	32	#6	10-9	
V39	8	#6	14-6	
V40	34	#8	13-3	
V77	34	#10	19-0	
V81	56	#10	16-6	
V82	22	#10	22-3	
W11	16	#6	27-9	
W20	30	#11	19-6	
W21	9	#6	22-0	



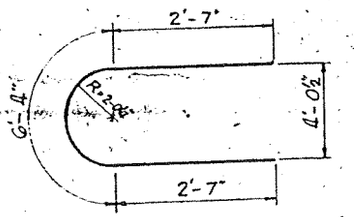
MARK	A	B
h27	2-0	2-0
n10	2-0	12-0
n11	1-0	15-0
n16	1-6	20-3
W20	2-0	17-6



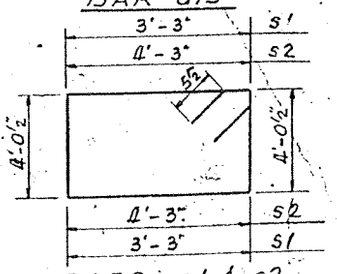
MARK	A	B	C
t19	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u78	9-2½	2-7	9-2½
u79	7-10	2-7	7-10
u80	6-4	2-7	6-4
u81	5-2½	2-7	5-2½
u82	4-1	2-7	4-1



BARS "h24 & h25"

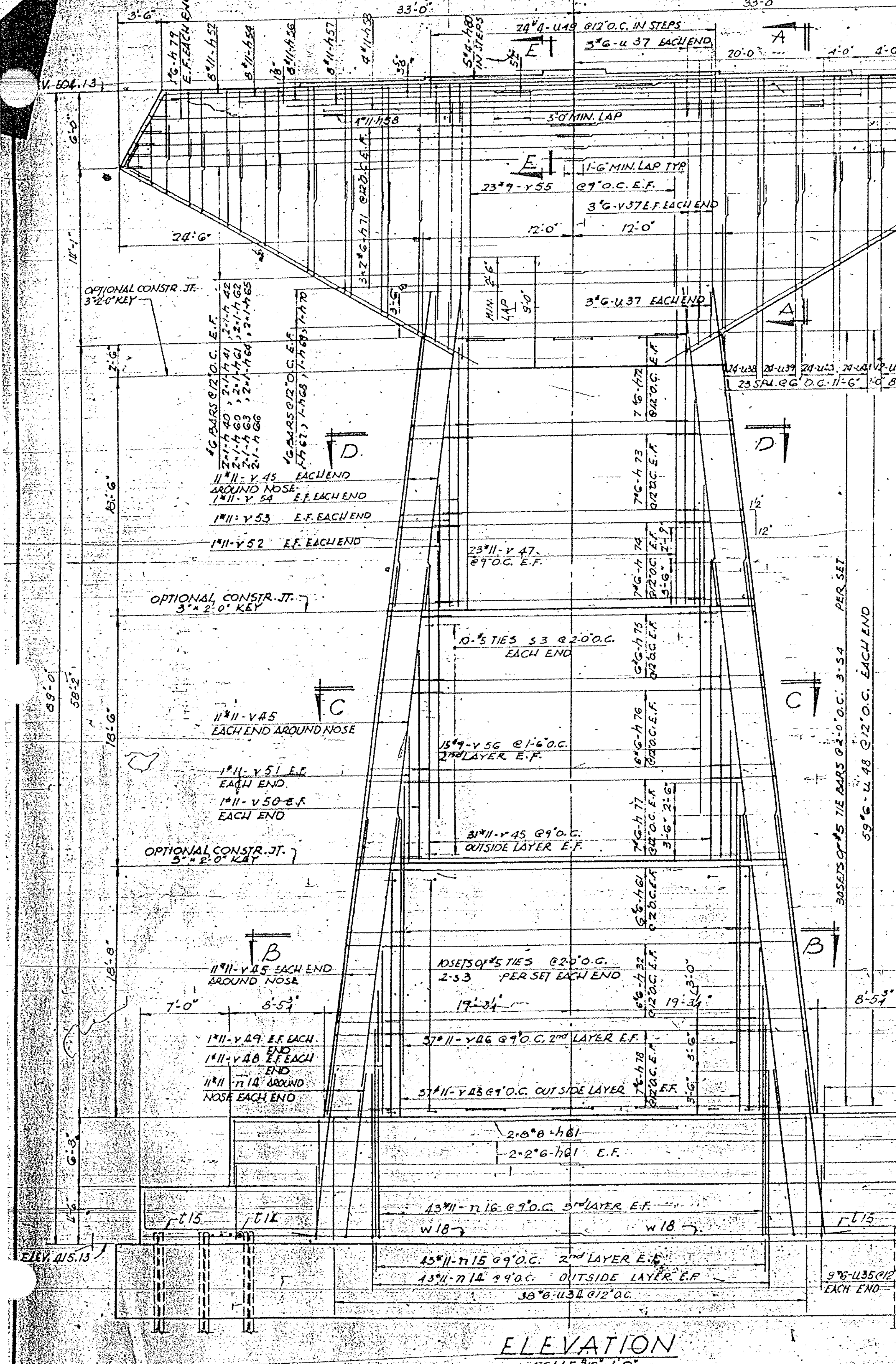


BAR "U13"



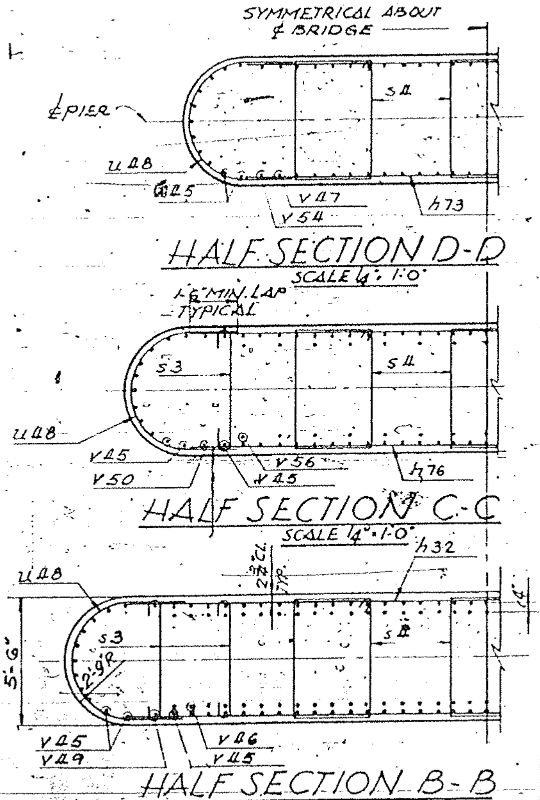
BARS S1 & S2

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	
h23	7	#11	39-0	
h24	7	#11	43-3	
h25	7	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	4	#6	19-6	
h45	4	#11	38-0	
h46	7	#11	46-0	
h47	7	#11	54-0	
h48	20	#6	17-9	
h49	18	#6	20-0	
h50	12	#6	21-0	
h51	4	#4	24-0	
n12	40	#10	13-3	
n13	20	#10	16-6	
S1	20	#5	15-6	
S2	10	#5	17-6	
t12	40	#11	22-0	
t13	52	#9	23-6	
u10	14	#6	18-3	
u13	38	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	25	#4	6-6	
u25	27	#6	23-9	
u26	14	#6	16-8	
u27	48	#5	21-6	
u28	48	#5	20-0	
u29	48	#5	18-0	
u30	48	#5	16-6	
u31	40	#5	14-6	
u32	32	#5	12-0	
u33	32	#5	10-0	
V39	8	#6	14-6	
V40	34	#8	13-3	
V41	18	#10	20-9	
V42	18	#10	24-3	
V43	4	#10	9-0	
V44	16	#10	21-0	
W13	30	#11	20-9	
W14	16	#6	27-6	
W15	9	#6	19-0	



ELEVATION

SCALE 3/16"=1'-0"



HALF SECTION D-D

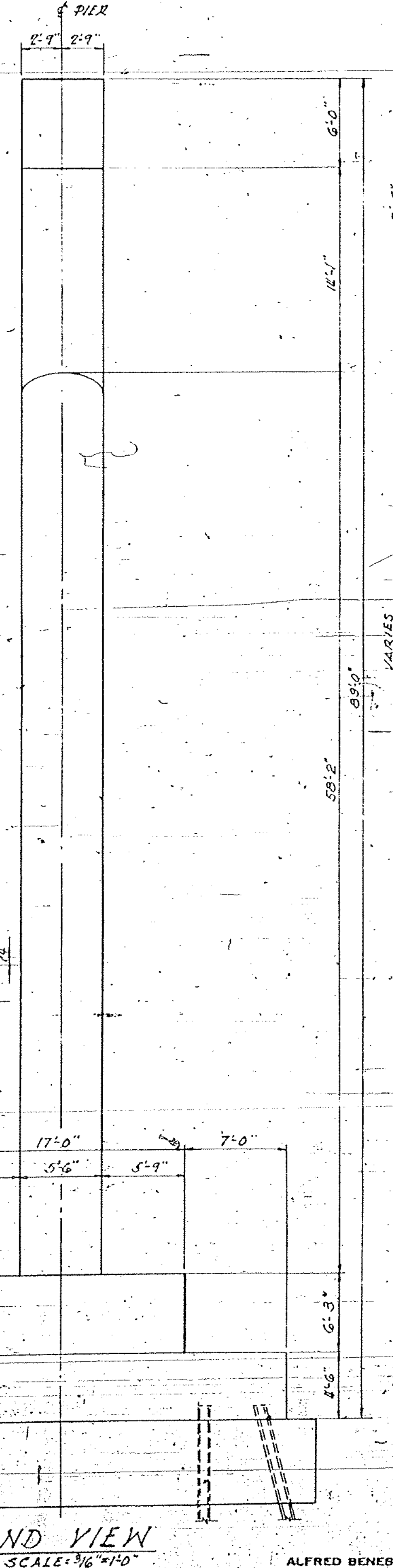
SCALE ¼"=1'-0"

HALF SECTION C-C

SCALE ¼"=1'-0"

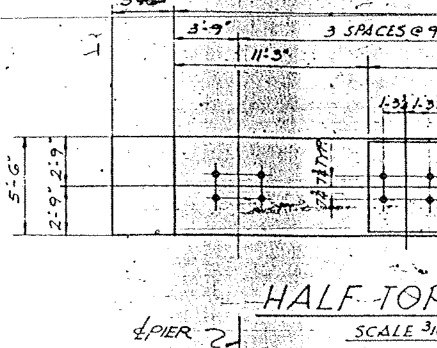
HALF SECTION B-B

SCALE ¼"=1'-0"



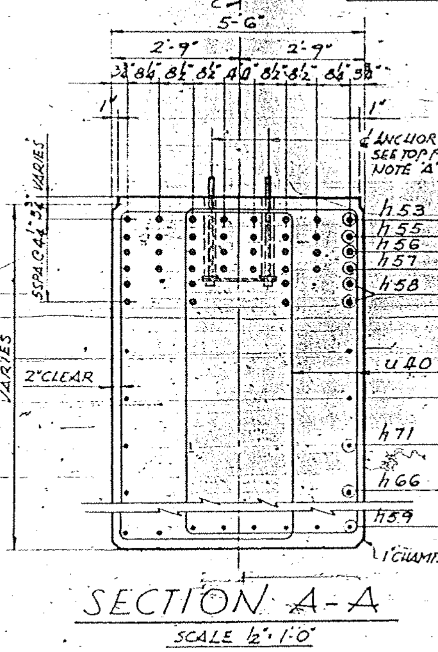
END VIEW

SCALE 3/16"=1'-0"



HALF TOP

SCALE 3/



SECTION A-A

SCALE ½"=1'-0"

NOTE 'A': ANCHO CONTA AND E SECTIO AND 3

NOTES: THE CON TEST PIL BY THE REMAI DESIG ELEVA FOR A

FOR F LIST S

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FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
8-15-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

BU

ELEVATION
SCALE 3/16"=1'-0"

HALF SECTION D-D
SCALE 1/2"=1'-0"

HALF SECTION C-C
SCALE 1/4"=1'-0"

HALF SECTION B-B
SCALE 1/4"=1'-0"

HALF TOP

SECTION A-A
SCALE 1/2"=1'-0"

END VIEW
SCALE: 3/16"=1'-0"

NOTE 'A' : ANCHO... CONTA... AND E... SECTIO... AND 2...

NOTES : THE CON... TEST PIL... BY THE... REMAI... DESIG... ELEVA... FOR A...

FOR F... LIST S...

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B-15-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-180	(06-3,78-1)B	BUREAU-PUTNAM		
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		5108

ELEVATION

SCALE 1/4" = 1'-0"

NOTE:
SHOWN FOR 2ND AND 3RD LAYERS SEE SHEET B11B.

HALF TOP PLAN

SCALE 3/16" = 1'-0"

HALF SECTION D-D

SCALE 1/4" = 1'-0"

HALF SECTION C-C

SCALE 1/4" = 1'-0"

HALF SECTION B-B

SCALE 1/4" = 1'-0"

SECTION A-A

SCALE 1/2" = 1'-0"

SECTION E-E

SCALE 1/2" = 1'-0"

END VIEW

NOTE 'A' ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1)F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B, FOR DETAILS SEE SHEET(F&E)1 AND 2.

NOTES: THE CONTRACTOR SHALL DRIVE ONE STEEL (BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES. DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442. FOR ADDITIONAL NOTES SEE SHEET B4.

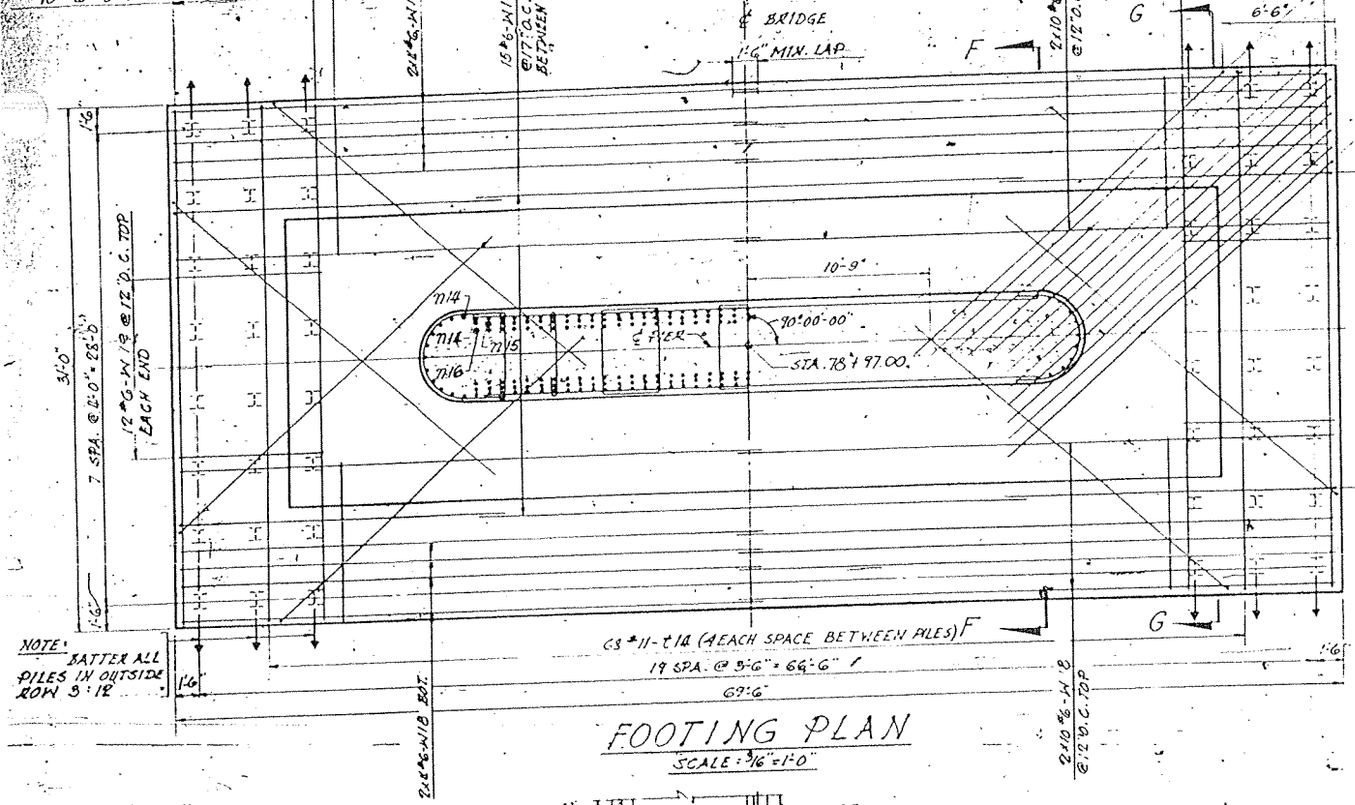
FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B11B.

APPROVED
9-27-67

SEPTEMBER 27, 1967

PIER 1
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



FOOTING PLAN

SCALE: 3/16" = 1'-0"

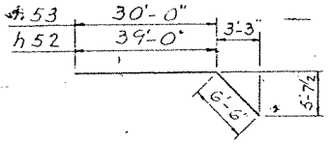
PILE DATA

TYPE	STEEL (8 BP 36)
CAPACITY	40 TONS
EST. LENGTH	40 FT.
NO. REQUIRED	160 *

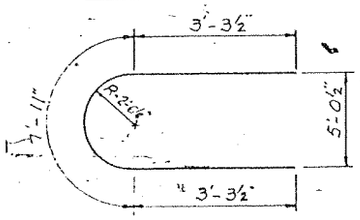
* INCLUDES ONE TEST PILE

MARK	A	B
h27	2-0	2-0
h14	2-0	13-9
n16	1-6	20-3
t15	2-0	25-0
W16	2-0	20-0

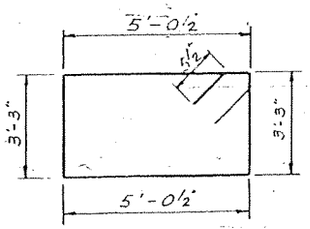
MARK	A	B	C
t14	2-0	30-6	2-0
u34	10-0	16-6	10-0
u35	5-6	16-6	5-6
u36	6-0	16-6	6-0
u37	3-0½	5-2	3-0½
u38	10-9	3-9	10-9
u39	9-9	3-9	9-9
u40	8-9	3-9	8-9
u41	7-9	3-9	7-9
u42	6-9	3-9	6-9
u43	5-9	3-9	5-9
u44	4-9	3-9	4-9
u45	5-0½	5-2	5-0½
u46	2-6½	5-2	2-6½
u47	1-6½	5-2	1-6½
u49	1-6	4-9	1-6



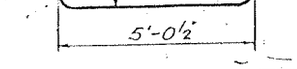
BARS h52 & h53



BAR u48



BAR S4

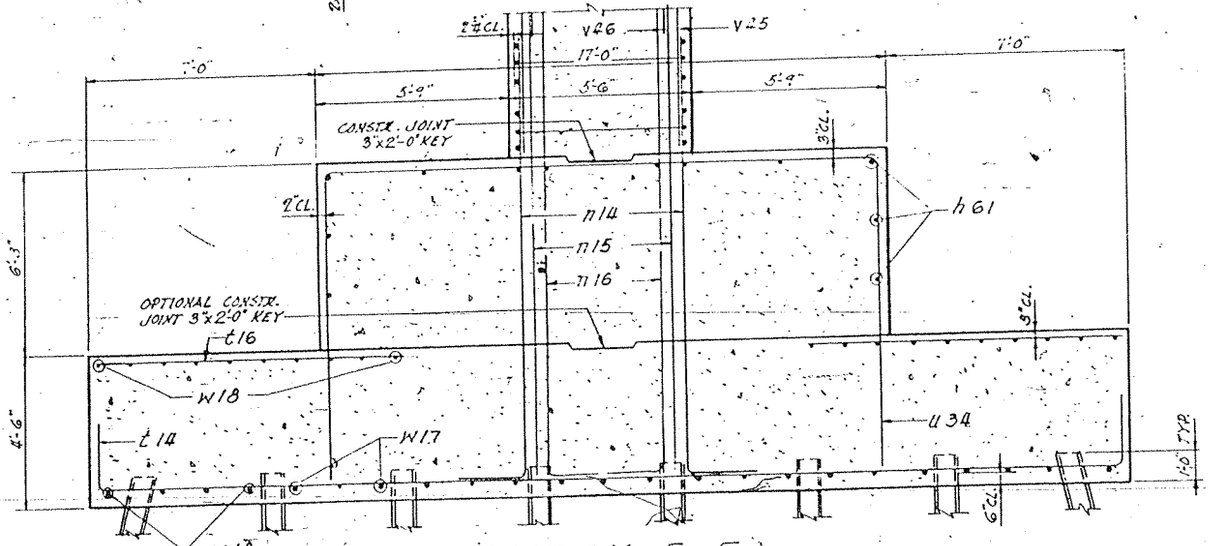


BAR S3

BILL OF

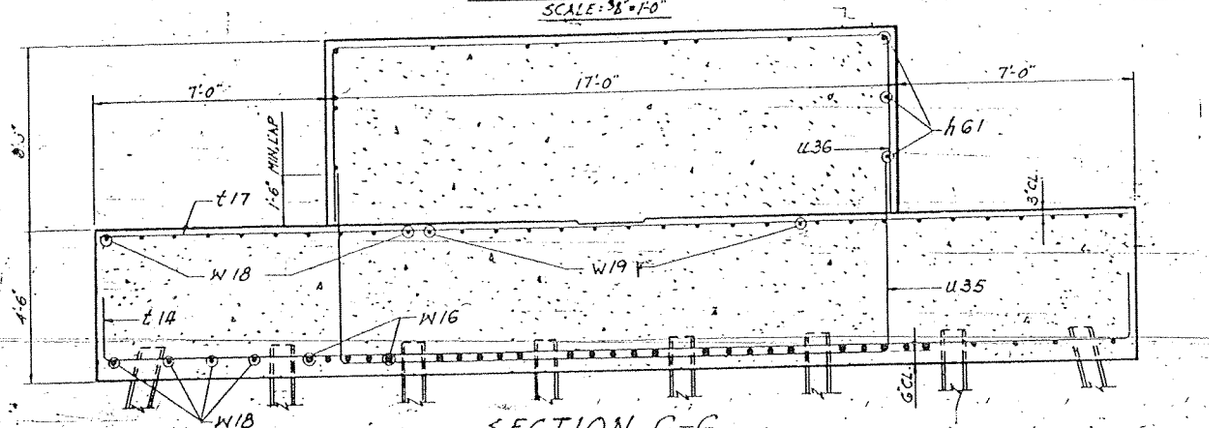
BAR	NO.	SIZE	LENGTH	SHAPE
h27	16	#6	2-0	
h32	12	#6	30-0	
h40	2	#6	21-6	
h41	4	#6	23-3	
h42	2	#6	25-0	
h52	8	#11	45-6	
h53	8	#11	36-6	
h54	8	#11	30-0	
h55	8	#11	38-6	
h56	8	#11	56-0	
h57	8	#11	48-0	
h58	8	#11	40-0	
h59	16	#7	33-0	
h60	4	#6	26-6	
h61	40	#6	28-6	
h62	4	#6	30-3	
h63	4	#6	32-0	
h64	2	#6	33-9	
h65	2	#6	35-6	
h66	4	#6	37-3	
h67	2	#6	27-0	
h68	2	#6	30-6	
h69	2	#6	34-0	
h70	2	#6	37-6	
h71	12	#6	36-6	
h72	14	#6	18-6	
h73	14	#6	20-3	
h74	14	#6	22-0	
h75	18	#6	23-9	
h76	12	#6	25-3	
h77	14	#6	26-9	
h78	14	#6	31-6	
h79	4	#6	15-6	
h80	5	#4	23-9	
n14	408	#11	15-9	
n15	86	#11	17-3	
n16	86	#11	21-9	
s3	60	#5	6-2½	
s4	90	#5	17-6	
t14	66	#11	34-6	
t15	48	#11	27-0	
t16	100	#6	9-0	
t17	20	#6	30-6	
u34	38	#6	36-6	
u35	18	#6	27-6	
u36	18	#6	28-6	

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.



SECTION E-F

SCALE: 3/8" = 1'-0"



SECTION G-G

SCALE: 3/8" = 1'-0"

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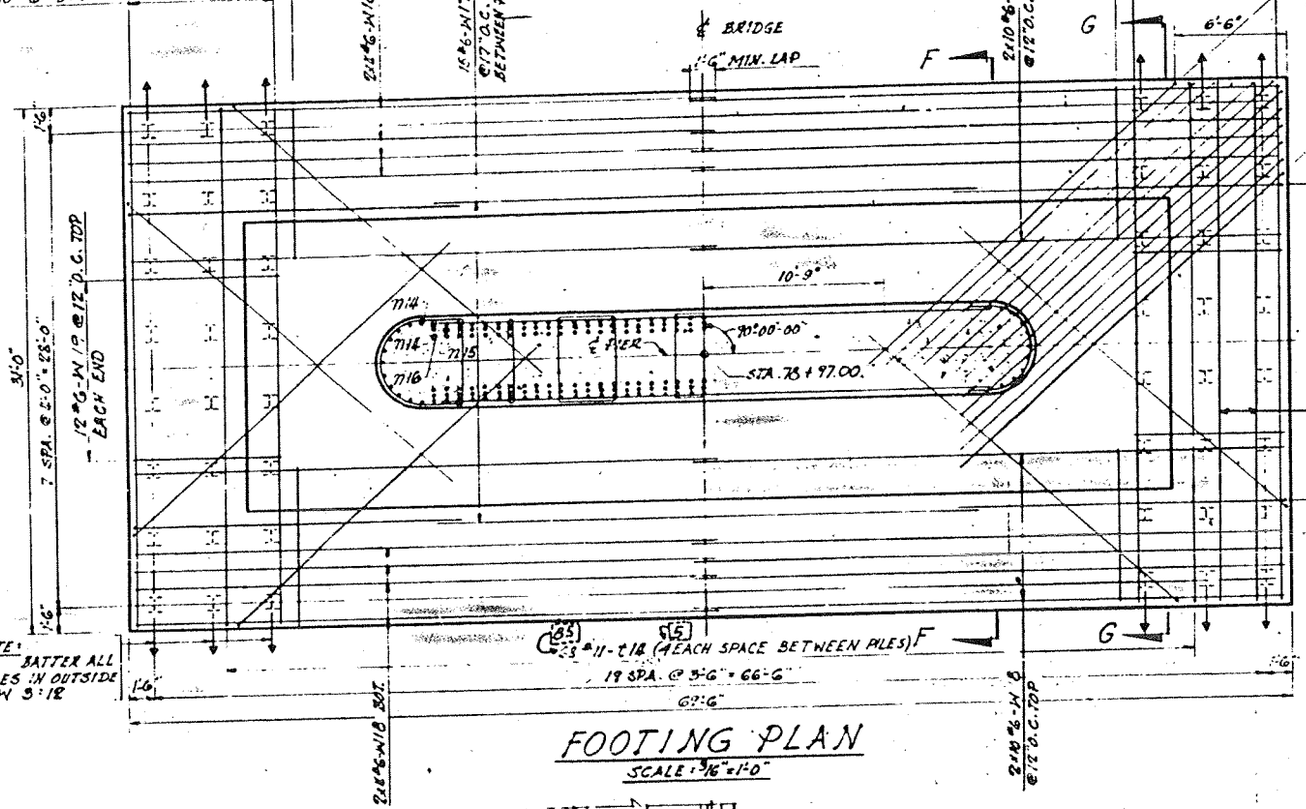
8-15-67

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS 'X' CONCRETE	CU. YDS.	1,159.9
SEAL COAT CONCRETE	CU. YDS.	758.7
REINFORCEMENT BARS	LBS.	142,980
FURNISHING STEEL PILES (8BP36)	LIN. FT.	6,360
DRIVING STEEL PILES	LIN. FT.	6,360
TEST PILE, STEEL (8BP36)	EACH	1

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



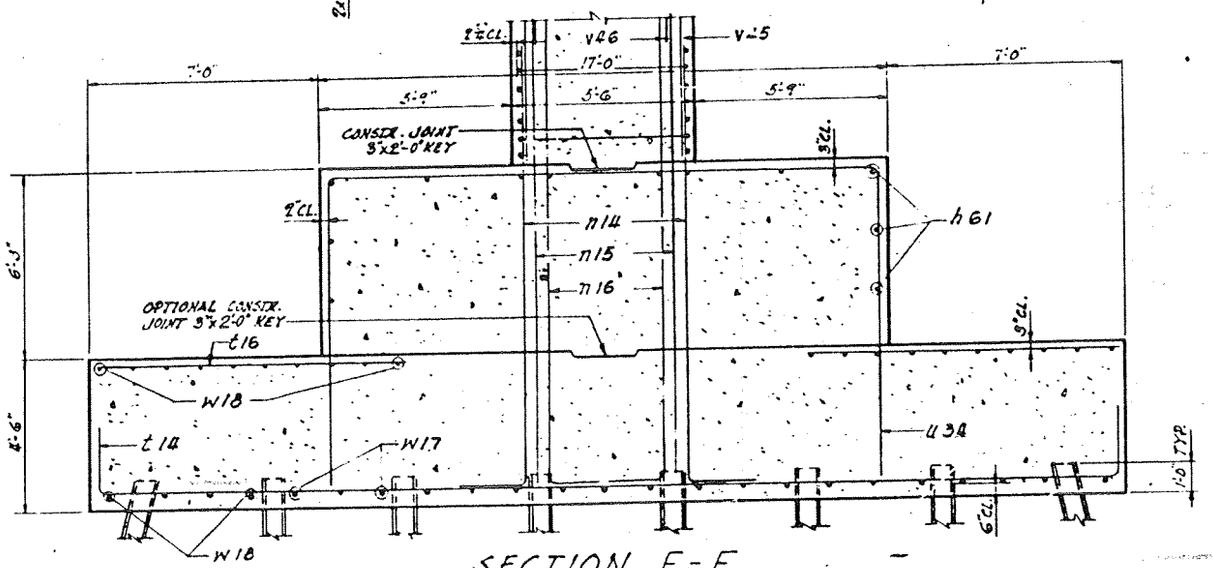
FOOTING PLAN

SCALE: 3/16" = 1'-0"

PILE DATA

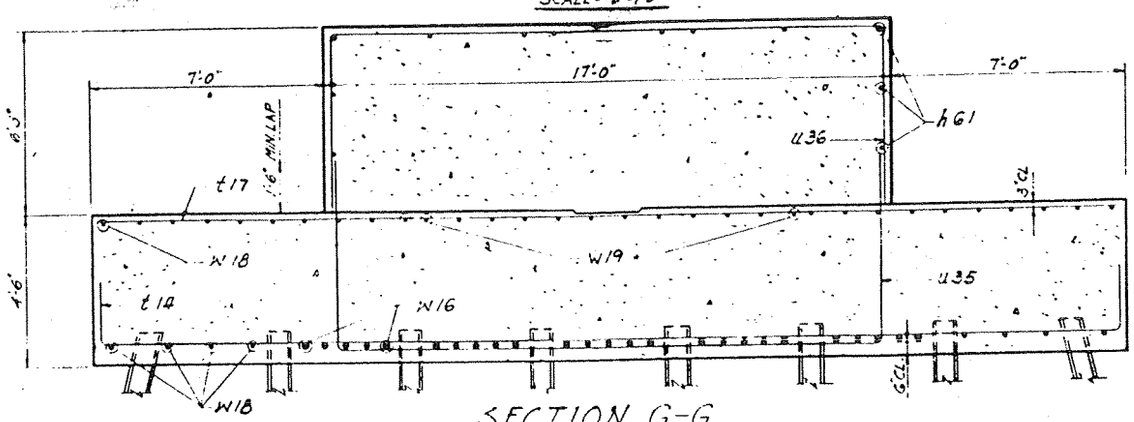
TYPE	STEEL (B BP 36)
CAPACITY	40 TONS.
EST. LENG'TH	40 FT.
NO. REQUIRED	160 *

* INCLUDES ONE TEST PILE



SECTION F-F

SCALE: 3/8" = 1'-0"



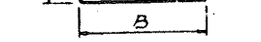
SECTION G-G

APPROVED

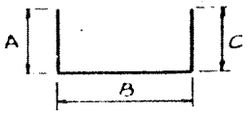
8-15-67

BILL OF MATERIALS

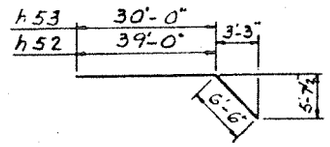
ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	1,159.9
SEAL COAT CONCRETE	CU. YDS.	758.7
REINFORCEMENT BARS	LBS.	142,980 ← 147460
FURNISHING STEEL PILES (B BP 36)	LIN. FT.	6,360
DRIVING STEEL PILES	LIN. FT.	6,360
TEST PILE, STEEL (B BP 36)	EACH	1



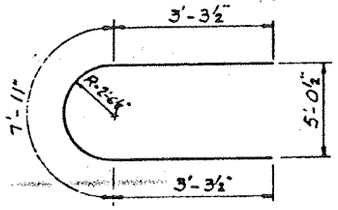
MARK	A	B
h27	2-0	2-0
h14	2-0	13-9
n16	1-6	20-3
t15	2-0	25-0
w16	2-0	20-0



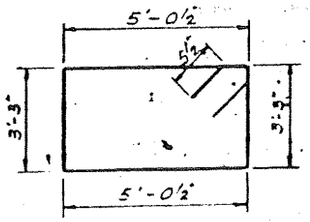
MARK	A	B	C
t18	2-0	30-6	2-0
u34	10-0	16-6	10-0
u35	5-6	15-6	5-6
u36	6-0	16-6	6-0
u37	3-0½	5-2	3-0½
u38	10-9	3-9	10-9
u39	9-9	3-9	9-9
u40	8-9	3-9	8-9
u41	7-9	3-9	7-9
u42	6-9	3-9	6-9
u43	5-9	3-9	5-9
u44	4-9	3-9	4-9
u45	5-0½	5-2	5-0½
u46	2-6½	5-2	2-6½
u47	1-6½	5-2	1-6½
u49	1-6	4-9	1-6



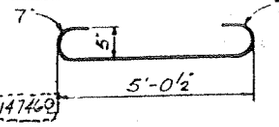
BARS h52 & h53



BAR u48



BAR s4



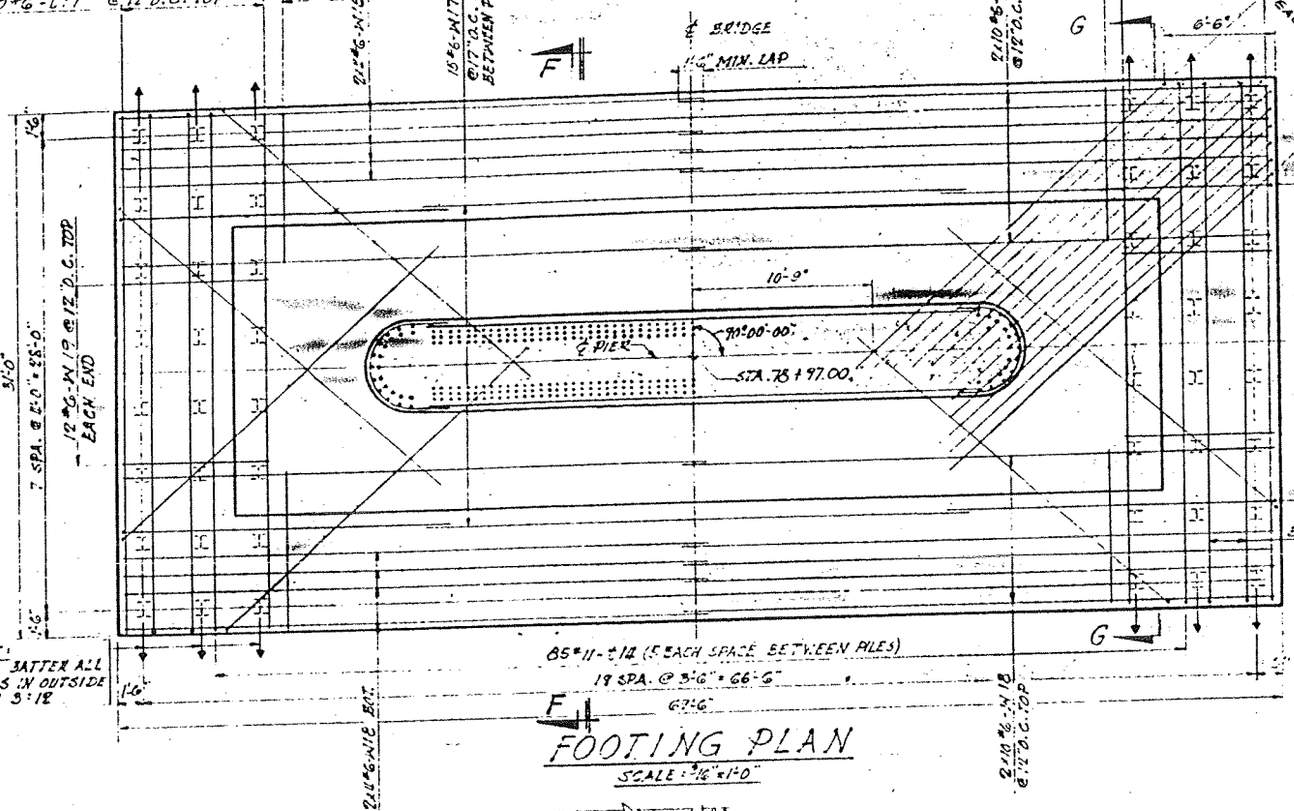
BAR s3

BILL OF

BAR	NO	SIZE	LENGTH	SHA
h27	16	#6	2-0	L
h32	2	#6	30-0	
h40	—	#6	21-6	
h41	2	#6	23-3	
h42	—	#6	25-0	
h52	6	#11	45-6	
h53	6	#11	36-6	
h54	8	#11	30-0	
h55	8	#11	38-6	
h56	8	#11	52-0	
h57	8	#11	48-0	
h58	8	#11	40-0	
h59	16	#7	33-0	
h60	2	#6	26-6	
h61	20	#6	28-6	
h62	2	#6	30-3	
h63	2	#6	32-0	
h64	2	#6	33-9	
h65	2	#6	35-6	
h66	2	#6	37-3	
h67	2	#6	27-0	
h68	2	#6	30-6	
h69	2	#6	32-0	
h70	2	#6	37-6	
h71	12	#6	36-6	
h72	14	#6	18-6	
h73	14	#6	20-3	
h74	14	#6	22-0	
h75	12	#6	23-9	
h76	12	#6	25-3	
h77	14	#6	26-9	
h78	14	#6	31-6	
h79	4	#6	15-6	
h80	5	#4	23-9	
n14	108	#11	15-9	L
n15	86	#11	17-3	L
n16	86	#11	21-9	L
s3	60	#5	6-2½	C
s4	90	#5	17-6	C
		91		
t14	68	#11	34-6	L
t15	48	#11	27-0	L
t16	100	#6	9-0	
t17	20	#6	30-6	
u34	38	#6	36-6	L
u35	18	#6	27-6	L
u36	18	#6	28-6	L

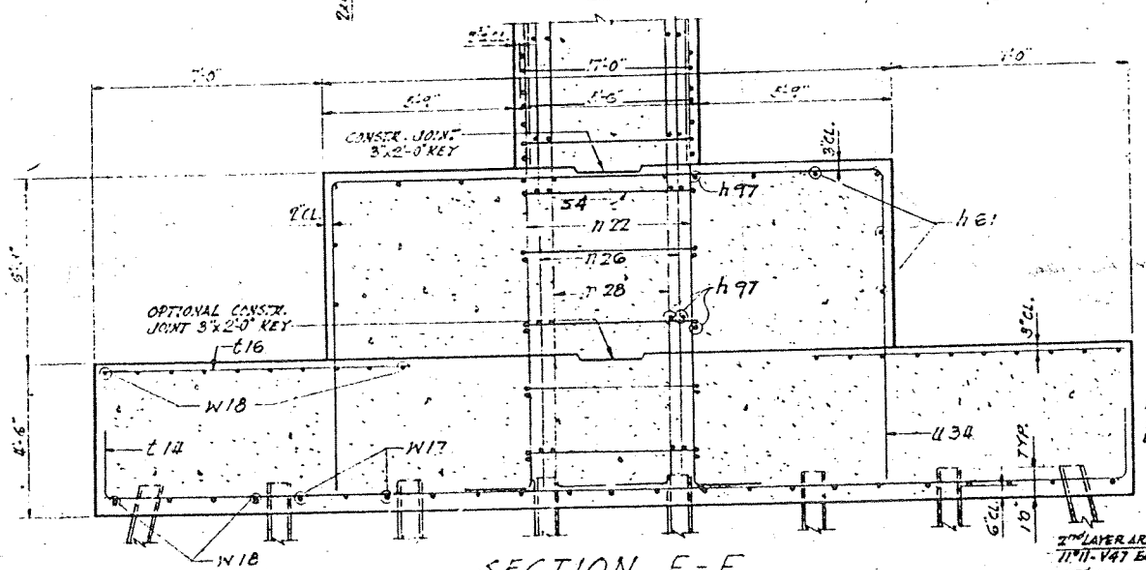
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS



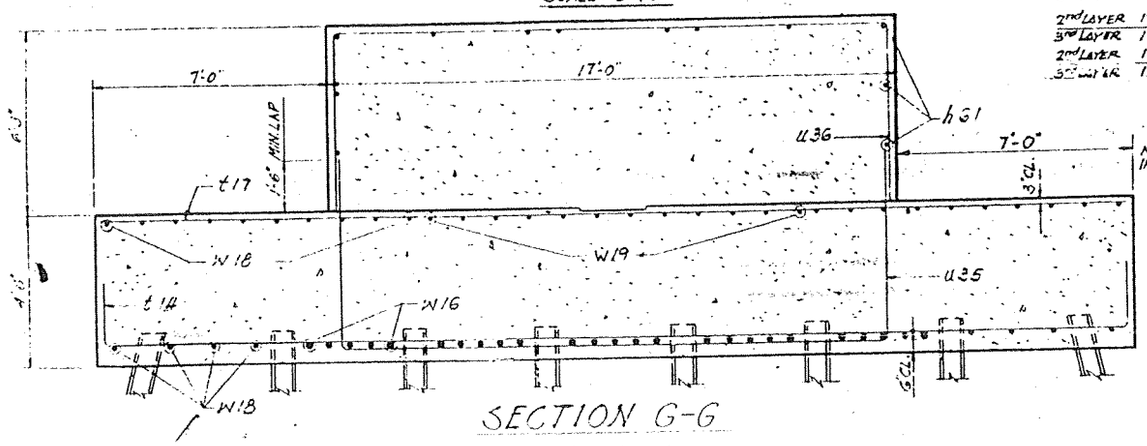
FOOTING PLAN

SCALE: 3/16" = 1'-0"

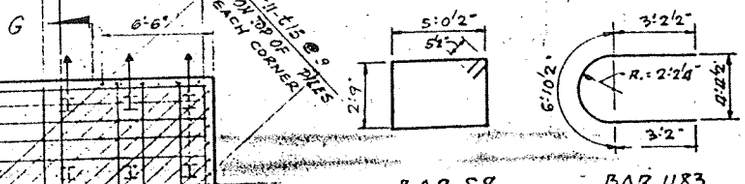


SECTION F-F

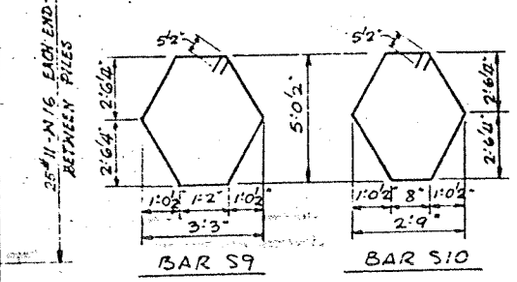
SCALE: 3/8" = 1'-0"



SECTION G-G



BAR S8 BAR U83



BAR S9 BAR S10

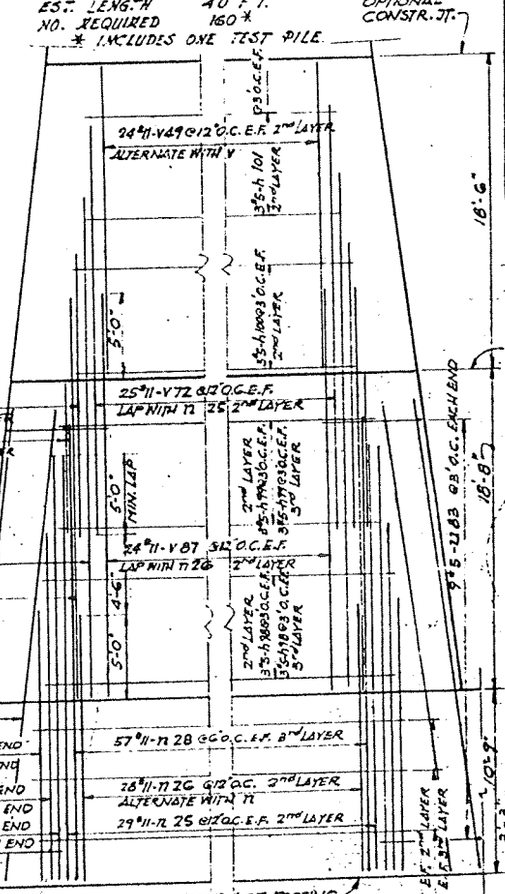
25 #11-N16 EACH END-BOTT. BETWEEN PILES

3 #11-t14 EACH END

PILE DATA

TYPE	STEEL (8 BP 36)
CAPACITY	40 TONS
EST. LENGTH	40 FT.
NO. REQUIRED	160 *

* INCLUDES ONE TEST PILE.



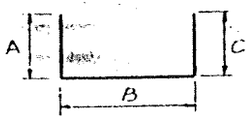
NOTE: FOR REINFORCEMENT IN OUTSIDE LAYER SEE SHT. B10B.

PART ELEVATION OF REINFORCEMENT IN 2nd AND 3rd LAYERS

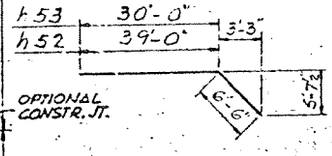
BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	1,159.9
SEAL COAT CONCRETE	CU. YDS.	758.7
REINFORCEMENT BARS	LBS.	203,750
FURNISHING STEEL PILES (8BP36)	LIN. FT.	6,360
DRIVING STEEL PILES	LIN. FT.	6,360
TEST PILE, STEEL (8BP36)	EACH	1

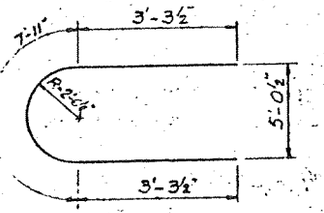
MARK	A	B
h27	2-0	2-0
h22	2-0	24-9
h23	2-0	15-3
h24	2-0	19-0
h25	2-0	26-3
t15	2-0	25-0
W16	2-0	20-0



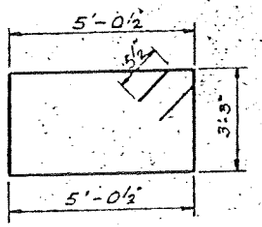
MARK	A	B	C
t14	2-0	30-6	2-0
u34	10-0	16-6	10-0
u35	5-6	16-6	5-6
u36	6-0	16-6	6-0
u37	3-0½	5-2	3-0½
u38	10-9	3-9	10-9
u39	9-9	3-9	9-9
u40	8-9	3-9	8-9
u41	7-9	3-9	7-9
u42	6-9	3-9	6-9
u43	5-9	3-9	5-9
u44	4-9	3-9	4-9
u45	5-0½	5-2	5-0½
u46	2-6½	5-2	2-6½
u47	1-6½	5-2	1-6½
u49	1-6	4-9	1-6



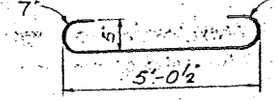
BARS h52 & h53



BAR u48



BAR S4



BAR S3

BILL OF

BAR	NO.	SIZE	LENGTH	SHAPE
h27	16	#6	2-0	L
h32	12	#6	30-0	
h40	6	#6	21-6	
h41	4	#6	23-3	
h42	4	#6	25-0	
h52	8	#11	45-6	
h53	8	#11	36-6	
h54	8	#11	30-0	
h55	8	#11	38-6	
h56	8	#11	56-0	
h57	8	#11	48-0	
h58	8	#11	40-0	
h59	16	#7	33-0	
h60	4	#6	26-6	
h61	20	#6	28-6	
h62	4	#6	30-3	
h63	4	#6	32-0	
h64	2	#6	33-9	
h65	2	#6	35-6	
h66	2	#6	37-3	
h67	2	#6	27-0	
h68	2	#6	30-6	
h69	2	#6	32-0	
h70	2	#6	37-6	
h71	12	#6	36-6	
h72	14	#6	18-6	
h73	14	#6	20-3	
h74	14	#6	22-0	
h75	12	#6	23-9	
h76	12	#6	25-3	
h77	14	#6	26-9	
h78	14	#6	31-6	
h79	4	#6	15-6	
h97	22	#5	32-0	
h98	12	#5	30-0	
h99	12	#5	28-0	
h100	6	#5	26-0	
h101	6	#5	24-0	
h80	5	#4	23-9	
S3	146	#5	6-2½	
S4	241	#5	17-6	
S8	118	#5	16-6	
S9	216	#5	14-3	
S10	108	#5	13-3	
t14	91	#11	34-6	
t15	48	#11	27-0	
t16	100	#6	9-0	
t17	20	#6	30-6	
u34	38	#6	36-6	
u35	18	#6	27-6	
u36	18	#6	28-6	

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
9-27-67

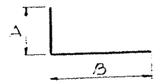
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
CHICAGO, ILLINOIS

BILL OF MATERIAL

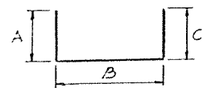
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78) B	BUREAU-PUTNAM		
STA. 50+16.08		TO STA. 80+98.25		
B.P.R. REQ. NO. 4	ILLINOIS	PROJECT	I-180-7(5)0	B22

PIER 11

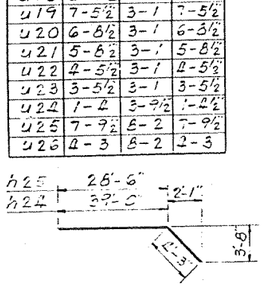
BAR	NO.	SIZE	LENGTH	SHAPE
h20	3	#11	22-0	—
h21	3	#11	30-3	—
h22	3	#11	28-6	—
h23	3	#11	39-0	—
h24	3	#11	43-3	◜
h25	3	#11	32-9	◜
h26	12	#7	31-0	—
h27	12	#6	2-0	L
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	20	#6	19-6	—
h39	16	#6	17-6	—
h40	2	#4	23-0	—
h50	16	#6	21-0	—
m12	20	#10	13-3	L
m13	20	#10	13-6	L
S1	18	#5	15-6	□
S2	7	#5	17-6	□
t12	23	#11	22-0	L
t13	60	#7	23-6	L
u10	12	#6	18-3	⊏
u13	32	#6	11-6	⊏
u14	2	#6	9-3	⊏
u15	8	#6	7-3	⊏
u16	8	#6	11-3	⊏
u17	48	#5	21-6	⊏
u18	48	#5	20-0	⊏
u19	48	#5	18-0	⊏
u20	28	#5	16-6	⊏
u21	20	#5	14-6	⊏
u22	32	#5	12-0	⊏
u23	32	#5	10-0	⊏
u24	24	#4	6-6	L
u25	27	#6	23-9	⊏
u26	12	#6	16-8	⊏
v39	8	#6	12-6	—
v40	34	#8	13-3	—
v43	4	#10	9-0	—
v77	34	#10	19-0	—
v78	18	#10	22-3	—
w13	30	#11	20-9	L
w14	16	#6	27-6	—
w15	9	#6	19-0	—



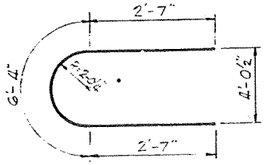
MARK	A	B
h27	2-0	2-0
m12	2-0	11-3
m13	2-0	14-6
t12	2-0	20-0
w13	2-0	18-9



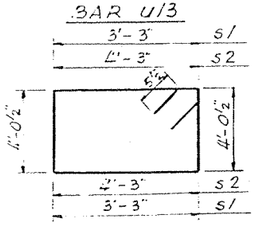
MARK	A	B	C
t13	2-0	19-6	2-0
u10	5-0½	3-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	11-3½	1-7½
u16	3-2½	4-2	3-6½
u17	7-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-2	3-9½	1-2½
u25	7-9½	6-2	7-9½
u26	4-3	8-2	3-3



BARS h24 & h25



BAR U13



BARS S1 & S2

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

PIER

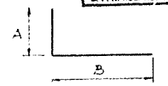
BAR	NO.	SIZE	LENGTH	SHAPE

PIER

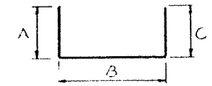
BAR	NO.	SIZE	LENGTH	SHAPE

PIER 14

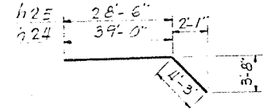
BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	26-6	—
h23	7	#11	34-0	—
h24	7	#11	43-3	◜
h25	7	#11	32-9	◜
h26	12	#7	31-0	—
h27	12	#6	2-0	L
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	4	#6	19-6	—
h40	4	#4	23-0	—
h57	6	#11	25-0	—
h58	6	#11	20-0	—
h96	30	#6	17-3	—
m21	50	#10	12-3	L
S1	8	#5	15-6	□
S2	2	#5	17-6	□
t18	32	#11	19-6	L
t19	25	#10	23-6	L
u13	14	#6	11-6	⊏
u14	2	#6	9-3	⊏
u15	8	#6	7-3	⊏
u16	8	#6	11-3	⊏
u24	24	#4	6-6	L
u68	24	#6	21-6	⊏
u69	10	#6	17-6	⊏
u70	10	#6	15-10	⊏
u71	32	#6	21-6	⊏
u72	32	#6	19-9	⊏
u73	32	#6	17-0	⊏
u74	32	#6	15-3	⊏
u75	32	#6	13-6	⊏
u76	24	#6	12-3	⊏
u77	24	#6	10-3	⊏
v33	3	#6	12-6	—
v63	32	#10	12-3	—
v79	18	#10	10-0	—
v80	34	#8	12-3	—
w22	50	#11	17-0	L
w23	16	#6	22-9	—
w22	9	#6	17-0	—



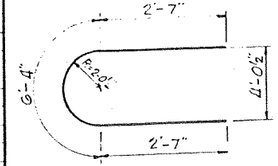
MARK	A	B
h27	2-0	2-0
m21	2-0	10-3
t18	2-0	17-6
w22	2-0	15-0



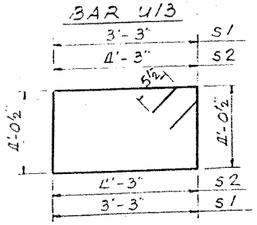
MARK	A	B	C
t19	2-0	19-6	2-0
u18	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u18	3-6½	4-2	3-6½
u24	1-2	3-9½	1-2½
u65	6-8	8-2	6-8
u69	4-8	8-2	4-8
u70	3-10	8-2	3-10
u71	9-3½	2-11	9-3½
u72	8-5	2-11	8-5
u73	7-2½	2-11	7-2½
u74	6-8	2-11	6-8
u75	5-9½	2-11	5-9½
u76	4-8	2-11	4-8
u77	3-8	2-11	3-8



BARS h24 & h25



BAR U13



BARS S1 & S2

APPROVED
FOR CONSTRUCTION ONLY
DISTRICT ENGINEER
9-25-67

#1459
Samuel Barnow

SEPTEMBER 15, 1967

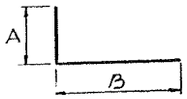
REINFORCEMENT BAR LISTS-PIERS 11,12,13 & 14
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5) 0
SECTION (06-3,78-1) B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

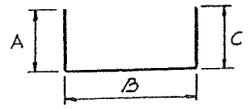
BILL OF BARS

PIER 11

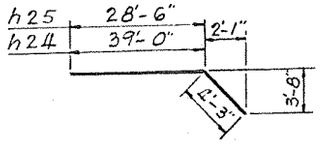
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	22-0	—
h21	8	#11	50-0	—
h22	8	#11	28-6	—
h23	8	#11	39-0	—
h24	8	#11	43-3	⌒
h25	8	#11	32-9	⌒
h26	12	#7	31-0	—
h27	12	#6	4-0	⌊
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	20	#6	19-6	—
h39	16	#6	17-6	—
h44	4	#4	23-0	—
h50	16	#6	21-0	—
m12	40	#10	13-3	⌊
m13	20	#10	16-6	⌊
S1	18	#5	15-6	⊐
S2	9	#5	17-6	⊐
t12	40	#11	22-0	⌊
t13	60	#9	23-6	⌊⌋
u10	14	#6	18-3	⌊⌋
u13	32	#6	11-6	⊂
u14	2	#6	9-3	⌊⌋
u15	8	#6	7-3	⌊⌋
u16	8	#6	11-3	⌊⌋
u17	48	#5	21-6	⌊⌋
u18	48	#5	20-0	⌊⌋
u19	48	#5	18-0	⌊⌋
u20	48	#5	16-6	⌊⌋
u21	40	#5	14-6	⌊⌋
u22	32	#5	12-0	⌊⌋
u23	32	#5	10-0	⌊⌋
u24	24	#4	6-6	⌊⌋
u25	27	#6	23-9	⌊⌋
u26	14	#6	16-8	⌊⌋
v39	8	#6	14-6	—
v40	34	#8	13-3	—
v43	4	#10	9-0	—
v77	34	#10	19-0	—
v78	18	#10	22-3	—
w13	30	#11	20-9	⌊
w14	16	#6	27-6	—
w15	9	#6	19-0	—



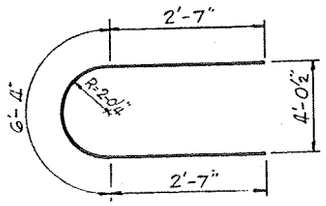
MARK	A	B
h27	2-0	2-0
m12	2-0	11-3
m13	2-0	14-6
t12	2-0	20-0
W13	2-0	18-9



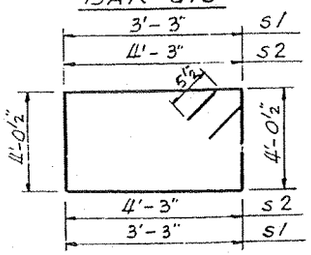
MARK	A	B	C
t13	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3



BARS h24 & h25



BAR u13



BARS s1 & s2

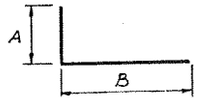
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

PIER

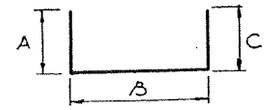
BAR	NO.	SIZE	LENGTH	SHAPE

PIER 13

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	—
h23	7	#11	39-0	—
h24	7	#11	43-3	⌒
h25	7	#11	32-9	⌒
h26	12	#7	31-0	—
h27	12	#6	4-0	⌊
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	4	#6	19-6	—
h51	4	#4	24-0	—
h57	6	#11	48-0	—
h58	6	#11	40-0	—
h96	32	#6	17-3	—
m21	54	#10	12-3	⌊
S1	10	#5	15-6	⊐
S2	5	#5	17-6	⊐
t18	32	#11	19-6	⌊
t19	48	#10	23-6	⌊⌋
u13	16	#6	11-6	⊂
u14	2	#6	9-3	⌊⌋
u15	8	#6	7-3	⌊⌋
u16	8	#6	11-3	⌊⌋
u24	25	#4	6-6	⌊⌋
u68	24	#6	21-6	⌊⌋
u69	10	#6	17-6	⌊⌋
u70	10	#6	15-10	⌊⌋
u71	32	#6	21-6	⌊⌋
u72	32	#6	19-9	⌊⌋
u73	32	#6	18-0	⌊⌋
u74	32	#6	16-3	⌊⌋
u75	32	#6	14-6	⌊⌋
u76	24	#6	12-3	⌊⌋
u77	24	#6	10-3	⌊⌋
v39	8	#6	14-6	—
v85	34	#10	13-0	—
v86	18	#10	11-0	—
v80	34	#8	14-3	—
w22	30	#11	17-0	⌊
w23	16	#6	22-9	—
w24	9	#6	17-0	—



MARK	A	B
h27	2-0	2-0
m21	2-0	10-3
t18	2-0	17-6
W22	2-0	15-0



MARK	A	B	C
t19	2-0	19-6	2-0
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-4½
u68	6-8	8-2	6-8
u69	4-8	8-2	4-8
u70	3-10	8-2	3-10
u71	9-3½	2-11	9-3½
u72	8-5	2-11	8-5
u73	7-6½	2-11	7-6½
u74	6-8	2-11	6-8
u75	5-9½	2-11	5-9½
u76	4-8	2-11	4-8
u77	3-8	2-11	3-8

1459

Samuel Gannon

PIER 14

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	—
h23	7	#11	39-0	—
h24	7	#11	43-3	⌒
h25	7	#11	32-9	⌒
h26	12	#7	31-0	—
h27	12	#6	4-0	⌊
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	4	#6	19-6	—
h44	4	#4	23-0	—
h57	6	#11	48-0	—
h58	6	#11	40-0	—
h96	30	#6	17-3	—
m21	54	#10	12-3	⌊
S1	8	#5	15-6	⊐
S2	4	#5	17-6	⊐
t18	32	#11	19-6	⌊
t19	48	#10	23-6	⌊⌋
u13	14	#6	11-6	⊂
u14	2	#6	9-3	⌊⌋
u15	8	#6	7-3	⌊⌋
u16	8	#6	11-3	⌊⌋
u24	24	#4	6-6	⌊⌋
u68	24	#6	21-6	⌊⌋
u69	10	#6	17-6	⌊⌋
u70	10	#6	15-10	⌊⌋
u71	32	#6	21-6	⌊⌋
u72	32	#6	19-9	⌊⌋
u73	32	#6	18-0	⌊⌋
u74	32	#6	16-3	⌊⌋
u75	32	#6	14-6	⌊⌋
u76	24	#6	12-3	⌊⌋
u77	24	#6	10-3	⌊⌋
v39	8	#6	14-6	—
v63	34	#10	12-3	—
v79	18	#10	10-0	—
v80	34	#8	14-3	—
w22	30	#11	17-0	⌊
w23	16	#6	22-9	—
w24	9	#6	17-0	—

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

SHEET NO.	
1	TITLE SHEET
2	TYPICAL SECTIONS - F.A.I. RTE. 180
3	GENERAL PLAN & PROFILE
4	GENERAL PLAN & ELEVATION & SUMMARY OF QUANTITIES
5-6	DETAILS OF BEARINGS
7	CAMBER DIAGRAMS - ALL SPANS
8	FRAMING PLAN - SPANS 1, 2 & 3
9-10	STEEL DETAILS - SPANS 1, 2 & 3
11	FRAMING PLAN - SPANS 4, 5 & 6
12-13	STEEL DETAILS - SPANS 4, 5 & 6
14	FRAMING PLAN - SPANS 7 TO 12
15-16	STEEL DETAILS - SPANS 7 TO 12
17	FRAMING PLAN - SPANS 13, 14 & 15
18	STEEL DETAILS - SPANS 13, 14 & 15
19, A	PIER PROTECTION DETAILS (PIERS 4 & 5)
20	DEFLECTION JOINTS AT PIERS 1, 2, 4 & 5
21	EXPANSION GUARD, EAST & WEST ABUTMENTS
22	EXPANSION GUARD - PIERS 3 & 6
23	EXPANSION GUARD - PIERS 9 & 12
24	FIELD SPLICES - ALL SPANS
25	STRESS TABLE & STEEL DETAILS - ALL SPANS
26, A	STANDARDS 2114 & 2153-6
27-33	SLAB DECK ELEVATIONS

SECTION (06-3,78-1)F & E INCLUDES FURNISHING, FABRICATING, SHOP PAINTING, TRANSPORTING & ERECTING ALL STRUCTURAL STEEL FOR A PLATE GIRDER DECK STRUCTURE CONSISTING OF (A) NINE APPROACH SPANS, 3 @ 135' & 6 @ 170'; (B) A THREE SPAN UNIT OVER THE MAIN CHANNEL, 2 @ 300' & 1 @ 375'; (C) A THREE SPAN UNIT OVER THE SECONDARY CHANNEL, 2 @ 200' & 1 @ 280' CARRYING F.A.I. ROUTE 180 OVER THE ILLINOIS RIVER AT HENNEPIN.

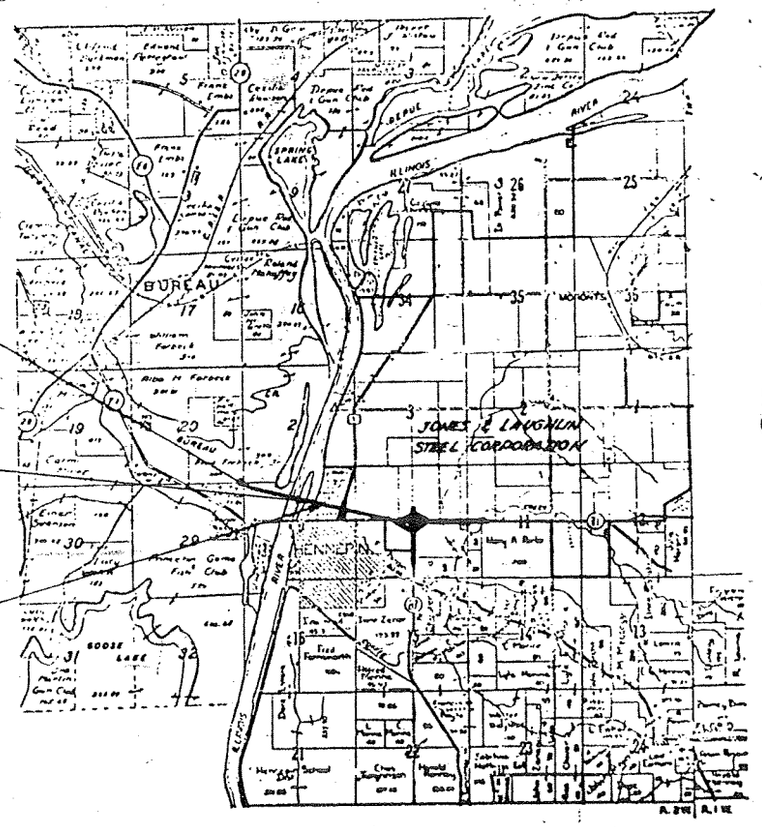
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED

SCALES

PLAN	1 INCH =	FT
PROFILE, HOR	1 INCH =	FT
PROFILE, VERT	1 INCH =	FT
CROSS SECTIONS	1 INCH =	FT

F.A.I. ROUTE 180 - SECTION $\binom{06-3}{78-1}$ F & E BUREAU PUTNAM COUNTIES
PROJECT I-180-7(6)0

C-92-045-67



LOCATION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

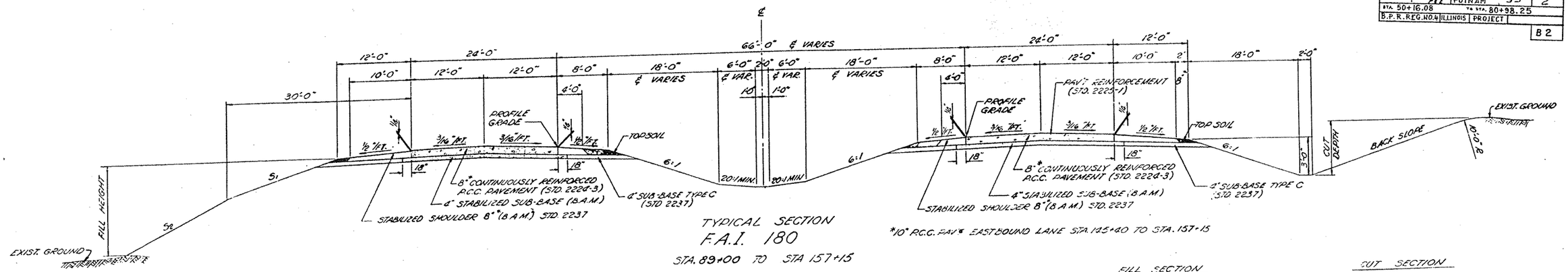
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DATE 12 18 69

LENGTH OF PROJECT I-180-7(6)0=(3,082.67FT.=0.584 MI.)

CONTRACT NO. 25034

SHEET OF

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,78-1)	BUREAU-PUTNAM	33	2
STA. 50+16.08		TO STA. 80+98.25		
B.P.R. REG. NO. 4	ILLINOIS	PROJECT		
				82



TYPICAL SECTION
F.A.I. 180
STA. 89+00 TO STA 157+15

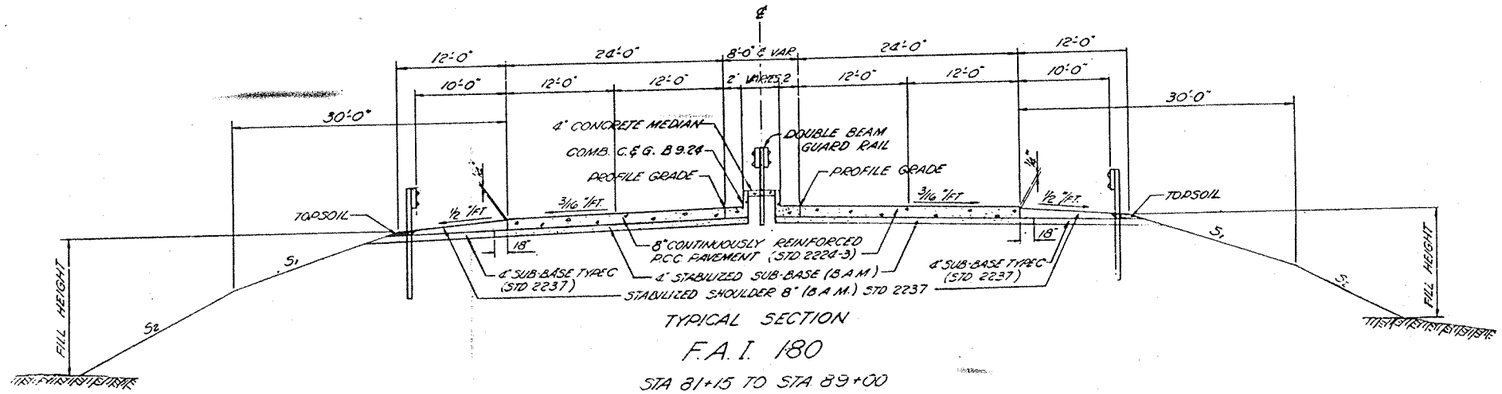
*10" P.C.C. PAV'T EASTBOUND LANE STA. 145+40 TO STA. 157+15

FILL SECTION

S_1	S_2	FILL HEIGHT
6:1	6:1	0'-10'
6:1	4:1	10'-20'
6:1	3:1	20'-30'
2:1	2:1	OVER 30'

CUT SECTION

FORE SLOPE	BACK SLOPE	CUT DEPTH
6:1	6:1	0'-10'
6:1	4:1	10'-20'
6:1	3:1	OVER 20'



TYPICAL SECTION
F.A.I. 180
STA 81+15 TO STA 89+00

DESIGN DESIGNATION	F.A.I. 180	ILL RTE 87	C.H. #1	RELOCATED ILL. RTE 71
DESIGN HOURLY VOLUME				
DESIGN YEAR				
HIGHWAY CLASS				
STRUCTURAL DESIGN TRAFFIC FACTOR				
PAVEMENT TYPE				
DESIGN SPEED (M.P.H.)				

FOR REFERENCE ONLY

JUNE 16, 1967

TYPICAL SECTIONS
F.A.I. ROUTE 180
SECTION 78-1
PUTNAM COUNTY

BEGIN PROJECT
SECTION (06-3,78-1)B
PROJECT I-180-7(4)0
STA 50+16.08

SECTION 20 21 29 28

P.L. SEC. 28 T.15N. R.10E. 4P.M.

DRENNEN

BUREAU CO.

ILLINOIS POWER CO. TRANS. LINE
6 WIRE

ILLINOIS

HENNEPIN ISLAND

IVAN SANDBERG

PUTNAM CO.

DORE ET AL.

E.C.H.I (EAS

SEC. 9 T.15N.
SEC. 10 T15N.

BEGIN PROJECT
SECTION (06-3,78-1)B
PROJECT I-180-7(4)0
STATION 80+98.25

MARY POLTER

O'CONNOR

ILLINOIS GRAIN TERMINAL

VILLAGE OF HENNEPIN

EXIST. ILL. RTE. 71 STRUCT. TO REMAIN IN PLACE

SECTION A-A

150' BERM
12' 24' 42-6" 24' 12'
PAVEMENT, SUBBASE & SHOULDERS BY OTHERS
EMBANKMENT BY BRIDGE CONTRACTOR
ELEV 445.0
LIMITS OF POROUS GRANULAR EMB.
UNSUITABLE MAT. EXCAVATION
UNSUITABLE MATERIAL
25'±
80'

P.V.I. STA 48+31.33
EL. 462.00
700' V.C.

BACK OF ABUTMENT STA. 50+15.88

EMBANKMENT SECTION (06-3,78-1)B

+3.00%

0.0%

UNSUITABLE MATERIAL EXCAVATION AND POROUS GRANULAR EMBANKMENT SECTION (06-3,78-1)B

EXISTING GROUND LINE

LOW STEEL ELEV. 500.8

350' MINIMUM CLEARANCE

HIGH WATER ELEV. 458.6 (1943)

PROJECT POOL ELEV. 440.1

HENNEPIN ISLAND

P.V.I. STA. 79+79.00
EL. 388.83
1700' V.C.
(600' SSD)
(60 M.P.H.)

BACK OF ABUTMENT STA. 80+98.76

EMBANKMENT SECTION (06-3,78-1)B

-3.00%

P.V.I. STA. 90+50
ELEV. 439.50
1100' V.C.
(70 M.P.H.)

PROFILE GRADE LINE

+2.20%

NOTE:
EMBANKMENT TO BE CONSTRUCTED FROM BORROW OBTAINED BY CONTRACTOR FOR SECTION (06-3,78-1)

MAIN CHANNEL

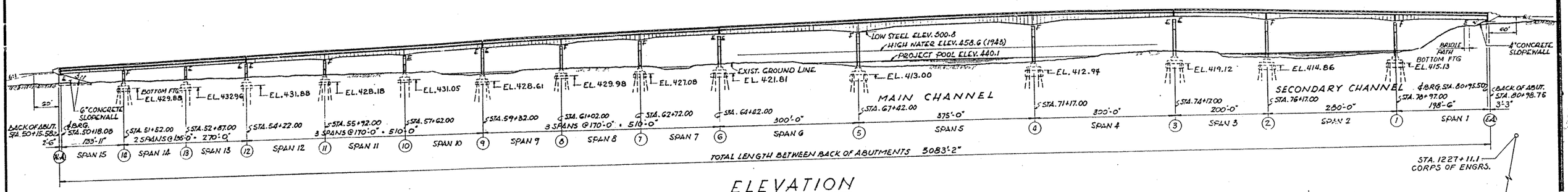
SECONDARY CHANNEL

540 520 500 480 460 440 420 400

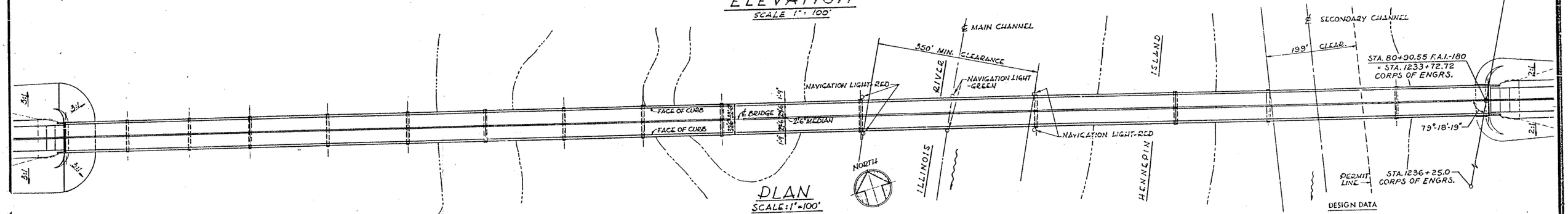
50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 180	06-3, 78-1	BUREAU-PUTNAM	33	4
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



ELEVATION
SCALE 1" = 100'



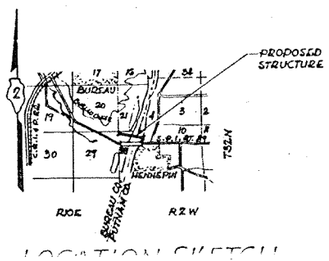
PLAN
SCALE: 1" = 100'

SUMMARY OF QUANTITIES
SECTION (06-3,78-1) F & E

QUANTITY	UNIT	ITEM	CODE
*5,970,000	LB.	ERECTING STRUCTURAL STEEL (LOW ALLOY)	054007
*4,280,000	LB.	ERECTING STRUCTURAL STEEL (CARBON)	054026
*4,280,000	LB.	FURNISHING STRUCTURAL STEEL (CARBON)	054028**
*5,970,000	LB.	FURNISHING STRUCTURAL STEEL (LOW ALLOY)	054029**

		CARBON	LOW ALLOY
* MAIN CHANNEL SPANS	LB.	660,000	4,370,000
SECONDARY CHANNEL SPANS	LB.	377,000	1,600,000
APPROACH SPANS	LB.	3,243,000	-
TOTAL	LB.	4,280,000	5,970,000

** SPECIALITY ITEMS



LOCATION SKETCH

DESIGN DATA

HIGHWAY CLASSIFICATION
CLASS "I" ROAD DHV: ~~744~~ (87) SPEED: 70 M.P.H.

DESIGN LOADS
L.L. = H520-44 AND ALT.
FUTURE D.L. = 1" BITUMINOUS WEARING SURFACE

DESIGN STRESSES
CONCRETE
f'c = 3,500 P.S.I.
fc = 1,400 P.S.I.
fc = 1,000 P.S.I. (WITH EARTH PRESSURE)
v = 75 P.S.I. (FOOTINGS)
n = 10

REINFORCING STEEL
fs = 20,000 P.S.I.

STRUCTURAL STEEL
fs = 20,000 P.S.I. (A36)
fs = 27,000 P.S.I. (A441 3/4" AND UNDER)
fs = 25,000 P.S.I. (A441 3/4" TO 1-1/2" INCL.)
fs = 23,000 P.S.I. (A441 1-1/2" TO 4" INCL.)

PILE LOADS
P = 40 TONS (STEEL)

MAX. L.L. DEFLECTION
Δ ≯ L/1000 (NON-COMPOSITE)
Δ ≯ L/1200 (COMPOSITE)

NOVEMBER 30, 1967

12-8-67

Samuel Barrow

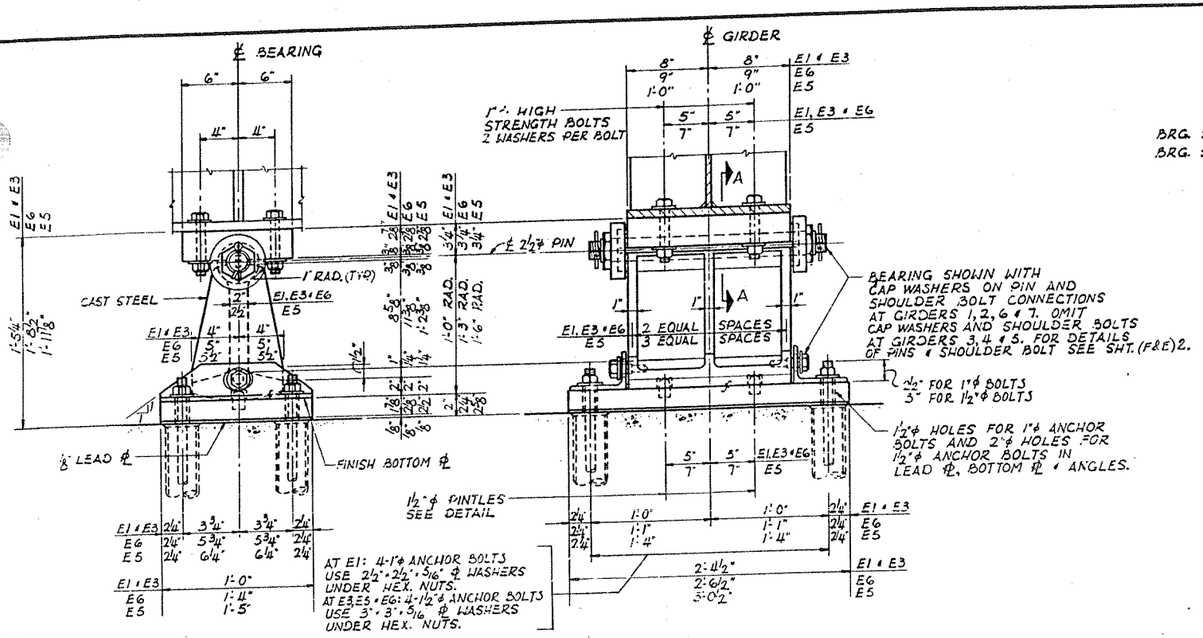
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(6)0
SECTION (06-3,78-1) F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

5/16/67 - F&E Detailed Engr. Field Office

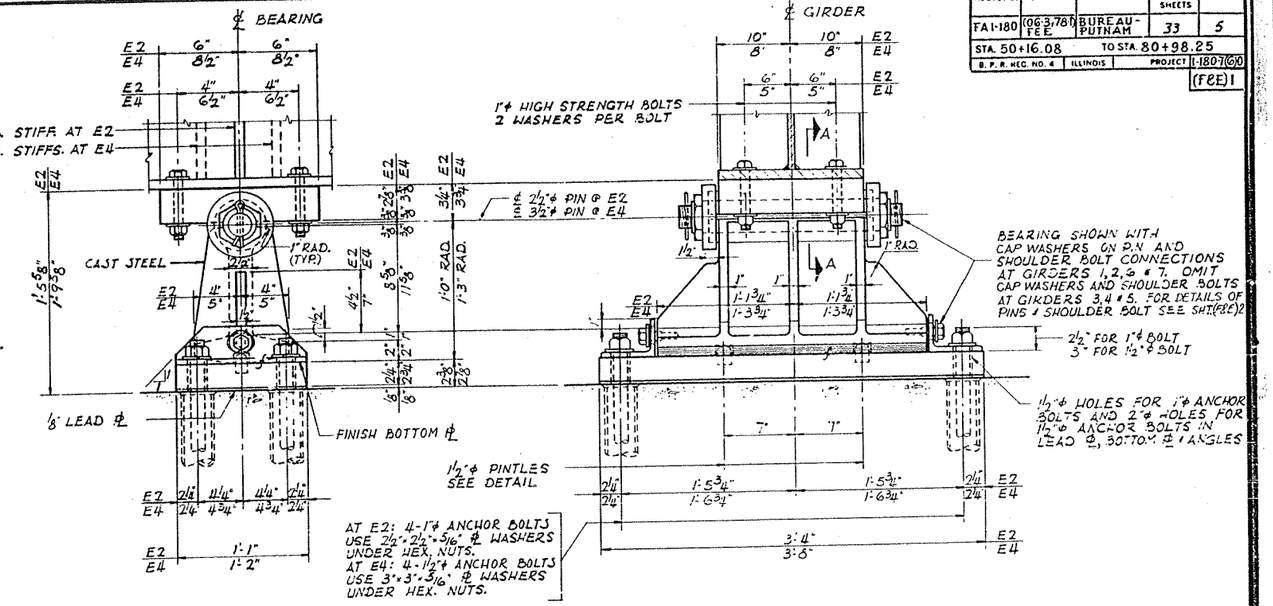
6/16/67 - B Revised Engr. Field Office from C & Branch

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	(06-3,78) FEE	BUREAU-PUTNAM	33	5
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(60)		(F&E)1



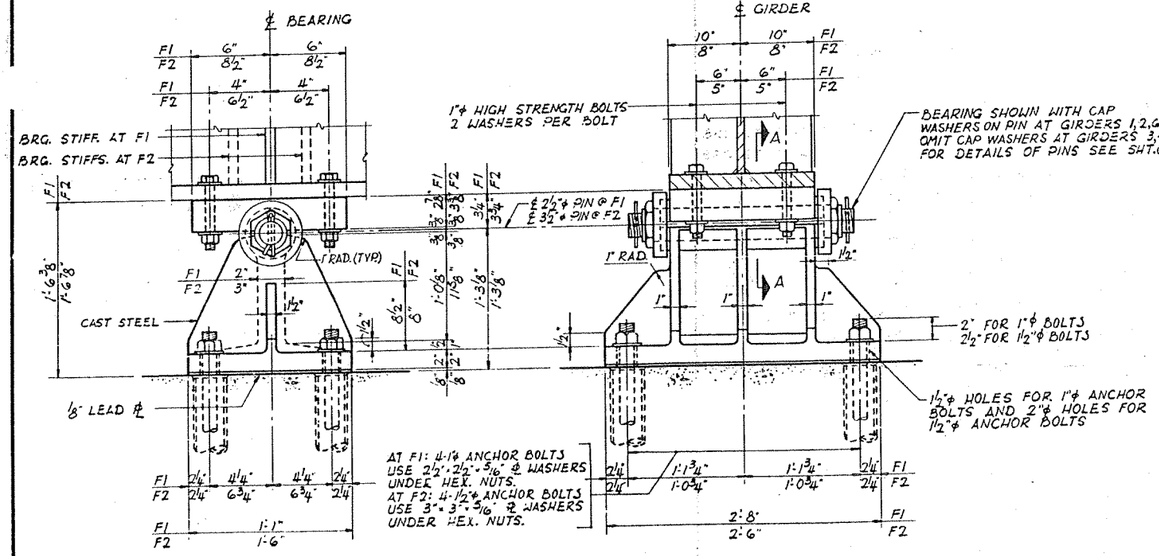
EXPANSION BEARINGS E1, E3, E5 & E6

SCALE: 1½" = 1'-0"



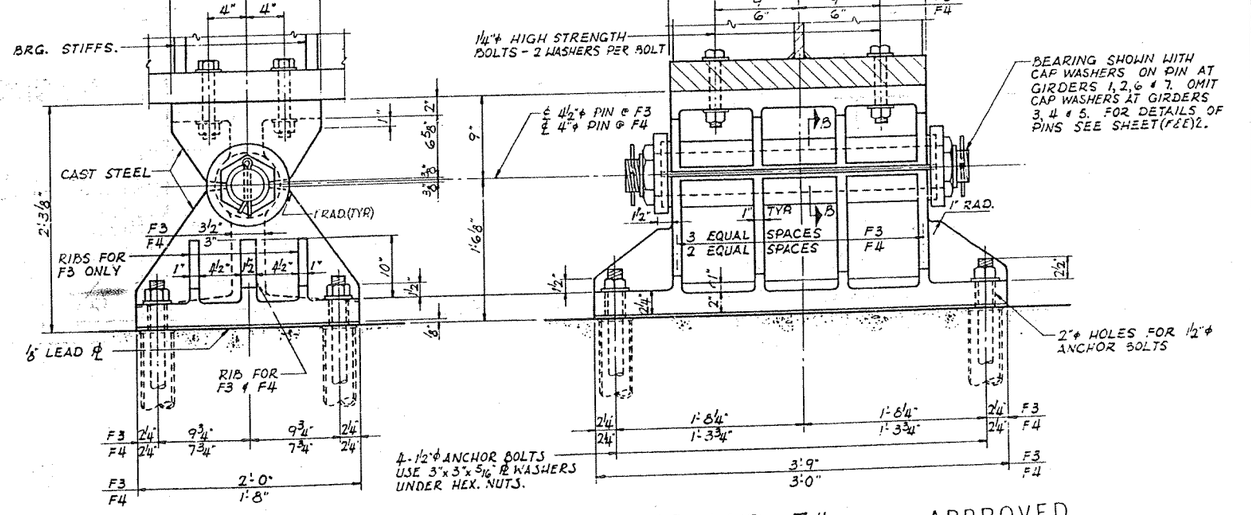
EXPANSION BEARINGS E2 AND E4

SCALE: 1½" = 1'-0"



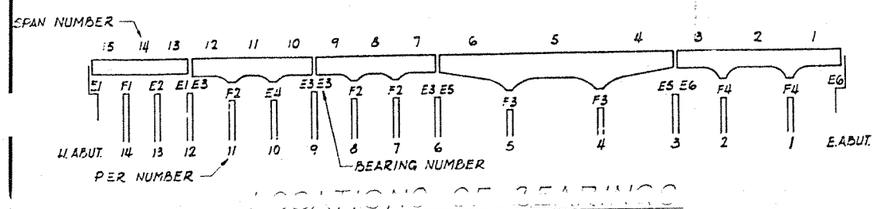
FIXED BEARINGS F1 AND F2

SCALE: 1½" = 1'-0"



FIXED BEARINGS F3 AND F4

SCALE: 1½" = 1'-0"



LOCATIONS OF BEARINGS

NOTES FOR BEARINGS

CAST STEEL SHALL CONFORM TO A.S.T.M. A27, GRADE 65-35, FULLY ANNEALED.

PINS SHALL BE FORGED STEEL CONFORMING TO A.S.T.M. A235, CLASS F.

PIPE SLEEVES SHALL CONFORM TO A.S.T.M. A53, TYPE E OR S, GRADE A OR B.

ALL OTHER MATERIAL SHALL CONFORM TO A.S.T.M. A36 EXCEPT AS OTHERWISE NOTED.

CASTINGS, PINTLES, BEARING PLATES, LEAD PLATES, ANCHOR BOLTS AND MISCELLANEOUS ITEMS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL (CARBON). ESTIMATED WEIGHT OF BEARINGS IS POUNDS WHICH INCLUDES POUNDS OF CAST STEEL.

ANCHOR BOLT ASSEMBLIES, COMPLETE, CONSISTING OF ANCHOR BOLTS, PIPE SLEEVES, SETTING PLATES, NUTS, STEEL WASHERS AND RUBBER WASHERS SHALL BE FABRICATED AND TRANSPORTED TO THE SITE UNDER SECTION (06-3, 78-1) F & E AND SET IN THE FORMS AND CONCRETED INTO PLACE UNDER SECTION (06-3, 78-1) B.

FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PROVISIONS.

NOTE

FOR ADDITIONAL NOTES SEE SHEET(F&E)3.
FOR SECTIONS A-A AND B-B AND ADDITIONAL DETAILS SEE SHEET (F&E)2.

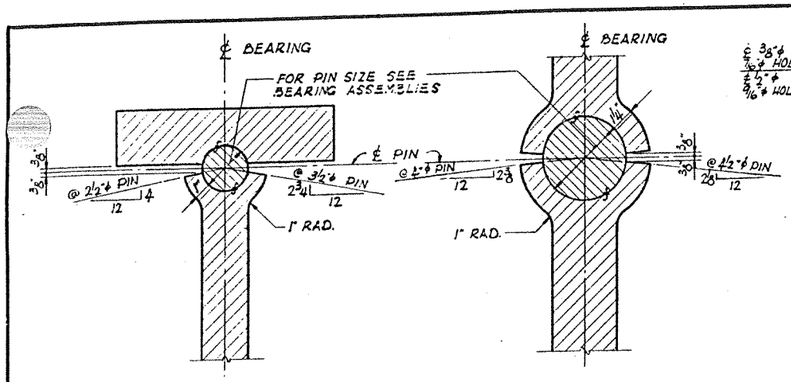
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
7-28-67

JULY 18, 1967

DETAILS OF BEARINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6) D
SECTION (06-3,78-1) FEE
BUREAU AND PUTNAM COUNTIES

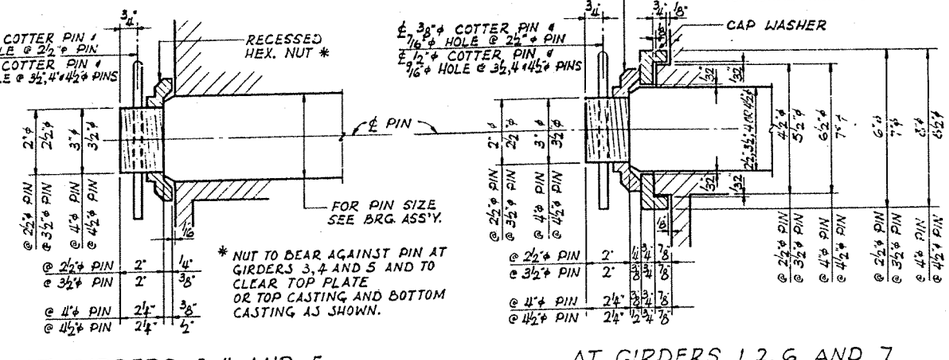
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	6
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)2

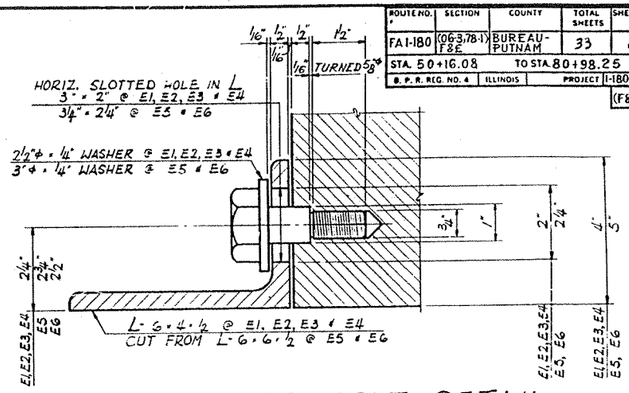


SECTION A-A
SCALE: 3" = 1'-0"

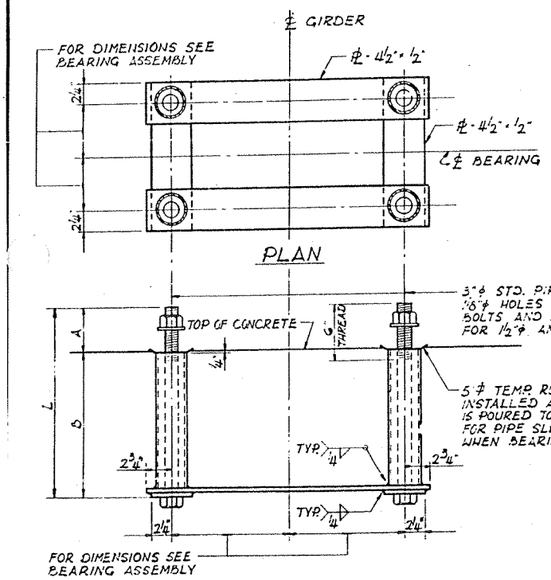
SECTION B-B
SCALE: 3" = 1'-0"



DETAILS OF PINS
SCALE: 3" = 1'-0"

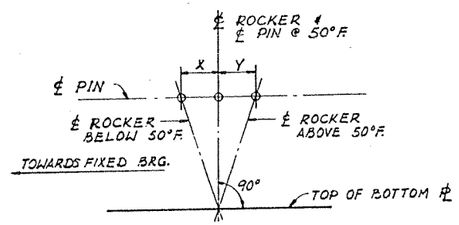


SHOULDER BOLT DETAIL
AT GIRDERS 1, 2, 6 AND 7 ONLY
SCALE: 6" = 1'-0"

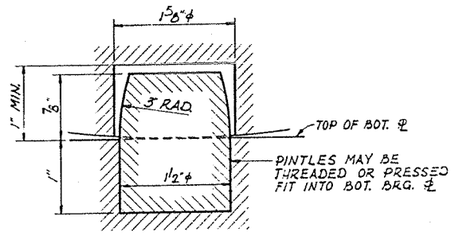


ELEVATION

ANCHOR BOLT SETTINGS
SCALE: 1½" = 1'-0"



ROCKER SETTING DIAGRAM
NO SCALE



PINTLE DETAIL
FULL SCALE

TEMPERATURE SETTINGS FOR EXP. BRGS.

LOCATION	X			X OR Y	Y		
	-10°F	10°F	30°F	50°F	70°F	90°F	110°F
WEST ABUTMENT	5/8"	7/16"	3/16"	0	3/16"	7/16"	5/8"
PIER 13	5/8"	7/16"	3/16"		3/16"	7/16"	5/8"
PIER 12 - SPAN 13	1/4"	13/16"	7/16"		7/16"	13/16"	1/4"
PIER 12 - SPAN 12	13/16"	1/2"	1/4"		1/4"	1/2"	13/16"
PIER 10	13/16"	1/2"	1/4"		1/4"	1/2"	13/16"
PIER 9 - SPAN 10	1 9/16"	1 1/16"	1/2"		1/2"	1 1/16"	1 9/16"
PIER 9 - SPAN 9	1 3/16"	7/8"	7/16"		7/16"	7/8"	1 5/16"
PIER 6 - SPAN 7	1 5/16"	7/8"	7/16"		7/16"	7/8"	1 5/16"
PIER 6 - SPAN 6	2 9/16"	1 1/16"	7/8"		7/8"	1 11/16"	2 9/16"
PIER 3 - SPAN 4	2 9/16"	1 11/16"	7/8"		7/8"	1 11/16"	2 9/16"
PIER 3 - SPAN 3	1 13/16"	1 3/16"	5/8"		5/8"	1 3/16"	1 13/16"
EAST ABUTMENT	1 13/16"	1 3/16"	5/8"	0	5/8"	1 3/16"	1 13/16"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
7-26-67

NOTE:
FOR BEARING NOTES SEE SHEET (F&E)1

ANCHOR BOLT LENGTHS

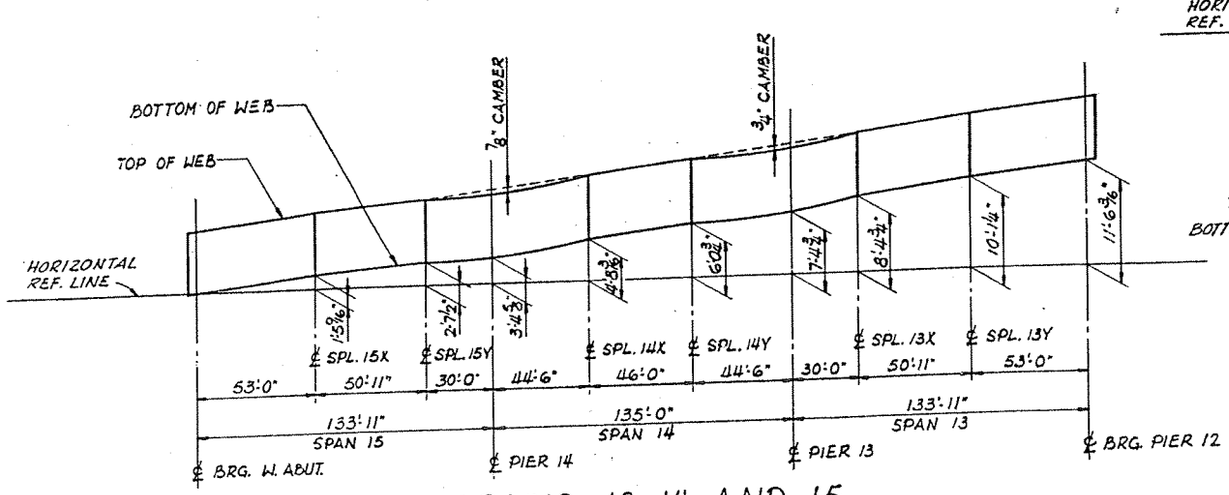
LOCATION	GIRDER	BEARING	A	B	L
S. ABUT.	1-7	E6	5¼"	1'-3¾"	1'-9"
PIERS 1 & 2	1 AND 7	F4	5"	1'-4"	1'-9"
	2-6	F4	5"	2'-1"	2'-6"
PIER 3	1 AND 7	E6	5¼"	1'-3¾"	1'-9"
	2-6	E6	5¼"	2'-3¾"	2'-9"
	1 AND 7	E5	5¾"	1'-3¼"	1'-9"
	2-6	E5	5¾"	2'-0¼"	2'-6"
PIERS 4 & 5	1 AND 7	F3	5"	1'-4"	1'-9"
	2-6	F3	5"	2'-10"	3'-3"
PIER 6	1 AND 7	E5	5¾"	1'-3¼"	1'-9"
	2-6	E5	5¾"	2'-0¼"	2'-6"
	1 AND 7	E3	5"	1'-7"	2'-0"

LOCATION	GIRDER	BEARING	A	B	L
PIERS 7, 8 & 11	1 AND 7	F2	4¾"	1'-4¾"	1'-9"
	2-6	F2	4¾"	2'-1¾"	2'-6"
PIER 9	1 AND 7	E3	5"	1'-4"	1'-9"
	2-6	E3	5"	2'-1"	2'-6"
PIER 10	1 AND 7	E4	6"	1'-3"	1'-9"
	2-6	E4	6"	2'-0"	2'-6"
PIER 12	1 AND 7	E3	5"	1'-4"	1'-9"
	2-6	E3	5"	1'-7"	2'-0"
	1-7	E1	4½"	1'-4½"	1'-9"
PIER 13	1 AND 7	E2	5"	1'-4"	1'-9"
	2-6	E2	5"	1'-7"	2'-0"
PIER 14	1 AND 7	F1	4¼"	1'-4¾"	1'-9"
W. ABUT.	1-7	E1	4½"	1'-4½"	1'-9"

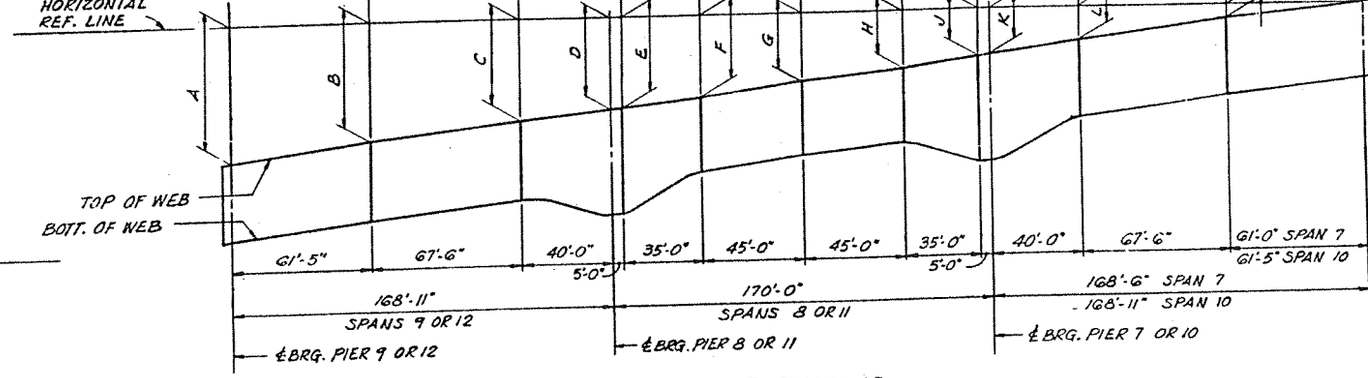
JULY 18, 1967

DETAILS OF BEARINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



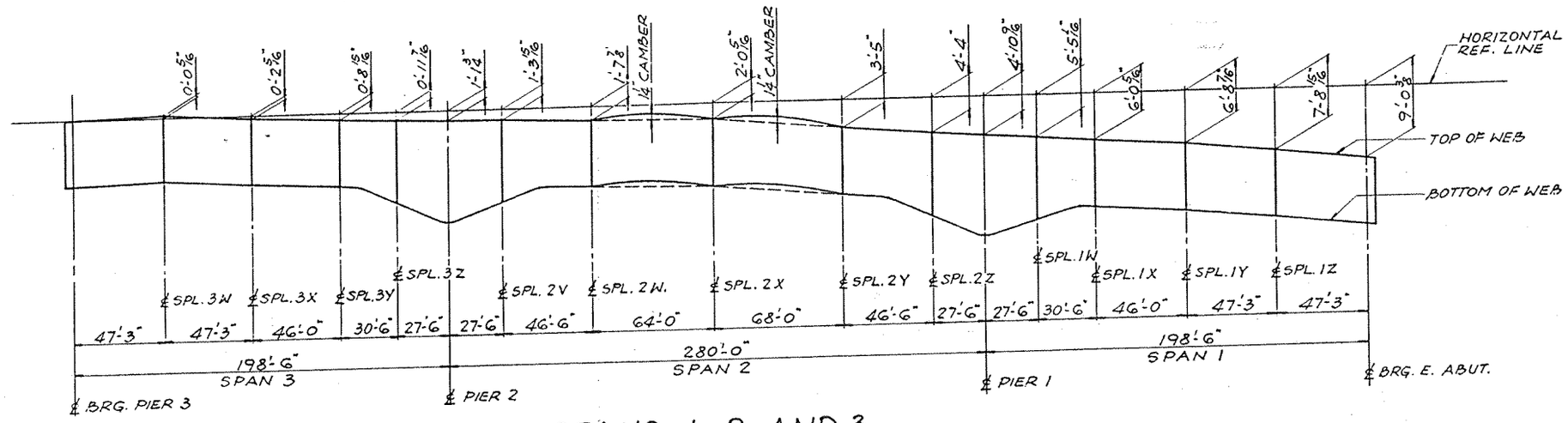
SPANS 13, 14 AND 15



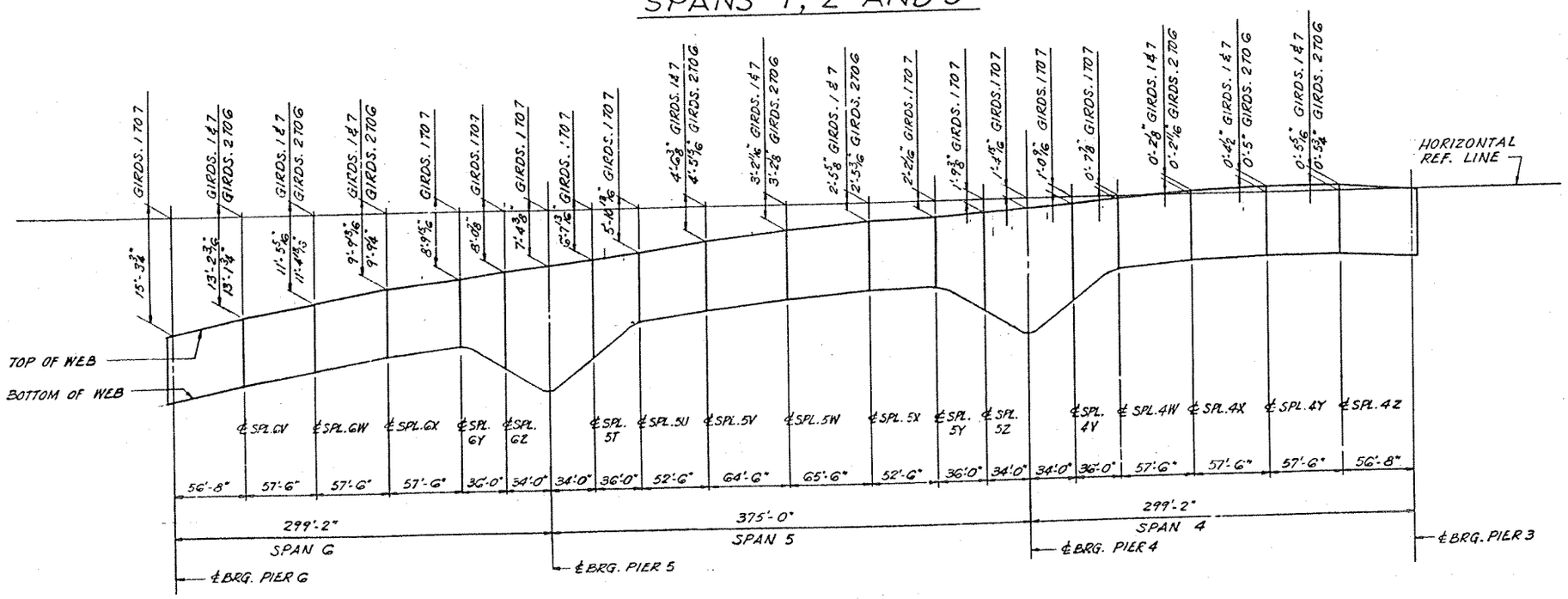
SPANS 7 THRU 12

TABLE OF DIMENSIONS FOR SPANS 7 THRU 12

DIMENSION	A	B	C	D	E	F	G	H	J	K	L
SPANS 7,8 & 9	15'-3 7/16"	13'-1 5/16"	11'-4 7/8"	10'-2 7/8"	10'-1 3/16"	9'-1 9/16"	7'-7 5/8"	6'-5 3/16"	5'-3 5/8"	5'-1 11/16"	3'-10 7/8"
SPANS 10,11 & 12	15'-2 9/16"	13'-1 7/8"	11'-4 5/16"	10'-3"	10'-1 3/8"	9'-1 3/4"	7'-7 13/16"	6'-5 5/16"	5'-3 3/4"	5'-1 13/16"	3'-10 5/16"



SPANS 1, 2 AND 3



SPANS 4, 5 AND 6

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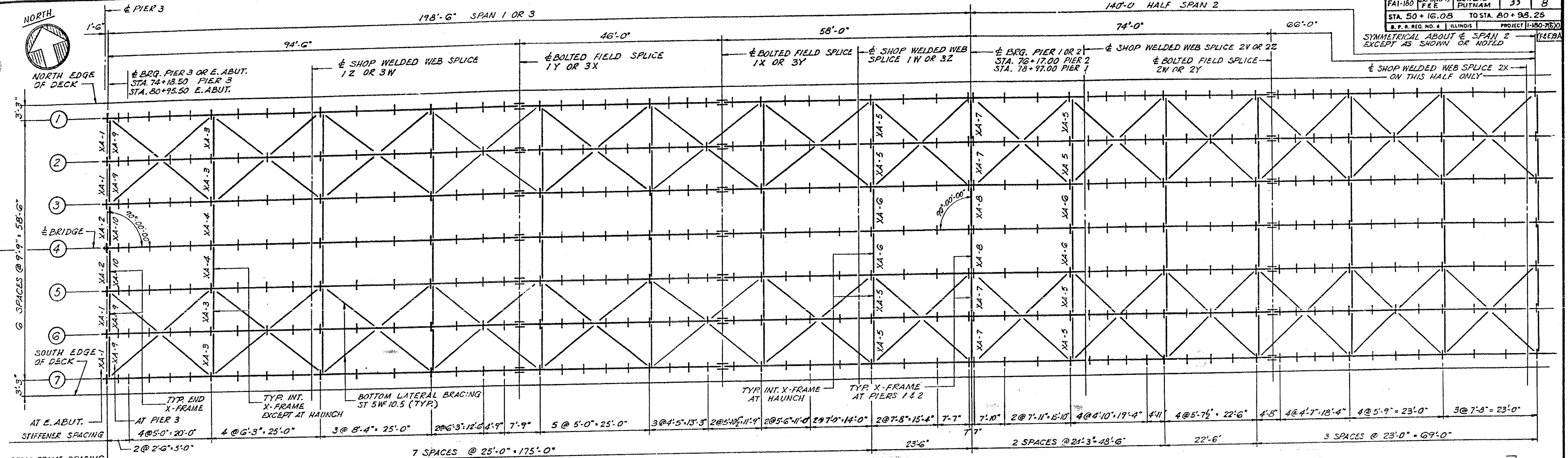
FOR STRUCTURAL ADEQUACY ONLY
9-27-67
Engineer of Bridges & Traffic Structures

1459

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

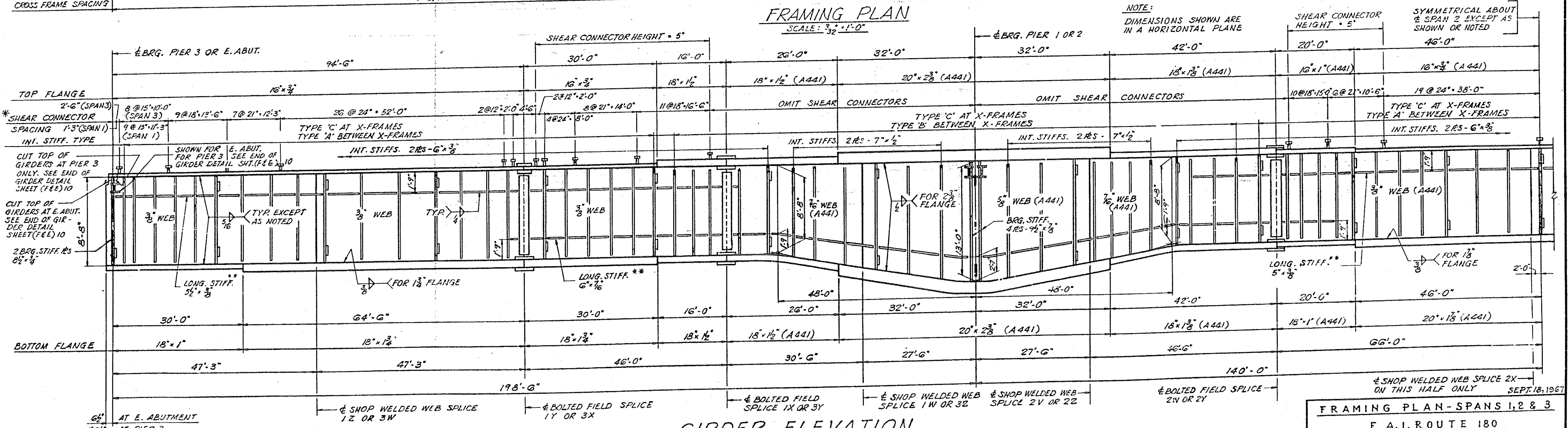
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	8
STA. 50 + 16.08 TO STA. 80 + 98.25				
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0	

(F&E)8A



FRAMING PLAN

SCALE: 3/32" = 1'-0"



GIRDER ELEVATION

NO SCALE

SEPT. 18, 1967

** PLACE LONG. STIFFS. ON ONE SIDE ONLY OF ALL GIRDERS.
STIFFS. ON GIRDERS ① & ⑦ TO BE ON INSIDE.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thunman Jr. 9-21-67
Engineer of Bridge & Traffic Structures

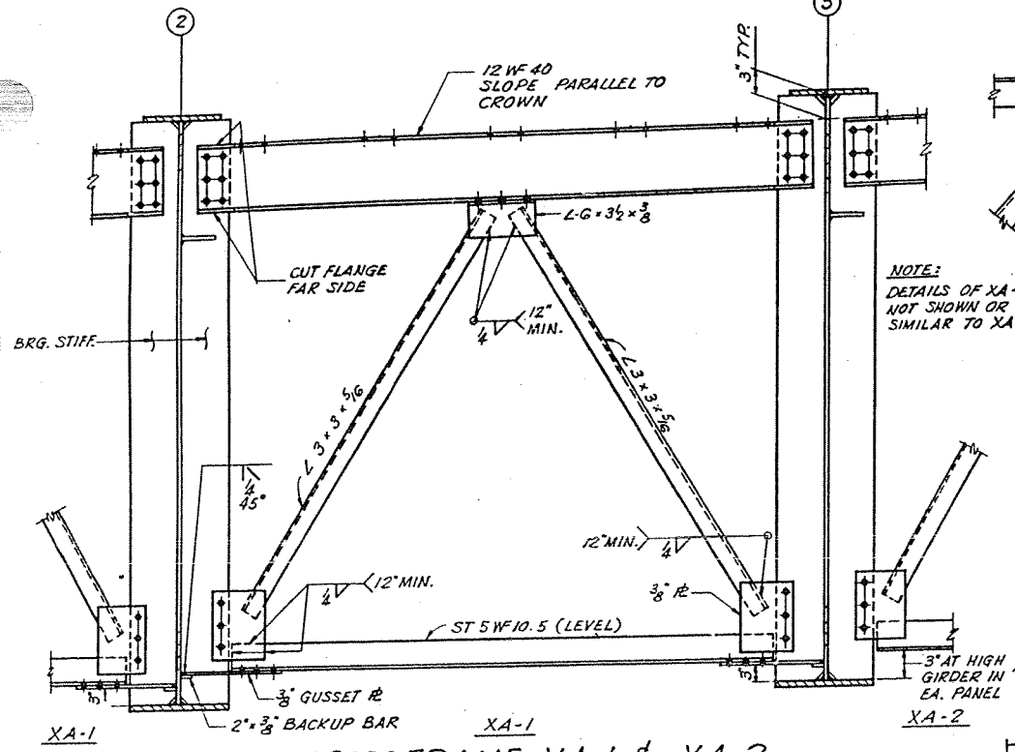
* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1) D. HEIGHT TO BE 4" UNLESS NOTED.

FOR NOTES SEE SHEET (F&E) 3.
FOR TOP OF WEB ELEVATIONS SEE SHEET (F&E) 11.

#1300
J Russell

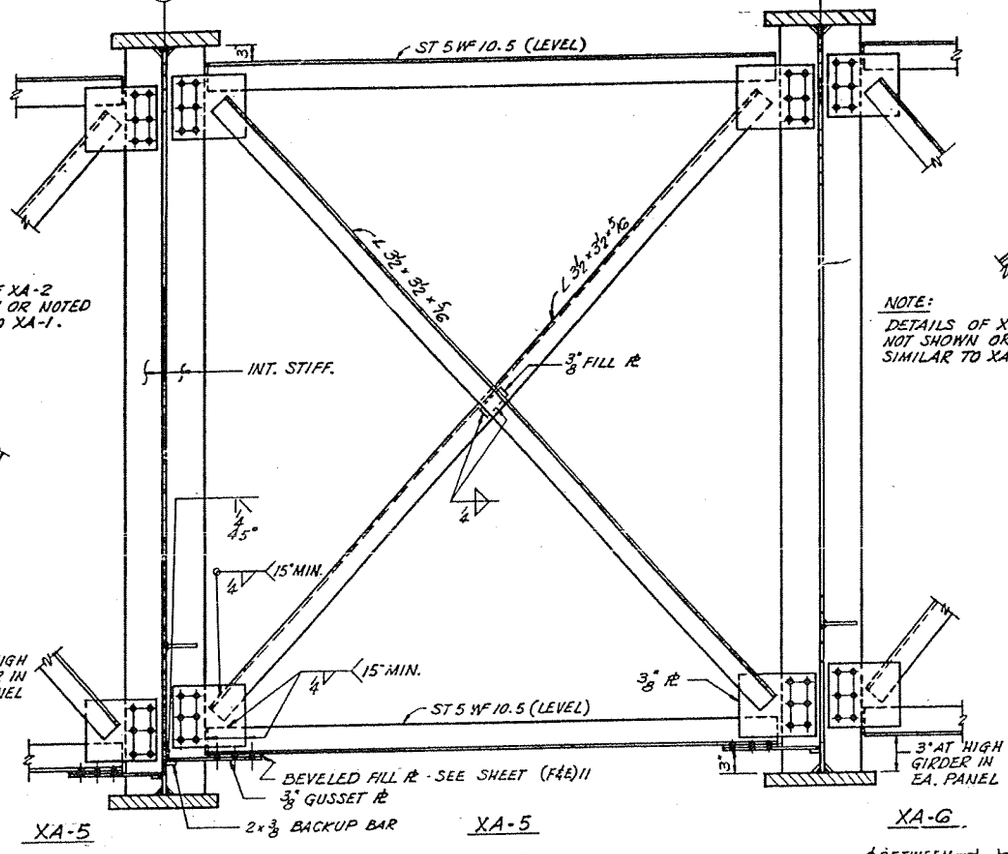
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

FRAMING PLAN-SPANS 1,2 & 3
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50



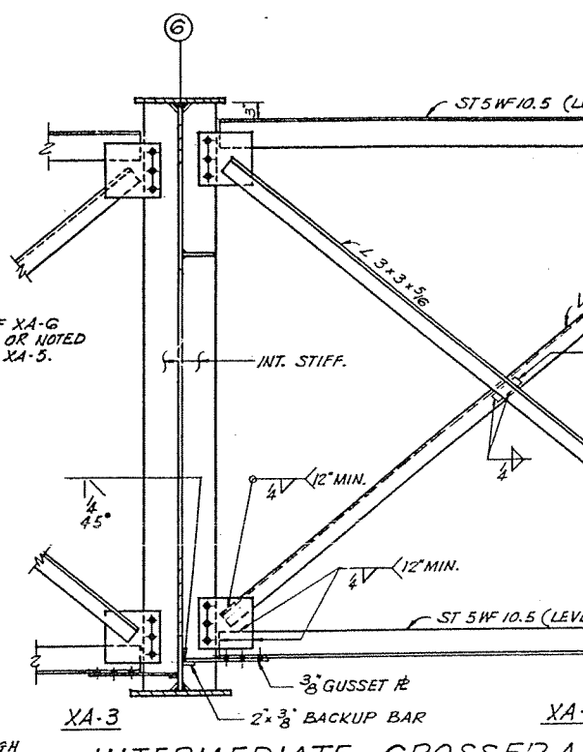
END CROSSFRAME XA-1 & XA-2

SCALE: ¾" = 1'-0"



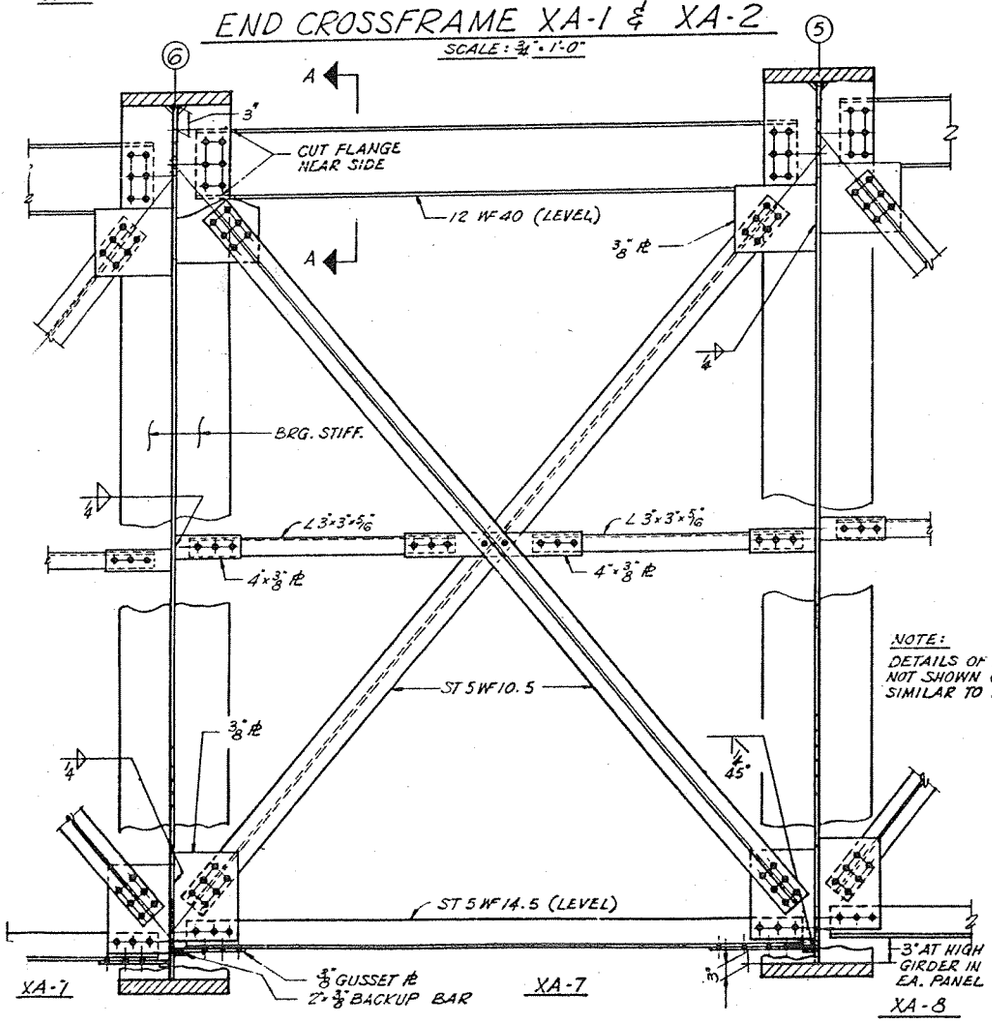
INTERMEDIATE CROSSFRAME XA-5 & XA-6

SCALE: ¾" = 1'-0"

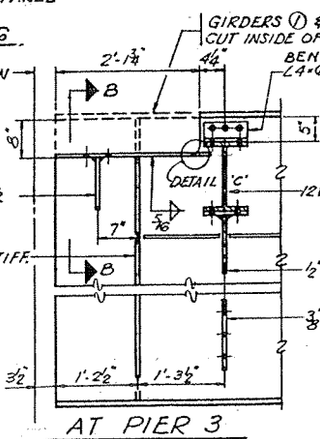


INTERMEDIATE CROSSFRA

SCALE: ¾" = 1'-0"

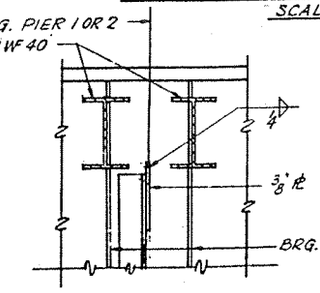


INTERMEDIATE CROSSFRAME XA-7 & XA-8



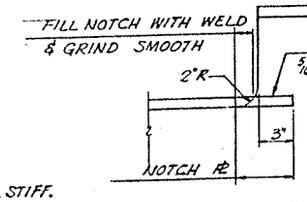
END OF GIRDER DETAIL

SCALE: ¾" = 1'-0"



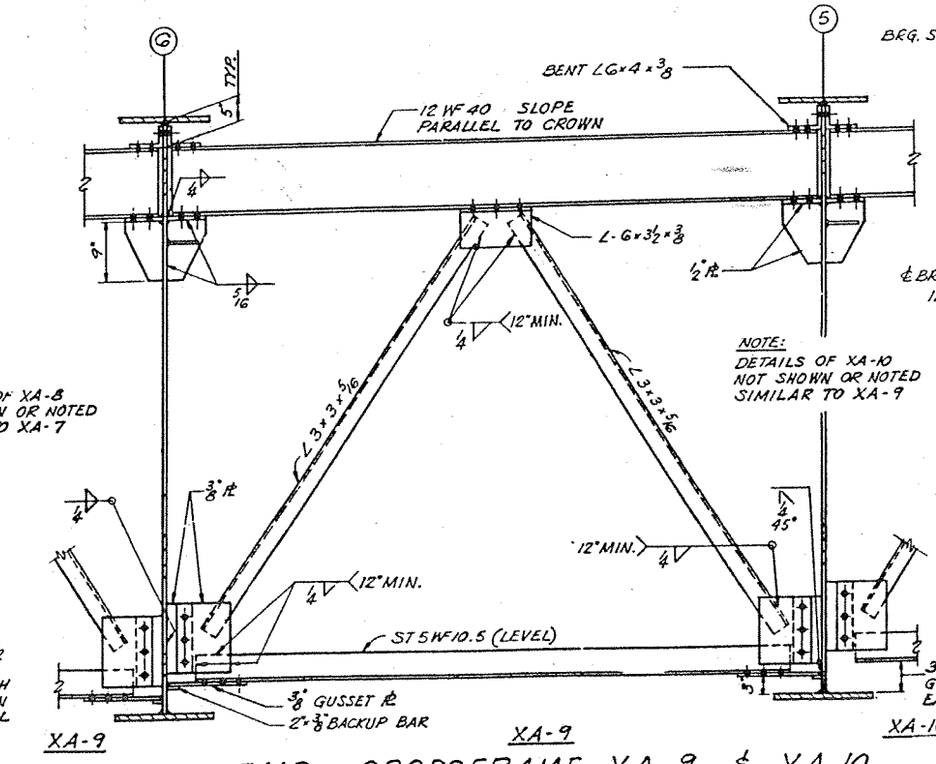
SECTION A-A

SCALE: ¾" = 1'-0"



DETAIL 'C' FOR

SCALE: 1½" = 1'-0"



END CROSSFRAME XA-9 & XA-10

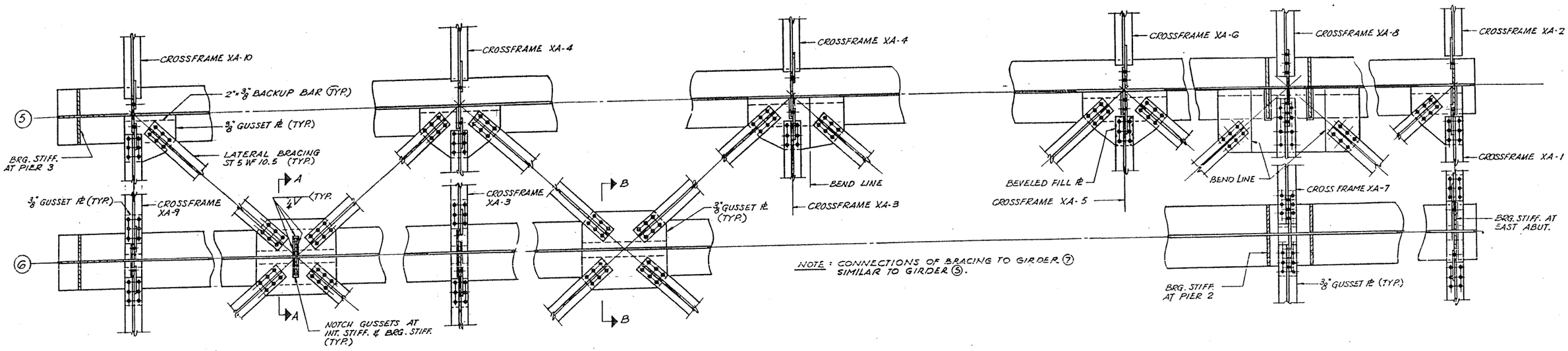
SCALE: ¾" = 1'-0"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thurman Jr. 9-21-67
Engineer of Bridges & Structures

#1340

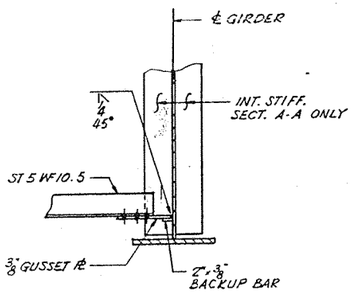
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F & E	BUREAU-PUTNAM	33	10
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0 (F-2 E) 11		



LATERAL BRACING CONNECTIONS

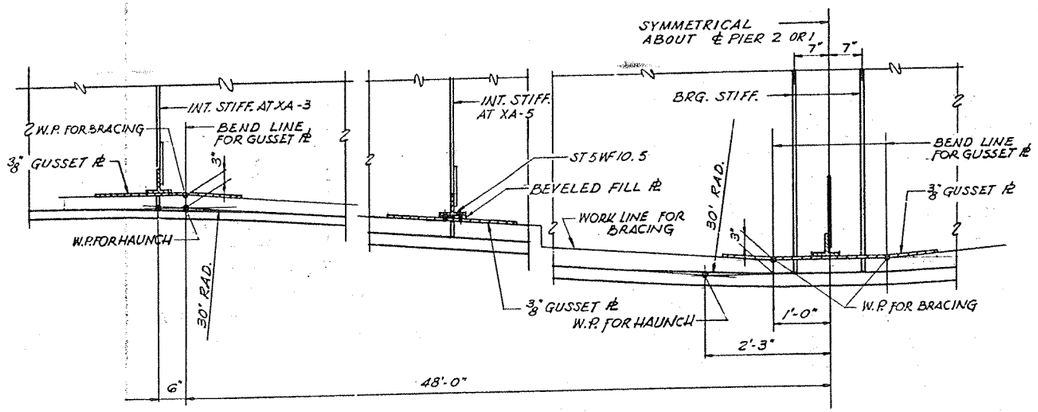
SCALE : ¾"=1'-0"



SECTION A-A

SECTION B-B SIMILAR

SCALE: ¾"=1'-0"



DETAIL AT HAUNCH

SCALE: ¾"=1'-0"

TOP OF WEB ELEVATIONS FOR FABRICATION ONLY (UNDEFLECTED GIRDERS)

LOCATION \ GIRDER	1 & 7	2 & 6	3 & 5	4
℄ BRG. PIER 3	524.465	524.618	524.770	524.922
℄ SHOP SPLICE 3W	524.494	524.646	524.798	524.951
℄ FIELD SPLICE 3X	524.271	524.424	524.576	524.728
℄ FIELD SPLICE 3Y	523.722	523.874	524.026	524.179
℄ SHOP SPLICE 3Z	523.511	523.664	523.816	523.968
℄ BRG. PIER 2	523.321	523.474	523.626	523.778
℄ SHOP SPLICE 2V	523.135	523.287	523.440	523.592
℄ FIELD SPLICE 2W	522.811	522.963	523.115	523.268
℄ SHOP SPLICE 2X	522.442	522.594	522.746	522.899
℄ FIELD SPLICE 2Y	521.050	521.202	521.354	521.507
℄ SHOP SPLICE 2Z	520.130	520.282	520.435	520.587
℄ BRG. PIER 1	519.586	519.738	519.891	520.043
℄ SHOP SPLICE 1W	519.042	519.194	519.347	519.499
℄ FIELD SPLICE 1X	518.439	518.591	518.743	518.896
℄ FIELD SPLICE 1Y	517.761	517.914	518.066	518.218
℄ SHOP SPLICE 1Z	516.723	516.875	517.027	517.180
℄ BRG. E. ABUTMENT	515.433	515.586	515.738	515.890

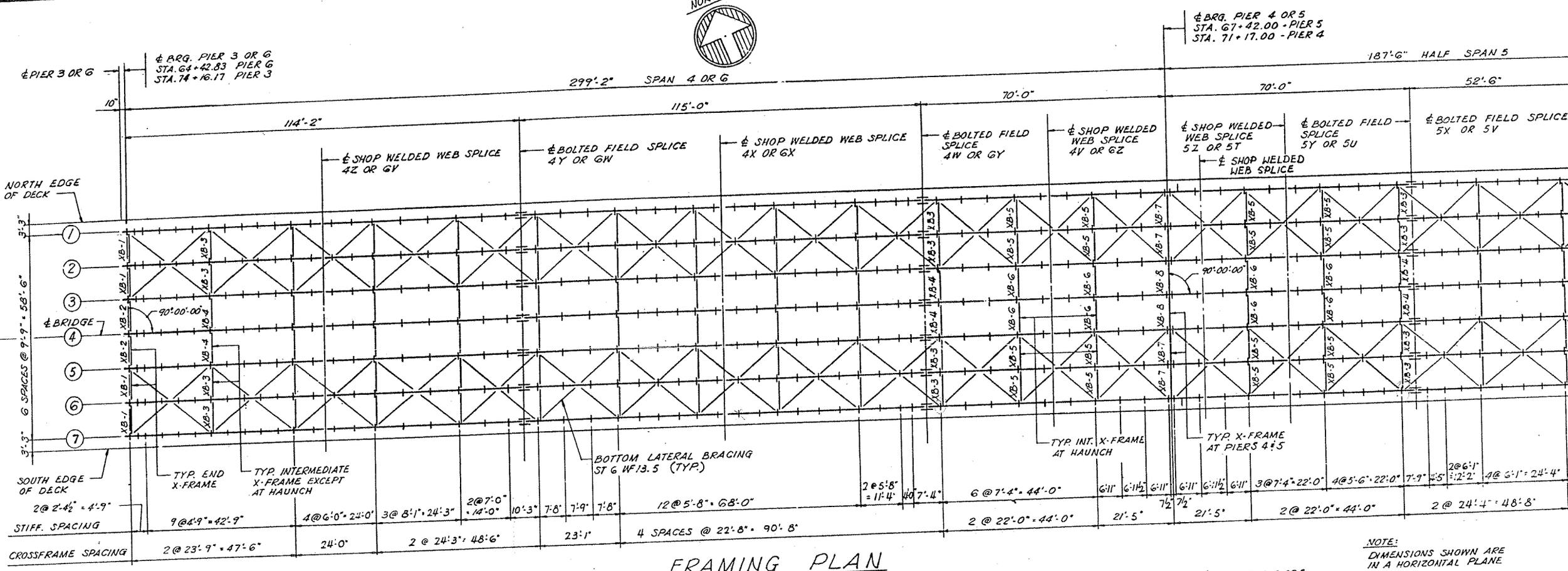
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl C. Thunman Jr. 9-21-67
Engineer of Bridge & Traffic Structures

#1300

SEPTEMBER 5, 1967

STEEL DETAILS-SPANS 1, 2 AND 3
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

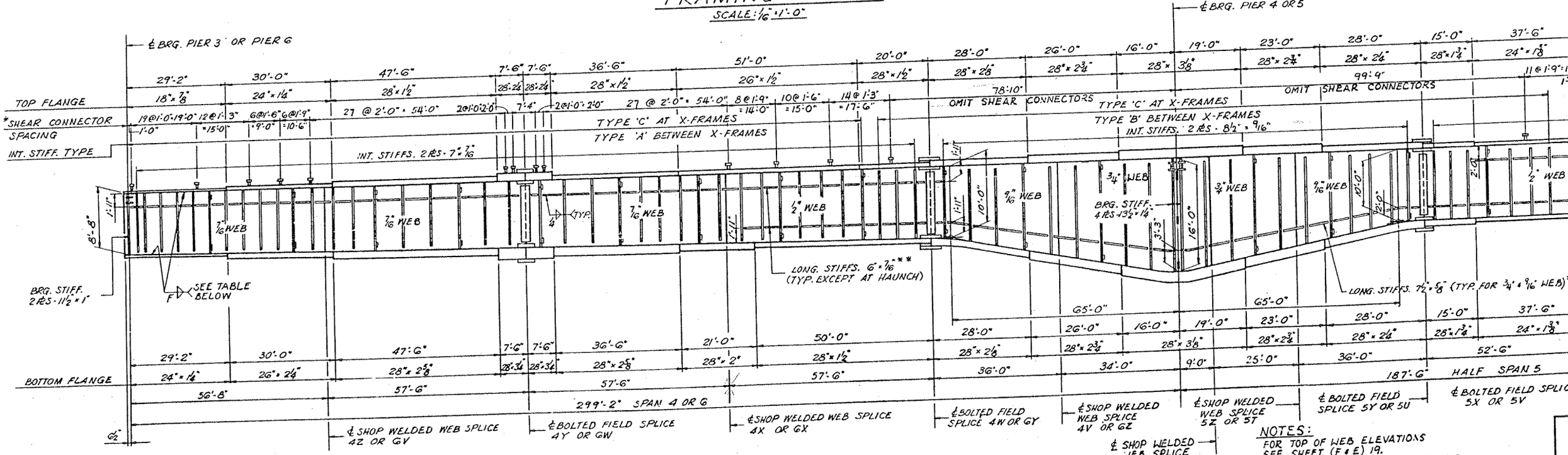
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
IV SOUTH WABASH AVENUE CHICAGO, ILLINOIS



FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE



F	FLANGE THICKNESS
5/16	1½" MAX.
3/8	2¼" MAX.
½	OVER 2¼"

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10-3-67
Engineer of Bridge & Traffic Structures

GIRDER ELEVATION

NO SCALE

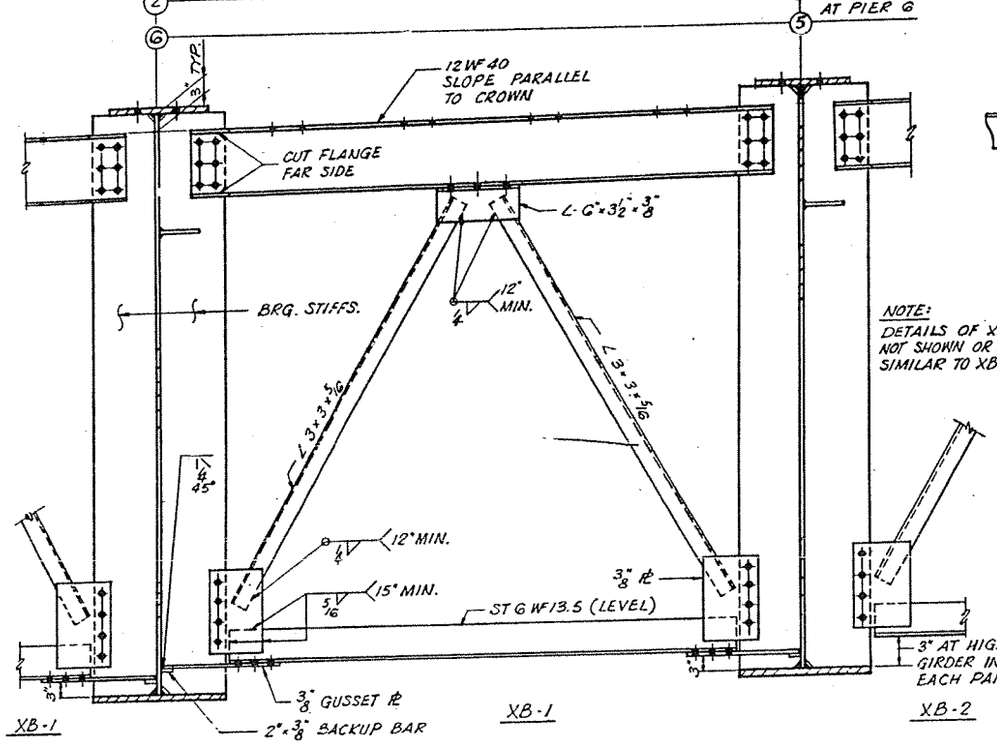
NOTES:
FOR TOP OF WEB ELEVATIONS SEE SHEET (F & E) 19.
ALL GIRDER WEB PLATES AND FLANGE PLATES TO BE A441 STEEL.
FOR OTHER NOTES, SEE SHEET (F & E) 3.

** LONGITUDINAL STIFFENERS TO BE ON 1 SIDE ONLY OF ALL GIRDERS. STIFFS.

* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1) D.

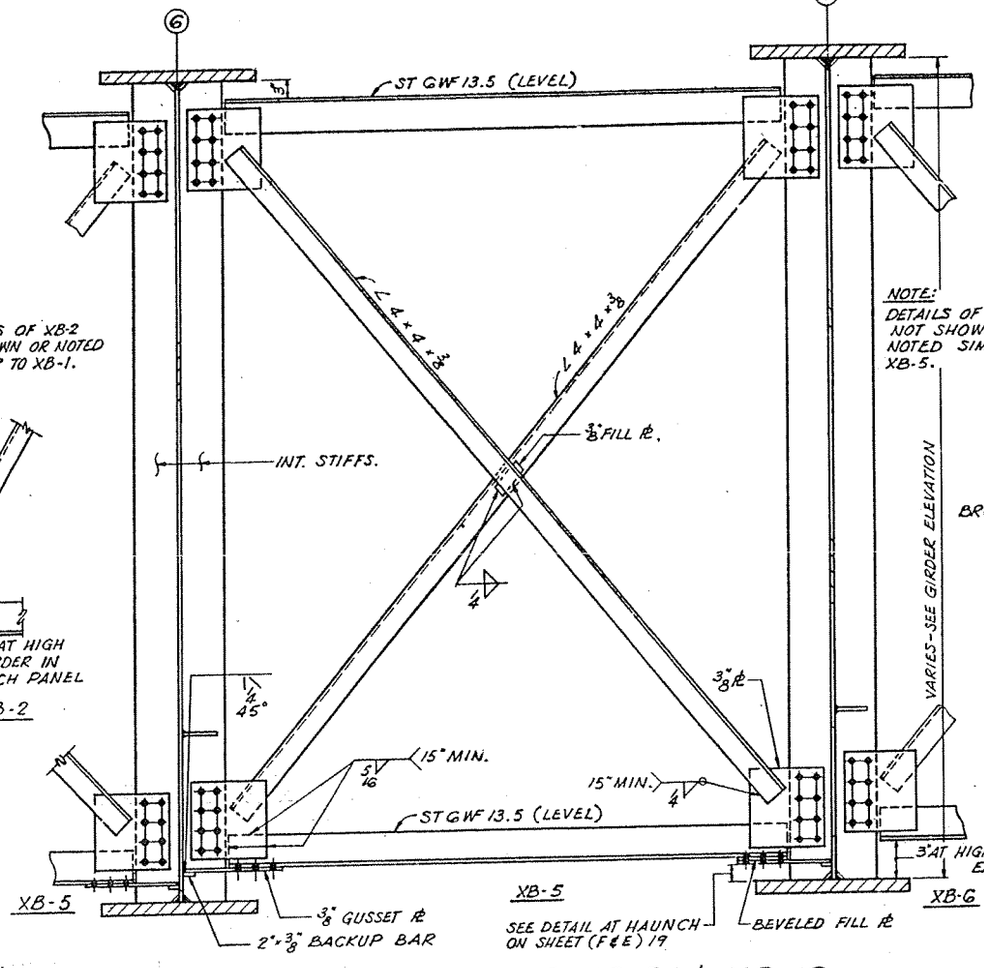
Samuel Berner

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS



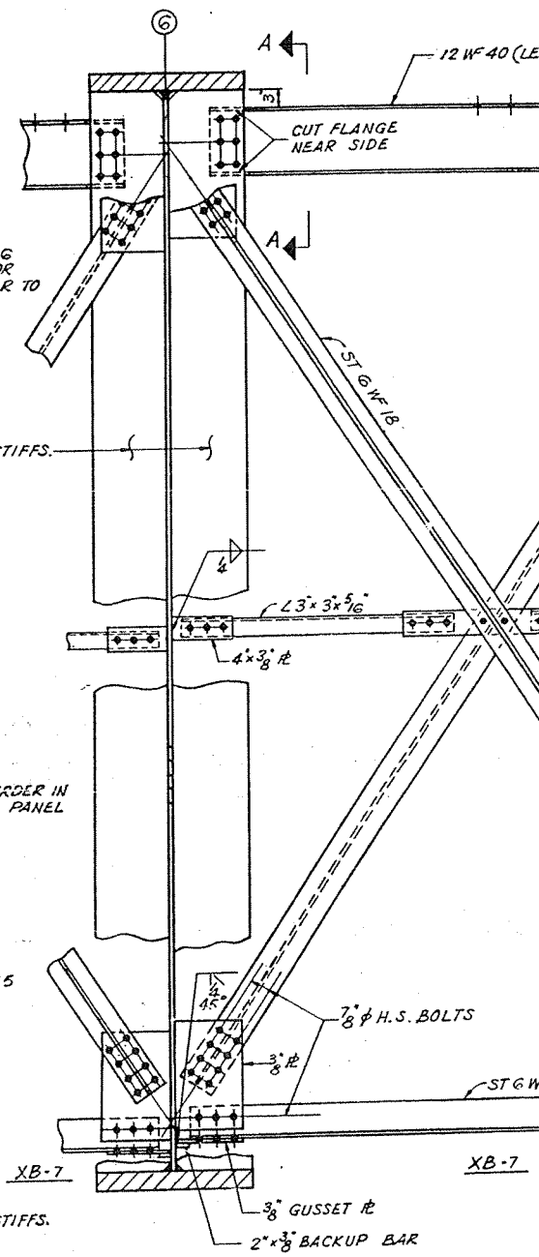
END CROSSFRAME XB-1 & XB-2

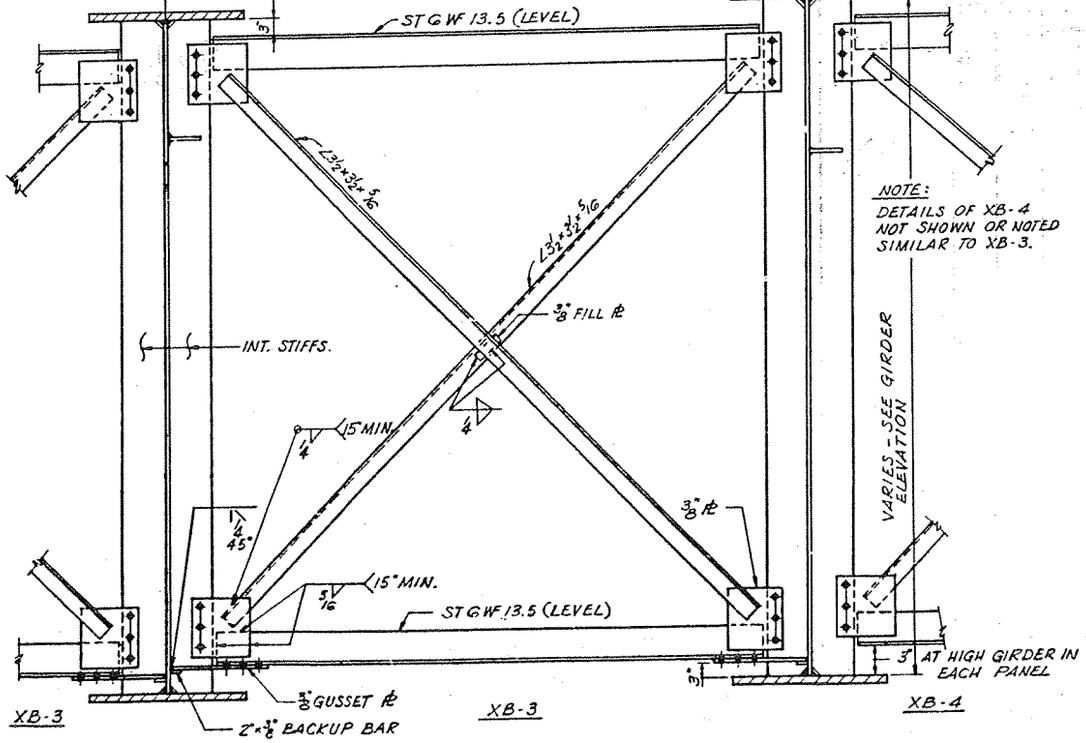
SCALE: ¾"=1'-0"



INT. CROSSFRAME XB-5 & XB-6

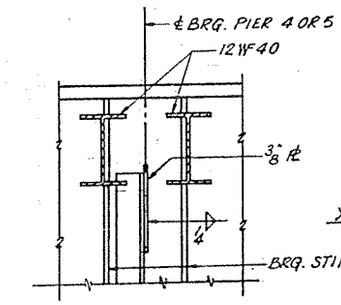
SCALE: ¾"=1'-0"





INT. CROSSFRAME XB-3 & XB-4

SCALE: ¾"=1'-0"



SECTION A-A

SCALE: ¾"=1'-0"

CROSSFRAME AT PIERS

SCALE: ¾

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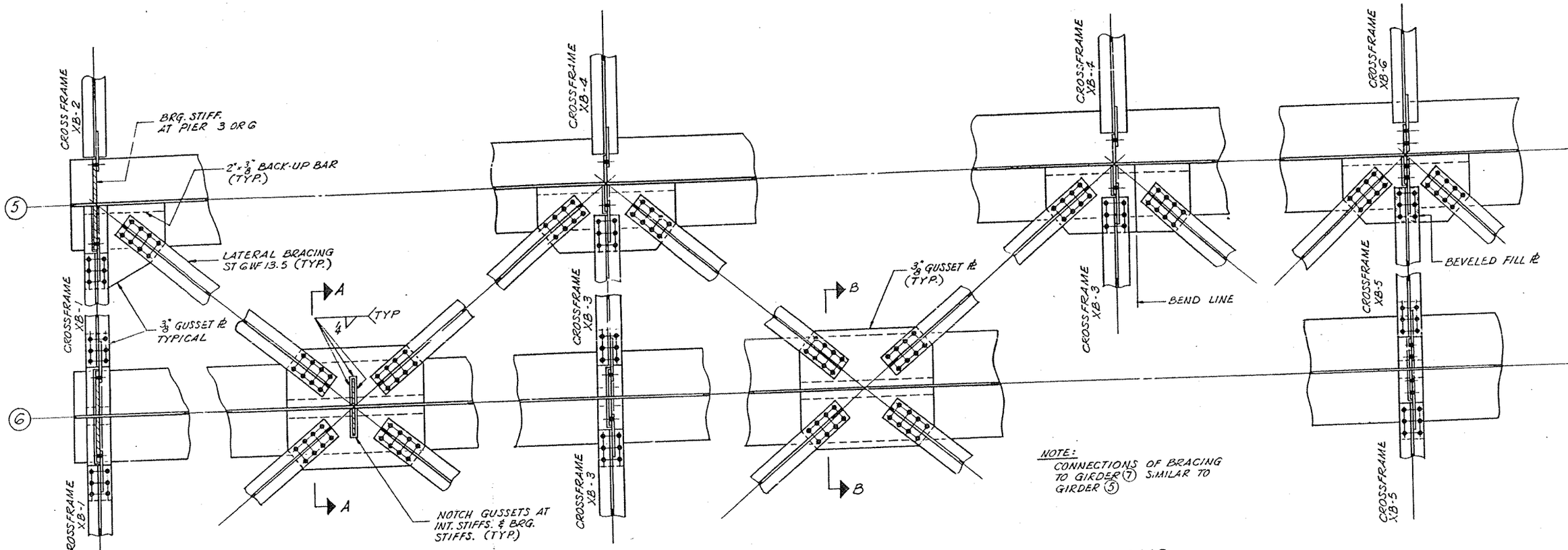
10-3-67
Engineer of Bridge & Traffic Structures

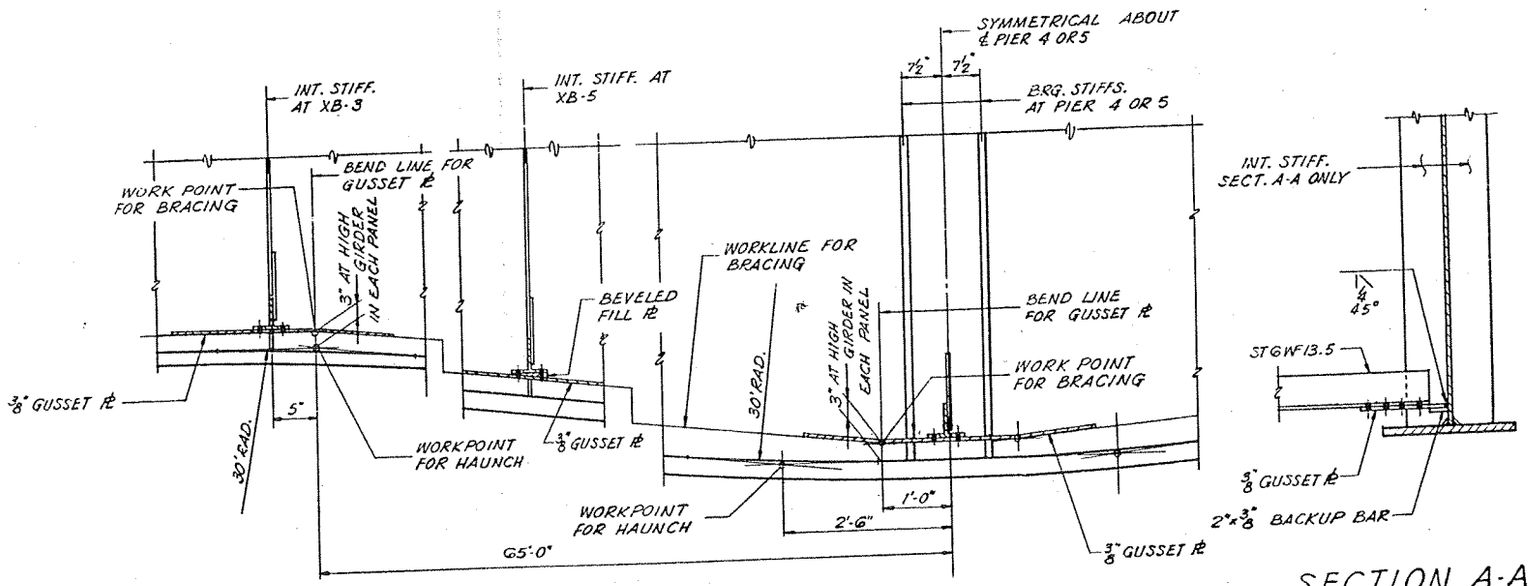
Samuel Berman

CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS



LATERAL BRACING CONNECTIONS

SCALE: 3/4" = 1'-0"



DETAIL AT HAUNCH

SCALE: 3/4" = 1'-0"

SECTION A-A

SECTION B-B SIMILAR

TOP OF WEB FOR FABRIC (UNDEFLECTED

LOCATION \ GIRDER	
℄ BRG. PIER 6	
℄ SHOP SPLICE 6V	
℄ FIELD SPLICE 6W	
℄ SHOP SPLICE 6X	
℄ FIELD SPLICE 6Y	
℄ SHOP SPLICE 6Z	
℄ PIER 5	
℄ SHOP SPLICE 5T	
℄ FIELD SPLICE 5U	
℄ FIELD SPLICE 5V	
℄ SHOP SPLICE 5W	
℄ FIELD SPLICE 5X	
℄ FIELD SPLICE 5Y	
℄ SHOP SPLICE 5Z	
℄ PIER 4	
℄ SHOP SPLICE 4V	
℄ FIELD SPLICE 4W	
℄ SHOP SPLICE 4X	
℄ FIELD SPLICE 4Y	
℄ SHOP SPLICE 4Z	
℄ BRG. PIER 3	

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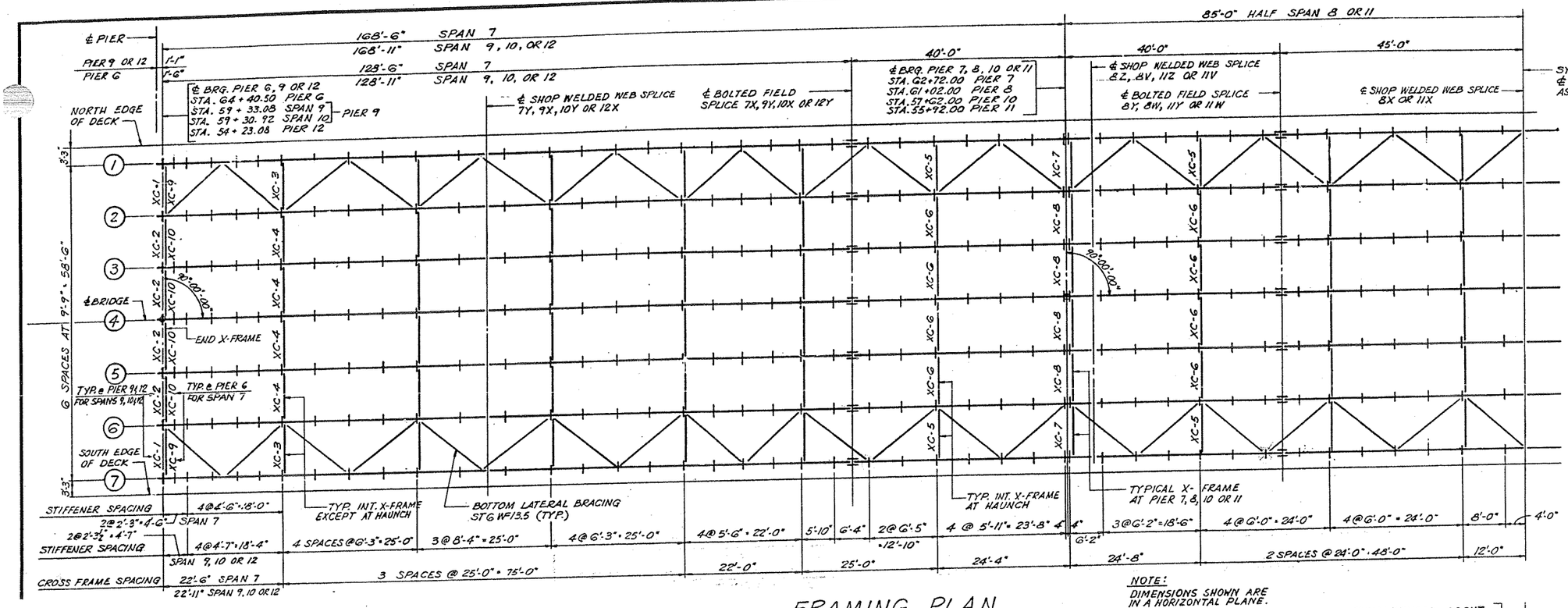
10-3-67
Engineer of Bridge & Traffic Structures

Samuel Berman

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

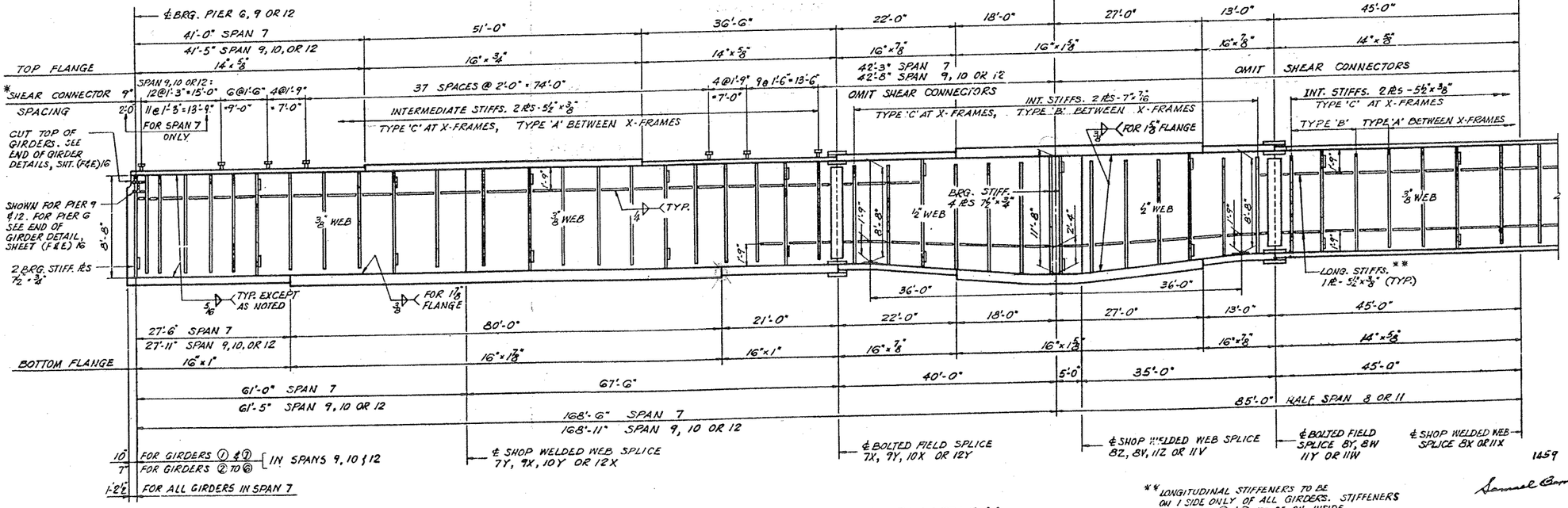
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	14
STA. 50+16.08		TO STA. 80+98.25		
B.P.R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)14



FRAMING PLAN

SCALE: $\frac{3}{32}$" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.



* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1)D.

** LONGITUDINAL STIFFENERS TO BE ON 1 SIDE ONLY OF ALL GIRDERS. STIFFENERS ON GIRDERS ① & ⑦ TO BE ON INSIDE.

GIRDER ELEVATION

NO SCALE

TOP OF WEB ELEVATIONS FOR FABRICATION ONLY (UNDEFLECTED GIRDERS)

SPANS 7, 8 & 9

LOCATION \ GIRDER	1 & 7	2 & 6	3 & 5	4
℄ BRG. PIER 9	493.802	493.958	494.104	494.260
℄ SHOP SPLICE 9X	495.954	496.110	496.256	496.412
℄ FIELD SPLICE 9Y	497.744	497.900	498.046	498.202
℄ BRG. PIER 8	498.850	499.006	499.152	499.308
℄ SHOP SPLICE 8V	498.989	499.145	499.291	499.447
℄ FIELD SPLICE 8W	499.957	500.113	500.259	500.416
℄ SHOP SPLICE 8X	501.453	501.609	501.755	501.911
℄ FIELD SPLICE 8Y	502.657	502.813	502.959	503.115
℄ SHOP SPLICE 8Z	503.789	503.945	504.091	504.247
℄ BRG. PIER 7	503.950	504.106	504.252	504.408
℄ FIELD SPLICE 7X	505.244	505.400	505.546	505.702
℄ SHOP SPLICE 7Y	507.504	507.660	507.806	507.962
℄ BRG. PIER 6	509.089	509.245	509.391	509.547

SPANS 10, 11 & 12

LOCATION \ GIRDER	1 & 7	2 & 6	3 & 5	4
℄ BRG. PIER 12	478.567	478.723	478.869	479.025
℄ SHOP SPLICE 12X	480.654	480.810	480.956	481.112
℄ FIELD SPLICE 12Y	482.446	482.600	482.746	482.902
℄ BRG. PIER 11	483.550	483.706	483.852	484.008
℄ SHOP SPLICE 11V	483.689	483.845	483.991	484.147
℄ FIELD SPLICE 11W	484.657	484.813	484.959	485.115
℄ SHOP SPLICE 11X	486.153	486.309	486.455	486.611
℄ FIELD SPLICE 11Y	487.357	487.513	487.659	487.815
℄ SHOP SPLICE 11Z	488.489	488.645	488.791	488.947
℄ BRG. PIER 10	488.650	488.806	488.952	489.108
℄ FIELD SPLICE 10X	489.946	490.100	490.246	490.402
℄ SHOP SPLICE 10Y	492.204	492.360	492.506	492.662
℄ BRG. PIER 9	493.802	493.958	494.104	494.260

FOR NOTES, SEE SHEET (F&E) 3.

APPROVED
FOR THE DIVISION OF HIGHWAYS
9-27-67
Engineer of Bridges and Structures

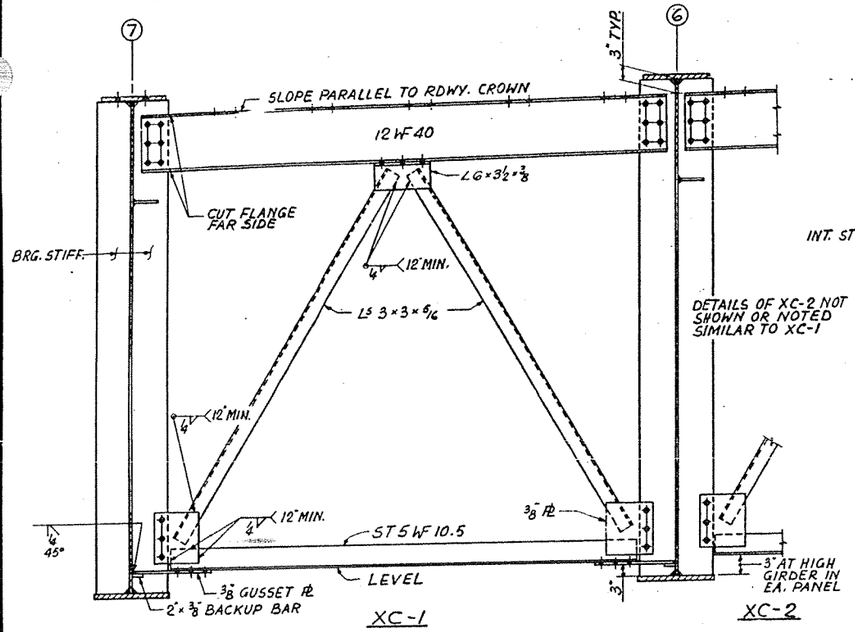
SEPTEMBER 27, 1967

FRAMING PLAN-SPANS 7 TO 12
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)D F&E
BUREAU AND PUTNAM COUNTIES

1459
Samuel Cornelius

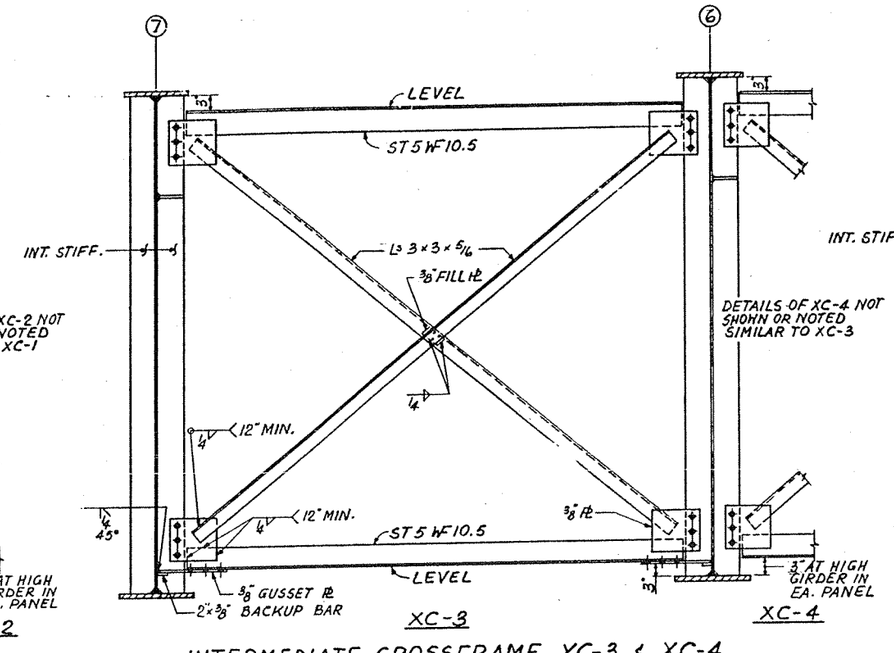
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU - PUTNAM	33	15
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)15



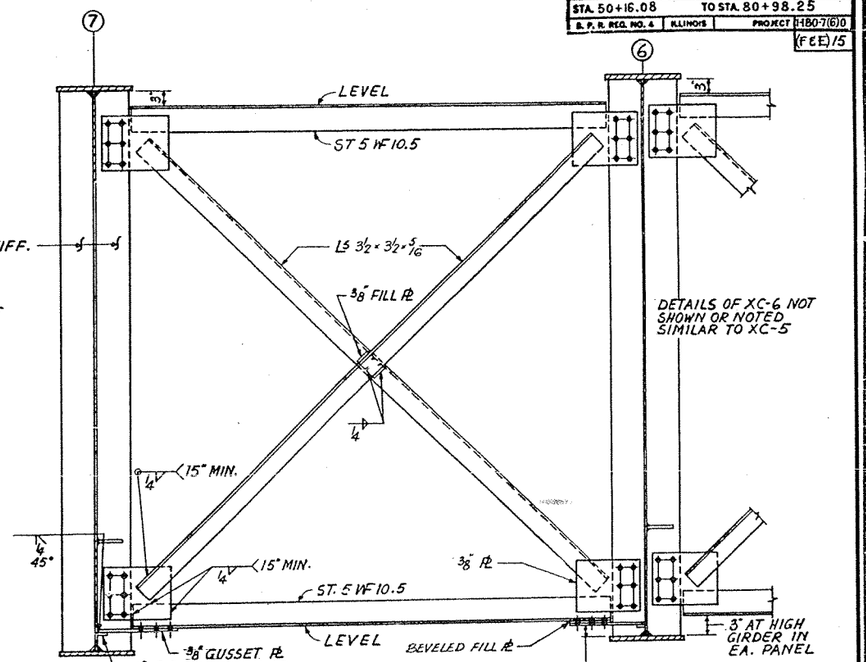
END CROSSFRAME XC-1 & XC-2

SCALE: ¾" = 1'-0"



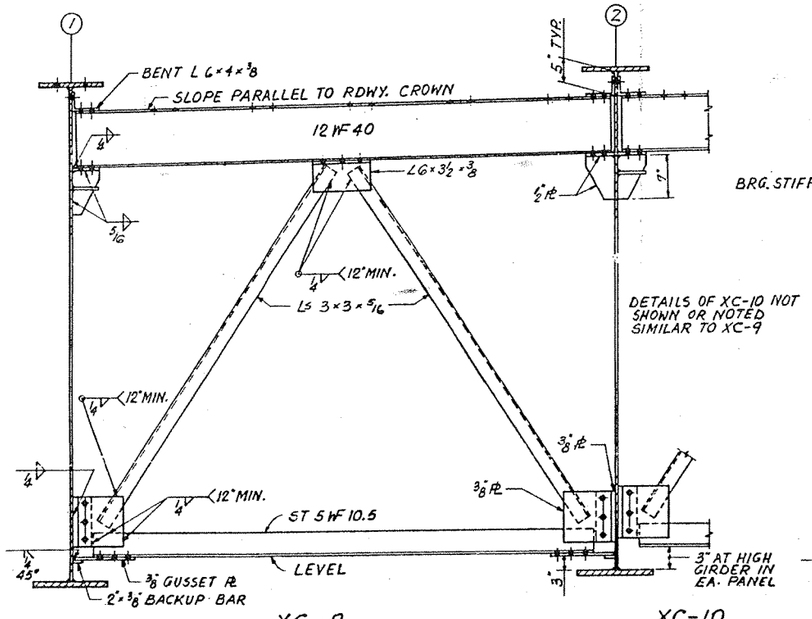
INTERMEDIATE CROSSFRAME XC-3 & XC-4

SCALE: ¾" = 1'-0"



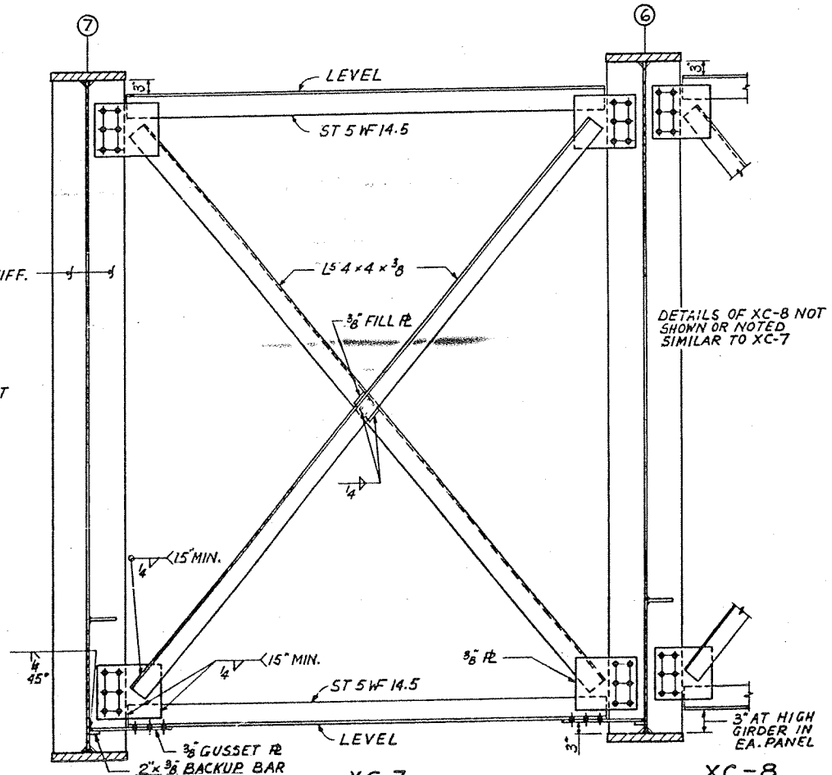
INTERMEDIATE CROSSFRAME XC-5 & XC-6

SCALE: ¾" = 1'-0"



END CROSSFRAME XC-9 & XC-10

SCALE: ¾" = 1'-0"



INTERMEDIATE CROSSFRAME XC-7 & XC-8

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph Tamm Jr. 9-27-67
Engineer of Bridge & Traffic Structures

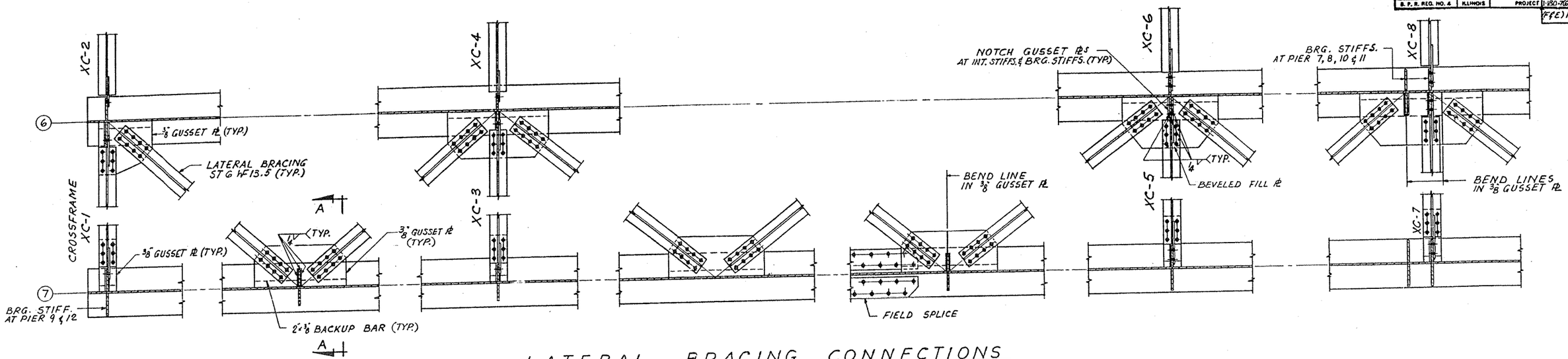
SEPTEMBER 27, 1967

1459
Samuel Cameron

10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

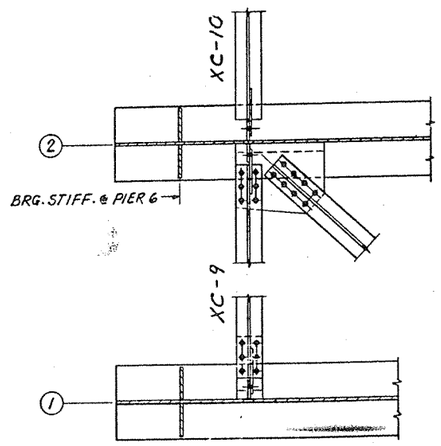
STEEL DETAILS - SPANS 7 TO 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1) F&E
BUREAU AND PUTNAM COUNTIES
STATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	16
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)16



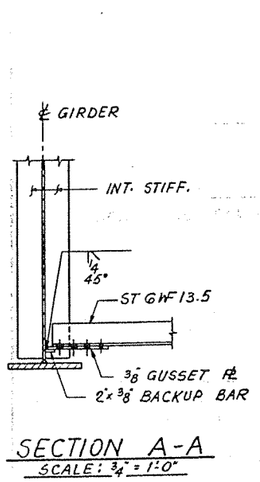
LATERAL BRACING CONNECTIONS

SCALE: ¾" = 1'-0"



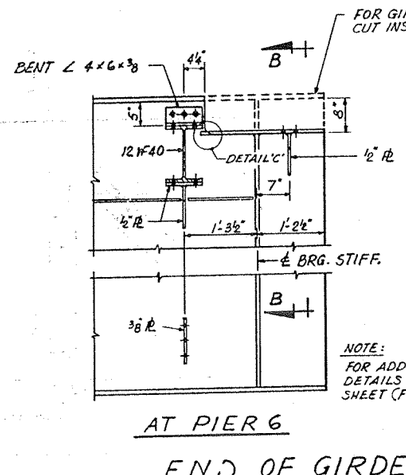
PLAN @ PIER 6 (SPAN 7)

SCALE: ¾" = 1'-0"

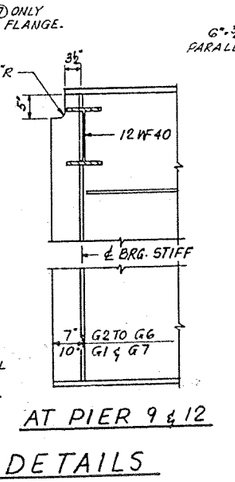


SECTION A-A

SCALE: ¾" = 1'-0"



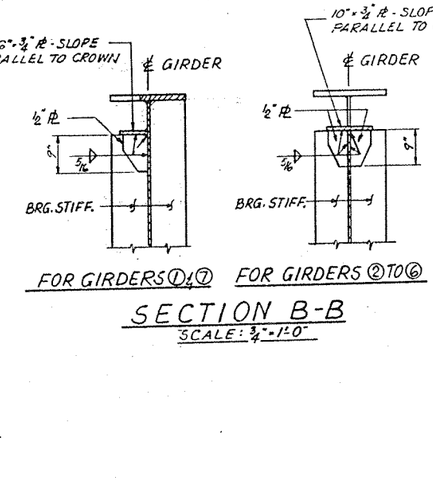
AT PIER 6



AT PIER 9 & 12

END OF GIRDER DETAILS

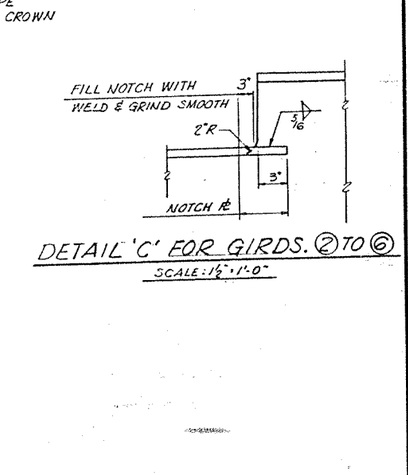
SCALE: ¾" = 1'-0"



FOR GIRDERS ①&⑦ FOR GIRDERS ②TO⑥

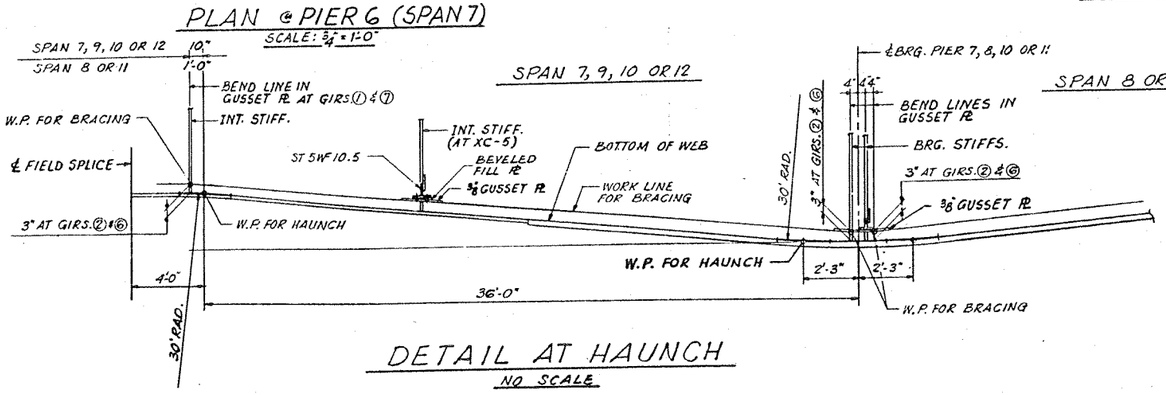
SECTION B-B

SCALE: ¾" = 1'-0"



DETAIL 'C' FOR GIRDS. ② TO ⑥

SCALE: 1½" = 1'-0"



DETAIL AT HAUNCH

NO SCALE

APPROVED
FOR STATE ENGINEER
9-27-67

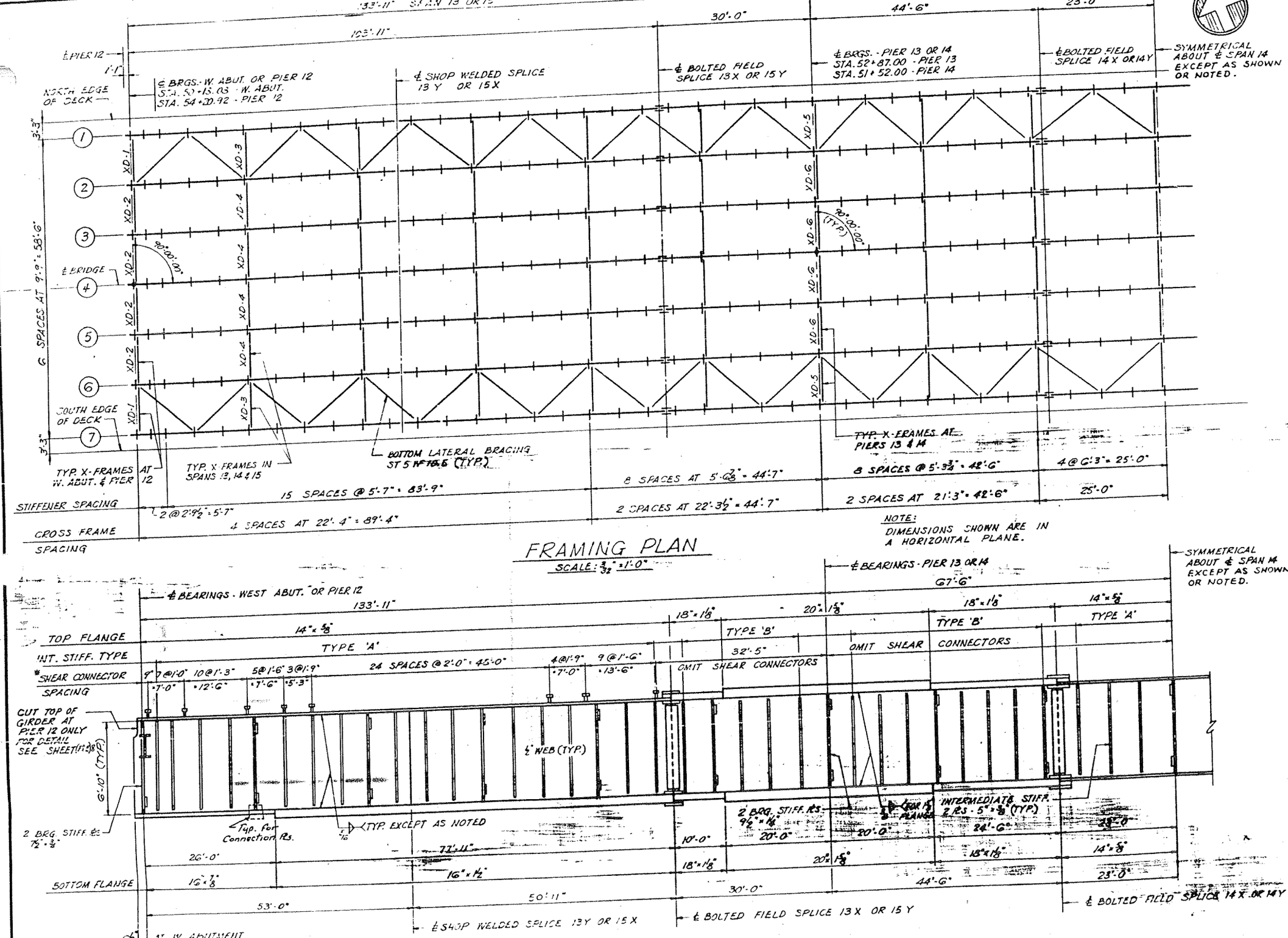
1459
Samuel Bonnow

SEPTEMBER 27, 1967

STEEL DETAILS - SPANS 7 TO 12

F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(6)0
SECTION (06-3,78-1) F&E
BUREAU AND PUTNAM COUNTIES

ALFRED BENESCH & COMPANY, CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



FRAMING PLAN

SCALE: $\frac{3}{32}$" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.

GIRDER ELEVATION

NO SCALE

* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1) D.

TOP OF WEB ELEVA FOR FABRICATION (UNDEFLECTED GIRDE

LOCATION \ GIRDER	1 & 7	2
℄ BRG. W. ABUT.	466.998	467
℄ SHOP SPLICE 15X	463.460	468
℄ FIELD SPLICE 15Y	469.620	469
℄ BRG. PIER 14	470.380	470
℄ FIELD SPLICE 14X	471.682	471
℄ FIELD SPLICE 14Y	473.062	473
℄ BRG PIER 13	474.396	474
℄ FIELD SPLICE 13X	475.395	475
℄ SHOP SPLICE 13Y	477.105	477
℄ BRG. PIER 12	478.512	478

NOTES FOR S

ALL STRUCTURAL STEEL SHALL CONFORM TO A. S. T.

SHOP CONNECTIONS SHALL BE WELDED EXCEPT AS
WELDING SHALL BE IN ACCORDANCE WITH CURREN
RAILWAY BRIDGES OF THE AMERICAN WELDING SO
SPECIAL PROVISIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH HI
ALL HIGH STRENGTH BOLTS SHALL BE 3/4" DIAMET
HOLES FOR SPLICES IN GIRDERS AND SPLICE PLATE
IN DIAMETER FOR 3/4" BOLTS AND TO 3/16" SMAL
GREATER THAN 3/4" IN DIAMETER AND REAMED TO
UNIT ASSEMBLED IN THE SHOP IN PROPER POSITIO
OUT CROSSFRAMES. LEAVE ASSEMBLED FOR INSPE

ROADWAY EXPANSION GUARDS SHALL BE FABRICA
51. 13 (d) OF THE STANDARD SPECIFICATIONS AND
STEEL (CARBON). ESTIMATED WEIGHT = P
IN THE SHOP IN PROPER POSITION AND LEFT ASSE
FLAME CUT AS PROVIDED IN ARTICLE 54.5 (1) OF T

STRUCTURAL STEEL SHALL BE SHOP PAINTED UNDE
SECTION (06-3, 78-1) P. STRUCTURAL STEEL SHAL
TWO FIELD COATS OF ALUMINUM PAINT EXCEPT
AND APPLIED BY THE CONTRACTOR. SEE ARTICLE
FICATIONS AND THE SPECIAL PROVISIONS. THE
BE GIVEN TWO SHOP COATS OF RED LEAD PAINT;
COAT OF RED LEAD PAINT. ANCHOR STUDS SHAL

SHOP INSPECTION OF THE STRUCTURAL STEEL SHA
PAINTING.

FIELD WELDING OF CONSTRUCTION ACCESSORIE
1/4 OF THE SPAN EACH WAY FROM THE INTERIOR
FLANGES OF GIRDERS WILL NOT BE PERMITTED.
ONLY WHEN APPROVED BY THE ENGINEER.

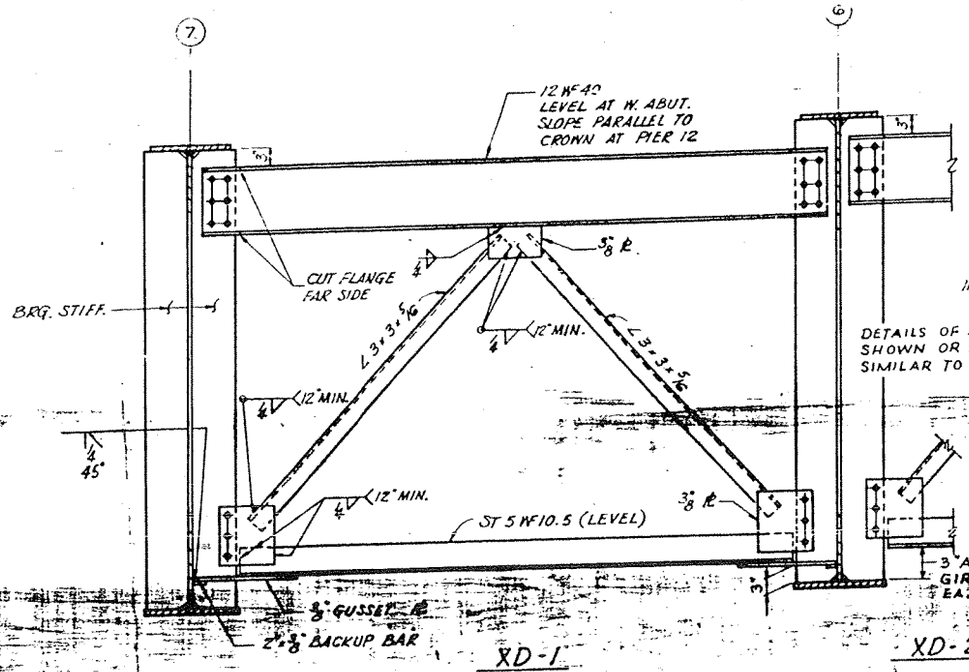
FOR NOTES FOR BEARINGS SEE SHEET (F & E) 1.

STANDARD SPECIFICATIONS FOR ROAD AND BRI
PUBLIC WORKS AND BUILDINGS, JANUARY 2, 19
EFFECTIVE JANUARY 3, 1966, ALSO APPLY TO TH

FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PR

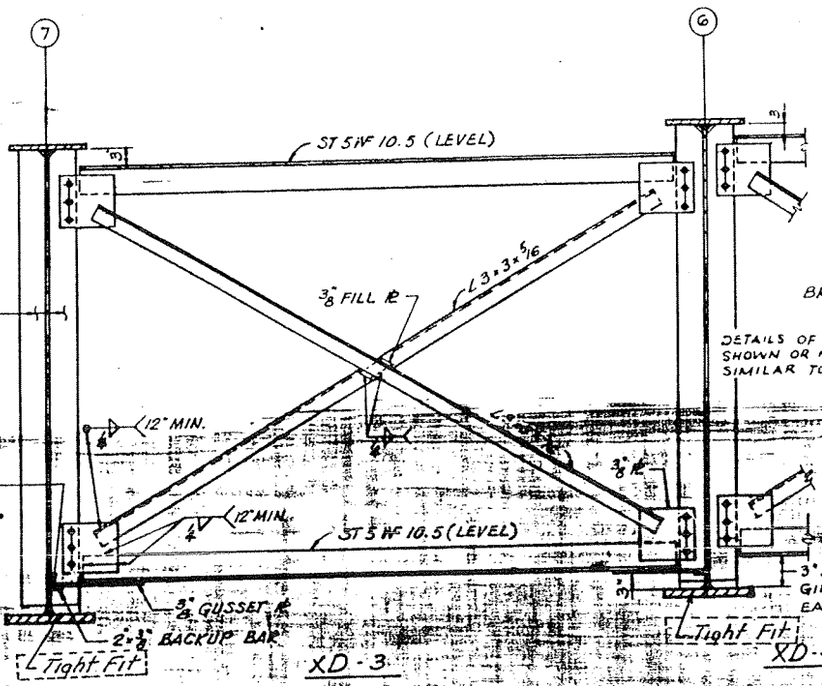
APPROVE
STRUCTURAL ADE
7-26-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS



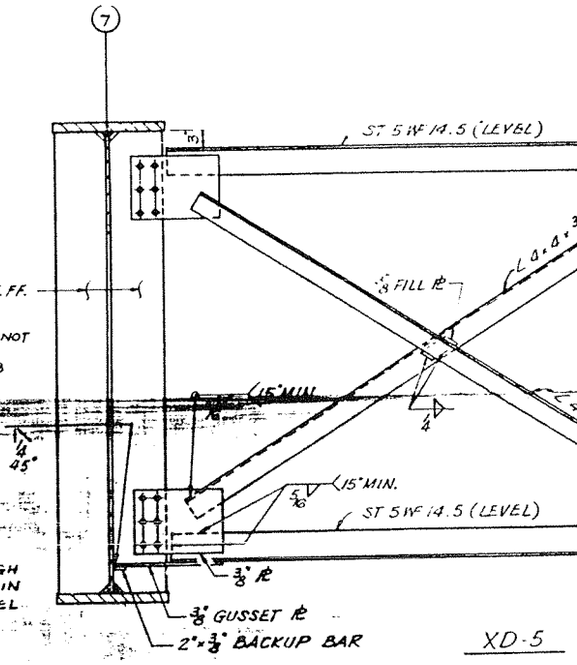
END CROSSFRAME XD-1 & XD-2

SCALE: 3/4" = 1'-0"



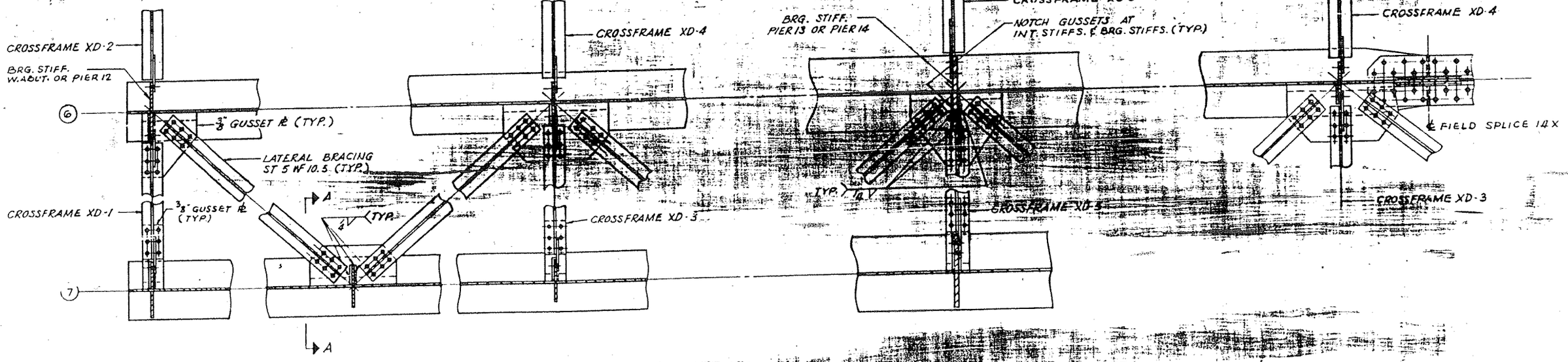
INTERMEDIATE CROSSFRAME XD-3 & XD-4

SCALE: 3/4" = 1'-0"



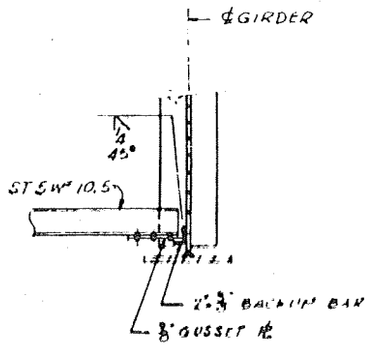
INTERMEDIATE CROSSFR

SCALE: 3/4" = 1'-0"



LATERAL BRACING CONNECTIONS

SCALE: 3/4" = 1'-0"



SECTION A-A

SCALE: 3/4" = 1'-0"

#1300

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

CLEARANCE GAUGE PLATE PIER 5 ONLY

℄ OUTLINE OF CONCRETE

FOR SPACING OF BOLTS SEE CLEARANCE GAUGE

2½"·⅝" BARS

1'-3" 1'-4" 1'-3" 1'-4" 1'-3" 1'-0"

15-4" BOLTS @ 9" O.C. 10'-6"

4 SPACES @ 2'-7½" = 10'-5"

11'-0"

5" 3½" 3" 3¼"

EL. 438.0

CONCRETE FORM

CONSTR. JOINT

CONSTRUCTION JOINT

21'-4⅝" PIER 4
20'-7¾" PIER 5

℄ BRIDGE

SECTION A-A

SCALE ¾" = 1'-0"

REINFORCING BARS THIS HALF SHOWN FOR PIER 4.

¾"ϕ·8" CR 1020 STEEL GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.

SEE DETAIL "D"

SEE DETAIL "C"

3 SIDES TYP. ALL ℄S

⅝" COPPER BEARING PLATE. SEE SPEC. PROVISIONS B

HOLD DOWN BOLTS SEE SECTION B-B

L-2½"·2½"·⅝"

3"ϕ OPENING IN GUSSET PLATE FOR REINFORCING BAR

CLEARANCE GAUGE PIER 5 ONLY

⅝" GUSSET ℄

FOR VERTICAL DIAGONAL BRACING SEE SECTION B-B

L-3½"·3½"·⅝"

13'-9"

3½"·⅝" BAR

HOLD DOWN BOLTS - SEE SECTION B-B

℄ PIER

PROTECTION ℄

1'-5"

1'-3½"

2'-9" 1'-8" 2'-9"

3½" TYP.

LEVELING SCREW SEE DETAIL "E"

B

℄ FIELD CONNECTION

℄ BRIDGE. PROTECTION ℄ SYMMETRICAL ABOUT ℄ EXCEPT AS SHOWN.

7" 1'-0" 1'-2" 1'-7" 10" 1'-3" 8" 1'-11" 10" 10" 1'-0" 7" 1'-7" 1'-2" 1'-6"

7" 7" 3'-7" 2 @ 3'-7" = 7'-2" 3'-7" 4"

15'-7"

2'-7" RADIUS VARIES

REINFORCING BARS THIS HALF SHOWN FOR PIER 5

NOTE: BOLTS TO BE ⅝"ϕ H.S. BOLTS EXCEPT AS NOTED. PROVIDE 1¼"ϕ HOLES IN GUSSET PLATES FOR VERTICAL DIAGONAL BRACING AND IN ⅜"·5⅛" HORIZONTAL STIFFENER FOR ALL OTHER BRACES FOR ADJUSTMENTS IN THE FIELD. PROVIDE 1-2"ϕ WASHER PER BOLT.

PLAN

SCALE ¾" = 1'-0"

Samuel Baumann

NOTE:
CONTRACTOR FOR SECTION (06-3,78-1) F & E SHALL CONFER WITH CONTRACTOR FOR SECTION (06-3,78-1) B REGARDING INSTALLATION OF PIER PROTECTION PLATE ASSEMBLIES.
FOR PLACING OF REINFORCEMENT SEE PIER DRAWINGS

2½"·⅜" BAR

2½"·⅝" FILL ℄

2½"·⅝" BAR

¾"ϕ

⅝" GUSSET ℄

1'-5"

4"

4"

⅝"ϕ HOLD DOWN BOLT WITH 1 NUT & 2"·2"·¼" WASHER PROVIDE 1¼"ϕ HOLE IN HORIZ. LEG OF ANGLE.

SECTION B-B

SCALE 2" = 1'-0"

PROTECTION ℄

CLEAR. GAUGE PLATE

1/16" SOFT LEAD WASHER

GREASE BOLT PRIOR TO APPLICATION OF NUT

⅝"ϕ BOLT (CORR. RESISTANT)

3/16

CAP NUT (CORR. RESIS

DRILL 9/16"ϕ HOLES IN PROTECTION ℄ AND CLEAR. GAUGE ℄.

TO PROTECTION PLATE

SEALING COMPOUND

CLEAR. GAUGE PLA

½"ϕ BOLT (CORR. RESISTANT)

1/16" SOFT LEAD WASH

CAPNUT (CORR. RESISTA

GREASE BOLT P APPLICATION O

2 UNIT EXPANSION ANCHOR

DRILL 9/16"ϕ HOLE IN GAUGE PLATE

TO CONCRETE

DETAILS OF GAUGE PLA FASTENING

SCALE : FULL SIZE

20'·⅝" CG BEARING P BENT TO 2 (SEE SPECIAL

DETAIL "C" DETAIL "D"

½"ϕ BOLT @ 9" O.C.

*FOR DETAIL "C" ONLY PROVIDE: 3-¼" AND 2-⅜" CONT. SHIM PLATES.

L-3"·2½"·⅝"

℄ FIELD CONN.

DETAIL "C" SHOWN DETAIL "D" AS NOTED

THREAD 6"

HORIZONTAL STIFF.

⅞"ϕ x 1'-1" THREADED ROD 2 WASH. & 2 HEX. NUTS

2"·¼"·0'-2" ℄ (LOOSE)

CONSTR. JOINT

DETAIL "E"

SCALE 3" = 1'-0"

WHITE*

FIGURES IN THIS PANEL CUT FROM ⅝" COPPER BEARING ℄ AND WELDED TO CLEARANCE GAUGE PLATE WITH ⅜" CONT. WELD ON BOTH EDGES OF FIGURE.

BLACK*

⅝"ϕ HOLE FOR ½"ϕ BOLT

FIGURES CUT IN 12"·⅝"·1'-7½" COPPER BEARING PLATE.

1½" TYP. FOR ALL FIGURES

WHITE*

1'-8"

1'-5¾"

1'-0"

2'-9"

2" 7" 2" 7" 2"

* = HIGH GRADE BAKED ENAMEL

DETAIL OF CLEARANCE GAUGE

SCALE : 1" = 1'-0"

NOTE:
PIER PROTECTION PLATE ASSEMBLIES AND CLEARANCE GAUGE ASSEMBLIES AND ALL FASTENERS SHALL BE FABRICATED AND TRANSPORTED TO THE SITE BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND PAID FOR AS "FURNISHING STRUCTURAL STEEL (CARBON)".

PIER PROTECTION PLATES AND CLEARANCE GAUGES SHALL BE ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1) B. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE.

ALL EXPOSED SURFACES OF PIER PROTECTION PLATES ARE TO BE FIELD PAINTED BY CONTRACTOR FOR SECTION (06-3,78-1) B AFTER ERECTION. FIELD PAINTING SHALL CONSIST OF SPOT PAINTING AND TWO COMPLETE COATS OF ALUMINUM PAINT. PAINT SHALL MEET THE APPROVAL OF THE ENGINEER.

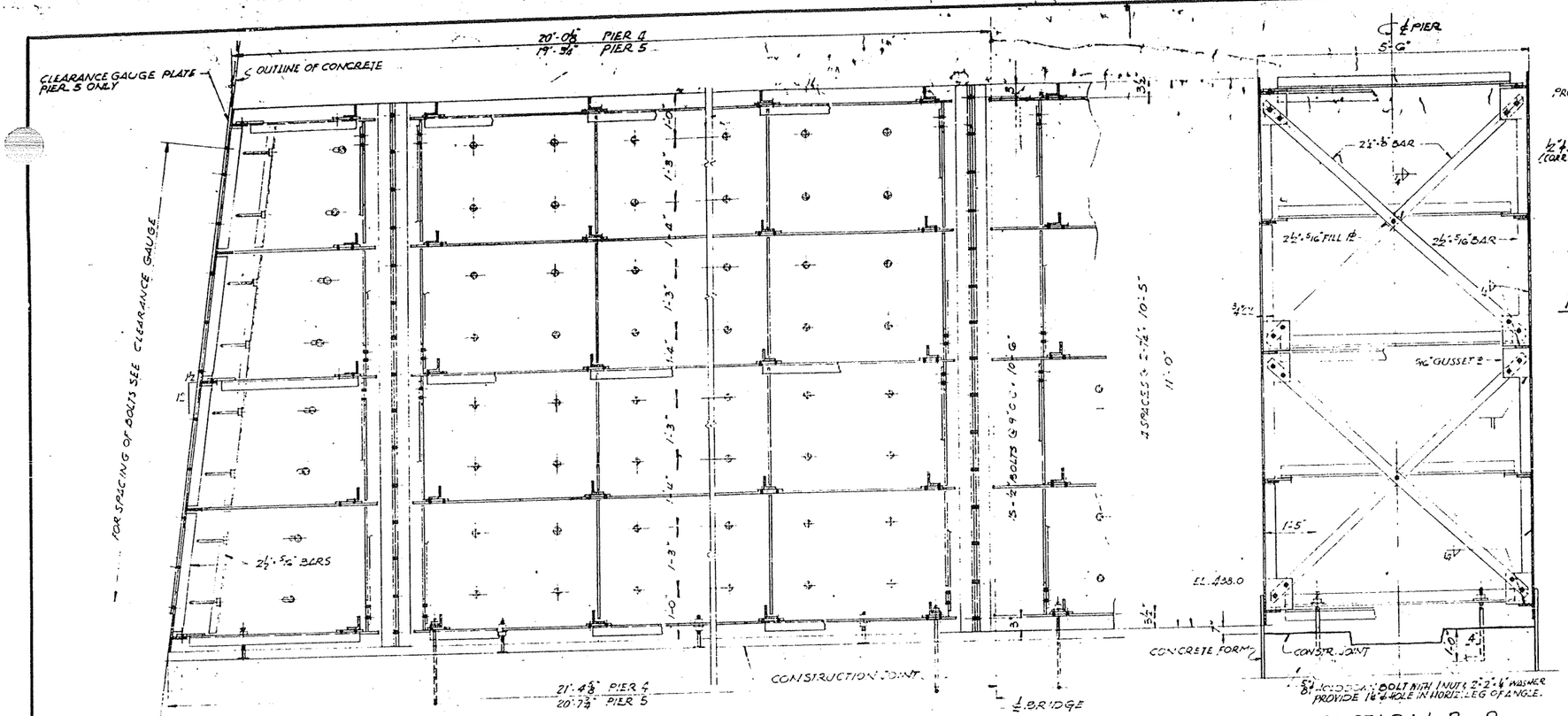
PIER

BU

CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

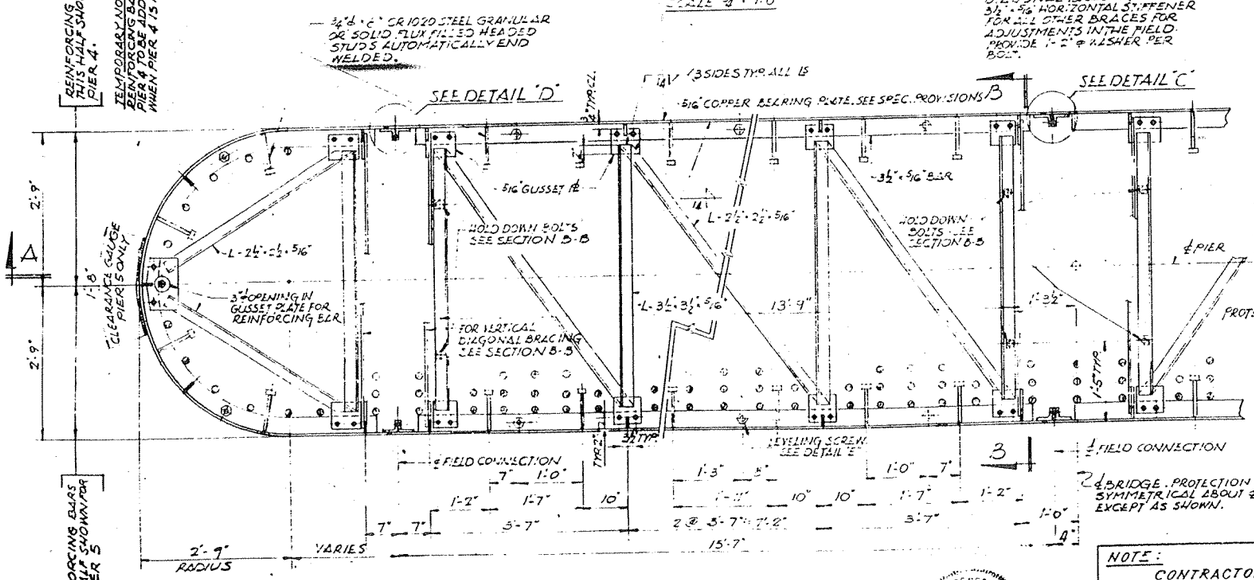
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,78-1) F&E	BUREAU PUTNAM	33	19A
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS		PROJECT I-180-7(5)0	

B16A



SECTION A-A

SCALE ¾" = 1'-0"



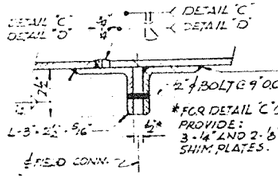
NOTE: BOLTS TO BE ⅝"ø H.S. BOLTS EXCEPT AS NOTED. PROVIDE 1¼"ø HOLES IN GUSSET PLATES FOR VERTICAL DIAGONAL BRACING AND IN 3½"-5/16" HORIZONTAL STIFFENER FOR ALL OTHER BRACES FOR ADJUSTMENTS IN THE FIELD. PROVIDE 1-2"ø WASHER PER BOLT.

PLAN

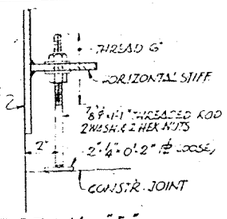
SCALE ¾" = 1'-0"

SECTION B-B

SCALE ¾" = 1'-0"



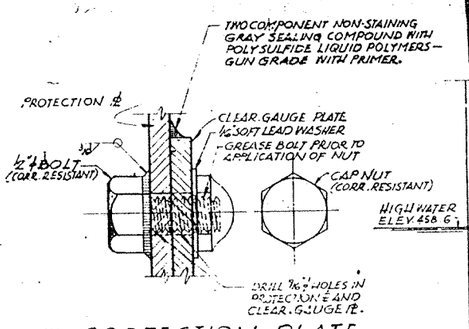
DETAIL "C" SHOWN
DETAIL "D" AS NOTED



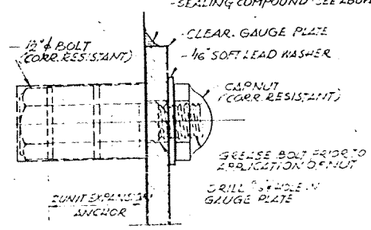
DETAIL "E"

SCALE 3" = 1'-0"

NOTE:
CONTRACTOR FOR SECTION (06-3,78-1) F & E SHALL CONFER WITH CONTRACTOR FOR SECTION (06-3,78-1) B REGARDING INSTALLATION OF PIER PROTECTION PLATE ASSEMBLIES.
FOR PLACING OF REINFORCEMENT SEE PIER DRAWINGS.



TO PROTECTION PLATE

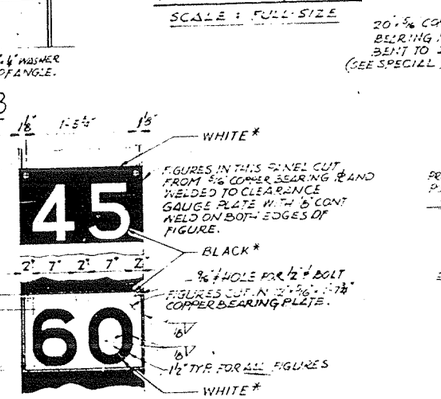


TO CONCRETE

DETAILS OF GAUGE PLATE FASTENING

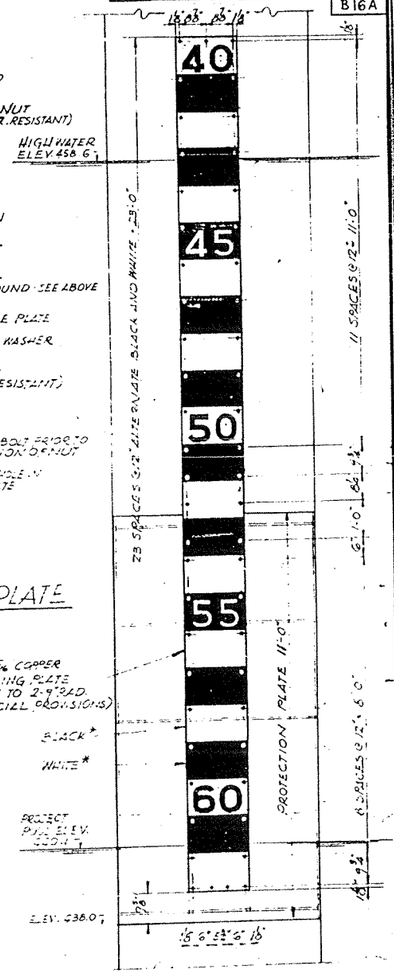
SCALE : FULL SIZE

20"-⅝ COPPER BEARING PLATE BENT TO 2'-9" RAD. (SEE SPECIAL PROVISIONS)



DETAIL OF CLEARANCE GAUGE

SCALE : 1" = 1'-0"



ELEVATION OF CLEARANCE GAUGE

TYP. FOR BOTH ENDS OF PIER 5

SCALE : ½" = 1'-0"

NOTE:
PIER PROTECTION PLATE ASSEMBLIES AND CLEARANCE GAUGE ASSEMBLIES AND ALL FASTENERS SHALL BE FABRICATED AND TRANSPORTED TO THE SITE BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND PAID FOR AS "FURNISHING STRUCTURAL STEEL (CARBON)".
PIER PROTECTION PLATES AND CLEARANCE GAUGES SHALL BE ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1) B. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE.
ALL EXPOSED SURFACES OF PIER PROTECTION PLATES ARE TO BE FIELD PAINTED BY CONTRACTOR FOR SECTION (06-3,78-1) B AFTER ERECTION. FIELD PAINTING SHALL CONSIST OF SPOT PAINTING AND TWO COMPLETE COATS OF ALUMINUM PAINT. PAINT SHALL MEET THE APPROVAL OF THE ENGINEER.

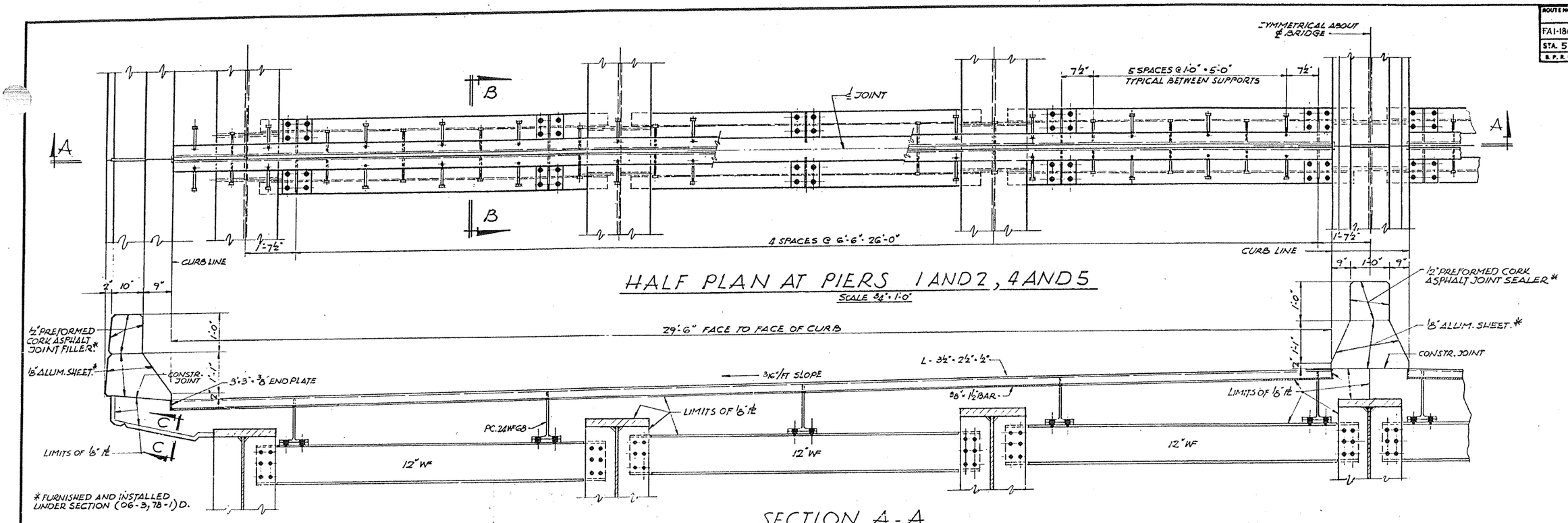
ALFRED BENESCH & COMPANY: CONSULTING ENGINEERS
CHICAGO, ILLINOIS

9-27-67

SEPTEMBER 27, 1967

PIER PROTECTION DETAILS-PIERS 5
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1) F & E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78) F&E	BUREAU-PUTNAM	33	20
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(7)0 (F&E)20		



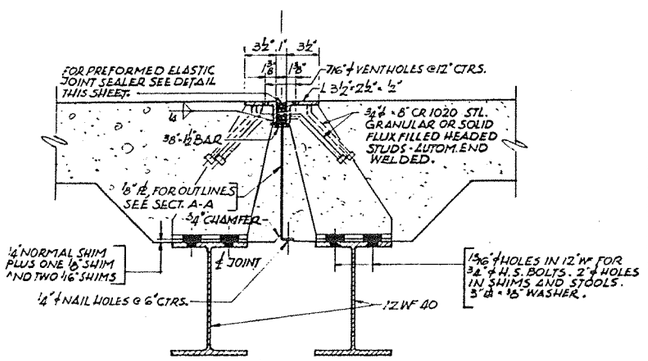
* FURNISHED AND INSTALLED UNDER SECTION (06-3,78-1)D.

HALF PLAN AT PIERS 1 AND 2, 4 AND 5

SCALE 3/4" = 1'-0"

SECTION A-A

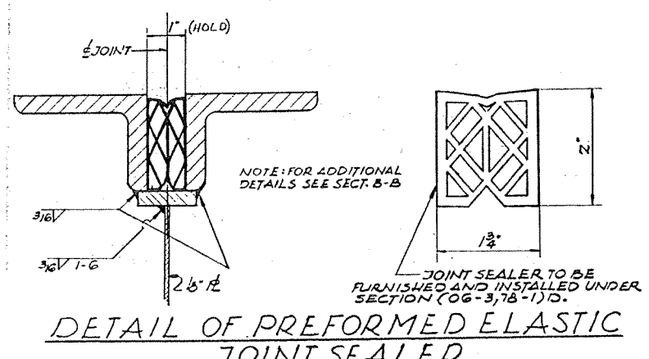
SCALE 3/4" = 1'-0"



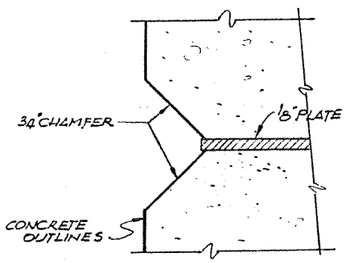
SECTION B-B

SCALE: 1½" = 1'-0"

NOTE : TWO HALVES OF DEFLECTION JOINT AND ⅜" ℄ TO BE BOLTED TOGETHER FOR SHIPMENT WITH TEMPORARY SPREADERS.



DETAIL OF PREFORMED ELASTIC JOINT SEALER



SECTION C-C

APPROVED DRAWING NOVEMBER 27, 1967

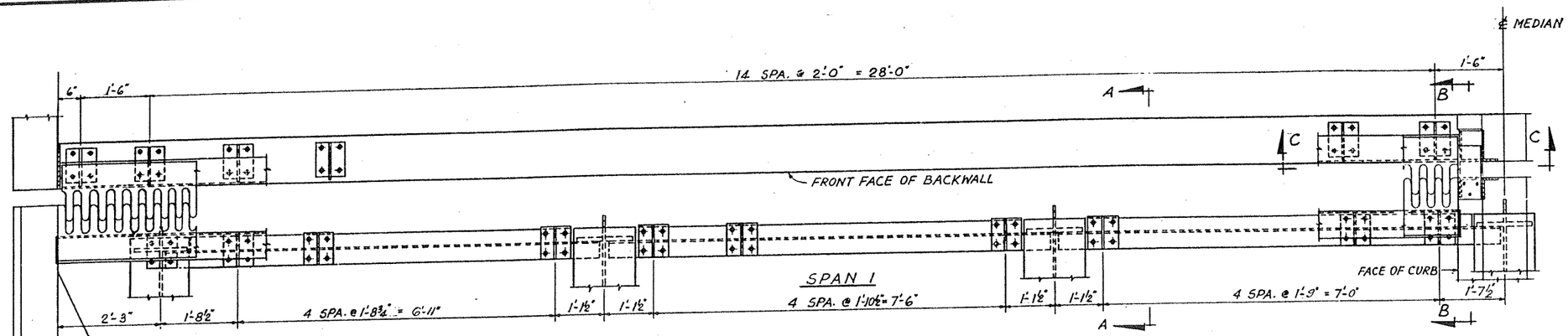
APPROVED
FOR CONSTRUCTION PURPOSES ONLY
11-27-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

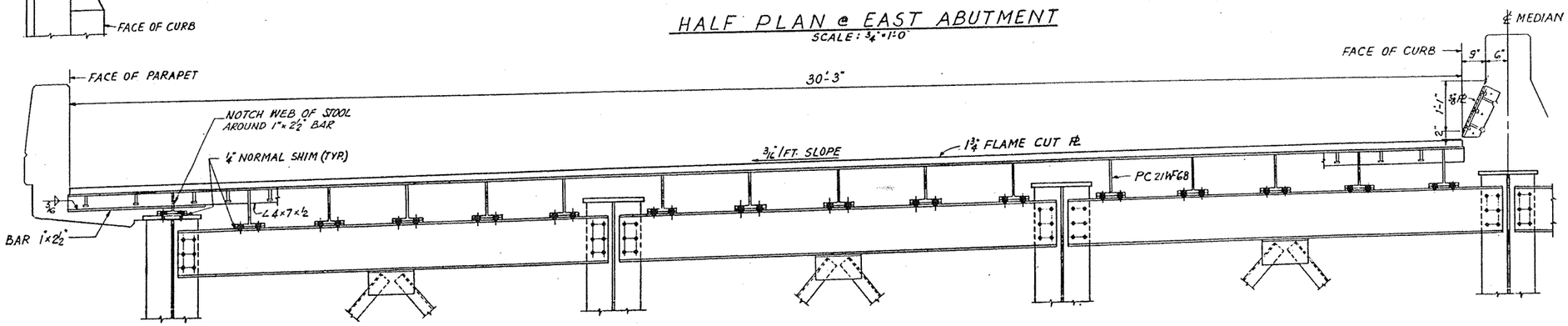
NOVEMBER 21, 1967

DEFLECTION JOINTS AT PIERS 1, 2, 4 & 5
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 03+25.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	21
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)12



HALF PLAN @ EAST ABUTMENT
SCALE: ¾" = 1'-0"



HALF ELEVATION
SCALE: ¾" = 1'-0"

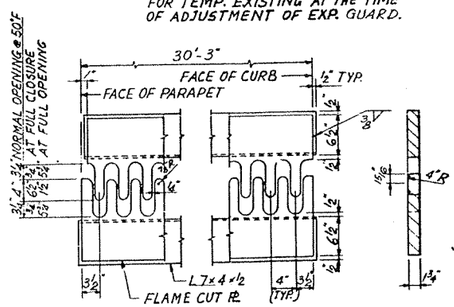
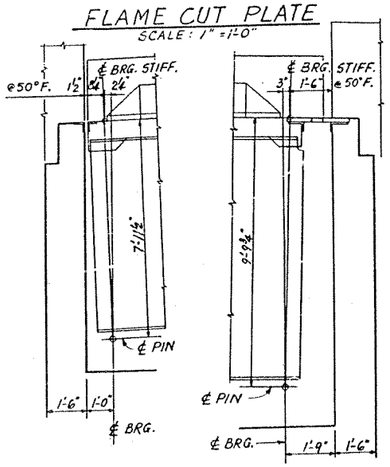


TABLE OF A, B & C DIMENSIONS

TEMP.	E. ABUT. A	E. ABUT. B	W. ABUT. C
130°F	¾"	6½"	½"
110°F	1⅜"	5⅞"	¾"
90°F	2"	5¼"	1"
70°F	2⅝"	4⅝"	1¼"
50°F	3¼"	4"	1½"
30°F	3⅞"	3⅜"	1¾"
10°F	4½"	2¾"	2"
-10°F	5⅛"	2⅛"	2⅛"
-30°F	5¾"	1½"	2½"

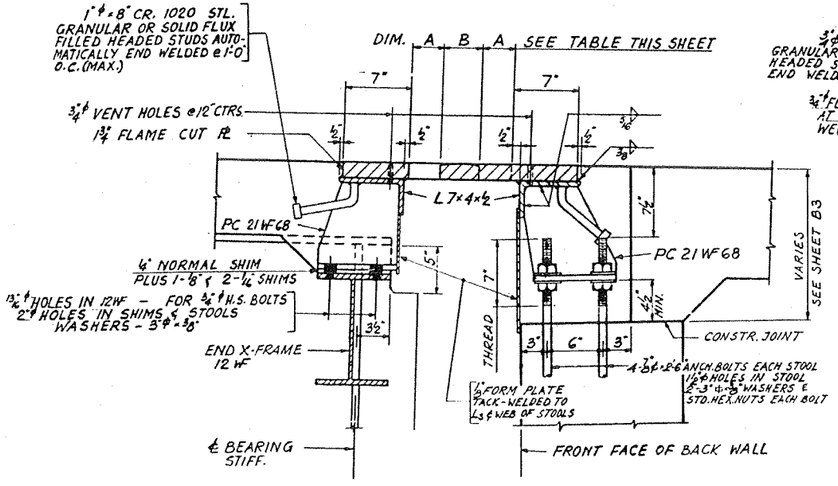
USE THESE VALUES OF A, B & C FOR TEMP. EXISTING AT THE TIME OF ADJUSTMENT OF EXP. GUARD.

FLAME CUT PLATE
SCALE: 1" = 1'-0"

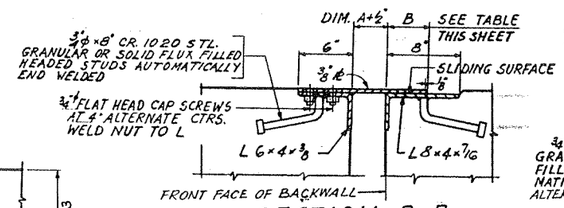


WEST ABUTMENT EAST ABUTMENT

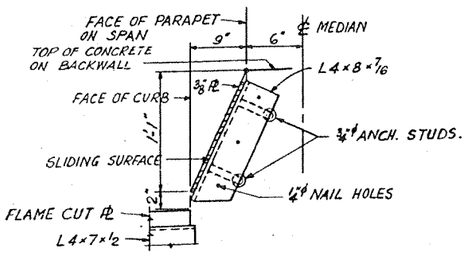
WORK LINES
SCALE: ⅜" = 1'-0"



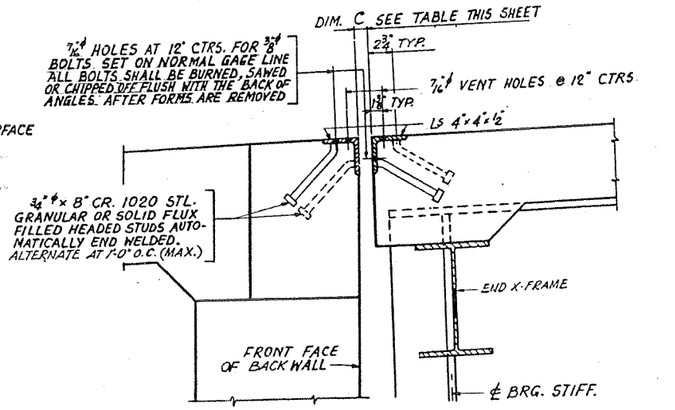
SECTION A-A
SCALE: 1½" = 1'-0"



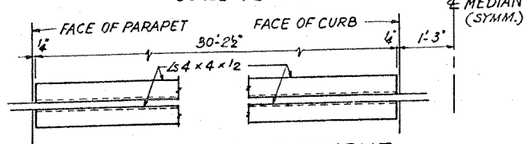
SECTION B-B
SCALE: 1½" = 1'-0"



SECTION C-C
SCALE: 1½" = 1'-0"



SECTION AT WEST ABUTMENT
SCALE: 1½" = 1'-0"



HALF PLAN AT WEST ABUTMENT

APPROVED DRAWING NOV. 27. 1967

NOVEMBER 21, 1967

EXPANSION GUARD-EAST & WEST ABUTMENT
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

11-27-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,7&81) FEE	BUREAU-PUTNAM	33	22
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I 180-7(6)0 (F&E)13	

SPANS 3 & 7

SPA. AT SPAN 7
SPA. AT SPAN 3
℄ JOINT IN PARAPET AND ℄ BETWEEN ENDS OF GIRDERS. SEE WORK LINES THIS SHEET.
℄ BRG. STIFFS. AT 50° F.
℄ MEDIAN PARAPET
4 SPA. @ 1'-9" = 7'-0"
4 SPA. @ 1'-8½" = 6'-10"
4 SPA. @ 1'-11" = 7'-8"
4 SPA. @ 1'-10" = 7'-4"
4 SPA. @ 1'-9½" = 7'-2"
4 SPA. @ 1'-9" = 7'-0"
7'-3½" UNIT "B"
7'-1" UNIT "A"
12 I 31.8
4 SPA. @ 1'-11¼" = 7'-9"
3 SPA. @ 1'-11¼" = 5'-9¾"
4 SPA. @ 2'-0" = 8'-0"
SPANS 4 & 6
HALF PLAN @ PIER 3 & 6
SCALE: ¾" = 1'-0"

* USE THESE VALUES OF A & B FOR TEMP. EXISTING AT THE TIME OF ADJUSTMENT OF EXP. GUARD

TABLE OF A & B DIMENSIONS*

TEMP.	PIER 6 A	PIER 6 B	PIER 3 A	PIER 3 B
130°F	1⅞"	13⅜"	1⅝"	14⅛"
110°F	3 1/16"	12⅝"	2½"	12¾"
90°F	4⅜"	11⅞"	3⅜"	11⅛"
70°F	5⅝"	9⅜"	5⅛"	10⅛"
50°F	6½"	8¼"	6½"	8⅜"
30°F	7⅝"	7⅛"	7⅞"	7¼"
10°F	8⅞"	6⅛"	9⅛"	6⅛"
-10°F	9⅛"	5⅛"	10⅛"	4⅜"
-30°F	11⅜"	4⅛"	11⅝"	3⅞"

PIERS 3 & 6 AT 50°F

7'-3¼" UNIT "A"
7'-5¾" UNIT "B"
34 SPS. @ 2½" = 7'-1" UNIT "A"
33 SPS. @ 2½" = 7'-3½" UNIT "B"
2-1¾"x1½" SPACER BAR
5'-1" BAR R-18"
5'-1½" BAR R-18"
34 SPS. @ 2½" 7'-1" UNIT "A"
35 SPS. @ 2½" = 7'-3½" UNIT "B"
*7'-3¼" UNIT "A"
*7'-5¾" UNIT "B"
*LENGTH OF UNIT MAY BE CHANGED SUBJECT TO APPROVAL OF ENGINEER

UNITS "A" & "B"
SCALE: 1½" = 1'-0"

FACE OF CURB
⅜ BENT PL
¼" NAIL HOLES
L 4 x 6 x ⅜
¾" FLAT HEAD CAP SCREWS
¾" ANCH. STUDS
29'-6"
3/16"/FT. SLOPE
BAR 3½" x ½"
PC 24 x 68
L 5-5-½
12 WF 40 (TYP.)
END OF 5'-1" BAR BETWEEN UNITS
END OF 5'-1" BAR AT CURB END OF UNIT B

HALF ELEVATION (SPANS 4 & 6)
SCALE: ¾" = 1'-0"

SECTION F-F
FOR DIM. SEE TABLE THIS SHEET
GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER, CONFORMING TO A.S.A.-A-116.1-1960
¾" ϕ CSK. BOLT WITH SLOTTED HEAD, WASHER & SELF LOCKING NUT
1'-8" CR. 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOM. END-WELDED @ 1'-0" O.C. MAX.
¼" NORMAL SHIM PLUS 1-⅛" & 2-1/16" SHIMS
13/16" HOLES IN 12 WF FOR ¾" H.S. BOLTS 2" ϕ HOLES IN SHIMS & STOOLS WASHERS - 3" ϕ x ⅜"
12 WF 40 END CROSSFRAME
¼" FILL PL WITH ¼" NORMAL SHIM PLUS 1-⅛ & 2-1/16" SHIMS
⅛" FORM PL'S TACK-WELDED TO L'S & WEB OF STOOLS
¾" ϕ CR 1020 STL. GRANULAR OR SOLID FLUX FILLED THREADED STUDS AUTOMATICALLY END WELDED AT 7½" ALT. CTRS. WITH ONE, BEVELED WASHER & SELF-LOCKING NUT.
SPAN 4 & 6
SPAN 3 & 7
℄ BETWEEN ENDS OF GIRDERS
℄ BRG. STIFF.

SECTION A-A
SCALE: 1½" = 1'-0"

SECTION B-B
SECT. C-C SIMILAR
SCALE: 1½" = 1'-0"
SEE TABLE THIS SHEET
SLIDING SURFACE
PC 15 C 33.9
¾" FLAT HEAD CAP SCREWS @ 6' ALTERNATE CTRS. WELD NUT TO L
¾" x 8" CR. 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END-WELDED

SECTION F-E
SCALE: 1½" = 1'-0"
FACE OF CURB
℄ GIRDER
BAR 5"x½"
BAR 5'-5½"
SHIMS
12 I 31.8

SECTION D-D
SCALE: 1½" = 1'-0"
℄ MEDIAN PARAPET
FACE OF CURB
⅜ BENT PL
¼" NAIL HOLES
PC 15 C 33.9
SLIDING SURFACE
¾" ANCH. STUDS

PIER 6
PIER 3
WORK LINES NOV. 21, 1967
℄ JOINT IN PARAPET & ℄ BETWEEN ENDS OF GIRDERS
TOP OF PARAPET
℄ BRG. STIFF.
℄ PIN
℄ BRG.
℄ PIER 6
℄ PIER 3

APPROVED
FOR STATE OF ILLINOIS
DIVISION OF HIGHWAYS
11-27-67

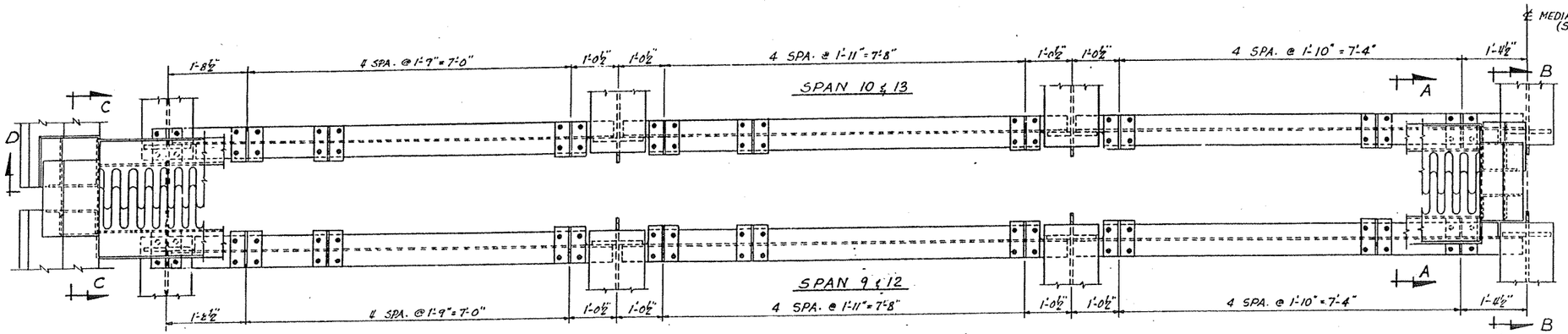
APPROVED DRAWING
NOV. 27. 1967

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

EXPANSION GUARD - PIER 3 & 6
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6) 0
SECTION (06-3,78-1) FEE
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

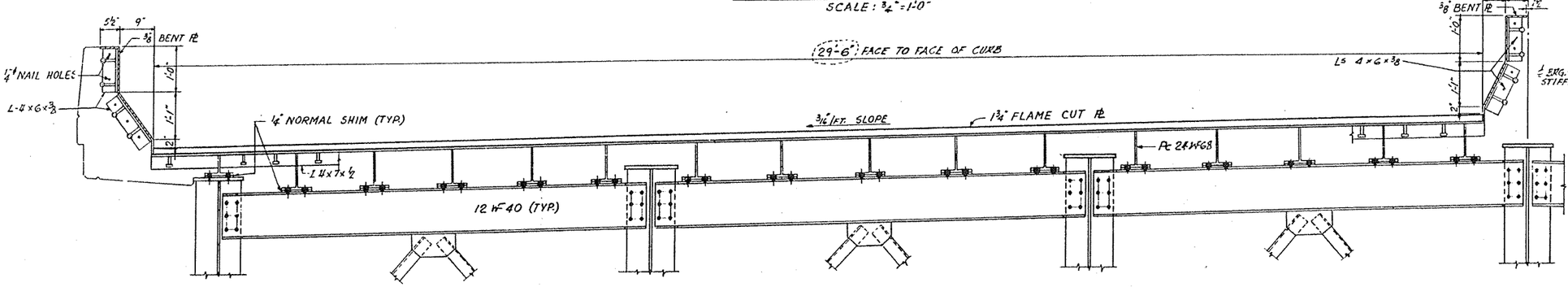
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,7R-1) F&E	BUREAU-PUTNAM	33	23
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180760		

(F&E) 88



HALF PLAN AT PIER 9 & 12

SCALE: ¾" = 1'-0"



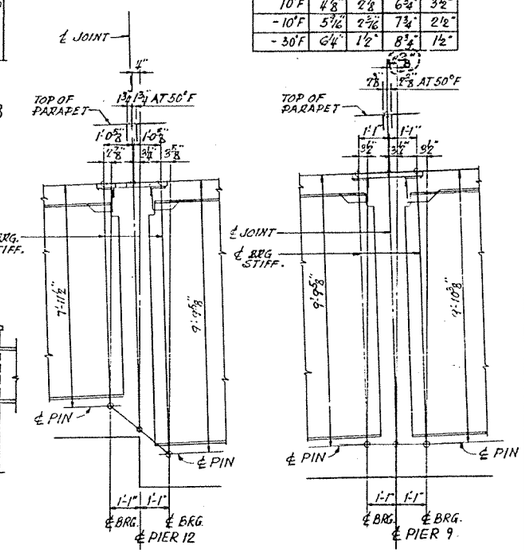
HALF ELEVATION

SCALE: 3/4" = 1'-0"

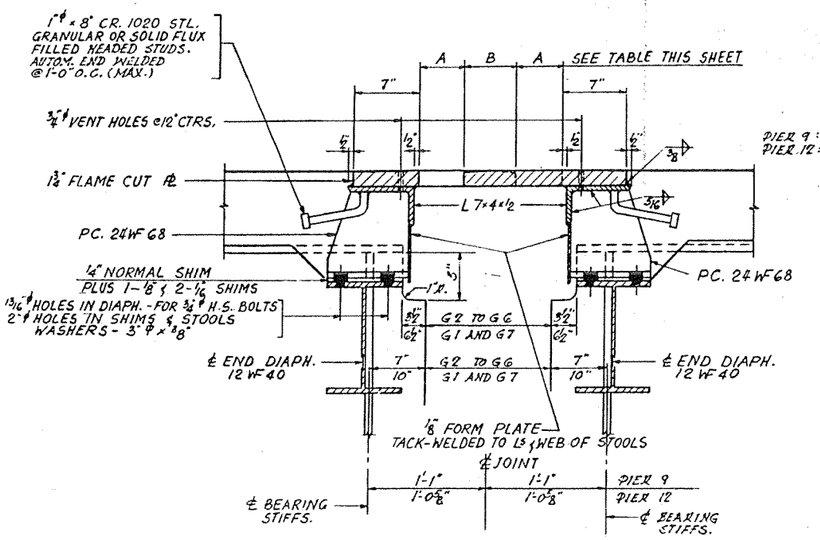
USE THESE VALUES OF A & B FOR TEMP. EXISTING AT THE TIME OF ADJUSTMENT OF EXP. DEVICE

TABLE OF A & B DIMENSIONS

TEMP.	PIER 12 A	PIER 12 B	PIER 9 A	PIER 9 B
130°F	3/16"	7"	3/4"	9½"
110°F	1 7/16"	6 5/16"	1 3/8"	8½"
90°F	2 5/8"	5 5/8"	2 3/4"	7½"
70°F	3 13/16"	4 15/16"	3 3/4"	6½"
50°F	5"	4¼"	4 3/4"	5½"
30°F	6 3/16"	3 3/16"	5 3/4"	4½"
10°F	7 3/8"	2⅛"	6 3/4"	3½"
-10°F	8 5/16"	2 5/16"	7 3/4"	2½"
-30°F	9¼"	1½"	8 3/4"	1½"

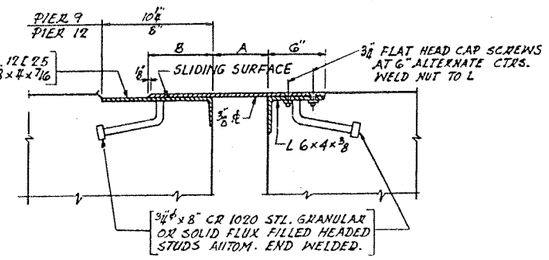


WORK LINES



SECTION A-A

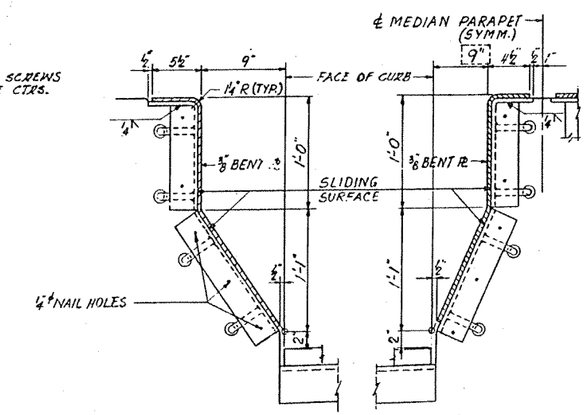
SCALE: 1½" = 1'-0"



SECTION B-B

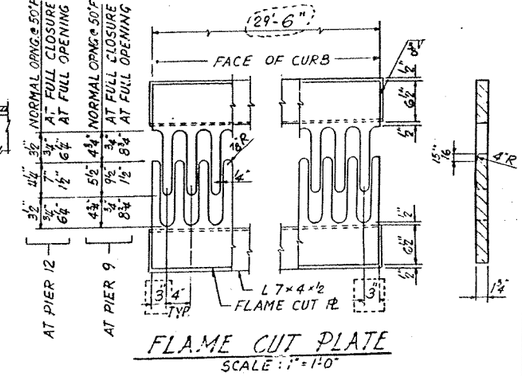
SECT. C-C SIMILAR

SCALE: 1½" = 1'-0"



SECTION D-D

SCALE: 1½" = 1'-0"



FLAME CUT PLATE

SCALE: 1" = 1'-0"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Hummel
Engineer of Bridges & Structures
11-5-67

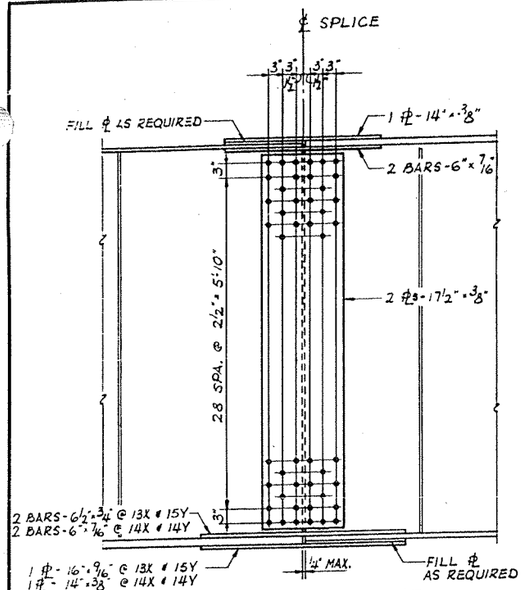
#1390

NOVEMBER 6, 1967

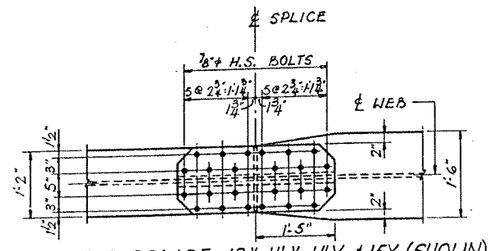
EXPANSION GUARD - PIER 9 AND 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,7R-1) F&E
BUREAU AND PUTNAM COUNTIES

10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

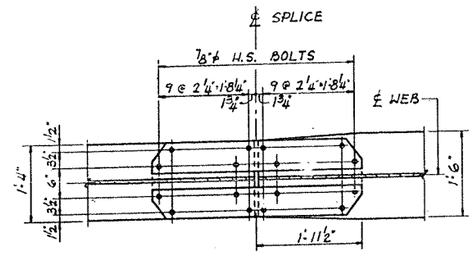
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	24
STA. 50+16.08		TO STA. 80+98.25		
B.P.R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)SC



TYP. WEB SPLICE



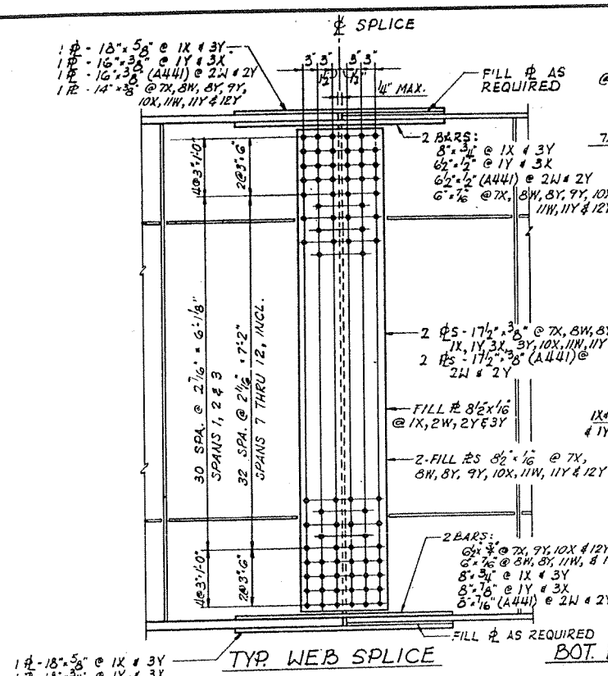
TOP FLG. SPLICE - 13X, 14X, 14Y, & 15Y (SHOWN)
BOT. FLG. SPLICE - 14X & 14Y



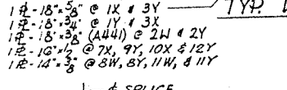
BOT. FLANGE SPLICE - 13X & 15Y

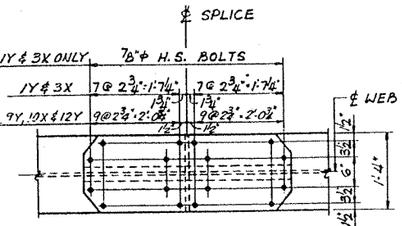
SPLICES FOR SPANS 13, 14 AND 15

SCALE: 3/4" = 1'-0"

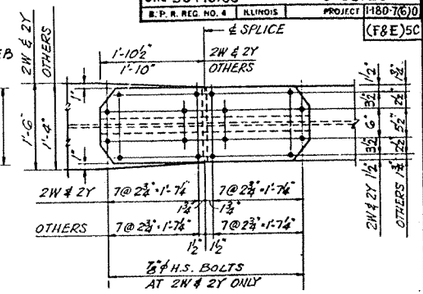


TYP. WEB SPLICE

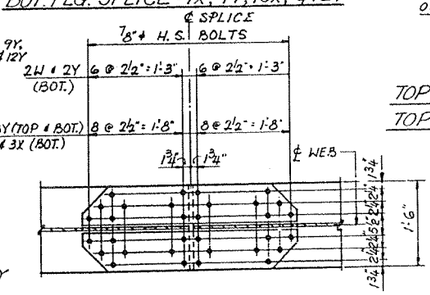




TOP FLG. SPLICE - 1Y & 3X (SHOWN)
BOT. FLG. SPLICE - 7X, 9Y, 10X, & 12Y



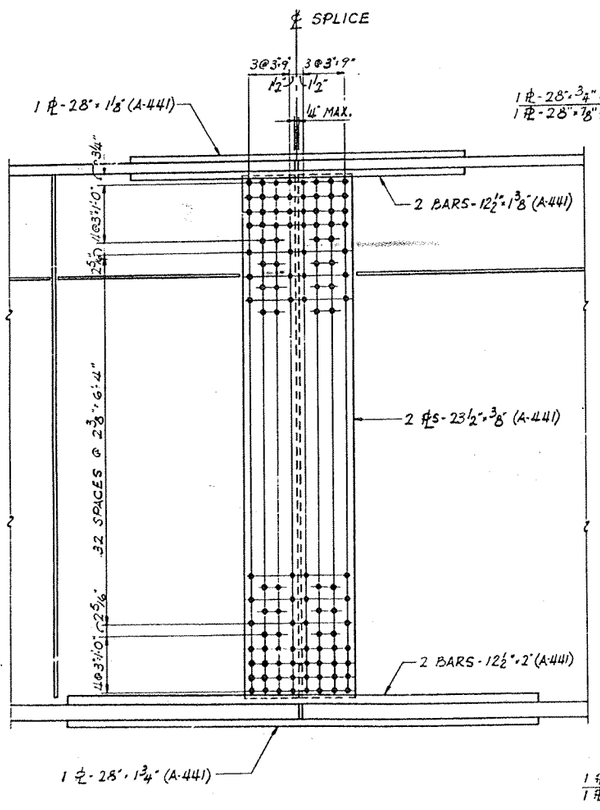
TOP FLG. SPLICE - 2W, 2Y, 7X, 9Y, 10X & 12Y
TOP & BOT. FLG. SPLICE - 8W, 8Y, 11W, & 11Y



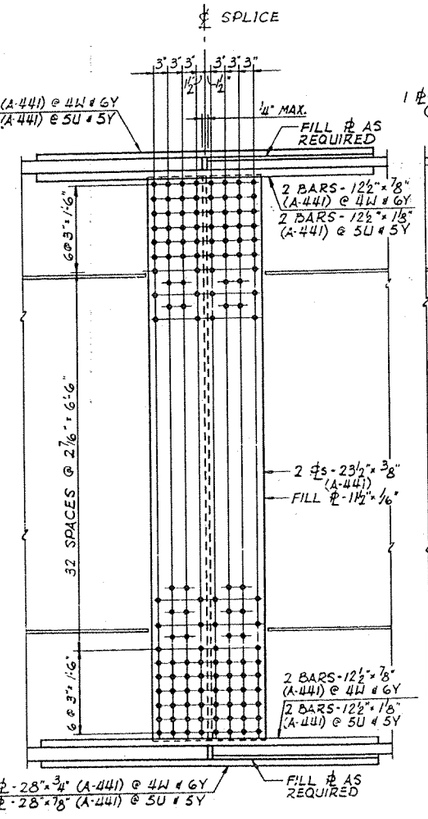
TOP FLG. SPLICE - 1X & 3Y
BOT. FLG. SPLICE - 1X, 1Y, 2W, 2Y, 3X & 3Y (SHOWN)

SPLICES FOR SPANS 1, 2, 3, AND 7 THRU 12, INCL.

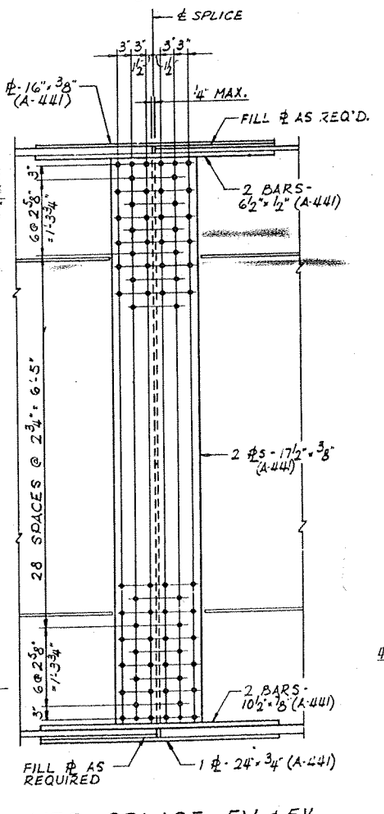
SCALE: 3/4" = 1'-0"



WEB SPLICE - 4Y & 6W

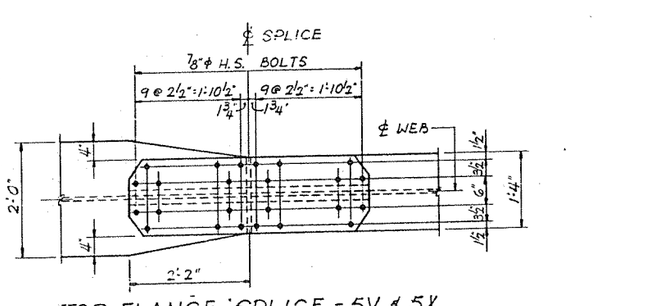


WEB SPLICE - 4W, 5U, 5Y & 6Y

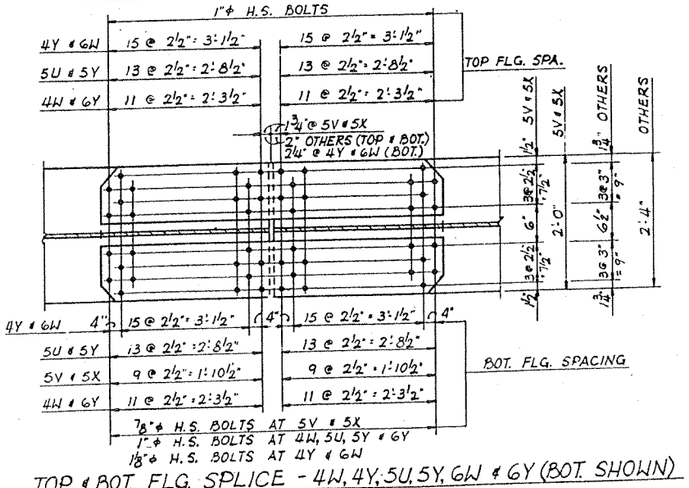


WEB SPLICE - 5V & 5X

SPLICES FOR SPANS 4, 5 AND 6



TOP FLANGE SPLICE - 5V & 5X



TOP & BOT. FLG. SPLICE - 4W, 4Y, 5U, 5Y, 6W & 6Y (BOT. SHOWN)
BOT. FLG. SPLICE 5V & 5X

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

APPROVED
10-3-67

NOVEMBER 21, 1967

FIELD SPLICES - ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	33	25
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0	
			(F&E)6G	

STRESS TABLE

MAXIMUM MOMENTS (IN FOOT KIPS)

	SPANS 1 & 3	PIERS 1 & 2	SPAN 2	SPANS 4 & 6	PIERS 4 & 5	SPAN 5	SPANS * 7, 9, 10 & 12	PIERS 7, 8, 10 & 11	SPANS 8 & 11	SPANS 13 & 15	PIERS 13 & 14	SPAN 14
D.L.	+ 2,437	-10,754	+ 3,399	+ 8,927	- 24,733	+ 4,349	+ 2,957	- 4,441	+ 349	+ 1,792	- 2,795	+ 266
S.D.L.	+ 605	- 1,892	+ 930	+ 1,548	- 3,863	+ 1,199	+ 643	- 859	+ 182	+ 410	- 524	+ 132
L.L.	+ 2,960	- 4,950	+ 3,570	+ 6,150	- 10,055	+ 5,711	+ 2,330	- 2,570	+ 1,272	+ 1,606	- 1,630	+ 1,013
IMP.	+ 456	- 681	+ 441	+ 716	- 1,081	+ 571	+ 398	- 437	+ 216	+ 310	- 313	+ 194
S.D.L.+LL+IMP.	+ 4,021	—	+ 4,944	+ 8,414	—	+ 7,481	+ 3,371	—	—	+ 2,326	—	—
TOTAL	+ 6,458	-18,277	+ 8,343	+ 17,341	- 39,732	+ 11,830	+ 6,328	- 8,307	+ 2,019	+ 4,118	- 5,262	+ 1,605

SECTION PROPERTIES (I IN IN.4, S IN IN.3)

STEEL SECTION	Is	143, 112	793,487	152, 377	402,352	2,108,238	246,782	140,787	375,094	83, 048	74,183	136,627	52,842
	Srs	2,191	9,872	2,238	5,898	21,269	3,318	2,179	5,237	1,578	1,475	3,205	1,269
	Sbs	3,475	9,872	3.953	8,523	21,269	5,128	3,350	5,237	1,578	2,194	3,205	1,269
COMP. SECTION	Ic (n=9)	328,257	—	359,038	663,820	—	517, 318	330,545	—	—	183,515	—	—
	Src	9,942	—	10,044	14,365	—	11, 791	9,919	—	—	7,905	—	—
	Sbc	4,467	—	5,065	9, 590	—	6,579	4, 314	—	—	3,013	—	—

REACTIONS (IN KIPS)

	EAST ABUT.	PIERS 1 & 2	PIER 3 SPAN 3	PIER 3 SPAN 4	PIERS 4 & 5	PIER 6 SPAN 6	PIER 6 SPAN 7	PIERS 7, 8, 10 & 11	PIER 9 SPAN 9	PIER 9 SPAN 10	PIER 12 SPAN 12	PIER 12 SPAN 13	PIERS 13 & 14	WEST ABUT.
D.L.	84.7	417.7	84.7	171.2	701.6	171.2	89.3	261.9	89.3	89.3	89.3	68.8	207.4	68.8
S.D.L.	19.1	78.4	19.1	30.2	110.0	30.2	19.2	53.9	19.2	19.2	19.2	15.4	42.6	15.4
L.L.	74.7	188.0	74.7	100.5	258.5	100.5	68.4	138.8	68.4	68.4	68.4	58.9	114.3	58.9
IMP.	11.6	25.6	11.6	11.8	28.0	11.8	11.6	23.6	11.6	11.6	11.6	11.3	21.9	11.3
S.D.L.+LL+IMP.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	190.1	709.7	190.1	313.7	1098.1	313.7	188.5	478.2	188.5	188.5	188.5	154.4	386.2	154.4

LEGEND

D.L. DEAD LOAD.
S.D.L. SUPER IMPOSED DEAD LOAD ACTING ON COMPOSITE SECTION.
L.L. LIVE LOAD.
IMP. IMPACT.
Is MOMENT OF INERTIA OF STEEL SECTION. AT LOCATION OF MAXIMUM MOMENT.
Srs SECTION MODULUS FOR TOP OF STEEL SECT.
Sbs SECTION MODULUS FOR BOTT. OF STEEL SECT.
Ic MOMENT OF INERTIA OF COMPOSITE SECT. AT LOCATION OF MAXIMUM MOMENT.
Src SECTION MODULUS FOR TOP STEEL OF COMPOSITE SECTION.
Sbc SECTION MODULUS FOR BOTT. STEEL OF COMPOSITE SECTION.
* MOMENTS & SECTION PROPERTIES SHOWN FOR A LOCATION AT 0.4×L FROM THE EXT. SUPP. WHERE L = THE LENGTH OF SPAN UNDER CONSIDERATION

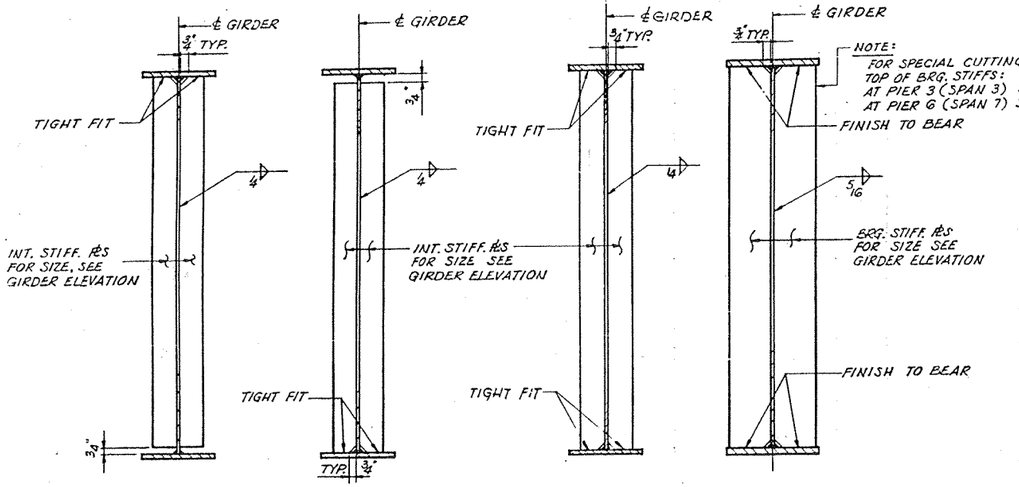
SHEARS (IN KIPS)

	SPANS 1 & 3 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 2 SUPPORT	1/4	1/2
D.L.	+ 84.7	+16.8	- 52.7	-123.4	-206.1	+211.6	+ 98.7	0
S.D.L.	+ 19.1	+ 4.8	- 9.5	- 23.8	- 38.1	+ 40.3	+ 20.2	0
L.L.	+ 74.7	+43.8	- 45.0	- 71.0	-100.8	+110.0	+ 69.1	+36.0
IMP.	+ 11.6	+ 8.1	- 10.1	- 13.1	- 15.7	+ 13.4	+ 10.3	+ 6.8
S.D.L.+LL+IMP.	+105.4	+56.7	- 64.6	-107.9	-154.6	+163.7	+ 99.6	+42.8
TOTAL	+190.1	+ 73.5	- 117.3	- 231.3	-360.7	+375.3	+198.3	+42.8

	SPANS 4 & 6 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 5 SUPPORT	1/4	1/2
D.L.	+ 171.2	+ 49.2	- 81.0	- 210.6	- 364.7	+ 336.9	+ 148.0	0
S.D.L.	+ 30.2	+ 8.6	- 12.9	- 34.5	- 56.0	+ 54.0	+ 27.0	0
L.L.	+ 100.5	+ 57.6	- 58.5	- 95.3	- 138.6	+ 143.3	+ 90.5	± 48.6
IMP.	+ 11.8	+ 8.2	- 10.6	- 13.6	- 15.9	- 14.3	+ 11.1	± 7.8
S.D.L.+LL+IMP.	+ 142.5	+ 74.4	- 82.0	- 143.4	- 210.5	+ 211.6	+ 128.6	± 56.4
TOTAL	+ 313.7	+ 123.6	- 163.0	- 354.0	- 575.2	+ 548.5	+ 276.6	± 56.4

	SPANS 7, 9, 10 & 12 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPANS 8 & 11 SUPPORT	1/4	1/2
D.L.	+ 89.3	+ 32.3	- 20.5	- 84.1	- 145.2	+ 116.7	+ 55.3	0
S.D.L.	+ 19.2	+ 7.1	- 5.1	- 17.3	- 29.4	+ 24.5	+ 12.2	0
L.L.	+ 68.4	+ 41.7	- 34.5	- 57.3	- 83.4	+ 78.5	+ 42.8	+ 29.2
IMP.	+ 11.6	+ 8.2	- 8.2	- 11.3	- 14.1	+ 13.4	+ 8.5	+ 6.9
S.D.L.+LL+IMP.	+ 99.2	+ 57.0	- 47.8	- 85.9	- 126.9	+ 116.4	+ 63.5	+ 36.1
TOTAL	+ 188.5	+ 89.3	- 74.3	- 170.0	- 272.1	+ 233.1	+ 118.8	+ 36.1

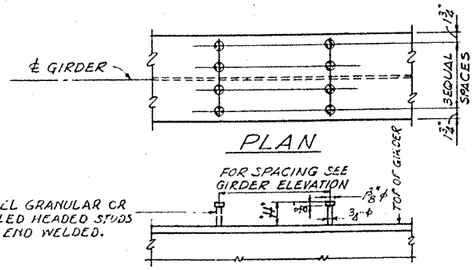
	SPANS 13 & 15 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 14 SUPPORT	1/4	1/2
D.L.	+ 68.8	+ 24.5	- 20.5	- 65.7	- 114.0	+ 93.4	+ 44.7	0
S.D.L.	+ 15.4	+ 5.7	- 3.9	- 13.6	- 23.2	+ 19.4	+ 9.7	0
L.L.	+ 58.9	+ 34.9	- 31.7	- 49.1	- 70.6	+ 67.0	+ 45.5	+ 26.6
IMP.	+ 11.3	+ 8.9	- 8.2	- 10.9	- 13.5	+ 12.8	+ 10.1	+ 6.9
S.D.L.+LL+IMP.	+ 85.6	+ 54.5	- 43.8	- 73.6	- 107.3	+ 99.2	+ 65.3	+ 33.5
TOTAL	+ 154.4	+ 79.0	- 64.3	- 139.3	- 221.3	+ 172.6	+ 110.0	+ 33.5



TYPE 'A' TYPE 'B' TYPE 'C' (AT X-FRAMES)

INTERMEDIATE STIFFENERS BEARING STIFFENER

SCALE ¾" = 1'-0" SCALE: ½" = 1'-0"



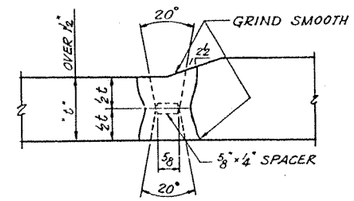
SHEAR CONNECTOR DETAIL

SPANS	'H'
1, 2 & 3	4" @ 5" *
4, 5 & 6	5"
7, 8, 9, 10, 11, 12	4"
13 & 15	4"

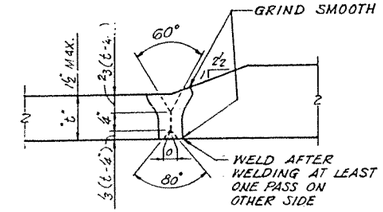
* FOR LIMITS SEE GIRDER ELEVATION ON SHEET (F&E)9.

NOTE: SHEAR CONNECTORS TO BE PLACED AND SPACED USING

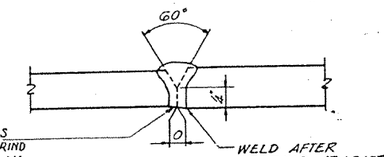
SCALE: 1"=1'-0"



FLANGE BUTT WELD OVER 1½" ℄ THICKNESS



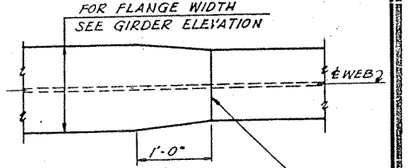
FLANGE BUTT WELD 1½" MAX. ℄ THICKNESS



GRIND SMOOTH OUTSIDE FACE OF GIRDERS 1 AND 7 AT ALL SPLICES. IN ADDITION GRIND SMOOTH BOTH FACES OF THE WEB OF ALL GIRDERS AT THE FOLLOWING LOCATIONS:

1. LOWER 1'-3" AT SPLICES 13Y AND 15X.
2. LOWER 1'-6" AT SPLICES 1Z, 2X AND 3W.
3. UPPER 2'-0" AT SPLICES 1W, 2V, 2Z, AND 3Z.
4. LOWER 1'-6" AT SPLICES 7Y, 8X, 9X, 10Y, 11X, AND 12X.
5. FULL DEPTH OF WEB AT SPLICES 8V, 8Z, 9V AND 11Z.
6. LOWER 1'-9" AT SPLICES 4X, 4Z, 5W, 6V, AND 6X.
7. UPPER 2'-3" AT SPLICES 4V, 5T, 5Z AND 6Z.
8. UPPER 2'-9" AT SPLICES 9'-0" FROM PIER 4 AND PIER 5 IN SPAN 5.

WEB BUTT WELD



FLANGE TRANSITION DETAIL

WELDED SHOP SPLICES

NOVEMBER 21, 1967

10-3-67

Samuel Barnow

10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

STRESS TABLE & STEEL DETAILS-ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

SPAN 15

Line	Beam or Girder	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted For Dead Load Deflection
	1.	5018.083	29.250	467.779	467.779
	2.	5018.083	19.500	467.931	467.931
	3.	5018.083	9.750	468.084	468.084
℄ Brg. W Abut	4.	5018.083	.000	468.236	468.236
	5.	5018.083 -	9.750	468.084	468.084
	6.	5018.083 -	19.500	467.931	467.931
	7.	5018.083 -	29.250	467.779	467.779
	1.	5028.083	29.250	468.011	468.051
	2.	5028.083	19.500	468.163	468.203
	3.	5028.083	9.750	468.315	468.356
15-1	4.	5028.083	.000	468.468	468.508
	5.	5028.083 -	9.750	468.315	468.356
	6.	5028.083 -	19.500	468.163	468.203
	7.	5028.083 -	29.250	468.011	468.051
	1.	5038.083	29.250	468.247	468.324
	2.	5038.083	19.500	468.400	468.476
	3.	5038.083	9.750	468.552	468.629
15-2	4.	5038.083	.000	468.704	468.781
	5.	5038.083 -	9.750	468.552	468.629
	6.	5038.083 -	19.500	468.400	468.476
	7.	5038.083 -	29.250	468.247	468.324
	1.	5048.083	29.250	468.488	468.594
	2.	5048.083	19.500	468.640	468.747
	3.	5048.083	9.750	468.793	468.899
15-3	4.	5048.083	.000	468.945	469.051
	5.	5048.083 -	9.750	468.793	468.899
	6.	5048.083 -	19.500	468.640	468.747
	7.	5048.083 -	29.250	468.488	468.594
	1.	5058.083	29.250	468.733	468.861
	2.	5058.083	19.500	468.885	469.013
	3.	5058.083	9.750	469.038	469.165
15-4	4.	5058.083	.000	469.190	469.318
	5.	5058.083 -	9.750	469.038	469.165
	6.	5058.083 -	19.500	468.885	469.013
	7.	5058.083 -	29.250	468.733	468.861
	1.	5068.083	29.250	468.982	469.123
	2.	5068.083	19.500	469.135	469.275
	3.	5068.083	9.750	469.287	469.427
15-5	4.	5068.083	.000	469.439	469.580
	5.	5068.083 -	9.750	469.287	469.427
	6.	5068.083 -	19.500	469.135	469.275
	7.	5068.083 -	29.250	468.982	469.123
	1.	5071.083	29.250	469.058	469.201
	2.	5071.083	19.500	469.210	469.353
	3.	5071.083	9.750	469.363	469.505
	4.	5071.083	.000	469.515	469.658
Spl 15X	5.	5071.083 -	9.750	469.363	469.505
	6.	5071.083 -	19.500	469.210	469.353
	7.	5071.083 -	29.250	469.058	469.201
	1.	5078.083	29.250	469.236	469.380
	2.	5078.083	19.500	469.388	469.532
	3.	5078.083	9.750	469.541	469.685
15-6	4.	5078.083	.000	469.693	469.837
	5.	5078.083 -	9.750	469.541	469.685
	6.	5078.083 -	19.500	469.388	469.532
	7.	5078.083 -	29.250	469.236	469.380
	1.	5088.083	29.250	469.494	469.631
	2.	5088.083	19.500	469.646	469.783
	3.	5088.083	9.750	469.799	469.935
15-7	4.	5088.083	.000	469.951	470.088
	5.	5088.083 -	9.750	469.799	469.935
	6.	5088.083 -	19.500	469.646	469.783
	7.	5088.083 -	29.250	469.494	469.631
	1.	5098.083	29.250	469.756	469.879
	2.	5098.083	19.500	469.908	470.031
	3.	5098.083	9.750	470.061	470.183
15-8	4.	5098.083	.000	470.213	470.336
	5.	5098.083 -	9.750	470.061	470.183
	6.	5098.083 -	19.500	469.908	470.031
	7.	5098.083 -	29.250	469.756	469.879
	1.	5108.083	29.250	470.023	470.124
	2.	5108.083	19.500	470.175	470.277
	3.	5108.083	9.750	470.327	470.429
15-9	4.	5108.083	.000	470.480	470.582
	5.	5108.083 -	9.750	470.327	470.429
	6.	5108.083 -	19.500	470.175	470.277
	7.	5108.083 -	29.250	470.023	470.124
	1.	5118.083	29.250	470.293	470.369
	2.	5118.083	19.500	470.446	470.522
	3.	5118.083	9.750	470.598	470.674
15-10	4.	5118.083	.000	470.750	470.826
	5.	5118.083 -	9.750	470.598	470.674
	6.	5118.083 -	19.500	470.446	470.522
	7.	5118.083 -	29.250	470.293	470.369
	1.	5122.000	29.250	470.400	470.467
	2.	5122.000	19.500	470.553	470.619
	3.	5122.000	9.750	470.705	470.771
Spl 15Y	4.	5122.000	.000	470.858	470.924
	5.	5122.000 -	9.750	470.705	470.771
	6.	5122.000 -	19.500	470.553	470.619
	7.	5122.000 -	29.250	470.400	470.467
	1.	5128.083	29.250	470.568	470.619
	2.	5128.083	19.500	470.721	470.771
	3.	5128.083	9.750	470.873	470.924
15-11	4.	5128.083	.000	471.025	471.076
	5.	5128.083 -	9.750	470.873	470.924
	6.	5128.083 -	19.500	470.721	470.771
	7.	5128.083 -	29.250	470.568	470.619

Line	Beam or Girder	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted For Dead Load Deflection
	1.	5138.083	29.250	470.848	470.874
	2.	5138.083	19.500	471.000	471.026
	3.	5138.083	9.750	471.152	471.179
15-12	4.	5138.083	.000	471.305	471.331
	5.	5138.083 -	9.750	471.152	471.179
	6.	5138.083 -	19.500	471.000	471.026
	7.	5138.083 -	29.250	470.848	470.874
	1.	5152.000	29.250	471.244	471.244
	2.	5152.000	19.500	471.396	471.396
	3.	5152.000	9.750	471.548	471.548
℄ Brg. Pier 14	4.	5152.000	.000	471.701	471.701
	5.	5152.000 -	9.750	471.548	471.548
	6.	5152.000 -	19.500	471.396	471.396
	7.	5152.000 -	29.250	471.244	471.244

SPAN 14

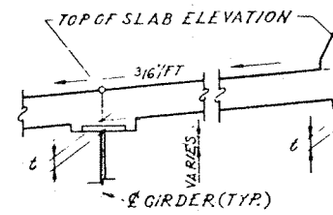
Line	Beam or Girder	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted For Dead Load Deflection
	1.	5162.000	29.250	471.533	471.522
	2.	5162.000	19.500	471.685	471.675
	3.	5162.000	9.750	471.838	471.827
14-1	4.	5162.000	.000	471.990	471.979
	5.	5162.000 -	9.750	471.838	471.827
	6.	5162.000 -	19.500	471.685	471.675
	7.	5162.000 -	29.250	471.533	471.522
	1.	5172.000	29.250	471.827	471.811
	2.	5172.000	19.500	471.979	471.963
	3.	5172.000	9.750	472.132	472.116
14-2	4.	5172.000	.000	472.284	472.268
	5.	5172.000 -	9.750	472.132	472.116
	6.	5172.000 -	19.500	471.979	471.963
	7.	5172.000 -	29.250	471.827	471.811
	1.	5182.000	29.250	472.125	472.109
	2.	5182.000	19.500	472.277	472.261
	3.	5182.000	9.750	472.430	472.413
14-3	4.	5182.000	.000	472.582	472.566
	5.	5182.000 -	9.750	472.430	472.413
	6.	5182.000 -	19.500	472.277	472.261
	7.	5182.000 -	29.250	472.125	472.109
	1.	5192.000	29.250	472.425	472.411
	2.	5192.000	19.500	472.577	472.563
	3.	5192.000	9.750	472.730	472.716
14-4	4.	5192.000	.000	472.882	472.868
	5.	5192.000 -	9.750	472.730	472.716
	6.	5192.000 -	19.500	472.577	472.563
	7.	5192.000 -	29.250	472.425	472.411
	1.	5196.500	29.250	472.560	472.548
	2.	5196.500	19.500	472.712	472.700
	3.	5196.500	9.750	472.865	472.853
Spl 14X	4.	5196.500	.000	473.017	473.005
	5.	5196.500 -	9.750	472.865	472.853
	6.	5196.500 -	19.500	472.712	472.700
	7.	5196.500 -	29.250	472.560	472.548
	1.	5202.000	29.250	472.725	472.715
	2.	5202.000	19.500	472.877	472.867
	3.	5202.000	9.750	473.030	473.020
14-5	4.	5202.000	.000	473.182	473.172
	5.	5202.000 -	9.750	473.030	473.020
	6.	5202.000 -	19.500	472.877	472.867
	7.	5202.000 -	29.250	472.725	472.715
	1.	5212.000	29.250	473.025	473.018
	2.	5212.000	19.500	473.177	473.170
	3.	5212.000	9.750	473.330	473.323
14-6	4.	5212.000	.000	473.482	473.475
	5.	5212.000 -	9.750	473.330	473.323
	6.	5212.000 -	19.500	473.177	473.170
	7.	5212.000 -	29.250	473.025	473.018

Line	Beam or Girder	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted For Dead Load Deflection
	1.	5222.000	29.250	473.325	473.318
	2.	5222.000	19.500	473.477	473.470
	3.	5222.000	9.750	473.630	473.623
	4.	5222.000	.000	473.782	473.775
14-7	5.	5222.000 -	9.750	473.630	473.623
	6.	5222.000 -	19.500	473.477	473.470
	7.	5222.000 -	29.250	473.325	473.318
	1.	5232.000	29.250	473.625	473.616
	2.	5232.000	19.500	473.777	473.769
	3.	5232.000	9.750	473.930	473.921
	4.	5232.000	.000	474.082	474.073
14-8	5.	5232.000 -	9.750	473.930	473.921
	6.	5232.000 -	19.500	473.777	473.769
	7.	5232.000 -	29.250	473.625	473.616
	1.	5242.000	29.250	473.925	473.913
	2.	5242.000	19.500	474.077	474.065
	3.	5242.000	9.750	474.230	474.218
	4.	5242.000	.000	474.382	474.370
14-9	5.	5242.000 -	9.750	474.230	474.218
	6.	5242.000 -	19.500	474.077	474.065
	7.	5242.000 -	29.250	473.925	473.913
	1.	5242.500	29.250	473.940	473.928
	2.	5242.500	19.500	474.092	474.080
	3.	5242.500	9.750	474.245	474.233
Spl 14Y	4.	5242.500	.000	474.397	474.385
	5.	5242.500 -	9.750	474.245	474.233
	6.	5242.500 -	19.500	474.092	474.080
	7.	5242.500 -	29.250	473.940	473.928
	1.	5252.000	29.250	474.225	474.209
	2.	5252.000	19.500	474.377	474.362
	3.	5252.000	9.750	474.530	474.514
	4.	5252.000	.000	474.682	474.666
14-10	5.	5252.000 -	9.750	474.530	474.514
	6.	5252.000 -	19.500	474.377	474.362
	7.	5252.000 -	29.250	474.225	474.209
	1.	5262.000	29.250	474.525	474.508
	2.	5262.000	19.500	474.677	474.661
	3.	5262.000	9.750	474.830	474.813
	4.	5262.000	.000	474.982	474.965
14-11	5.	5262.000 -	9.750	474.830	474.813
	6.	5262.000 -	19.500	474.677	474.661
	7.	5262.000 -	29.250	474.525	474.508
	1.	5272.000	29.250	474.825	474.811
	2.	5272.000	19.500	474.977	474.963
	3.	5272.000	9.750	475.130	475.115
	4.	5272.000	.000	475.282	475.268
14-12	5.	5272.000 -	9.750	475.130	475.115
	6.	5272.000 -	19.500	474.977	474.963
	7.	5272.000 -	29.250	474.825	474.811
	1.	5282.000	29.250	475.125	475.119
	2.	5282.000	19.500	475.277	475.271
	3.	5282.000	9.750	475.430	475.424
	4.	5282.000	.000	475.582	475.576
14-13	5.	5282.000 -	9.750	475.430	475.424
	6.	5282.000 -	19.500	475.277	475.271
	7.	5282.000 -	29.250	475.125	475.119
	1.	5287.000	29.250	475.275	475.275
	2.	5287.000	19.500	475.427	475.427
	3.	5287.000	9.750	475.580	475.580
℄ Brg. Pier 13	4.	5287.000	.000	475.732	475.732
	5.	5287.000 -	9.750	475.580	475.580
	6.	5287.000 -	19.500	475.427	475.427
	7.	5287.000 -	29.250	475.275	475.275

Line	Beam or Girder	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted For Dead Load Deflection
	1.	5297.000	29.250	475.575	475.593
	2.	5297.000	19.500	475.727	475.745
	3.	5297.000	9.750	475.880	475.898
13-1	4.	5297.000	.000	476.032	476.050
	5.	5297.000 -	9.750	475.880	475.898
	6.	5297.000 -	19.500	475.727	475.745
	7.	5297.000 -	29.250	475.575	475.593
	1.	5307.000	29.250	475.875	475.916
	2.	5307.000	19.500	476.027	476.068
	3.	5307.000	9.750	476.180	476.221
13-2	4.	5307.000	.000	476.332	476.373
	5.	5307.000 -	9.750	476.180	476.221
	6.	5307.000 -	19.500	476.027	476.068
	7.	5307.000 -	29.250	475.875	475.916
	1.	5317.000	29.250	476.175	476.241
	2.	5317.000	19.500	476.327	476.394
	3.	5317.000	9.750	476.480	476.546
Spl 13X	4.	5317.000	.000	476.632	476.698
	5.	5317.000 -	9.750	476.480	476.546
	6.	5317.000 -	19.500	476.327	476.394
	7.	5317.000 -	29.250	476.175	476.241
	1.	5327.000	29.250	476.475	476.568
	2.	5327.000	19.500	476.627	476.720
	3.	5327.000	9.750	476.780	476.872
13-3	4.	5327.000	.000	476.932	477.025
	5.	5327.000 -	9.750	476.780	476.872
	6.	5327.000 -	19.500	476.627	476.720
	7.	5327.000 -	29.250	476.475	476.568
	1.	5337.000	29.250	476.775	476.890
	2.	5337.000	19.500	476.927	477. 42
	3.	5337.000	9.750	477.080	477.195
13-4	4.	5337.000	.000	477.232	477.347
	5.	5337.000 -	9.750	477.080	477.195
	6.	5337.000 -	19.500	476.927	477.042
	7.	5337.000 -	29.250	476.775	476.890
	1.	5347.000	29.250	477.075	477.208
	2.	5347.000	19.500	477.227	477.360
	3.	5347.000	9.750	477.380	477.512
13-5	4.	5347.000	.000	477.532	477.665
	5.	5347.000 -	9.750	477.380	477.512
	6.	5347.000 -	19.500	477.227	477.360
	7.	5347.000 -	29.250	477.075	477.208
	1.	5357.000	29.250	477.375	477.517
	2.	5357.000	19.500	477.527	477.669
	3.	5357.000	9.750	477.680	477.822
13-6	4.	5357.000	.000	477.832	477.974
	5.	5357.000 -	9.750	477.680	477.822
	6.	5357.000 -	19.500	477.527	477.669
	7.	5357.000 -	29.250	477.375	477.517
	1.	5367.000	29.250	477.675	477.818
	2.	5367.000	19.500	477.827	477.970
	3.	5367.000	9.750	477.980	478.123
13-7	4.	5367.000	.000	478.132	478.275
	5.	5367.000 -	9.750	477.980	478.123
	6.	5367.000 -	19.500	477.827	477.970
	7.	5367.000 -	29.250	477.675	477.818
	1.	5367.916	29.250	477.703	477.846
	2.	5367.916	19.500	477.855	477.998
	3.	5367.916	9.750	478.008	478.150
Spl 13Y	4.	5367.916	.000	478.160	478.303
	5.	5367.916 -	9.750	478.008	478.150
	6.	5367.916 -	19.500	477.855	477.998
	7.	5367.916 -	29.250	477.703	477.846

SPAN 13C

Line	Beam or Girder	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted For Dead Load Deflection
	1.	5377.000	29.250		
	2.	5377.000	19.500		
	3.	5377.000	9.750		
13-8	4.	5377.000	.000		
	5.	5377.000 -	9.750		
	6.	5377.000 -	19.500		
	7.	5377.000 -	29.250		
	1.	5387.000	29.250		
	2.	5387.000	19.500		
	3.	5387.000	9.750		
13-9	4.	5387.000	.000		
	5.	5387.000 -	9.750		
	6.	5387.000 -	19.500		
	7.	5387.000 -	29.250		
	1.	5397.000	29.250		
	2.	5397.000	19.500		
	3.	5397.000	9.750		
13-10	4.	5397.000	.000		
	5.	5397.000 -	9.750		
	6.	5397.000 -	19.500		
	7.	5397.000 -	29.250		
	1.	5407.000	29.250		
	2.	5407.000	19.500		
	3.	5407.000	9.750		
13-11	4.	5407.000	.000		
	5.	5407.000 -	9.750		
	6.	5407.000 -	19.500		
	7.	5407.000 -	29.250		
	1.	5420.916	29.250		
	2.	5420.916	19.500		
	3.	5420.916	9.750		
℄ Brg. Pier 12	4.	5420.916	.000		
	5.	5420.916 -	9.750		
	6.	5420.916 -	19.500		
	7.	5420.916 -	29.250		



DIME

AFTER ALL STRUCTURAL STEEL H
THE TOP OF FLANGE PLATES OF TH
LOCATIONS SHOWN AND THE FLANG
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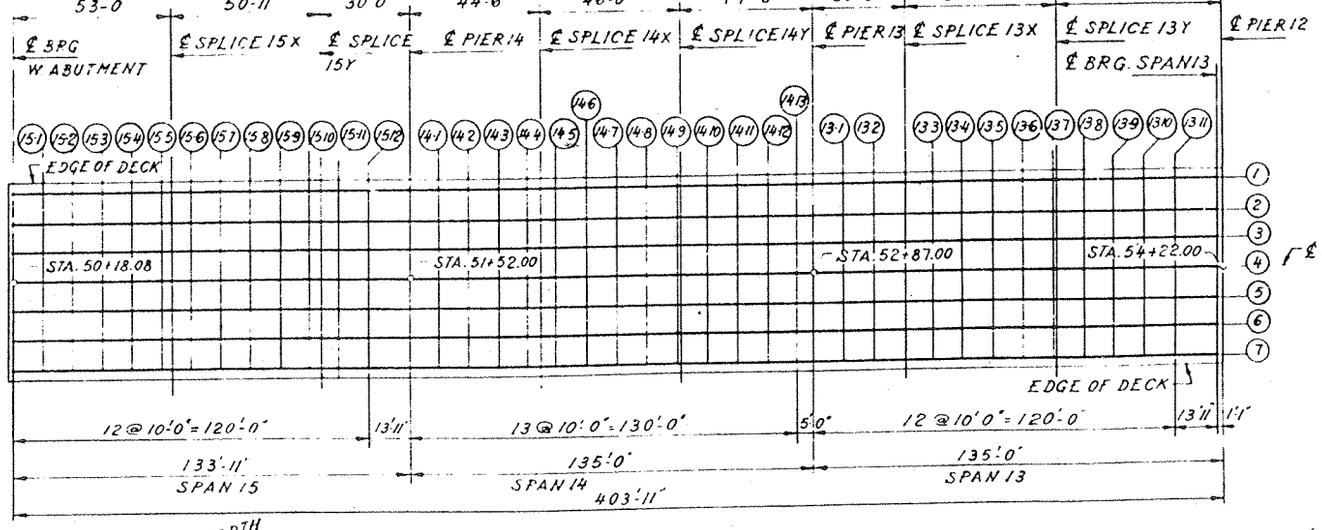
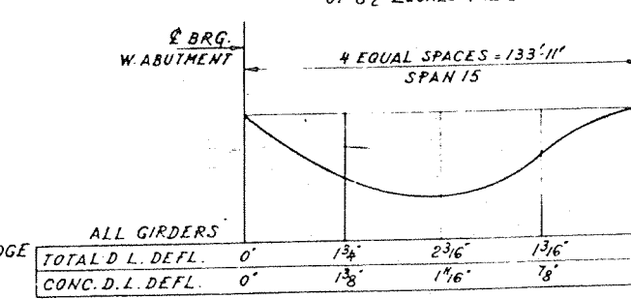
FROM THE "THEORETICAL GRADE
DEFLECTION" THE DIMENSION SO
OF 8½" EQUALS THE DIMENSION "





DEAD LOAD DEFLECTION

NORTH

PLAN

GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.

7-26-67

#1380

TOP OF

BURE

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)F,E	BUREAU-PUTNAM	33	28
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT	S-180-7(10)	D2

SPAN 3

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7418.500	29.250	525.257	525.257
	2.	7418.500	19.500	525.410	525.410
℄ BRG. PIER 3	3.	7418.500	9.750	525.562	525.562
	4.	7418.500	.000	525.714	525.714
	5.	7418.500 -	9.750	525.562	525.562
	6.	7418.500 -	19.500	525.410	525.410
	7.	7418.500 -	29.250	525.257	525.257
	1.	7428.500	29.250	525.242	525.278
	2.	7428.500	19.500	525.394	525.430
	3.	7428.500	9.750	525.546	525.583
3-1	4.	7428.500	.000	525.699	525.735
	5.	7428.500 -	9.750	525.546	525.583
	6.	7428.500 -	19.500	525.394	525.430
	7.	7428.500 -	29.250	525.242	525.278
	1.	7438.500	29.250	525.222	525.293
	2.	7438.500	19.500	525.375	525.445
	3.	7438.500	9.750	525.527	525.598
3-2	4.	7438.500	.000	525.680	525.750
	5.	7438.500 -	9.750	525.527	525.598
	6.	7438.500 -	19.500	525.375	525.445
	7.	7438.500 -	29.250	525.222	525.293
	1.	7448.500	29.250	525.200	525.300
	2.	7448.500	19.500	525.352	525.453
	3.	7448.500	9.750	525.504	525.605
3-3	4.	7448.500	.000	525.657	525.757
	5.	7448.500	9.750	525.504	525.605
	6.	7448.500 -	19.500	525.352	525.453
	7.	7448.500 -	29.250	525.200	525.300
	1.	7458.500	29.250	525.173	525.298
	2.	7458.500	19.500	525.326	525.450
	3.	7458.500	9.750	525.478	525.603
3-4	4.	7458.500	.000	525.630	525.755
	5.	7458.500 -	9.750	525.478	525.603
	6.	7458.500 -	19.500	525.326	525.450
	7.	7458.500 -	29.250	525.173	525.298
	1.	7465.750	29.250	525.152	525.289
	2.	7465.750	19.500	525.305	525.441
	3.	7465.750	9.750	525.457	525.594
SPL 3W	4.	7465.750	.000	525.609	525.746
	5.	7465.750 -	9.750	525.457	525.594
	6.	7465.750 -	19.500	525.305	525.441
	7.	7465.750 -	29.250	525.152	525.289
	1.	7468.500	29.250	525.144	525.285
	2.	7468.500	19.500	525.296	525.437
	3.	7468.500	9.750	525.448	525.590
3-5	4.	7468.500	.000	525.601	525.742
	5.	7468.500 -	9.750	525.448	525.590
	6.	7468.500 -	19.500	525.296	525.437
	7.	7468.500 -	29.250	525.144	525.285
	1.	7478.500	29.250	525.110	525.262
	2.	7478.500	19.500	525.263	525.415
	3.	7478.500	9.750	525.415	525.567
3-6	4.	7478.500	.000	525.567	525.719
	5.	7478.500 -	9.750	525.415	525.567
	6.	7478.500 -	19.500	525.263	525.415
	7.	7478.500 -	29.250	525.110	525.262
	1.	7488.500	29.250	525.073	525.229
	2.	7488.500	19.500	525.226	525.382
	3.	7488.500	9.750	525.378	525.534
3-7	4.	7488.500	.000	525.530	525.686
	5.	7488.500 -	9.750	525.378	525.534
	6.	7488.500 -	19.500	525.226	525.382
	7.	7488.500 -	29.250	525.073	525.229

SPAN 3 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7498.500	29.250	525.033	525.185
	2.	7498.500	19.500	525.185	525.338
	3.	7498.500	9.750	525.338	525.490
3-8	4.	7498.500	.000	525.490	525.642
	5.	7498.500 -	9.750	525.338	525.490
	6.	7498.500 -	19.500	525.185	525.338
	7.	7498.500 -	29.250	525.033	525.185
	1.	7508.500	29.250	524.989	525.131
	2.	7508.500	19.500	525.141	525.283
	3.	7508.500	9.750	525.294	525.436
3-9	4.	7508.500	.000	525.446	525.588
	5.	7508.500 -	9.750	525.294	525.436
	6.	7508.500 -	19.500	525.141	525.283
	7.	7508.500 -	29.250	524.989	525.131
	1.	7513.000	29.250	524.968	525.103
	2.	7513.000	19.500	525.120	525.256
	3.	7513.000	9.750	525.273	525.408
SPL 3X	4.	7513.000	.000	525.425	525.560
	5.	7513.000 -	9.750	525.273	525.408
	6.	7513.000 -	19.500	525.120	525.256
	7.	7513.000 -	29.250	524.968	525.103
	1.	7518.500	29.250	524.942	525.068
	2.	7518.500	19.500	525.094	525.220
	3.	7518.500	9.750	525.246	525.373
3-10	4.	7518.500	.000	525.399	525.525
	5.	7518.500 -	9.750	525.246	525.373
	6.	7518.500 -	19.500	525.094	525.220
	7.	7518.500 -	29.250	524.942	525.068
	1.	7528.500	29.250	524.891	524.997
	2.	7528.500	19.500	525.043	525.149
	3.	7528.500	9.750	525.195	525.301
3-11	4.	7528.500	.000	525.348	525.454
	5.	7528.500 -	9.750	525.195	525.301
	6.	7528.500 -	19.500	525.043	525.149
	7.	7528.500 -	29.250	524.891	524.997
	1.	7538.500	29.250	524.836	524.919
	2.	7538.500	19.500	524.988	525.071
	3.	7538.500	9.750	525.141	525.224
3-12	4.	7538.500	.000	525.293	525.376
	5.	7538.500 -	9.750	525.141	525.224
	6.	7538.500 -	19.500	524.988	525.071
	7.	7538.500 -	29.250	524.836	524.919
	1.	7548.500	29.250	524.778	524.837
	2.	7548.500	19.500	524.930	524.989
	3.	7548.500	9.750	525.083	525.141
3-13	4.	7548.500	.000	525.235	525.294
	5.	7548.500 -	9.750	525.083	525.141
	6.	7548.500 -	19.500	524.930	524.989
	7.	7548.500 -	29.250	524.778	524.837
	1.	7558.500	29.250	524.716	524.752
	2.	7558.500	19.500	524.869	524.905
	3.	7558.500	9.750	525.021	525.057
3-14	4.	7558.500	.000	525.173	525.209
	5.	7558.500 -	9.750	525.021	525.057
	6.	7558.500 -	19.500	524.869	524.905
	7.	7558.500 -	29.250	524.716	524.752
	1.	7559.000	29.250	524.713	524.748
	2.	7559.000	19.500	524.866	524.900
	3.	7559.000	9.750	525.018	525.053
SPL 3Y	4.	7559.000	.000	525.170	525.205
	5.	7559.000 -	9.750	525.018	525.053
	6.	7559.000 -	19.500	524.866	524.900
	7.	7559.000 -	29.250	524.713	524.748

SPAN 3 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATIO	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7568.500	29.250	524.651	524.668
	2.	7568.500	19.500	524.804	524.820
	3.	7568.500	9.750	524.956	524.972
3-15	4.	7568.500	.000	525.108	525.125
	5.	7568.500 -	9.750	524.956	524.972
	6.	7568.500 -	19.500	524.804	524.820
	7.	7568.500 -	29.250	524.651	524.668
	1.	7578.500	29.250	524.583	524.585
	2.	7578.500	19.500	524.735	524.737
	3.	7578.500	9.750	524.887	524.889
3-16	4.	7578.500	.000	525.040	525.042
	5.	7578.500 -	9.750	524.887	524.889
	6.	7578.500 -	19.500	524.735	524.737
	7.	7578.500 -	29.250	524.583	524.585
	1.	7588.500	29.250	524.510	524.505
	2.	7588.500	19.500	524.663	524.657
	3.	7588.500	9.750	524.815	524.810
3-17	4.	7588.500	.000	524.967	524.962
	5.	7588.500 -	9.750	524.815	524.810
	6.	7588.500 -	19.500	524.663	524.657
	7.	7588.500 -	29.250	524.510	524.505
	1.	7589.500	29.250	524.503	524.497
	2.	7589.500	19.500	524.655	524.649
	3.	7589.500	9.750	524.808	524.802
SPL 3Z	4.	7589.500	.000	524.960	524.954
	5.	7589.500 -	9.750	524.808	524.802
	6.	7589.500 -	19.500	524.655	524.649
	7.	7589.500 -	29.250	524.503	524.497
	1.	7598.500	29.250	524.435	524.426
	2.	7598.500	19.500	524.587	524.578
	3.	7598.500	9.750	524.739	524.731
3-18	4.	7598.500	.000	524.892	524.883
	5.	7598.500 -	9.750	524.739	524.731
	6.	7598.500 -	19.500	524.587	524.578
	7.	7598.500 -	29.250	524.435	524.426
	1.	7608.500	29.250	524.355	524.349
	2.	7608.500	19.500	524.508	524.502
	3.	7608.500	9.750	524.660	524.654
3-19	4.	7608.500	.000	524.813	524.807
	5.	7608.500 -	9.750	524.660	524.654
	6.	7608.500 -	19.500	524.508	524.502
	7.	7608.500 -	29.250	524.355	524.349
	1.	7617.000	29.250	524.285	524.285
	2.	7617.000	19.500	524.438	524.438
℄ BRG. PIER 2	3.	7617.000	9.750	524.590	524.590
	4.	7617.000	.000	524.742	524.742
	5.	7617.000 -	9.750	524.590	524.590
	6.	7617.000 -	19.500	524.438	524.438
	7.	7617.000 -	29.250	524.285	524.285

SPAN 2

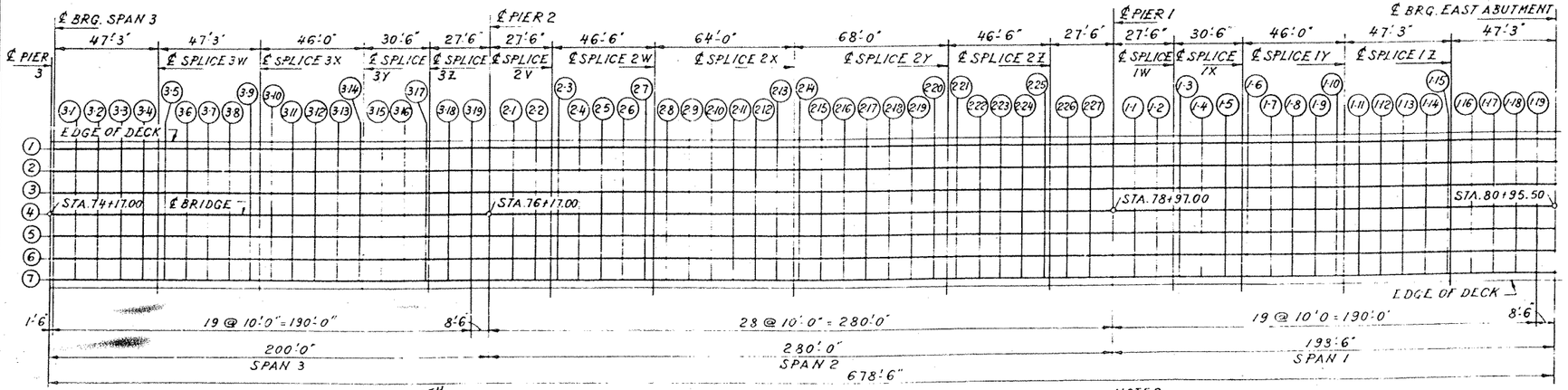
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7627.000	29.250	524.200	524.216
	2.	7627.000	19.500	524.352	524.368
	3.	7627.000	9.750	524.504	524.521
2-1	4.	7627.000	.000	524.657	524.673
	5.	7627.000 -	9.750	524.504	524.521
	6.	7627.000 -	19.500	524.352	524.368
	7.	7627.000 -	29.250	524.200	524.216
	1.	7637.000	29.250	524.110	524.147
	2.	7637.000	19.500	524.263	524.300
	3.	7637.000	9.750	524.415	524.452
2-2	4.	7637.000	.000	524.567	524.604
	5.	7637.000 -	9.750	524.415	524.452
	6.	7637.000 -	19.500	524.263	524.300
	7.	7637.000 -	29.250	524.110	524.147
	1.	7644.500	29.250	524.041	524.096
	2.	7644.500	19.500	524.193	524.248
	3.	7644.500	9.750	524.346	524.401
SPL 2V	4.	7644.500	.000	524.498	524.553
	5.	7644.500 -	9.750	524.346	524.401
	6.	7644.500 -	19.500	524.193	524.248
	7.	7644.500 -	29.250	524.041	524.096
	1.	7647.000	29.250	524.017	524.079
	2.	7647.000	19.500	524.170	524.232
	3.	7647.000	9.750	524.322	524.384
2-3	4.	7647.000	.000	524.475	524.537
	5.	7647.000 -	9.750	524.322	524.384
	6.	7647.000 -	19.500	524.170	524.232
	7.	7647.000 -	29.250	524.017	524.079
	1.	7657.000	29.250	523.921	524.013
	2.	7657.000	19.500	524.073	524.165
	3.	7657.000	9.750	524.226	524.318
2-4	4.	7657.000	.000	524.378	524.470
	5.	7657.000 -	9.750	524.226	524.318
	6.	7657.000 -	19.500	524.073	524.165
	7.	7657.000 -	29.250	523.921	524.013
	1.	7667.000	29.250	523.821	523.948
	2.	7667.000	19.500	523.974	524.100
	3.	7667.000	9.750	524.126	524.253
2-5	4.	7667.000	.000	524.278	524.405
	5.	7667.000 -	9.750	524.126	524.253
	6.	7667.000 -	19.500	523.974	524.100
	7.	7667.000 -	29.250	523.821	523.948
	1.	7677.000	29.250	523.718	523.882
	2.	7677.000	19.500	523.870	524.034
	3.	7677.000	9.750	524.023	524.187
2-6	4.	7677.000	.000	524.175	524.339
	5.	7677.000 -	9.750	524.023	524.187
	6.	7677.000 -	19.500	523.870	524.034
	7.	7677.000 -	29.250	523.718	523.882
	1.	7687.000	29.250	523.611	523.815
	2.	7687.000	19.500	523.763	523.967
	3.	7687.000	9.750	523.916	524.120
2-7	4.	7687.000	.000	524.068	524.272
	5.	7687.000 -	9.750	523.916	524.120
	6.	7687.000 -	19.500	523.763	523.967
	7.	7687.000 -	29.250	523.611	523.815

SPAN 2 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7691.000	29.250	523.567	523.787
	2.	7691.000	19.500	523.719	523.939
	3.	7691.000	9.750	523.872	524.092
SPL 2W	4.	7691.000	.000	524.024	524.244
	5.	7691.000 -	9.750	523.872	524.092
	6.	7691.000 -	19.500	523.719	523.939
	7.	7691.000 -	29.250	523.567	523.787
	1.	7697.000	29.250	523.500	523.744
	2.	7697.000	19.500	523.653	523.897
	3.	7697.000	9.750	523.805	524.049
2-8	4.	7697.000	.000	523.957	524.201
	5.	7697.000 -	9.750	523.805	524.049
	6.	7697.000 -	19.500	523.653	523.897
	7.	7697.000 -	29.250	523.500	523.744
	1.	7707.000	29.250	523.386	523.666
	2.	7707.000	19.500	523.539	523.820
	3.	7707.000	9.750	523.691	523.973
2-9	4.	7707.000	.000	523.843	524.125
	5.	7707.000 -	9.750	523.691	523.973
	6.	7707.000 -	19.500	523.539	523.820
	7.	7707.000 -	29.250	523.386	523.666
	1.	7717.000	29.250	523.269	523.584
	2.	7717.000	19.500	523.421	523.737
	3.	7717.000	9.750	523.574	523.889
2-10	4.	7717.000	.000	523.726	524.041
	5.	7717.000 -	9.750	523.574	523.889
	6.	7717.000 -	19.500	523.421	523.737
	7.	7717.000 -	29.250	523.269	523.584
	1.	7727.000	29.250	523.148	523.490
	2.	7727.000	19.500	523.300	523.643
	3.	7727.000	9.750	523.453	523.795
2-11	4.	7727.000	.000	523.605	523.947
	5.	7727.000 -	9.750	523.453	523.795
	6.	7727.000 -	19.500	523.300	523.643
	7.	7727.000 -	29.250	523.148	523.490
	1.	7737.000	29.250	523.023	523.385
	2.	7737.000	19.500	523.176	523.537
	3.	7737.000	9.750	523.328	523.690
2-12	4.	7737.000	.000	523.480	523.842
	5.	7737.000 -	9.750	523.328	523.690
	6.	7737.000 -	19.500	523.176	523.537
	7.	7737.000 -	29.250	523.023	523.385
	1.	7747.000	29.250	522.895	523.269
	2.	7747.000	19.500	523.047	523.422
	3.	7747.000	9.750	523.200	523.574
2-13	4.	7747.000	.000	523.352	523.726
	5.	7747.000 -	9.750	523.200	523.574
	6.	7747.000 -	19.500	523.047	523.422
	7.	7747.000 -	29.250	522.895	523.269

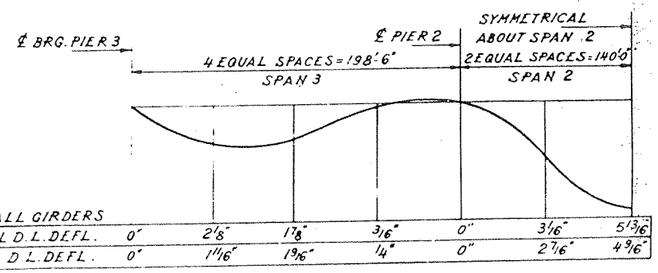
APPROVED
9-21-67

FOR CONTINUATION SEE SHEET D3.



PLAN
SCALE 1" = 30'0"

NOTES
FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "C" SEE SHEET D1.
GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.



ALL GIRDERS						
TOTAL D.L. DEFL.	0"	2 5/8"	1 7/8"	3/16"	0"	3/16"	5 3/16"
CONC D.L. DEFL.	0"	1 11/16"	1 3/16"	1/4"	0"	2 7/16"	4 9/16"

DEAD LOAD DEFLECTION DIAGRAM

SEPTEMBER 6, 1967

4/200 Revised

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
105 WABASH AVE CHICAGO, ILLINOIS

TOP OF SLAB ELEVATIONS-SPANS 1, 2 & 3
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)F,4,E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F & E	BUREAU PUTNAM	33	29
STA. 50+16.08		TO STA 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		D3

SPAN 2 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7755.000	29.250	522.790	523.169
	2.	7755.000	19.500	522.942	523.321
	3.	7755.000	9.750	523.095	523.474
SPL 2X	4.	7755.000	.000	523.247	523.626
	5.	7755.000 -	9.750	523.095	523.474
	6.	7755.000 -	19.500	522.942	523.321
	7.	7755.000 -	29.250	522.790	523.169
	1.	7757.000	29.250	522.763	523.143
	2.	7757.000	19.500	522.916	523.296
	3.	7757.000	9.750	523.068	523.448
2-14	4.	7757.000	.000	523.221	523.601
	5.	7757.000 -	9.750	523.068	523.448
	6.	7757.000 -	19.500	522.916	523.296
	7.	7757.000 -	29.250	522.763	523.143
	1.	7767.000	29.250	522.628	523.003
	2.	7767.000	19.500	522.781	523.155
	3.	7767.000	9.750	522.933	523.307
2-15	4.	7767.000	.000	523.085	523.460
	5.	7767.000 -	9.750	522.933	523.307
	6.	7767.000 -	19.500	522.781	523.155
	7.	7767.000 -	29.250	522.628	523.003
	1.	7777.000	29.250	522.490	522.851
	2.	7777.000	19.500	522.642	523.004
	3.	7777.000	9.750	522.794	523.156
2-16	4.	7777.000	.000	522.947	523.308
	5.	7777.000 -	9.750	522.794	523.156
	6.	7777.000 -	19.500	522.642	523.004
	7.	7777.000 -	29.250	522.490	522.851
	1.	7787.000	29.250	522.347	522.690
	2.	7787.000	19.500	522.500	522.842
	3.	7787.000	9.750	522.652	522.995
2-17	4.	7787.000	.000	522.804	523.147
	5.	7787.000 -	9.750	522.652	522.995
	6.	7787.000 -	19.500	522.500	522.842
	7.	7787.000 -	29.250	522.347	522.690
	1.	7797.000	29.250	522.202	522.517
	2.	7797.000	19.500	522.354	522.669
	3.	7797.000	9.750	522.506	522.822
2-18	4.	7797.000	.000	522.659	522.974
	5.	7797.000 -	9.750	522.506	522.822
	6.	7797.000 -	19.500	522.354	522.669
	7.	7797.000 -	29.250	522.202	522.517
	1.	7807.000	29.250	522.052	522.334
	2.	7807.000	19.500	522.205	522.486
	3.	7807.000	9.750	522.357	522.638
2-19	4.	7807.000	.000	522.509	522.791
	5.	7807.000 -	9.750	522.357	522.638
	6.	7807.000 -	19.500	522.205	522.486
	7.	7807.000 -	29.250	522.052	522.334
	1.	7817.000	29.250	521.899	522.143
	2.	7817.000	19.500	522.052	522.296
	3.	7817.000	9.750	522.204	522.448
2-20	4.	7817.000	.000	522.357	522.601
	5.	7817.000 -	9.750	522.204	522.448
	6.	7817.000 -	19.500	522.052	522.296
	7.	7817.000 -	29.250	521.899	522.143
	1.	7823.000	29.250	521.806	522.026
	2.	7823.000	19.500	521.958	522.178
	3.	7823.000	9.750	522.111	522.331
SPL 2Y	4.	7823.000	.000	522.263	522.483
	5.	7823.000 -	9.750	522.111	522.331
	6.	7823.000 -	19.500	521.958	522.178
	7.	7823.000 -	29.250	521.806	522.026

SPAN 2 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7827.000	29.250	521.743	521.947
	2.	7827.000	19.500	521.895	522.099
	3.	7827.000	9.750	522.048	522.252
2-21	4.	7827.000	.000	522.200	522.404
	5.	7827.000 -	9.750	522.048	522.252
	6.	7827.000 -	19.500	521.895	522.099
	7.	7827.000 -	29.250	521.743	521.947
	1.	7837.000	29.250	521.583	521.747
	2.	7837.000	19.500	521.736	521.900
	3.	7837.000	9.750	521.888	522.052
2-22	4.	7837.000	.000	522.040	522.204
	5.	7837.000 -	9.750	521.888	522.052
	6.	7837.000 -	19.500	521.736	521.900
	7.	7837.000 -	29.250	521.583	521.747
	1.	7847.000	29.250	521.420	521.546
	2.	7847.000	19.500	521.572	521.699
	3.	7847.000	9.750	521.725	521.851
2-23	4.	7847.000	.000	521.877	522.003
	5.	7847.000 -	9.750	521.725	521.851
	6.	7847.000 -	19.500	521.572	521.699
	7.	7847.000 -	29.250	521.420	521.546
	1.	7857.000	29.250	521.253	521.345
	2.	7857.000	19.500	521.405	521.497
	3.	7857.000	9.750	521.558	521.650
2-24	4.	7857.000	.000	521.710	521.802
	5.	7857.000 -	9.750	521.558	521.650
	6.	7857.000 -	19.500	521.405	521.497
	7.	7857.000 -	29.250	521.253	521.345
	1.	7867.000	29.250	521.082	521.144
	2.	7867.000	19.500	521.235	521.297
	3.	7867.000	9.750	521.387	521.449
2-25	4.	7867.000	.000	521.539	521.601
	5.	7867.000 -	9.750	521.387	521.449
	6.	7867.000 -	19.500	521.235	521.297
	7.	7867.000 -	29.250	521.082	521.144
	1.	7869.500	29.250	521.039	521.094
	2.	7869.500	19.500	521.192	521.246
	3.	7869.500	9.750	521.344	521.399
SPL 2Z	4.	7869.500	.000	521.496	521.551
	5.	7869.500 -	9.750	521.344	521.399
	6.	7869.500 -	19.500	521.192	521.246
	7.	7869.500 -	29.250	521.039	521.094
	1.	7877.000	29.250	520.908	520.946
	2.	7877.000	19.500	521.061	521.098
	3.	7877.000	9.750	521.213	521.250
2-26	4.	7877.000	.000	521.365	521.403
	5.	7877.000 -	9.750	521.213	521.250
	6.	7877.000 -	19.500	521.061	521.098
	7.	7877.000 -	29.250	520.908	520.946
	1.	7887.000	29.250	520.731	520.747
	2.	7887.000	19.500	520.883	520.900
	3.	7887.000	9.750	521.036	521.052
2-27	4.	7887.000	.000	521.188	521.204
	5.	7887.000 -	9.750	521.036	521.052
	6.	7887.000 -	19.500	520.883	520.900
	7.	7887.000 -	29.250	520.731	520.747
	1.	7897.000	29.250	520.550	520.550
	2.	7897.000	19.500	520.702	520.702
	3.	7897.000	9.750	520.855	520.855
℄ BRG. PIER 1	4.	7897.000	.000	521.007	521.007
	5.	7897.000 -	9.750	520.855	520.855
	6.	7897.000 -	19.500	520.702	520.702
	7.	7897.000 -	29.250	520.550	520.550

SPAN 1

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7907.000	29.250	520.365	520.358
	2.	7907.000	19.500	520.518	520.511
	3.	7907.000	9.750	520.670	520.663
1-1	4.	7907.000	.000	520.822	520.815
	5.	7907.000 -	9.750	520.670	520.663
	6.	7907.000 -	19.500	520.518	520.511
	7.	7907.000 -	29.250	520.365	520.358
	1.	7917.000	29.250	520.177	520.168
	2.	7917.000	19.500	520.329	520.321
	3.	7917.000	9.750	520.482	520.473
1-2	4.	7917.000	.000	520.634	520.625
	5.	7917.000 -	9.750	520.482	520.473
	6.	7917.000 -	19.500	520.329	520.321
	7.	7917.000 -	29.250	520.177	520.168
	1.	7924.500	29.250	520.034	520.028
	2.	7924.500	19.500	520.186	520.180
	3.	7924.500	9.750	520.338	520.332
SPL 1W	4.	7924.500	.000	520.491	520.485
	5.	7924.500 -	9.750	520.338	520.332
	6.	7924.500 -	19.500	520.186	520.180
	7.	7924.500 -	29.250	520.034	520.028
	1.	7927.000	29.250	519.985	519.981
	2.	7927.000	19.500	520.138	520.133
	3.	7927.000	9.750	520.290	520.285
1-3	4.	7927.000	.000	520.443	520.438
	5.	7927.000 -	9.750	520.290	520.285
	6.	7927.000 -	19.500	520.138	520.133
	7.	7927.000 -	29.250	519.985	519.981
	1.	7937.000	29.250	519.790	519.794
	2.	7937.000	19.500	519.943	519.946
	3.	7937.000	9.750	520.095	520.098
1-4	4.	7937.000	.000	520.247	520.251
	5.	7937.000 -	9.750	520.095	520.098
	6.	7937.000 -	19.500	519.943	519.946
	7.	7937.000 -	29.250	519.790	519.794
	1.	7947.000	29.250	519.592	519.610
	2.	7947.000	19.500	519.744	519.763
	3.	7947.000	9.750	519.896	519.915
1-5	4.	7947.000	.000	520.049	520.067
	5.	7947.000 -	9.750	519.896	519.915
	6.	7947.000 -	19.500	519.744	519.763
	7.	7947.000 -	29.250	519.592	519.610
	1.	7955.000	29.250	519.430	519.465
	2.	7955.000	19.500	519.582	519.617
	3.	7955.000	9.750	519.735	519.770
SPL 1X	4.	7955.000	.000	519.887	519.922
	5.	7955.000 -	9.750	519.735	519.770
	6.	7955.000 -	19.500	519.582	519.617
	7.	7955.000 -	29.250	519.430	519.465
	1.	7957.000	29.250	519.389	519.428
	2.	7957.000	19.500	519.542	519.581
	3.	7957.000	9.750	519.694	519.733
1-6	4.	7957.000	.000	519.846	519.885
	5.	7957.000 -	9.750	519.694	519.733
	6.	7957.000 -	19.500	519.542	519.581
	7.	7957.000 -	29.250	519.389	519.428
	1.	7967.000	29.250	519.184	519.246
	2.	7967.000	19.500	519.336	519.398
	3.	7967.000	9.750	519.488	519.551
1-7	4.	7967.000	.000	519.641	519.703
	5.	7967.000 -	9.750	519.488	519.551
	6.	7967.000 -	19.500	519.336	519.398
	7.	7967.000 -	29.250	519.184	519.246
	1.	7977.000	29.250	518.974	519.061
	2.	7977.000	19.500	519.127	519.213
	3.	7977.000	9.750	519.279	519.365
1-8	4.	7977.000	.000	519.431	519.518
	5.	7977.000 -	9.750	519.279	519.365
	6.	7977.000 -	19.500	519.127	519.213
	7.	7977.000 -	29.250	518.974	519.061
	1.	7987.000	29.250	518.761	518.871
	2.	7987.000	19.500	518.914	519.023
	3.	7987.000	9.750	519.066	519.176
1-9	4.	7987.000	.000	519.219	519.328
	5.	7987.000 -	9.750	519.066	519.176
	6.	7987.000 -	19.500	518.914	519.023
	7.	7987.000 -	29.250	518.761	518.871
	1.	7997.000	29.250	518.545	518.674
	2.	7997.000	19.500	518.697	518.827
	3.	7997.000	9.750	518.850	518.979
1-10	4.	7997.000	.000	519.002	519.131
	5.	7997.000 -	9.750	518.850	518.979
	6.	7997.000 -	19.500	518.697	518.827
	7.	7997.000 -	29.250	518.545	518.674

SPAN 1 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	8001.000	29.250	518.458	518.593
	2.	8001.000	19.500	518.610	518.745
	3.	8001.000	9.750	518.762	518.897
SPL 1Y	4.	8001.000	.000	518.915	519.050
	5.	8001.000 -	9.750	518.762	518.897
	6.	8001.000 -	19.500	518.610	518.745
	7.	8001.000 -	29.250	518.458	518.593
	1.	8007.000	29.250	518.325	518.469
	2.	8007.000	19.500	518.478	518.621
	3.	8007.000	9.750	518.630	518.774
1-11	4.	8007.000	.000	518.782	518.926
	5.	8007.000 -	9.750	518.630	518.774
	6.	8007.000 -	19.500	518.478	518.621
	7.	8007.000 -	29.250	518.325	518.469
	1.	8017.000	29.250	518.102	518.255
	2.	8017.000	19.500	518.254	518.407
	3.	8017.000	9.750	518.407	518.560
1-12	4.	8017.000	.000	518.559	518.712
	5.	8017.000 -	9.750	518.407	518.560
	6.	8017.000 -	19.500	518.254	518.407
	7.	8017.000 -	29.250	518.102	518.255
	1.	8027.000	29.250	517.875	518.031
	2.	8027.000	19.500	518.027	518.183
	3.	8027.000	9.750	518.180	518.335
1-13	4.	8027.000	.000	518.332	518.488
	5.	8027.000 -	9.750	518.180	518.335
	6.	8027.000 -	19.500	518.027	518.183
	7.	8027.000 -	29.250	517.875	518.031
	1.	8037.000	29.250	517.644	517.795
	2.	8037.000	19.500	517.797	517.948
	3.	8037.000	9.750	517.949	518.100
1-14	4.	9037.000	.000	518.101	518.252
	5.	8037.000 -	9.750	517.949	518.100
	6.	8037.000 -	19.500	517.797	517.948
	7.	8037.000 -	29.250	517.644	517.795
	1.	8047.000	29.250	517.410	517.550
	2.	8047.000	19.500	517.563	517.702
	3.	8047.000	9.750	517.715	517.854
1-15	4.	8047.000	.000	517.867	518.007
	5.	8047.000 -	9.750	517.715	517.854
	6.	8047.000 -	19.500	517.563	517.702
	7.	8047.000 -	29.250	517.410	517.550
	1.	8048.250	29.250	517.381	517.518
	2.	8048.250	19.500	517.533	517.670
	3.	8048.250	9.750	517.686	517.823
SPL 1Z	4.	8048.250	.000	517.838	517.975
	5.	8048.250 -	9.750	517.686	517.823
	6.	8048.250 -	19.500	517.533	517.670
	7.	8048.250 -	29.250	517.381	517.518
	1.	8057.000	29.250	517.173	517.294
	2.	8057.000	19.500	517.325	517.446
	3.	8057.000	9.750	517.478	517.599
1-16	4.	8057.000	.000	517.630	517.751
	5.	8057.000 -	9.750	517.478	517.599
	6.	8057.000 -	19.500	517.325	517.446
	7.	8057.000 -	29.250	517.173	517.294
	1.	8067.000	29.250	516.932	517.078
	2.	8067.000	19.500	517.084	517.180
	3.	8067.000	9.750	517.237	517.333
1-17	4.	8067.000	.000	517.389	517.485
	5.	8067.000 -	9.750	517.237	517.333
	6.	8067.000 -	19.500	517.084	517.180
	7.	8067.000 -	29.250	516.932	517.026
	1.	8077.000	29.250	516.687	516.753
	2.	8077.000	19.500	516.840	516.905
	3.	8077.000	9.750	516.992	517.057
1-18	4.	8077.000	.000	517.144	517.210
	5.	8077.000 -	9.750	516.992	517.057
	6.	8077.000 -	19.500	516.840	516.905
	7.	8077.000 -	29.250	516.687	516.753
	1.	8087.000	29.250	516.439	516.470
	2.	8087.000	19.500	516.591	516.622
	3.	8087.000	9.750	516.744	516.775
1-19	4.	8087.000	.000	516.896	516.927
	5.	8087.000 -	9.750	516.744	516.775
	6.	8087.000 -	19.500	516.591	516.622
	7.	8087.000 -	29.250	516.439	516.470
	1.	8095.500	29.250	516.225	516.225
	2.	8095.500	19.500	516.378	516.378
	3.	8095.500	9.750	516.530	516.530
℄ BRG. E ABUT	4.	8095.500	.000	516.682	516.682
	5.	8095.500 -	9.750	516.530	516.530
	6.	8095.500 -	19.500	516.378	516.378
	7.	8095.500 -	29.250	516.225	516.225

SEPTEMBER 6, 1967

TOP OF SLAB ELEVATIONS-SPANS 1, 2 & 3

F. A. I. ROUTE 180

OVER ILLINOIS RIVER

F. A. PROJECT I-180-7(6)0

SECTION (06-3,78-1)F & E

BUREAU AND PUTNAM COUNTIES

APPROVED

9-21-67

#1300

10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,7,8)D, E, F, & G	BUREAU-PUTNAM	33	30
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(10)	

D4

SPAN 9

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5933.083	29.250	494.658	494.658
	2.	5933.083	19.500	494.810	494.810
	3.	5933.083	9.750	494.963	494.963
℄ BRG. PIER 9	4.	5933.083	.000	495.115	495.115
	5.	5933.083 -	9.750	494.963	494.963
	6.	5933.083 -	19.500	494.810	494.810
	7.	5933.083 -	29.250	494.658	494.658
	1.	5943.083	29.250	494.958	495.002
	2.	5943.083	19.500	495.110	495.156
	3.	5943.083	9.750	495.262	495.307
9-1	4.	5943.083	.000	495.415	495.460
	5.	5943.083 -	9.750	495.262	495.307
	6.	5943.083 -	19.500	495.110	495.155
	7.	5943.083 -	29.250	494.958	495.002
	1.	5953.083	29.250	495.258	495.344
	2.	5953.083	19.500	495.410	495.497
	3.	5953.083	9.750	495.562	495.649
9-2	4.	5953.083	.000	495.715	495.801
	5.	5953.083 -	9.750	495.562	495.649
	6.	5953.083 -	19.500	495.410	495.497
	7.	5953.083 -	29.250	495.258	495.344
	1.	5963.083	29.250	495.558	495.681
	2.	5963.083	19.500	495.710	495.833
	3.	5963.083	9.750	495.862	495.986
9-3	4.	5963.083	.000	496.015	496.138
	5.	5963.083 -	9.750	495.862	495.986
	6.	5963.083 -	19.500	495.710	495.833
	7.	5963.083 -	29.250	495.558	495.681
	1.	5973.083	29.250	495.858	496.011
	2.	5973.083	19.500	496.010	496.164
	3.	5973.083	9.750	496.162	496.316
9-4	4.	5973.083	.000	496.315	496.468
	5.	5973.083 -	9.750	496.162	496.316
	6.	5973.083 -	19.500	496.010	496.164
	7.	5973.083 -	29.250	495.858	496.011
	1.	5983.083	29.250	496.158	496.335
	2.	5983.083	19.500	496.310	496.487
	3.	5983.083	9.750	496.462	496.639
9-5	4.	5983.083	.000	496.615	496.792
	5.	5983.083 -	9.750	496.462	496.639
	6.	5983.083 -	19.500	496.310	496.487
	7.	5983.083 -	29.250	496.158	496.335
	1.	5993.083	29.250	496.458	496.650
	2.	5993.083	19.500	496.610	496.802
	3.	5993.083	9.750	496.762	496.955
9-6	4.	5993.083	.000	496.915	497.107
	5.	5993.083 -	9.750	496.762	496.955
	6.	5993.083 -	19.500	496.610	496.802
	7.	5993.083 -	29.250	496.458	496.650
	1.	5994.500	29.250	496.500	496.694
	2.	5994.500	19.500	496.652	496.846
	3.	5994.500	9.750	496.805	496.999
SPLICE 9-X	4.	5994.500	.000	496.957	497.151
	5.	5994.500 -	9.750	496.805	496.999
	6.	5994.500 -	19.500	496.652	496.846
	7.	5994.500 -	29.250	496.500	496.694
	1.	6003.083	29.250	496.758	496.957
	2.	6003.083	19.500	496.910	497.110
	3.	6003.083	9.750	497.062	497.262
9-7	4.	6003.083	.000	497.215	497.414
	5.	6003.083 -	9.750	497.062	497.262
	6.	6003.083 -	19.500	496.910	497.110
	7.	6003.083 -	29.250	496.758	496.957
	1.	6013.083	29.250	497.058	497.257
	2.	6013.083	19.500	497.210	497.409
	3.	6013.083	9.750	497.361	497.561
9-8	4.	6013.083	.000	497.515	497.714
	5.	6013.083 -	9.750	497.362	497.561
	6.	6013.083 -	19.500	497.210	497.409
	7.	6013.083 -	29.250	497.058	497.257
	1.	6023.083	29.250	497.358	497.549
	2.	6023.083	19.500	497.510	497.701
	3.	6023.083	9.750	497.662	497.853
9-9	4.	6023.083	.000	497.815	498.006
	5.	6023.083 -	9.750	497.662	497.853
	6.	6023.083 -	19.500	497.510	497.701
	7.	6023.083 -	29.250	497.358	497.549
	1.	6033.083	29.250	497.658	497.834
	2.	6033.083	19.500	497.810	497.986
	3.	6033.083	9.750	497.962	498.138
9-10	4.	6033.083	.000	498.115	498.291
	5.	6033.083 -	9.750	497.962	498.138
	6.	6033.083 -	19.500	497.810	497.986
	7.	6033.083 -	29.250	497.658	497.834
	1.	6043.083	29.250	497.958	498.113
	2.	6043.083	19.500	498.110	498.265
	3.	6043.083	9.750	498.262	498.417
9-11	4.	6043.083	.000	498.415	498.570
	5.	6043.083 -	9.750	498.262	498.417
	6.	6043.083 -	19.500	498.110	498.265
	7.	6043.083 -	29.250	497.958	498.113
	1.	6053.083	29.250	498.258	498.386
	2.	6053.083	19.500	498.410	498.538
	3.	6053.083	9.750	498.562	498.691
9-12	4.	6053.083	.000	498.715	498.843
	5.	6053.083 -	9.750	498.562	498.691
	6.	6053.083 -	19.500	498.410	498.538
	7.	6053.083 -	29.250	498.258	498.386
	1.	6062.000	29.250	498.525	498.627
	2.	6062.000	19.500	498.677	498.780
	3.	6062.000	9.750	498.830	498.932
SPLICE 9-Y	4.	6062.000	.000	498.982	499.084
	5.	6062.000 -	9.750	498.830	498.932
	6.	6062.000 -	19.500	498.677	498.780
	7.	6062.000 -	29.250	498.525	498.627

SPAN 9 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6063.083	29.250	498.558	498.657
	2.	6063.083	19.500	498.710	498.809
	3.	6063.083	9.750	498.862	498.961
9-13	4.	6063.083	.000	499.015	499.114
	5.	6063.083 -	9.750	498.862	498.961
	6.	6063.083 -	19.500	498.710	498.809
	7.	6063.083 -	29.250	498.558	498.657
	1.	6073.083	29.250	498.858	498.927
	2.	6073.083	19.500	499.010	499.079
	3.	6073.083	9.750	499.162	499.232
9-14	4.	6073.083	.000	499.315	499.384
	5.	6073.083 -	9.750	499.162	499.232
	6.	6073.083 -	19.500	499.010	499.079
	7.	6073.083 -	29.250	498.858	498.927
	1.	6083.083	29.250	499.158	499.200
	2.	6083.083	19.500	499.310	499.352
	3.	6083.083	9.750	499.462	499.504
9-15	4.	6083.083	.000	499.615	499.657
	5.	6083.083 -	9.750	499.462	499.504
	6.	6083.083 -	19.500	499.310	499.352
	7.	6083.083 -	29.250	499.158	499.200
	1.	6093.083	29.250	499.458	499.475
	2.	6093.083	19.500	499.610	499.628
	3.	6093.083	9.750	499.762	499.780
9-16	4.	6093.083	.000	499.915	499.932
	5.	6093.083 -	9.750	499.762	499.780
	6.	6093.083 -	19.500	499.610	499.628
	7.	6093.083 -	29.250	499.458	499.475

SPAN 8

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6102.000	29.250	499.725	499.725
	2.	6102.000	19.500	499.877	499.877
	3.	6102.000	9.750	500.030	500.030
℄ BRG. PIER 8	4.	6102.000	.000	500.182	500.182
	5.	6102.000 -	9.750	500.030	500.030
	6.	6102.000 -	19.500	499.877	499.877
	7.	6102.000 -	29.250	499.725	499.725
	1.	6107.000	29.250	499.875	499.868
	2.	6107.000	19.500	500.027	500.020
	3.	6107.000	9.750	500.180	500.173
SPLICE 8-V	4.	6107.000	.000	500.332	500.325
	5.	6107.000 -	9.750	500.180	500.173
	6.	6107.000 -	19.500	500.027	500.020
	7.	6107.000 -	29.250	499.875	499.868
	1.	6112.000	29.250	500.025	500.011
	2.	6112.000	19.500	500.177	500.164
	3.	6112.000	9.750	500.330	500.316
8-1	4.	6112.000	.000	500.482	500.468
	5.	6112.000 -	9.750	500.330	500.316
	6.	6112.000 -	19.500	500.177	500.164
	7.	6112.000 -	29.250	500.025	500.011
	1.	6122.000	29.250	500.325	500.302
	2.	6122.000	19.500	500.477	500.454
	3.	6122.000	9.750	500.630	500.607
8-2	4.	6122.000	.000	500.782	500.759
	5.	6122.000 -	9.750	500.630	500.607
	6.	6122.000 -	19.500	500.477	500.454
	7.	6122.000 -	29.250	500.325	500.302
	1.	6132.000	29.250	500.625	500.597
	2.	6132.000	19.500	500.777	500.749
	3.	6132.000	9.750	500.930	500.901
8-3	4.	6132.000	.000	501.082	501.054
	5.	6132.000 -	9.750	500.930	500.901
	6.	6132.000 -	19.500	500.777	500.749
	7.	6132.000 -	29.250	500.625	500.597
	1.	6142.000	29.250	500.925	500.896
	2.	6142.000	19.500	501.077	501.048
	3.	6142.000	9.750	501.230	501.200
SPLICE 8-W	4.	6142.000	.000	501.382	501.353
	5.	6142.000 -	9.750	501.230	501.200
	6.	6142.000 -	19.500	501.077	501.048
	7.	6142.000 -	29.250	500.925	500.896
	1.	6152.000	29.250	501.225	501.198
	2.	6152.000	19.500	501.377	501.351
	3.	6152.000	9.750	501.530	501.503
8-4	4.	6152.000	.000	501.682	501.655
	5.	6152.000 -	9.750	501.530	501.503
	6.	6152.000 -	19.500	501.377	501.351
	7.	6152.000 -	29.250	501.225	501.198
	1.	6162.000	29.250	501.525	501.503
	2.	6162.000	19.500	501.677	501.655
	3.	6162.000	9.750	501.830	501.807
8-5	4.	6162.000	.000	501.982	501.960
	5.	6162.000 -	9.750	501.830	501.807
	6.	6162.000 -	19.500	501.677	501.655
	7.	6162.000 -	29.250	501.525	501.503
	1.	6172.000	29.250	501.825	501.807
	2.	6172.000	19.500	501.977	501.959
	3.	6172.000	9.750	502.130	502.112
8-6	4.	6172.000	.000	502.282	502.264
	5.	6172.000 -	9.750	502.130	502.112
	6.	6172.000 -	19.500	501.977	501.958
	7.	6172.000 -	29.250	501.825	501.807
	1.	6182.000	29.250	502.125	502.109
	2.	6182.000	19.500	502.277	502.261
	3.	6182.000	9.750	502.430	502.414
8-7	4.	6182.000	.000	502.582	502.566
	5.	6182.000 -	9.750	502.430	502.414
	6.	6182.000 -	19.500	502.277	502.261
	7.	6182.000 -	29.250	502.125	502.109

SPAN 8 (CONT.)

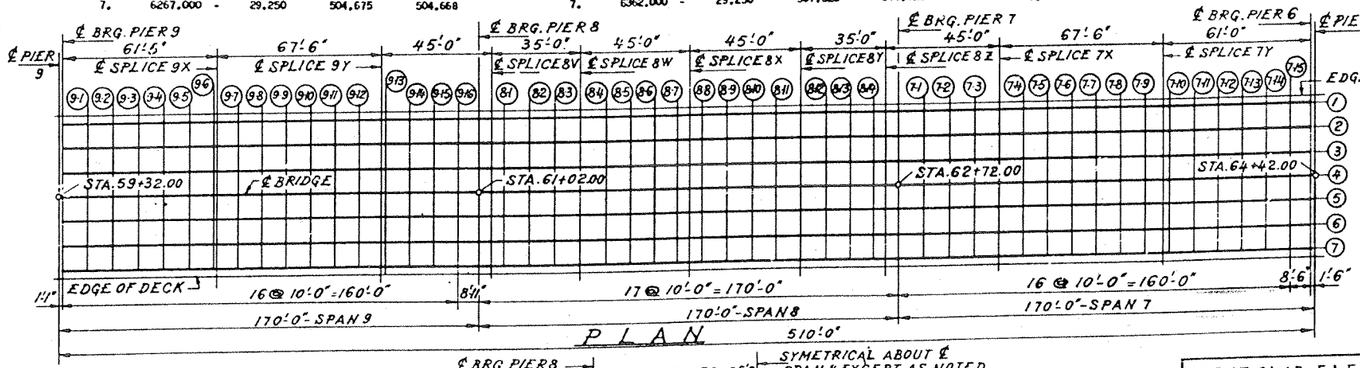
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6187.000	29.250	502.275	502.260
	2.	6187.000	19.500	502.427	502.412
	3.	6187.000	9.750	502.580	502.564
SPLICE 8-X	4.	6187.000	.000	502.732	502.717
	5.	6187.000 -	9.750	502.580	502.564
	6.	6187.000 -	19.500	502.427	502.412
	7.	6187.000 -	29.250	502.275	502.260
	1.	6192.000	29.250	502.425	502.409
	2.	6192.000	19.500	502.577	502.561
	3.	6192.000	9.750	502.730	502.714
8-8	4.	6192.000	.000	502.882	502.866
	5.	6192.000 -	9.750	502.730	502.714
	6.	6192.000 -	19.500	502.577	502.561
	7.	6192.000 -	29.250	502.425	502.409
	1.	6202.000	29.250	502.725	502.707
	2.	6202.000	19.500	502.877	502.859
	3.	6202.000	9.750	503.030	503.012
8-9	4.	6202.000	.000	503.182	503.164
	5.	6202.000 -	9.750	503.030	503.012
	6.	6202.000 -	19.500	502.877	502.859
	7.	6202.000 -	29.250	502.725	502.707
	1.	6212.000	29.250	503.025	503.003
	2.	6212.000	19.500	503.177	503.155
	3.	6212.000	9.750	503.330	503.307
8-10	4.	6212.000	.000	503.482	503.460
	5.	6212.000 -	9.750	503.330	503.307
	6.	6212.000 -	19.500	503.177	503.155
	7.	6212.000 -	29.250	503.025	503.003
	1.	6222.000	29.250	503.325	503.298
	2.	6222.000	19.500	503.477	503.451
	3.	6222.000	9.750	503.630	503.603
8-11	4.	6222.000	.000	503.782	503.755
	5.	6222.000 -	9.750	503.630	503.603
	6.	6222.000 -	19.500	503.477	503.451
	7.	6222.000 -	29.250	503.325	503.298
	1.	6232.000	29.250	503.625	503.596
	2.	6232.000	19.500	503.777	503.748
	3.	6232.000	9.750	503.930	503.900
SPLICE 8-Y	4.	6232.000	.000	504.082	504.053
	5.	6232.000 -	9.750	503.930	503.900
	6.	6232.000 -	19.500	503.777	503.748
	7.	6232.000 -	29.250	503.625	503.596
	1.	6242.000	29.250	503.925	503.897
	2.	6242.000	19.500	504.077	504.049
	3.	6242.000	9.750	504.230	504.201
8-12	4.	6242.000	.000	504.382	504.354
	5.	6242.000 -	9.750	504.230	504.201
	6.	6242.000 -	19.500	504.077	504.049
	7.	6242.000 -	29.250	503.925	503.897
	1.	6252.000	29.250	504.225	504.202
	2.	6252.000	19.500	504.377	504.354
	3.	6252.000	9.750	504.530	504.507
8-13	4.	6252.000	.000	504.682	504.659
	5.	6252.000 -	9.750	504.530	504.507
	6.	6252.000 -	19.500	504.377	504.354
	7.	6252.000 -	29.250	504.225	504.202
	1.	6262.000	29.250	504.525	504.511
	2.	6262.000	19.500	504.677	504.664
	3.	6262.000	9.750	504.830	504.816
8-14	4.	6262.000	.000	504.982	504.968
	5.	6262.000 -	9.750	504.830	504.816
	6.	6262.000 -	19.500	504.677	504.664
	7.	6262.000 -	29.250	504.525	504.511
	1.	6267.000	29.250	504.675	504.668
	2.	6267.000	19.500	504.827	504.820
SPLICE 8-Z	3.	6267.000	9.750	504.980	504.973
	4.	6267.000	.000	505.132	505.125
	5.	6267.000 -	9.750	504.980	504.973
	6.	6267.000 -	19.500	504.827	504.820
	7.	6267.000 -	29.250	504.675	504.668

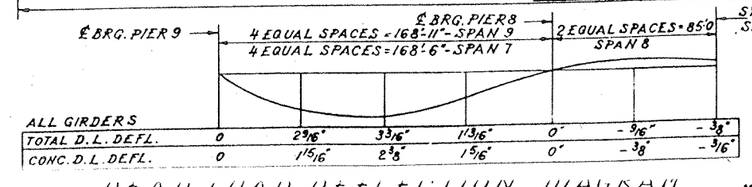
SPAN 7

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6272.000	29.250	504.825	504.825
	2.	6272.000	19.500	504.977	504.977
	3.	6272.000	9.750	505.130	505.130
℄ BRG. PIER 7	4.	6272.000	.000	505.282	505.282
	5.	6272.000 -	9.750	505.130	505.130
	6.	6272.000 -	19.500	504.977	504.977
	7.	6272.000 -	29.250	504.825	504.825
	1.	6282.000	29.250	505.125	505.145
	2.	6282.000	19.500	505.277	505.298
	3.	6282.000	9.750	505.430	505.450
7-1	4.	6282.000	.000	505.582	505.603
	5.	6282.000 -	9.750	505.430	505.450
	6.	6282.000 -	19.500	505.277	505.298
	7.	6282.000 -	29.250	505.125	505.145
	1.	6292.000	29.250	505.425	505.470
	2.	6292.000	19.500	505.577	505.622
	3.	6292.000	9.750	505.730	505.775
7-2	4.	6292.000	.000	505.882	505.927
	5.	6292.000 -	9.750	505.730	505.775
	6.	6292.000 -	19.500	505.577	505.622
	7.	6292.000 -	29.250	505.425	505.470
	1.	6302.000	29.250	505.725	505.798
	2.	6302.000	19.500	505.877	505.950
	3.	6302.000	9.750	506.030	506.102
7-3	4.	6302.000	.000	506.182	506.255
	5.	6302.000 -	9.750	506.030	506.102
	6.	6302.000 -	19.500	505.877	505.950
	7.	6302.000 -	29.250	505.725	505.798
	1.	6312.000	29.250	506.025	506.128
	2.	6312.000	19.500	506.177	506.280
	3.	6312.000	9.750	506.330	506.432
SPLICE 7-X	4.	6312.000	.000	506.482	506.585
	5.	6312.000 -	9.750	506.330	506.432
	6.	6312.000 -	19.500	506.177	506.280
	7.	6312.000 -	29.250	506.025	506.128
	1.	6322.000	29.250	506.325	506.457
	2.	6322.000	19.500	506.477	506.609
	3.	6322.000	9.750	506.630	506.762
7-4	4.	6322.000	.000	506.782	506.914
	5.	6322.000 -	9.750	506.630	506.762
	6.	6322.000 -	19.500	506.477	506.609
	7.	6322.000 -	29.250	506.325	506.457
	1.	6332.000	29.250	506.625	506.783
	2.	6332.000	19.500	506.777	506.935
	3.	6332.000	9.750	506.930	507.087
7-5	4.	6332.000	.000	507.082	507.240
	5.	6332.000 -	9.750	506.930	507.087
	6.	6332.000 -	19.500	506.777	506.935
	7.	6332.000 -	29.250	506.625	506.783
	1.	6342.000	29.250	506.925	507.103
	2.	6342.000	19.500	507.077	507.256
	3.	6342.000	9.750	507.230	507.408
7-6	4.	6342.000	.000	507.382	507.560
	5.	6342.000 -	9.750	507.230	507.408
	6.	6342.000 -	19.500	507.077	507.256
	7.	6342.000 -	29.250	506.925	507.103
	1.	6352.000	29.250	507.225	507.417
	2.	6352.000	19.500	507.377	507.570
	3.	6352.000	9.750	507.530	507.722
7-7	4.	6352.000	.000	507.682	507.874
	5.	6352.000 -	9.750	507.530	507.722
	6.	6352.000 -	19.500	507.377	507.570
	7.	6352.000 -	29.250	507.225	507.417
	1.	6362.000	29.250	507.525	507.725
	2.	6362.000	19.500	507.677	507.877
	3.	6362.000	9.750	507.830	508.029
℄ BRG. PIER 6	4.	6362.000	.000	507.982	508.182
	5.	6362.000 -	9.750	507.830	508.029
	6.	6362.000 -	19.500	507.677	507.877
	7.	6362.000 -	29.250	507.525	507.725

SPAN 7 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6372.000	29.250	507.825	508.024
	2.	6372.000	19.500	507.977	508.177
	3.	6372.000	9.750	508.130	508.329
7-9	4.	6372.000	.000	508.282	508.481
	5.	6372.000 -	9.750	508.130	508.329
	6.	6372.000 -	19.500	507.977	508.177
	7.	6372.000 -	29.250	507.825	508.024
	1.	6379.500	29.250	508.050	508.244
	2.	6379.500	19.500	508.202	508.396
	3.	6379.500	9.750	508.355	508.548
SPLICE 7-Y	4.	6379.500	.000	508.507	508.701
	5.	6379.500 -	9.750	508.355	508.548
	6.	6379.500 -	19.500	508.202	508.396
	7.	6379.500 -	29.250	508.050	508.244
	1.	6382.000	29.250	508.125	508.316
	2.	6382.000	19.500	508.277	508.468
	3.	6382.000	9.750	508.430	508.621
7-10	4.	6382.000	.000	508.582	508.773
	5.	6382.000 -	9.750	508.430	508.621
	6.	6382.000 -	19.500	508.277	508.468
	7.	6382.000 -	29.250	508.125	508.316
	1.	6392.000	29.250	508.425	508.599
	2.	6392.000	19.500	508.577	508.751
	3.	6392.000	9.750	508.730	508.904
7-11	4.	6392.000	.000	508.882	509.056
	5.	6392.000 -	9.750	508.730	508.904
	6.	6392.000 -	19.500	508.577	508.751
	7.	6392.000 -	29.250	508.425	508.599
	1.	6402.000	29.250	508.725	508.875
	2.	6402.000	19.500	508.877	509.027
	3.	6402.000	9.750	509.030	509.180
7-12	4.	6402.000	.000	509.182	509.332
	5.	6402.000 -	9.750	509.030	509.180
	6.	6402.000 -	19.500	508.877	509.027
	7.	6402.000 -	29.250	508.725	508.875
	1.	6412.000	29.250	509.025	509.144
	2.	6412.000	19.500	509.177	509.296
	3.	6412.000	9.750	509.330	509.448
7-13	4.	6412.000	.000	509.482	509.601
	5.	6412.000 -	9.750	509.330	509.448
	6.	6412.000 -	19.500	509.177	509.296
	7.	6412.000 -	29.250	509.025	509.144
	1.	6422.000	29.250	509.325	509.406
	2.	6422.000	19.500	509.477	509.559
	3.	6422.000	9.750	509.630	509.711
7-14	4.	6422.000	.000	509.782	509.863
	5.	6422.000 -	9.750	509.630	509.711
	6.	6422.000 -	19.500	509.477	509.559
	7.	6422.000 -	29.250	509.325	509.406
	1.	6432.000	29.250	509.625	509.664
	2.	6432.000	19.500	509.777	509.816
	3.	6432.000	9.750	509.930	509.968
7-15	4.	6432.000	.000	510.082	510.121
	5.	6432.000 -	9.750	509.930	509.968
	6.	6432.000 -	19.500	509.777	509.816
	7.	6432.000 -	29.250	509.625	509.664
	1.	6440.500	29.250	509.880	509.880
	2.	6440.500	19.500	510.032	510.032
	3.	6440.500	9.750	510.185	510.185
	4.	6440.500	.000	510.337	510.337
℄ BRG. PIER 6	5.	6440.500 -	9.750	510.185	510.185
	6.	6440.500 -	19.500	510.032	510.032
	7.	6440.500 -	29.250	509.880	509.880





DEAD LOAD DEFLECTION DIAGRAM

SYMETRICAL ABOUT ℄ SPAN 8 EXCEPT AS NOTED

NOTES

FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "L" SEE SHEET D1.

GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.

APPROVED

SEPTEMBER 27, 1967

TOP OF SLAB ELEVATIONS-SPANS 7, 8 & 9

F. A. I. ROUTE 180

OVER ILLINOIS RIVER

F. A. PROJECT I-180-7(6)0

SECTION (06-3,7,8-1) F & E.

BUREAU AND PUTNAM COUNTIES

10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F & E	BUREAU-PUTNAM	33	31
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 6	ILLINOIS	PROJECT	I-180-7(6)0	
				D5

SPAN 12

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5423.083	29.250	479.358	479.358
	2.	5423.083	19.500	479.510	479.510
	3.	5423.083	9.750	479.663	479.663
℄ Brg. Pier 12	4.	5423.083	.000	479.815	479.815
	5.	5423.083 -	9.750	479.663	479.663
	6.	5423.083 -	19.500	479.510	479.510
	7.	5423.083 -	29.250	479.358	479.358
	1.	5433.083	29.250	479.658	479.702
	2.	5433.083	19.500	479.810	479.855
	3.	5433.083	9.750	479.962	480.007
12-1	4.	5433.083	.000	480.115	480.160
	5.	5433.083 -	9.750	479.962	480.007
	6.	5433.083 -	19.500	479.810	479.855
	7.	5433.083 -	29.250	479.658	479.702
	1.	5443.083	29.250	479.958	480.044
	2.	5443.083	19.500	480.110	480.197
	3.	5443.083	9.750	480.262	480.349
12-2	4.	5443.083	.000	480.415	480.501
	5.	5443.083 -	9.750	480.262	480.349
	6.	5443.083 -	19.500	480.110	480.197
	7.	5443.083 -	29.250	479.958	480.044
	1.	5453.083	29.250	480.258	480.381
	2.	5453.083	19.500	480.410	480.533
	3.	5453.083	9.750	480.562	480.686
12-3	4.	5453.083	.000	480.715	480.838
	5.	5453.083 -	9.750	480.562	480.686
	6.	5453.083 -	19.500	480.410	480.533
	7.	5453.083 -	29.250	480.258	480.381
	1.	5463.083	29.250	480.558	480.711
	2.	5463.083	19.500	480.710	480.864
	3.	5463.083	9.750	480.862	481.016
12-4	4.	5463.083	.000	481.015	481.168
	5.	5463.083 -	9.750	480.862	481.016
	6.	5463.083 -	19.500	480.710	480.864
	7.	5463.083 -	29.250	480.558	480.711
	1.	5473.083	29.250	480.858	481.035
	2.	5473.083	19.500	481.010	481.187
	3.	5473.083	9.750	481.162	481.339
12-5	4.	5473.083	.000	481.315	481.492
	5.	5473.083 -	9.750	481.162	481.339
	6.	5473.083 -	19.500	481.010	481.187
	7.	5473.083 -	29.250	480.858	481.035
	1.	5483.083	29.250	481.158	481.350
	2.	5483.083	19.500	481.310	481.502
	3.	5483.083	9.750	481.462	481.658
12-6	4.	5483.083	.000	481.615	481.807
	5.	5483.083 -	9.750	481.462	481.658
	6.	5483.083 -	19.500	481.310	481.502
	7.	5483.083 -	29.250	481.158	481.350
	1.	5484.500	29.250	481.200	481.384
	2.	5484.500	19.500	481.352	481.546
	3.	5484.500	9.750	481.505	481.699
Splice 12X	4.	5484.500	.000	481.657	481.851
	5.	5484.500 -	9.750	481.505	481.699
	6.	5484.500 -	19.500	481.352	481.546
	7.	5484.500 -	29.250	481.200	481.394
	1.	5493.083	29.250	481.458	481.657
	2.	5493.083	19.500	481.610	481.810
	3.	5493.083	9.750	481.762	481.962
12-7	4.	5493.083	.000	481.915	482.114
	5.	5493.083 -	9.750	481.762	481.962
	6.	5493.083 -	19.500	481.610	481.810
	7.	5493.083 -	29.250	481.458	481.657
	1.	5503.083	29.250	481.758	481.957
	2.	5503.083	19.500	481.910	482.109
	3.	5503.083	9.750	482.062	482.261
12-8	4.	5503.083	.000	482.215	482.414
	5.	5503.083 -	9.750	482.062	482.261
	6.	5503.083 -	19.500	481.910	482.109
	7.	5503.083 -	29.250	481.758	481.957
	1.	5513.083	29.250	482.058	482.249
	2.	5513.083	19.500	482.210	482.401
	3.	5513.083	9.750	482.362	482.553
12-9	4.	5513.083	.000	482.515	482.706
	5.	5513.083 -	9.750	482.362	482.553
	6.	5513.083 -	19.500	482.210	482.401
	7.	5513.083 -	29.250	482.058	482.249
	1.	5523.083	29.250	482.358	482.534
	2.	5523.083	19.500	482.510	482.686
	3.	5523.083	9.750	482.662	482.838
12-10	4.	5523.083	.000	482.815	482.991
	5.	5523.083 -	9.750	482.662	482.838
	6.	5523.083 -	19.500	482.510	482.686
	7.	5523.083 -	29.250	482.358	482.534
	1.	5533.083	29.250	482.658	482.813
	2.	5533.083	19.500	482.810	482.965
	3.	5533.083	9.750	482.962	483.117
12-11	4.	5533.083	.000	483.115	483.270
	5.	5533.083 -	9.750	482.962	483.117
	6.	5533.083 -	19.500	482.810	482.965
	7.	5533.083 -	29.250	482.658	482.813
	1.	5543.083	29.250	482.958	483.086
	2.	5543.083	19.500	483.110	483.238
	3.	5543.083	9.750	483.262	483.391
12-12	4.	5543.083	.000	483.415	483.543
	5.	5543.083 -	9.750	483.262	483.391
	6.	5543.083 -	19.500	483.110	483.238
	7.	5543.083 -	29.250	482.958	483.086
	1.	5552.000	29.250	483.225	483.327
	2.	5552.000	19.500	483.377	483.480
	3.	5552.000	9.750	483.530	483.632
Splice 12Y	4.	5552.000	.000	483.682	483.784
	5.	5552.000 -	9.750	483.530	483.632
	6.	5552.000 -	19.500	483.377	483.480
	7.	5552.000 -	29.250	483.225	483.327

SPAN 12 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5553.083	29.250	483.258	483.357
	2.	5553.083	19.500	483.410	483.509
	3.	5553.083	9.750	483.562	483.661
12-13	4.	5553.083	.000	483.715	483.814
	5.	5553.083 -	9.750	483.562	483.661
	6.	5553.083 -	19.500	483.410	483.509
	7.	5553.083 -	29.250	483.258	483.357
	1.	5563.083	29.250	483.558	483.627
	2.	5563.083	19.500	483.710	483.779
	3.	5563.083	9.750	483.862	483.932
12-14	4.	5563.083	.000	484.015	484.084
	5.	5563.083 -	9.750	483.862	483.932
	6.	5563.083 -	19.500	483.710	483.779
	7.	5563.083 -	29.250	483.558	483.627
	1.	5573.083	29.250	483.858	483.900
	2.	5573.083	19.500	484.010	484.052
	3.	5573.083	9.750	484.162	484.204
12-15	4.	5573.083	.000	484.315	484.357
	5.	5573.083 -	9.750	484.162	484.204
	6.	5573.083 -	19.500	484.010	484.052
	7.	5573.083 -	29.250	483.858	483.900
	1.	5583.083	29.250	484.158	484.175
	2.	5583.083	19.500	484.310	484.328
	3.	5583.083	9.750	484.462	484.480
12-16	4.	5583.083	.000	484.615	484.632
	5.	5583.083 -	9.750	484.462	484.480
	6.	5583.083 -	19.500	484.310	484.328
	7.	5583.083 -	29.250	484.158	484.175

SPAN 11

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5592.000	29.250	484.425	484.425
	2.	5592.000	19.500	484.577	484.577
	3.	5592.000	9.750	484.730	484.730
℄ Brg. Pier 11	4.	5592.000	.000	484.882	484.882
	5.	5592.000 -	9.750	484.730	484.730
	6.	5592.000 -	19.500	484.577	484.577
	7.	5592.000 -	29.250	484.425	484.425
	1.	5597.000	29.250	484.575	484.568
	2.	5597.000	19.500	484.727	484.720
	3.	5597.000	9.750	484.880	484.873
Splice 11V	4.	5597.000	.000	485.032	485.025
	5.	5597.000 -	9.750	484.880	484.873
	6.	5597.000 -	19.500	484.727	484.720
	7.	5597.000 -	29.250	484.575	484.568
	1.	5607.000	29.250	484.725	484.711
	2.	5607.000	19.500	484.877	484.864
	3.	5607.000	9.750	485.030	485.016
11-1	4.	5607.000	.000	485.182	485.168
	5.	5607.000 -	9.750	485.030	485.016
	6.	5607.000 -	19.500	484.877	484.864
	7.	5607.000 -	29.250	484.725	484.711
	1.	5612.000	29.250	485.025	485.002
	2.	5612.000	19.500	485.177	485.154
	3.	5612.000	9.750	485.330	485.307
11-2	4.	5612.000	.000	485.482	485.459
	5.	5612.000 -	9.750	485.330	485.307
	6.	5612.000 -	19.500	485.177	485.154
	7.	5612.000 -	29.250	485.025	485.002
	1.	5622.000	29.250	485.325	485.297
	2.	5622.000	19.500	485.477	485.449
	3.	5622.000	9.750	485.630	485.601
11-3	4.	5622.000	.000	485.782	485.754
	5.	5622.000 -	9.750	485.630	485.601
	6.	5622.000 -	19.500	485.477	485.449
	7.	5622.000 -	29.250	485.325	485.297
	1.	5632.000	29.250	485.625	485.596
	2.	5632.000	19.500	485.777	485.748
	3.	5632.000	9.750	485.930	485.900
Splice 11W	4.	5632.000	.000	486.082	486.053
	5.	5632.000 -	9.750	485.930	485.900
	6.	5632.000 -	19.500	485.777	485.748
	7.	5632.000 -	29.250	485.625	485.596
	1.	5642.000	29.250	485.925	485.898
	2.	5642.000	19.500	486.077	486.051
	3.	5642.000	9.750	486.230	486.203
11-4	4.	5642.000	.000	486.382	486.355
	5.	5642.000 -	9.750	486.230	486.203
	6.	5642.000 -	19.500	486.077	486.051
	7.	5642.000 -	29.250	485.925	485.898
	1.	5652.000	29.250	486.225	486.203
	2.	5652.000	19.500	486.377	486.355
	3.	5652.000	9.750	486.530	486.507
11-5	4.	5652.000	.000	486.682	486.660
	5.	5652.000 -	9.750	486.530	486.507
	6.	5652.000 -	19.500	486.377	486.355
	7.	5652.000 -	29.250	486.225	486.203
	1.	5662.000	29.250	486.525	486.507
	2.	5662.000	19.500	486.677	486.659
	3.	5662.000	9.750	486.830	486.812
	4.	5662.000	.000	486.982	486.964
11-6	5.	5662.000 -	9.750	486.830	486.812
	6.	5662.000 -	19.500	486.677	486.659
	7.	5662.000 -	29.250	486.525	486.507
	1.	5672.000	29.250	486.825	486.809
	2.	5672.000	19.500	486.977	486.961
	3.	5672.000	9.750	487.130	487.114
11-7	4.	5672.000	.000	487.282	487.266
	5.	5672.000	9.750	487.130	487.114
	6.	5672.000	19.500	486.977	486.961
	7.	5672.000	29.250	486.825	486.809

SPAN 11 (CONT.)

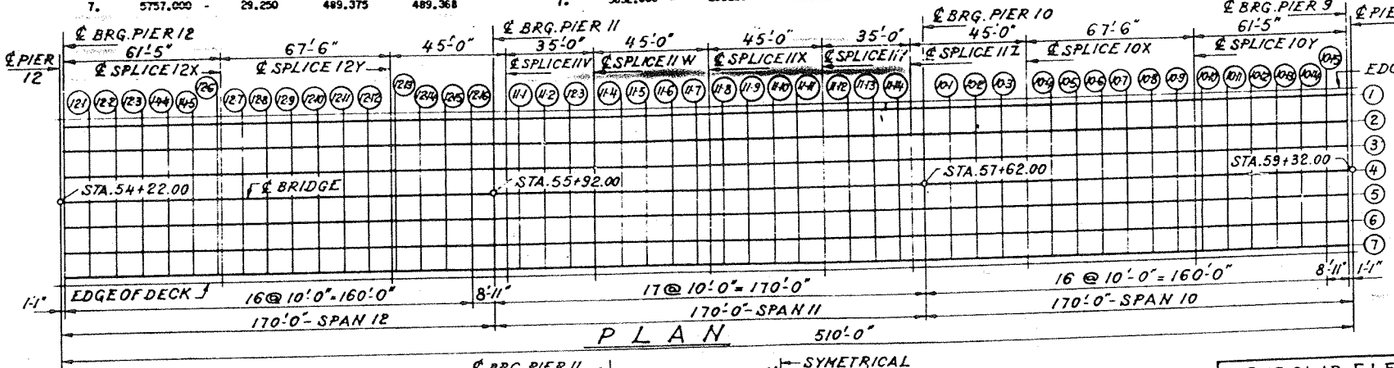
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5677.000	29.250	486.975	486.960
	2.	5677.000	19.500	487.127	487.112
	3.	5677.000	9.750	487.280	487.264
	4.	5677.000	.000	487.432	487.417
Splice 11X	5.	5677.000 -	9.750	487.280	487.264
	6.	5677.000 -	19.500	487.127	487.112
	7.	5677.000 -	29.250	486.975	486.960
	1.	5682.000	29.250	487.125	487.109
	2.	5682.000	19.500	487.277	487.261
	3.	5682.000	9.750	487.430	487.414
11-8	4.	5682.000	.000	487.582	487.566
	5.	5682.000 -	9.750	487.430	487.414
	6.	5682.000 -	19.500	487.277	487.261
	7.	5682.000 -	29.250	487.125	487.109
	1.	5692.000	29.250	487.425	487.407
	2.	5692.000	19.500	487.577	487.559
	3.	5692.000	9.750	487.730	487.712
11-9	4.	5692.000	.000	487.882	487.864
	5.	5692.000 -	9.750	487.730	487.712
	6.	5692.000 -	19.500	487.577	487.559
	7.	5692.000 -	29.250	487.425	487.407
	1.	5702.000	29.250	487.725	487.703
	2.	5702.000	19.500	487.877	487.855
	3.	5702.000	9.750	488.030	488.007
11-10	4.	5702.000	.000	488.182	488.160
	5.	5702.000 -	9.750	488.030	488.007
	6.	5702.000 -	19.500	487.877	487.855
	7.	5702.000 -	29.250	487.725	487.703
	1.	5712.000	29.250	488.025	487.998
	2.	5712.000	19.500	488.177	488.151
	3.	5712.000	9.750	488.330	488.303
11-11	4.	5712.000	.000	488.482	488.455
	5.	5712.000 -	9.750	488.330	488.303
	6.	5712.000 -	19.500	488.177	488.151
	7.	5712.000 -	29.250	488.025	487.998
	1.	5722.000	29.250	488.325	488.296
	2.	5722.000	19.500	488.477	488.448
	3.	5722.000	9.750	488.630	488.600
Splice 11Y	4.	5722.000	.000	488.782	488.753
	5.	5722.000 -	9.750	488.630	488.600
	6.	5722.000 -	19.500	488.477	488.448
	7.	5722.000 -	29.250	488.325	488.296
	1.	5732.000	29.250	488.625	488.597
	2.	5732.000	19.500	488.777	488.749
	3.	5732.000	9.750	488.930	488.901
11-12	4.	5732.000	.000	489.082	489.054
	5.	5732.000 -	9.750	488.930	488.901
	6.	5732.000 -	19.500	488.777	488.749
	7.	5732.000 -	29.250	488.625	488.597
	1.	5742.000	29.250	488.925	488.902
	2.	5742.000	19.500	489.077	489.054
	3.	5742.000	9.750	489.230	489.207
11-13	4.	5742.000	.000	489.382	489.358
	5.	5742.000 -	9.750	489.230	489.207
	6.	5742.000 -	19.500	489.077	489.054
	7.	5742.000 -	29.250	488.925	488.902
	1.	5752.000	29.250	489.225	489.211
	2.	5752.000	19.500	489.377	489.364
	3.	5752.000	9.750	489.530	489.516
11-14	4.	5752.000	.000	489.682	489.668
	5.	5752.000 -	9.750	489.530	489.516
	6.	5752.000 -	19.500	489.377	489.364
	7.	5752.000 -	29.250	489.225	489.211
	1.	5757.000	29.250	489.375	489.368
	2.	5757.000	19.500	489.527	489.520
	3.	5757.000	9.750	489.680	489.673
Splice 11Z	4.	5757.000	.000	489.832	489.815
	5.	5757.000 -	9.750	489.680	489.673
	6.	5757.000 -	19.500	489.527	489.520
	7.	5757.000 -	29.250	489.375	489.368

SPAN 10

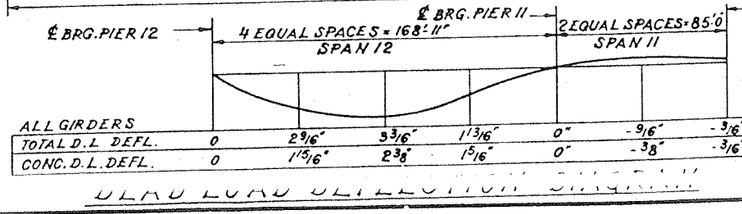
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5762.000	29.250	489.525	489.525
	2.	5762.000	19.500	489.677	489.677
	3.	5762.000	9.750	489.830	489.830
℄ Brg. Pier 10	4.	5762.000	.000	489.982	489.982
	5.	5762.000 -	9.750	489.830	489.830
	6.	5762.000 -	19.500	489.677	489.677
	7.	5762.000 -	29.250	489.525	489.525
	1.	5772.000	29.250	489.825	489.845
	2.	5772.000	19.500	489.977	489.998
	3.	5772.000	9.750	490.130	490.150
10-1	4.	5772.000	.000	490.282	490.302
	5.	5772.000 -	9.750	490.130	490.150
	6.	5772.000 -	19.500	489.977	489.998
	7.	5772.000 -	29.250	489.825	489.845
	1.	5782.000	29.250	490.125	490.170
	2.	5782.000	19.500	490.277	490.322
	3.	5782.000	9.750	490.430	490.475
10-2	4.	5782.000	.000	490.582	490.627
	5.	5782.000 -	9.750	490.430	490.475
	6.	5782.000 -	19.500	490.277	490.322
	7.	5782.000 -	29.250	490.125	490.170
	1.	5792.000	29.250	490.425	490.498
	2.	5792.000	19.500	490.577	490.650
	3.	5792.000	9.750	490.730	490.802
10-3	4.	5792.000	.000	490.882	490.955
	5.	5792.000 -	9.750	490.730	490.802
	6.	5792.000 -	19.500	490.577	490.650
	7.	5792.000 -	29.250	490.425	490.498
	1.	5802.000	29.250	490.725	490.827
	2.	5802.000	19.500	490.877	490.980
	3.	5802.000	9.750	491.030	491.132
Splice 10X	4.	5802.000	.000	491.182	491.284
	5.	5802.000 -	9.750	491.030	491.132
	6.	5802.000 -	19.500	490.877	490.980
	7.	5802.000 -	29.250	490.725	490.827
	1.	5812.000	29.250	491.025	491.157
	2.	5812.000	19.500	491.177	491.309
	3.	5812.000	9.750	491.330	491.461
10-4	4.	5812.000	.000	491.482	491.614
	5.	5812.000 -	9.750	491.330	491.461
	6.	5812.000 -	19.500	491.177	491.309
	7.	5812.000 -	29.250	491.025	491.157
	1.	5822.000	29.250	491.325	491.482
	2.	5822.000	19.500	491.477	491.635
	3.	5822.000	9.750	491.630	491.787
10-5	4.	5822.000	.000	491.782	491.940
	5.	5822.000 -	9.750	491.630	491.787
	6.	5822.000 -	19.500	491.477	491.635
	7.	5822.000 -	29.250	491.325	491.482
	1.	5832.000	29.250	491.625	491.803
	2.	5832.000	19.500	491.777	491.955
	3.	5832.000	9.750	491.930	492.108
10-6	4.	5832.000	.000	492.082	492.260
	5.	5832.000 -	9.750	491.930	492.108
	6.	5832.000 -	19.500	491.777	491.955
	7.	5832.000 -	29.250	491.625	491.803
	1.	5842.000	29.250	491.925	492.117
	2.	5842.000	19.500	492.077	492.270
	3.	5842.000	9.750	492.230	492.422
10-7	4.	5842.000	.000	492.382	492.574
	5.	5842.000 -	9.750	492.230	492.422
	6.	5842.000 -	19.500	492.077	492.270
	7.	5842.000 -	29.250	491.925	492.117
	1.	5852.000	29.250	492.225	492.425
	2.	5852.000	19.500	492.377	492.577
	3.	5852.000	9.750	492.530	492.729
℄ Brg. Pier 9	4.	5852.000	.000	492.682	492.882
10-8	4.	5852.000	.000	492.682	492.729
	5.	5852.000 -	9.750	492.530	492.729
	6.	5852.000 -	19.500	492.377	492.577
	7.	5852.000 -	29.250	492.225	492.425

SPAN 10 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	5862.000	29.250	492.525	492.724
	2.	5862.000	19.500	492.677	492.877
	3.	5862.000	9.750	492.830	493.029
10-9	4.	5862.000	.000	492.982	493.181
	5.	5862.000 -	9.750	492.830	493.029
	6.	5862.000 -	19.500	492.677	492.877
	7.	5862.000 -	29.250	492.525	492.724
	1.	5869.500	29.250	492.750	492.944
	2.	5869.500	19.500	492.902	493.096
	3.	5869.500	9.750	493.055	493.249
Splice 10Y	4.	5869.500	.000	493.207	493.406
	5.	5869.500 -	9.750	493.055	493.249
	6.	5869.500 -	19.500	492.902	493.096
	7.	5869.500 -	29.250	492.750	492.944
	1.	5872.000	29.250	492.825	493.017
	2.	5872.000	19.500	492.977	493.169
	3.	5872.000	9.750	493.130	493.321
10-10	4.	5872.000	.000	493.282	493.474
	5.	5872.000 -	9.750	493.130	493.321
	6.	5872.000 -	19.500	492.977	493.169
	7.	5872.000 -	29.250	492.825	493.017
	1.	5882.000	29.250	493.125	493.300
	2.	5882.000	19.500	493.277	493.452
	3.	5882.000	9.750	493.430	493.604
10-11	4.	5882.000	.000	493.582	493.757
	5.	5882.000 -	9.750	493.430	493.604
	6.	5882.000 -	19.500	493.277	493.452
	7.	5882.000 -	29.250	493.125	493.300
	1.	5892.000	29.250	493.425	493.576
	2.	5892.000	19.500	493.577	493.728
	3.	5892.000	9.750	493.730	493.880
10-12	4.	5892.000	.000	493.882	494.033
	5.	5892.000 -	9.750	493.730	493.880
	6.	5892.000 -	19.500	493.577	493.728
	7.	5892.000 -	29.250	493.425	493.576
	1.	5902.000	29.250	493.725	493.845
	2.	5902.000	19.500	493.877	493.997
	3.	5902.000	9.750	494.030	494.149
10-13	4.	5902.000	.000	494.182	494.302
	5.	5902.000 -	9.750	494.030	494.149
	6.	5902.000 -	19.500	493.877	493.997
	7.	5902.000 -	29.250	493.725	493.845
	1.	5912.000	29.250	494.025	494.108
	2.	5912.000	19.500	494.177	494.260
	3.	5912.000	9.750	494.330	494.412
10-14	4.	5912.000	.000	494.482	494.565
	5.	5912.000 -	9.750	494.330	494.412
	6.	5912.000 -	19.500	494.177	494.260
	7.	5912.000 -	29.250	494.025	494.108
	1.	5922.000	29.250	494.325	494.365
	2.	5922.000	19.500	494.477	494.518
	3.	5922.000	9.750	494.630	494.670
10-15	4.	5922.000	.000	494.782	494.822
	5.	5922.000 -	9.750	494.630	494.670
	6.	5922.000 -	19.500	494.477	494.518
	7.	5922.000 -	29.250	494.325	494.365
	1.	5930.916	29.250	494.593	494.593
	2.	5930.916	19.500	494.745	494.745
	3.	5930.916	9.750	494.897	494.897
℄ Brg. Pier 9	4.	5930.916	.000	495.050	495.050
	4.	5930.916	.000	494.897	494.897
	5.	5930.916 -	9.750	494.745	494.745
	6.	5930.916 -	19.500	494.593	494.593
	7.	5930.916 -	29.250	494.593	494.593



PLAN 510'-0"



NOTES

FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "C" SEE SHEET D1.
GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.

DEAD LOAD DEFLECTION DIAGRAM

HARZA ENGINEERING COMPANY, CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE

APPROVED
FOR STRUCTURES
9-27-67

SEPTEMBER 27, 1967

TOP OF SLAB ELEVATIONS-SPANS 10, 11 & 12
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F & E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	06-3,78-1 F & E	BUREAU - PUTNAM	33	32
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0	D6

SPAN 6

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6442.833	29.250	509.950	509.950
	2.	6442.833	19.500	510.102	510.102
	3.	6442.833	9.750	510.255	510.255
BRG.	4.	6442.833	.000	510.407	510.407
PIER 6	5.	6442.833 -	9.750	510.255	510.255
	6.	6442.833 -	19.500	510.102	510.102
	7.	6442.833 -	29.250	509.950	509.950
	1.	6452.833	29.250	510.250	510.306
	2.	6452.833	19.500	510.402	510.466
	3.	6452.833	9.750	510.555	510.619
6-1	4.	6452.833	.000	510.707	510.771
	5.	6452.833 -	9.750	510.555	510.619
	6.	6452.833 -	19.500	510.402	510.466
	7.	6452.833 -	29.250	510.250	510.306
	1.	6462.833	29.250	510.550	510.660
	2.	6462.833	19.500	510.702	510.828
	3.	6462.833	9.750	510.855	510.981
	4.	6462.833	.000	511.007	511.133
6-2	5.	6462.833 -	9.750	510.855	510.981
	6.	6462.833 -	19.500	510.702	510.828
	7.	6462.833 -	29.250	510.550	510.660
	1.	6472.833	29.250	510.850	511.012
	2.	6472.833	19.500	511.002	511.188
	3.	6472.833	9.750	511.155	511.340
	4.	6472.833	.000	511.307	511.492
6-3	5.	6472.833 -	9.750	511.155	511.340
	6.	6472.833 -	19.500	511.002	511.188
	7.	6472.833 -	29.250	510.850	511.012
	1.	6482.833	29.250	511.150	511.358
	2.	6482.833	19.500	511.302	511.539
	3.	6482.833	9.750	511.455	511.692
	4.	6482.833	.000	511.607	511.844
6-4	5.	6482.833 -	9.750	511.455	511.692
	6.	6482.833 -	19.500	511.302	511.539
	7.	6482.833 -	29.250	511.150	511.358
	1.	6492.833	29.250	511.450	511.700
	2.	6492.833	19.500	511.602	511.786
	3.	6492.833	9.750	511.755	511.938
	4.	6492.833	.000	511.907	512.090
6-5	5.	6492.833 -	9.750	511.755	511.938
	6.	6492.833 -	19.500	511.602	511.786
	7.	6492.833 -	29.250	511.450	511.700
	1.	6499.500	29.250	511.650	511.925
	2.	6499.500	19.500	511.802	511.884
	3.	6499.500	9.750	511.955	512.036
	4.	6499.500	.000	512.107	512.188
SPL. 6V	5.	6499.500 -	9.750	511.955	512.036
	6.	6499.500 -	19.500	511.802	511.884
	7.	6499.500 -	29.250	511.650	511.925
	1.	6502.833	29.250	511.750	512.037
	2.	6502.833	19.500	511.902	511.935
	3.	6502.833	9.750	512.055	512.087
6-6	4.	6502.833	.000	512.207	512.240
	5.	6502.833 -	9.750	512.055	512.087
	6.	6502.833 -	19.500	511.902	511.935
	7.	6502.833 -	29.250	511.750	512.037
	1.	6512.833	29.250	512.050	512.368
	2.	6512.833	19.500	512.202	512.538
	3.	6512.833	9.750	512.355	512.391
	4.	6512.833	.000	512.507	512.543
6-7	5.	6512.833 -	9.750	512.355	512.391
	6.	6512.833 -	19.500	512.202	512.238
	7.	6512.833 -	29.250	512.050	512.368

SPAN 6 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6522.833	29.250	512.350	512.693
	2.	6522.833	19.500	512.502	512.671
	3.	6522.833	9.750	512.655	512.823
6 8	4.	6522.833	.000	512.807	512.975
	5.	6522.833 -	9.750	512.655	512.823
	6.	6522.833 -	19.500	512.502	512.671
	7.	6522.833 -	29.250	512.350	512.693
	1.	6532.833	29.250	512.650	513.013
	2.	6532.833	19.500	512.802	513.215
	3.	6532.833	9.750	512.954	513.368
6 9	4.	6532.833	.000	513.107	513.520
	5.	6532.833 -	9.750	512.954	513.368
	6.	6532.833 -	19.500	512.802	513.215
	7.	6532.833 -	29.250	512.650	513.013
	1.	6542.833	29.250	512.947	513.321
	2.	6542.833	19.500	513.099	513.525
	3.	6542.833	9.750	513.251	513.677
6-10	4.	6542.833	.000	513.404	513.830
	5.	6542.833 -	9.750	513.251	513.677
	6.	6542.833 -	19.500	513.099	513.525
	7.	6542.833 -	29.250	512.947	513.321
	1.	6552.833	29.250	513.240	513.621
	2.	6552.833	19.500	513.392	513.826
	3.	6552.833	9.750	513.545	513.978
	4.	6552.833	.000	513.697	514.130
6-11	5.	6552.833 -	9.750	513.545	513.978
	6.	6552.833 -	19.500	513.392	513.826
	7.	6552.833 -	29.250	513.240	513.621
	1.	6557.000	29.250	513.361	513.743
	2.	6557.000	19.500	513.513	513.948
	3.	6557.000	9.750	513.666	514.100
SPL. 6W	4.	6557.000	.000	513.818	514.253
	5.	6557.000 -	9.750	513.666	514.100
	6.	6557.000 -	19.500	513.513	513.948
	7.	6557.000 -	29.250	513.361	513.743
	1.	6562.833	29.250	513.530	513.913
	2.	6562.833	19.500	513.682	514.118
	3.	6562.833	9.750	513.834	514.270
6-12	4.	6562.833	.000	513.987	514.423
	5.	6562.833 -	9.750	513.834	514.270
	6.	6562.833 -	19.500	513.682	514.118
	7.	6562.833 -	29.250	513.530	513.913
	1.	6572.833	29.250	513.816	514.192
	2.	6572.833	19.500	513.968	514.396
	3.	6572.833	9.750	514.121	514.548
6-13	4.	6572.833	.000	514.273	514.701
	5.	6572.833 -	9.750	514.121	514.548
	6.	6572.833 -	19.500	513.968	514.396
	7.	6572.833 -	29.250	513.816	514.192
	1.	6582.833	29.250	514.099	514.464
	2.	6582.833	19.500	514.251	514.666
	3.	6582.833	9.750	514.404	514.819
6-14	4.	6582.833	.000	514.556	514.971
	5.	6582.833 -	9.750	514.404	514.819
	6.	6582.833 -	19.500	514.251	514.666
	7.	6582.833 -	29.250	514.099	514.464
	1.	6592.833	29.250	514.378	514.728
	2.	6592.833	19.500	514.530	514.928
	3.	6592.833	9.750	514.683	515.081
6-15	4.	6592.833	.000	514.835	515.233
	5.	6592.833 -	9.750	514.683	515.081
	6.	6592.833 -	19.500	514.530	514.928
	7.	6592.833 -	29.250	514.378	514.728

SPAN 6 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6602.833	29.250	514.654	514.982
	2.	6602.833	19.500	514.806	515.179
	3.	6602.833	9.750	514.958	515.332
6-16	4.	6602.833	.000	515.111	515.484
	5.	6602.833 -	9.750	514.958	515.332
	6.	6602.833 -	19.500	514.806	515.179
	7.	6602.833 -	29.250	514.654	514.982
	1.	6612.833	29.250	514.926	515.229
	2.	6612.833	19.500	515.078	515.423
	3.	6612.833	9.750	515.231	515.575
6-17	4.	6612.833	.000	515.383	515.728
	5.	6612.833 -	9.750	515.231	515.575
	6.	6612.833 -	19.500	515.078	515.423
	7.	6612.833 -	29.250	514.926	515.229
	1.	6614.500	29.250	514.971	515.269
	2.	6614.500	19.500	515.123	515.463
	3.	6614.500	9.750	515.276	515.615
SPL. 6X	4.	6614.500	.000	515.428	515.768
	5.	6614.500	9.750	515.276	515.615
	6.	6614.500	19.500	515.123	515.463
	7.	6614.500 -	29.250	514.971	515.269
	1.	6622.833	29.250	515.195	515.470
	2.	6622.833	19.500	515.347	515.660
	3.	6622.833	9.750	515.499	515.812
6-18	4.	6622.833	.000	515.652	515.965
	5.	6622.833 -	9.750	515.499	515.812
	6.	6622.833 -	19.500	515.347	515.660
	7.	6622.833 -	29.250	515.195	515.470
	1.	6632.833	29.250	515.460	515.704
	2.	6632.833	19.500	515.612	515.890
	3.	6632.833	9.750	515.764	516.042
6-19	4.	6632.833	.000	515.917	516.195
	5.	6632.833 -	9.750	515.764	516.042
	6.	6632.833 -	19.500	515.612	515.890
	7.	6632.833 -	29.250	515.460	515.704
	1.	6642.833	29.250	515.721	515.933
	2.	6642.833	19.500	515.874	516.115
	3.	6642.833	9.750	516.026	516.267
6 20	4.	6642.833	.000	516.178	516.419
	5.	6642.833 -	9.750	516.026	516.267
	6.	6642.833 -	19.500	515.874	516.115
	7.	6642.833 -	29.250	515.721	515.933
	1.	6652.833	29.250	515.979	516.158
	2.	6652.833	19.500	516.132	516.335
	3.	6652.833	9.750	516.284	516.487
6-21	4.	6652.833	.000	516.436	516.638
	5.	6652.833 -	9.750	516.284	516.487
	6.	6652.833 -	19.500	516.132	516.335
	7.	6652.833 -	29.250	515.979	516.158
	1.	6662.833	29.250	516.234	516.381
	2.	6662.833	19.500	516.386	516.553
	3.	6662.833	9.750	516.539	516.705
6-22	4.	6662.833	.000	516.691	516.858
	5.	6662.833 -	9.750	516.539	516.705
	6.	6662.833 -	19.500	516.386	516.553
	7.	6662.833 -	29.250	516.234	516.381
	1.	6672.000	29.250	516.464	516.583
	2.	6672.000	19.500	516.616	516.752
	3.	6672.000	9.750	516.769	516.904
SPL. 6Y	4.	6672.000	.000	516.921	517.056
	5.	6672.000 -	9.750	516.769	516.904
	6.	6672.000 -	19.500	516.616	516.752
	7.	6672.000 -	29.250	516.464	516.583

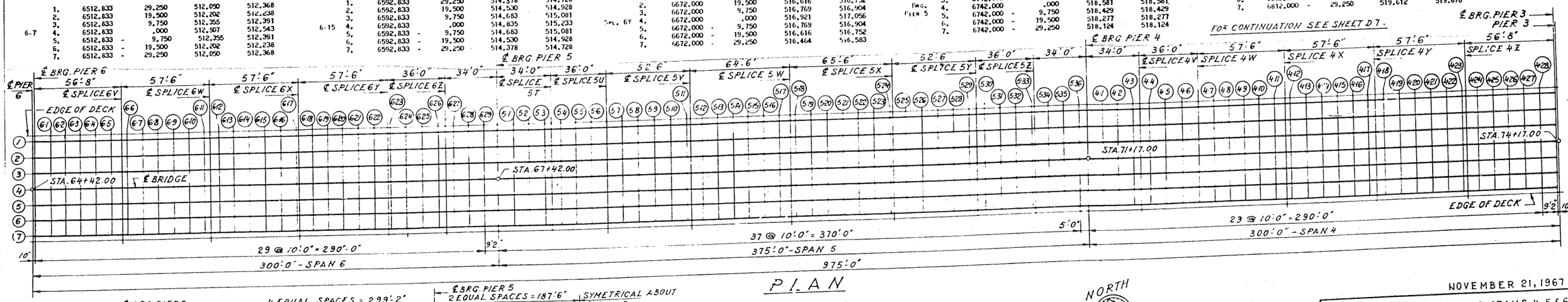
SPAN 6 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6672.833	29.250	516.485	516.602
	2.	6672.833	19.500	516.637	516.770
	3.	6672.833	9.750	516.790	516.922
6-23	4.	6672.833	.000	516.942	517.074
	5.	6672.833 -	9.750	516.790	516.922
	6.	6672.833 -	19.500	516.637	516.770
	7.	6672.833 -	29.250	516.485	516.602
	1.	6682.833	29.250	516.732	516.821
	2.	6682.833	19.500	516.885	516.985
	3.	6682.833	9.750	517.037	517.137
6-24	4.	6682.833	.000	517.189	517.290
	5.	6682.833 -	9.750	517.037	517.137
	6.	6682.833 -	19.500	516.885	516.985
	7.	6682.833 -	29.250	516.732	516.821
	1.	6692.833	29.250	516.976	517.041
	2.	6692.833	19.500	517.129	517.203
	3.	6692.833	9.750	517.281	517.355
6-25	4.	6692.833	.000	517.433	517.508
	5.	6692.833 -	9.750	517.281	517.355
	6.	6692.833 -	19.500	517.129	517.203
	7.	6692.833 -	29.250	516.976	517.041
	1.	6702.833	29.250	517.217	517.261
	2.	6702.833	19.500	517.369	517.420
	3.	6702.833	9.750	517.521	517.573
6-26	4.	6702.833	.000	517.674	517.725
	5.	6702.833 -	9.750	517.521	517.573
	6.	6702.833 -	19.500	517.369	517.420
	7.	6702.833 -	29.250	517.217	517.261
	1.	6708.000	29.250	517.340	517.532
	2.	6708.000	19.500	517.492	517.685
	3.	6708.000	9.750	517.644	517.837
SPL. 6Z	4.	6708.000	.000	517.797	517.685
	5.	6708.000 -	9.750	517.644	517.532
	6.	6708.000 -	19.500	517.492	517.375
	7.	6708.000 -	29.250	517.340	517.481
	1.	6712.833	29.250	517.454	517.637
	2.	6712.833	19.500	517.606	517.789
	3.	6712.833	9.750	517.758	517.942
6-27	4.	6712.833	.000	517.911	517.789
	5.	6712.833 -	9.750	517.758	517.637
	6.	6712.833 -	19.500	517.606	517.481
	7.	6712.833 -	29.250	517.454	
	1.	6722.833	29.250	517.687	517.702
	2.	6722.833	19.500	517.839	517.857
	3.	6722.833	9.750	517.992	518.009
6-28	4.	6722.833	.000	518.144	518.162
	5.	6722.833 -	9.750	517.992	518.009
	6.	6722.833 -	19.500	517.839	517.857
	7.	6722.833 -	29.250	517.687	517.702
	1.	6732.833	29.250	517.917	517.923
	2.	6732.833	19.500	518.069	518.076
	3.	6732.833	9.750	518.221	518.229
6-29	4.	6732.833	.000	518.374	518.381
	5.	6732.833 -	9.750	518.221	518.229
	6.	6732.833 -	19.500	518.069	518.076
	7.	6732.833 -	29.250	517.917	517.923
	1.	6742.000	29.250	518.124	518.124
	2.	6742.000	19.500	518.277	518.277
	3.	6742.000	9.750	518.429	518.429
BRG. PIER 5	4.	6742.000	.000	518.581	518.581
	5.	6742.000 -	9.750	518.429	518.429
	6.	6742.000 -	19.500	518.277	518.277
	7.	6742.000 -	29.250	518.124	518.124

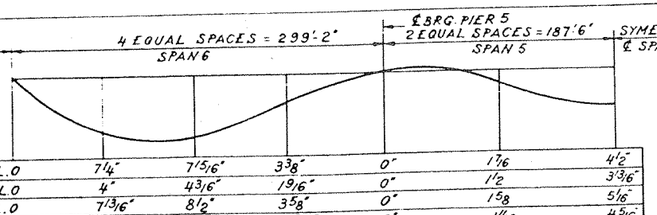
SPAN 5

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6752.000	29.250	518.347	518.346
	2.	6752.000	19.500	518.500	518.499
	3.	6752.000	9.750	518.652	518.651
5-1	4.	6752.000	.000	518.804	518.803
	5.	6752.000 -	9.750	518.652	518.651
	6.	6752.000 -	19.500	518.500	518.499
	7.	6752.000 -	29.250	518.347	518.346
	1.	6762.000	29.250	518.567	518.566
	2.	6762.000	19.500	518.719	518.718
	3.	6762.000	9.750	518.872	518.870
5-2	4.	6762.000	.000	519.024	519.023
	5.	6762.000	9.750	518.872	518.870
	6.	6762.000 -	19.500	518.719	518.718
	7.	6762.000 -	29.250	518.567	518.566
	1.	6772.000	29.250	518.783	518.788
	2.	6772.000	19.500	518.935	518.941
	3.	6772.000	9.750	519.088	519.093
5-3	4.	6772.000	.000	519.240	519.246
	5.	6772.000	9.750	519.088	519.093
	6.	6772.000	19.500	518.935	518.941
	7.	6772.000	29.250	518.783	518.788
	1.	6776.000	29.250	518.868	518.876
	2.	6776.000	19.500	519.021	519.029
	3.	6776.000	9.750	519.173	519.182
SPL. 5T	4.	6776.000	.000	519.325	519.334
	5.	6776.000	9.750	519.173	519.182
	6.	6776.000	19.500	519.021	519.029
	7.	6776.000	29.250	518.868	518.876
	1.	6782.000	29.250	518.995	519.009
	2.	6782.000	19.500	519.148	519.162
	3.	6782.000	9.750	519.300	519.315
5-4	4.	6782.000	.000	519.452	519.467
	5.	6782.000	9.750	519.300	519.315
	6.	6782.000	19.500	519.148	519.162
	7.	6782.000	29.250	518.995	519.009
	1.	6792.000	29.250	519.204	519.231
	2.	6792.000	19.500	519.357	519.386
	3.	6792.000	9.750	519.509	519.539
5-5	4.	6792.000	.000	519.661	519.691
	5.	6792.000	9.750	519.509	519.539
	6.	6792.000	19.500	519.357	519.386
	7.	6792.000	29.250	519.204	519.231
	1.	6802.000	29.250	519.410	519.453
	2.	6802.000	19.500	519.562	519.610
	3.	6802.000	9.750	519.714	519.762
5-6	4.	6802.000	.000	519.867	519.915
	5.	6802.000	9.750	519.714	519.762
	6.	6802.000	19.500	519.562	519.610
	7.	6802.000	29.250	519.410	519.453
	1.	6812.000	29.250	519.612	519.676
	2.	6812.000	19.500	519.764	519.836
	3.	6812.000	9.750	519.916	519.988
SPL. 5U	4.	6812.000	.000	520.069	520.141
	5.	6812.000	9.750	519.916	519.988
	6.	6812.000	19.500	519.764	519.836
	7.	6812.000	29.250	519.612	519.676

FOR CONTINUATION SEE SHEET D7.



PLAN



GIRS.	TOTAL D.L. DEFL. 0	7/4"	7 15/16"	3 3/8"	0"	1 7/16	4 1/2"
1 & 7	CONCR. D.L. DEFL. 0	4"	4 3/16"	1 9/16"	0"	1 1/2	3 3/16"
GIRS.	TOTAL D.L. DEFL. 0	7 3/16"	8 1/2"	3 5/8"	0"	1 5/8	5 1/16"
2 & 6	CONC D.L. DEFL. 0	4 1/2"	4 13/16	1 13/16"	0"	1 11/16	4 5/16"

NOTES

FOR DETAILS SHOWING LOCATION FOR TOP OF SLAB ELEVATIONS AND DIMENSION "6" SEE SHEET D1.
GIRDER OFFSETS ARE REFERENCED TO ℄ BRIDGE.

NORTH

12-1-67

Samuel Berman

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

NOVEMBER 21, 1967

TOP OF SLAB ELEVATIONS-SPANS 4, 5 & 6
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6) 0
SECTION (06-3,78-1) F & E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F & E	BUREAU-PUTNAM	35	35
STA. 50+16.08		TO STA 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		D7

SPAN 5 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6822.000	29.250	519.810	519.898
	2.	6822.000	19.500	519.962	520.062
	3.	6822.000	9.750	520.115	520.214
5-7	4.	6822.000	.000	520.267	520.366
	5.	6822.000 -	9.750	520.115	520.214
	6.	6822.000 -	19.500	519.962	520.062
	7.	6822.000 -	29.250	519.810	519.898
	1.	6832.000	29.250	520.005	520.120
	2.	6832.000	19.500	520.157	520.287
	3.	6832.000	9.750	520.309	520.439
5-8	4.	6832.000	.000	520.462	520.591
	5.	6832.000 -	9.750	520.309	520.439
	6.	6832.000 -	19.500	520.157	520.287
	7.	6832.000 -	29.250	520.005	520.120
	1.	6842.000	29.250	520.196	520.339
	2.	6842.000	19.500	520.348	520.510
	3.	6842.000	9.750	520.501	520.663
5-9	4.	6842.000	.000	520.653	520.815
	5.	6842.000 -	9.750	520.501	520.663
	6.	6842.000 -	19.500	520.348	520.510
	7.	6842.000 -	29.250	520.196	520.339
	1.	6852.000	29.250	520.384	520.557
	2.	6852.000	19.500	520.536	520.732
	3.	6852.000	9.750	520.689	520.884
5-10	4.	6852.000	.000	520.841	521.036
	5.	6852.000 -	9.750	520.689	520.884
	6.	6852.000 -	19.500	520.536	520.732
	7.	6852.000 -	29.250	520.384	520.557
	1.	6862.000	29.250	520.568	520.770
	2.	6862.000	19.500	520.720	520.949
	3.	6862.000	9.750	520.873	521.101
5-11	4.	6862.000	.000	521.025	521.254
	5.	6862.000 -	9.750	520.873	521.101
	6.	6862.000 -	19.500	520.720	520.949
	7.	6862.000 -	29.250	520.568	520.770
	1.	6864.500	29.250	520.614	520.822
	2.	6864.500	19.500	520.766	521.002
	3.	6864.500	9.750	520.918	521.155
SPL. 5Y	4.	6864.500	.000	521.071	521.307
	5.	6864.500 -	9.750	520.918	521.155
	6.	6864.500 -	19.500	520.766	521.002
	7.	6864.500 -	29.250	520.614	520.822
	1.	6872.000	29.250	520.749	520.979
	2.	6872.000	19.500	520.901	521.162
	3.	6872.000	9.750	521.053	521.314
5-12	4.	6872.000	.000	521.206	521.467
	5.	6872.000 -	9.750	521.053	521.314
	6.	6872.000 -	19.500	520.901	521.162
	7.	6872.000 -	29.250	520.749	520.979
	1.	6882.000	29.250	520.926	521.181
	2.	6882.000	19.500	521.078	521.367
	3.	6882.000	9.750	521.231	521.519
5-13	4.	6882.000	.000	521.383	521.671
	5.	6882.000 -	9.750	521.231	521.519
	6.	6882.000 -	19.500	521.078	521.367
	7.	6882.000 -	29.250	520.926	521.181
	1.	6892.000	29.250	521.100	521.378
	2.	6892.000	19.500	521.252	521.567
	3.	6892.000	9.750	521.404	521.719
5-14	4.	6892.000	.000	521.557	521.872
	5.	6892.000 -	9.750	521.404	521.719
	6.	6892.000 -	19.500	521.252	521.567
	7.	6892.000 -	29.250	521.100	521.378
	1.	6902.000	29.250	521.270	521.564
	2.	6902.000	19.500	521.422	521.755
	3.	6902.000	9.750	521.574	521.908
5-15	4.	6902.000	.000	521.727	522.060
	5.	6902.000 -	9.750	521.574	521.908
	6.	6902.000 -	19.500	521.422	521.755
	7.	6902.000 -	29.250	521.270	521.564
	1.	6912.000	29.250	521.436	521.745
	2.	6912.000	19.500	521.589	521.938
	3.	6912.000	9.750	521.741	522.091
5-16	4.	6912.000	.000	521.893	522.243
	5.	6912.000 -	9.750	521.741	522.091
	6.	6912.000 -	19.500	521.589	521.938
	7.	6912.000 -	29.250	521.436	521.745
	1.	6922.000	29.250	521.599	521.913
	2.	6922.000	19.500	521.752	522.107
	3.	6922.000	9.750	521.904	522.260
5-17	4.	6922.000	.000	522.056	522.412
	5.	6922.000 -	9.750	521.904	522.260
	6.	6922.000 -	19.500	521.752	522.107
	7.	6922.000 -	29.250	521.599	521.913
	1.	6929.000	29.250	521.711	522.029
	2.	6929.000	19.500	521.864	522.223
	3.	6929.000	9.750	522.016	522.376
SPL. 5W	4.	6929.000	.000	522.168	522.528
	5.	6929.000 -	9.750	522.016	522.376
	6.	6929.000 -	19.500	521.864	522.223
	7.	6929.000 -	29.250	521.711	522.029
	1.	6932.000	29.250	521.759	522.076
	2.	6932.000	19.500	521.911	522.270
	3.	6932.000	9.750	522.064	522.422
5-18	4.	6932.000	.000	522.216	522.574
	5.	6932.000 -	9.750	522.064	522.422
	6.	6932.000 -	19.500	521.911	522.270
	7.	6932.000 -	29.250	521.759	522.076
	1.	6942.000	29.250	521.915	522.226
	2.	6942.000	19.500	522.067	522.420
	3.	6942.000	9.750	522.220	522.572
5-19	4.	6942.000	.000	522.372	522.725
	5.	6942.000 -	9.750	522.220	522.572
	6.	6942.000 -	19.500	522.067	522.420
	7.	6942.000 -	29.250	521.915	522.226

SPAN 5 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	6952.000	29.250	522.067	522.369
	2.	6952.000	19.500	522.220	522.562
	3.	6952.000	9.750	522.372	522.714
5-20	4.	6952.000	.000	522.524	522.867
	5.	6952.000 -	9.750	522.372	522.714
	6.	6952.000 -	19.500	522.220	522.562
	7.	6952.000 -	29.250	522.067	522.369
	1.	6962.000	29.250	522.216	522.502
	2.	6962.000	19.500	522.369	522.693
	3.	6962.000	9.750	522.521	522.845
5-21	4.	6962.000	.000	522.673	522.997
	5.	6962.000 -	9.750	522.521	522.845
	6.	6962.000 -	19.500	522.369	522.693
	7.	6962.000 -	29.250	522.216	522.502
	1.	6972.000	29.250	522.362	522.628
	2.	6972.000	19.500	522.514	522.816
	3.	6972.000	9.750	522.666	522.968
5-22	4.	6972.000	.000	522.819	523.120
	5.	6972.000 -	9.750	522.666	522.968
	6.	6972.000 -	19.500	522.514	522.816
	7.	6972.000 -	29.250	522.362	522.628
	1.	6982.000	29.250	522.504	522.746
	2.	6982.000	19.500	522.656	522.931
	3.	6982.000	9.750	522.808	523.083
5-23	4.	6982.000	.000	522.961	523.236
	5.	6982.000 -	9.750	522.808	523.083
	6.	6982.000 -	19.500	522.656	522.931
	7.	6982.000 -	29.250	522.504	522.746
	1.	6992.000	29.250	522.642	522.858
	2.	6992.000	19.500	522.794	523.039
	3.	6992.000	9.750	522.947	523.191
5-24	4.	6992.000	.000	523.099	523.344
	5.	6992.000 -	9.750	522.947	523.191
	6.	6992.000 -	19.500	522.794	523.039
	7.	6992.000 -	29.250	522.642	522.858
	1.	6994.500	29.250	522.676	522.885
	2.	6994.500	19.500	522.828	523.065
	3.	6994.500	9.750	522.981	523.217
SPL. 5X	4.	6994.500	.000	523.133	523.370
	5.	6994.500 -	9.750	522.981	523.217
	6.	6994.500 -	19.500	522.828	523.065
	7.	6994.500 -	29.250	522.676	522.885
	1.	7002.000	29.250	522.777	522.964
	2.	7002.000	19.500	522.929	523.141
	3.	7002.000	9.750	523.081	523.294
5-25	4.	7002.000	.000	523.234	523.446
	5.	7002.000 -	9.750	523.081	523.294
	6.	7002.000 -	19.500	522.929	523.141
	7.	7002.000 -	29.250	522.777	522.964
	1.	7012.000	29.250	522.908	523.066
	2.	7012.000	19.500	523.060	523.239
	3.	7012.000	9.750	523.213	523.392
5-26	4.	7012.000	.000	523.365	523.544
	5.	7012.000 -	9.750	523.213	523.392
	6.	7012.000 -	19.500	523.060	523.239
	7.	7012.000 -	29.250	522.908	523.066
	1.	7022.000	29.250	523.036	523.165
	2.	7022.000	19.500	523.188	523.333
	3.	7022.000	9.750	523.341	523.486
5-27	4.	7022.000	.000	523.493	523.638
	5.	7022.000 -	9.750	523.341	523.486
	6.	7022.000 -	19.500	523.188	523.333
	7.	7022.000 -	29.250	523.036	523.165
	1.	7032.000	29.250	523.160	523.262
	2.	7032.000	19.500	523.312	523.427
	3.	7032.000	9.750	523.465	523.579
5-28	4.	7032.000	.000	523.617	523.732
	5.	7032.000 -	9.750	523.465	523.579
	6.	7032.000 -	19.500	523.312	523.427
	7.	7032.000 -	29.250	523.160	523.262
	1.	7042.000	29.250	523.281	523.356
	2.	7042.000	19.500	523.433	523.517
	3.	7042.000	9.750	523.585	523.669
5-29	4.	7042.000	.000	523.738	523.822
	5.	7042.000 -	9.750	523.585	523.669
	6.	7042.000 -	19.500	523.433	523.517
	7.	7042.000 -	29.250	523.281	523.356
	1.	7047.000	29.250	523.340	523.404
	2.	7047.000	19.500	523.492	523.564
	3.	7047.000	9.750	523.645	523.717
SPL. 5Y	4.	7047.000	.000	523.797	523.869
	5.	7047.000 -	9.750	523.645	523.717
	6.	7047.000 -	19.500	523.492	523.564
	7.	7047.000 -	29.250	523.340	523.404
	1.	7052.000	29.250	523.398	523.452
	2.	7052.000	19.500	523.550	523.610
	3.	7052.000	9.750	523.703	523.763
5-30	4.	7052.000	.000	523.855	523.915
	5.	7052.000 -	9.750	523.703	523.763
	6.	7052.000 -	19.500	523.550	523.610
	7.	7052.000 -	29.250	523.398	523.452
	1.	7062.000	29.250	523.512	523.545
	2.	7062.000	19.500	523.664	523.701
	3.	7062.000	9.750	523.816	523.853
5-31	4.	7062.000	.000	523.969	524.006
	5.	7062.000 -	9.750	523.816	523.853
	6.	7062.000 -	19.500	523.664	523.701
	7.	7062.000 -	29.250	523.512	523.545
	1.	7072.000	29.250	523.622	523.642
	2.	7072.000	19.500	523.774	523.796
	3.	7072.000	9.750	523.926	523.949
5-32	4.	7072.000	.000	524.079	524.101
	5.	7072.000 -	9.750	523.926	523.949
	6.	7072.000 -	19.500	523.774	523.796

SPAN 5 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7082.000	29.250	523.728	523.737
	2.	7082.000	19.500	523.881	523.890
	3.	7082.000	9.750	524.033	524.042
5-33	4.	7082.000	.000	524.185	524.195
	5.	7082.000 -	9.750	524.033	524.042
	6.	7082.000 -	19.500	523.881	523.890
	7.	7082.000 -	29.250	523.728	523.737
	1.	7083.000	29.250	523.739	523.747
	2.	7083.000	19.500	523.891	523.900
	3.	7083.000	9.750	524.043	524.052
SPL. 5Z	4.	7083.000	.000	524.196	524.204
	5.	7083.000 -	9.750	524.043	524.052
	6.	7083.000 -	19.500	523.891	523.900
	7.	7083.000 -	29.250	523.739	523.747
	1.	7092.000	29.250	523.831	523.833
	2.	7092.000	19.500	523.984	523.986
	3.	7092.000	9.750	524.136	524.138
5-34	4.	7092.000	.000	524.288	524.291
	5.	7092.000 -	9.750	524.136	524.138
	6.	7092.000 -	19.500	523.984	523.986
	7.	7092.000 -	29.250	523.831	523.833
	1.	7102.000	29.250	523.931	523.929
	2.	7102.000	19.500	524.083	524.082
	3.	7102.000	9.750	524.236	524.234
5-35	4.	7102.000	.000	524.388	524.386
	5.	7102.000 -	9.750	524.236	524.234
	6.	7102.000 -	19.500	524.083	524.082
	7.	7102.000 -	29.250	523.931	523.929
	1.	7112.000	29.250	524.027	524.026
	2.	7112.000	19.500	524.179	524.179
	3.	7112.000	9.750	524.332	524.331
5-36	4.	7112.000	.000	524.484	524.483
	5.	7112.000 -	9.750	524.332	524.331
	6.	7112.000 -	19.500	524.179	524.179
	7.	7112.000 -	29.250	524.027	524.026
	1.	7117.000	29.250	524.074	524.074
	2.	7117.000	19.500	524.226	524.226
	3.	7117.000	9.750	524.378	524.378
REG. PIER 4	4.	7117.000	.000	524.531	524.531
	5.	7117.000 -	9.750	524.378	524.378
	6.	7117.000 -	19.500	524.226	524.226
	7.	7117.000 -	29.250	524.074	524.074

SPAN 4

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7127.000	29.250	524.164	524.171
	2.	7127.000	19.500	524.317	524.325
	3.	7127.000	9.750	524.469	524.477
4-1	4.	7127.000	.000	524.621	524.629
	5.	7127.000 -	9.750	524.469	524.477
	6.	7127.000 -	19.500	524.317	524.325
	7.	7127.000 -	29.250	524.164	524.171
	1.	7137.000	29.250	524.251	524.268
	2.	7137.000	19.500	524.404	524.423
	3.	7137.000	9.750	524.556	524.575
4-2	4.	7137.000	.000	524.709	524.727
	5.	7137.000 -	9.750	524.556	524.575
	6.	7137.000 -	19.500	524.404	524.423
	7.	7137.000 -	29.250	524.251	524.268
	1.	7147.000	29.250	524.335	524.363
	2.	7147.000	19.500	524.487	524.520
	3.	7147.000	9.750	524.640	524.672
4-3	4.	7147.000	.000	524.792	524.824
	5.	7147.000 -	9.750	524.640	524.672
	6.	7147.000 -	19.500	524.487	524.520
	7.	7147.000 -	29.250	524.335	524.363
	1.	7151.000	29.250	524.368	524.403
	2.	7151.000	19.500	524.520	524.560
	3.	7151.000	9.750	524.672	524.713
SPL. 4V	4.	7151.000	.000	524.825	524.865
	5.	7151.000 -	9.750	524.672	524.713
	6.	7151.000 -	19.500	524.520	524.560
	7.	7151.000 -	29.250	524.368	524.403
	1.	7157.000	29.250	524.415	524.461
	2.	7157.000	19.500	524.568	524.620
	3.	7157.000	9.750	524.720	524.773
4-4	4.	7157.000	.000	524.872	524.925
	5.	7157.000 -	9.750	524.720	524.773
	6.	7157.000 -	19.500	524.568	524.620
	7.	7157.000 -	29.250	524.415	524.461
	1.	7167.000	29.250	524.492	524.559
	2.	7167.000	19.500	524.644	524.721
	3.	7167.000	9.750	524.797	524.873
4-5	4.	7167.000	.000	524.949	525.025
	5.	7167.000 -	9.750	524.797	524.873
	6.	7167.000 -	19.500	524.644	524.721
	7.	7167.000 -	29.250	524.492	524.559
	1.	7177.000	29.250	524.565	524.655
	2.	7177.000	19.500	524.717	524.820
	3.	7177.000	9.750	524.870	524.972
4-6	4.	7177.000	.000	525.022	525.124
	5.	7177.000 -	9.750	524.870	524.972
	6.	7177.000 -	19.500	524.717	524.820
	7.	7177.000 -	29.250	524.565	524.655
	1.	7187.000	29.250	524.634	524.754
	2.	7187.000	19.500	524.787	524.922
	3.	7187.000	9.750	524.939	525.074
SPL. 4W	4.	7187.000	.000	525.091	525.227
	5.	7187.000 -	9.750	524.939	525.074
	6.	7187.000 -	19.500	524.787	524.922
	7.	7187.000 -	29.250	524.634	524.754

SPAN 4 (CONT.)

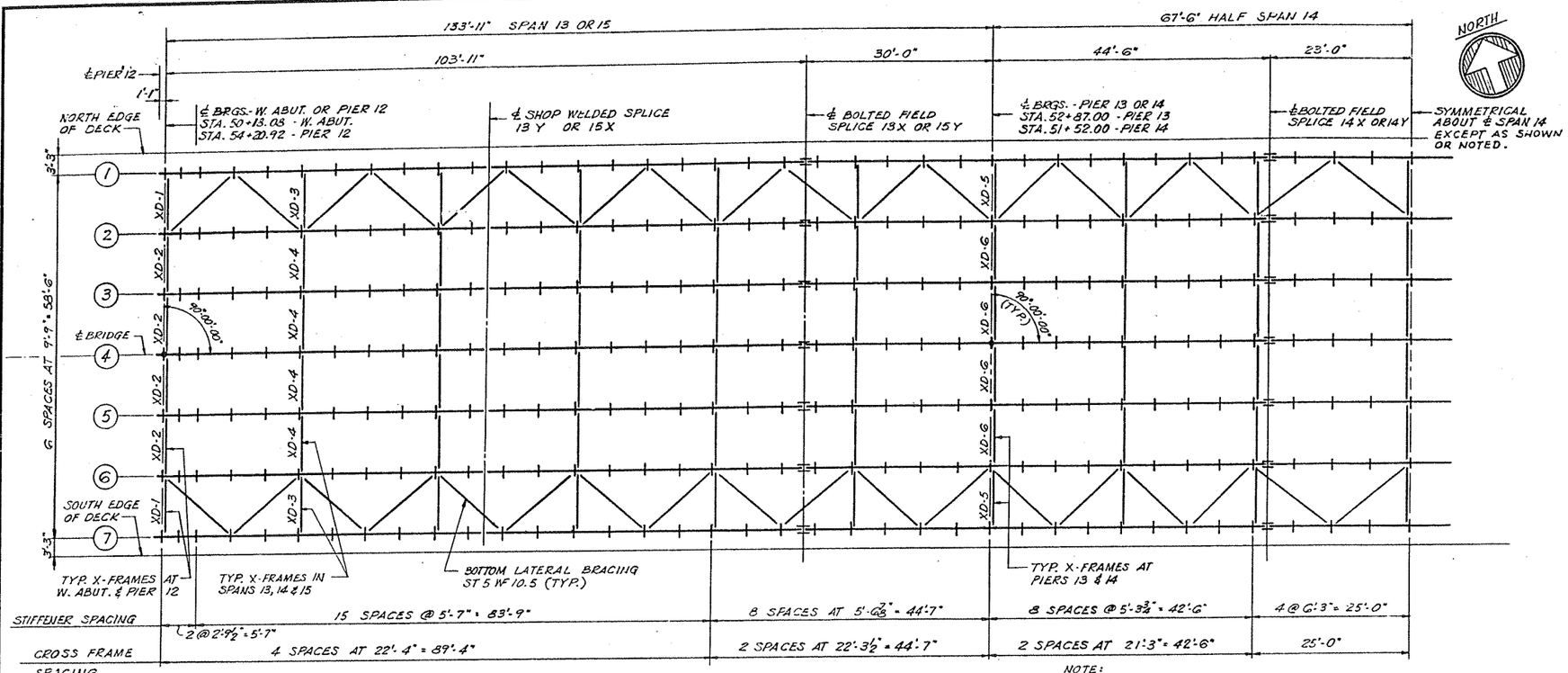
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7197.000	29.250	524.700	524.850
	2.	7197.000	19.500	524.853	525.023
	3.	7197.000	9.750	525.005	525.175
4-7	4.	7197.000	.000	525.157	525.327
	5.	7197.000 -	9.750	525.005	525.175
	6.	7197.000 -	19.500	524.853	525.023
	7.	7197.000 -	29.250	524.700	524.850
	1.	7207.000	29.250	524.763	524.944
	2.	7207.000	19.500	524.915	525.121
	3.	7207.000	9.750	525.068	525.274
4-8	4.	7207.000	.000	525.220	525.426
	5.	7207.000 -	9.750	525.068	525.274
	6.	7207.000 -	19.500	524.915	525.121
	7.	7207.000 -	29.250	524.763	524.944
	1.	7217.000	29.250	524.822	525.036
	2.	7217.000	19.500	524.974	525.218
	3.	7217.000	9.750	525.127	525.371
4-9	4.	7217.000	.000	525.279	525.523
	5.	7217.000 -	9.750	525.127	525.371
	6.	7217.000 -	19.500	524.974	525.218
	7.	7217.000 -	29.250	524.822	525.036
	1.	7227.000	29.250	524.877	525.124
	2.	7227.000	19.500	525.030	525.310
	3.	7227.000	9.750	525.182	525.463
4-10	4.	7227.000	.000	525.334	525.615
	5.	7227.000 -	9.750	525.182	525.463
	6.	7227.000 -	19.500	525.030	525.310
	7.	7227.000 -	29.250	524.877	525.124
	1.	7237.000	29.250	524.929	525.207
	2.	7237.000	19.500	525.081	525.398
	3.	7237.000	9.750	525.234	525.550
4-11	4.	7237.000	.000	525.386	525.702
	5.	7237.000 -	9.750	525.234	525.550
	6.	7237.000 -	19.500	525.081	525.398
	7.	7237.000 -	29.250	524.929	525.207
	1.	7244.500	29.250	524.966	525.264
	2.	7244.500	19.500	525.118	525.458
	3.	7244.500	9.750	525.270	525.610
SPL. 4X	4.	7244.500	.000	525.423	525.762
	5.	7244.500	9.750	525.270	525.610
	6.	7244.500	19.500	525.118	525.458
	7.	7244.500	29.250	524.966	525.264
	1.	7247.000	29.250	524.977	525.283
	2.	7247.000	19.500	525.130	525.477
	3.	7247.000	9.750	525.282	525.630
4-12	4.	7247.000	.000	525.435	525.782
	5.	7247.000 -	9.750	525.282	525.630
	6.	7247.000 -	19.500	525.130	525.477
	7.	7247.000 -	29.250	524.977	525.283
	1.	7257.000	29.250	525.022	525.352
	2.	7257.000	19.500	525.175	525.550
	3.	7257.000	9.750	525.327	525.702
4-13	4.	7257.000	.000	525.479	525.855
	5.	7257.000 -	9.750	525.327	525.702
	6.	7257.000 -	19.500	525.175	525.550
	7.	7257.000 -	29.250	525.022	525.352
	1.	7267.000	29.250	525.064	525.415
	2.	7267.000	19.500	525.216	525.616
	3.	7267.000	9.750	525.368	525.768
4-14	4.	7267.000	.000	525.521	525.920
	5.	7267.000 -	9.750	525.368	525.768
	6.	7267.000 -	19.500	525.216	525.616
	7.	7267.000 -	29.250	525.064	525.415
	1.	7277.000	29.250	525.101	525.468
	2.	7277.000	19.500	525.254	525.670
	3.	7277.000	9.750	525.406	525.822
4-15	4.	7277.000	.000	525.558	525.975
	5.	7277.000 -	9.750	525.406	525.822
	6.	7277.000 -	19.500	525.254	525.670
	7.	7277.000 -	29.250	525.101	525.468
	1.	7287.000	29.250	525.136	525.512
	2.	7287.000	19.500	525.288	525.716
	3.	7287.000	9.750	525.440	525.869
4-16	4.	7287.000	.000	525.593	526.021
	5.	7287.000 -	9.750	525.440	525.869
	6.	7287.000 -	19.500	525.288	525.716
	7.	7287.000 -	29.250	525.136	525.512
	1.	7297.000	29.250	525.166	525.549
	2.	7297.000	19.500	525.319	525.755
	3.	7297.000	9.750	525.471	525.907
4-17	4.	7297.000	.000	525.623	526.059
	5.	7297.000 -	9.750	525.471	525.907
	6.	7297.000 -	19.500	525.319	525.755
	7.	7297.000 -	29.250	525.166	525.549
	1.	7302.000	29.250	525.180	525.562
	2.	7302.000	19.500	525.333	525.767
	3.	7302.000	9.750	525.485	525.920
SPL. 4Y	4.	7302.000	.000	525.637	526.072
	5.	7302.000 -	9.750	525.485	525.920
	6.	7302.000 -	19.500	525.333	525.767
	7.	7302.000 -	29.250	525.180	525.562
	1.	7307.000	29.250	525.193	525.574
	2.	7307.000	19.500	525.346	525.779
	3.	7307.000	9.750	525.498	525.931
4-18	4.	7307.000	.000	525.651	526.084
	5.	7307.000 -	9.750	525.498	525.931
	6.	7307.000 -	19.500	525.346	525.779
	7.	7307.000 -	29.250	525.193	525.574
	1.	7317.000	29.250	525.217	525.591
	2.	7317.000	19.500	525.369	525.794
	3.	7317.000	9.750	525.522	525.947
4-19	4.	7317.000	.000	525.674	526.099
	5.	7317.000 -	9.750	525.522	525.947
	6.	7317.000 -	19.500	525.369	525.794
	7.	7317.000 -	29.250	525.217	525.591

SPAN 4 (CONT.)

LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
	1.	7327.000	29.250	525.237	525.599
	2.	7327.000	19.500	525.390	525.801
	3.	7327.000	9.750	525.542	525.954
4-20	4.	7327.000	.000	525.694	526.106
	5.	7327.000 -	9.750	525.542	525.954
	6.	7327.000 -	19.500	525.390	525.801
	7.	7327.000 -	29.250	525.237	525.599
	1.	7337.000	29.250	525.54	525.595
	2.	7337.000	19.500	525.406	525.794
	3.	7337.000	9.750	525.559	525.947
4-21	4.	7337.000	.000	525.711	526.099
	5.	7337.000 -	9.750	525.559	525.947
	6.	7337.000 -	19.500	525.406	525.794
	7.	7337.000 -	29.250	525.254	525.595
	1.	7347.000	29.250	525.267	525.582
	2.	7347.000	19.500	525.419	525.778
	3.	7347.000	9.750	525.572	525.930
4-22	4.	7347.000	.000	525.724	526.083
	5.	7347.000 -	9.750	525.572	525.930
	6.	7347.000 -	19.500	525.419	525.778
	7.	7347.000 -	29.250	525.267	525.582
	1.	7357.000	29.250	525.276	525.561
	2.	7357.000	19.500	525.429	525.753
	3.	7357.000	9.750	525.581	525.905
4-23	4.	7357.000	.000	525.733	526.058
	5.	7357.000 -	9.750	525.581	525.905
	6.	7357.000 -	19.500	525.429	525.753
	7.	7357.000 -	29.250	525.276	525.561
	1.	7359.500	29.250	525.278	525.553
	2.	7359.500	19.500	525.431	525.744
	3.	7359.500	9.750	525.583	525.896
SPL. 4Z	4.	7359.500	.000	525.735	526.049
	5.	7359.500 -	9.750	525.583	525.896
	6.	7359.500 -	19.500	525.431	525.744
	7.	7359.500 -	29.250	525.278	525.553
	1.	7367.000	29.250	525.282	525.525
	2.	7367.000	19.500	525.435	525.715
	3.	7367.000	9.750	525.587	525.868
4-24	4.	7367.000	.000	525.739	526.020
	5.	7367.000 -	9.750	525.587	525.868
	6.	7367.000 -	19.500	525.435	525.715
	7.	7367.000 -	29.250	525.282	525.525
	1.	7377.000	29.250	525.285	525.489
	2.	7377.000	19.500	525.437	525.670
	3.	7377.000	9.750	525.590	525.822
4-25	4.	7377.000	.000	525.742	525.975
	5.	7377.000 -	9.750	525.590	525.822
	6.	7377.000 -	19.500	525.437	525.670
	7.	7377.000 -	29.250	525.285	525.489
	1.	7387.000	29.250	525

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	38	17
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		

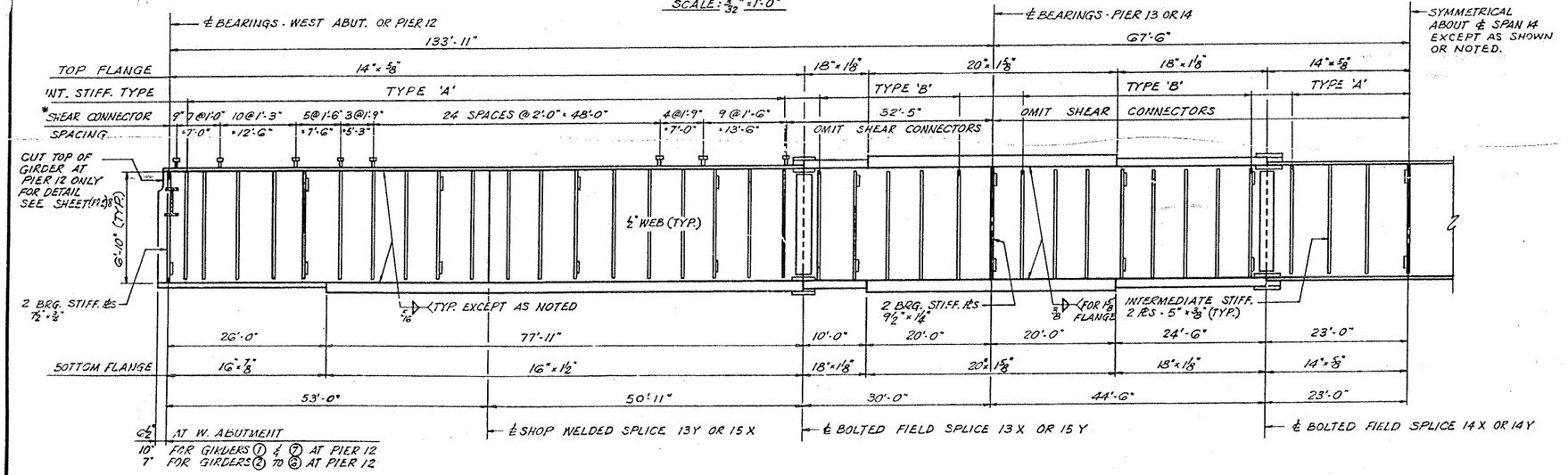
(F&E)3



FRAMING PLAN

SCALE: $\frac{3}{32}$" = 1'-0"

NOTE:
DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.



GIRDER ELEVATION

NO SCALE

* SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER SECTION (06-3, 78-1) D.

TOP OF WEB ELEVATIONS FOR FABRICATION ONLY

(UNDEFLECTED GIRDERS)

LOCATION \ GIRDER	1 & 7	2 & 6	3 & 5	4
℄ BRG. W. ABUT.	466.998	467.150	467.303	467.455
℄ SHOP SPLICE 15X	468.460	468.612	468.765	468.917
℄ FIELD SPLICE 15Y	469.620	469.773	469.925	470.078
℄ BRG. PIER 14	470.380	470.533	470.685	470.838
℄ FIELD SPLICE 14X	471.682	471.834	471.987	472.139
℄ FIELD SPLICE 14Y	473.062	473.214	473.367	473.519
℄ BRG. PIER 13	474.396	474.548	474.701	474.853
℄ FIELD SPLICE 13X	475.395	475.547	475.700	475.852
℄ SHOP SPLICE 13Y	477.105	477.257	477.410	477.562
℄ BRG. PIER 12	478.512	478.664	478.816	478.969

NOTES FOR STRUCTURAL STEEL

ALL STRUCTURAL STEEL SHALL CONFORM TO A. S. T. M. A36 EXCEPT AS OTHERWISE NOTED.

SHOP CONNECTIONS SHALL BE WELDED EXCEPT AS OTHERWISE SHOWN OR NOTED TO BE BOLTED. WELDING SHALL BE IN ACCORDANCE WITH CURRENT SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY AND AS NOTED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS EXCEPT AS OTHERWISE NOTED. ALL HIGH STRENGTH BOLTS SHALL BE 3/4" DIAMETER IN 13/16" HOLES EXCEPT AS OTHERWISE NOTED. HOLES FOR SPLICES IN GIRDERS AND SPLICE PLATES SHALL BE SUBPUNCHED OR SUBDRILLED TO 11/16" IN DIAMETER FOR 3/4" BOLTS AND TO 3/16" SMALLER DIAMETER THAN NOMINAL BOLT SIZE FOR BOLTS GREATER THAN 3/4" IN DIAMETER AND REAMED TO CORRECT SIZE WITH GIRDERS OF A CONTINUOUS UNIT ASSEMBLED IN THE SHOP IN PROPER POSITION. ASSEMBLY OF GIRDERS SHALL BE WITH OR WITHOUT CROSSFRAMES. LEAVE ASSEMBLED FOR INSPECTION.

ROADWAY EXPANSION GUARDS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (d) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL (CARBON). ESTIMATED WEIGHT = POUNDS. EXPANSION GUARDS SHALL BE ASSEMBLED IN THE SHOP IN PROPER POSITION AND LEFT ASSEMBLED FOR INSPECTION. FINGER PLATES SHALL BE FLAME CUT AS PROVIDED IN ARTICLE 54.5 (1) OF THE STANDARD SPECIFICATIONS.

STRUCTURAL STEEL SHALL BE SHOP PAINTED UNDER SECTION (06-3, 78-1) F & E AND FIELD PAINTED UNDER SECTION (06-3, 78-1) P. STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT EXCEPT AS OTHERWISE SPECIFIED. ALL PAINT TO BE FURNISHED AND APPLIED BY THE CONTRACTOR. SEE ARTICLES 56.1 TO 56.5, INCLUSIVE, OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS. THE EXPOSED SURFACES OF THE EXPANSION GUARDS SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT; THE CONTACT SURFACES SHALL BE GIVEN ONE SHOP COAT OF RED LEAD PAINT. ANCHOR STUDS SHALL NOT BE PAINTED.

SHOP INSPECTION OF THE STRUCTURAL STEEL SHALL BE BY ILLINOIS DIVISION OF HIGHWAYS BEFORE PAINTING.

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 1/4 OF THE SPAN EACH WAY FROM THE INTERIOR SUPPORTS OF A CONTINUOUS UNIT ON THE TOP FLANGES OF GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

FOR NOTES FOR BEARINGS SEE SHEET (F & E) 1.

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED BY THE DEPARTMENT OF PUBLIC WORKS AND BUILDINGS, JANUARY 2, 1958, SHALL APPLY. THE SUPPLEMENTAL SPECIFICATIONS, EFFECTIVE JANUARY 3, 1966, ALSO APPLY TO THIS WORK.

FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PROVISIONS.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thummel
Engineer of Bridge & Traffic Structures
7-26-67

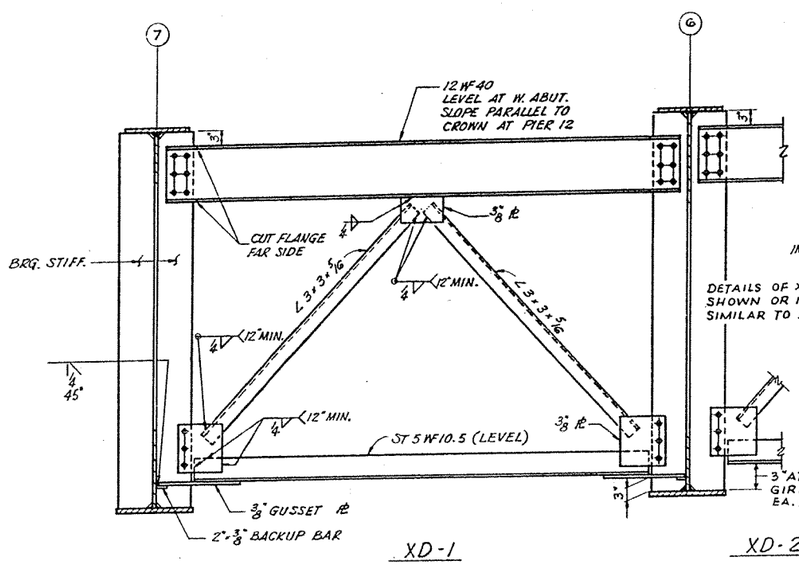
JULY 18, 1967

#1200

FRAMING PLAN - SPANS 13, 14 & 15
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

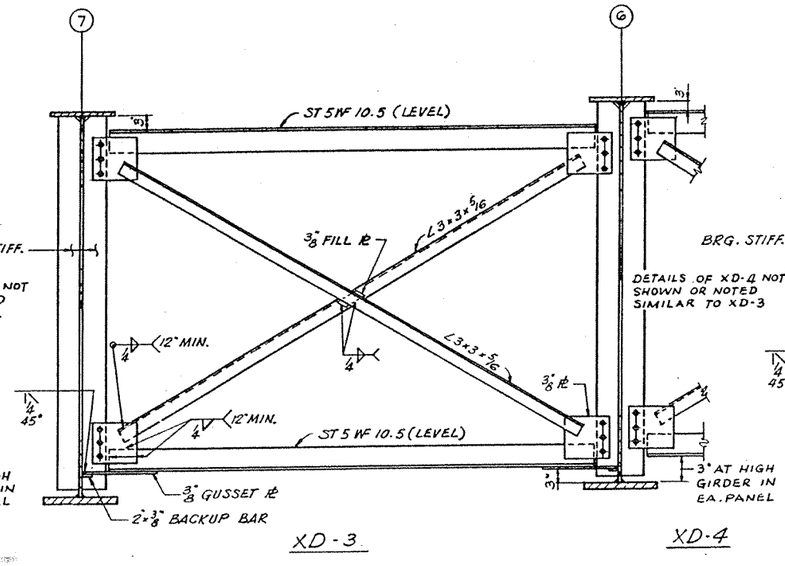
ALFRED BENESCH & COMPANY, CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE, CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78)F&E	BUREAU-PUTNAM	38	19
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0 (F&E)4	



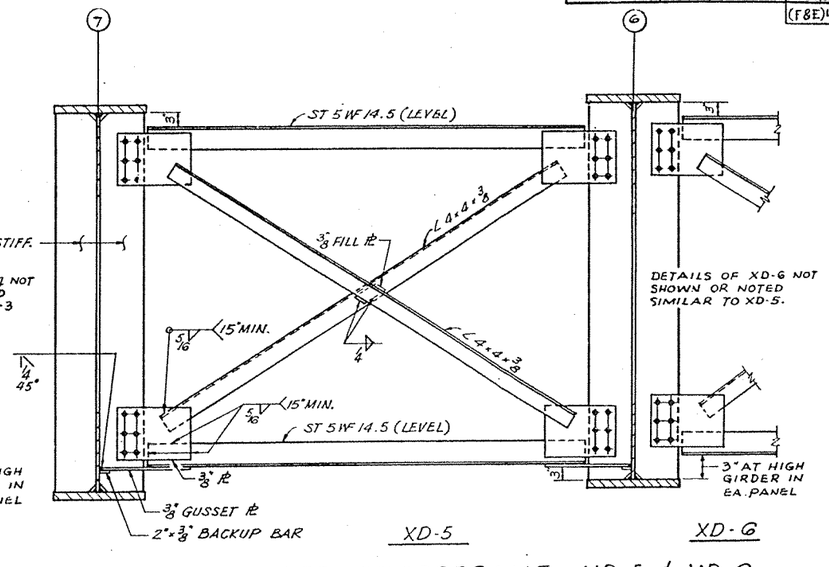
END CROSSFRAME XD-1 & XD-2

SCALE: 3/4" = 1'-0"



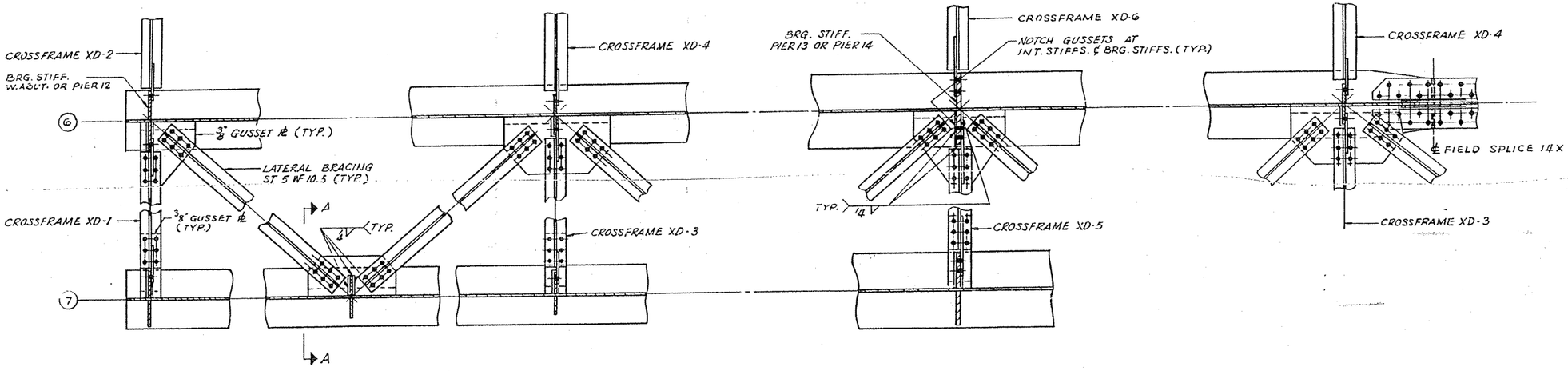
INTERMEDIATE CROSSFRAME XD-3 & XD-4

SCALE: 3/4" = 1'-0"



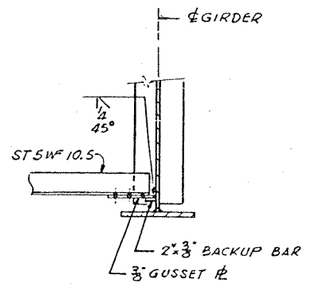
INTERMEDIATE CROSSFRAME XD-5 & XD-6

SCALE: 3/4" = 1'-0"



LATERAL BRACING CONNECTIONS

SCALE: 3/4" = 1'-0"



SECTION A-A

SCALE: 3" = 1'-0"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Hinman
Engineer of Bridge & Traffic Structures
7-26-67

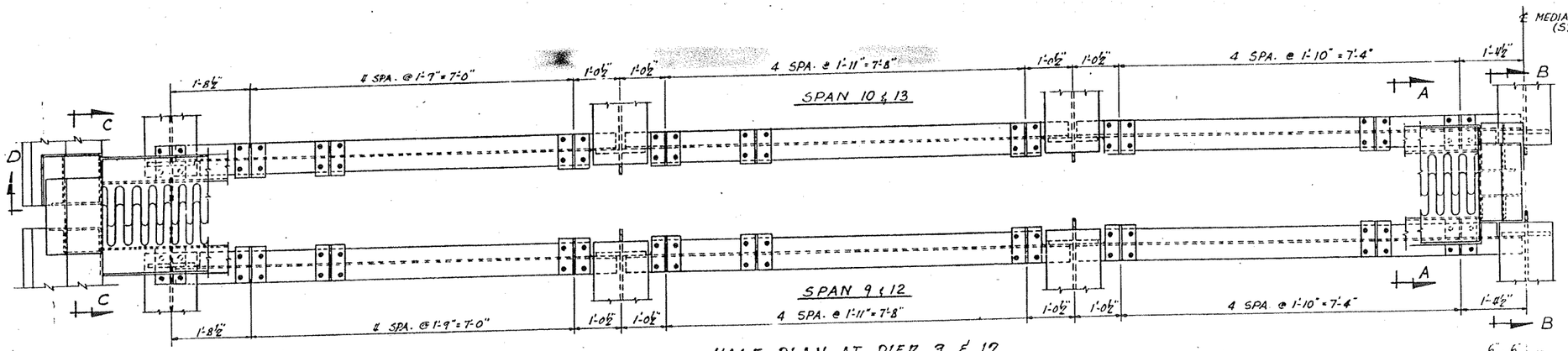
JULY 18, 1967

STEEL DETAILS - SPANS 13, 14 AND 15
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F & E
BUREAU AND PUTNAM COUNTIES

H/300
Burns

CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F & E	BUREAU - PUTNAM	38	25
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		
				(FEE) 8

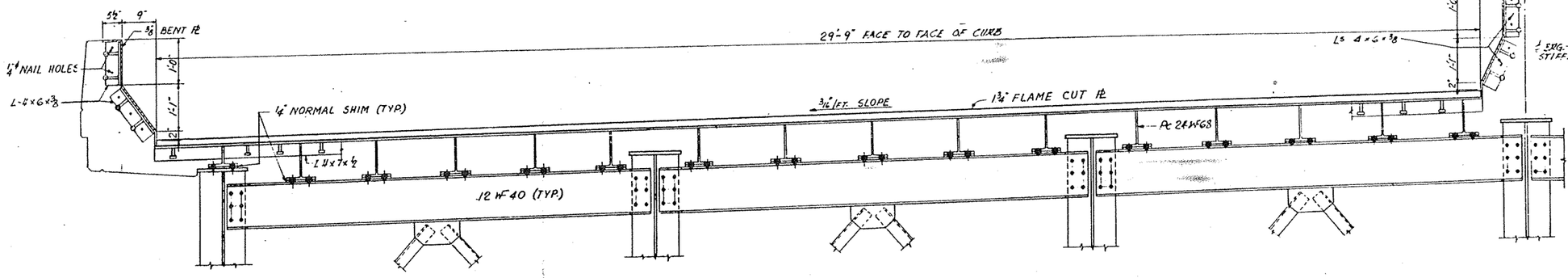


HALF PLAN AT PIER 9 ℄ 12
SCALE: ¾" = 1'-0"

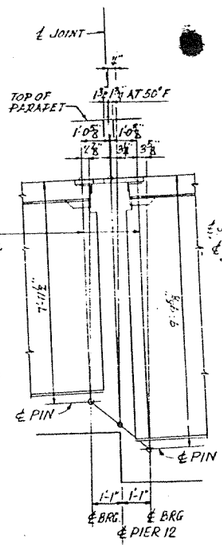
USE THESE VALUES OF A ℄ B FOR TEMP. EXISTING AT THE TIME OF ADJUSTMENT OF EXP. DEVICE.

TABLE OF A ℄ B DIMENSIONS

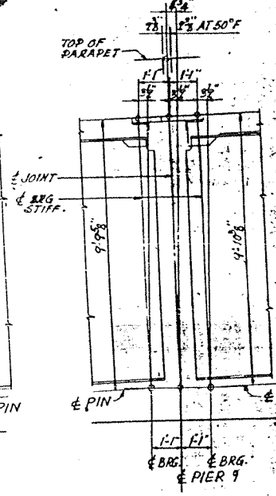
TEMP.	PIER 12 A	PIER 12 B	PIER 9 A	PIER 9 B
130°F	3/4"	7"	3/4"	9½"
110°F	1 1/16"	6 5/16"	1 1/4"	8½"
90°F	2 3/8"	5 5/8"	2 3/4"	7½"
70°F	2 11/16"	4 15/16"	3 3/4"	6½"
50°F	3½"	4¼"	4¾"	5½"
30°F	4 5/16"	3 5/16"	5 3/4"	4½"
10°F	4 7/8"	2 3/8"	6 3/4"	3½"
-10°F	5 1/16"	2 3/16"	7 3/4"	2½"
-30°F	6¼"	1½"	8 3/4"	1½"



HALF ELEVATION
SCALE: ¾" = 1'-0"

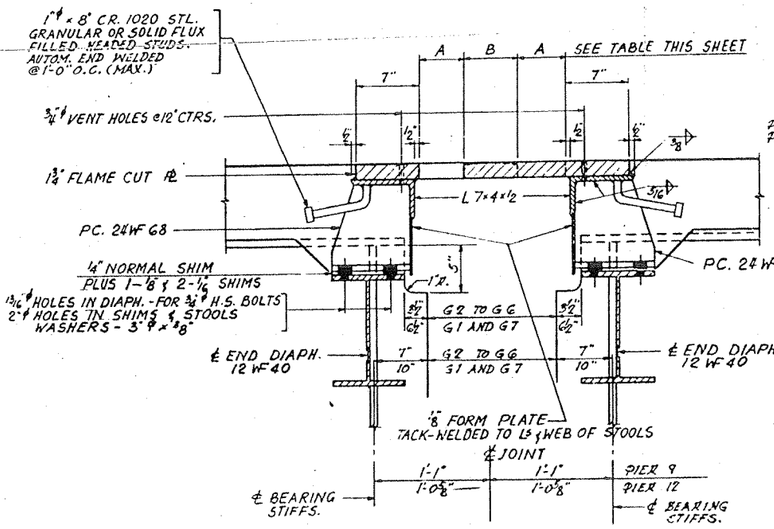


PIER 12

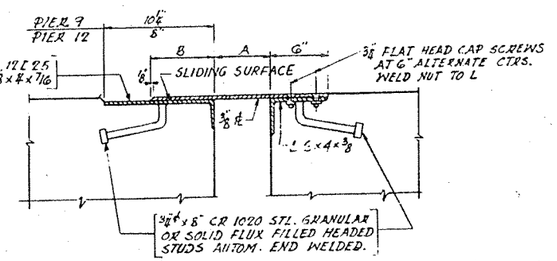


PIER 9

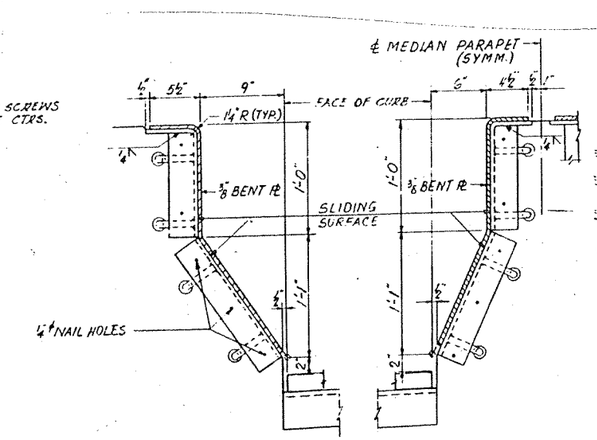
WORK LINES



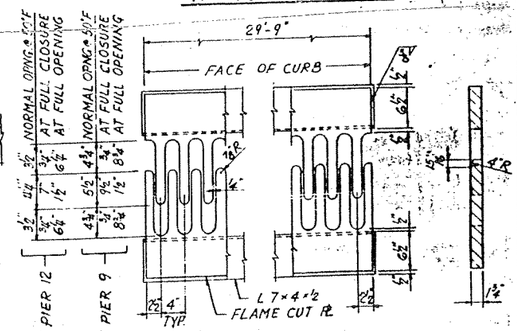
SECTION A-A
SCALE: 1½" = 1'-0"



SECTION B-B
SECT. C-C SIMILAR
SCALE: 1½" = 1'-0"



SECTION D-D
SCALE: 1½" = 1'-0"



FLAME CUT PLATE
SCALE: 1" = 1'-0"

APPROVED
7-26-67

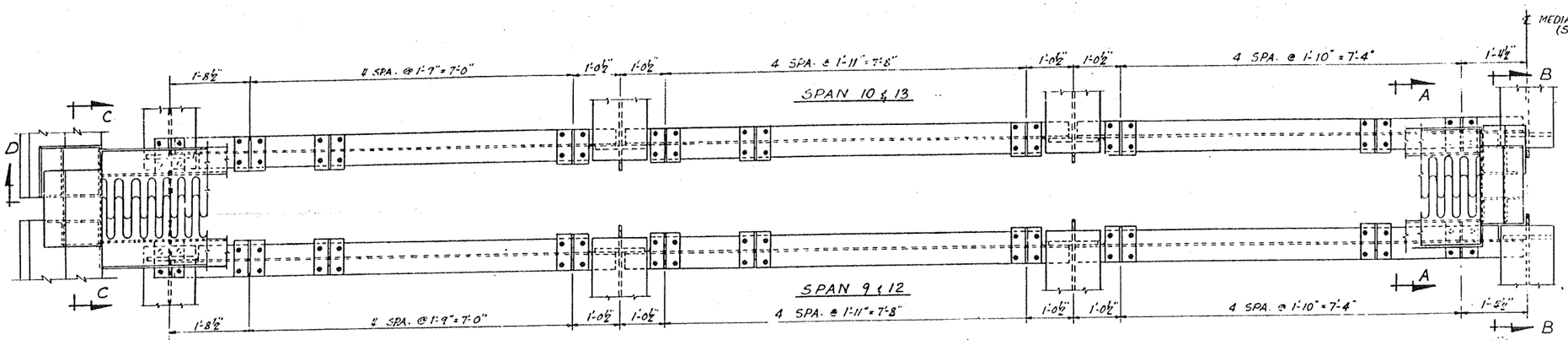
JULY 18, 1967

EXPANSION GUARD - PIER 9 AND 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F & E
BUREAU AND PUTNAM COUNTIES
STATION 69 + 29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	06-3.18-1 F & E	BUREAU-PUTNAM	38	26
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		

(F & E) 8A

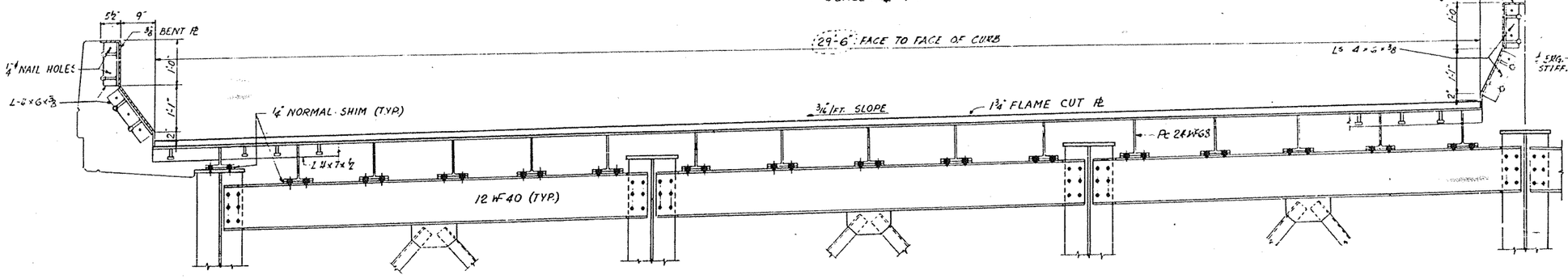


HALF PLAN AT PIER 9 & 12
SCALE: 3/4" = 1'-0"

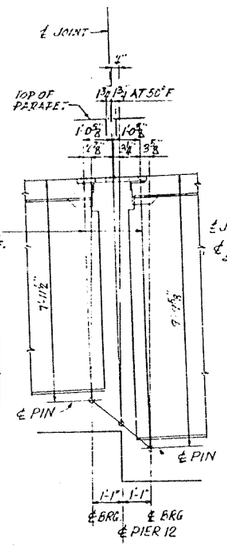
USE THESE VALUES OF A & B FOR TEMP. EXISTING AT THE TIME OF ADJUSTMENT OF EXP. DEVICE

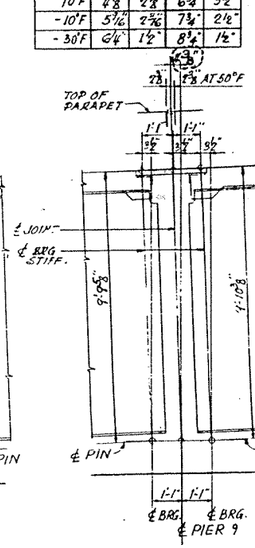
TABLE OF A & B DIMENSIONS

TEMP.	PIER 12 A	PIER 12 B	PIER 9 A	PIER 9 B
130°F	3/4"	7"	3/4"	9 1/2"
110°F	1 7/16"	6 7/16"	1 3/8"	8 1/2"
90°F	2 1/8"	5 5/8"	2 3/4"	7 1/2"
70°F	2 13/16"	4 13/16"	3 3/4"	6 1/4"
50°F	3 1/2"	4 1/8"	4 3/8"	5 1/4"
30°F	4 3/16"	3 3/16"	5 1/8"	4 1/4"
10°F	4 7/8"	2 1/8"	6 3/8"	3 1/2"
-10°F	5 7/16"	2 7/16"	7 3/8"	2 1/2"
-30°F	6 1/4"	1 1/2"	8 1/4"	1 1/2"



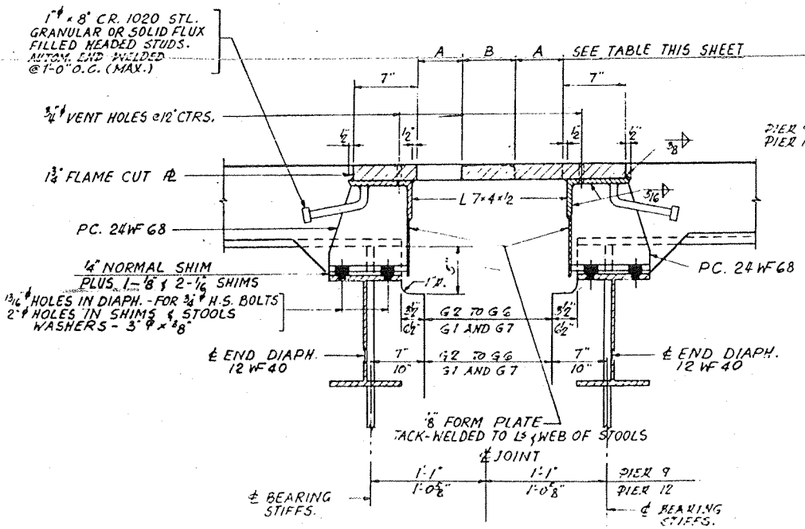
HALF ELEVATION
SCALE: 3/4" = 1'-0"



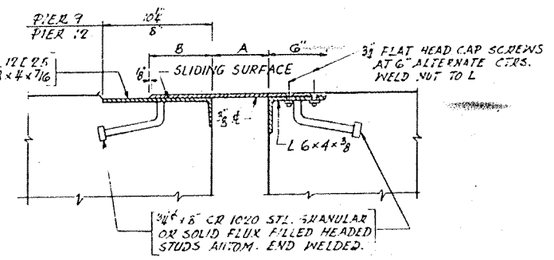


PIER 12 PIER 9

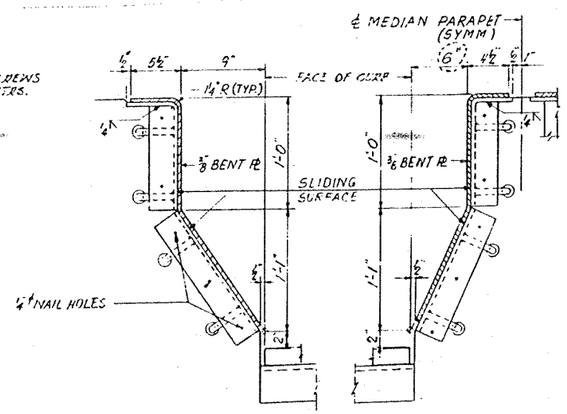
WORK LINES



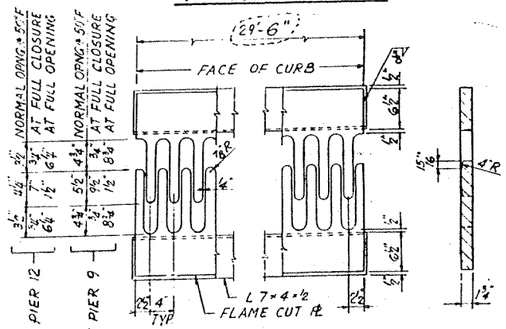
SECTION A-A
SCALE: 1 1/2" = 1'-0"



SECTION B-B
SECT. C-C SIMILAR
SCALE: 1 1/2" = 1'-0"



SECTION D-D
SCALE: 1 1/2" = 1'-0"



FLAME CUT PLATE
SCALE: 1" = 1'-0"

(OCTOBER 25, 1967)

EXPANSION GUARD - PIER 9 AND 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3.18-1)F & E
BUREAU AND PUTNAM COUNTIES
STATION 69 + 29.50

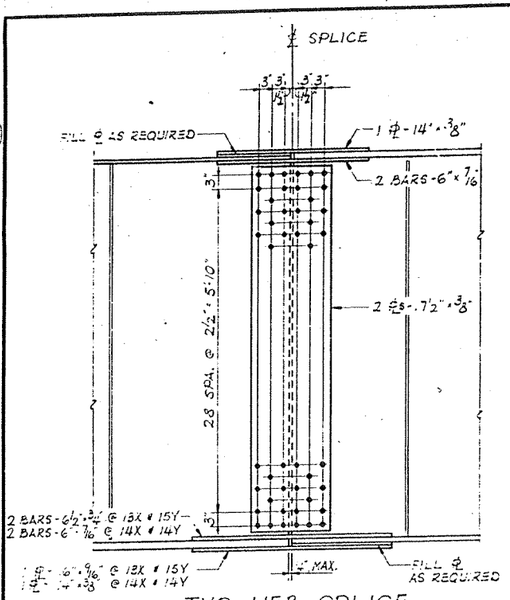
#1200

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

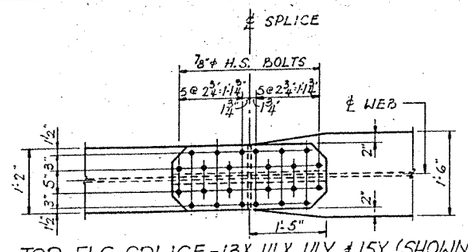
10-27-67

(29'-6") - Revised 10-25-67

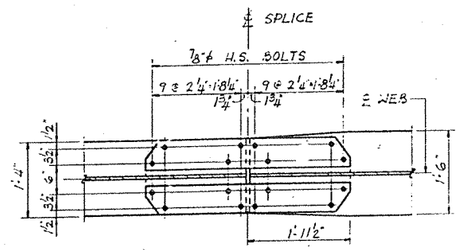
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	38	28
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0 (F&E)5	



TYP. WEB SPLICE



TOP FLG. SPLICE - 13X, 14X, 14Y, & 15Y (SHOWN)
BOT. FLG. SPLICE - 14X & 14Y



BOT. FLANGE SPLICE - 13X & 15Y

SPLICES FOR SPANS 13, 14 AND 15

SCALE: 3/4" = 1'-0"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
[signature]
DIVISION OF HIGHWAYS, BRIDGES AND ILLINOIS DEPARTMENT
7-26-67

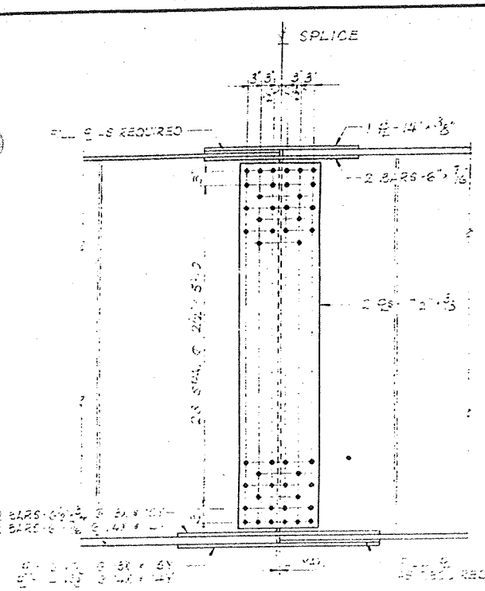
JULY 18, 1967

#1360
[signature]

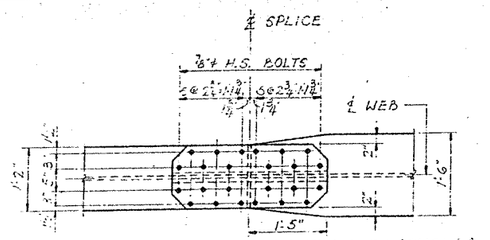
FIELD SPLICES - ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

[illegible] CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	38	29
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0	
			(T&E)5A	

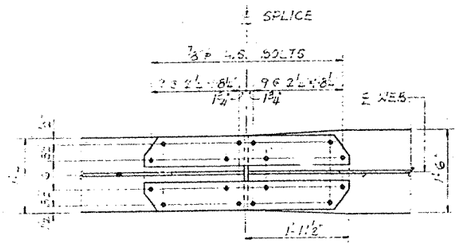


TYP. WEB SPLICE



TOP FLG. SPLICE-13X, 14X, 14Y & 15Y (SHOWN)

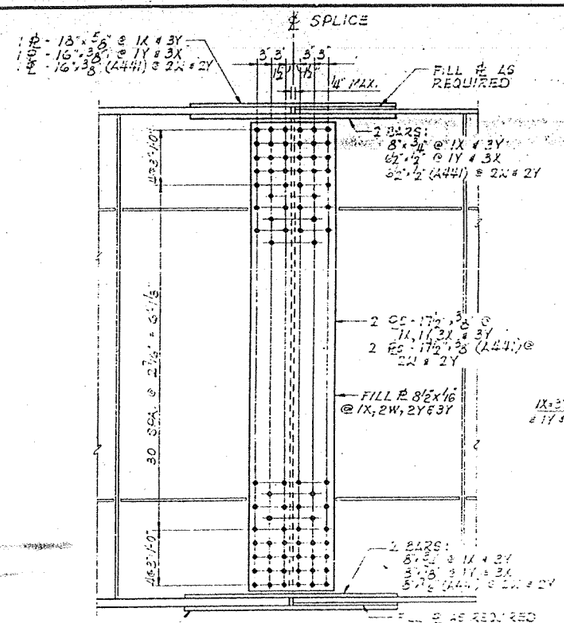
BOT. FLG. SPLICE-14X & 14Y



BOT. FLANGE SPLICE-13X & 15Y

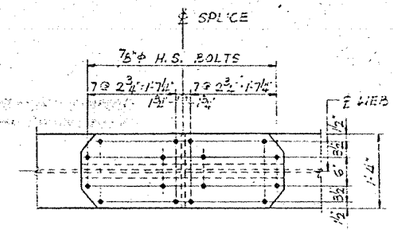
SPLICES FOR SPANS 13, 14 AND 15

SCALE: 3/4" = 1'-0"

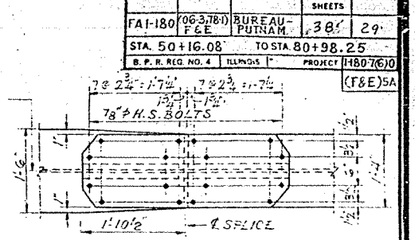


1 PL - 18" x 5/8" @ 1X & 3Y
1 PL - 16" x 3/8" @ 1Y & 3X
2 PL - 16" x 3/8" (44#) @ 2W & 2Y

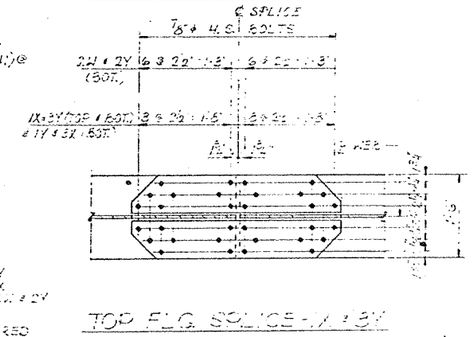
TYP. WEB SPLICE



TOP FLG. SPLICE-1Y & 3X



TOP FLG. SPLICE-2W & 2Y



TOP FLG. SPLICE-1X & 3Y

BOT. FLG. SPLICE-1X, 1Y, 2W & 3X (& 3Y @ 2X & 2Y)

SPLICES FOR SPANS 1, 2 AND 3

SCALE: 3/4" = 1'-0"

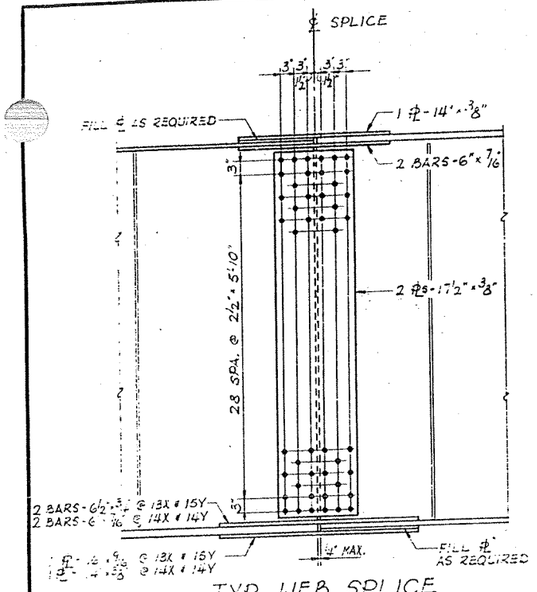
SEPTEMBER 6, 1967

APPROVED
FOR THE DIRECTOR
9-21-67

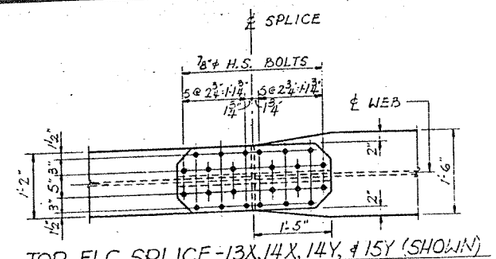
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

FIELD SPLICES - ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3.78-1)F & E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	06-3,78-1) F&E	BUREAU-PUTNAM	38	30
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	*	PROJECT I-180-7(6)0	(F&E)5B

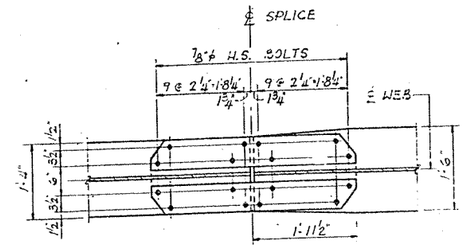


TYP. WEB SPLICE



TOP FLG. SPLICE - 13X, 14X, 14Y, & 15Y (SHOWN)

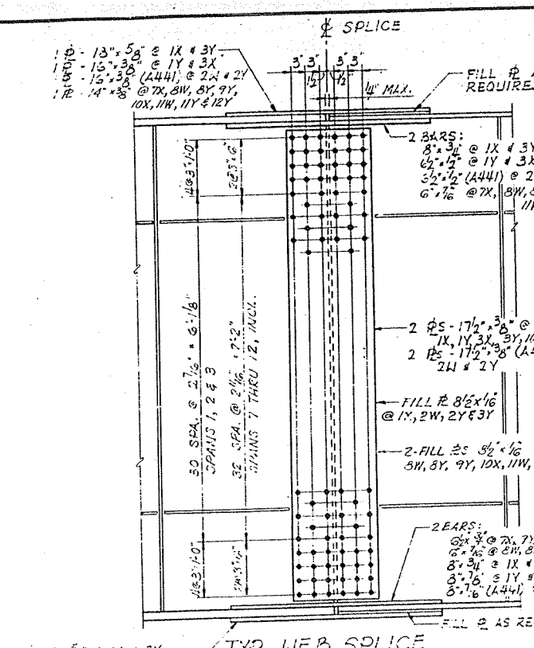
BOT. FLG. SPLICE - 14X & 14Y



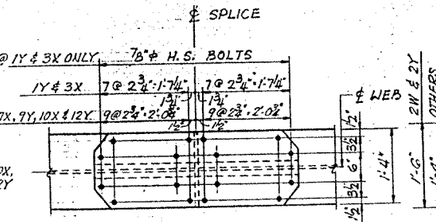
BOT. FLANGE SPLICE - 13X & 15Y

SPLICES FOR SPANS 13, 14 AND 15

SCALE: ¾" = 1'-0"

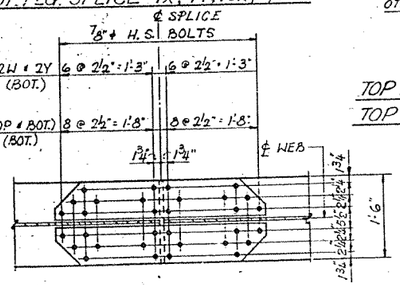


TYP. WEB SPLICE



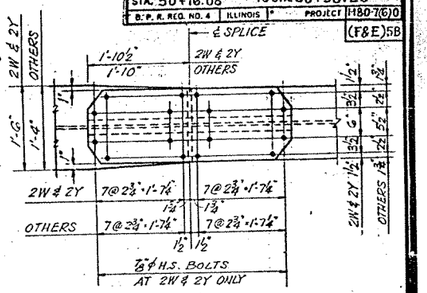
TOP FLG. SPLICE - 1Y & 3X (SHOWN)

BOT. FLG. SPLICE - 7X, 9Y, 10X, & 12Y



TOP FLG. SPLICE - 1X & 3Y

BOT. FLG. SPLICE - 1X, 1Y, 2W, 2Y, 3X & 3Y (SHOWN)



TOP FLG. SPLICE - 2W, 2Y, 7X, 9Y, 10X & 12Y

TOP & BOT. FLG. SPLICE - 8W, 8Y, 11W, & 11Y

SPLICES FOR SPANS 1, 2, 3, AND 7 THRU 12, INCL.

SCALE: ¾" = 1'-0"

9-27-67

SEPTEMBER 27, 1967

1459

Samuel Benesch

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
CHICAGO, ILLINOIS

FIELD SPLICES - ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F & E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	06-3,78(1) F&E	BUREAU-PUTNAM	38	32
STA. 50+16.06		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS		PROJECT	I180-7(6)0 (F&E)6

STRESS TABLE

MAXIMUM MOMENTS (IN FOOT KIPS)

	SPANS 1 & 3*	PIERS 1 & 2	SPAN 2	SPANS 4 & 6*	PIERS 4 & 5	SPAN 5	SPANS* 7, 9, 10 & 12	PIERS 7, 8, 10 & 11	SPANS 8 & 11	SPANS 13 & 15*	PIERS 13 & 14	SPAN 14
D.L.	+ 2,437	-10,754	+ 3,399							+1,792	- 2,795	+ 266
S.D.L.	+ 605	- 1,892	+ 930							+ 410	- 524	+ 132
L.L.	+ 2,960	- 4,950	+ 3,570							+1,606	- 1,630	+1,013
IMP.	+ 456	- 681	+ 444	—			—	—	—	+ 310	- 313	+ 194
S.D.L.+L.L.+IMP.	+ 4,021	—	+ 4,944							+ 2,326	—	—
TOTAL	+ 6,458	-18,277	+ 8,343							+ 4,118	-5,262	+1,605

SECTION PROPERTIES (I IN IN.4, S IN IN.3)

STEEL SECTION	I_S	149,773	793,487	159,713						74,183	136,627	52,842
	S_{TS}	2,329	9,872	2,383						1,475	3,205	1,267
	S_{BS}	3,562	9,872	4,033						2,194	3,205	1,269
COMP. SECTION	I_C (n=8)	339,081	—	369,508	—	—	—	—	—	183,515	—	—
	S_{TC}	10,122	—	10,239	—	—	—	—	—	7,905	—	—
	S_{BC}	4,645	—	5,239	—	—	—	—	—	3,013	—	—

REACTIONS (IN KIPS)

	EAST ABUT.	PIERS 1 & 2	PIER 3 SPAN 3	PIER 3 SPAN 4	PIERS 4 & 5	PIER 6 SPAN 6	PIERS 7 & 8 SPAN 7	PIERS 10 & 11	PIER 9 SPAN 9	PIER 12 SPAN 10	PIER 12 SPAN 12	SPAN 13	PIERS 13 & 14	WEST ABUT.
D.L.	84.7	417.7	84.7									28.8	207.4	68.8
S.D.L.	19.1	78.4	19.1									15.4	42.6	15.4
L.L.	74.7	188.0	74.7									58.9	114.3	58.9
IMP.	11.6	25.6	11.6									11.3	21.9	11.3
S.D.L.+L.L.+IMP.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	190.1	709.7	190.1									154.4	386.2	154.4

LEGEND

D.L. DEAD LOAD.
S.D.L. SUPER IMPOSED DEAD LOAD ACTING ON COMPOSITE SECTION.
L.L. LIVE LOAD.
IMP. IMPACT.
I_S MOMENT OF INERTIA OF STEEL SECTION AT LOCATION OF MAXIMUM MOMENT.
S_{TS} SECTION MODULUS FOR TOP OF STEEL SECT.
S_{BS} SECTION MODULUS FOR BOTT. OF STEEL SECT.
I_C MOMENT OF INERTIA OF COMPOSITE SECT. AT LOCATION OF MAXIMUM MOMENT.
S_{TC} SECTION MODULUS FOR TOP STEEL OF COMPOSITE SECTION.
S_{BC} SECTION MODULUS FOR BOTT. STEEL OF COMPOSITE SECTION.
* MOMENTS & SECTION PROPERTIES SHOWN FOR A LOCATION AT 0.4 × L FROM THE EXT. SUPP. WHERE L = THE LENGTH OF SPAN UNDER CONSIDERATION.

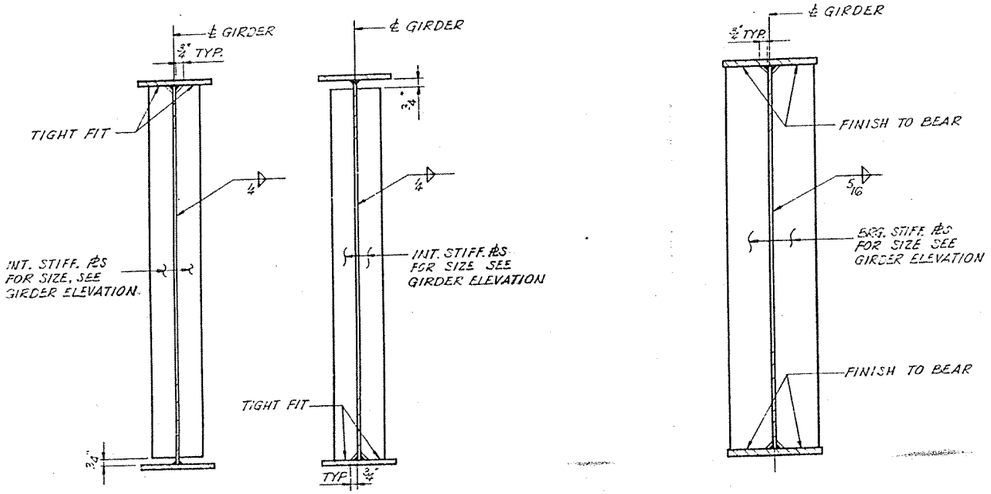
SHEARS (IN KIPS)

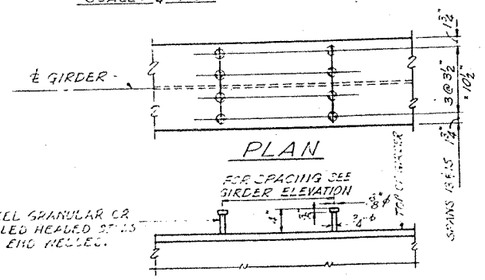
	SPANS 1 & 3 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 2 SUPPORT	1/4	1/2
D.L.	+ 84.7	+16.8	- 52.7	-123.4	-206.1	+211.6	+ 98.7	0
S.D.L.	+ 19.1	+ 4.8	- 9.5	- 23.8	- 38.1	+ 40.3	+ 20.2	0
L.L.	+ 74.7	+43.8	-45.0	- 71.0	-100.8	+110.0	+ 69.1	+36.0
IMP.	+ 11.6	+ 8.1	-10.1	- 13.1	- 15.7	+ 13.4	+ 10.3	+ 6.8
S.D.L.+L.L.+IMP.	+105.4	+56.7	-64.6	-107.9	-154.6	+163.7	+ 99.6	+42.8
TOTAL	+190.1	+73.5	-117.3	-231.3	-360.7	+375.3	+198.3	+42.8

	SPANS 4 & 6 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 5 SUPPORT	1/4	1/2

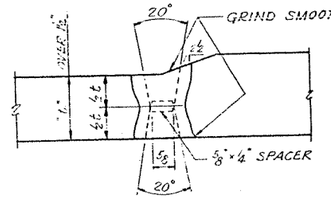
	SPANS 7, 9, 10 & 12 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPANS 8 & 11 SUPPORT	1/4	1/2

	SPANS 13 & 15 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 14 SUPPORT	1/4	1/2
	- 55.3	+ 24.5	- 20.5	-65.7	-114.0	+93.4	+44.7	0
	+15.4	+ 5.7	- 3.9	-13.6	- 23.2	+19.4	+ 9.7	0
	+58.9	+39.9	-31.7	-49.1	- 70.6	+67.0	+45.5	+26.6
	+11.3	+ 8.9	- 8.2	-10.9	- 13.5	+12.8	+10.1	+ 6.9
	+85.6	+54.5	-43.6	-73.6	-101.3	+99.2	+65.3	+33.5
	+154.4	+79.0	-64.3	-139.3	-221.3	+172.6	+110.0	+33.5

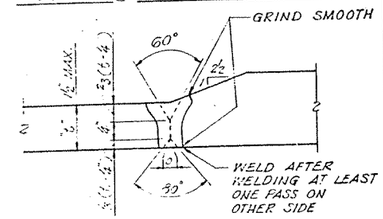




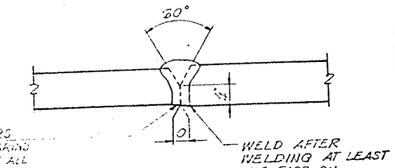
NOTE: SHEAR CONNECTORS TO BE DESIGNED AND DETAILED UNDER



FLANGE BUTT WELD OVER 1½" ℄ THICKNESS

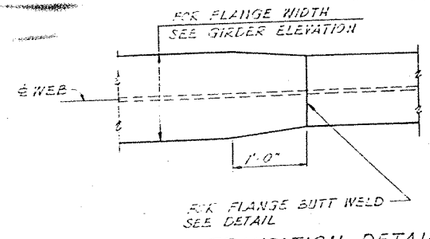


FLANGE BUTT WELD 1½" MAX. ℄ THICKNESS



GRIND SMOOTH LONGITUDINAL FACE OF GIRDERS 1 AND 7 AT ALL SPLICES. IN ADDITION GRIND SMOOTH BOTH FACES OF THE WEB OF ALL GIRDERS AT THE FOLLOWING LOCATIONS:
1. LOWER 1'-0" AT SPLICES IN PANEL 15X.

WEB BUTT WELD



FLANGE TRANSITION DETAIL

WELDED SHOP SPLICES

APPROVED
FOR CONFORMANCE WITH POLICY ONLY
BUREAU OF BRIDGES & STRUCTURES
7-26-67

JULY 18, 1967

STRESS TABLE & STEEL DETAILS-ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(6)C
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

#1360

TEIKOKU BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78)F&E	BUREAU-PUTNAM	38	33
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT	I180-7(6)0 (T&E)6A	

STRESS TABLE

MAXIMUM MOMENTS (IN FOOT KIPS)

	SPANS 1 & 3	PIERS 1 & 2	SPAN 2	SPANS 4 & 6	PIERS 4 & 5	SPAN 5	SPANS 7, 9, 10 & 12 *	PIERS 7, 9, 10 & 11	SPANS 8 & 11	SPANS 13 & 15 *	PIERS 13 & 14	SPAN 14
D.L.	+ 2,437	-10,754	+ 3,399							+1,792	- 2,795	+ 266
S.D.L.	+ 605	- 1,892	+ 930							410	- 524	+ 132
L.L.	+ 2,960	- 4,950	+ 3,570							+ 1,606	- 1,630	+1,013
IMP.	+ 456	- 681	+ 444	—	—	—				+ 310	- 313	+ 194
S.D.L.+L.L.+I.M.	+ 4,021	—	+ 4,944							+ 2,326	-	—
TOTAL	+ 6,458	-18,277	+ 8,343							+ 4,118	- 5,262	+1,605

SECTION PROPERTIES (I IN IN.4, S IN IN.3)

STEEL SECTION	Is	149,773	793,487	159,713						74,183	136,827	52,842
	Sts	2,329	9,872	2,383						1,475	3,205	1,269
	Sbs	3,562	9,872	4,033						2,194	3,205	1,269
COMP. SECTION	Ic (n=6)	339,081	—	329,598	—	—	—	—	—	183,515	—	—
	Stc	10,122	—	10,239						7,905	—	—
	Sbc	4,645	—	5,239						3,013	—	—

REACTIONS (IN KIPS)

EAST ABUT.	PIERS 1 & 2	PIER 3 SPAN 3	PIER 3 SPAN 4	PIERS 4 & 5	PIER 6 SPAN 6	PIERS SPAN 7	7, 8, 10 & 11	PIER 9 SPAN 9	PIER 9 SPAN 10	PIER 12 SPAN 12	PIER 12 SPAN 13	PIERS 13 & 14	WEST ABUT.
84.7	417.7	84.7									68.8	207.4	68.8
19.1	78.4	19.1									15.4	42.6	15.4
74.7	188.0	74.7									58.9	114.3	58.9
11.6	25.6	11.6									11.3	21.9	11.3
—	—	—	—	—	—	—	—	—	—	—	—	—	—
190.1	709.7	190.1									154.4	386.2	154.4

LEGEND

D.L. DEAD LOAD.
S.D.L. SUPER IMPOSED DEAD LOAD ACTING ON COMPOSITE SECTION.
L.L. LIVE LOAD.
I.M. IMPACT.
Is MOMENT OF INERTIA OF STEEL SECTION AT LOCATION OF MAXIMUM MOMENT.
Sts SECTION MODULUS FOR TOP OF STEEL SECT.
Sbs SECTION MODULUS FOR BOT. OF STEEL SECT.
Ic MOMENT OF INERTIA OF COMPOSITE SECT. AT LOCATION OF MAXIMUM MOMENT.
Stc SECTION MODULUS FOR TOP STEEL OF COMPOSITE SECTION.
Sbc SECTION MODULUS FOR BOT. STEEL OF COMPOSITE SECTION.
* MOMENTS & SECTION PROPERTIES SHOWN FOR A LOCATION AT 0.4 *L FROM THE EXT. SUPP. WHERE L = THE LENGTH OF SPAN UNDER CONSIDERATION.

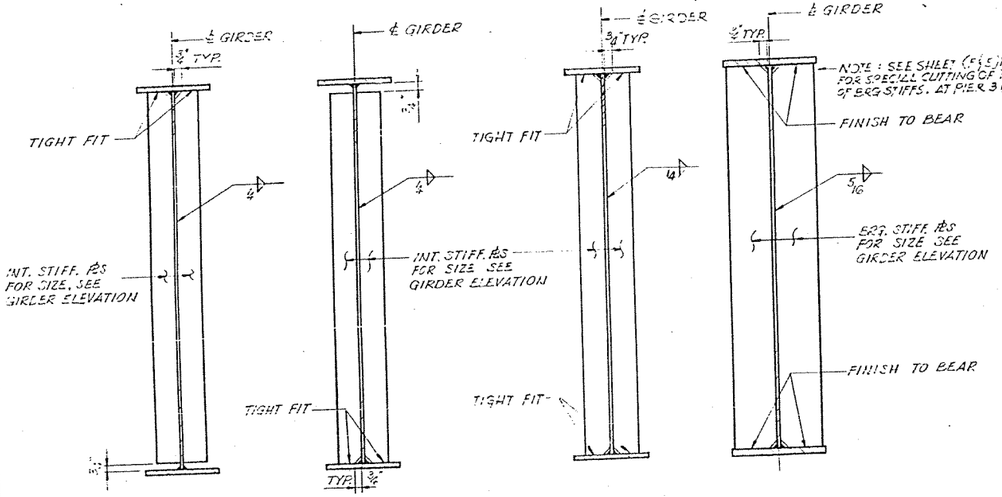
SHEARS (IN KIPS)

SPANS 1 & 3 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 2 SUPPORT	1/4	1/2
+ 84.7	+16.8	- 52.7	-123.4	-206.1	+211.6	+ 98.7	0
+ 19.1	+ 4.8	- 9.5	- 23.8	- 38.1	+ 40.3	+ 20.2	0
+ 74.7	+43.8	-45.0	- 71.0	-100.8	+110.0	+ 69.1	+36.0
+ 11.6	+ 8.1	-10.1	- 13.1	- 15.7	+ 13.4	+ 10.3	+ 6.8
+105.4	+56.7	-64.6	-107.9	-154.6	+163.7	+ 99.6	+ 42.8
+190.1	+73.5	-117.3	-231.3	-360.7	+375.3	+198.3	+ 42.8

SPANS 4 & 6 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 5 SUPPORT	1/4	1/2

SPANS 7, 9, 10 & 12 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPANS 8 & 11 SUPPORT	1/4	1/2

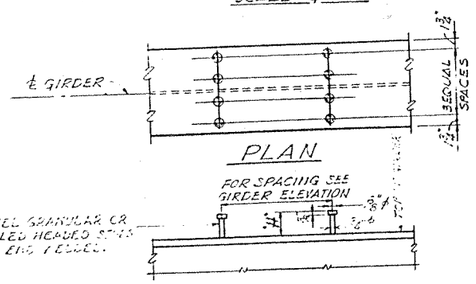
SPANS 13 & 15 EXT. SUPP.	1/4	1/2	3/4	INT. SUPP.	SPAN 14 SUPPORT	1/4	1/2
- 25.5	+ 24.5	- 20.5	- 65.7	-114.0	+ 93.4	+ 44.7	0
- 15.4	+ 5.7	- 3.9	- 13.6	- 23.2	+ 19.4	+ 9.7	0
+ 58.9	+39.9	- 21.7	- 49.1	- 70.6	+ 67.0	+ 45.5	+28.6
- 11.3	+ 8.9	- 8.2	- 10.9	- 13.5	+ 12.8	+ 10.1	+ 6.9
+ 55.6	+54.5	- 43.8	- 73.6	-107.3	+ 99.2	+ 65.3	+ 35.5
+154.4	+79.0	- 64.3	-139.3	-221.3	+172.6	+110.0	+ 35.5



TYPE 'A' TYPE 'B' TYPE 'C' (AT X-FRAMES)

INTERMEDIATE STIFFENERS BEARING STIFFENER

SCALE 3/4" = 1'-0" SCALE: 3/4" = 1'-0"



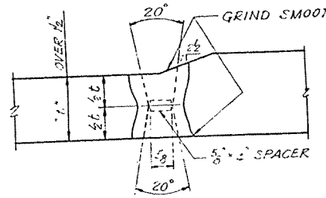
SHEAR CONNECTOR DETAIL

SCALE: 1 1/2" = 1'-0"

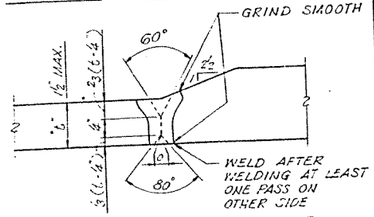
SPANS	'H'
1, 2 & 3	4'-1 5/8" *
4, 5 & 6	
7, 8, 9, 10, 11, 12	
13 & 15	4

* FOR LIMITS SEE GIRDER ELEVATION ON SHEET (F&E)7.

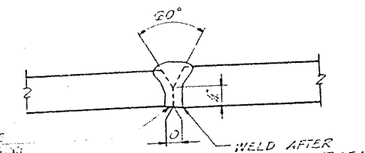
NOTE: SHEAR CONNECTORS AT BE



FLANGE BUTT WELD OVER 1/2" ℄ THICKNESS

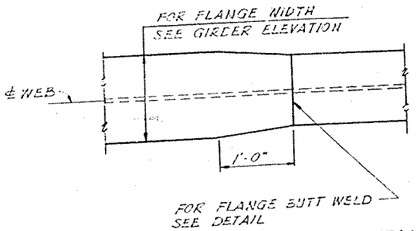


FLANGE BUTT WELD 1/2" MAX. ℄ THICKNESS



WEB BUTT WELD

GRIND SMOOTH OUTSIDE FACE OF GIRDERS (AND 7 AT ALL SPLICES, IN ADDITION GRIND SMOOTH BOTH FACES OF THE WEB OF ALL GIRDERS AT THE FOLLOWING LOCATIONS: A DISTANCE 1'-0" EACH SIDE OF GIRDERS 13 AND 14.



FLANGE TRANSITION DETAIL

WELDED SHOP SPLICES

APPROVED
FOR: STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
9-21-67

SEPT. 6, 1967

STRESS TABLE & STEEL DETAILS-ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)C
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78)1 F&E	BUREAU-PUTNAM	38	34
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(6)0		(F&E)6B

STRESS TABLE

MAXIMUM MOMENTS (IN FOOT KIPS)

	SPANS 1 & 3	PIERS 1 & 2	SPAN 2	SPANS 4 & 6	PIERS 4 & 5	SPAN 5
D.L.	+ 2,437	-10,754	+ 3,399			
S.D.L.	+ 605	- 1,892	+ 930			
LL.	+ 2,960	- 4,950	+ 3,570			
IMP.	+ 456	- 681	+ 444			
S.D.L+LL+IMP.	+ 4,021	—	+ 4,944		—	
TOTAL	+ 6,458	-18,277	+8,343			

	SPANS* 7, 9, 10 & 12	PIERS 7, 8, 10 & 11	SPANS 8 & 11	SPANS 13 & 15*	PIERS 13 & 14	SPAN 14
D.L.	+2,957	- 4,441	+ 349	+1,792	- 2,795	+ 266
S.D.L.	+ 643	- 859	+ 182	+ 410	- 524	+ 132
LL.	+ 2,330	-2,570	+ 1,272	+ 1,606	- 1,630	+1,013
IMP.	+ 398	- 437	+ 216	+ 310	- 313	+ 194
S.D.L+LL+IMP.	+ 3,371	—	—	+ 2,326	—	—
TOTAL	+ 6,328	-8,307	+ 2,019	+ 4,118	- 5,262	+1,605

REACTIONS (IN KIPS)

	EAST ABUT.	PIERS 1 & 2	PIER 3 SPAN 3	PIER 3 SPAN 4	PIERS 4 & 5	PIER 6 SPAN 6	PIERS 7, 8, 10 & 11 SPAN 7	PIER 9 SPAN 8	PIER 12 SPAN 10	PIER 12 SPAN 12	PIER 13	PIERS 13 & 14	WEST ABUT.
D.L.	84.7	417.7	84.7				87.3	261.9	89.3	89.3	68.8	207.4	68.8
S.D.L.	19.1	78.4	19.1				17.2	53.9	19.2	19.2	15.4	42.6	15.4
LL.	74.7	188.0	74.7				68.4	138.8	68.4	68.4	58.9	114.3	58.9
IMP.	11.6	25.6	11.6				11.6	23.6	11.6	11.6	11.3	21.9	11.3
S.D.L+LL+IMP.	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	190.1	709.7	190.1				188.5	478.2	188.5	188.5	154.4	386.2	154.4

SECTION PROPERTIES (I IN IN.4, S IN IN.3)

		SPANS 1 & 3	SPAN 2	SPANS 4 & 6	SPAN 5	SPANS 7, 9, 10 & 12	SPANS 8 & 11	SPANS 13 & 15	SPAN 14
STEEL SECTION	I_S	143,112	793,487	152,377	140,787	375,094	83,048	74,183	136,227	52,842
	S_{TS}	2,191	9,872	2,238	2,179	5,237	1,578	1,475	3,205	1,269
	S_{BS}	3,475	9,872	3,953	3,350	5,237	1,578	2,194	3,205	1,269
COMP. SECTION (n=9)	$I_{C(n=9)}$	328,257	—	359,038	320,545	—	—	183,515	—	—
	S_{TC}	9,942	—	10,044	9,919	—	—	7,905	—	—
	S_{BC}	4,467	—	5,065	4,314	—	—	3,013	—	—

LEGEND

D.L. DEAD LOAD.
S.D.L. SUPERIMPOSED DEAD LOAD ACTING ON COMPOSITE SECTION.
L.L. LIVE LOAD.
IMP. IMPACT.
I_S MOMENT OF INER OF STEEL SECTION.
AT LOCATION OF MA MUM MOMENT.
S_{TS} SECTION MODULUS FOR TOP OF STEEL SECT.
S_{BS} SECTION MODULUS FOR BOTT. OF STEEL SECT.
I_C MOMENT OF INERTIA OF COMPOSITE SECT. AT LOCATION OF MAXIMUM MOMENT.
S_{TC} SECTION MODULUS FOR TOP STEEL OF COMPOSITE SECTION.
S_{BC} SECTION MODULUS FOR BOTT. STEEL OF COMPOSITE SECTION.
* MOMENTS & SECTION PROPERTIES SHOWN FOR A LOCATION AT 0.4×L FROM THE EXT. SUPP. WHERE L = THE LENGTH OF SPAN UNDER CONSIDERATION.

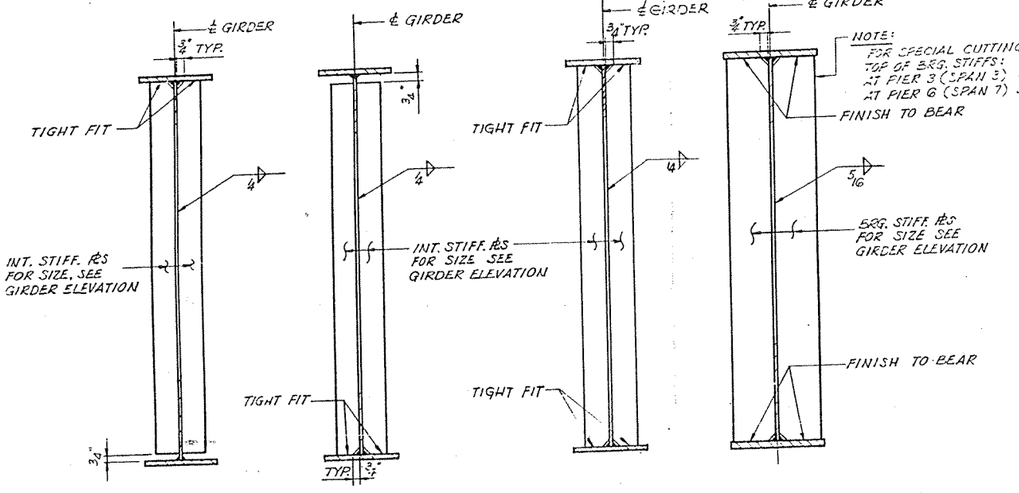
SHEARS (IN KIPS)

	SPANS 1 & 3					SPAN 2		
	EXT. SUPP.	l_4	l_2	3_4	INT. SUPP.	SUPPORT	l_4	l_2
D.L.	+ 84.7	+16.8	- 52.7	-123.4	-206.1	+211.6	+98.7	0
S.D.L.	+ 19.1	+ 4.8	- 9.5	- 23.8	- 38.1	+40.3	+ 20.2	0
L.L.	+ 74.7	+43.8	-45.0	-71.0	-100.8	+110.0	+69.1	+36.0
IMP.	+ 11.6	+ 8.1	-10.1	-13.1	-15.7	+ 13.4	+ 10.3	+ 6.8
S.D.L+LL+IMP.	+105.4	+56.7	-64.6	-107.9	-154.6	+163.7	+ 99.6	+42.8
TOTAL	+190.1	+73.5	-117.3	-231.3	-360.7	+375.3	+198.3	+42.8

	SPANS 4 & 6					SPAN 5		
	EXT. SUPP.	l_4	l_2	3_4	INT. SUPP.	SUPPORT	l_4	l_2
D.L.								
S.D.L.								
L.L.								
IMP.								
S.D.L+LL+IMP.								
TOTAL								

	SPANS 7, 9, 10 & 12					SPANS 8 & 11		
	EXT. SUPP.	l_4	l_2	3_4	INT. SUPP.	SUPPORT	l_4	l_2
D.L.	+ 69.3	+ 32.3	- 26.5	- 84.1	-145.2	+116.7	+ 55.3	0
S.D.L.	- 19.2	+ 7.1	- 5.1	-17.3	- 27.4	+ 24.5	+ 12.2	0
L.L.	+ 68.4	+ 41.7	-34.5	-57.3	- 83.4	+ 75.5	+ 42.8	+29.2
IMP.	+ 11.6	- 8.2	- 8.2	-11.3	- 14.1	+ 13.4	+ 8.5	+ 6.9
S.D.L+LL+IMP.	+ 79.2	+ 57.0	-47.8	-85.9	-126.9	+116.4	- 23.5	+36.1
TOTAL	+188.5	+89.3	- 74.3	-173.0	-272.1	+ 233.1	+118.8	+ 36.1

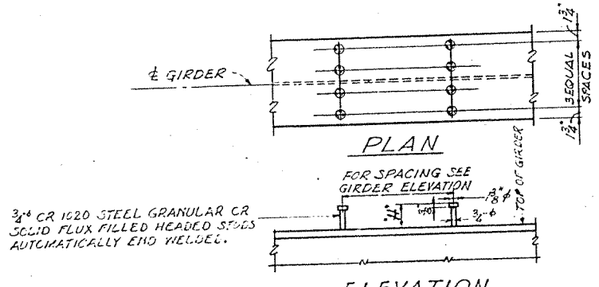
	SPANS 13 & 15					SPAN 14		
	EXT. SUPP.	l_4	l_2	3_4	INT. SUPP.	SUPPORT	l_4	l_2
D.L.	+ 68.8	+ 24.5	- 20.5	-65.7	-111.0	+ 93.4	+ 44.7	0
S.D.L.	+ 15.4	+ 5.7	- 3.9	-13.6	- 23.2	+ 19.4	+ 9.7	0
L.L.	+ 58.9	+ 39.9	- 31.7	- 49.1	- 70.6	+ 67.0	+ 45.5	+ 26.6
IMP.	+ 11.3	+ 8.9	- 8.2	-10.9	-13.5	+ 12.8	+ 10.1	+ 6.9
S.D.L+LL+IMP.	+ 85.6	+ 54.5	- 43.8	-73.6	-107.3	+ 99.2	+ 65.3	+ 33.5
TOTAL	+154.4	+ 79.0	- 64.3	-139.3	-221.3	+192.6	+110.0	+ 33.5



TYPE 'A' TYPE 'B' TYPE 'C' (AT X-FRAMES)

INTERMEDIATE STIFFENERS SCALE 3/4" = 1'-0"

BEARING STIFFENER SCALE: 3/8" = 1'-0"

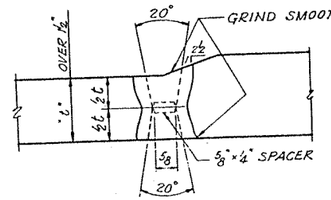


SHEAR CONNECTOR DETAIL

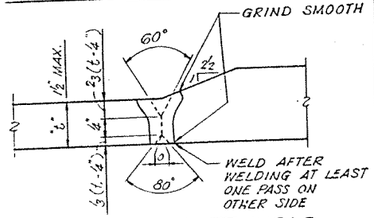
SPANS	'H'
1, 2 & 3	4" & 5"*
4, 5 & 6	
7, 8, 9, 10, 11, 12	4"
13 & 15	4"

* FOR LIMITS SEE GIRDER ELEVATION ON SHEET (F&E)9.

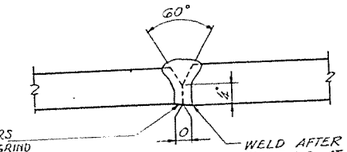
NOTE: SHEAR CONNECTORS TO BE FURNISHED AND ERECTED UNDER



FLANGE BUTT WELD OVER 1½" ℄ THICKNESS

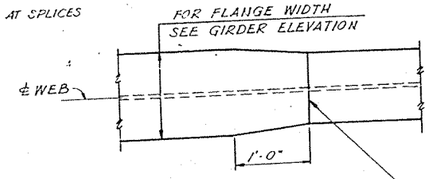


FLANGE BUTT WELD 1½" MAX. ℄ THICKNESS



GRIND SMOOTH OUTSIDE FACE OF GIRDERS 1 AND 7 AT ALL SPLICES. IN ADDITION GRIND SMOOTH BOTH FACES OF THE WEB OF ALL GIRDERS AT THE FOLLOWING LOCATIONS:
1. LOWER 1'-3" AT SPLICES 13Y AND 15X.
2. LOWER 1'-6" AT SPLICES 1Z, 2X AND 3W.
3. UPPER 2'-0" AT SPLICES 1W, 2V, 2Z, AND 3Z.
4. LOWER 1'-6" AT SPLICES 7Y, 8X, 9X, 10Y, 11X, AND 12X.
5. FULL DEPTH OF WEB AT SPLICES 8V, 8Z, 11V AND 11Z.

WEB BUTT WELD



FLANGE TRANSITION DETAIL

WELDED SHOP SPLICES

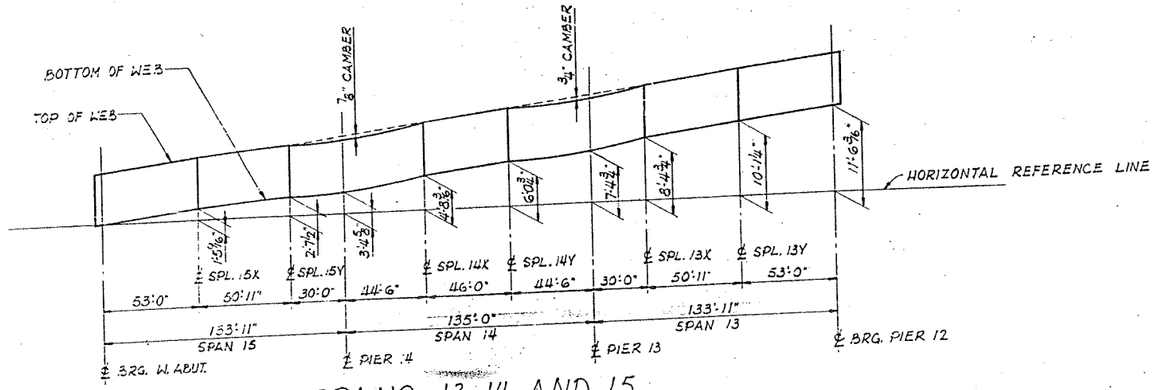
APPROVED
FOR
DIVISION OF HIGHWAYS
9-27-67
1459
Samuel Barrow

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE

SEPTEMBER 27, 1967

STRESS TABLE & STEEL DETAILS-ALL SPANS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1) F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78)0 F&E	BUREAU-PUTNAM	38	36
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6)0 (F&E)7	



SPANS 13, 14 AND 15

APPROVED
FOR SECONDARY ROADS ONLY
Department of Transportation
7-26-67

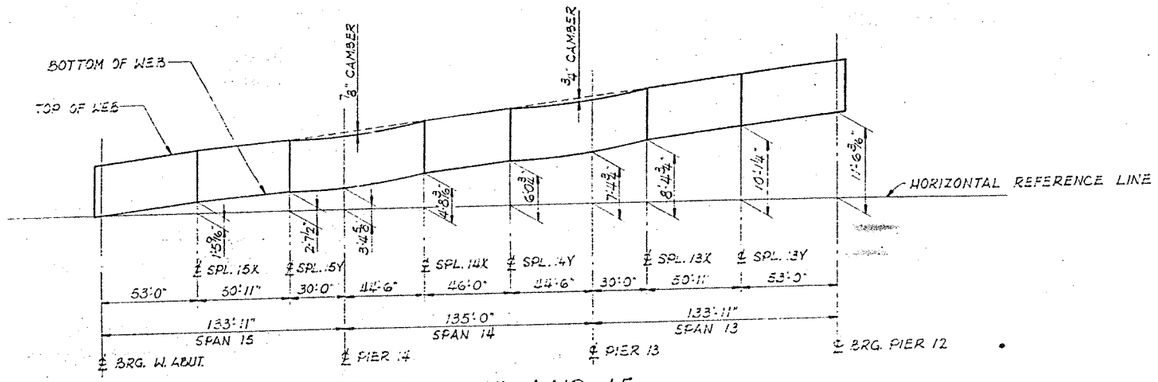
$1300

JULY 18, 1967

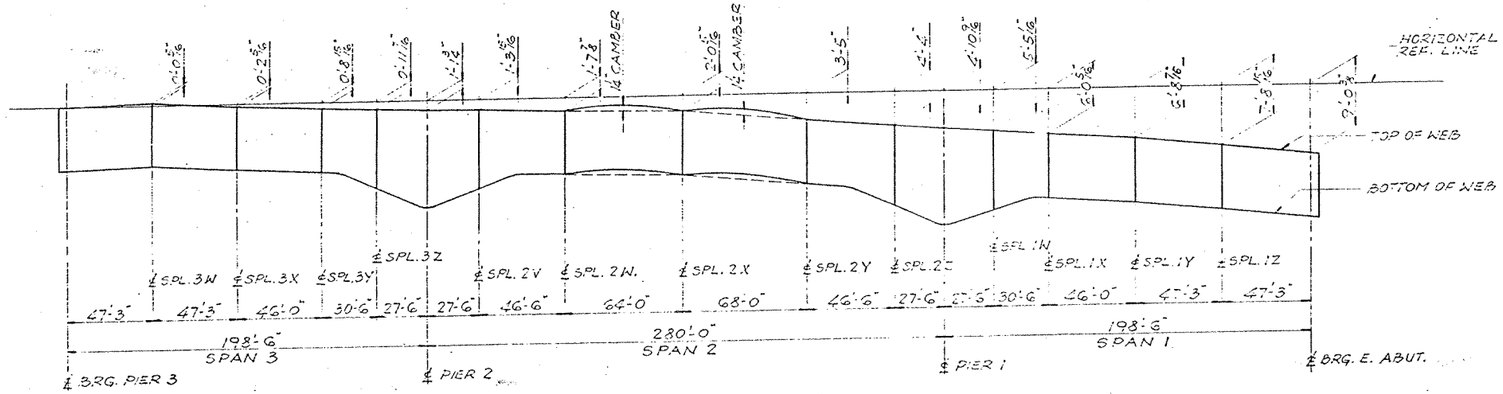
CAMBER DIAGRAMS - SPANS 13, 14 & 15
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6)0
SECTION (06-3,78-1)F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) F&E	BUREAU-PUTNAM	38	37
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6) (F&E)7	



SPANS 13, 14 AND 15



SPANS 1, 2 AND 3

APPROVED
FOR STRUCTURAL DETAILS
9-21-67

SEPTEMBER 6, 1967

CAMBER DIAGRAMS - SPANS 1,2,3, 13, 14 & 15
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(6) O
SECTION (06-3,78-1) F&E
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE

FED. AID PROJ. NO.	SEC.	COUNTY	TOT. SHEETS	SHEET NO.
F.A.I. 180	(06-3, 78-1)B	BUREAU-PUTNAM	39	1
		PROJECT	I-180-7(5)O	

P-92-007-67

SECTION $\binom{06-3}{78-1}$B INCLUDES:
FURNISHING OF ALL MATERIALS AND THE COMPLETE CONSTRUCTION OF THE PIERS AND ABUTMENTS SUPPORTING A PLATE GIRDER DECK STRUCTURE CONSISTING OF (A) NINE APPOACH SPANS (3 @ 135 FT. AND 6 @ 170 FT.), (B) A THREE SPAN UNIT OVER THE MAIN CHANNEL (2 @ 300 FT. AND 1 @ 375 FT.) AND (C) A THREE SPAN UNIT OVER THE SECONDARY CHANNEL (2 @ 200 FT. AND 1 @ 280 FT.) CARRYING F.A.I ROUTE 180 OVER THE ILLINOIS RIVER AT HENNEPIN.

INDEX OF SHEETS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED

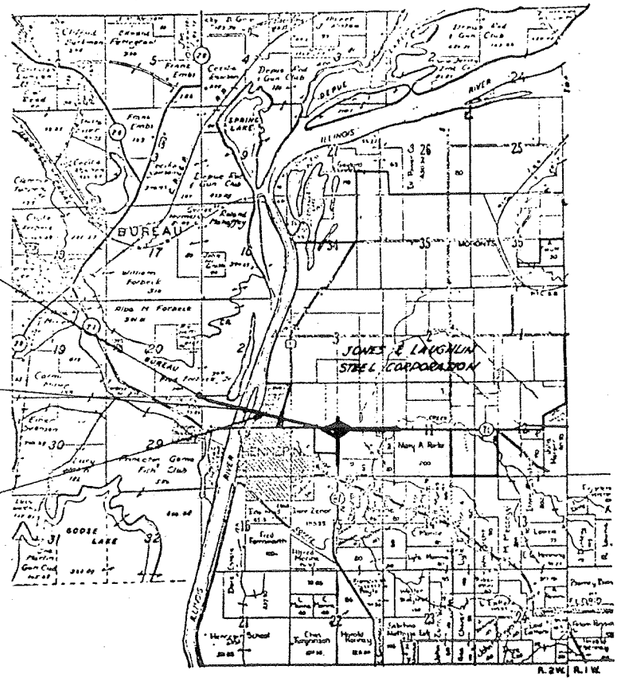
SCALES

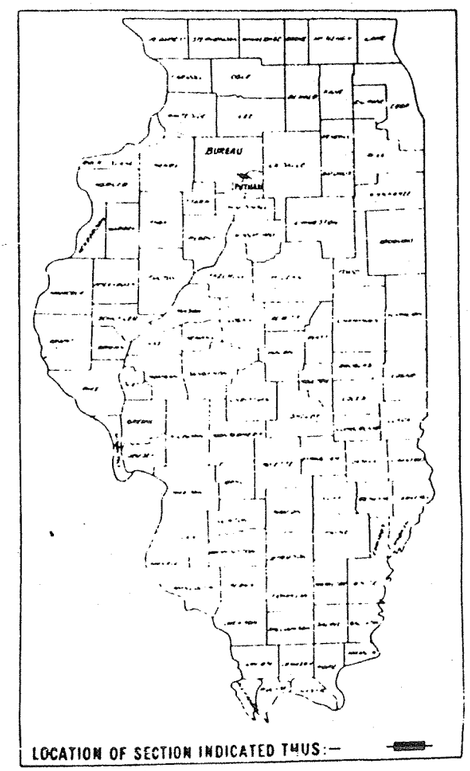
PLAN	1 INCH	FT
PROFILE, HOR	1 INCH	FT
PROFILE, VERT	1 INCH	FT
CROSS SECTIONS	1 INCH	FT

F.A.I. ROUTE 180 - SECTION $\binom{06-3}{78-1}$B, BUREAU PUTNAM COUNTIES

PROJECT I-180-7(5)O

C-92-044-67





LOCATION OF SECTION INDICATED THUS:-

DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
3-17 1967
D. C. Swanson
A. V. Van Arsdall
W. E. Baumann
4-6 67
Thomas J. Kreng

2-74

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
X
DIVISION ENGINEER
DATE

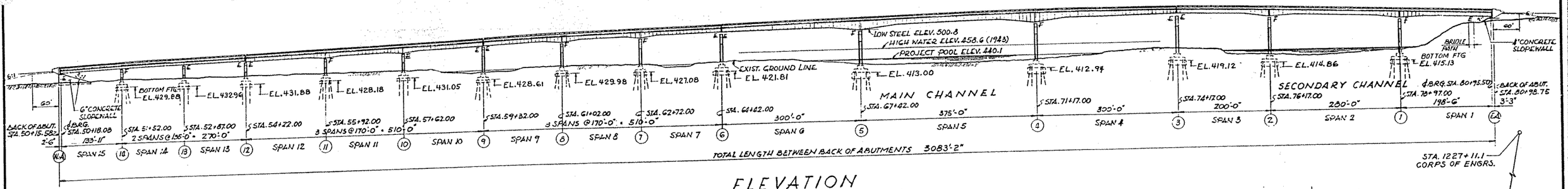
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Limmer IV
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
Mar 22 1967

GROSS LENGTH OF IMPROVEMENT (3082.67' = 0.584 MILES)
NET LENGTH OF IMPROVEMENT (3,082.67' = 0.584 MILES)

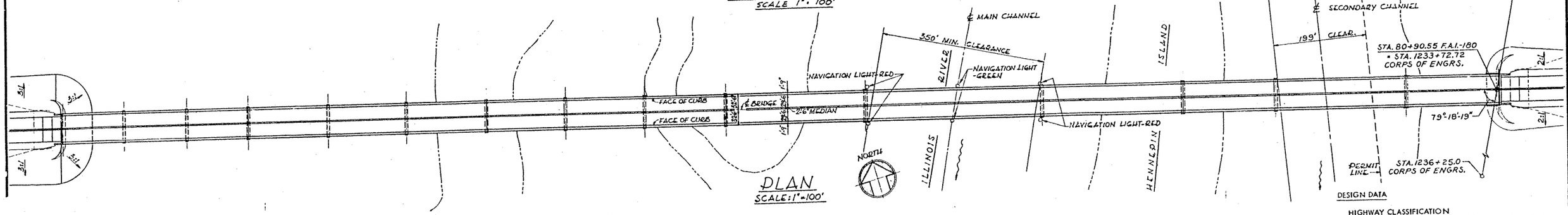
REV 12-26-67

CONTRACT NO. 25074

ROUTE FAS	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 180	(06-3, 78-1)B	BUREAU-PUTNAM	39	2
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



ELEVATION
SCALE 1" = 100'



PLAN
SCALE: 1" = 100'

DESIGN DATA

HIGHWAY CLASSIFICATION
CLASS "I" ROAD DHV: 944 (87) SPEED: 70 M.P.H.

DESIGN LOADS
L.L. = H520-44 AND ALT.
FUTURE D.L. = 1" BITUMINOUS WEARING SURFACE

DESIGN STRESSES
CONCRETE
- f_c = 3,500 P.S.I.
- f_c = 1,400 P.S.I.
- f_c = 1,000 P.S.I. (WITH EARTH PRESSURE)
- v = 75 P.S.I. (FOOTINGS)
- n = 10

REINFORCING STEEL
- f_s = 20,000 P.S.I.

STRUCTURAL STEEL
- f_s = 20,000 P.S.I. (A36)
- f_s = 27,000 P.S.I. (A441 3/4" AND UNDER)
- f_s = 25,000 P.S.I. (A441 3/4" TO 1-1/2" INCL.)
- f_s = 23,000 P.S.I. (A441 1-1/2" TO 4" INCL.)

PILE LOADS
P = 40 TONS (STEEL)

MAX. L.L. DEFLECTION
- Δ = L/1000 (NON-COMPOSITE)
- Δ = L/1200 (COMPOSITE)

Samuel Berner

NOVEMBER 30, 1967

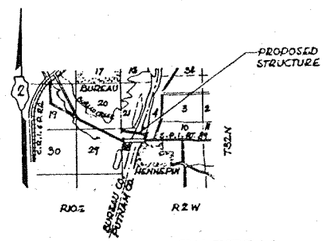
SUMMARY OF QUANTITIES
SECTION (06-3, 78-1) B

QUANTITY	UNIT	ITEM
16.5	ACRE	TREE REMOVAL, ACRES
60,921	CU. YD. ***	EARTH EXCAVATION
33,000	CU. YD.	BORROW EXCAVATION
88,571.68	CU. YD.	POROUS GRANULAR EMBANKMENT
500	CU. YD.	CLASS A EXCAVATION FOR STRUCTURES
1,000	CU. YD.	CLASS B EXCAVATION FOR STRUCTURES
17,200	CU. YD.	COFFERDAM EXCAVATION
1	EACH	COFFERDAM PIER 1
1	EACH	COFFERDAM PIER 2
1	EACH	COFFERDAM PIER 3
1	EACH	COFFERDAM PIER 4
1	EACH	COFFERDAM PIER 5
1	EACH	COFFERDAM PIER 6
1	EACH	COFFERDAM PIER 7
1	EACH	COFFERDAM PIER 8
1	EACH	COFFERDAM PIER 9
1	EACH	COFFERDAM PIER 10
1	EACH	COFFERDAM PIER 11

CODE	QUANTITY	UNIT	ITEM	CODE
010005	1	EACH	COFFERDAM PIER 12	050017
011001	1	EACH	COFFERDAM PIER 13	050018
013001	1	EACH	COFFERDAM PIER 14	050019
019001	10,969.8	CU. YD.	CLASS X CONCRETE	052003
050001	5,927.8	CU. YD.	SEAL COAT CONCRETE	052004
050002	1,449,630	LB.	REINFORCEMENT BARS	059001
050005	240	LIN. FT.	FURNISHING CREOSOTED PILES UP TO 20 FEET	060004
050006	300	LIN. FT.	FURNISHING CREOSOTED PILES 20.1 TO 38 FEET	060005
050007				
050008	540	LIN. FT.	DRIVING TIMBER PILES	060008
050009	79,535	LIN. FT.	FURNISHING STEEL PILES (BBP36)	060027
050010	16	EACH	TEST PILES STEEL (BBP36)	060036
050011	79,535	LIN. FT.	DRIVING STEEL PILES	060037
050012	2	EACH	NAME PLATES	061001
050013	305	SQ. YD.	SLOPE WALL 4 INCH	083002
050014	1,150	SQ. YD.	SLOPE WALL 6 INCH	083003
050015	*1	L. SUM	BRIDGE SEAT SEALANT	Z01023
050016	1	EACH	ENGINEER'S FIELD LABORATORY	Z01379
	2	EACH	ENGINEER'S FIELD OFFICE TYPE A	Z01398

* APPLIED AT EXPANSION PIERS & ABUTS. ONLY

APPROVED
FOR CONSTRUCTION PURPOSES ONLY
12-8-67
Engineer of Bridge & Traffic Structures



LOCATION SKETCH

*** This material shall be disposed of outside the right-of-way or as directed by the Engineer

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

REV. 12-26-67

GENERAL PLAN AND ELEVATION
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT 1-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

5/16/67 - F2E
Bureau Engr. Field Office

6/16/67 - B
Bureau Engr. Field Office
Form 1 & 2 used

ROUTE & SEC.	SEC.	COUNTY	FED. AID SHEET	SHEET NO.
FAI-180	(06-3 78-1)B	BUREAU-PUTNAM	39	3
I-180-7(5)0				B1

BEGIN PROJECT
SECTION (06-3,78-1)B
PROJECT I-180-7(5)0
STA 50+16.08

END PROJECT
SECTION (06-3,78-1)B
PROJECT I-180-7(5)0
STATION 80+98.25

SECTION A-A

SECTION B-B

EXIST. ILL RTE. 71 STRUCT. TO REMAIN IN PLACE

P.V.I. STA 48+31.33
EL. 462.00
700' V.C.

P.V.I. STA. 73+79.00
EL. 488.63
1700' V.C.
(600' SSD)
(60 M.P.H.)

LOW. STA. 90+50
ELEV. 499.30
1100' V.C.
(70 MAH.)

+3.00%

-3.00%

+2.23%

0.0%

BACK OF ABUTMENT STA. 50+15.58

BACK OF ABUTMENT STA. 80+98.75

EMBANKMENT SECTION (06-3,78-1)B

LOW STEEL ELEV. 500.5

350' MINIMUM CLEARANCE

HIGH WATER ELEV. 458.6 (1943)

PROJECT POOL ELEV. 440.1

HENNEPIN ISLAND

EXISTING GROUND LINE

PROFILE GRADE LINE

UNSUITABLE MATERIAL EXCAVATION AND POROUS GRANULAR EMBANKMENT SECTION (06-3,78-1)B

NOTE: EMBANKMENT TO BE CONSTRUCTED FROM BORROW OBTAINED BY CONTRACTOR FOR SECTION (06-3,78-1)B

MAIN CHANNEL

SECONDARY CHANNEL

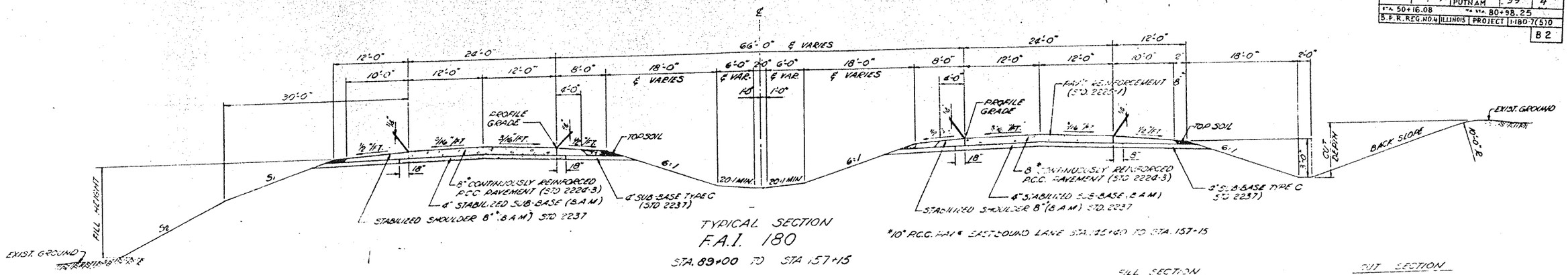
JUNE 16, 1967

GENERAL PLAN AND PROFILE
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-180	06-3, 78-1)B	BUREAU-PUTNAM	39	4
STA. 50+16.08		"A" STA. 80+98.25		
S.F.R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(5)10	

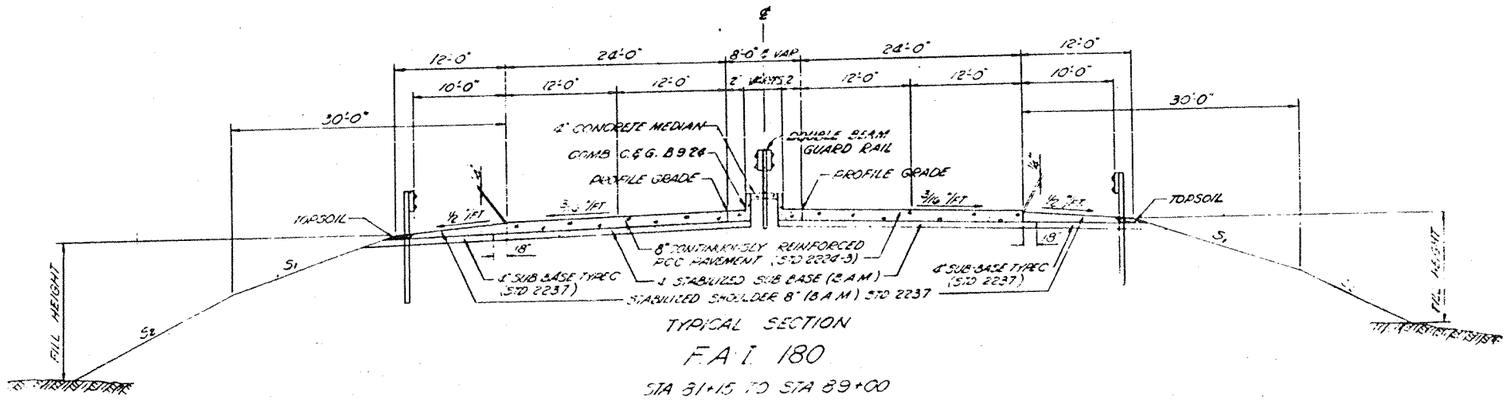
82



TYPICAL SECTION
F.A.I. 180
STA. 89+00 TO STA 157+15

*10" P.C.C. FAI ℄ EASTBOUND LANE STA. 132+60 TO STA. 157+15

FILL SECTION			CUT SECTION		
S.	S₂	FILL HEIGHT	FORE SLOPE	BACK SLOPE	CUT DEPTH
6:1	6:1	0 - 10'	6:1	6:1	0 - 10'
6:1	4:1	10' - 20'	4:1	4:1	10' - 20'
6:1	3:1	20' - 30'	6:1	3:1	OVER 20'
2:1	2:1	OVER 30'			



TYPICAL SECTION
F.A.I. 180
STA 31+15 TO STA 89+00

DESIGN DESIGNATION	F.A.I 180	ILL RTE 87	C.H. #1	RELOCATED ILL. RTE 71
DESIGN HOURLY VOLUME				
DESIGN YEAR				
HIGHWAY CLASS				
STRUCTURAL DESIGN TRAFFIC FACTOR				
PAVEMENT TYPE				
DESIGN SPEED, M.P.H				

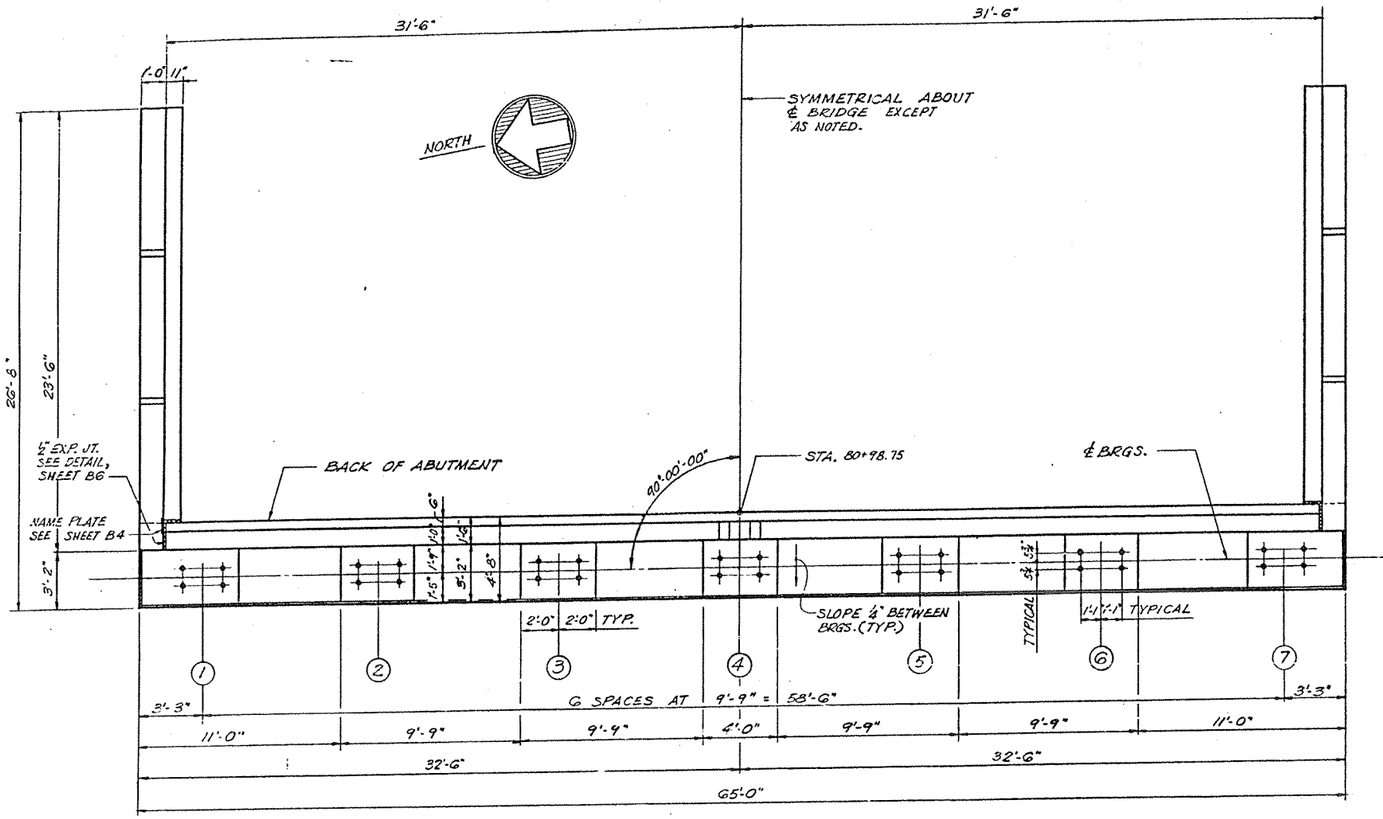
FOR REFERENCE ONLY

JUNE 16, 1967

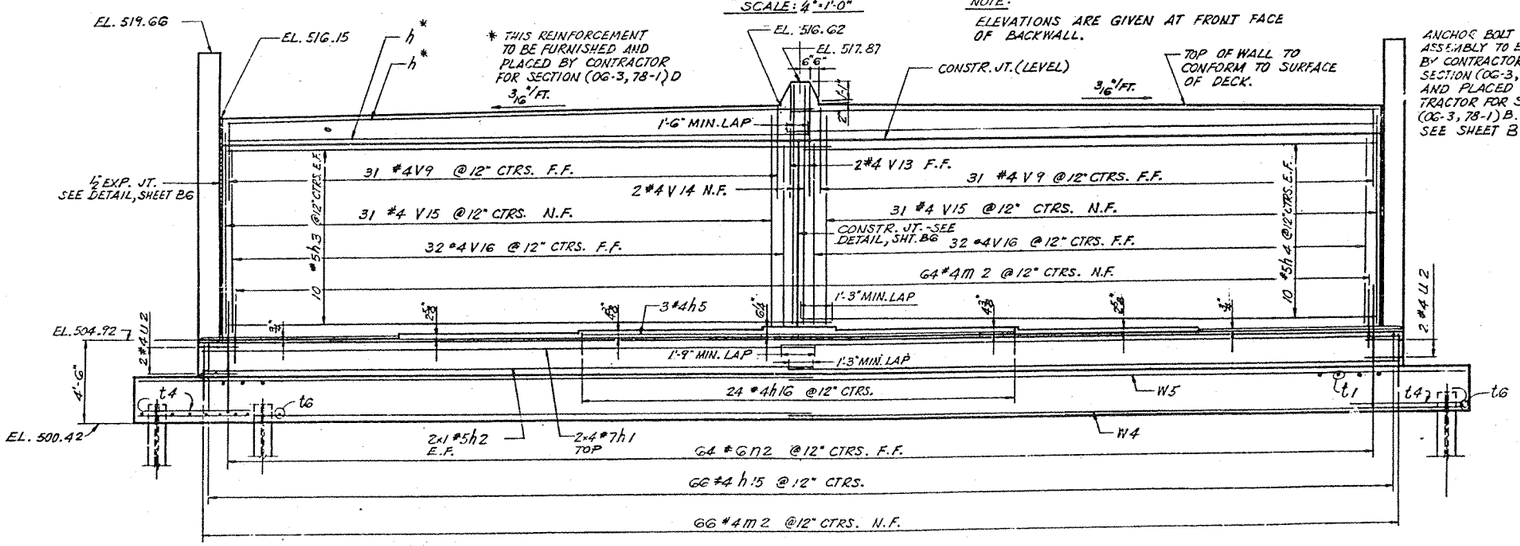
TYPICAL SECTIONS
F.A.I. ROUTE 180
SECTION 78-1
PUTNAM COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)B	BUREAU-PUTNAM	39	5
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		

B3



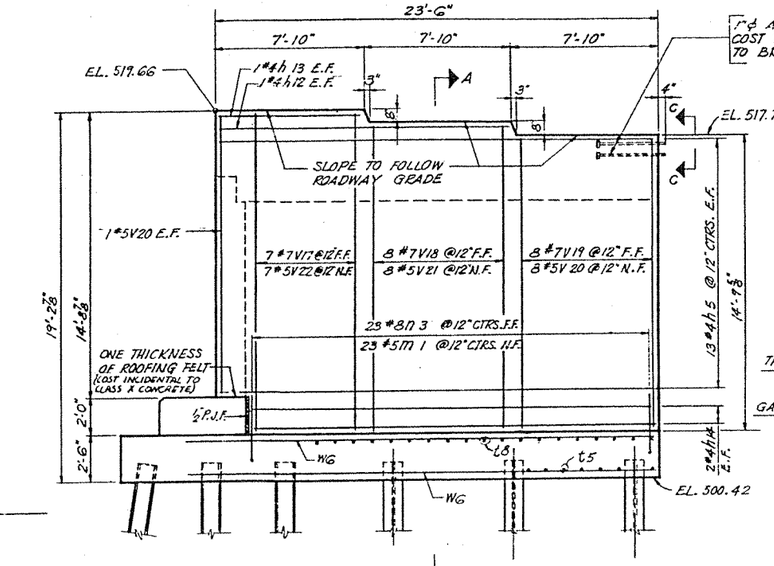
PLAN
SCALE: 4" = 1'-0"



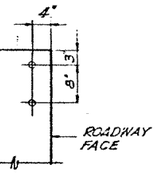
ELEVATION
SCALE: 4" = 1'-0"

NOTE:
ELEVATIONS ARE GIVEN AT FRONT FACE OF BACKWALL.

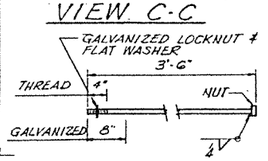
NOTE:
FOR NOTES SEE SHEET B4



WINGWALL ELEVATION
SCALE: 4" = 1'-0"

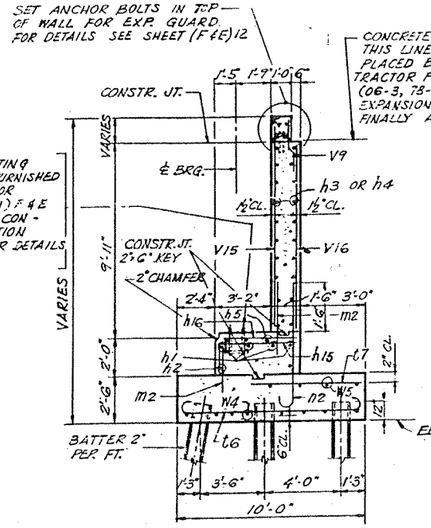


VIEW C-C

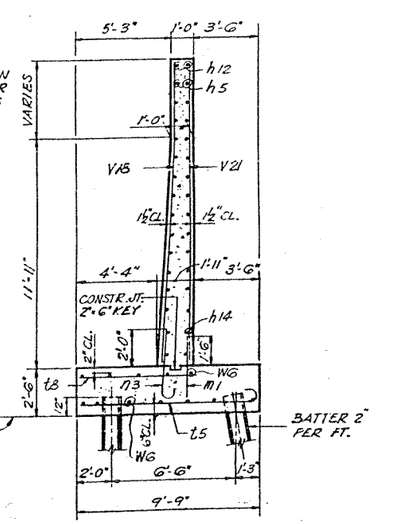


1"℄ ANCHOR BOLT

ANCHOR BOLT SETTING ASSEMBLY TO BE FURNISHED BY CONTRACTOR FOR SECTION (06-3, 78-1) F & E AND PLACED BY CONTRACTOR FOR SECTION (06-3, 78-1) B. FOR DETAILS SEE SHEET B-1



SECT. THRU ABUT.
SCALE: 4" = 1'-0"



SECTION A-A
SCALE: 4" = 1'-0"

JUNE 16, 1967

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
6/26/67

#1300

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

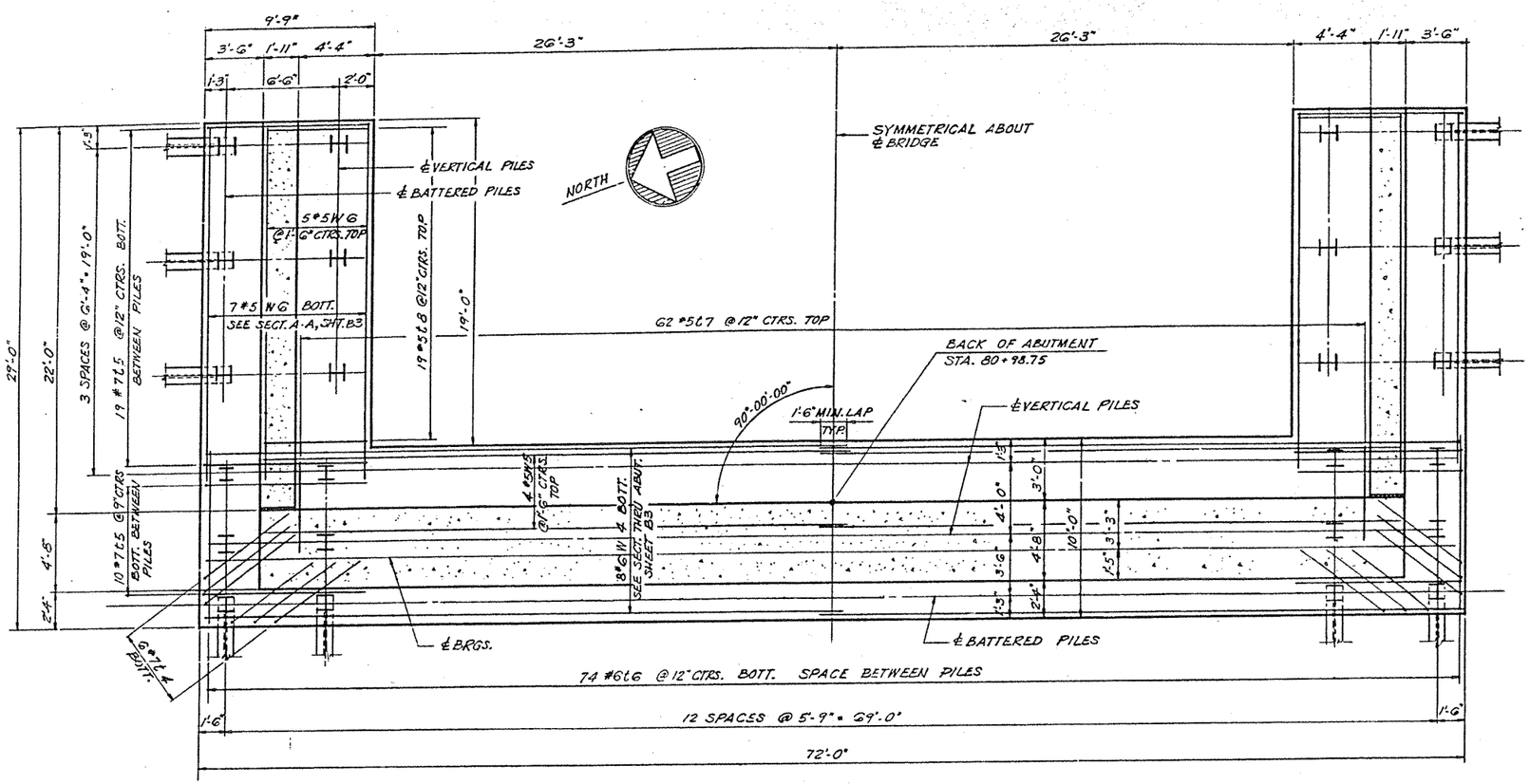
REV. 12-26-67

EAST ABUTMENT
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

DJ 6/26/67

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)B	BUREAU-PUTNAM	39	6
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS		PROJECT I-180-7(5)10	

B 4



FOOTING PLAN

SCALE: 4" = 1'-0"

PILE DATA

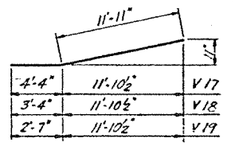
TYPE:	STEEL (8 BP 36)
CAPACITY:	40 TONS
EST. LENGTH:	50 FEET
NO. REQUIRED:	51*

* INCLUDES ONE TEST PILE

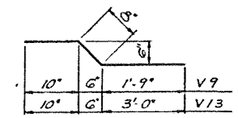
STATION 69+29.50
BUILT 1968 BY
STATE OF ILLINOIS
F.A.I.RT.180 SEC (06-3,78-1)B
F.A.PROJ. I-180-7(5)
LOADING HS20 & ALT.

SEE STATE OF ILLINOIS STANDARD 2113-1

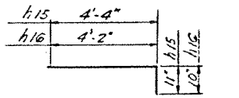
LETTERING FOR NAME PLATE



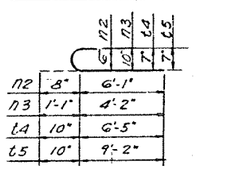
BARS V17, V18 & V19



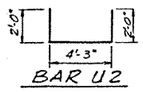
BARS V9 & V13



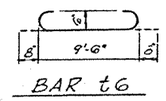
BARS h15 & h16



BARS n2, n3, t4 & t5



BAR U2



BAR t6

EAST ABUTMENT BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h1	8	#7	33'-3"	—
h2	4	#5	33'-3"	—
h3	20	#5	33'-0"	—
h4	20	#5	31'-0"	—
h5	55	#4	23'-3"	—
h12	4	#4	15'-3"	—
h13	4	#4	7'-6"	—
h14	8	#4	21'-9"	—
h15	66	#4	5'-3"	L
h16	24	#4	5'-0"	L
m1	46	#5	3'-0"	—
m2	130	#4	3'-0"	—
n3	46	#8	5'-3"	C
n2	64	#6	6'-9"	C
t4	12	#7	7'-3"	C
t5	58	#7	10'-0"	C
t6	74	#6	10'-10"	C
t7	62	#5	5'-0"	—
t8	38	#5	6'-3"	—
u2	4	#4	8'-3"	U
V17	14	#7	16'-3"	—
V18	16	#7	15'-3"	—
V19	16	#7	14'-6"	—
V20	20	#5	14'-6"	—
V21	16	#5	15'-3"	—
V22	14	#5	16'-3"	—
V9	62	#4	3'-3"	—
V13	2	#4	4'-6"	—
V14	2	#4	11'-9"	—
V15	62	#4	10'-6"	—
V16	64	#4	9'-3"	—
W4	16	#6	36'-6"	—
W5	8	#5	33'-0"	—
W6	24	#5	20'-6"	—

CLASS 'X' CONCRETE	CU. YDS.	195.9
REINFORCEMENT BARS	LBS.	13,100
FURNISHING STEEL PILES (8BP36)	LIN. FT.	2,500
DRIVING STEEL PILES	LIN. FT.	2,500
TEST PILES, STEEL (8BP36)	EACH	1

NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT.

NOTES

ALL CONCRETE TO BE CLASS X CONCRETE.

COARSE AGGREGATE TO BE USED IN WINGWALLS OF ABUTMENTS MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

ALL REINFORCEMENT BARS TO HAVE 2" MINIMUM COVER UNLESS OTHERWISE NOTED. ALL REINFORCING BAR LAPS TO BE A MINIMUM OF 20 BAR DIAMETERS UNLESS OTHERWISE NOTED.

BEVEL ALL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE NOTED.

PEDESTAL BLOCKS TO BE POURED MONOLITHICALLY WITH CAP.

ANCHOR BOLT SETTING ASSEMBLIES ARE TO BE FURNISHED UNDER SECTION (06-3, 78-1) F & E AND ERECTED UNDER SECTION (06-3, 78-1) B.

N.F. = NEAR FACE.
F.F. = FAR FACE.
E.F. = EACH FACE.

BARS INDICATED THUS: 2 X 4 #7, ETC., INDICATE 2 LENGTHS OF BAR PER LINE WITH 4 LINES OF BARS.

THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINFER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.

FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PROVISIONS.

#15500

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thummel
Engineer of Bridge & Traffic Structures
6/23/67

REV. 12-26-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

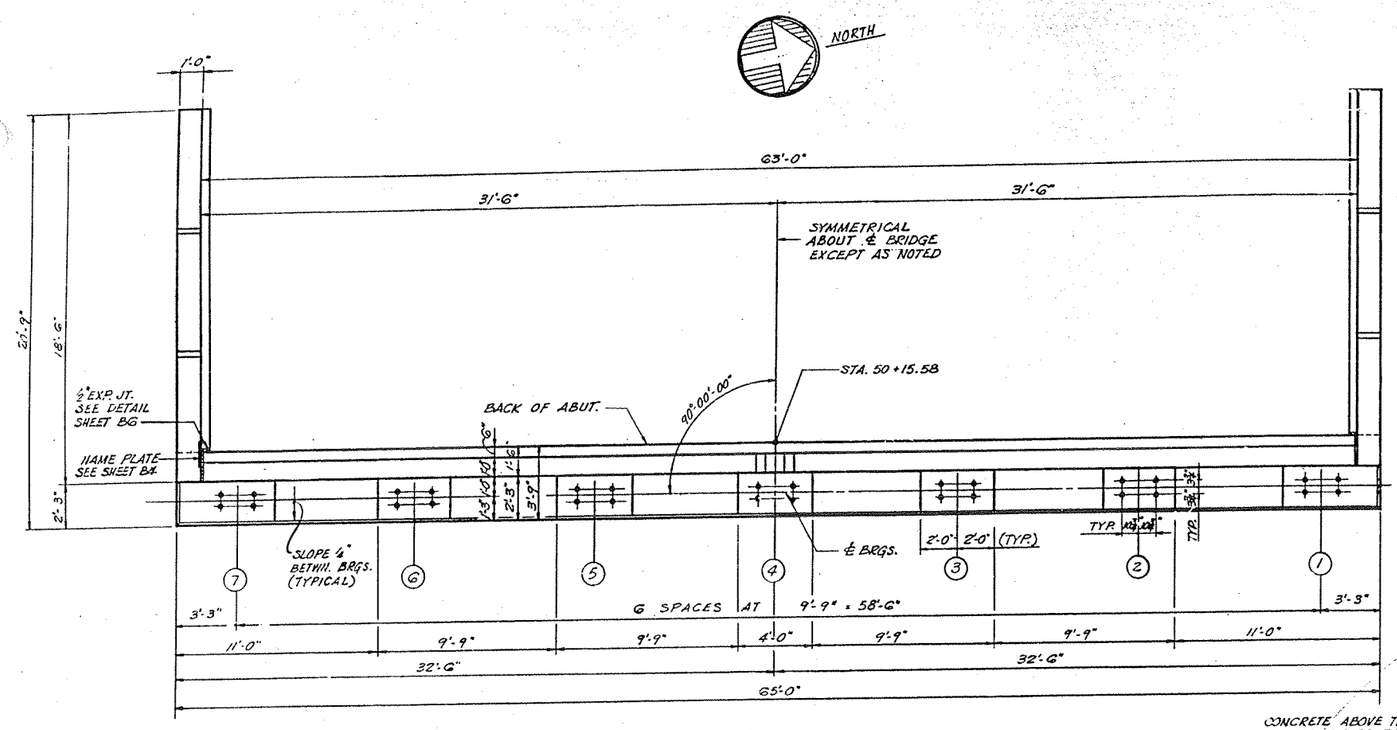
JUNE 16, 1967

EAST ABUTMENT
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

Rev 6/26/67

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,78)B	BUREAU-PUTNAM	39	7
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		

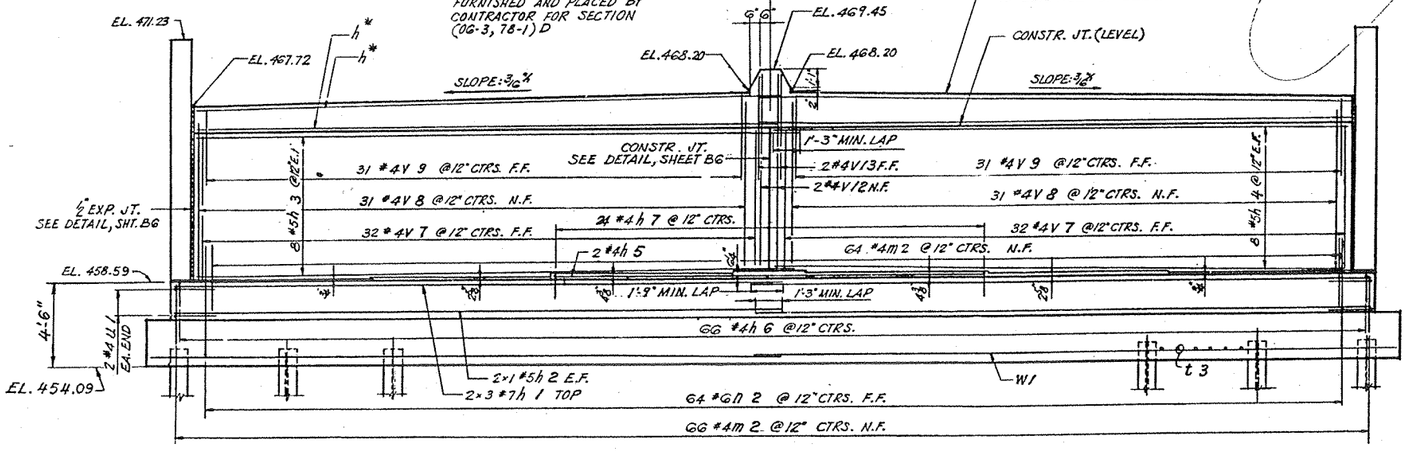
B5



PLAN

SCALE: ¼"=1'-0"

NOTE:
ELEVATIONS ARE AT FRONT FACE OF BACKWALL.

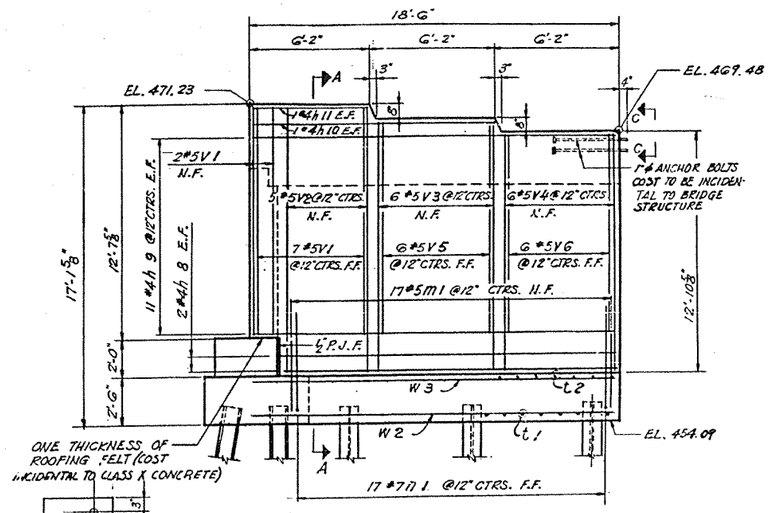


ELEVATION

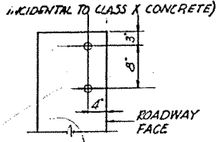
SCALE: ¼"=1'-0"

NOTE:
FOR NOTES SEE SHEET B4

NOTE:
SLOPE TOP OF WINGWALL TO FOLLOW ROADWAY GRADE.



ONE THICKNESS OF ROOFING FELT (COST INCIDENTAL TO CLASS X CONCRETE)



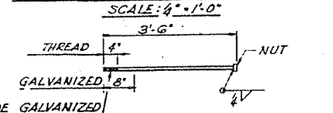
VIEW C-C

SCALE: ¾"=1'-0"

WING WALL ELEVATION

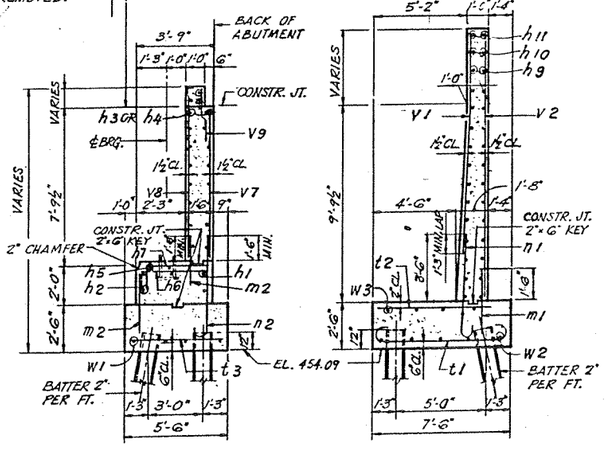
SCALE: ¼"=1'-0"

CONCRETE ABOVE THIS LINE TO BE PLACED BY CONTRACTOR FOR SECTION (06-3, 78-1) D AFTER SUPERSTRUCTURE FALSEWORK HAS BEEN REMOVED.



PROVIDE GALVANIZED LOCKNUT & FLAT WASHER

1" ℄ ANCHOR BOLT



SECTION THRU ABUT.

SCALE: ¼"=1'-0"

SECT. A-A

SCALE: ¼"=1'-0"

NOTE:
ANCHOR BOLT SETTING ASSEMBLY TO BE FURNISHED BY CONTRACTOR FOR SECTION (06-3, 78-1) F & E AND PLACED BY CONTRACTOR FOR SECTION (06-3, 78-1) B. FOR DETAILS. SEE SHEET B-1

#1300

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridge & Traffic Structures
6/23/67

REV. 12-26-67

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

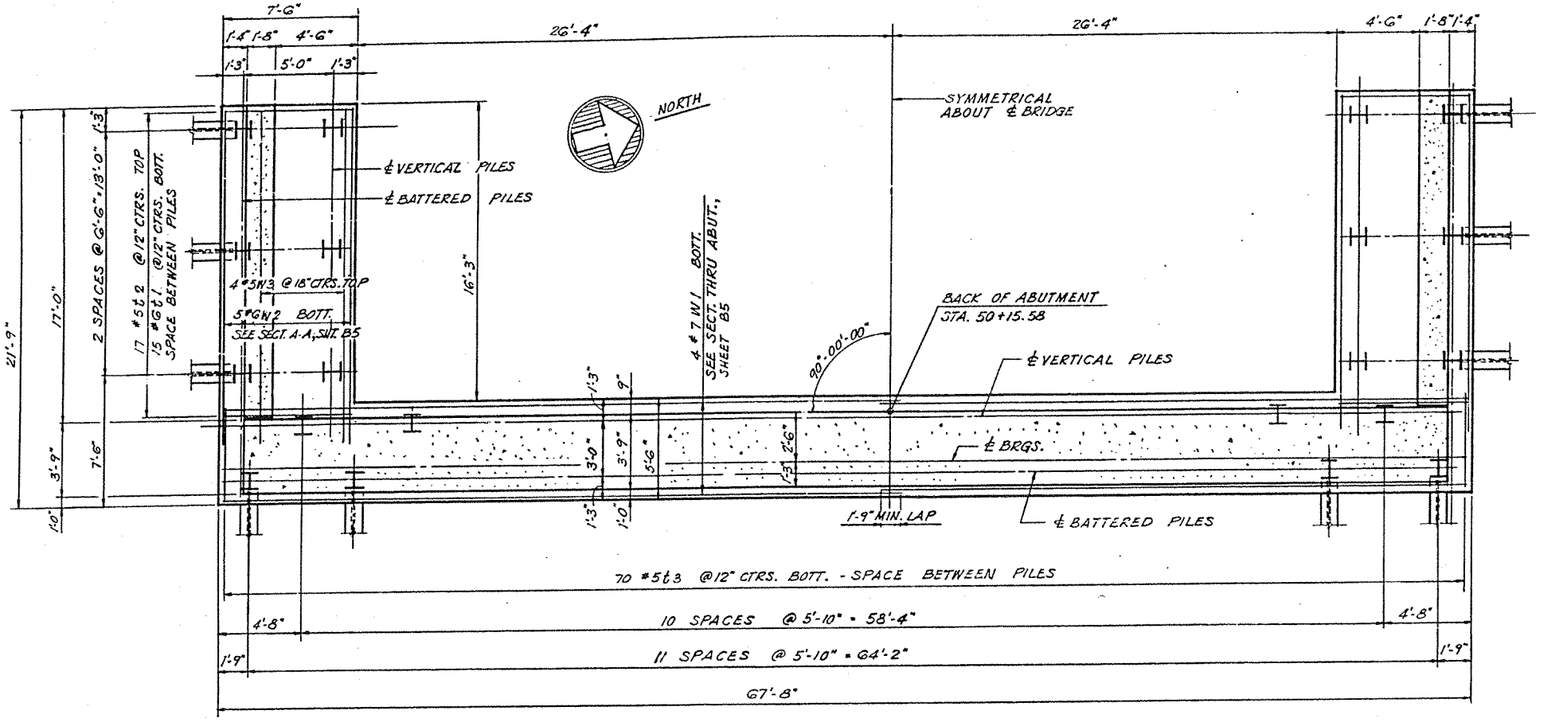
JUNE 16, 1967

WEST ABUTMENT
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

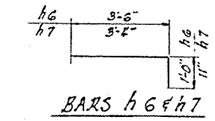
Rev. 6/26/67

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)B	BUREAU-PUTNAM	39	8
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	H807(5)0	

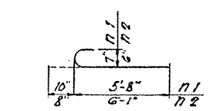
B6



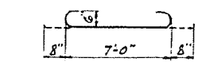
WEST ABUTMENT BILL OF MATERIAL



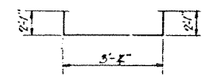
BARS h6 & h7



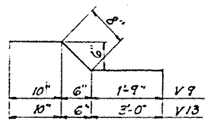
BARS n1 & n2



BAR t1



BAR U1



BARS V9 & V13

BAR	NO.	SIZE	LENGTH	SHAPE
h1	6	#7	33'-3"	—
h2	4	#5	33'-3"	—
h3	16	#5	33'-0"	—
h4	16	#5	31'-0"	—
h5	2	#4	23'-8"	—
h6	66	#4	4'-6"	L
h7	44	#4	4'-8"	L
h8	8	#4	16'-9"	—
h9	44	#4	18'-8"	—
h10	4	#4	12'-0"	—
h11	4	#4	5'-9"	—
n1	34	#5	3'-0"	—
n2	130	#4	3'-0"	—
t1	34	#7	6'-6"	C
t2	64	#6	6'-9"	C
t1	30	#6	8'-4"	C
t2	34	#5	6'-0"	—
t3	70	#5	5'-0"	—
U1	4	#4	7'-6"	U
V1	18	#5	12'-8"	—
V2	10	#5	14'-3"	—
V3	12	#5	13'-6"	—
V4	12	#5	12'-6"	—
V5	12	#5	11'-6"	—
V6	12	#5	10'-9"	—
V7	64	#4	7'-0"	—
V8	62	#4	8'-6"	—
V9	62	#4	3'-3"	~
V12	2	#4	10'-0"	—
V13	2	#4	11'-6"	~
W1	8	#7	38'-6"	—
W2	10	#6	18'-6"	—
W3	8	#5	18'-6"	—
CLASS 'X' CONCRETE		CU. YDS.	126.3	
REINFORCEMENT BARS		LBS.	7,810	
FURNISHING STEEL PILES (8BP36)		LIN. FT.	1,700	
DRIVING STEEL PILES		LIN. FT.	1,700	
TEST PILES, STEEL (8BP36)		EACH	1	

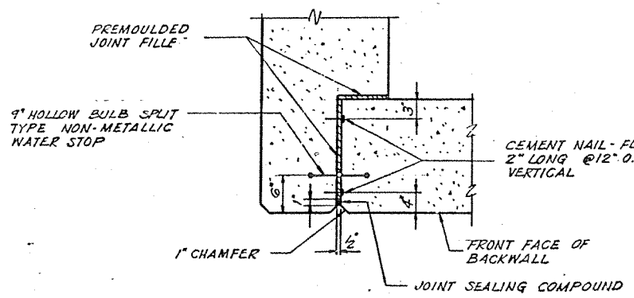
NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT.

PILE DATA

TYPE: STEEL (8 BP 36)
CAPACITY: 40 TONS
EST. LENGTH: 50 FEET
NO. REQUIRED: 35 *
* INCLUDES ONE TEST PILE.

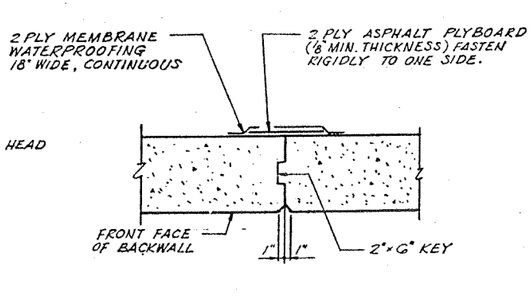
FOOTING PLAN

SCALE: 1/4" = 1'-0"



EXPANSION JOINT DETAIL

SCALE: 1" = 1'-0"



CONSTRUCTION JOINT DETAIL

SCALE: 1" = 1'-0"

NOTE:
FOR NOTES SEE SHEET B4

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl Thurnau
Engineer of Bridge & Traffic Structures
6/23/67

#1500
A. Benesch

JUNE 16, 1967

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

WEST ABUTMENT
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

Plan: 6/26/67

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,78)B	BUREAU-PUTNAM	39	9
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(5)0	

B108

ELEVATION

SCALE 3/16" = 1'-0"

NOTE:
OUTSIDE LAYER ONLY OF REINFORCEMENT IN SHAFT SHOWN. FOR 2nd AND 3rd LAYERS SEE SHEET B11B.

HALF SECTION D-D

SCALE 1/4" = 1'-0"

HALF SECTION C-C

SCALE 1/4" = 1'-0"

HALF SECTION B-B

SCALE 1/4" = 1'-0"

END VIEW

SCALE = 3/16" = 1'-0"

HALF TOP PLAN

SCALE 3/16" = 1'-0"

SECTION A-A

SCALE 1/2" = 1'-0"

SECTION E-E

SCALE 1/2" = 1'-0"

NOTE 'A': ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1)F12, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B, FOR DETAILS SEE SHEET (F/B)1 AND 2.

NOTES: THE CONTRACTOR SHALL DRIVE ONE STEEL (BP36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES. DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442. FOR ADDITIONAL NOTES SEE SHEET B4.

FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B11B.

9-27-67

Bridges & Structures

SEPTEMBER 27, 1967

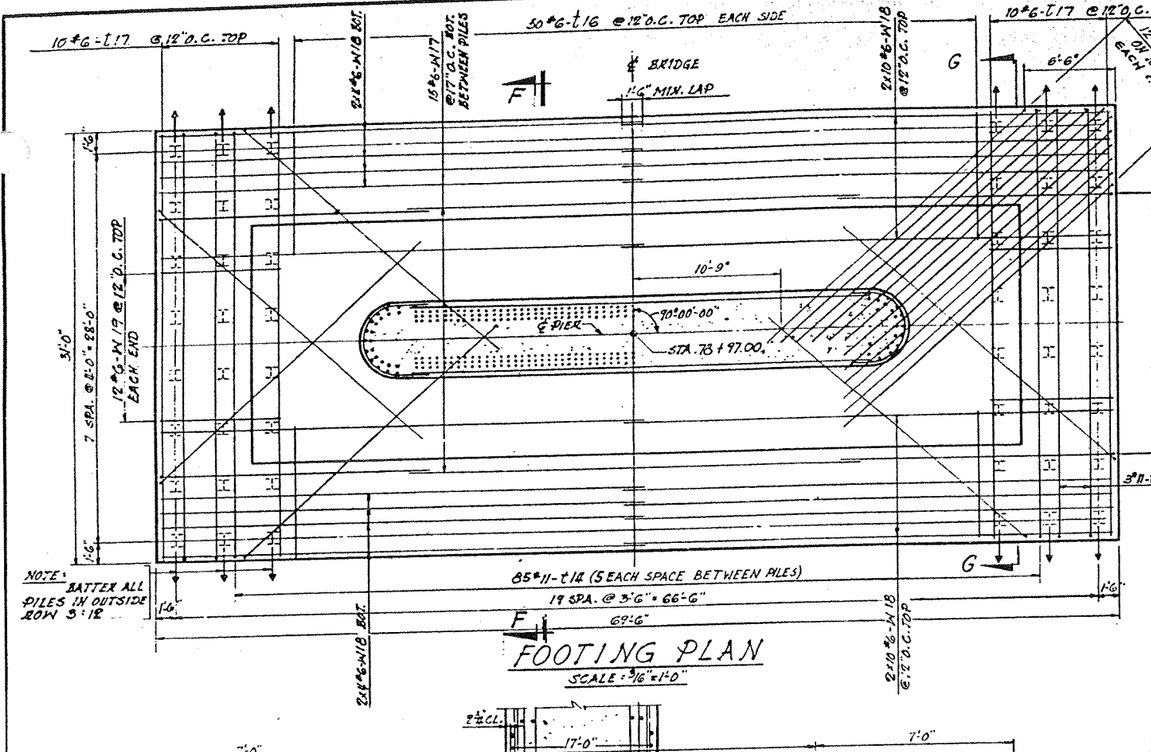
PIER 1
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

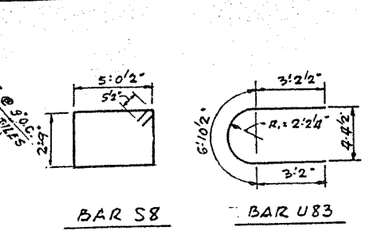
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA1-180	(063,78)B	BUREAU-PUTNAM	39	10
STA. 50+16.08		TO STA. 80+58.25		
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT	I-80-7(5)0	
			8116	

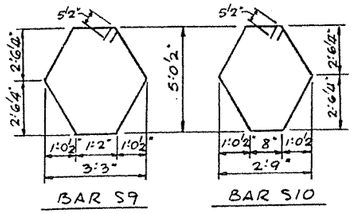
FOOTING PLAN

SCALE: 3/16"=1'-0"

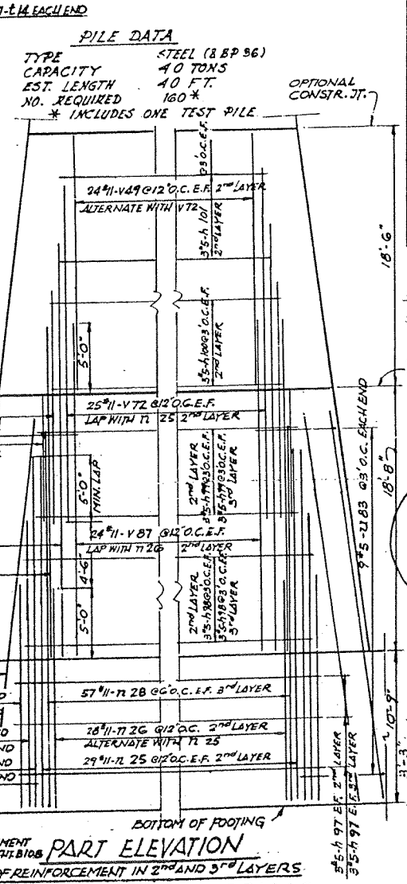




MARK	A	B
h27	2-0	2-0
h22	2-0	24-9
h23	2-0	15-3
h24	2-0	19-0
h28	2-0	26-3
t15	2-0	25-0
W16	2-0	20-0



MARK	A	B	C
t14	2-0	30-6	2-0
u34	10-0	16-6	10-0
u35	5-6	16-6	5-6
u36	6-0	16-6	6-0
u37	3-0 1/2	5-2	3-0 1/2
u38	10-9	3-9	10-9
u39	9-9	3-9	9-9
u40	8-9	3-9	8-9
u41	7-9	3-9	7-9
u42	6-9	3-9	6-9
u43	5-9	3-9	5-9
u44	4-9	3-9	4-9
u45	5-0 1/2	5-2	5-0 1/2
u46	2-6 1/2	5-2	2-6 1/2
u47	1-6 1/2	5-2	1-6 1/2
u49	1-6	4-9	1-6

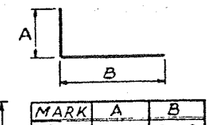


NOTE: FOR REINFORCEMENT IN OUTSIDE LAYER SEE SHT. B108

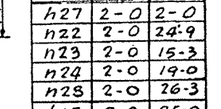
PART ELEVATION OF REINFORCEMENT IN 2nd AND 3rd LAYERS

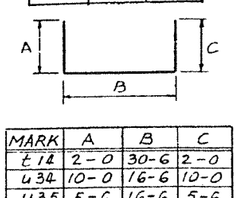
BILL OF MATERIALS

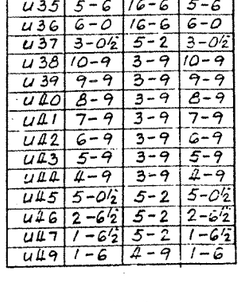
ITEM	UNIT	QUANTITIES
CLASS 'X' CONCRETE	CU. YDS.	1,159.9
SEAL COAT CONCRETE	CU. YDS.	758.7
REINFORCEMENT BARS	LBS.	203,750
FURNISHING STEEL PILES (8BP36)	LIN. FT.	6,360
DRIVING STEEL PILES	LIN. FT.	6,360
TEST PILE, STEEL (8BP36)	EACH	1

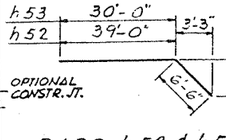


MARK	A	B
h53	30'-0"	3'-3"
h52	39'-0"	5'-7 1/2"



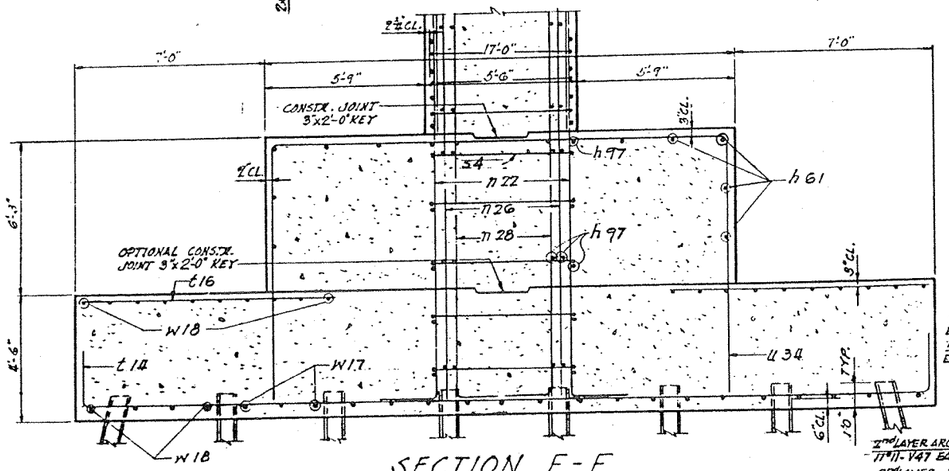






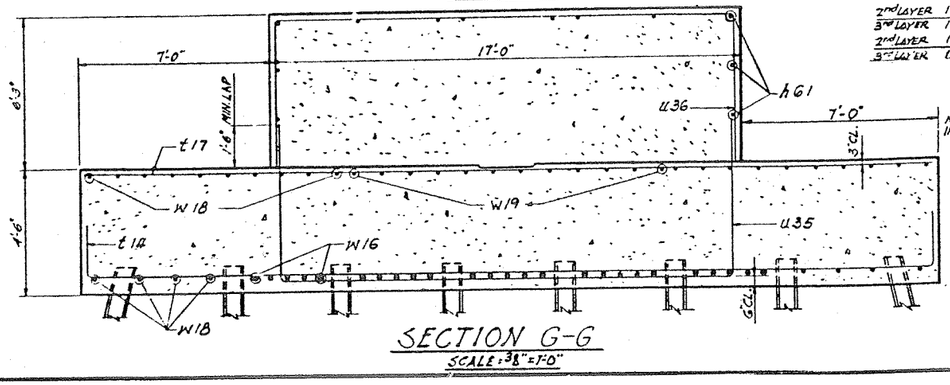
SECTION F-F

SCALE: 3/8"=1'-0"



SECTION G-G

SCALE: 3/8"=1'-0"



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h27	16	#6	2-0	
h32	12	#6	30-0	
h40	2	#6	21-6	
h41	4	#6	23-3	
h42	4	#6	25-0	
h52	8	#11	45-6	
h53	8	#11	36-6	
h54	8	#11	30-0	
h55	8	#11	38-6	
h56	8	#11	56-0	
h57	8	#11	48-0	
h58	8	#11	40-0	
h59	16	#7	33-0	
h60	4	#6	26-6	
h61	40	#6	28-6	
h62	4	#6	30-3	
h63	4	#6	32-0	
h64	4	#6	33-9	
h65	4	#6	35-6	
h66	4	#6	37-3	
h67	2	#6	27-0	
h68	2	#6	30-6	
h69	2	#6	34-0	
h70	2	#6	37-6	
h71	12	#6	36-6	
h72	14	#6	18-6	
h73	14	#6	20-3	
h74	14	#6	22-0	
h75	12	#6	23-9	
h76	12	#6	25-3	
h77	14	#6	26-9	
h78	14	#6	31-6	
h79	4	#6	15-6	
h97	22	#5	32-0	
h98	12	#5	30-0	
h99	12	#5	28-0	
h100	6	#5	26-0	
h101	6	#5	24-0	
h80	5	#4	23-9	
S3	146	#5	6-2 1/2	
S4	241	#5	17-6	
S8	118	#5	16-6	
S9	216	#5	12-3	
S10	108	#5	13-3	
t14	91	#11	34-6	
t15	48	#11	27-0	
t16	100	#6	9-0	
t17	20	#6	30-6	
u34	38	#6	36-6	
u35	18	#6	27-6	
u36	18	#6	28-6	

BAR	NO.	SIZE	LENGTH	SHAPE
u37	12	#6	11-3	
u38	48	#6	25-3	
u39	48	#6	23-3	
u40	48	#6	21-3	
u41	48	#6	19-3	
u42	24	#6	17-3	
u43	24	#6	15-3	
u44	24	#6	13-3	
u45	2	#6	15-3	
u46	2	#6	10-3	
u47	12	#6	8-3	
u48	128	#6	14-6	
u83	18	#5	13-3	
u49	24	#4	7-9	
V34	22	#11	24-6	
V35	4	#11	28-0	
V46	2	#11	21-3	
V47	64	#11	27-6	
V48	4	#11	12-0	
V49	88	#11	18-0	
V50	4	#11	17-0	
V52	4	#11	10-0	
V53	4	#11	16-0	
V54	4	#11	20-0	
V70	8	#11	14-0	
V72	50	#11	25-0	
V87	276	#11	23-9	
V88	4	#11	8-0	
V55	46	#9	16-0	
V57	12	#6	17-0	
W16	50	#11	22-0	
W17	15	#6	32-0	
W18	56	#6	35-3	
W19	24	#6	9-0	
n22	60	#11	26-9	
n23	84	#11	17-3	
n24	4	#11	21-0	
n25	66	#11	24-9	
n26	64	#11	15-3	
n27	8	#11	20-0	
n28	114	#11	28-3	

NOTE! ALL BAR DIMENSIONS ARE OUT TO OUT.

APPROVED FOR STRUCTURAL DESIGN ONLY

Engineer of Bridges & Structures

9-27-67

SEPTEMBER 27, 1967

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
19 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 1
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	108 3,7,8,9,10	BUREAU - PUTNAM	39	11
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	H60-7(5)0	

B 12

ELEVATION

SCALE 3/16" = 1'-0"

NOTE: OUTSIDE LAYER ONLY OF REINFORCEMENT IN SHAFT SHOWN. FOR 2nd AND 3rd LAYERS SEE SHEET B13.

HALF SECTION D-D

SCALE 1/4" = 1'-0"

HALF SECTION C-C

SCALE 1/4" = 1'-0"

HALF SECTION B-B

SCALE: 1/4" = 1'-0"

END VIEW

SCALE = 3/16" = 1'-0"

HALF TOP PLAN

SCALE 3/16" = 1'-0"

SECTION A-A

SCALE 1/2" = 1'-0"

SECTION E-E

SCALE 1/2" = 1'-0"

NOTE A: ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1)F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B, FOR DETAILS SEE SHEET (F&E)1 AND 2.

NOTES: THE CONTRACTOR SHALL DRIVE ONE STEEL (6BP36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES. DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442. FOR ADDITIONAL NOTES SEE SHEET B4.

FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B13.

APPROVED
FOR ACCURACY ONLY
[signature] 10-3-67
DIVISION OF WATERWAYS & SURVEYS

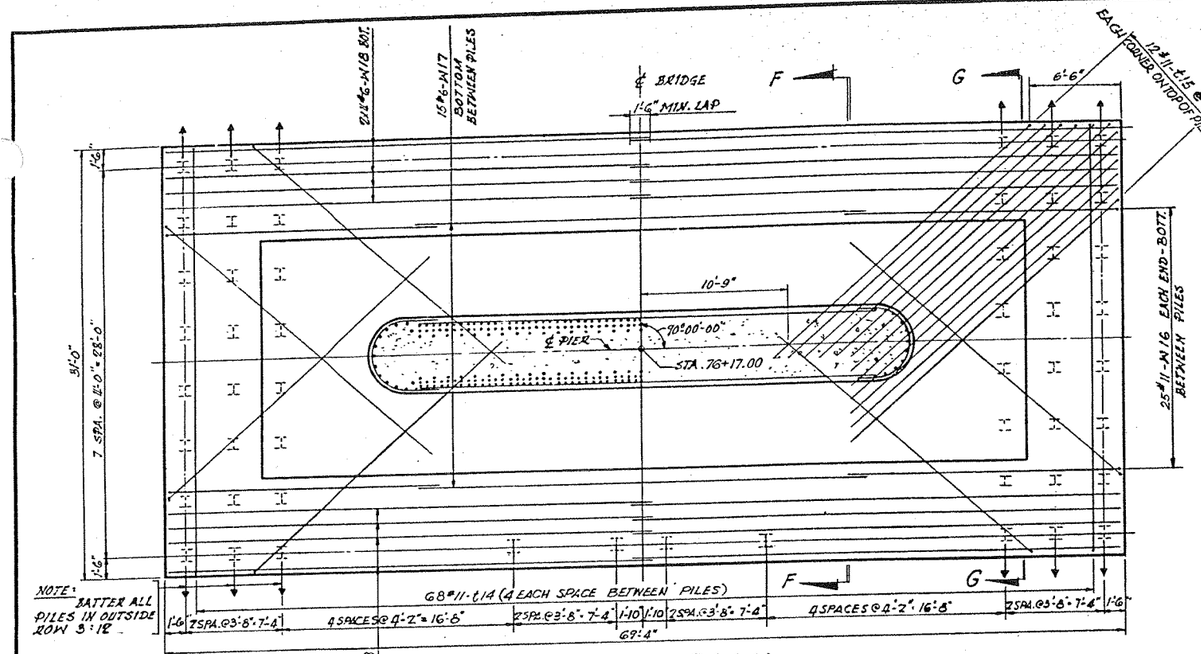
OCTOBER 3, 1967

Samuel Benesch

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 2
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-180	(06-3,78-1)B	BUREAU-PUTNAM	39	12
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 6	ILLINOIS	PROJECT	H80-7(5)0	
				B13



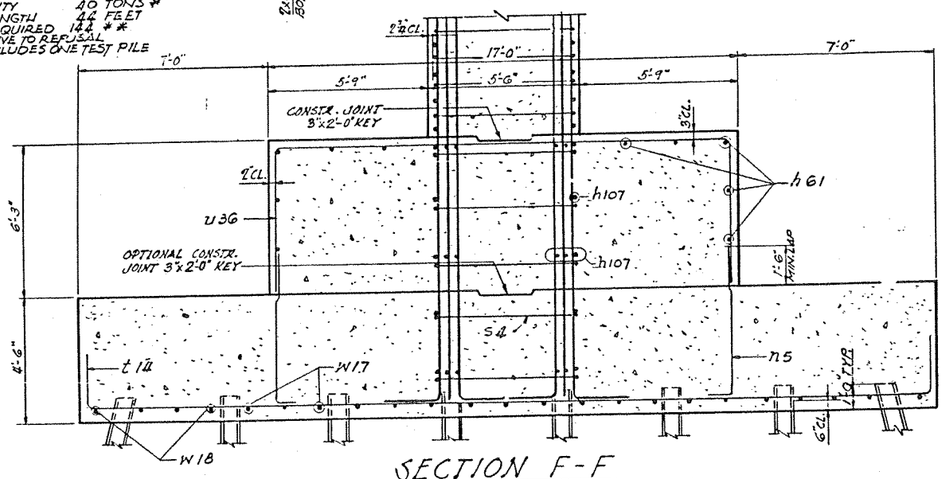
FOOTING PLAN

SCALE: 3/16" = 1'-0"

DILE DATA:

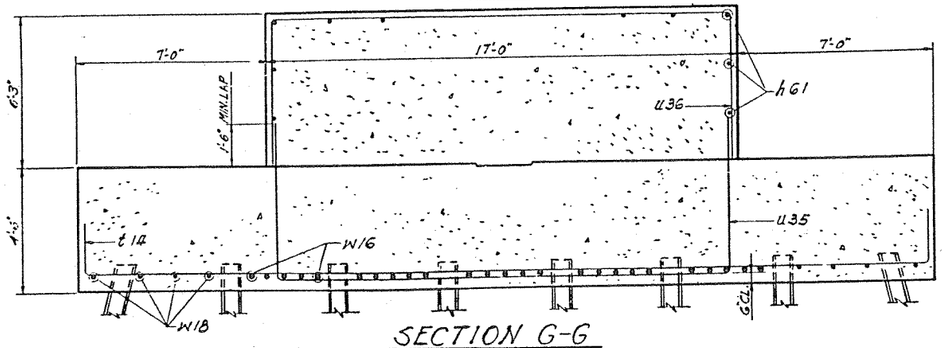
TYPE	STEEL (BBP36)
CAPACITY	40 TONS *
EST. LENGTH	44 FEET
NO. REQUIRED	144 * *

* DRIVE TO REFUSAL
** INCLUDES ONE TEST PILE



SECTION F-F

SCALE: 3/8" = 1'-0"

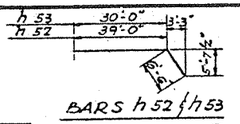


SECTION G-G

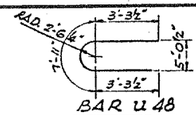
SCALE: 3/8" = 1'-0"

MARK	A	B	C
t14	2-0	30-6	2-0
U35	5-6	16-6	5-6
U36	6-0	16-6	6-0
U37	3-0½	5-2	3-0½
U38	10-9	3-9	10-9
U39	9-9	3-9	9-9
U40	8-9	3-9	8-9
U45	5-0½	5-2	5-0½
U46	2-6½	5-2	2-6½
U49	1-6	4-9	1-6
U90	1-6	5-0	1-6
U91	8-0	3-9	8-0
U92	7-0	3-9	7-0
U93	6-2	3-9	6-2
U94	5-3	3-9	5-3

MARK	A	B
h27	2-0	2-0
n5	1-6	5-6
n34	2-0	15-3
n35	2-0	24-9
n36	2-0	30-0
t15	2-0	25-0
W16	2-0	20-0



BARS h52 & h53

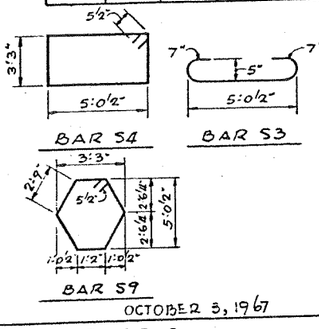


BAR U48

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h27	16	#6	4-0	L
h35	14	#6	24-9	—
h40	L	#6	21-6	—
h41	16	#6	23-3	—
h42	L	#6	25-0	—
h52	8	#11	45-6	⌒
h53	8	#11	36-6	⌒
h54	8	#11	30-0	—
h55	8	#11	38-6	—
h56	8	#11	56-0	—
h57	8	#11	48-0	—
h58	8	#11	40-0	—
h59	16	#7	33-0	—
h60	4	#6	26-6	—
h61	24	#6	28-6	—
h62	4	#6	30-3	—
h63	4	#6	32-0	—
h64	4	#6	33-9	—
h65	4	#6	35-6	—
h66	4	#6	37-3	—
h67	14	#6	27-0	—
h68	16	#6	30-6	—
h69	2	#6	32-0	—
h70	2	#6	37-6	—
h71	12	#6	36-6	—
h72	16	#6	18-6	—
h79	4	#6	15-6	—
h80	5	#4	23-9	—
h81	16	#6	20-6	—
h82	14	#6	22-6	—
h89	14	#6	29-0	—
h90	14	#6	26-0	—
h97	12	#5	32-0	—
h98	12	#5	30-0	—
h99	6	#5	28-0	—
h100	6	#5	26-0	—
h107	22	#5	34-0	—
m7	74	#11	15-3	—
m8	8	#11	19-0	—
m9	60	#11	24-9	—
n5	80	#6	7-0	L
n34	82	#11	17-3	L
n35	58	#11	26-9	L
n36	58	#11	32-0	L
t14	68	#11	34-6	L
t15	48	#11	27-0	L
U35	16	#6	27-6	L
U36	56	#6	28-6	L

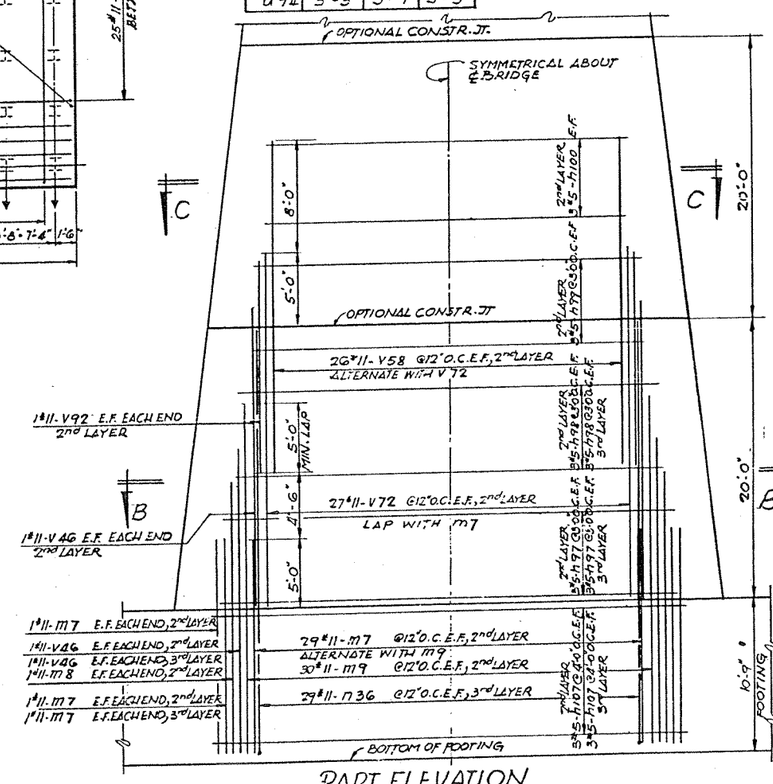
BAR	NO.	SIZE	LENGTH	SHAPE
U37	12	#6	11-3	L
U38	48	#6	25-3	L
U39	48	#6	23-3	L
U40	48	#6	21-3	L
U45	2	#6	15-3	L
U46	2	#6	10-3	L
U48	136	#6	14-6	L
U90	12	#6	8-0	L
U91	48	#6	19-9	L
U92	24	#6	17-9	L
U93	24	#6	16-1	L
U94	24	#6	14-3	L
U49	24	#4	7-9	L
V32	22	#11	26-0	—
V35	40	#11	28-0	—
V46	20	#11	21-3	—
V48	8	#11	12-0	—
V50	8	#11	17-0	—
V54	4	#11	20-0	—
V58	52	#11	23-6	—
V59	4	#11	13-0	—
V72	282	#11	25-0	—
V92	8	#11	15-0	—
V93	4	#11	29-6	—
V97	34	#11	18-6	—
V37	34	#4	17-6	—
V73	12	#6	18-6	—
S3	197	#5	6-2½	⊃
S4	274	#5	17-6	▭
S9	244	#5	12-3	○
W16	50	#11	22-0	L
W17	15	#6	32-0	—
W18	16	#6	35-3	—



BAR S4 BAR S3

BAR S9

OCTOBER 3, 1967



PART ELEVATION OF REINFORCEMENT IN 2nd AND 3rd LAYERS

SCALE 3/16"-1'-0"

NOTE:
FOR REINFORCEMENT IN OUTSIDE LAYER SEE SHT. B12

APPROVED
FOR STRUCTURAL ADEQUACY ONLY 10-3-67
Engineer of Bridges & Traffic Structures

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	1,191.4
SEAL COAT CONCRETE	CU. YDS.	757.3
REINFORCEMENT BARS	LBS.	180,730
FURNISHING STEEL PILES (BBP36)	LIN. FT.	6,292
DRIVING STEEL PILES	LIN. FT.	6,292
TEST PILE, STEEL (BBP36)	EACH	1

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

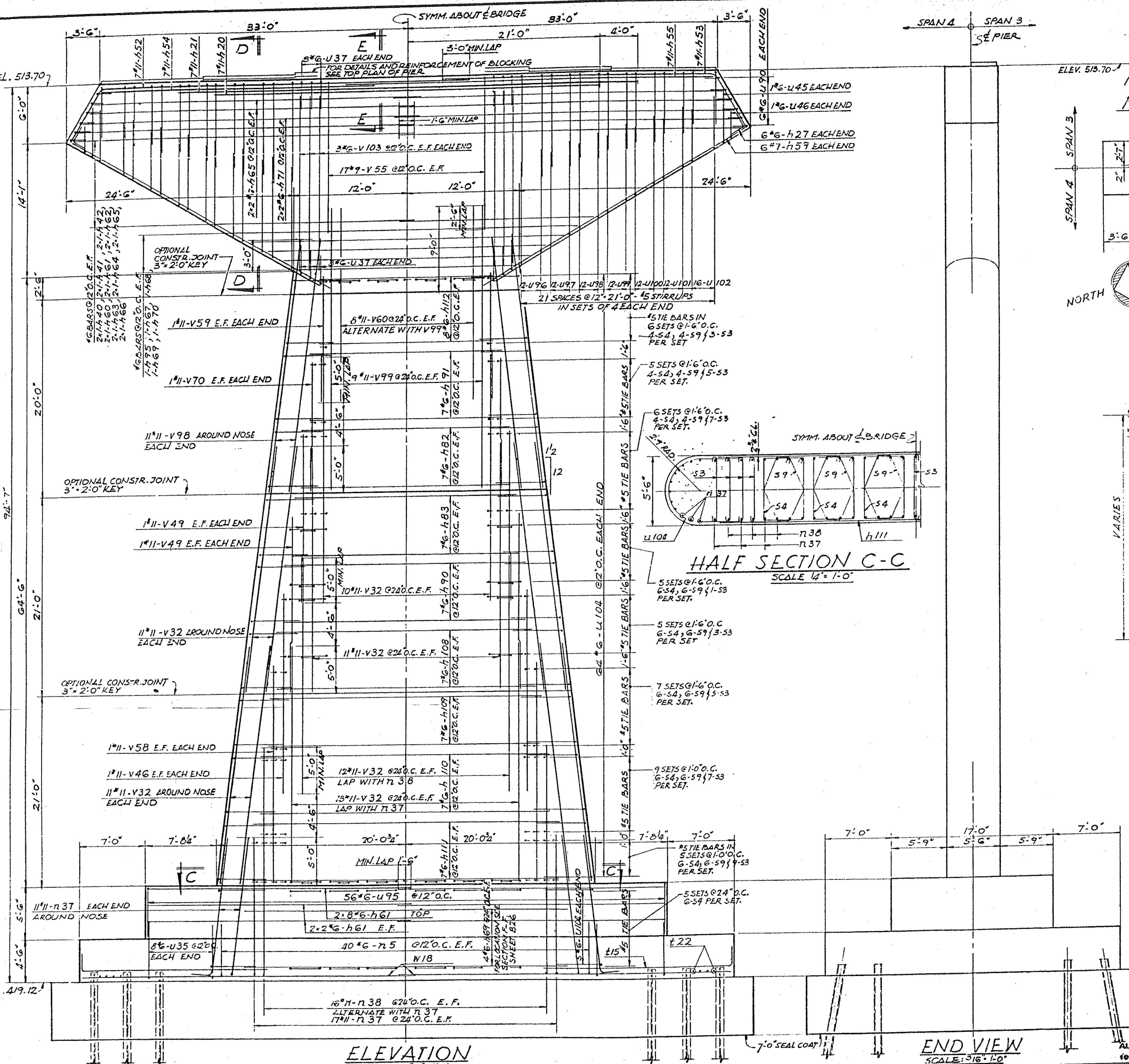
Samuel Banner

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 2
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	13
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS		PROJECT	I-180-7(5)0

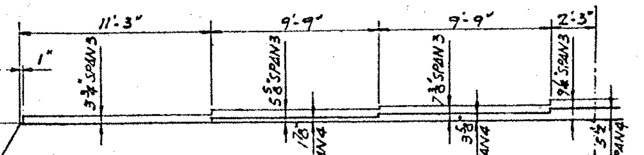
B 25



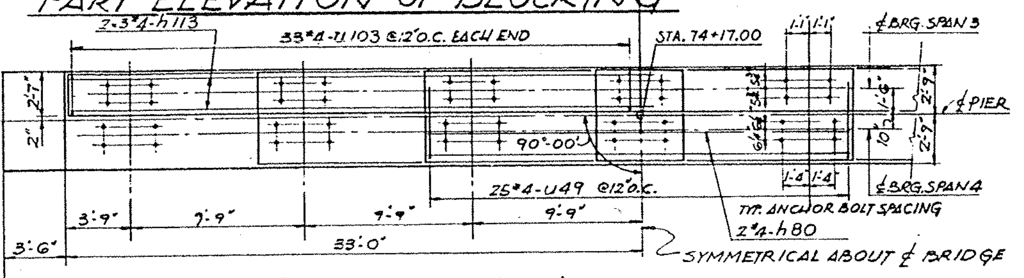
ELEVATION
SCALE 3/16" = 1'-0"

HALF SECTION C-C
SCALE 1/4" = 1'-0"

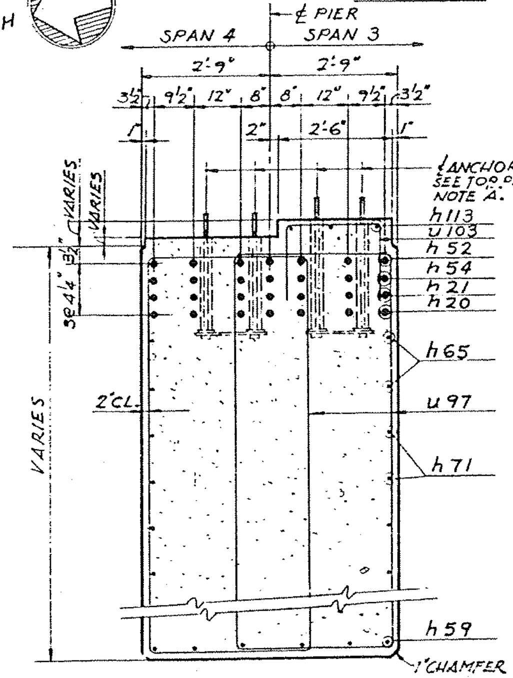
END VIEW
SCALE: 3/16" = 1'-0"



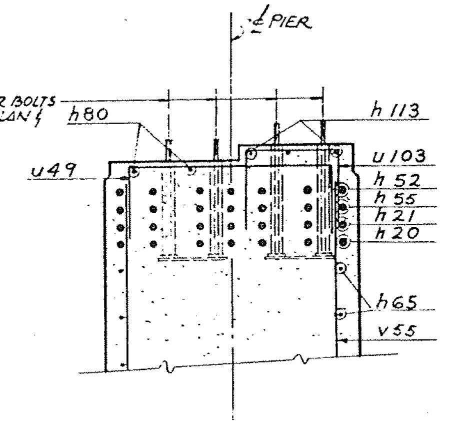
PART ELEVATION OF BLOCKING



PART TOP PLAN
SCALE 3/8" = 1'-0"



SECTION D-D
SCALE 1/2" = 1'-0"



NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3, 78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3, 78-1) B. FOR DETAILS SEE SHEETS (F & E) 1 AND 2.

SECTION E-E
SCALE 1/2" = 1'-0"

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (8BP36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B26.

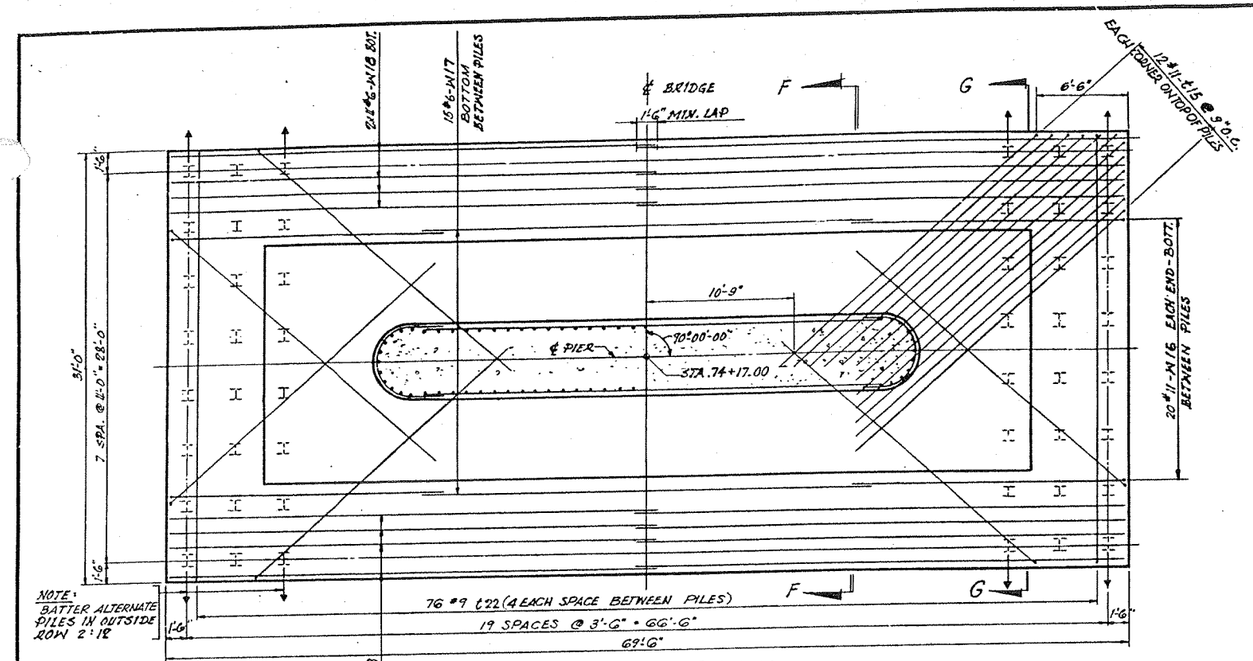
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
10-31-67
Engineer of Bridges and Traffic Structures

OCTOBER 25, 1967

Samuel Barrow

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 3
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50



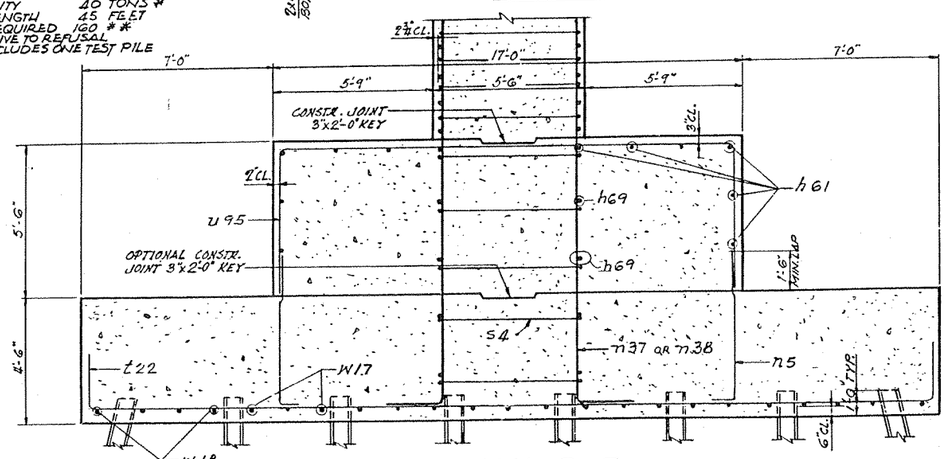
FOOTING PLAN

SCALE: 3/16" = 1'-0"

PILE DATA:

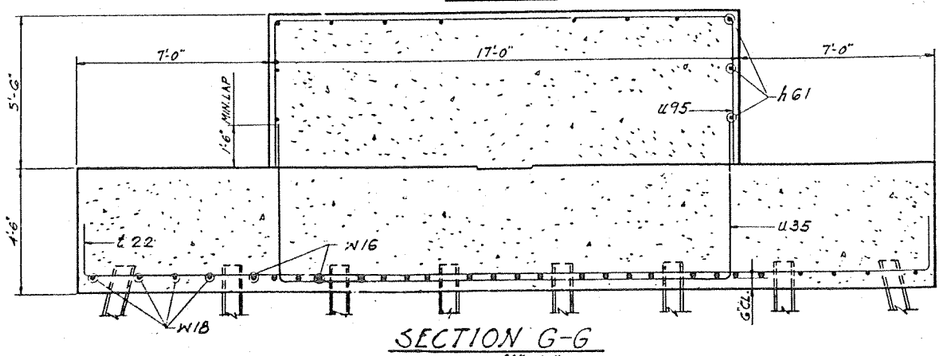
TYPE	STEEL (BBP36)
CAPACITY	40 TONS *
EST. LENGTH	45 FEET
NO. REQUIRED	160 * *

* DRIVE TO REFUSAL
** INCLUDES ONE TEST PILE



SECTION F-F

SCALE: 3/8" = 1'-0"

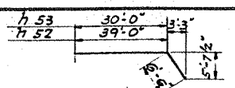


SECTION G-G

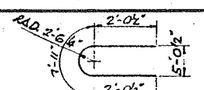
SCALE: 3/8" = 1'-0"

MARK	A	B	C
t22	2-0	30-6	2-0
u35	5-6	16-6	5-6
u37	3-0½	5-2	3-0½
u45	5-0½	5-2	5-0½
u46	2-6½	5-2	2-6½
u49	1-6	4-9	1-6
u90	1-6	5-0	1-6
u95	5-3	16-8	5-3
u96	10-6	3-5	10-7
u97	9-6	3-5	9-7
u98	8-9	3-5	8-10
u99	8-0	3-5	8-1
u100	7-0	3-5	7-1
u101	6-3	3-5	6-4
u102	5-6	3-5	5-7
u103	1-8	2-1	1-9

MARK	A	B
h27	2-0	2-0
n5	1-6	5-6
n37	2-0	14-6
n38	2-0	24-0
t15	2-0	25-0
W16	2-0	20-0



BARS h52 & h53



BAR u104

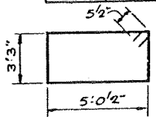
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)B	BUREAU-PUTNAM	39	14
STA. 50+16.08		TO STA. 80+98.25		
F. A. P. RTE. NO. 4	ILLINOIS		PROJECT	HBO-7(5)10

B26

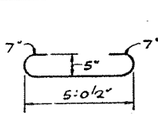
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h20	7	#11	42-0	—
h21	7	#11	50-0	—
h27	12	#6	4-0	L
h40	4	#6	21-6	—
h41	4	#6	23-3	—
h42	4	#6	25-0	—
h52	7	#11	45-6	⟍
h53	7	#11	36-6	⟋
h54	7	#11	30-0	—
h55	7	#11	38-6	—
h59	12	#7	33-0	—
h60	4	#6	26-6	—
h61	28	#6	28-6	—
h62	4	#6	30-3	—
h63	4	#6	32-0	—
h64	4	#6	33-9	—
h65	12	#6	35-6	—
h66	4	#6	37-3	—
h67	2	#6	27-0	—
h68	2	#6	30-6	—
h69	10	#6	34-0	—
h70	2	#6	37-6	—
h71	8	#6	36-6	—
h80	2	#4	23-9	—
h82	14	#6	22-6	—
h83	14	#6	24-3	—
h90	14	#6	26-0	—
h91	14	#6	20-9	—
h95	2	#6	23-6	—
h108	14	#6	27-9	—
h109	14	#6	29-6	—
h110	14	#6	31-3	—
h111	14	#6	33-0	—
h112	16	#6	18-9	—
h113	6	#4	33-6	—
n5	80	#6	7-0	L
n37	56	#11	16-6	L
n38	32	#11	26-0	L
S3	248	#5	6-2½	⊂⊃
S4	284	#5	17-6	□
S9	254	#5	12-3	⬡
t15	48	#11	27-0	L
t22	76	#9	34-6	⊔

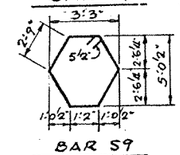
BAR	NO.	SIZE	LENGTH	SHAPE
u35	16	#6	27-6	⊔
u37	12	#6	11-3	⊔
u45	2	#6	15-3	⊔
u46	2	#6	10-3	⊔
u49	25	#4	7-9	⊔
u90	12	#6	8-0	⊔
u95	56	#6	27-2	⊔
u96	24	#5	24-6	⊔
u97	24	#5	22-6	⊔
u98	24	#5	21-0	⊔
u99	24	#5	19-6	⊔
u100	24	#5	17-6	⊔
u101	24	#5	16-0	⊔
u102	32	#5	14-6	⊔
u103	66	#4	5-6	⊔
u104	138	#6	12-0	⊂
V32	136	#11	26-0	—
V46	4	#11	21-3	—
V49	8	#11	18-0	—
V55	34	#9	16-0	—
V58	4	#11	23-6	—
V59	4	#11	13-0	—
V60	16	#11	19-6	—
V70	4	#11	14-0	—
V98	22	#11	25-9	—
V99	18	#11	29-0	—
V103	12	#6	18-6	—
W16	40	#11	22-0	L
W17	15	#6	32-0	—
W18	16	#6	35-9	—



BAR S4



BAR S3



BAR S9

APPROVED
FOR STATE HIGHWAY AGENCY
10-31-67
Engineer of Bridges and Structures

OCTOBER 25, 1967

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS 'X' CONCRETE	CU. YDS.	1,184.7
SEAL COAT CONCRETE	CU. YDS.	663.9
REINFORCEMENT BARS	LBS.	102,790
FURNISHING STEEL PILES (BBP36)	LIN. FT.	7,155
DRIVING STEEL PILES	LIN. FT.	7,155
TEST PILE, STEEL (BBP36)	EACH	1

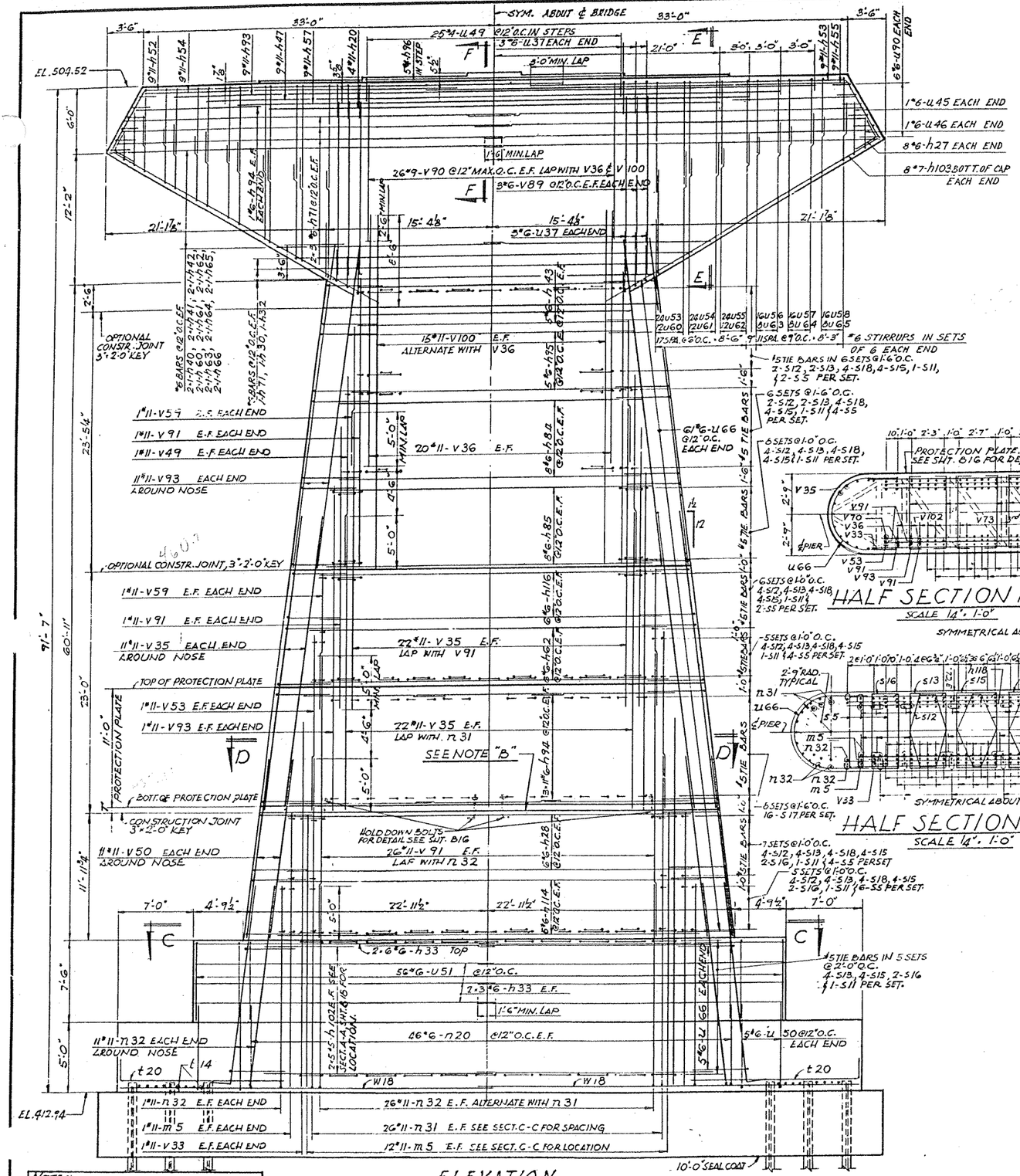
Samuel Barnow

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 3
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAH 80	(06-3,78-1) B	BUREAU - PUTNAM	39	15
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 4	ILLINOIS		PROJECT I-180-7(5)0	

B17



NOTE:
FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B 18.
THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHT. B 4.

BILL OF MATERIAL

ITEM	UNIT	QUANTITIES
CLASS X CONCRETE	CU. YDS.	1,336.6
SEAL COAT CONCRETE	CU. YDS.	947.9
REINFORCEMENT BARS	LBS.	241,390
FURNISHING STEEL PILES (8 BP 36)	LIN. FT.	7,160
DRIVING STEEL PILES	LIN. FT.	7,160
TEST PILE, STEEL (8 BP 36)	EACH	1

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3, 78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3, 78-1) B. FOR DETAILS, SEE SHEETS (F & E) 1 AND 2.

NOTE "B":
CHECK SPACING OF REINFORCEMENT BARS FOR CLEARANCE TO PIER PROTECTION FRAME BEFORE PLACING CONCRETE IN LOWEST PORTION OF SHAFT.

NOTE:
FOR DIMENSIONS NOT SHOWN SEE SECTION E-E

SECTION F-F
SCALE: ½"=1'-0"

APPROVED
FOR STATE AND FEDERAL HIGHWAY ENGINEER
10-31-67
DIRECTOR OF HIGHWAYS & CHIEF ENGINEER

OCTOBER 25, 1967

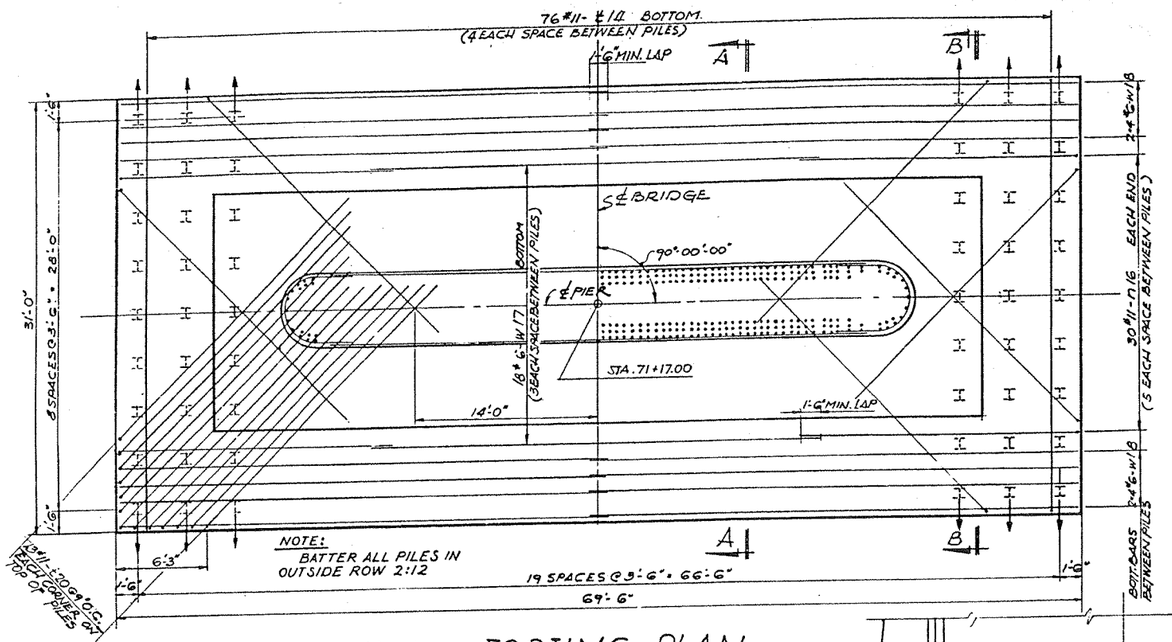
Samuel Berman

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 4
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	16
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B18

* ORDER 14 n16 BARS ONLY. 46 BARS ARE AVAILABLE AT SITE FROM PIER 1.
** DO NOT ORDER. THESE BARS ARE AVAILABLE AT SITE FROM PIER 7.
*** ORDER 2 V46 BARS ONLY. 2 BARS ARE AVAILABLE AT SITE FROM PIER 1.



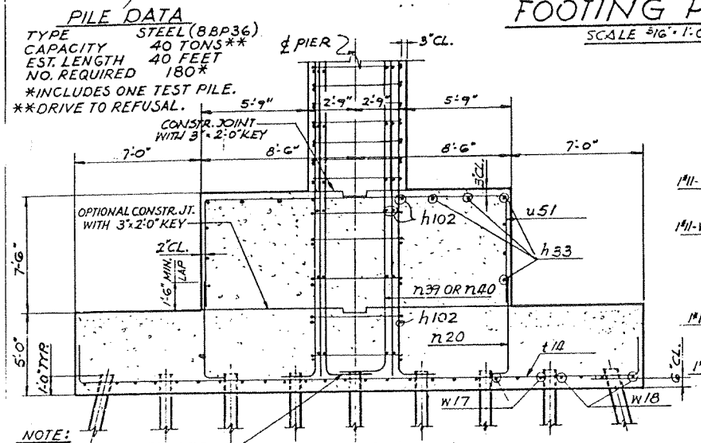
FOOTING PLAN

SCALE 3/16" = 1'-0"

PILE DATA

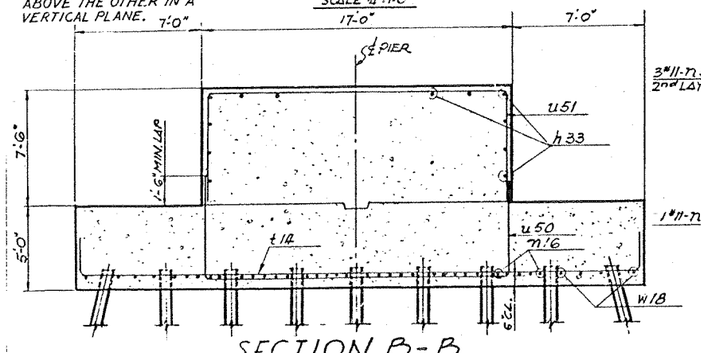
TYPE	STEEL (8 BP 36)
CAPACITY	40 TONS**
EST. LENGTH	40 FEET
NO. REQUIRED	180*

* INCLUDES ONE TEST PILE.
** DRIVE TO REFUSAL.



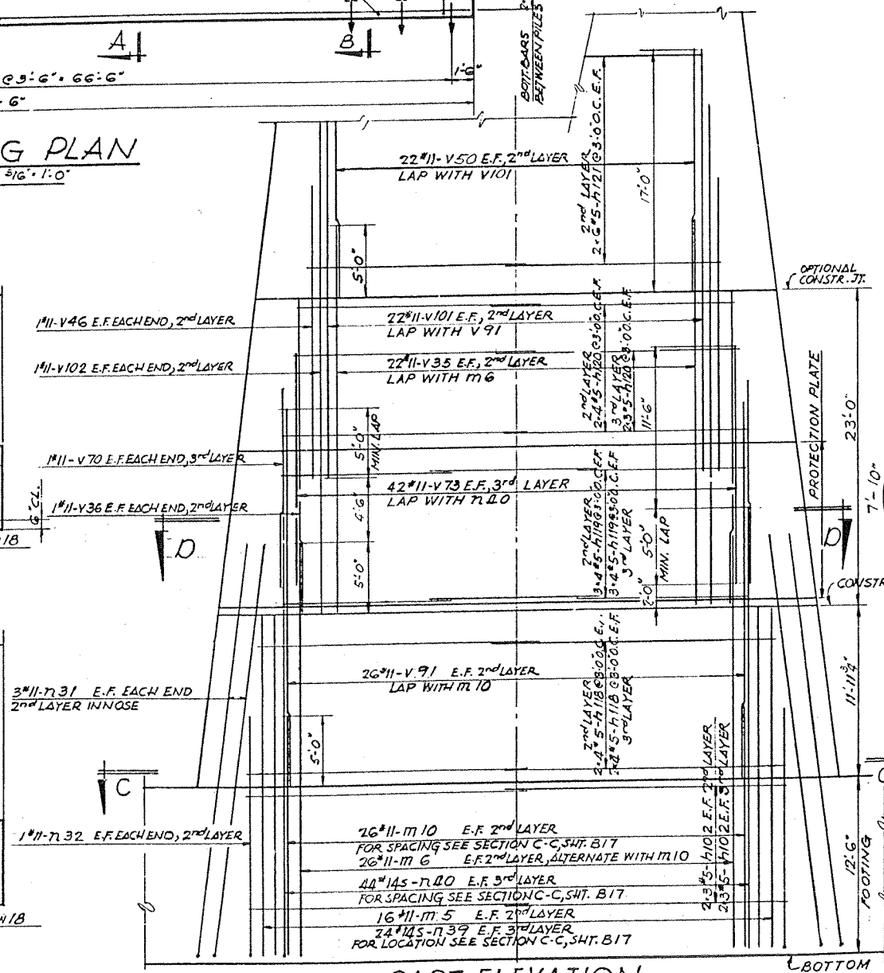
SECTION A - A

SCALE 1/4" = 1'-0"



SECTION B - B

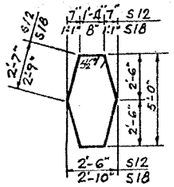
SCALE 1/4" = 1'-0"



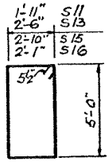
NOTE: FOR REINFORCEMENT IN OUTSIDE LAYER SEE SHEET B17. FOR SECTIONS C-C & D-D SEE SHEET B17.

PART ELEVATION OF REINFORCEMENT IN 2nd AND 3rd LAYERS

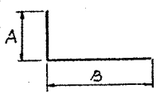
SCALE 3/16" = 1'-0"



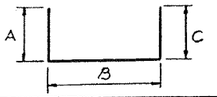
BARS S12 & S18



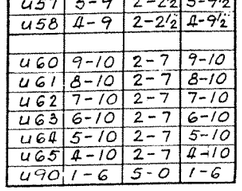
BARS S11, S13, S15 & S16



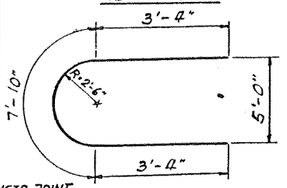
MARK	A	B
h27	2-0	2-0
n16	1-6	20-3
n20	1-0	6-0
n31	2-0	29-0
n32	2-0	17-0
n39	2-0	23-9
n40	2-0	31-0
t20	2-0	24-0



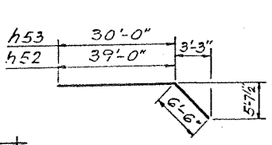
MARK	A	B	C
s17	1-0	5-0	1-0
t14	2-0	30-6	2-0
u37	3-0½	5-2	3-0½
u45	5-0½	5-2	5-0½
u46	2-6½	5-2	2-6½
u49	1-6	4-9	1-6
u50	6-0	16-6	6-0
u51	7-3	16-6	7-3
u53	9-9	2-2½	9-9½
u54	8-9	2-2½	8-9½
u55	7-9	2-2½	7-9½
u56	6-9	2-2½	6-9½
u57	5-9	2-2½	5-9½
u58	4-9	2-2½	4-9½
u60	9-10	2-7	9-10
u61	8-10	2-7	8-10
u62	7-10	2-7	7-10
u63	6-10	2-7	6-10
u64	5-10	2-7	5-10
u65	4-10	2-7	4-10
u90	1-6	5-0	1-6



BAR s5



BAR u66



BARS h52 & h53

BILL OF MATERIAL

	BAR	NO.	SIZE	LENGTH	SHAPE
	h20	4	#11	42-0	—
	h27	16	#6	4-0	L
	h28	12	#6	34-6	—
	h30	2	#6	33-6	—
	h32	2	#6	30-0	—
	h33	24	#6	28-3	—
	h40	4	#6	21-6	—
	h41	4	#6	23-3	—
	h42	4	#6	25-0	—
	h43	10	#6	22-3	—
	h47	9	#11	54-0	—
	h52	9	#11	45-6	—
	h53	9	#11	36-6	—
	h54	9	#11	30-0	—
	h55	9	#11	38-6	—
	h57	9	#11	48-0	—
	h60	4	#6	26-6	—
	h61	4	#6	28-6	—
	h62	16	#6	30-3	—
	h63	4	#6	32-0	—
	h64	4	#6	33-9	—
	h65	4	#6	35-6	—
	h66	4	#6	37-3	—
	h71	14	#6	36-6	—
	h84	16	#6	25-9	—
	h85	16	#6	27-6	—
	h93	9	#11	60-0	—
	h94	70	#6	12-0	—
	h95	10	#6	23-6	—
	h96	5	#4	24-3	—
	h103	16	#7	29-0	—
	h114	12	#6	36-0	—
	h116	12	#6	28-9	—
	h102	24	#5	20-0	—
	h118	32	#5	19-0	—
	h119	48	#5	12-3	—
	h120	28	#5	16-0	—
	h121	24	#5	14-0	—
	m5	60	#11	23-9	—
	m6	52	#11	29-0	—
	m10	52	#11	17-0	—
*	n16	60	#11	21-9	L
	n20	92	#6	7-0	L
	n31	64	#11	31-0	L
	n32	82	#11	19-0	L
	n39	48	#14S	25-9	L
	n40	88	#14S	33-0	L
	s5	126	#5	6-2	⊂
	s11	48	#5	14-9	▭
	s12	148	#5	13-11	◇
	s13	168	#5	15-11	▭
	s15	192	#5	16-7	▭
	s16	34	#5	15-1	▭
	s17	128	#5	7-0	L
	s18	172	#5	13-3	◇
	t14	76	#11	34-6	L
	t20	52	#11	26-0	L
	u37	12	#6	11-3	L
	u45	2	#6	15-3	L
	u46	2	#6	10-3	L
	u49	25	#4	7-9	L
	u50	10	#6	28-6	L
	u51	56	#6	31-0	L
	u53	48	#6	21-9	L
	u54	48	#6	19-9	L
	u55	48	#6	17-9	L
	u56	32	#6	15-9	L
	u57	32	#6	13-9	L
	u58	32	#6	11-9	L
	u60	24	#6	22-3	L
	u61	24	#6	20-3	L
	u62	24	#6	18-3	L
	u63	16	#6	16-3	L
	u64	16	#6	14-3	L
	u65	16	#6	12-3	L
	u66	132	#6	12-6	L
	u90	12	#6	8-0	L
**	v33	4	#11	34-0	—
	v35	154	#11	28-0	—
	v36	44	#11	22-6	—
***	v46	4	#11	21-3	—
	v49	4	#11	18-0	—
	v50	66	#11	17-0	—
	v53	4	#11	16-0	—
	v59	8	#11	13-0	—
	v70	4	#11	14-0	—
	v73	84	#11	16-9	—
	v89	12	#6	16-0	—
	v90	52	#9	14-6	—
	v91	112	#11	26-6	—
	v93	26	#11	29-6	—
	v100	36	#11	32-0	—
	v101	44	#11	30-6	—
	v102	4	#11	36-0	—
	w17	18	#6	32-0	—
	w18	16	#6	35-3	—

NOTE! ALL BAR DIMENSIONS ARE OUT TO OUT.

OCTOBER 25, 1967

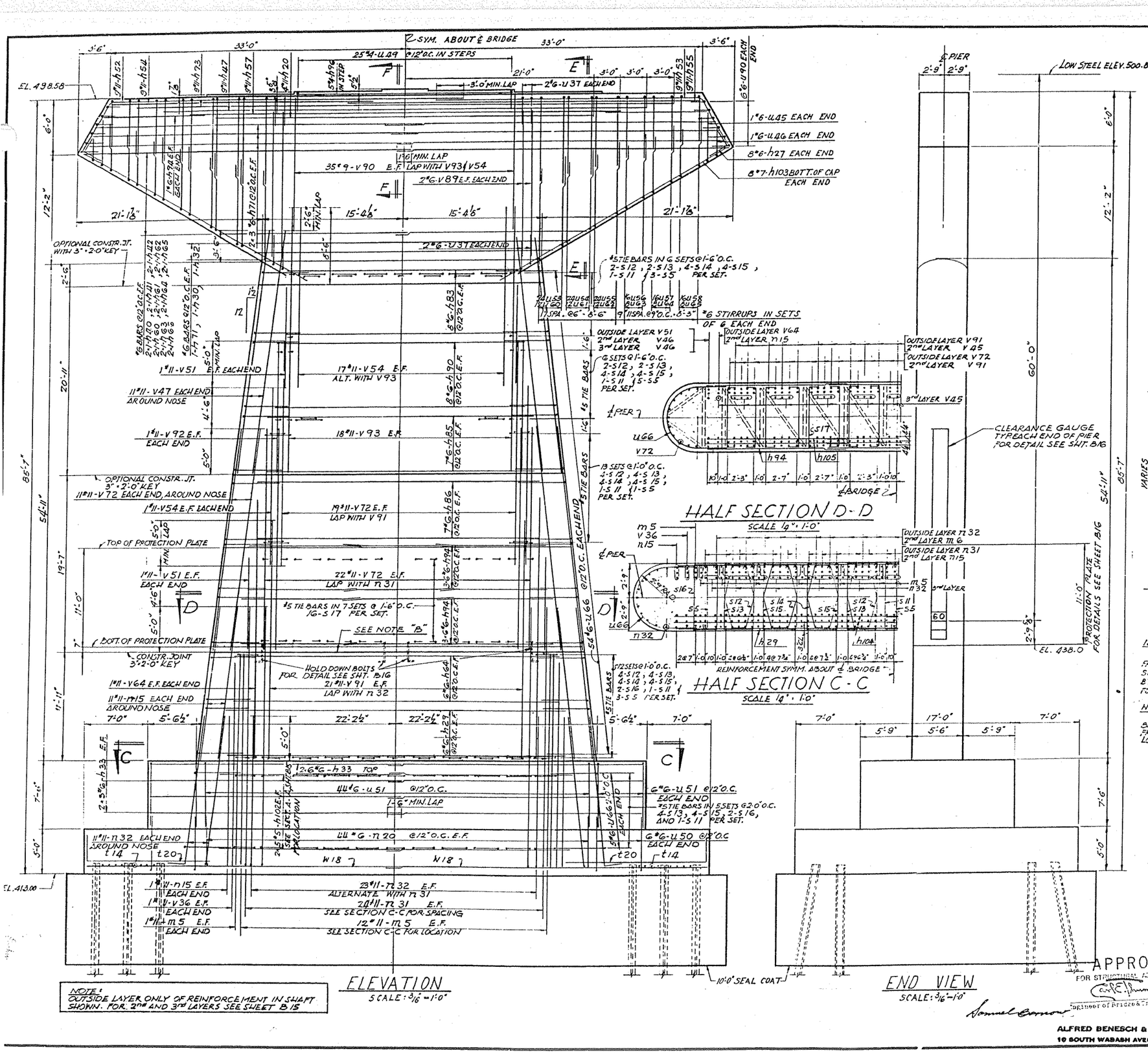
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Arthur C. Hammond Jr. 10-31-67
Engineer of Bridges and Structures

Samuel Cameron

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 4
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA1-180	(06-3,78-1) B	BUREAU-PUTNAM	39	17
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B14



NOTE 'A'
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F.E. AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS, SEE SHEETS 3(F&E) 1 AND 2.

NOTE 'B':
CHECK SPACING OF REINFORCEMENT BARS FOR CLEARANCE TO PIER PROTECTION FRAME BEFORE PLACING CONCRETE IN LOWEST PORTION OF SHAFT.

NOTES:
THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B15.

ITEM	UNIT	QUANTITIES
CLASS 'X' CONCRETE	CU. YDS.	1,283.1
SEAL COAT CONCRETE	CU. YDS.	947.9
REINFORCEMENT BARS	LBS.	199,190
FURNISHING STEEL PILES (8 BP 36)	LIN. FT.	6,444
DRIVING STEEL PILES	LIN. FT.	6,444
TEST PILE, STEEL (8 BP 36)	EACH	1

OCTOBER 3, 1967

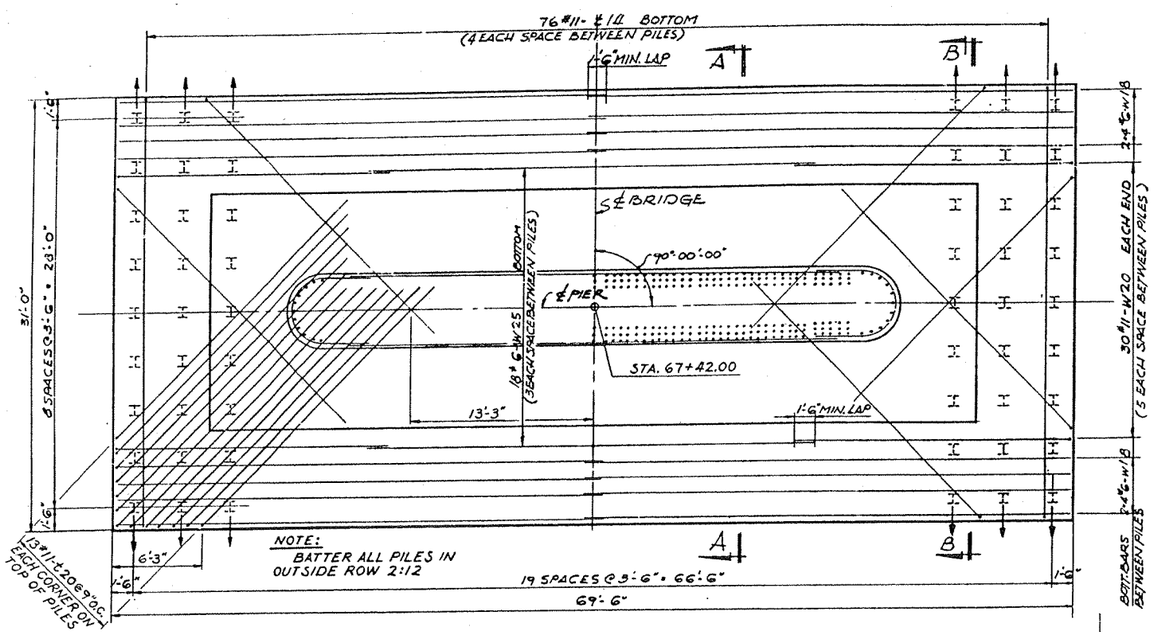
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
10-3-67

PIER 5
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,78-1) B	BUREAU-PUTNAM	39	18
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 6	ILLINOIS	PROJECT	180-7(5)0	

B15



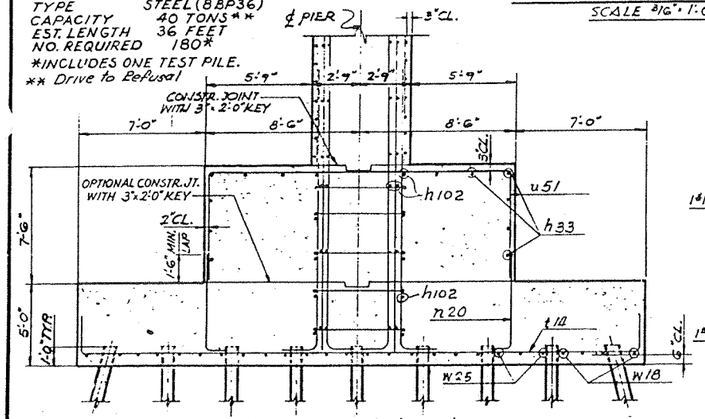
FOOTING PLAN

SCALE 3/16" = 1'-0"

PILE DATA

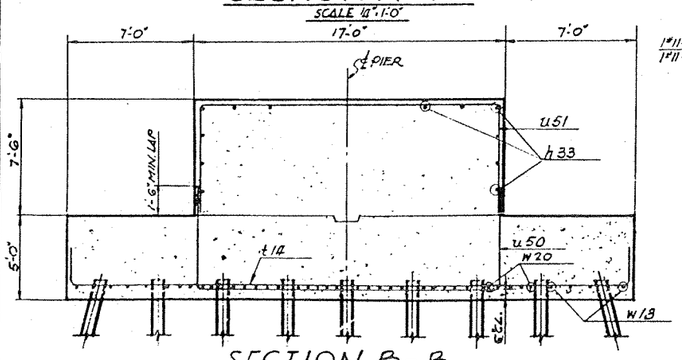
TYPE	STEEL (8BP36)
CAPACITY	40 TONS * *
EST. LENGTH	36 FEET
NO. REQUIRED	180*

*INCLUDES ONE TEST PILE.
** Drive to Refusal



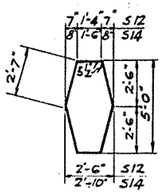
SECTION A-A

SCALE 1/2" = 1'-0"

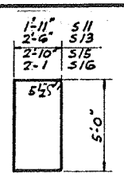


SECTION B-B

SCALE 1/2" = 1'-0"



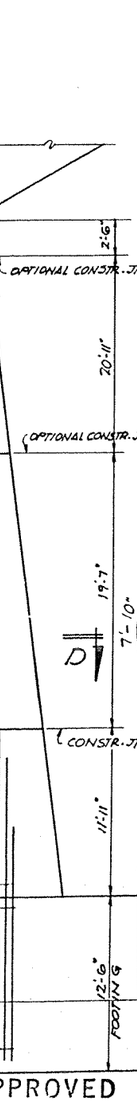
BARS s12 & s14



BARS s11, s13, s15 & s16

MARK	A	B
h27	2-0	2-0
n20	1-0	6-0
n31	2-0	29-0
n32	2-0	17-0
t20	2-0	24-0
W20	2-0	17-6

MARK	A	B	C
t14	2-0	30-6	2-0
u37	3-0½	5-2	3-0½
u45	5-0½	5-2	5-0½
u46	2-6½	5-2	2-6½
u50	6-0	16-6	6-0
u51	7-3	16-6	7-3
u53	9-9	2-2½	9-9½
u54	8-9	2-2½	8-9½
u55	7-9	2-2½	7-9½
u56	6-9	2-2½	6-9½
u57	5-9	2-2½	5-9½
u58	4-9	2-2½	4-9½
u60	9-10	2-7	9-10
u61	8-10	2-7	8-10
u62	7-10	2-7	7-10
u63	6-10	2-7	6-10
u64	5-10	2-7	5-10
u65	4-10	2-7	4-10
u49	1-6	4-9	1-6
u90	1-6	5-0	1-6
S17	1-0	5-0	1-0



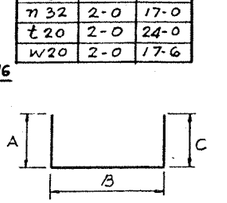
PART ELEVATION

OF REINFORCEMENT IN 2nd AND 3rd LAYERS

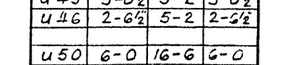
SCALE 3/16" = 1'-0"

NOTE:
FOR REINFORCEMENT IN OUTSIDE LAYER SEE SHEET B14.
FOR SECTIONS C-C & D-D SEE SHEET B14.

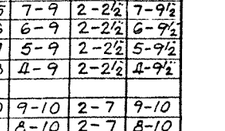
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
10-3-67
Engineer of Bridge & Traffic Structures



BAR u66



BARS h52 & h53



BAR s5

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h20	4	#11	42-0	—
h27	16	#6	4-0	L
h33	24	#6	28-3	—
h40	4	#6	21-6	—
h41	4	#6	23-3	—
h42	4	#6	25-0	—
h47	9	#11	54-0	—
h52	9	#11	45-6	—
h53	9	#11	36-6	—
h54	9	#11	30-0	—
h55	9	#11	38-6	—
h57	9	#11	48-0	—
h93	9	#11	60-0	—
h103	16	#7	29-0	—
h60	4	#6	26-6	—
h61	4	#6	28-6	—
h62	4	#6	30-3	—
h63	4	#6	32-0	—
h64	16	#6	33-9	—
h65	4	#6	35-6	—
h66	4	#6	37-3	—
h29	12	#6	35-3	—
h30	2	#6	33-6	—
h32	2	#6	30-0	—
h71	14	#6	36-6	—
h83	16	#6	24-3	—
h85	14	#6	27-6	—
h86	14	#6	29-3	—
h90	16	#6	26-0	—
h94	76	#6	12-0	—
h102	44	#5	20-0	—
h104	32	#5	18-0	—
h105	48	#5	11-6	—
h106	16	#5	15-0	—
h96	5	#4	24-3	—
m5	116	#11	23-9	—
m6	46	#11	29-0	—
n15	86	#11	17-3	—
n20	88	#6	7-0	L
n31	48	#11	31-0	L
n32	130	#11	19-0	L
t14	76	#11	30-6	L
t20	52	#11	26-0	L
u37	8	#6	11-3	L
u45	2	#6	15-3	L
u46	2	#6	10-3	L
u90	12	#6	8-0	L
u49	25	#11	7-9	L
u50	12	#6	28-6	L
u51	56	#6	31-0	L
u53	48	#6	21-9	L
u54	48	#6	19-9	L
u55	48	#6	17-9	L
u56	32	#6	15-9	L
u57	32	#6	13-9	L
u58	32	#6	11-9	L
u60	24	#6	22-3	L
u61	24	#6	20-3	L
u62	24	#6	18-3	L
u63	16	#6	16-3	L
u64	16	#6	14-3	L
u65	16	#6	12-3	L
u66	118	#6	14-6	C
V36	12	#11	22-6	—
V45	100	#11	22-3	—
V46	48	#11	21-3	—
V47	22	#11	27-6	—
V51	8	#11	11-0	—
V54	38	#11	20-0	—
V64	4	#11	28-9	—
V70	4	#11	14-0	—
V72	104	#11	25-0	—
V91	86	#11	26-6	—
V92	4	#11	15-0	—
V93	36	#11	29-6	—
V90	70	#9	14-6	—
V89	8	#6	16-0	—
W20	60	#11	19-6	L
W18	16	#6	35-3	—
W25	18	#6	37-0	—
S5	97	#5	6-2	S
S11	42	#5	14-9	S
S12	124	#5	13-11	S
S13	144	#5	15-11	S
S14	148	#5	14-3	S
S15	168	#5	16-7	S
S16	34	#5	15-1	S
S17	112	#5	7-0	S

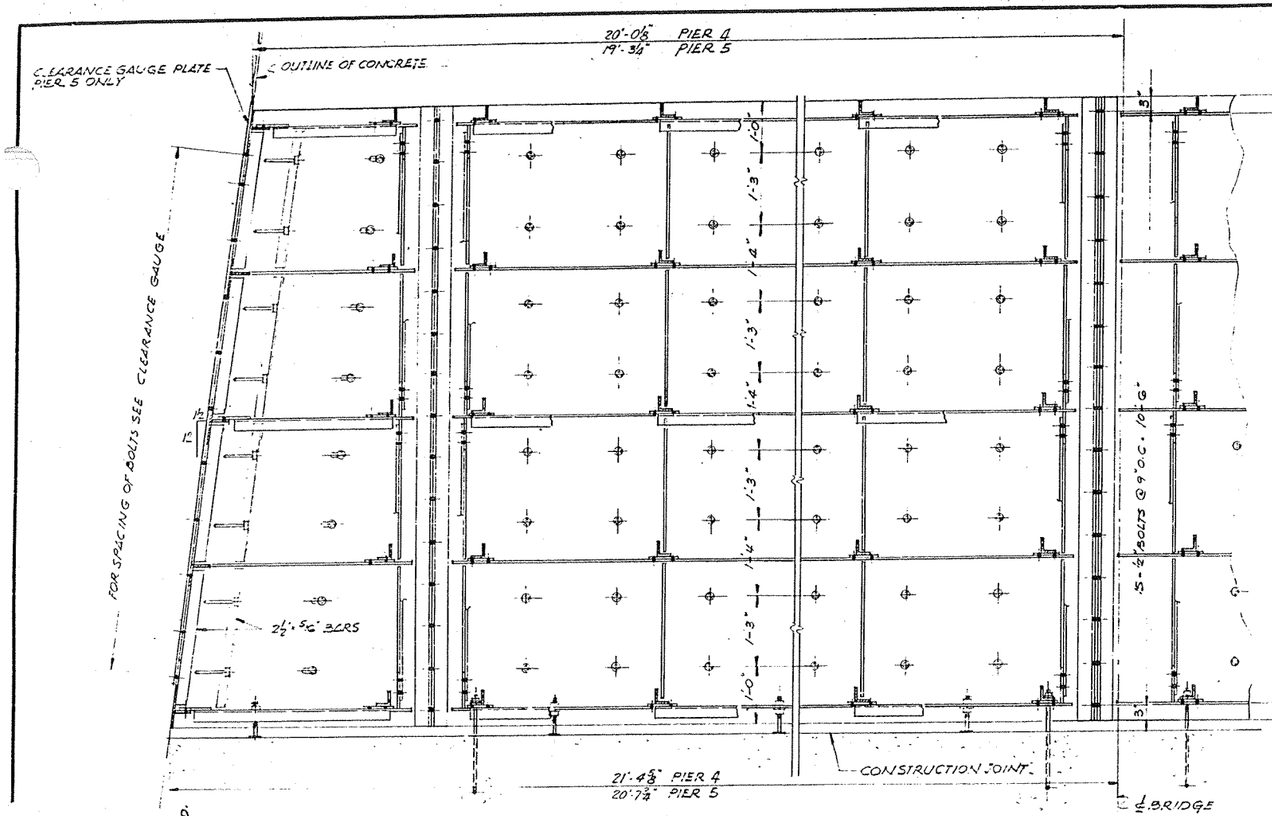
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

OCTOBER 3, 1967

PIER 5
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT 1-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

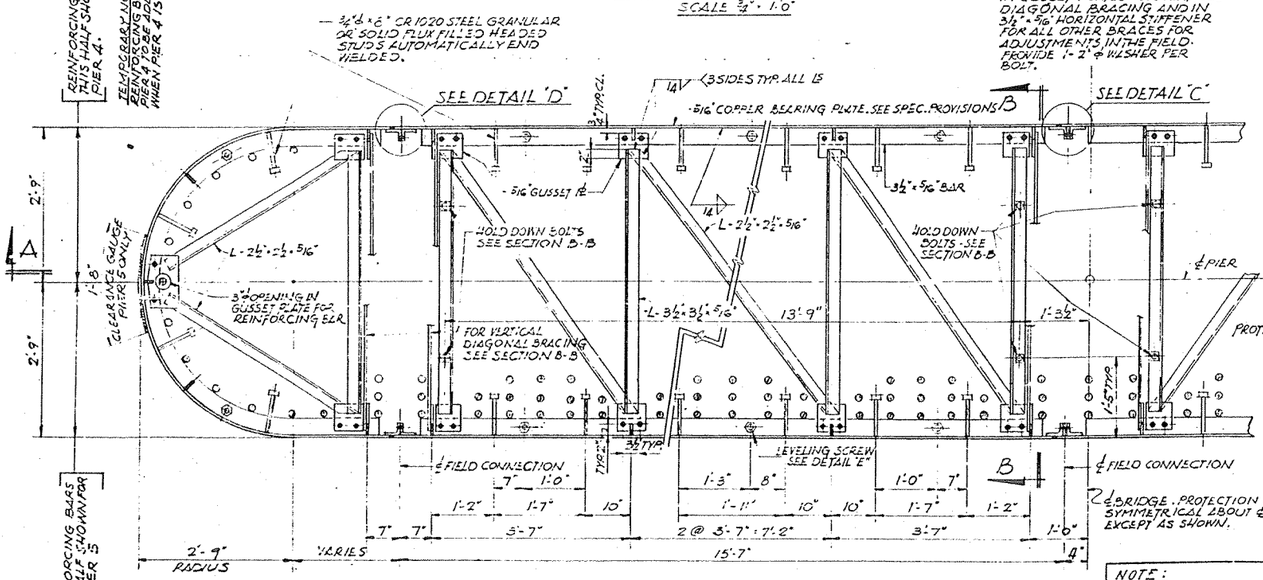
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 1-180	(063,78-1) B	BUREAU-PUTNAM	39	19
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B16A



SECTION A-A

SCALE ¾" = 1'-0"



PLAN

SCALE ¾" = 1'-0"

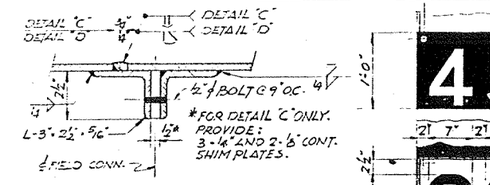
NOTE: BOLTS TO BE ⅞" H.S. BOLTS EXCEPT AS NOTED. PROVIDE 1¼" ℄ HOLES IN GUSSET PLATES FOR VERTICAL DIAGONAL BRACING AND IN 3½"x⅝" HORIZONTAL STIFFENER FOR ALL OTHER BRACES FOR ADJUSTMENTS IN THE FIELD. PROVIDE 1"-2" ℄ WASHER PER BOLT.

NOTE: CONTRACTOR FOR SECTION (06-3,78-1) F & E SHALL CONFER WITH CONTRACTOR FOR SECTION (06-3,78-1) B REGARDING INSTALLATION OF PIER PROTECTION PLATE ASSEMBLIES. FOR PLACING OF REINFORCEMENT SEE PIER DRAWINGS.

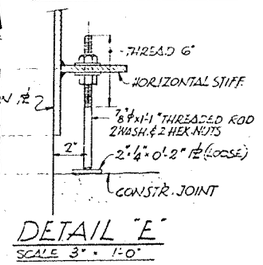
Samuel Baumann

SECTION B-B

SCALE ¾" = 1'-0"

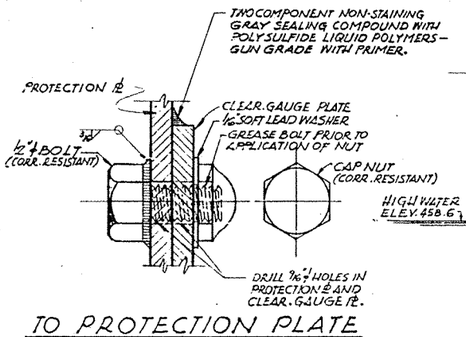


DETAIL "C" SHOWN
DETAIL "D" AS NOTED

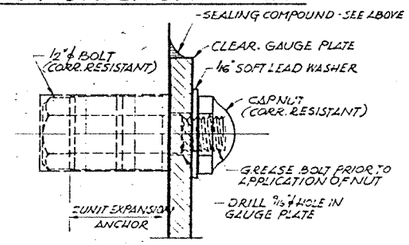


DETAIL "E"

SCALE 3" = 1'-0"



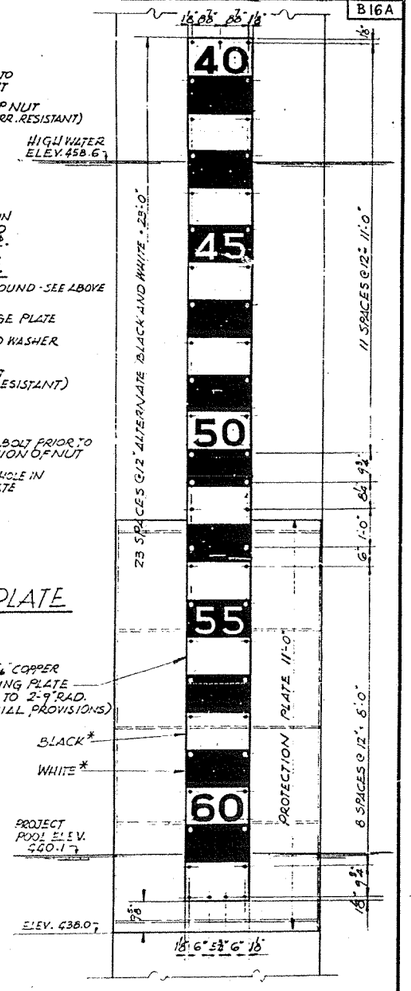
TO PROTECTION PLATE



TO CONCRETE

DETAILS OF GAUGE PLATE FASTENING

SCALE : FULL SIZE



DETAIL OF CLEARANCE GAUGE

SCALE : 1" = 1'-0"

ELEVATION OF CLEARANCE GAUGE

TYP. FOR BOTH ENDS OF PIER 5

SCALE : ½" = 1'-0"

NOTE:

PIER PROTECTION PLATE ASSEMBLIES AND CLEARANCE GAUGE ASSEMBLIES AND ALL FASTENERS SHALL BE FABRICATED AND TRANSPORTED TO THE SITE BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND PAID FOR AS "FURNISHING STRUCTURAL STEEL (CARBON)".

PIER PROTECTION PLATES AND CLEARANCE GAUGES SHALL BE ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1) B. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE.

ALL EXPOSED SURFACES OF PIER PROTECTION PLATES ARE TO BE FIELD PAINTED BY CONTRACTOR FOR SECTION (06-3,78-1) B AFTER ERECTION. FIELD PAINTING SHALL CONSIST OF SPOT PAINTING AND TWO COMPLETE COATS OF ALUMINUM PAINT. PAINT SHALL MEET THE APPROVAL OF THE ENGINEER.

APPROVED
9-27-67

SEPTEMBER 27, 1967

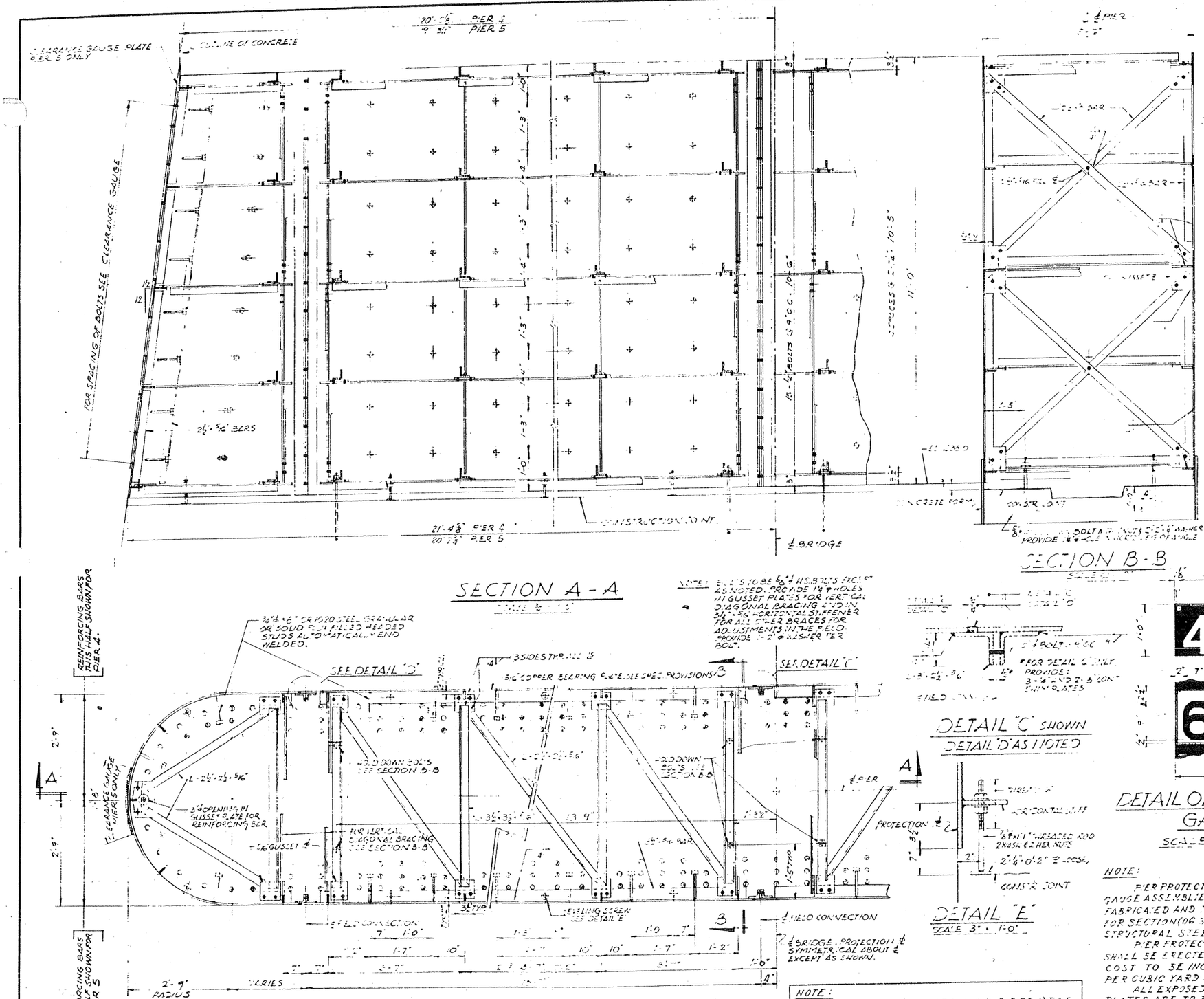
PIER PROTECTION DETAILS-PIERS 5
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1) B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

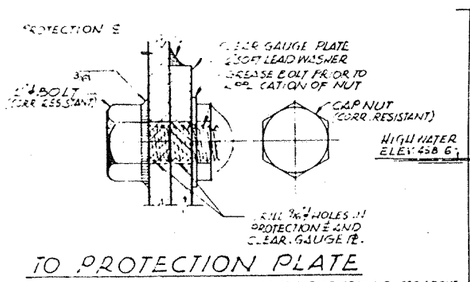
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	(063,78 I) B	BUREAU-PUTNAM	39	19A
STA. 50+16.08		TO STA. 89+38.25		
B. P. R. REQ. NO. 4	ILLINOIS		PROJECT I-180-7(5)60	

B16B

TACCOMPONENT NON-STAINING GREY SEALING COMPOUND WITH POLYSULFIDE LIQUID POLYMERS — GUN GRADE WITH PRIMER.

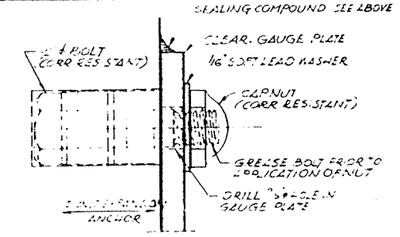


SECTION B-B



TO PROTECTION PLATE

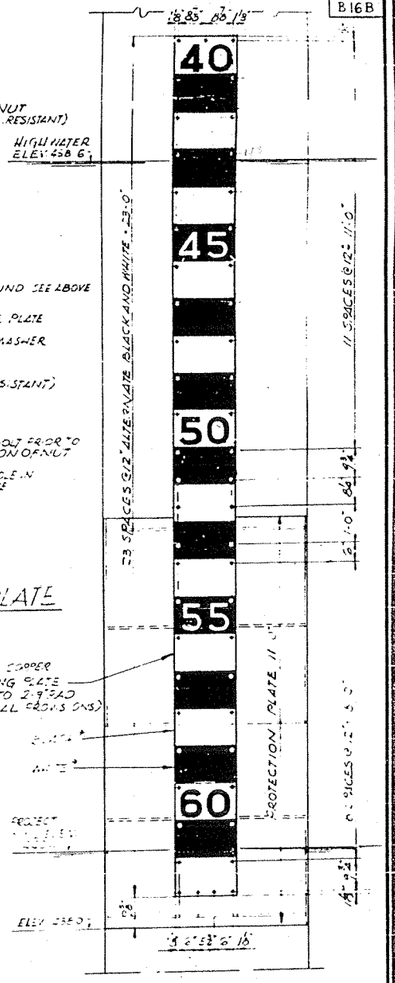
SEALING COMPOUND SEE ABOVE



TO CONCRETE

DETAILS OF GAUGE PLATE FASTENING

SCALE 1" = 1'-0"



ELEVATION OF CLEARANCE GAUGE

TYP FOR BOTH ENDS OF PIER 5

SCALE: ½" = 1'-0"

SECTION A-A

SCALE ½" = 1'-0"

NOTE: BOLTS TO BE ⅝"ø H.S. BOLTS EXCEPT AS NOTED. PROVIDE 1¼"ø HOLES IN GUSSET PLATES FOR VERTICAL DIAGONAL BRACING AND IN 3½"x⅜" HORIZONTAL STIFFENER FOR ALL OTHER BRACES FOR ADJUSTMENTS IN THE FIELD. PROVIDE 1-2" ø WASHER PER BOLT.

DETAIL "C" SHOWN

DETAIL "D" AS NOTED

DETAIL "E"

SCALE 3" = 1'-0"

PLAN

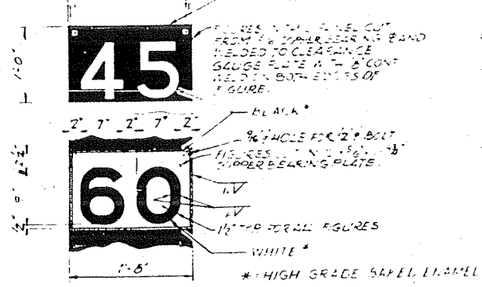
SCALE ½" = 1'-0"

NOTE:

CONTRACTOR FOR SECTION (06-3,78 I) F E E SHALL CONFER WITH CONTRACTOR FOR SECTION (06-3,78-I) B REGARDING INSTALLATION OF PIER PROTECTION PLATE ASSEMBLIES. FOR PLACING OF REINFORCEMENT SEE PIER DRAWINGS.

DETAIL OF CLEARANCE GAUGE

SCALE: 1" = 1'-0"



NOTE:

PIER PROTECTION PLATE ASSEMBLIES AND CLEARANCE GAUGE ASSEMBLIES AND ALL FASTENERS SHALL BE FABRICATED AND TRANSPORTED TO THE SITE BY CONTRACTOR FOR SECTION (06-3,78-I) F E E, AND PAID FOR AS "FURNISHING STRUCTURAL STEEL (CARBON)".

PIER PROTECTION PLATES AND CLEARANCE GAUGES SHALL BE ERECTED BY CONTRACTOR FOR SECTION (06-3,78-I) B. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE.

ALL EXPOSED SURFACES OF PIER PROTECTION PLATES ARE TO BE FIELD PAINTED BY CONTRACTOR FOR SECTION (06-3,78-I) B AFTER ERECTION. FIELD PAINTING SHALL CONSIST OF SPOT PAINTING AND TWO COMPLETE COATS OF ALUMINUM PAINT. PAINT SHALL MEET THE APPROVAL OF THE ENGINEER.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

10-21-67

OCTOBER 25, 1967

PIER PROTECTION DETAILS - PIERS 4

F. A. I. ROUTE 180

OVER ILLINOIS RIVER

F. A. PROJECT I-180-7(5)0

SECTION (06-3,78-I) B

BUREAU AND PUTNAM COUNTIES

STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	20
STA. 50+16.08	TO STA. 80+98.25			
B.P.R. REQ. NO. 4	ILLINOIS	PROJECT	I-180-7(5)0	
				B27

SYMM. ABOUT ℄ BRIDGE

SPAN 6 SPAN 7 ℄ PIER

EL. 485.39

33'-0" 33'-0"

3'-6" 21'-0" 4'-0" 3'-6"

7"11-h52 7"11-h54 7"11-h21 7"11-h20 7"11-h55 7"11-h53

D E E D

8"6-U37 EACH END FOR DETAILS AND REINFORCEMENT OF BLOCKING SEE TOP PLAN OF PIER

1'-6" MIN. LAP

1"6-U90 EACH END 6"6-U90 EACH END

1"6-U45 EACH END 1"6-U46 EACH END

6"6-h27 EACH END 6"7-h59 EACH END

3"6-V106 @12"O.C. E.F. EACH END

17"9-V55 @12"O.C. E.F.

12'-0" 12'-0"

24'-6" 24'-6"

2-2"6-h65 @12"O.C. E.F. 2-2"6-h71 @12"O.C. E.F.

OPTIONAL CONSTR. JOINT 3"x2'-0" KEY

3'-0"

3"6-U37 EACH END

2-U115 2-U116 2-U117 2-U118 2-U119 2-U120 6-U121

21 SPACES @12"=21'-0" - 15 STIRRUPS IN SETS OF 4 EACH END

6 BARS @12"O.C. E.F. 2-h41, 2-h42, 2-h40, 2-h41, 2-h46, 2-h42, 2-h46, 2-h43, 2-h46, 2-h44, 2-h46, 2-h45, 1-h67, 1-h68, 1-h70

6 BARS @12"O.C. E.F. 1-h95, 1-h67, 1-h69, 1-h70

1"11-V59 E.F. EACH END

8"11-V60@24"O.C. E.F. ALTERNATE WITH V99

8"6-h12 @12"O.C. E.F.

1"11-V70 E.F. EACH END

9"11-V99@24"O.C. E.F.

7"6-h71 @12"O.C. E.F.

11"11-V98 AROUND NOSE EACH END

OPTIONAL CONSTR. JOINT 3"x2'-0" KEY

7"6-h82 @12"O.C. E.F.

1"11-V46 E.F. EACH END

1"11-V46 E.F. EACH END

8"6-h83 @12"O.C. E.F.

10"11-V105 @24"O.C. E.F. LAP WITH n22

8"6-h90 @12"O.C. E.F.

11"11-V105 AROUND NOSE EACH END

11"11-V105 @24"O.C. E.F. LAP WITH n23

8"6-h108 @12"O.C. E.F.

14'-1" 20'-0" 23'-6" 46'-0" 76'-7"

6'-0" 12'-6" 5'-6"

5'-0" 4'-6" 5'-0" 1'-6" MIN. 22'-0"

1'-6" MIN. LAP

*5 TIE BARS IN 6 SETS @1'-6" O.C. 4-S4, 4-S9 ℔ 3-S3 PER SET

5 SETS @1'-6" O.C. 4-S4, 4-S9 ℔ 5-S3 PER SET.

6 SETS @1'-6" O.C. 4-S4, 4-S9 ℔ 7-S3 PER SET.

*5 TIE BARS @1'-6" O.C. EACH END

5 SETS @1'-6" O.C. G-S4, G-S9 ℔ 1-S3 PER SET.

8 SETS @1'-0" O.C. G-S4, G-S9 ℔ 3-S3 PER SET.

*5 TIE BARS IN 5 SETS @1'-0" O.C. G-S4, G-S9 ℔ 5-S3 PER SET.

*5 TIE BARS IN 5 SETS @24" O.C. G-S4 PER SET.

46"6-U104 @12"O.C. EACH END

5"6-U104 EACH END

56"6-U112 @12"O.C.

4"6-h108 @12"O.C. E.F. FOR LOCATION SEE SECT. F-F SHEET B28

11"11-n23 AROUND NOSE EACH END

1"11-n41 E.F. EACH END

12"11-n22 @24"O.C. E.F. ALTERNATE WITH n23

15"11-n23 @24"O.C. E.F.

32"6-n5 @12"O.C. E.F.

10"6-U35 @12"O.C. EACH END

℄25 ℄22 W18

6'-0" SEAL COAT

ELEVATION

SCALE 3/16" = 1'-0"

SYMM. ABOUT ℄ BRIDGE

2-1"6 BARS 2¾" CL.

S3 S9 S4 n21 n23 n22 h108 u108

HALF SECTION C-C

SCALE 1½" = 1'-0"

7'-0" 17'-0" 7'-0"

5'-9" 5'-6" 5'-9"

END VIEW

SCALE 3/16" = 1'-0"

11'-3" 9'-9" 9'-9" 2'-3"

1" 6⅝" SPAN 6 8" SPAN 7 9⅜" SPAN 7 12⅝" SPAN 7

ELEV. 498.39

1⅛" 3/8"x6" 3/8"x6" 5/8" SPAN 6

PART ELEVATION OF BLOCKING

SPAN 6 SPAN 7

2-3"4-h113

33"4-U103 @12"O.C. EACH END

STA. 64+02.00

1'-0" 1'-0" ℄ BRG. SPAN 7

℄ PIER

2" 2'-2" 10" 2'-9" 2'-9"

90°-00"

25"4-U49 @12"O.C.

1'-0" 1'-1" ℄ BRG. SPAN 6

TYP. ANCHOR BOLT SPACING 2"4-h80

3'-9" 9'-9" 9'-9" 9'-9"

3'-6" 33'-0"

SYMMETRICAL ABOUT ℄ BRIDGE

PART TOP PLAN

SCALE 3/16" = 1'-0"

NORTH

SPAN 6 ℄ PIER SPAN 7

2'-9" 2'-9"

3½" 10" 9½" 10" 10" 8" 11½" 3½"

1" 2" 2'-6" 1"

℄ ANCHOR BOLTS SEE TOP PLAN ℔ NOTE A.

h113 U103 h52 h54 h21 h20 h65 u116 h71 h59

3'-4½" VARIES 3'-4½" VARIES

2"CL.

½" CHAMFER

℄ PIER

h80 u49 h113 U103 h52 h55 h21 h20 h65 v55

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F&E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS SEE SHEETS (F&E)1 AND 2.

SECTION D-D

SCALE ½" = 1'-0"

SECTION E-E

SCALE ½" = 1'-0"

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (BBPBQ) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR FOOTING PLAN AND REINFORCEMENT BAR LIST SEE SHEET B28.

APPROVED
FOR STRUCTURAL DESIGN
[illegible] Thurman
ENGINEER OF STRUCTURES
11-2-67

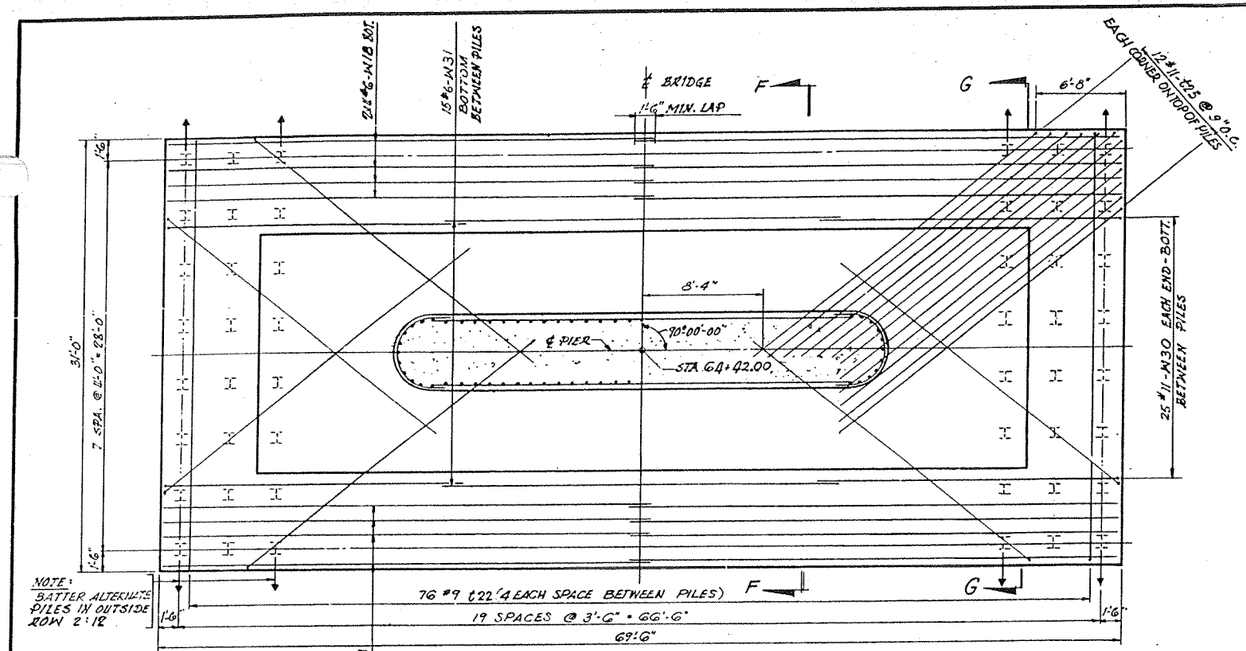
OCTOBER 31, 1967

#7459
Samuel Benesch

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 6
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78)B	BUREAU-PUTNAM	39	21
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(5)0	
				B28



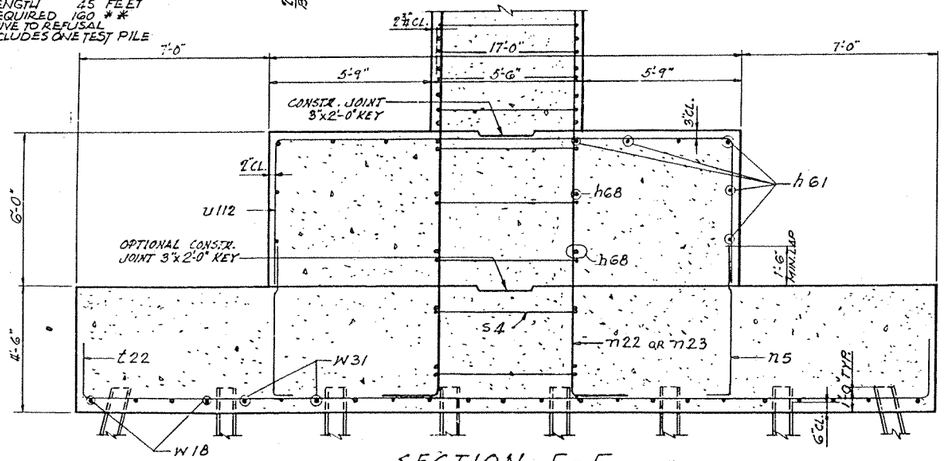
FOOTING PLAN

SCALE: 3/16" = 1'-0"

PILE DATA:

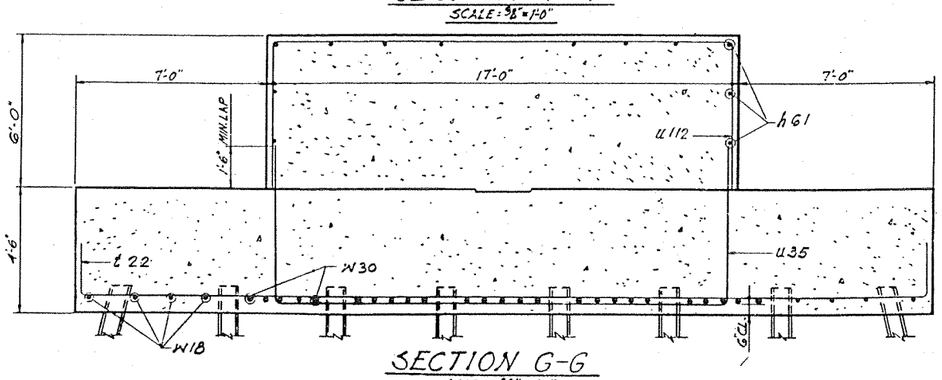
TYPE	STEEL (BBP36)
CAPACITY	40 TONS *
EST. LENGTH	45 FEET
NO. REQUIRED	160 * *

* DRIVE TO REFUSAL
** INCLUDES ONE TEST PILE



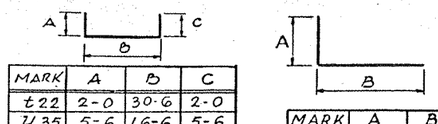
SECTION F-F

SCALE: 3/8" = 1'-0"



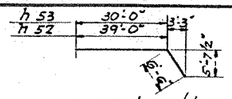
SECTION G-G

SCALE: 3/8" = 1'-0"

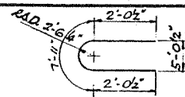


MARK	A	B	C
t22	2-0	30-6	2-0
U35	5-6	16-6	5-6
U37	3-0½	5-2	3-0½
U45	5-0½	5-2	5-0½
U46	2-6½	5-2	2-6½
U49	1-6	2-9	1-6
U90	1-6	5-0	1-6
U115	10-6	3-7	10-5
U116	9-6	3-7	9-5
U117	8-9	3-7	8-8
U118	8-0	3-7	7-11
U119	7-0	3-7	6-11
U120	6-3	3-7	6-2
U121	5-6	3-7	5-5
U103	1-8	2-1	1-9
U112	5-9	16-8	5-9

MARK	A	B
h27	2-0	2-0
n5	1-6	5-6
n22	2-0	24-9
n23	2-0	15-3
n41	2-0	22-0
t25	2-0	26-6
W30	2-0	22-0



BARS h52 & h53

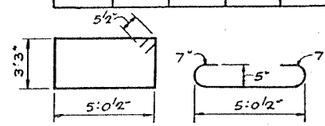


BAR U104

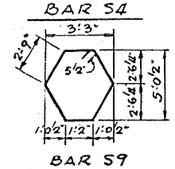
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h20	7	#11	42-0	—
h21	7	#11	50-0	—
h27	12	#6	4-0	L
h40	4	#6	21-6	—
h41	4	#6	23-3	—
h42	4	#6	25-0	—
h52	7	#11	45-6	⟋
h53	7	#11	36-6	⟋
h54	7	#11	30-0	—
h55	7	#11	38-6	—
h59	12	#7	33-0	—
h60	4	#6	26-6	—
h61	28	#6	28-6	—
h62	4	#6	30-3	—
h63	4	#6	32-0	—
h64	4	#6	33-9	—
h65	12	#6	35-6	—
h66	4	#6	37-3	—
h67	2	#6	27-0	—
h68	10	#6	30-6	—
h69	2	#6	34-0	—
h70	2	#6	37-6	—
h71	8	#6	36-6	—
h80	2	#4	23-9	—
h82	14	#6	22-6	—
h83	16	#6	24-3	—
h90	16	#6	26-0	—
h91	14	#6	20-9	—
h95	2	#6	23-6	—
h108	16	#6	27-9	—
h112	16	#6	18-9	—
h113	6	#4	33-6	—
n5	72	#6	7-0	L
n22	24	#11	26-9	L
n23	52	#11	17-3	L
n41	4	#11	24-0	L
S3	139	#5	6-2½	⊂⊃
S4	206	#5	17-6	□
S9	176	#5	14-3	⬡
t22	76	#9	34-6	⊔
t25	48	#11	28-6	L

BAR	NO.	SIZE	LENGTH	SHAPE
U35	20	#6	27-6	⊔
U37	12	#6	11-3	⊔
U45	2	#6	15-3	⊔
U46	2	#6	10-3	⊔
U49	25	#4	7-9	⊔
U90	12	#6	8-0	⊔
U115	24	#5	24-6	⊔
U116	24	#5	22-6	⊔
U117	24	#5	21-0	⊔
U118	24	#5	19-6	⊔
U119	24	#5	17-6	⊔
U120	24	#5	16-0	⊔
U121	32	#5	12-6	⊔
U103	66	#4	5-6	⊔
U102	102	#6	12-0	⊂
U112	56	#6	28-2	⊔
V26	8	#11	21-3	—
V55	34	#9	16-0	—
V59	4	#11	13-0	—
V60	16	#11	19-6	—
V70	4	#11	14-0	—
V98	22	#11	25-9	—
V99	18	#11	29-0	—
V106	12	#6	18-6	—
V105	64	#11	28-6	—
W30	50	#11	24-0	L
W18	16	#6	35-3	—
W31	15	#6	28-0	—



BAR S4 BAR S3



BAR S9

APPROVED
FOR STRUCTURAL ASPECTS
11-2-67
ENGINEER OF BUREAU OF BRIDGES & STRUCTURES

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS 'X' CONCRETE	CU. YDS.	1,065.3
SEAL COAT CONCRETE	CU. YDS.	569.0
REINFORCEMENT BARS	LBS.	88,680
FURNISHING STEEL PILES (BBP36)	LIN. FT.	7,155
DRIVING STEEL PILES	LIN. FT.	7,155
TEST PILE, STEEL (BBP36)	EACH	1

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

#1459
Samuel Barron

OCTOBER 31, 1967

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

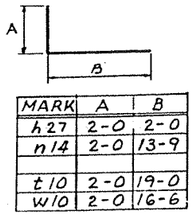
PIER 6
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

BILL OF MATERIAL

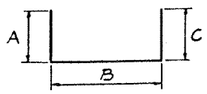
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	22
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B 9D

PIER 7

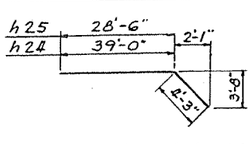
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	14	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	16	#6	21-6	
h41	14	#6	23-3	
h42	14	#6	25-0	
h43	12	#6	22-3	
h44	4	#4	23-0	
n14	72	#11	15-9	
s1	70	#5	15-6	
s2	35	#5	17-6	
s5	124	#5	13-2	
s6	31	#5	15-2	
s7	181	#5	5-1	
t10	40	#11	21-0	
t11	76	#11	23-6	
u10	12	#6	18-3	
u11	12	#6	17-8	
u12	31	#6	24-3	
u13	84	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
v30	4	#11	10-6	
v31	26	#11	19-0	
v32	18	#11	26-0	
v34	42	#11	24-6	
v45	90	#11	22-3	
v48	4	#11	12-0	
v83	36	#11	34-9	
v37	34	#9	17-6	
v38	36	#9	13-6	
v84	42	#9	10-6	
v39	8	#6	14-6	
w10	30	#11	18-6	
w11	16	#6	27-9	
w12	9	#6	24-0	



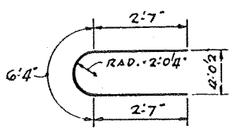
MARK	A	B
h27	2-0	2-0
n14	2-0	13-9
t10	2-0	19-0
w10	2-0	16-6



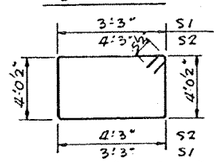
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	4-9	8-2	4-9
u12	8-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-11½



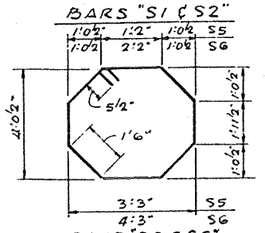
BARS "h24 & h25"



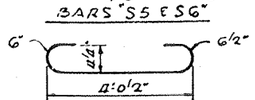
BAR "U13"



BARS "S1 & S2"



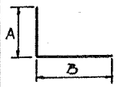
BARS "S5 & S6"



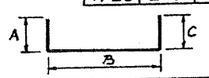
BAR "S7"

PIER 8

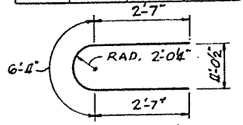
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	
h21	8	#11	50-0	
h22	8	#11	28-6	
h23	8	#11	39-0	
h24	8	#11	43-3	
h25	8	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	14	#6	21-6	
h42	8	#6	25-0	
h43	12	#6	22-3	
h95	12	#6	23-6	
h44	4	#4	23-0	
n14	68	#11	15-9	
n16	4	#11	21-9	
n33	40	#11	28-6	
s1	58	#5	15-6	
s2	29	#5	17-6	
s5	100	#5	13-2	
s6	25	#5	15-2	
s7	107	#5	5-1	
t11	48	#11	23-6	
t12	40	#11	22-0	
u10	14	#6	18-3	
u11	14	#6	17-8	
u12	30	#6	24-3	
u13	66	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u17	48	#5	21-6	
u18	48	#5	20-0	
u19	48	#5	18-0	
u20	48	#5	16-6	
u21	40	#5	14-6	
u22	32	#5	12-0	
u23	32	#5	10-0	
u24	24	#4	6-6	
v31	18	#11	19-0	
v36	18	#11	22-6	
v38	34	#9	13-6	
v39	8	#6	14-6	
v53	4	#11	16-0	
v94	36	#11	18-3	
v95	20	#11	23-0	
v96	16	#11	17-6	
w11	16	#6	27-9	
w20	30	#11	19-6	
w21	9	#6	22-0	



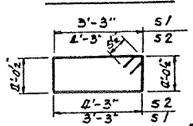
MARK	A	B
h27	2-0	2-0
n14	2-0	13-9
n16	1-6	20-3
n33	2-0	26-6
t12	2-0	20-0
w20	2-0	17-6



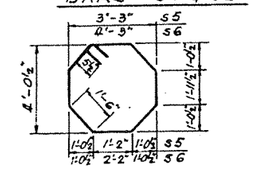
MARK	A	B	C
t11	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u11	4-9	8-2	4-9
u12	8-0½	8-2	8-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-11½



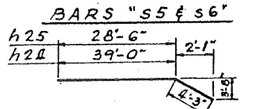
BAR "U13"



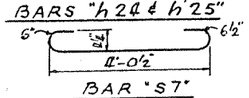
BARS "S1 & S2"



BARS "S5 & S6"



BARS "h24 & h25"



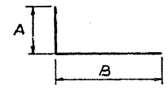
BAR "S7"

APPROVED
FOR CONSTRUCTION 10-3-67

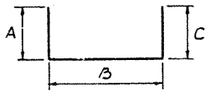
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

PIER 9

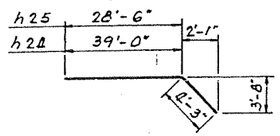
BAR	NO.	SIZE	LENGTH	SHAPE
h20	6	#11	42-0	
h21	6	#11	50-0	
h22	6	#11	28-6	
h23	6	#11	39-0	
h24	6	#11	43-3	
h25	6	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	20	#6	19-6	
h39	16	#6	17-6	
h40	14	#6	21-6	
h43	16	#6	22-3	
h44	4	#4	23-0	
h95	12	#6	23-6	
n10	40	#11	14-0	
n16	36	#11	21-9	
n11	24	#9	16-0	
s1	30	#5	15-6	
s2	15	#5	17-6	
t19	52	#10	23-6	
u10	14	#6	18-3	
u13	58	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	24	#4	6-6	
u25	30	#6	23-9	
u26	14	#6	16-8	
u78	40	#6	21-0	
u79	40	#6	18-3	
u80	32	#6	15-3	
u81	32	#6	13-0	
u82	32	#6	10-9	
v39	8	#6	14-6	
v40	34	#8	13-3	
v77	34	#10	19-0	
v81	56	#10	16-6	
v82	22	#10	22-3	
w11	16	#6	27-9	
w20	30	#11	19-6	
w21	9	#6	22-0	



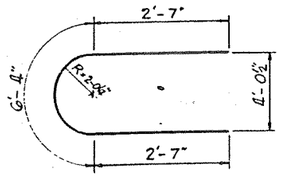
MARK	A	B
h27	2-0	2-0
n10	2-0	12-0
n11	1-0	15-0
n16	1-6	20-3
w20	2-0	17-6



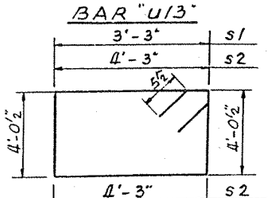
MARK	A	B	C
t19	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-11½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u78	9-2½	2-7	9-2½
u79	7-10	2-7	7-10
u80	6-4	2-7	6-4
u81	5-2½	2-7	5-2½
u82	4-1	2-7	4-1



BARS "h24 & h25"



BAR "U13"

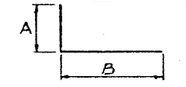


BARS "S1 & S2"

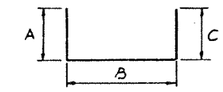
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 10

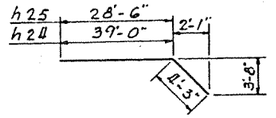
BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	
h23	7	#11	39-0	
h24	7	#11	43-3	
h25	7	#11	32-9	
h26	12	#7	31-0	
h27	12	#6	4-0	
h28	8	#6	34-6	
h29	4	#6	35-3	
h30	6	#6	33-6	
h31	4	#6	31-9	
h32	6	#6	30-0	
h33	4	#6	28-3	
h34	6	#6	26-6	
h35	4	#6	24-9	
h36	6	#6	23-0	
h37	4	#6	21-3	
h38	4	#6	19-6	
h45	4	#11	38-0	
h46	7	#11	46-0	
h47	7	#11	54-0	
h48	20	#6	17-9	
h49	18	#6	20-0	
h50	12	#6	21-0	
h51	4	#4	24-0	
n12	40	#10	13-3	
n13	20	#10	16-6	
s1	20	#5	15-6	
s2	10	#5	17-6	
t12	40	#11	22-0	
t13	52	#9	23-6	
u10	14	#6	18-3	
u13	38	#6	11-6	
u14	2	#6	9-3	
u15	8	#6	7-3	
u16	8	#6	11-3	
u24	25	#4	6-6	
u25	27	#6	23-9	
u26	14	#6	16-8	
u27	48	#5	21-6	
u28	48	#5	20-0	
u29	48	#5	18-0	
u30	48	#5	16-6	
u31	40	#5	14-6	
u32	32	#5	12-0	
u33	32	#5	10-0	
v39	8	#6	14-6	
v40	34	#8	13-3	
v41	18	#10	20-9	
v42	18	#10	24-3	
v43	4	#10	9-0	
v44	16	#10	21-0	
w13	30	#11	20-9	
w14	16	#6	27-6	
w15	9	#6	19-0	



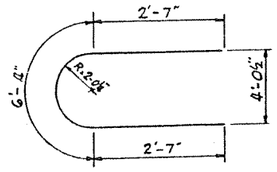
MARK	A	B
h27	2-0	2-0
n12	2-0	11-3
n13	2-0	14-6
t12	2-0	20-0
w13	2-0	18-9



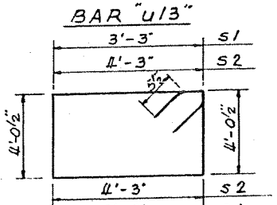
MARK	A	B	C
t13	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u24	1-4	3-9½	1-11½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3
u27	9-3½	2-11½	9-3
u28	8-6½	2-11½	8-6
u29	7-6½	2-11½	7-6
u30	6-9½	2-11½	6-9
u31	5-9½	2-11½	5-9
u32	4-6½	2-11½	4-6
u33	3-6½	2-11½	3-6



BARS "h24 & h25"



BAR "U13"

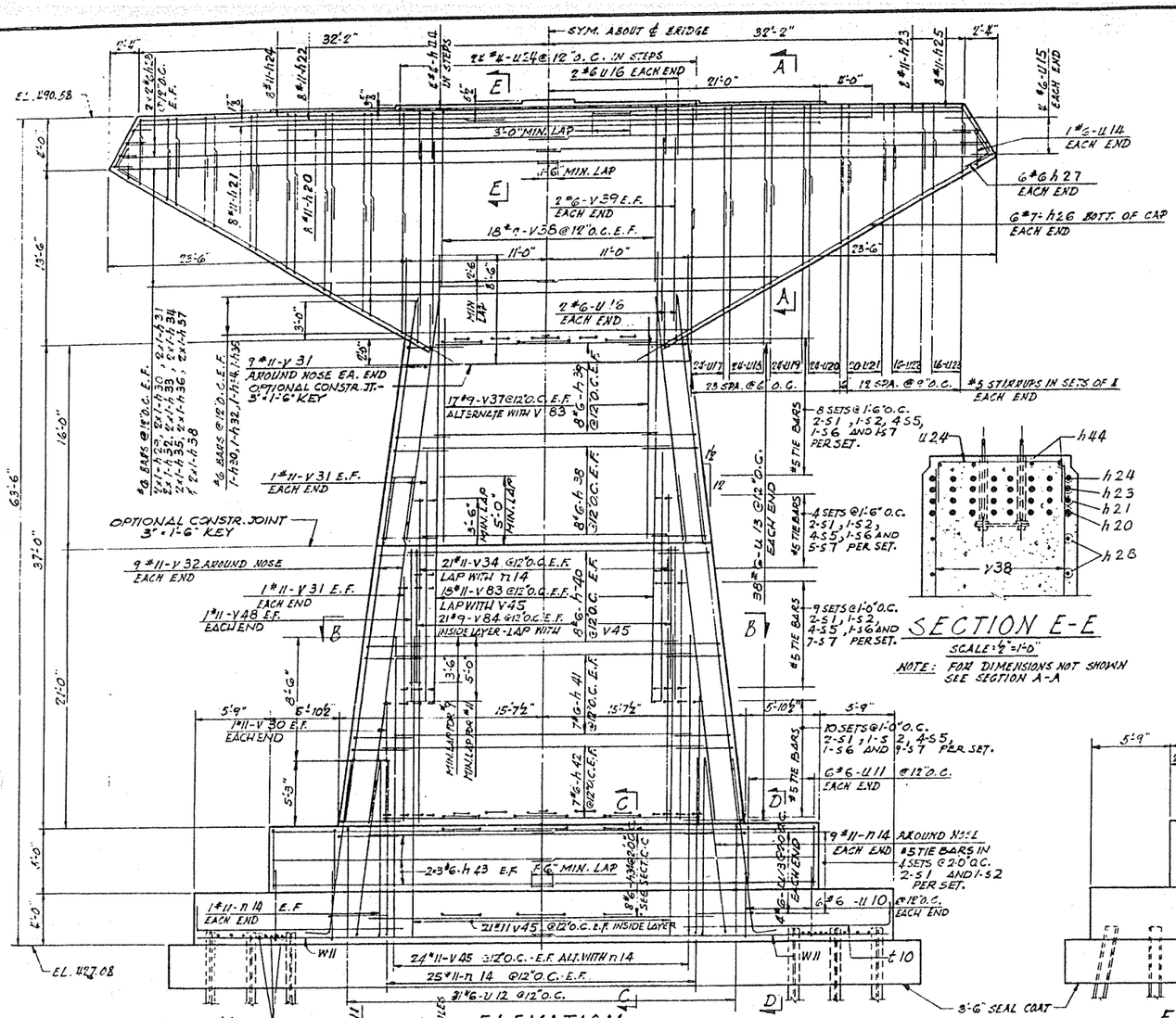


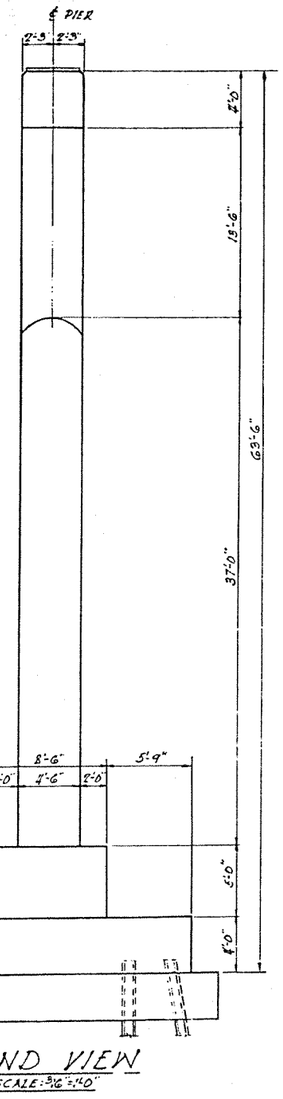
BARS "S1 & S2"

OCTOBER 3, 1967

REINFORCEMENT BAR LISTS-PIERS 7,8,9 & 10
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1) B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)B	BUREAU-PUTNAM	39	23
STA. 50+16.08		TO STA 80+98.25		
B. P. R. REC. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B7B





NOTES:

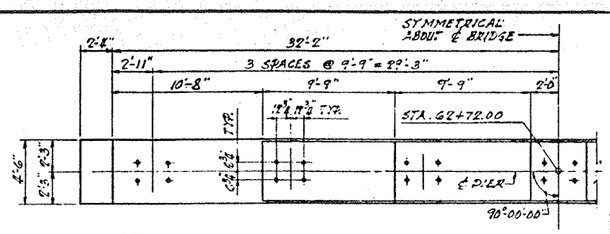
THE CONTRACTOR SHALL DRIVE ONE STEEL (B BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES. DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.

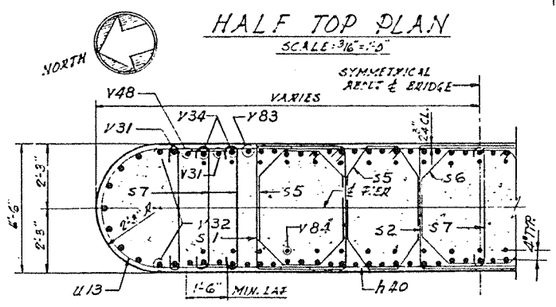
FOR ADDITIONAL NOTES SEE SHEET B4.

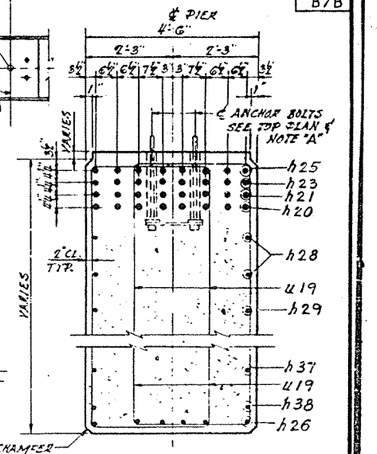
FOR REINFORCEMENT BAR LIST SEE SHEET B9B.

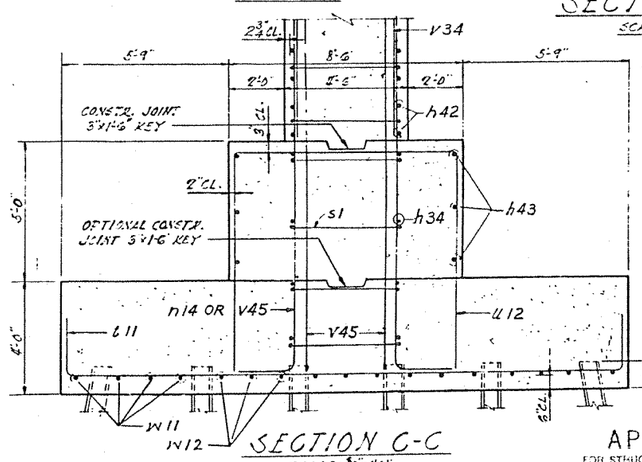
BILL OF MATERIALS

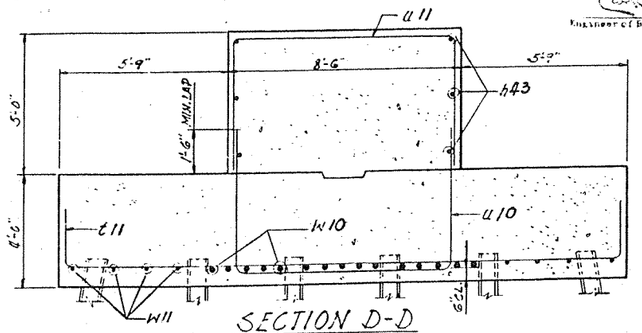
ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	535.9
SEAL COAT CONCRETE	CU. YDS.	181.0
REINFORCEMENT BARS	LBS.	87,700
FURNISHING STEEL PILES (B BP 36)	LIN. FT.	5,050
DRIVING STEEL PILES	LIN. FT.	5,050
TEST PILE, STEEL (B BP 36)	EACH	1











NOTE "A":

ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS, SEE SHEETS (F & E)1 AND (F & E)2.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Chief Engineer of Bridges & Structures
9-26-67

SEPTEMBER 19, 1967

PIER 7

F. A. I. ROUTE 180

OVER ILLINOIS RIVER

F. A. PROJECT I-180-7(5)0

SECTION (06-3,78-1)B

BUREAU AND PUTNAM COUNTIES

STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	06(3,78)B	BUREAU-PUTNAM	39	24.
STA. 50+16.08		TO STA. 80+98.25		
B.P.R. REC. NO. 4	ILLINOIS	PROJECT I180-7(5)0		B19

ELEVATION
SCALE: 3/16" = 1'-0"

SECTION E-E
SCALE: 1/2" = 1'-0"

NOTE: FOR DIMENSIONS NOT SHOWN SEE SECTION A-A

END VIEW
SCALE: 3/16" = 1'-0"

HALF TOP PLAN
SCALE: 3/16" = 1'-0"

HALF SECTION B-B
SCALE: 3/8" = 1'-0"

SECTION A-A
SCALE: 1/2" = 1'-0"

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,75-1)B. FOR DETAILS, SEE SHEETS (F&E)1 AND (F&E)2.

SECTION C-C
SCALE: 3/8" = 1'-0"

SECTION D-D
SCALE: 3/8" = 1'-0"

FOOTING PLAN
SCALE: 3/16" = 1'-0"

PILE DATA

TYPE	STEEL (BBP36)
CAPACITY	60 TONS **
EST. LENGTH	50 FEET
NO. REQUIRED	102 *

* INCLUDES ONE TEST PILE **Drive to refusal

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (BBP36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEALCOAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B9D.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	496.7
SEAL COAT CONCRETE	CU. YDS.	181.0
REINFORCEMENT BARS	LBS.	68,470
FURNISHING STEEL PILES (BBP36)	LIN. FT.	5,050
DRIVING STEEL PILES	LIN. FT.	5,050
TEST PILE, STEEL (BBP36)	EACH	1

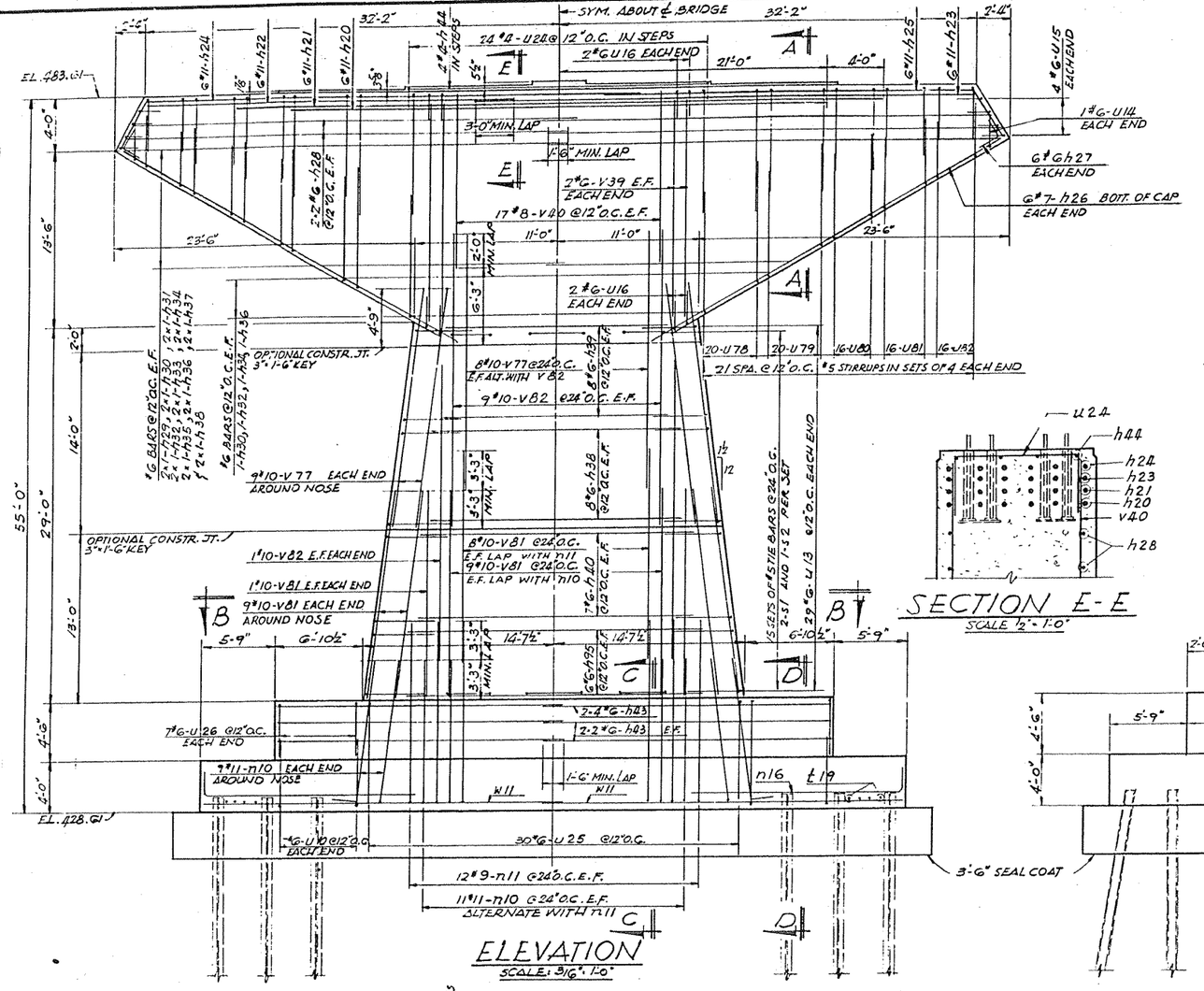
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
10-3-67
Engineer of Bridges & Traffic Structures

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

OCTOBER 3, 1967

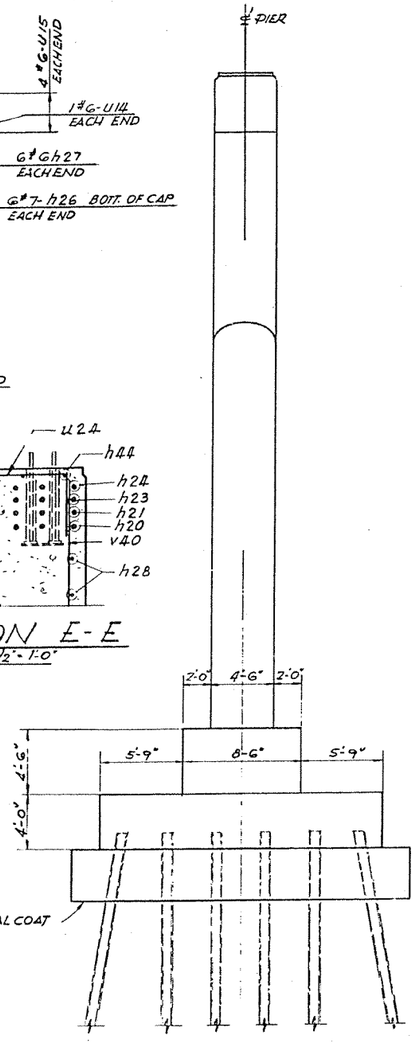
PIER 8
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	25
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REQ. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B24

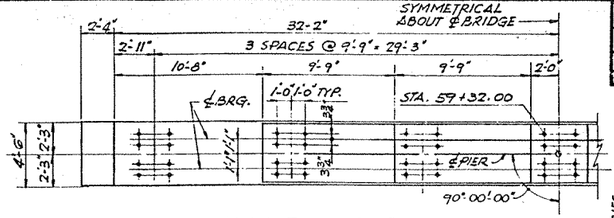


ELEVATION
SCALE: 3/16" = 1'-0"

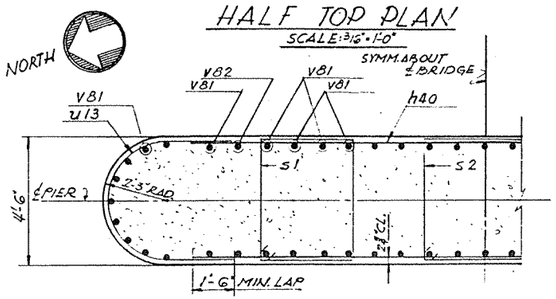
SECTION E-E
SCALE ½" = 1'-0"



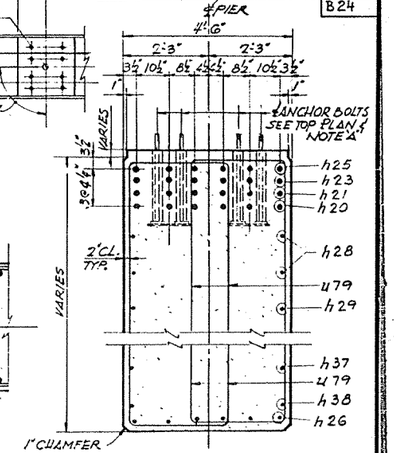
END VIEW
SCALE 3/16" = 1'-0"



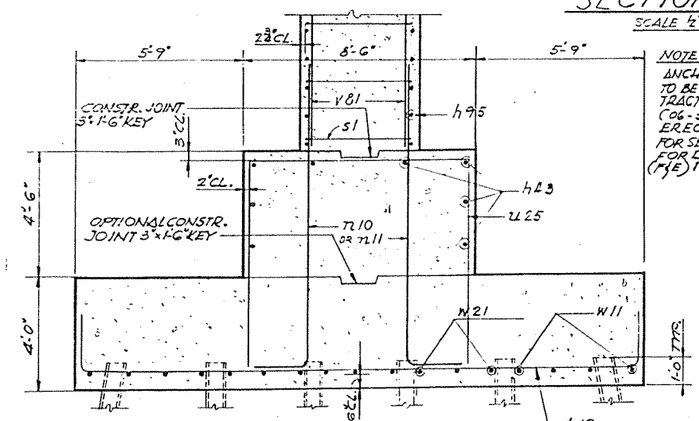
HALF TOP PLAN
SCALE: 3/16" = 1'-0"



HALF SECTION B-B
SCALE ½" = 1'-0"

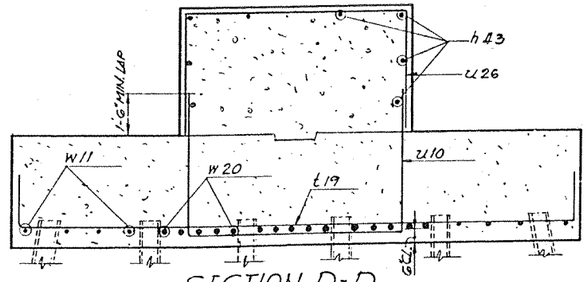


SECTION A-A
SCALE ½" = 1'-0"

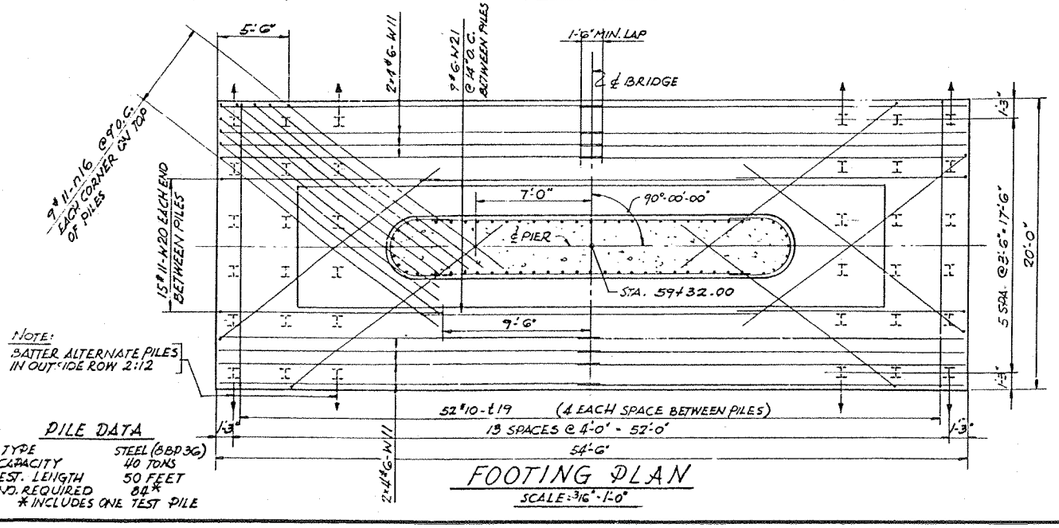


SECTION C-C
SCALE ¾" = 1'-0"

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1)E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS SEE SHEETS (F,E)1 AND (F,E)2.



SECTION D-D
SCALE ¾" = 1'-0"



NOTE:
BATTER ALTERNATE PILES IN OUTSIDE ROW 2:12

PILE DATA

TYPE	STEEL (8BP36)
CAPACITY	40 TONS
EST. LENGTH	50 FEET
NO. REQUIRED	84*

*INCLUDES ONE TEST PILE

FOOTING PLAN
SCALE: 3/16" = 1'-0"

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (8BP36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEALCOAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B9C.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	490.0
SEAL COAT CONCRETE	CU. YDS.	181.2
REINFORCEMENT BARS	LBS.	49,260
FURNISHING STEEL PILES (8BP36)	LIN. FT.	4,150
DRIVING STEEL PILES	LIN. FT.	4,150
TEST PILE, STEEL (8BP36)	EACH	1

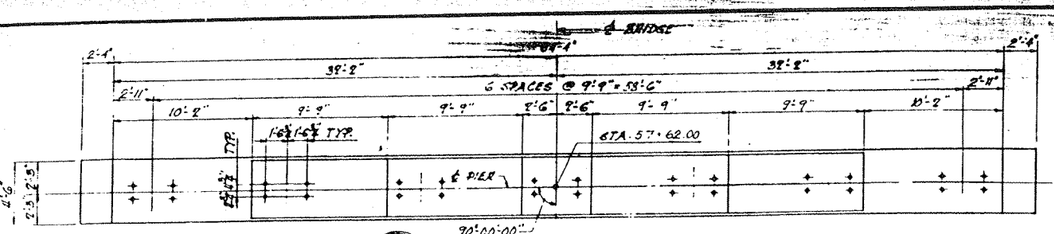
APPROVED
1459 9-27-67
Engineer

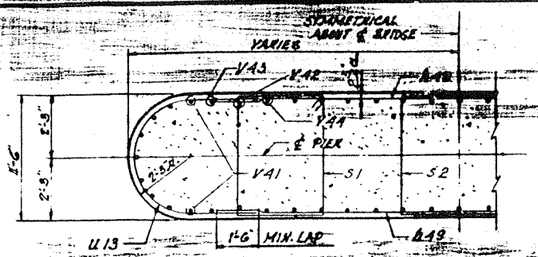
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

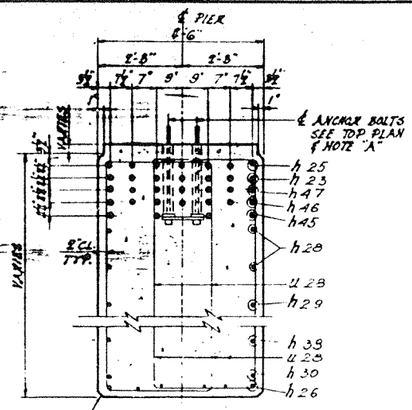
SEPTEMBER 27, 1967

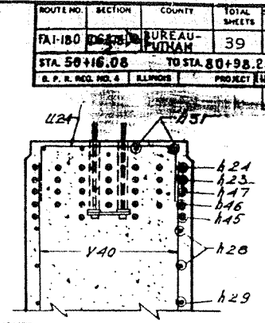
PIER 9
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1)B	BUREAU-PUTNAM	39	26
STA. 58+16.08		TO STA. 80+98.25		
B. P. R. REQ. NO. 6	ILLINOIS	PROJECT I-180-7(5)0		B8A

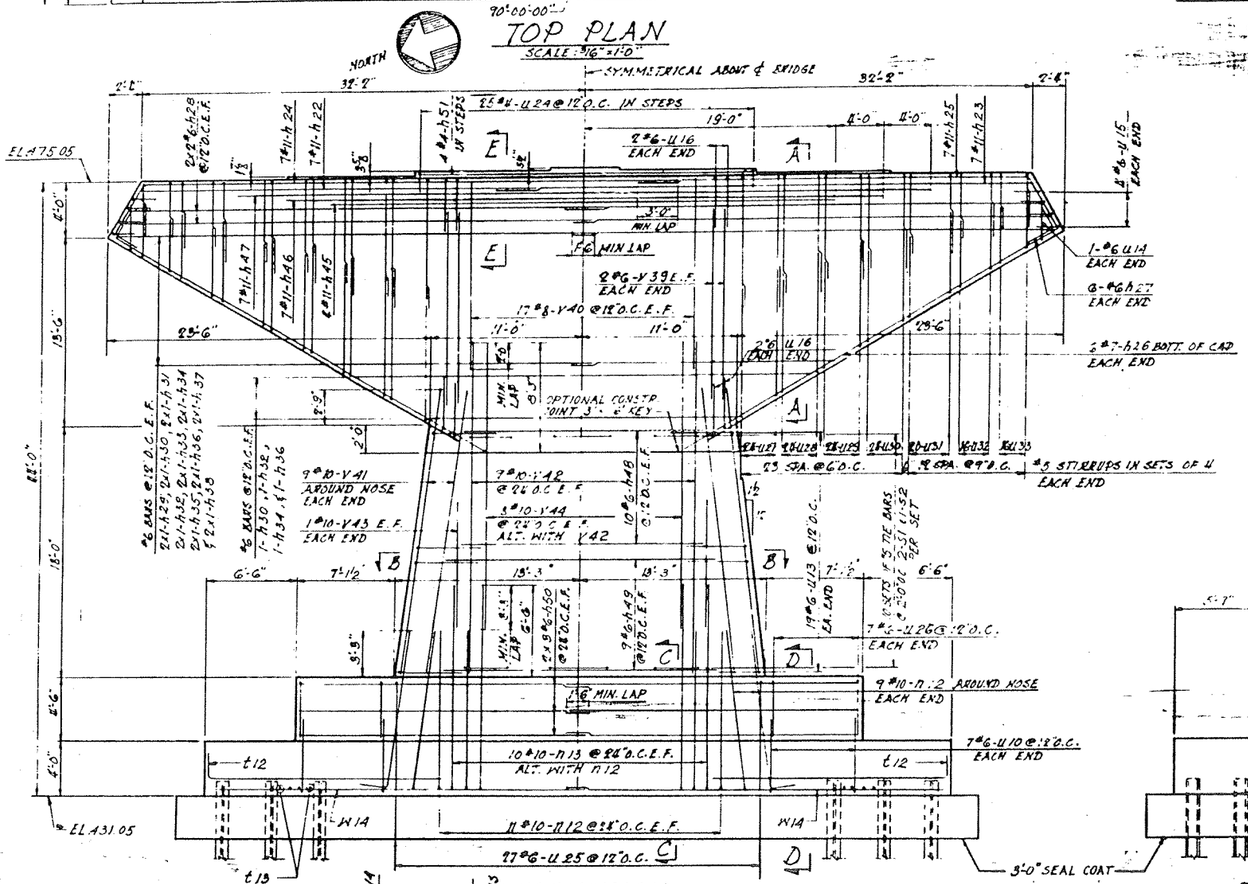


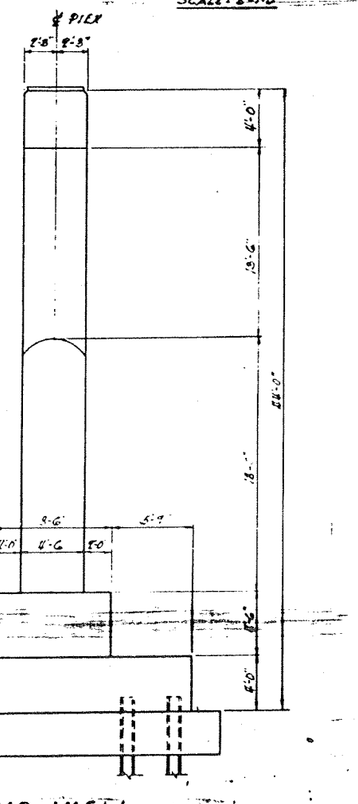


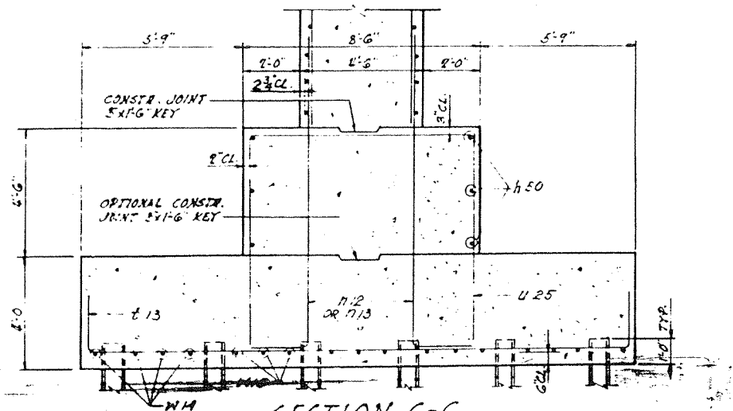


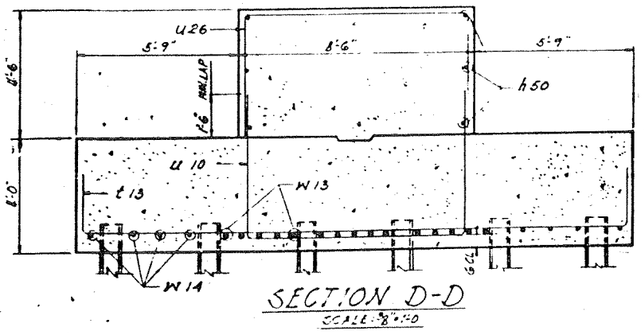


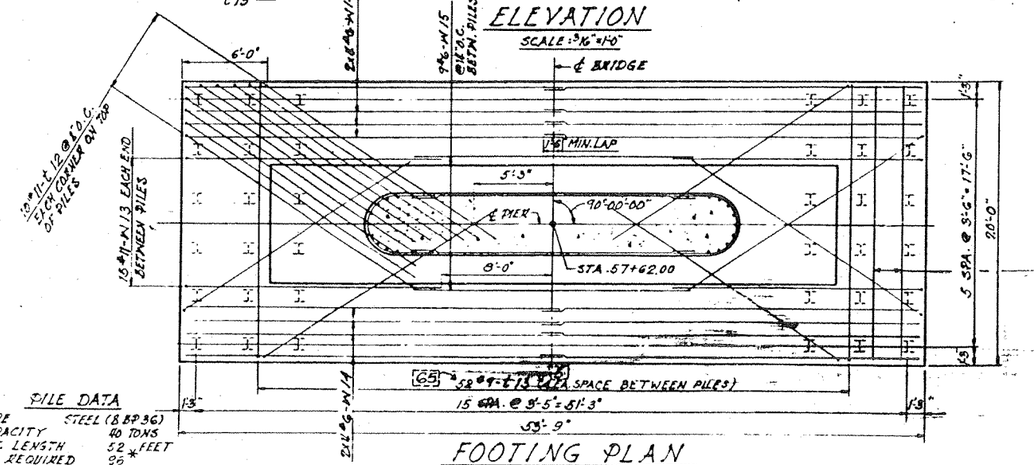
NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1)F(E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS, SEE SHEETS (F&E)1 AND (F&E)2.











PILE DATA

TYPE	STEEL (8 BP 36)
CAPACITY	40 TONS
EST. LENGTH	52 * FEET
NO. REQUIRED	96

* INCLUDES ONE TEST PILE

3-t_{13} Ea. End

NOTES:

THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES. DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.

FOR ADDITIONAL NOTES SEE SHEET B4.

FOR REINFORCEMENT BAR LIST SEE SHEET B9.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	435.4
SEAL COAT CONCRETE	CU. YDS.	153.3
REINFORCEMENT BARS	LBS.	46,190
FURNISHING STEEL PILES (8 BP 36)	LIN. FT.	4,940
DRIVING STEEL PILES	LIN. FT.	4,940
TEST PILE, STEEL (8 BP 36)	EACH	1

APPROVED
FOR STRUCTURAL DESIGN ONLY
Engineer
8-4-67

47,710

AS BUILT
AUGUST 31, 1967
JULY 28, 1967

PIER 10
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

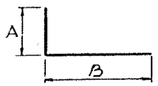
As Built 8-31-67 A.P.H.

BILL OF MATERIAL

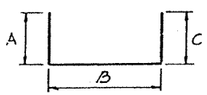
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	27
STA. 50+16.08	TO STA. 80+98.25			
B. P. R. REG. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		B 22B

PIER 11

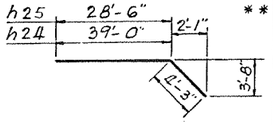
BAR	NO.	SIZE	LENGTH	SHAPE
h20	8	#11	42-0	—
h21	8	#11	50-0	—
h22	8	#11	28-6	—
h23	8	#11	39-0	—
h24	8	#11	43-3	—
h25	8	#11	32-9	—
h26	12	#7	31-0	—
h27	12	#6	4-0	L
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	20	#6	19-6	—
h39	16	#6	17-6	—
h44	4	#4	23-0	—
h50	16	#6	21-0	—
m12	40	#10	13-3	L
m13	20	#10	16-6	L
S1	18	#5	15-6	☐
S2	9	#5	17-6	☐
t12	40	#11	22-0	L
t13	60	#9	23-6	L
u10	14	#6	18-3	L
u13	32	#6	11-6	⊂
u14	2	#6	9-3	L
u15	8	#6	7-3	L
u16	8	#6	11-3	L
u17	48	#5	21-6	L
u18	48	#5	20-0	L
u19	48	#5	18-0	L
u20	48	#5	16-6	L
u21	#40	#5	14-6	L
u22	32	#5	12-0	L
u23	32	#5	10-0	L
u24	24	#4	6-6	L
u25	27	#6	23-9	L
u26	14	#6	16-8	L
v39	8	#6	14-6	—
v40	34	#8	13-3	—
v43	4	#10	9-0	—
v77	34	#10	19-0	—
v78	18	#10	22-3	—
w13	30	#11	20-9	L
w14	16	#6	27-6	—
5	9	#6	19-0	—



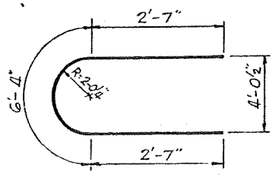
MARK	A	B
h27	2-0	2-0
m12	2-0	11-3
m13	2-0	14-6
t12	2-0	20-0
W13	2-0	18-9



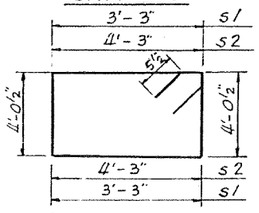
MARK	A	B	C
t13	2-0	19-6	2-0
u10	5-0½	8-2	5-0½
u14	2-6½	4-2	2-6½
u15	1-7	4-0½	1-7½
u16	3-6½	4-2	3-6½
u17	9-2½	3-1	9-2½
u18	8-5½	3-1	8-5½
u19	7-5½	3-1	7-5½
u20	6-8½	3-1	6-8½
u21	5-8½	3-1	5-8½
u22	4-5½	3-1	4-5½
u23	3-5½	3-1	3-5½
u24	1-4	3-9½	1-4½
u25	7-9½	8-2	7-9½
u26	4-3	8-2	4-3



BARS h24 & h25



BAR u13

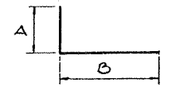


BARS S1 & S2

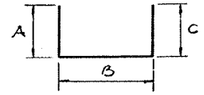
NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

PIER 12

BAR	NO.	SIZE	LENGTH	SHAPE
h22	6	#11	28-6	—
h23	6	#11	39-0	—
h24	6	#11	43-3	—
h25	6	#11	32-9	—
h26	12	#7	31-0	—
h27	12	#6	4-0	L
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	4	#6	19-6	—
h57	6	#11	48-0	—
h58	4	#11	40-0	—
h72	10	#6	18-6	—
h122	28	#6	17-3	—
h123	6	#5	21-6	—
h124	6	#5	23-3	—
h125	4	#5	32-9	—
m10	38	#11	14-0	L
m11	18	#9	16-0	L
S1	12	#6	15-6	☐
S2	6	#6	17-6	☐
t18	32	#11	19-6	L
t19	44	#10	23-6	L
U10	10	#6	18-3	L
U13	22	#6	11-6	⊂
U14	2	#6	9-3	L
U15	8	#6	7-3	L
U16	8	#6	11-3	L
U24	24	#4	6-6	L
U25	24	#6	23-9	L
U26	10	#6	16-8	L
U105	32	#5	21-3	L
U106	32	#5	19-0	L
U107	32	#5	16-9	L
U108	32	#5	14-6	L
U109	24	#5	12-3	L
U110	24	#5	10-6	L
U111	65	#5	8-9	L
V39	8	#6	14-6	—
V56	34	#9	21-3	—
V103	18	#9	13-3	—
V104	34	#8	8-9	—
W22	24	#11	17-0	L
W26	16	#6	23-0	—
W27	9	#6	17-6	—



MARK	A	B
h27	2-0	2-0
m10	2-0	12-0
m11	1-0	15-0
t18	2-0	17-6
W22	2-0	15-0



MARK	A	B	C
t19	2-0	19-6	2-0
U10	5-0½	8-2	5-0½
U14	2-6½	4-2	2-6½
U15	1-7	4-0½	1-7½
U16	3-6½	4-2	3-6½
U24	1-4	3-9½	1-4½
U25	7-9½	8-2	7-9½
U26	4-3	8-2	4-3
U105	9-3½	2-8	9-3½
U106	8-2	2-8	8-2
U107	7-0½	2-8	7-0½
U108	5-11	2-8	5-11
U109	4-9½	2-8	4-9½
U110	3-11	2-8	3-11
U111	3-6½	1-8	3-6½

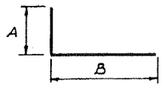
* ORDER 10 M10 BARS ONLY. 28 ARE AVAILABLE AT SITE FROM PIER 7.

** DO NOT ORDER. THESE BARS ARE AVAILABLE AT SITE FROM PIER 7.

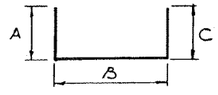
‡ ORDER 4 V56 BARS ONLY. 30 ARE AVAILABLE AT SITE FROM PIER 1.

PIER 13

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	—
h23	7	#11	39-0	—
h24	7	#11	43-3	—
h25	7	#11	32-9	—
h26	12	#7	31-0	—
h27	12	#6	4-0	L
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	4	#6	19-6	—
h51	4	#4	24-0	—
h57	6	#11	48-0	—
h58	6	#11	40-0	—
h96	32	#6	17-3	—
m21	54	#10	12-3	L
S1	10	#5	15-6	☐
S2	5	#5	17-6	☐
t18	32	#11	19-6	L
t19	48	#10	23-6	L
U13	16	#6	11-6	⊂
U14	2	#6	9-3	L
U15	8	#6	7-3	L
U16	8	#6	11-3	L
U24	25	#4	6-6	L
U68	24	#6	21-6	L
U69	10	#6	17-6	L
U70	10	#6	15-10	L
U71	32	#6	21-6	L
U72	32	#6	19-9	L
U73	32	#6	18-0	L
U74	32	#6	16-3	L
U75	32	#6	14-6	L
U76	24	#6	12-3	L
U77	24	#6	10-3	L
V39	8	#6	14-6	—
V85	34	#10	13-0	—
V86	18	#10	11-0	—
V80	34	#8	14-3	—
W22	30	#11	17-0	L
W23	16	#6	22-9	—
W24	9	#6	17-0	—



MARK	A	B
h27	2-0	2-0
m21	2-0	10-3
t18	2-0	17-6
W22	2-0	15-0



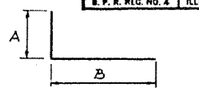
MARK	A	B	C
t19	2-0	19-6	2-0
U14	2-6½	4-2	2-6½
U15	1-7	4-0½	1-7½
U16	3-6½	4-2	3-6½
U24	1-4	3-9½	1-4½
U68	6-8	8-2	6-8
U69	4-8	8-2	4-8
U70	3-10	8-2	3-10
U71	9-3½	2-11	9-3½
U72	8-5	2-11	8-5
U73	7-6½	2-11	7-6½
U74	6-8	2-11	6-8
U75	5-9½	2-11	5-9½
U76	4-8	2-11	4-8
U77	3-8	2-11	3-8

APPROVED
FOR STRUCTURE
[illegible] 11-2-67
Engineer of Bridges & Structures

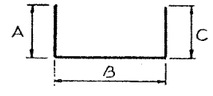
1459
Samuel Baron

PIER 14

BAR	NO.	SIZE	LENGTH	SHAPE
h22	7	#11	28-6	—
h23	7	#11	39-0	—
h24	7	#11	43-3	—
h25	7	#11	32-9	—
h26	12	#7	31-0	—
h27	12	#6	4-0	L
h28	8	#6	34-6	—
h29	4	#6	35-3	—
h30	6	#6	33-6	—
h31	4	#6	31-9	—
h32	6	#6	30-0	—
h33	4	#6	28-3	—
h34	6	#6	26-6	—
h35	4	#6	24-9	—
h36	6	#6	23-0	—
h37	4	#6	21-3	—
h38	4	#6	19-6	—
h44	4	#4	23-0	—
h57	6	#11	48-0	—
h58	6	#11	40-0	—
h96	30	#6	17-3	—
m21	54	#10	12-3	L
S1	8	#5	15-6	☐
S2	4	#5	17-6	☐
t18	32	#11	19-6	L
t19	48	#10	23-6	L
U13	14	#6	11-6	⊂
U14	2	#6	9-3	L
U15	8	#6	7-3	L
U16	8	#6	11-3	L
U24	24	#4	6-6	L
U68	24	#6	21-6	L
U69	10	#6	17-6	L
U70	10	#6	15-10	L
U71	32	#6	21-6	L
U72	32	#6	19-9	L
U73	32	#6	18-0	L
U74	32	#6	16-3	L
U75	32	#6	14-6	L
U76	24	#6	12-3	L
U77	24	#6	10-3	L
V39	8	#6	14-6	—
V63	34	#10	12-3	—
V79	18	#10	10-0	—
V80	34	#8	14-3	—
W22	30	#11	17-0	L
W23	16	#6	22-9	—
W24	9	#6	17-0	—



MARK	A	B
h27	2-0	2-0
m21	2-0	10-3
t18	2-0	17-6
W22	2-0	15-0



MARK	A	B	C
t19	2-0	19-6	2-0
U14	2-6½	4-2	2-6½
U15	1-7	4-0½	1-7½
U16	3-6½	4-2	3-6½
U24	1-4	3-9½	1-4½
U68	6-8	8-2	6-8
U69	4-8	8-2	4-8
U70	3-10	8-2	3-10
U71	9-3½	2-11	9-3½
U72	5-5	2-11	8-5
U73	7-6½	2-11	7-6½
U74	6-8	2-11	6-8
U75	5-9½	2-11	5-9½
U76	4-8	2-11	4-8
U77	3-8	2-11	3-8

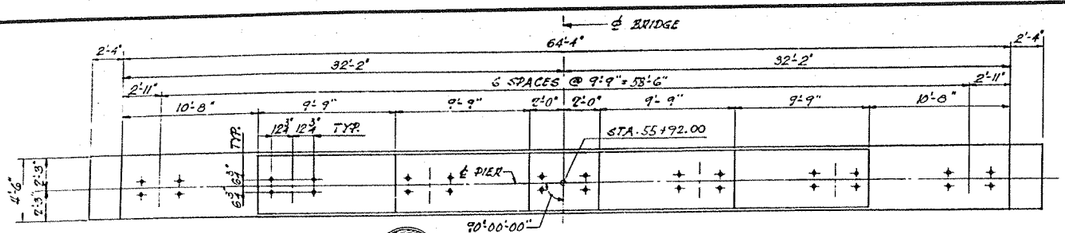
OCTOBER 31, 1967

REINFORCEMENT BAR LISTS-PIERS 11,12,13 & 14
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1) B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

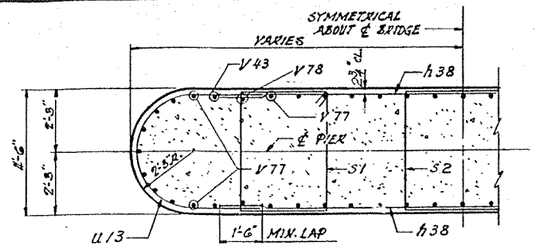
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06378)B	BUREAU-PUTNAM	39	28
STA. 50+16.08		TO STA. 80+98.25		
B. P. I. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(5)0	

B 20



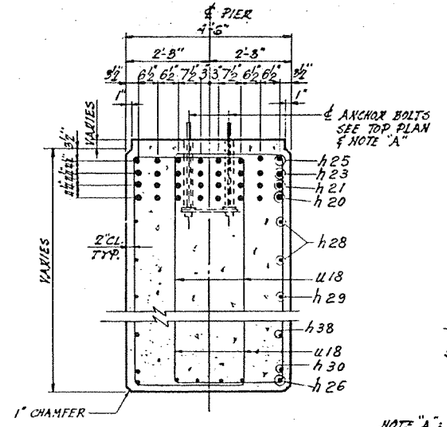
TOP PLAN

SCALE: 3/16" = 1'-0"



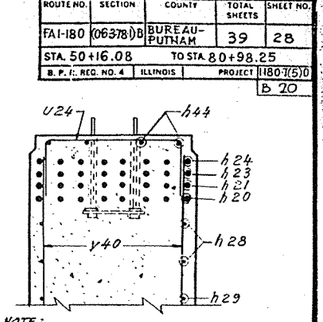
HALF SECTION B-B

SCALE: 3/8" = 1'-0"



SECTION A-A

SCALE: ½" = 1'-0"

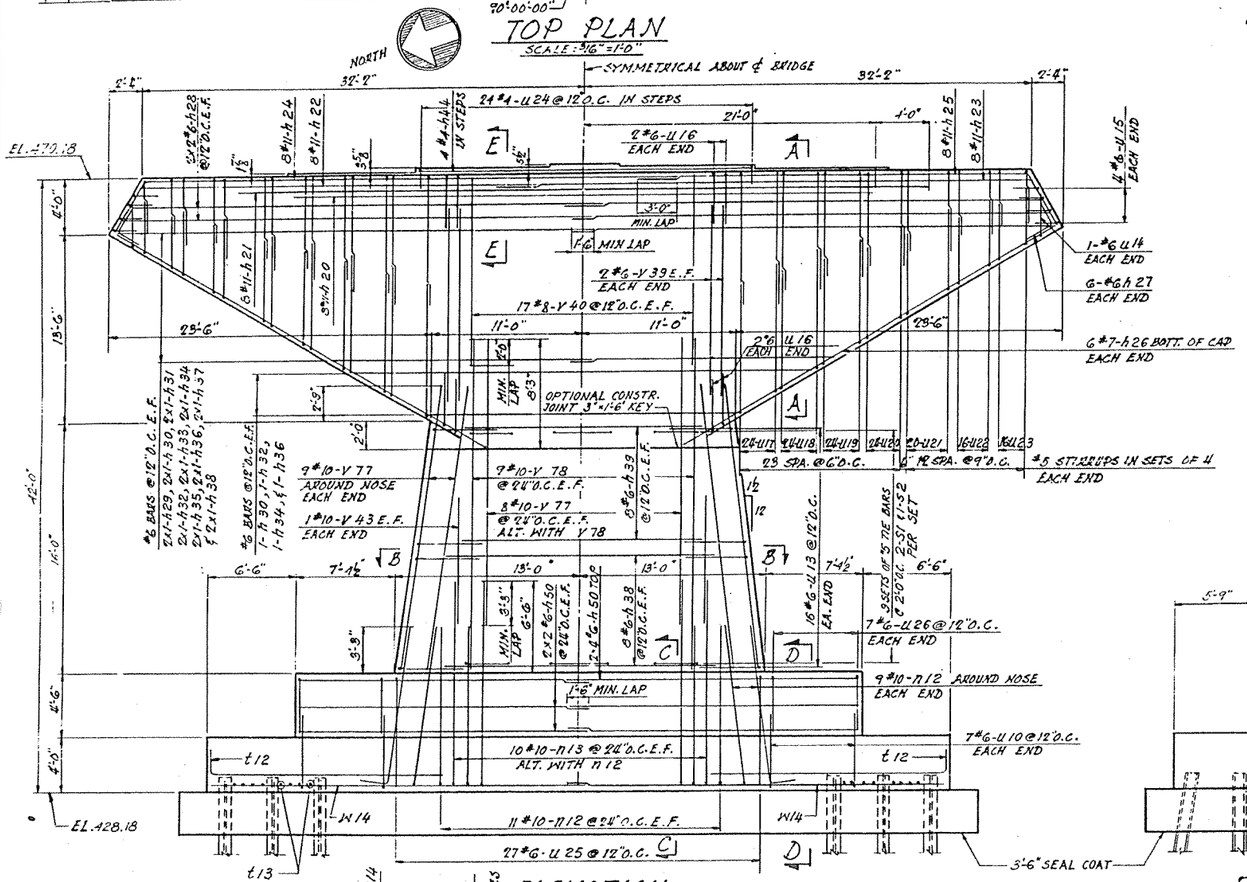


NOTE:
FOR DIMENSIONS NOT SHOWN SEE SECT. A-A

SECTION E-E

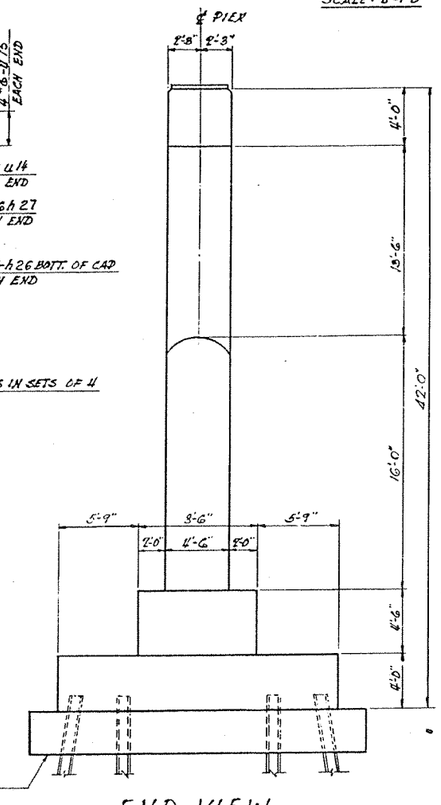
SCALE: ½" = 1'-0"

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1) B. FOR DETAILS, SEE SHEETS (F&E)1 AND (F&E)2.



ELEVATION

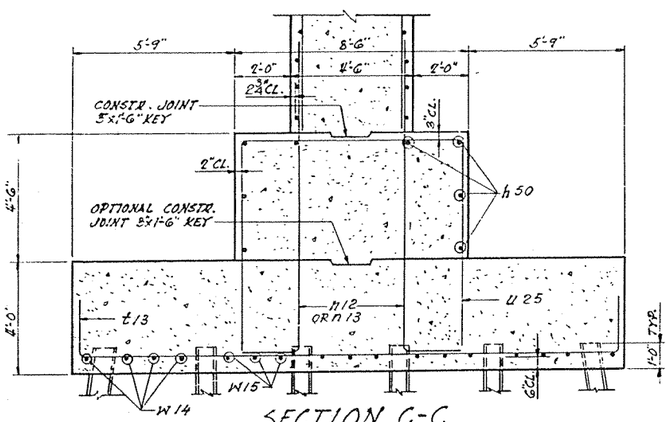
SCALE: 3/16" = 1'-0"



END VIEW

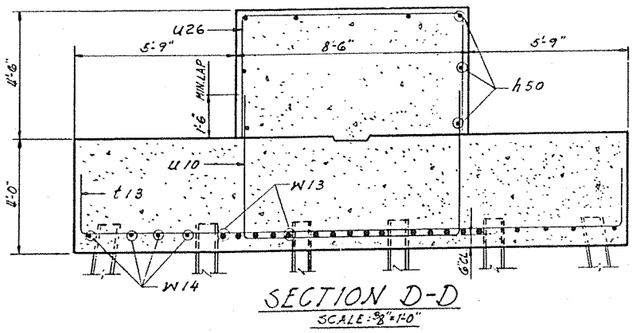
SCALE: 3/16" = 1'-0"

NOTES:
THE CONTRACTOR SHALL DRIVE ONE STEEL (8 BP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B22.



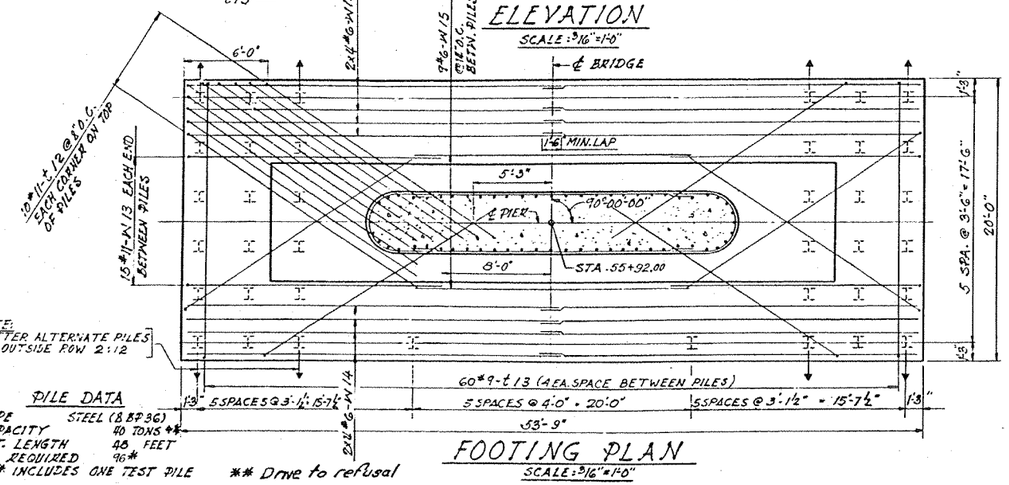
SECTION C-C

SCALE: 3/8" = 1'-0"



SECTION D-D

SCALE: 3/8" = 1'-0"



FOOTING PLAN

SCALE: 3/16" = 1'-0"

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	426.8
SEAL COAT CONCRETE	CU. YDS.	178.7
REINFORCEMENT BARS	LBS.	46,330
FURNISHING STEEL PILES (8 BP 36)	LIN. FT.	4,560
DRIVING STEEL PILES	LIN. FT.	4,560
TEST PILE, STEEL (8 BP 36)	EACH	1

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
9-25-67
Engineer of Bridges & Traffic Structures

#1459

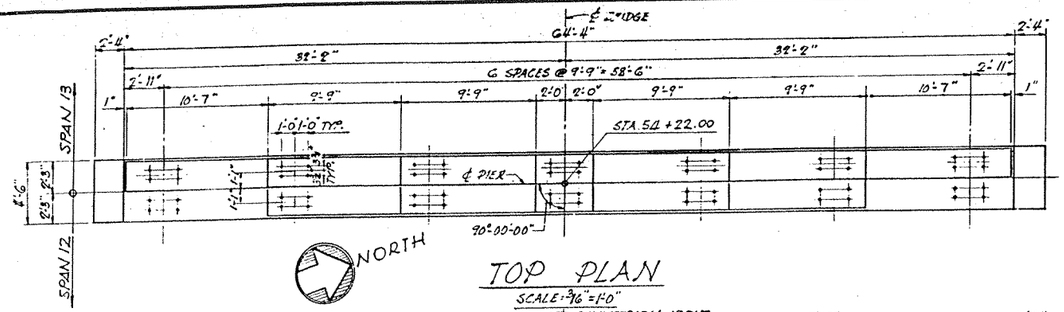
Samuel Barrow

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

SEPTEMBER 15, 1967

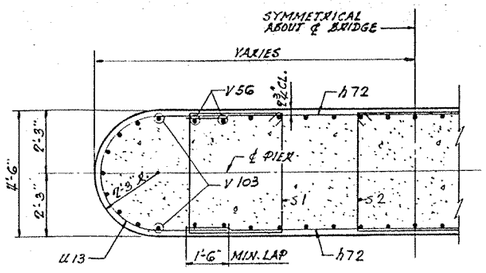
PIER II
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5) 0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(063,781)B	BUREAU-PUTNAM	39	29
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(5)0	B 29



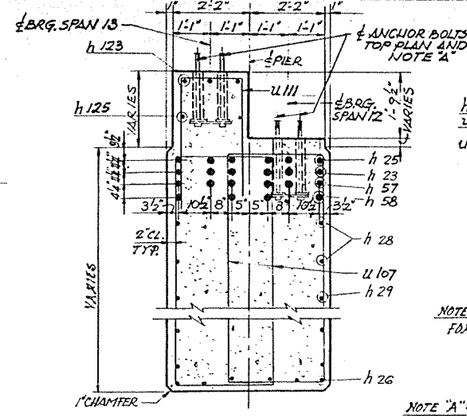
TOP PLAN

SCALE: 3/16"=1'-0"



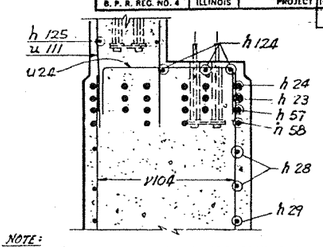
HALF SECTION B-B

SCALE: 3/8"=1'-0"



SECTION A-A

SCALE: 1/2"=1'-0"

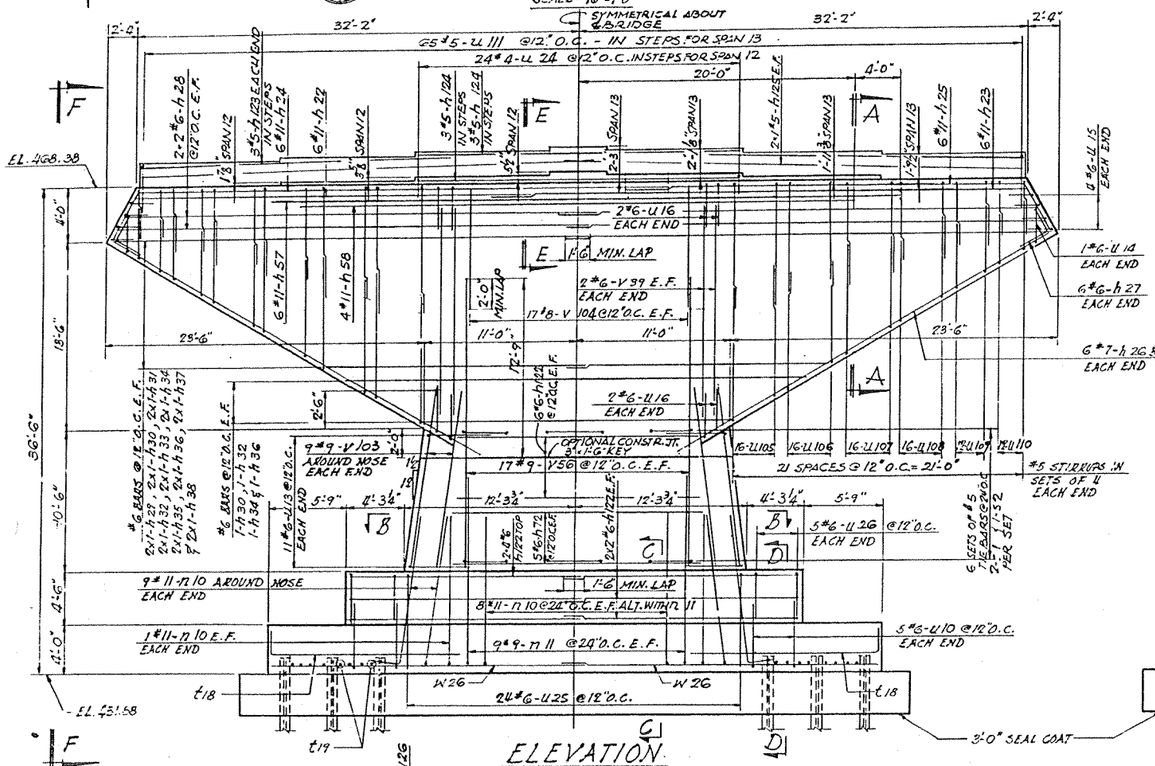


NOTE:
FOR DIMENSIONS NOT SHOWN, SEE SECT. A-A

SECTION E-E

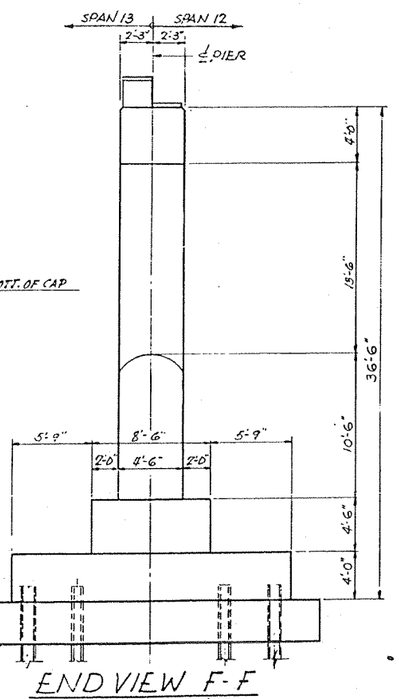
SCALE: 1/2"=1'-0"

NOTE 'A':
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS, SEE SHEETS (F&E)1 AND (F&E)2.



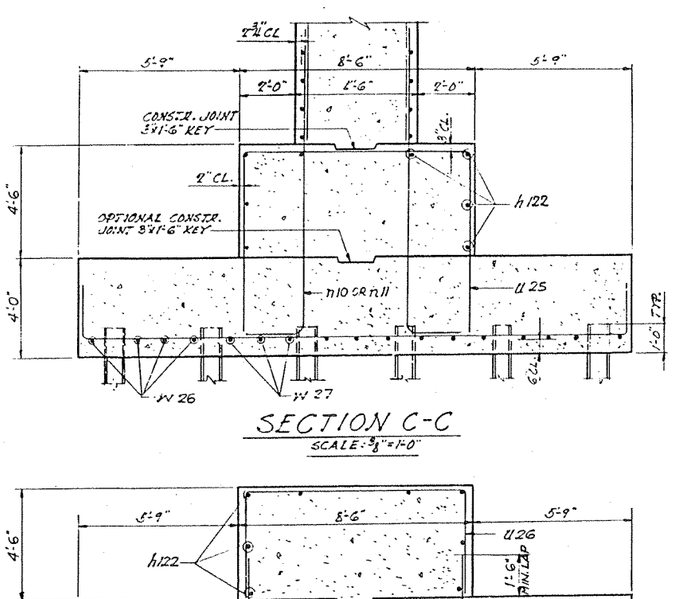
ELEVATION

SCALE: 3/16"=1'-0"



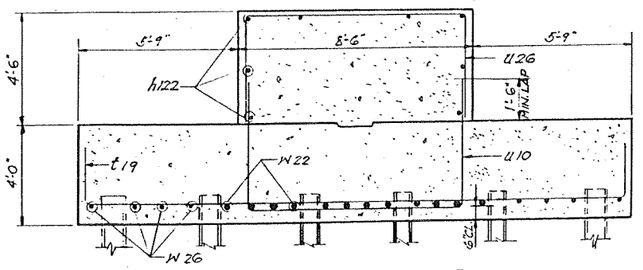
END VIEW F-F

SCALE 3/16"=1'-0"



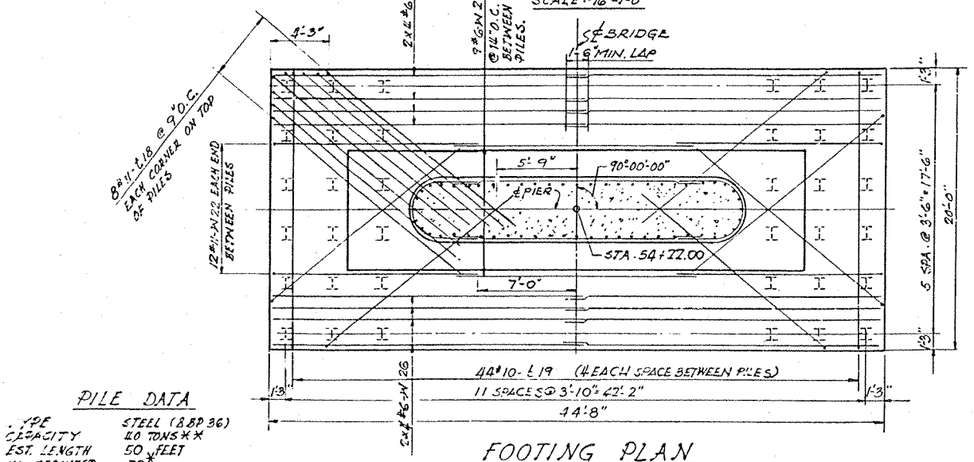
SECTION C-C

SCALE: 3/8"=1'-0"



SECTION D-D

SCALE: 3/8"=1'-0"



FOOTING PLAN

SCALE: 3/16"=1'-0"

PILE DATA

TYPE	STEEL (BBP 36)
CAPACITY	80 TONS **
EST. LENGTH	50 FEET
NO. REQUIRED	72 *

* INCLUDES ONE TEST PILE, ** DRIVE TO REFUSAL

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (BBP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 442.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B22B.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	376.0
SEAL COAT CONCRETE	CU. YDS.	129.2
REINFORCEMENT BARS	LBS.	36,470
FURNISHING STEEL PILES (BBP 36)	LIN. FT.	3,550
DRIVING STEEL PILES	LIN. FT.	3,550
TEST PILE, STEEL (BBP 36)	EACH	1

APPROVED
FOR STE...
11-2-67
Engineer of Bridges & Structures

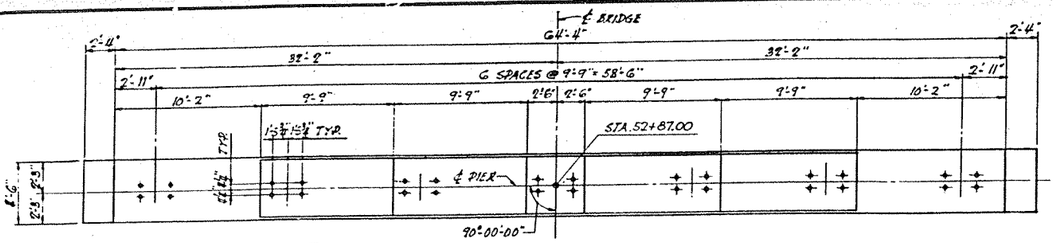
OCTOBER 31, 1967

PIER 12
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

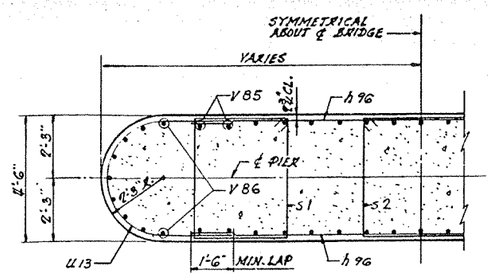
#1459
Samuel Benesch

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

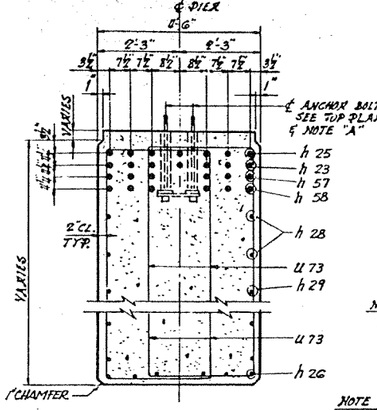
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 1-180	063,78-1B	BUREAU-PUTNAM	39	30
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 6	ILLINOIS	PROJECT I-180-7(5)0		B23



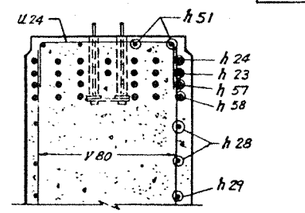
TOP PLAN
SCALE: 3/16" = 1'-0"



HALF SECTION B-B
SCALE: 3/8" = 1'-0"



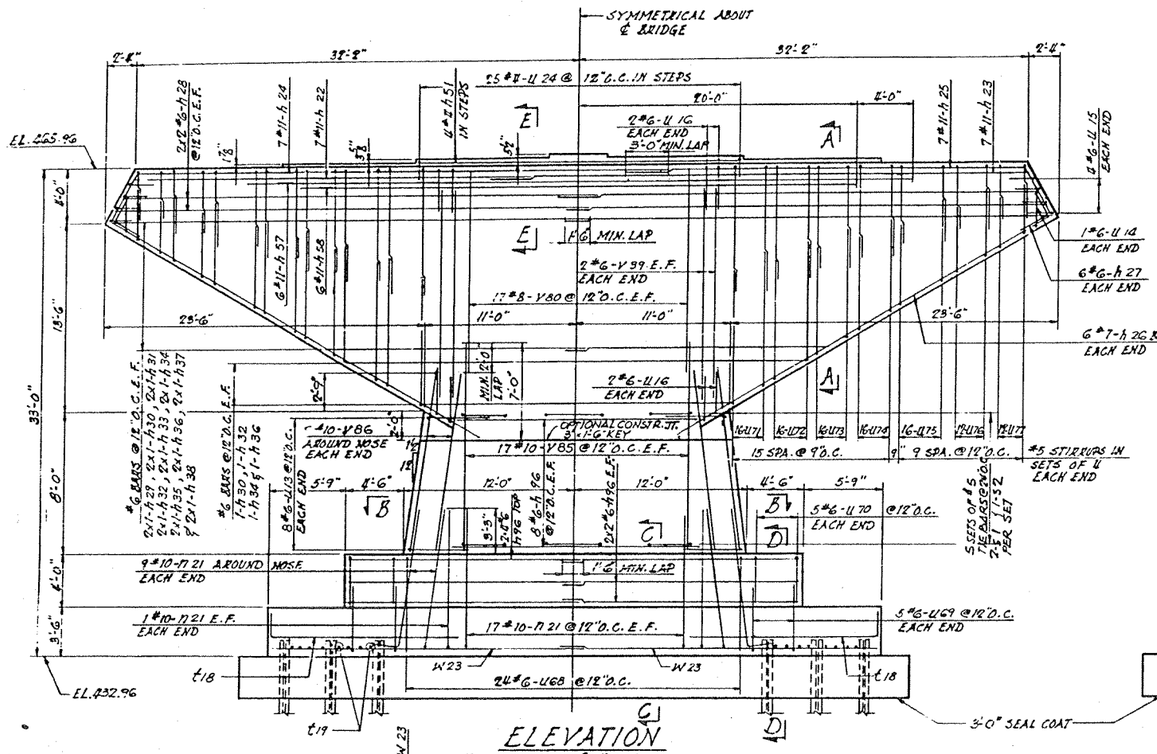
SECTION A-A
SCALE: ½" = 1'-0"



NOTE:
FOR DIMENSIONS NOT SHOWN, SEE SECT. A-A

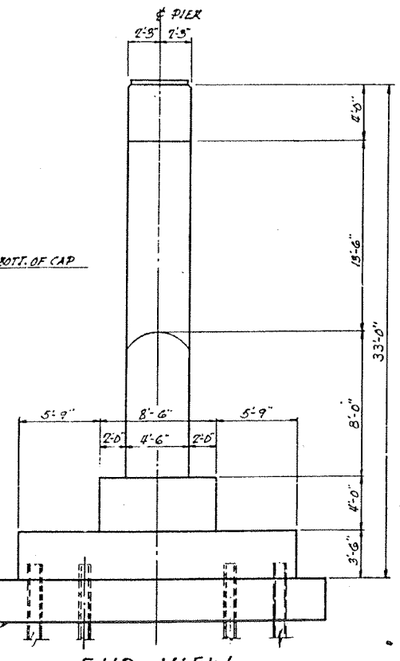
SECTION E-E
SCALE: ½" = 1'-0"

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS, SEE SHEETS (F&E)1 AND (F&E)2.

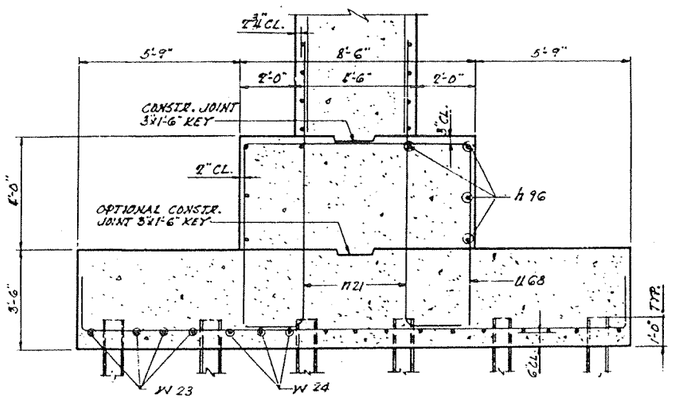


ELEVATION
SCALE: 3/16" = 1'-0"

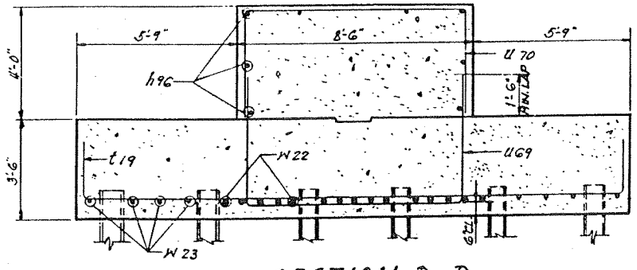
FOOTING PLAN
SCALE: 3/16" = 1'-0"



END VIEW
SCALE: 3/16" = 1'-0"



SECTION C-C
SCALE: 3/8" = 1'-0"



SECTION D-D
SCALE: 3/8" = 1'-0"

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (6BP36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN 441.2.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B22A.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	334.9
SEAL COAT CONCRETE	CU. YDS.	128.6
REINFORCEMENT BARS	LBS.	38,290
FURNISHING STEEL PILES (8BP36)	LIN. FT.	3,850
DRIVING STEEL PILES	LIN. FT.	3,850
TEST PILE, STEEL (8BP36)	EACH	1

PILE DATA

TYPE	STEEL (8BP36)
CAPACITY	80 TONS
EST. LENGTH	50 FEET
NO. REQUIRED	78 *

* INCLUDES ONE TEST PILE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
9-27-67
Engineer of Bridge & Traffic Structures

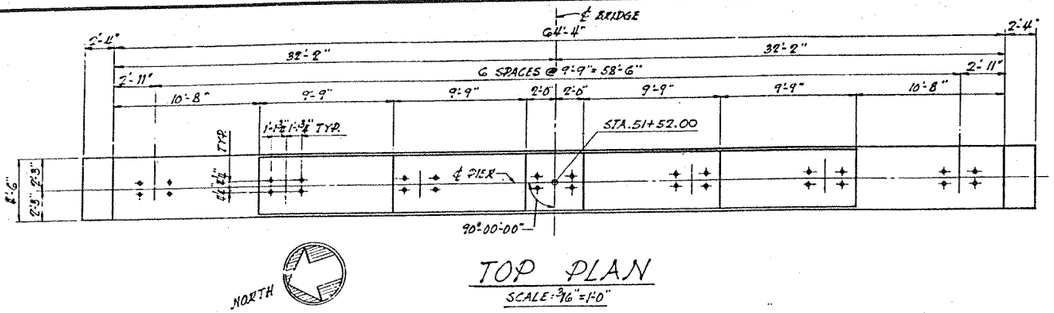
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

SEPTEMBER 27, 1967

PIER 13
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

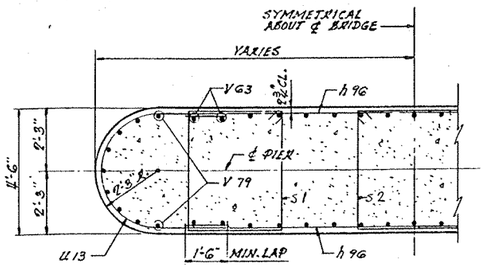
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	(06-3,78-1)B	BUREAU-PUTNAM	39	31
STA. 50+16.08		TO STA. 80+98.25		
N. P. R. REC. NO. 4	ILLINOIS	PROJECT I-180-7(5)0		

B21



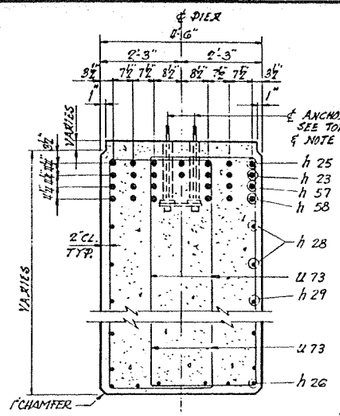
TOP PLAN

SCALE: 3/16" = 1'-0"



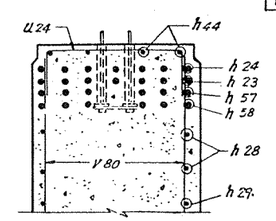
HALF SECTION B-B

SCALE: 3/8" = 1'-0"



SECTION A-A

SCALE: 1/2" = 1'-0"

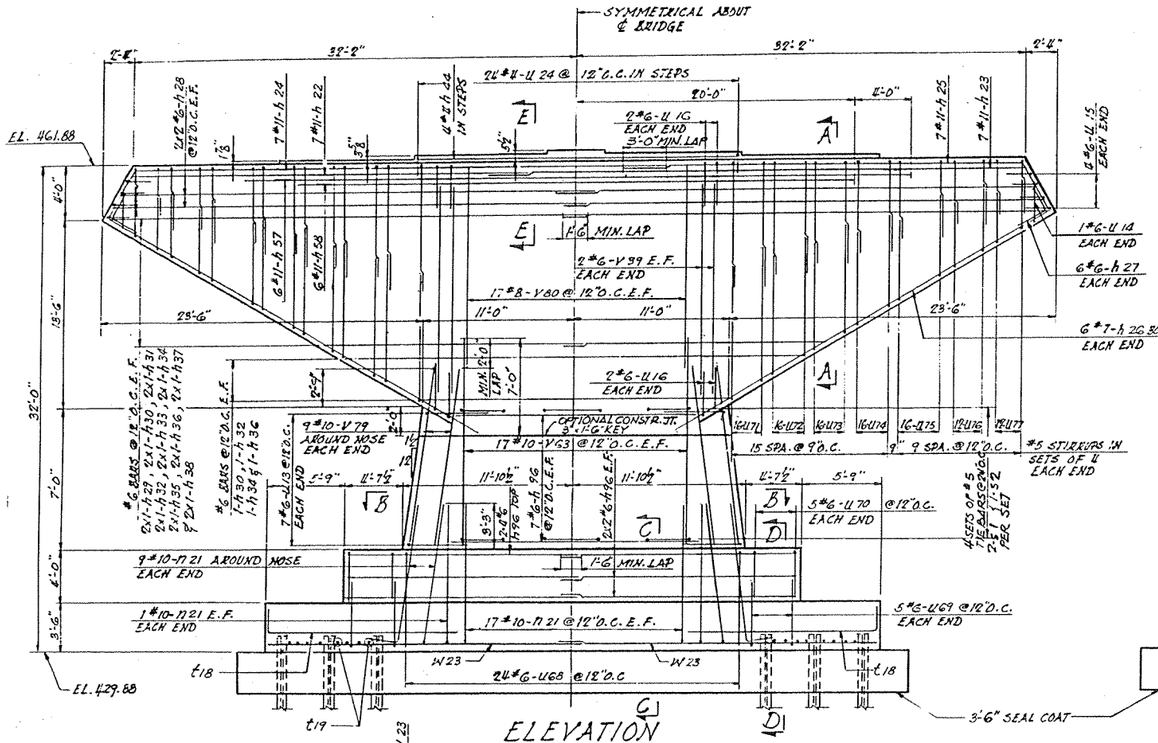


NOTE:
FOR DIMENSIONS NOT SHOWN, SEE SECT. A-A

SECTION E-E

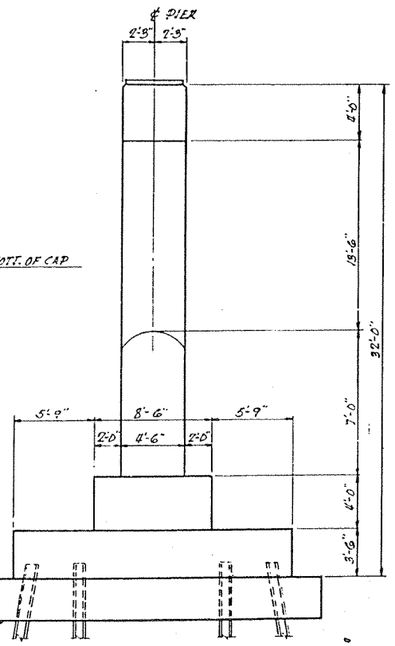
SCALE: 1/2" = 1'-0"

NOTE "A":
ANCHOR BOLT ASSEMBLY TO BE FABRICATED BY CONTRACTOR FOR SECTION (06-3,78-1) F & E, AND ERECTED BY CONTRACTOR FOR SECTION (06-3,78-1)B. FOR DETAILS, SEE SHEETS (F/E)1 AND (F/E)2.



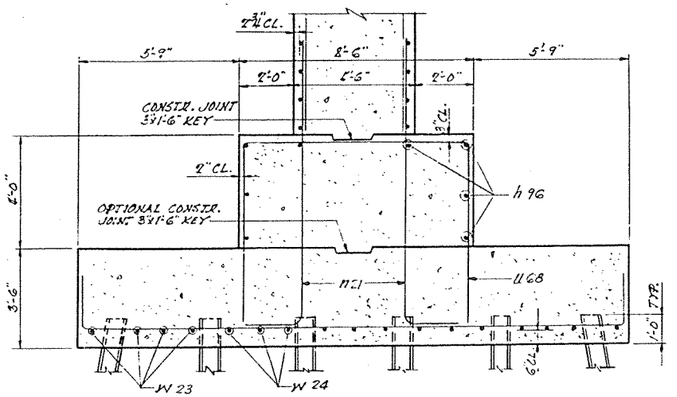
ELEVATION

SCALE: 3/16" = 1'-0"



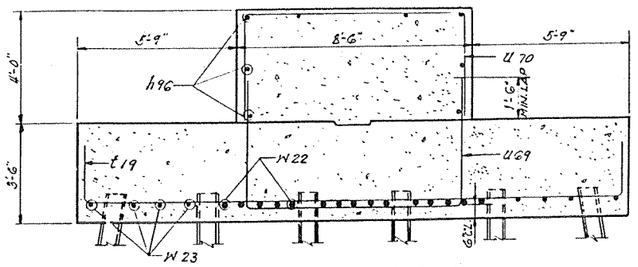
END VIEW

SCALE: 3/16" = 1'-0"



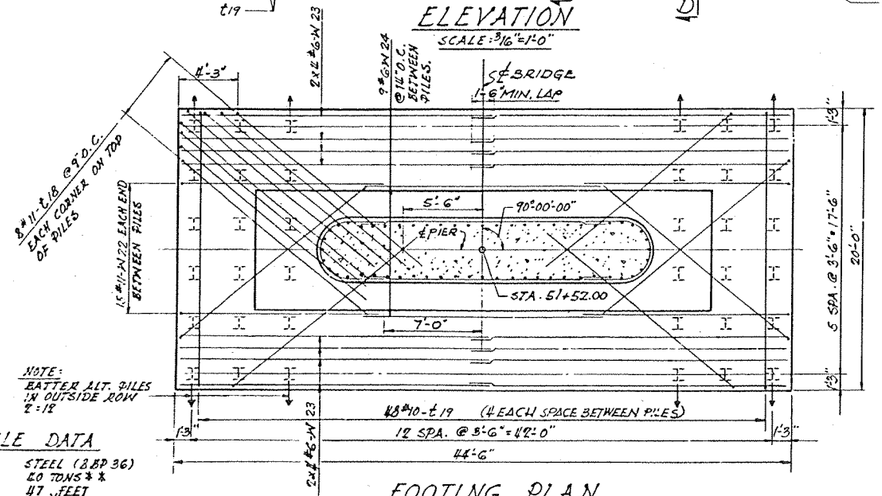
SECTION C-C

SCALE: 3/8" = 1'-0"



SECTION D-D

SCALE: 3/8" = 1'-0"



FOOTING PLAN

SCALE: 3/16" = 1'-0"

NOTE:
BATTER ALT. PILES IN OUTSIDE ROW 2:12

PILE DATA

TYPE	STEEL (BBP 36)
CAPACITY	60 TONS **
EST. LENGTH	47 FEET
NO. REQUIRED	18 *

* INCLUDES ONE TEST PILE

** Drive to Refusal

NOTE:
THE CONTRACTOR SHALL DRIVE ONE STEEL (BBP 36) TEST PILE IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.
DESIGN OF THE SEAL COAT IS BASED ON A WATER ELEVATION NO HIGHER THAN U12.
FOR ADDITIONAL NOTES SEE SHEET B4.
FOR REINFORCEMENT BAR LIST SEE SHEET B22.

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
CLASS "X" CONCRETE	CU. YDS.	330.9
SEAL COAT CONCRETE	CU. YDS.	150.1
REINFORCEMENT BARS	LBS.	37,960
FURNISHING STEEL PILES (BBP 36)	LIN. FT.	3,619
DRIVING STEEL PILES	LIN. FT.	3,619
TEST PILE, STEEL (BBP 36)	EACH	1

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thunman Jr. 9-25-67
Engineer of Bridges & Traffic Structures

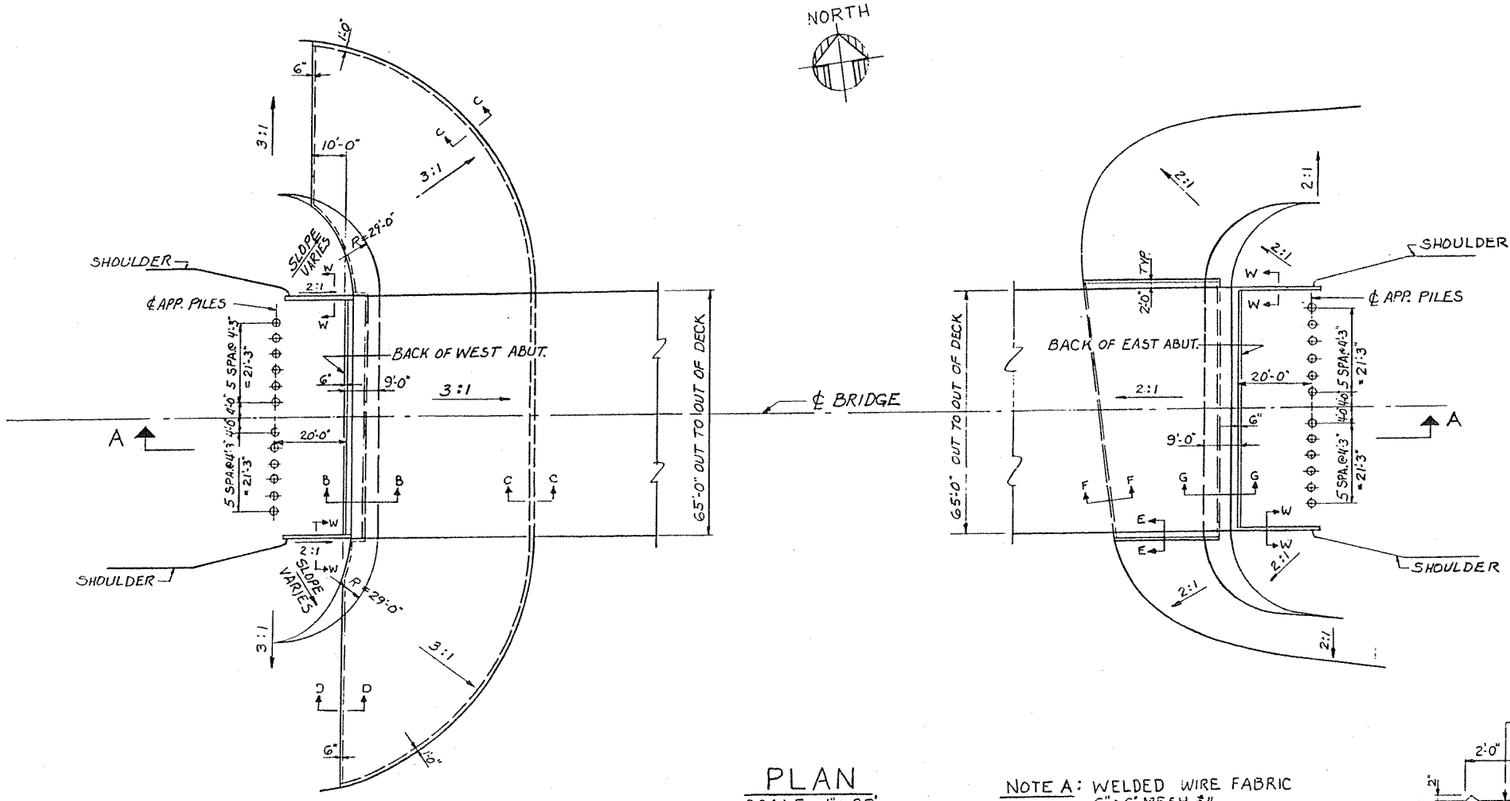
#14459
Samuel Barrow

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

SEPTEMBER 15, 1967

PIER 14
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

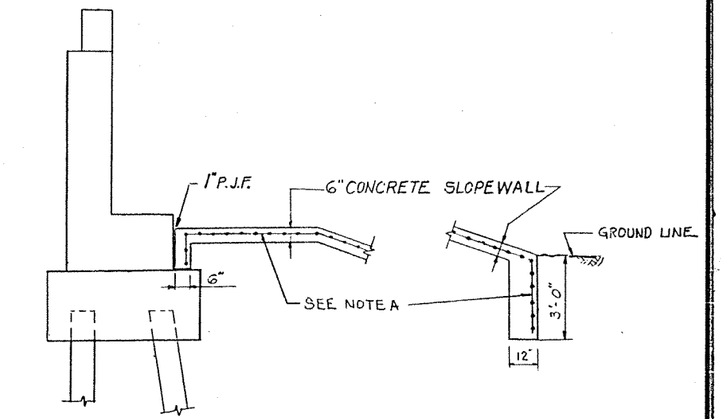
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	32
STA. 50+16.08	TO STA. 80+38.25			
B. P. R. REQ. NO. 4	ILLINOIS		PROJECT I-180-7(5)0	
				B30



PLAN
SCALE 1" = 20'

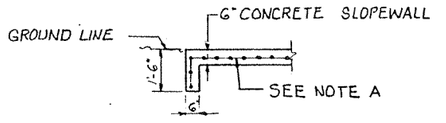
NOTE A: WELDED WIRE FABRIC
6" x 6" MESH #4
WIRES WT. 58 LB. PER 100 SQ. FT.

APPROVED
FOR THE DIRECTOR
12-8-67
Engineer of Bridges & Traffic Structures

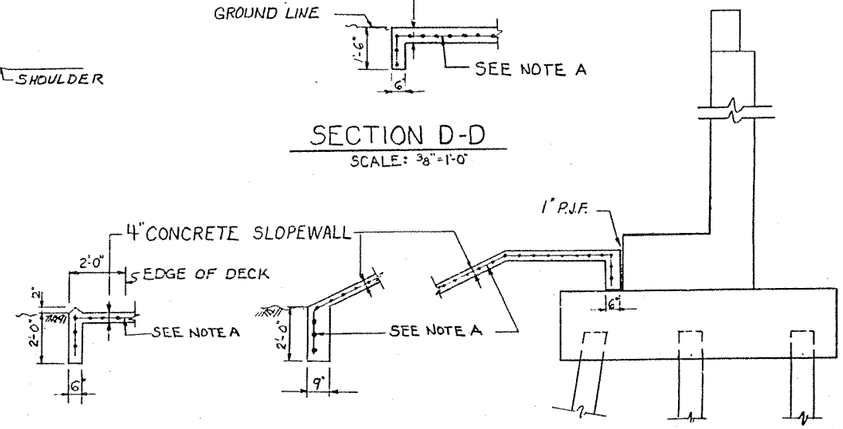


SECTION B-B
SCALE 3/8" = 1'-0"

SECTION C-C
SCALE : 3/8" = 1'-0"



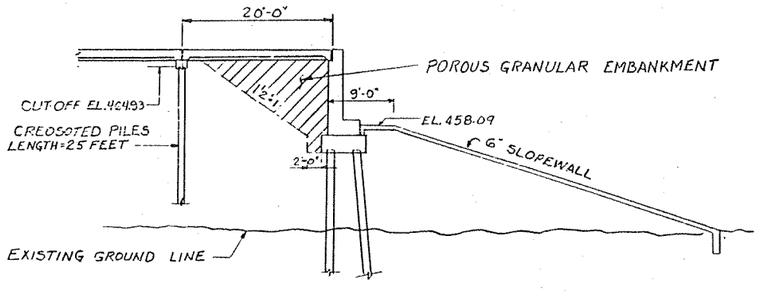
SECTION D-D
SCALE: 3/8" = 1'-0"

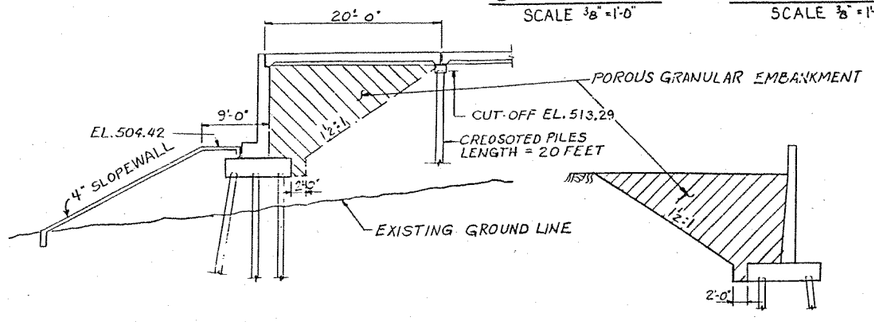


SECTION E-E
SCALE 3/8" = 1'-0"

SECTION F-F
SCALE 3/8" = 1'-0"

SECTION G-G
SCALE 3/8" = 1'-0"





SECTION A-A
SCALE 1" = 10'

SECTION W-W
SCALE 1" = 10'

BILL OF MATERIALS

ITEM	UNIT	QUANTITIES
SLOPE WALL 4 INCH	SQ. YDS.	305
SLOPE WALL 6 INCH	SQ. YDS.	1,150
FURNISHING CREOSOTED PILES UP TO 20 FEET	LIN. FT.	240
FURNISHING CREOSOTED PILES 20.1 TO 38 FEET	LIN. FT.	300
DRIVING TIMBER PILES	LIN. FT.	540
POROUS GRANULAR EMBANKMENT	CU. YDS.	888

NOVEMBER 30, 1967

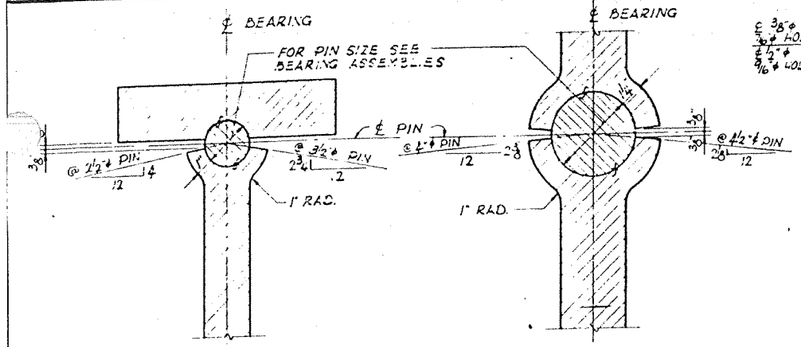
DETAILS OF SLOPEWALLS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

Samuel Benesch

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	06-3,78-1 B	BUREAU-PUTNAM	39	33
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-1(6)0	

KB 18

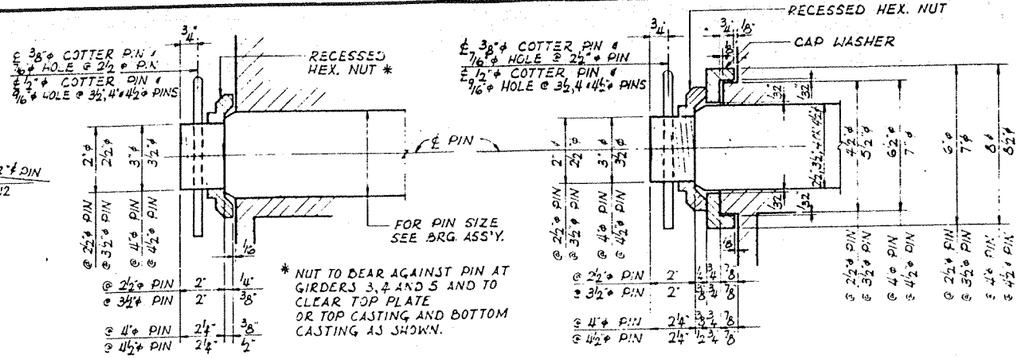


SECTION A-A

SCALE: 3" = 1'-0"

SECTION B-B

SCALE: 3" = 1'-0"

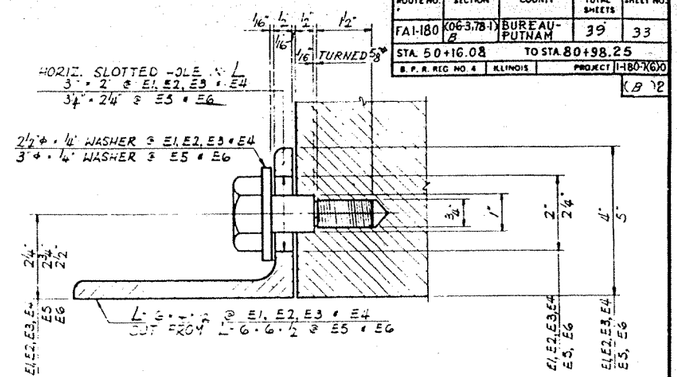


AT GIRDERS 3, 4 AND 5

AT GIRDERS 1, 2, 6 AND 7

DETAILS OF PINS

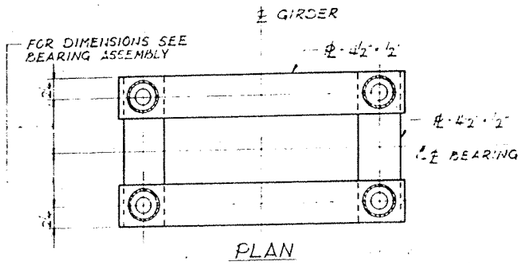
SCALE: 3" = 1'-0"



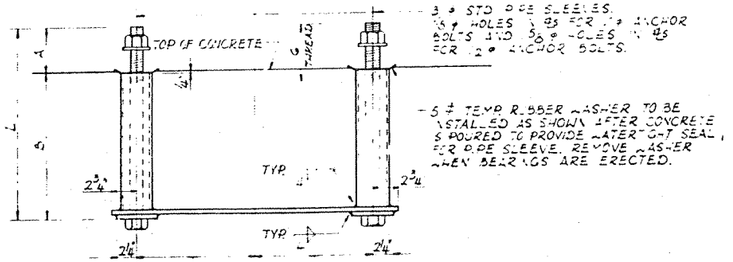
SHOULDER BOLT DETAIL

AT GIRDERS 1, 2, 6 AND 7 ONLY

SCALE: 6" = 1'-0"



PLAN

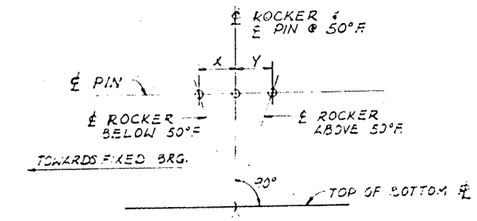


FOR DIMENSIONS SEE BEARING ASSEMBLY

ELEVATION

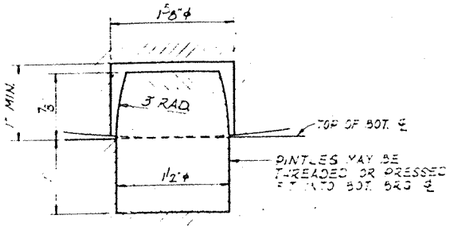
ANCHOR BOLT SETTINGS

SCALE: ½" = 1'-0"



ROCKER SETTING DIAGRAM

NO SCALE



PINTLE DETAIL

FULL SCALE

TEMPERATURE SETTINGS FOR EXP. BRGS.

LOCATION	X			X OR Y	Y		
	-10°F	10°F	30°F	50°F	70°F	90°F	110°F
WEST ABUTMENT	5/8"	7/16"	3/16"	0	3/16"	7/16"	5/8"
PIER 13	5/8"	7/16"	3/16"		3/16"	7/16"	5/8"
PIER 12 - SPAN 13	1/4"	3/16"	7/16"		7/16"	3/16"	1/4"
PIER 2 - SPAN 12	3/16"	1/2"	1"		1/4"	1/2"	3/16"
PIER 10	13/16"	1"	1/4"		1/4"	1/2"	13/16"
PIER 9 - SPAN 10	1 9/16"	1 1/16"	1/2"		1/2"	1 1/16"	1 9/16"
PIER 9 - SPAN 9	1 5/16"	7/8"	7/16"		7/16"	7/8"	1 5/16"
PIER 6 - SPAN 7	1 5/16"	7/8"	7/16"		7/16"	7/8"	1 5/16"
PIER 6 - SPAN 6	2 9/16"	1 1/16"	7/8"		7/8"	1 1/16"	2 9/16"
PIER 3 - SPAN 4	2 3/16"	1 7/16"	3/8"		7/8"	1 1/16"	2 9/16"
PIER 3 - SPAN 3	1 3/16"	3/16"	5/8"		5/8"	1 3/16"	1 13/16"
EAST ABUTMENT	3/16"	3/16"	5/8"	0	5/8"	1 3/16"	1 13/16"

ANCHOR BOLT LENGTHS

LOCATION	GIRDER	BEARING	A	B	L
E. ABUT.	1-7	E6	5¼"	1'-3½"	1'-9"
PIERS 1 & 2	1 AND 7	F4	5"	1'-4"	1'-9"
	2-6	F4	5"	2'-1"	2'-6"
PIER 3	1 AND 7	E6	5¼"	1'-3½"	1'-9"
	2-6	E6	5¼"	2'-3½"	2'-9"
	1 AND 7	E5	5¾"	1'-3¾"	1'-9"
	2-6	E5	5¾"	2'-0¼"	2'-6"
PIERS 4 & 5	1 AND 7	F3	5"	1'-4"	1'-9"
	2-6	F3	5"	2'-10"	3'-3"
PIER 6	1 AND 7	E5	5¾"	1'-3¾"	1'-9"
	2-6	E5	5¾"	2'-0¼"	2'-6"
	1 AND 7	E3	5"	1'-7"	2'-0"
	2-6	E3	5"	2'-7"	3'-0"

LOCATION	GIRDER	BEARING	A	B	L
PIERS 7, 8 & 11	1 AND 7	F2	4⅜"	1'-7¼"	1'-9"
	2-6	F2	4⅜"	2'-1¼"	2'-6"
PIER 9	1 AND 7	E3	5"	1'-4"	1'-9"
	2-6	E3	5"	2'-1"	2'-6"
PIER 10	1 AND 7	E4	6"	1'-3"	1'-9"
	2-6	E4	6"	2'-0"	2'-6"
PIER 12	1 AND 7	E3	5"	1'-4"	1'-9"
	2-6	E3	5"	1'-7"	2'-0"
	1-7	E1	4½"	1'-3½"	1'-9"
PIER 13	1 AND 7	E2	5"	1'-4"	1'-9"
	2-6	E2	5"	1'-7"	2'-0"
PIER 14	1 AND 7	E1	4½"	1'-4½"	1'-9"
	2-6	E1	4½"	1'-7½"	2'-0"
W. ABUT.	1-7	E1	3½"	1'-5½"	1'-9"

7-26-67

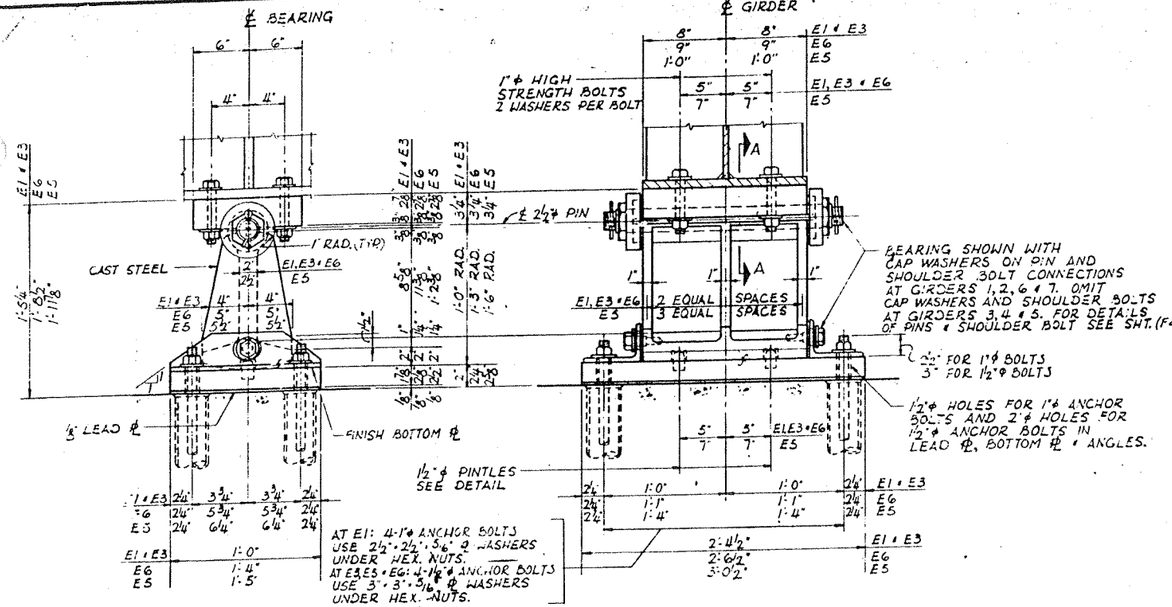
NOTE:
FOR BEARING NOTES SEE SHEET (FIE)1

JULY 18, 1967

DETAILS OF BEARINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F A PROJECT I-180-7(5)0
SECTION (06-3,78 1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

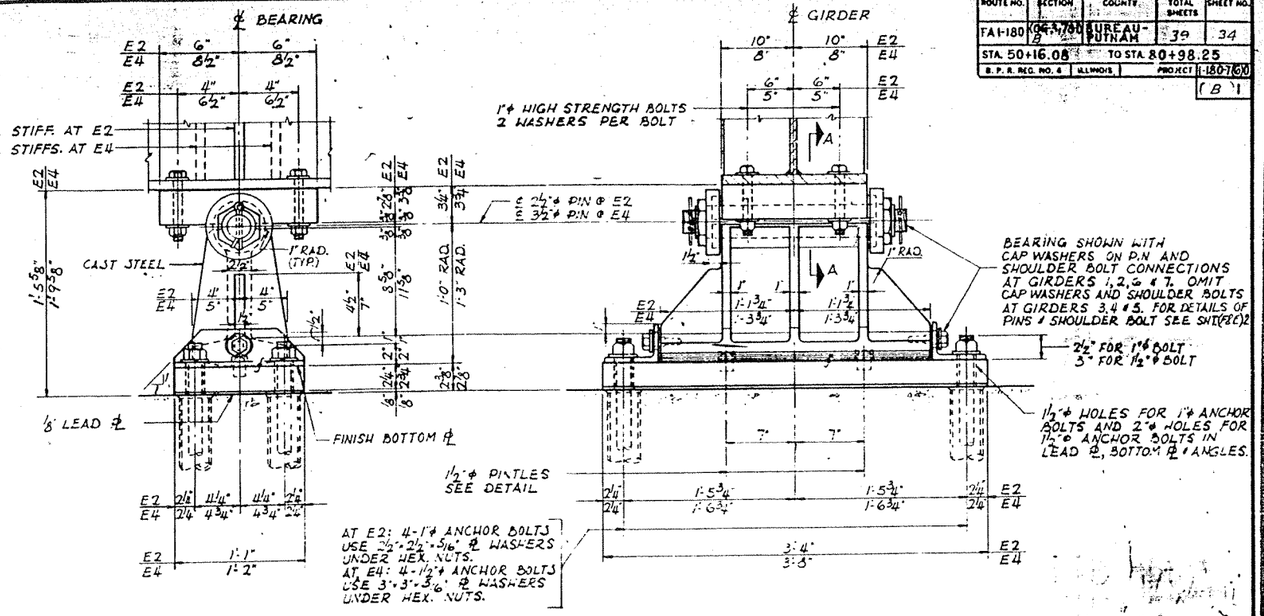
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA I-180	(06-3,78-1)B	BUREAU-PUTNAM	39	34
STA. 50+16.08		TO STA. 80+98.25		
B. P. R. REG. NO. 6	ILLINOIS	PROJECT I-180-7(60)		
			B 1	



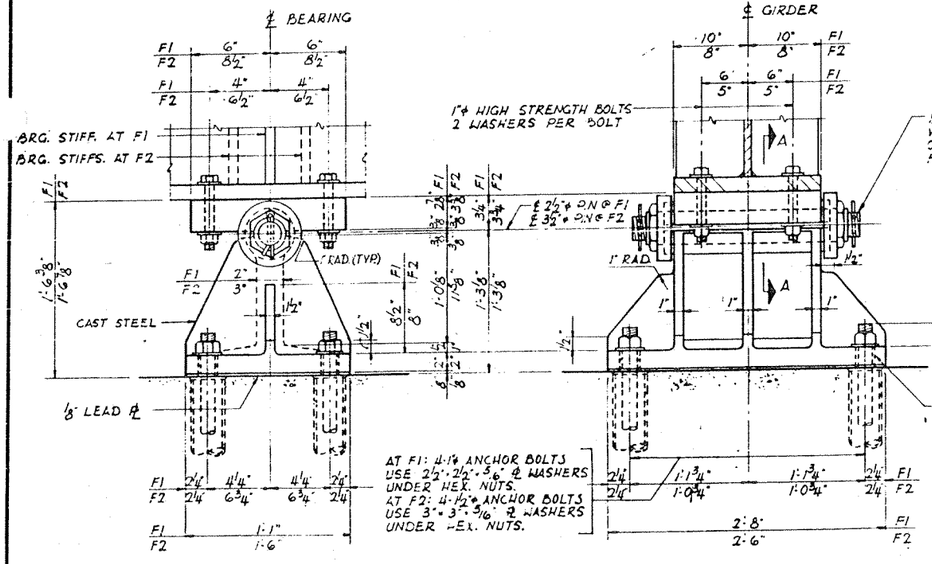
EXPANSION BEARINGS E1, E3, E5 & E6

SCALE: 1½"=1'-0"



EXPANSION BEARINGS E2 AND E4

SCALE: 1½"=1'-0"

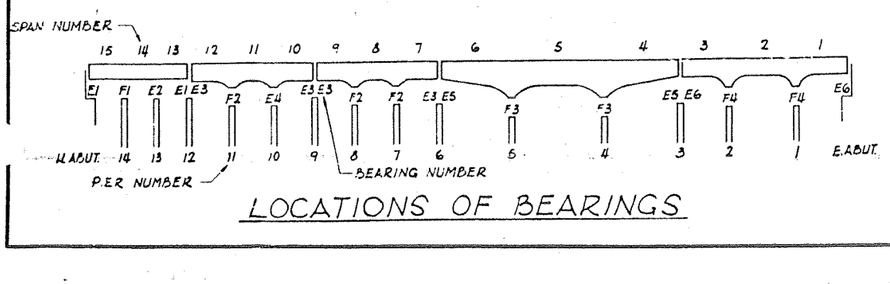


FIXED BEARINGS F1 AND F2

SCALE: 1½"=1'-0"

FIXED BEARINGS F3 AND F4

SCALE: 1½"=1'-0"



LOCATIONS OF BEARINGS

NOTES FOR BEARINGS

CAST STEEL SHALL CONFORM TO A.S.T.M. A27, GRADE 65-35, FULLY ANNEALED.

PINS SHALL BE FORGED STEEL CONFORMING TO A.S.T.M. A235, CLASS F.

PIPE SLEEVES SHALL CONFORM TO A.S.T.M. A53, TYPE E OR S, GRADE A OR B.

ALL OTHER MATERIAL SHALL CONFORM TO A.S.T.M. A36 EXCEPT AS OTHERWISE NOTED.

CASTINGS, PINTLES, BEARING PLATES, LEAD PLATES, ANCHOR BOLTS AND MISCELLANEOUS ITEMS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL (CARBON). ESTIMATED WEIGHT OF BEARINGS IS POUNDS WHICH INCLUDES POUNDS OF CAST STEEL.

ANCHOR POLT ASSEMBLIES, COMPLETE, CONSISTING OF ANCHOR BOLTS, PIPE SLEEVES, SETTING PLATES, NUTS, STEEL WASHERS AND RUBBER WASHERS SHALL BE FABRICATED AND TRANSPORTED TO THE SITE UNDER SECTION (06-3, 78-1) F & E AND SET IN THE FORMS AND CONCRETED INTO PLACE UNDER SECTION (06-3, 78-1) B.

FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PROVISIONS.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges & Traffic Structures
7-28-67
JULY 18, 1967

NOTE
FOR ADDITIONAL NOTES SEE SHEET(F&E)3.
FOR SECTIONS A-A AND B-B AND 1" ADDITIONAL DETAILS SEE SHEET (F&E)2.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

DETAILS OF BEARINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

SOIL TEST BORINGS

B 0
EAST ABUTMENT

Surface Water El
Groundwater El at Completion 445
After ... Hours ——
Ground Surface 495.8

Elevation	N	Qu t/s.f.	w (%)
	6	2.2	19
490	15	1.7	15
	22	-	10
	21	-	-
	27	-	-
480	27	-	-
	36	-	-
	41	-	-
	27	-	-
470	28	-	-
	27	-	-
	27	-	-
	31	-	-
460	23	-	-
	28	-	-
	30	-	-
	29	-	-
450	32	-	-
	36	-	-
	30	-	-
	32	-	-
440	27	-	-
	21	-	-
	18	-	-
	23	-	-
430	36	-	-
	30	-	-
	47	-	-

Brown medium to coarse-grained sand with gravel

Brown medium to coarse-grained sand with gravel (Continued)

Brown coarse-grained sand with medium-grained gravel

End of Boring

NOTES FOR B1

Note A - Core, gray clayey shale, soft with medium-hard layers. 70 percent recovery.

Note B - Gray clayey shale, soft with medium-hard layers, 100 percent recovery.

Note C - Core, medium to soft clayey shale. Upper 1.1' hard shale. 67 percent recovery.

Note D - Soft clayey shale interbedded with medium-hard shale. 83 percent recovery.

Note E - Hard shale. 100 percent recovery.

B 1
PIER 1

Surface Water El 444.0
Groundwater El at Completion 444.0
After ... Hours ——
Ground Surface 444.0 (River)

Elevation	N	Qu t/s.f.	w (%)
440	5		
	0	-	47
	0	-	45
430	0	-	50
	1/20"	-	43
	1/10"	-	36
	1	0.1	29
	3	-	
420	6	-	
	7	-	
	7	-	
	8	-	
410	8	-	
	14	-	
	16	-	
	17	-	
400	15	-	
	16	-	
	19	-	
	21	-	
390	24	-	
	18	-	
	20	-	
	24	-	
380	170	4.5+	8

Water

Black organic silty clay loam

Gray-brown fine to medium-grained sand

Gray-brown coarse grained sand - some gravel

Gray-brown coarse grained sand

Gray-brown well-graded sand

Gray-brown well-graded sand (Continued)

Gray-brown coarse-grained sand with some gravel

Gray soft shale (augered)

Note A

Note B

Note B

Note B

Note B

Note B

Note C

Note D

Note E

Core - Hard shale. Contains numerous phosphatic nodules. 100 percent recovery.

End of Boring

B 2
PIER 2

Surface Water El 443
Groundwater El at Completion 443.0
After Hours ——
Ground Surface 443.0 (River)

Elevation	N	Qu t/s.f.	w (%)
	1	-	60
	1	-	53
	4	-	32
	6	-	-
	7	-	-
	6	-	-
	8	-	-
	9	-	-
	8	-	-
	11	-	-
	14	-	-
	26	-	-
	30	-	-
	26	-	-
	21	-	-
	11	-	-
	14	-	-
	18	-	-
	18	-	-
	19	-	-
	24	-	-
	A	4.5+	10

Water

Black organic silty clay loam

Gray black medium grained sand

Brown fine to medium-grained sand with gravel

Brown coarse-grained sand with gravel

Brown coarse-grained sand with gravel (Continued)

Gray clayey shale

End of Boring

Note A - 100 blows/4 inches

B 3
PIER 3

Surface Water El 444.0
Groundwater El at Completion 444.0
After ... Hours ——
Ground Surface 446.9

Elevation	N	Qu t/s.f.	w (%)
	4	1.0	38
	5		
	2	0.4	32
	2	0.3P	37
	3	0.3P	36
	2	0.2P	45
	3	0.2P	35
	4	-	
	5	-	
	6	-	
	7	-	
	8	-	
	7	-	
	6	-	
	6	-	
	8	-	
	7	-	
	8	-	
	11	-	
	13	-	
	14	-	
	17	-	
	22	-	
	26	-	
	25	-	
	27	-	
	39	-	
	3/4	4.5+	5

Dark brown silty loam

Dark brown organic silty clay loam

Gray-black organic silty clay loam with occasional thin sand lenses

Dark gray sandy loam

Brown medium-grained sand

Gray-brown medium-grained sand

Brown medium to coarse-grained sand

Brown coarse-grained sand with occasional silty seams and gravel particles

Brown coarse-grained sand with occasional silty seams and gravel particles (Continued)

Gray-brown medium to coarse-grained sand with occasional gravel pockets

Gray clay shale - soft

Gray clay shale - weathered

Core - Gray clay shale. Upper 2 feet weathered. Occasional soft seams. 30 percent recovery.

Core - Gray clay shale, medium strength. 62 percent recovery.

End of Boring

B 4
PIER 4

Surface Water El 442.5
Groundwater El at Completion 442.5
After ... Hours ——
Ground Surface 442.5 (River)

Elevation	N	Qu t/s.f.	w (%)
	1	-	38
	4	-	25
	9	-	-
	8	-	-
	13	-	-
	12	-	-
	6	-	-
	7	-	-
	17	-	-
	15	-	-
	18	-	-
	21	-	-
	17	-	-
	25	-	-
	27	-	-
	28	-	-
	29	-	-
	32	-	-
	35	-	-
	A	-	19

Water

Black organic silty clay loam

Gray-brown medium-grained sand

Brown fine to medium-grained sand

Brown fine to medium-grained sand with some gravel

Brown fine to medium-grained sand with some gravel

Gray-brown coarse-grained sand with gravel

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

B 5
PIER 5

Surface Water 442.5
Groundwater El at Completion 442.5
After Hours ——
Ground Surface 442.5

Elevation	N	Qu t/s.f.	w (%)
	1	-	84
	2	-	28
	2	-	26
	3	-	28
	3	-	27
	7	-	-
	11	-	-
	18	-	-
	22	-	-
	10	-	-
	12	-	-
	14	-	-
	18	-	-
	24	-	-
	28	-	-
	22	-	-
	24	-	-
	40	-	-
	60	-	12
	A	4.5+	6

Water

Black organic silty clay loam

Gray sandy loam

Brown fine to medium-grained sand with gravel

Brown medium to coarse-grained sand with gravel

Brown medium to coarse-grained sand with gravel

Gray-brown medium-grained sand

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

B 6
PIER 6

NOTES:

FIGURES IN COLUMN MARKED "N" INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE 2 INCH O.D. SPLIT SPOON SAMPLER 12" WITH 140 LB. HAMMER FALLING 30 INCHES.

"Qu" INDICATES THE UNCONFINED COMPRESSIVE STRENGTH IN TONS PER SQUARE FOOT, AS DETERMINED IN THE FIELD ON THOSE SAMPLES SUITABLE FOR TESTING.

"w" INDICATES WATER CONTENT IN PERCENTAGE OF OVEN DRY WEIGHT.

BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

BORINGS
F.A.I ROUTE 180
OVER ILLINOIS RIVER
F.A.PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+10±

SOIL TEST BORINGS

B 7 / PIER 7

Surface Water El. ——
Groundwater El. at Completion 443
After —— Hours
Ground Surface 443.5+

Brown sandy loam
Gray silty loam
Gray-brown coarse-grained sand to sandy loam with some gravel
Small boulders
Large gravel & boulders
Gray silty loam
Gray-brown medium to coarse-grained sand-gravel with occasional silty clay seams
Gray-brown medium to coarse-grained sand-gravel with occasional silty clay seams
Gray clayey shale

End of Boring

Note A - 100 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
440	2	-	18
5	3	-	44
	2	-	38
10	4	-	34
430	7	-	-
15	16	-	-
	21	-	-
20	26	-	-
420	27	-	-
25	31	-	-
	19	-	-
30	11	0.6	23
410	8	0.5	18
35	7	0.5	20
	13	-	-
40	20	-	-
400	40	-	-
45	48	-	-
	38	-	-
50	39	-	-
390	52	-	-
55	A	4.5+P	8
	B		
380			

B 8 / PIER 8

Surface Water El. ——
Groundwater El. at Completion 443
After —— Hours
Ground Surface 444.0+

Black organic silty loam with decaying wood particles
Gray silty clay
Gravel
Gray coarse-grained sand and gravel with occasional silty clay seams
Gray-brown medium to coarse grained sand to sandy loam with some gravel
Large gravel
Gray silty loam
Gray medium to coarse sand-gravel with occasional silty clay seams
Boulders
Gray medium to coarse sand-gravel with occasional silty clay seams
Boulders
Gray silty clayey shale

End of Boring

Note A - 100 blows/5 inches
Note B - 100 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	3	0.2P	57
5	2	0.2P	55
	5	0.5P	42
10	7	0.4P	36
15	-	-	30
	23	-	-
20	18	-	-
	21	-	-
25	18	-	-
	20	-	-
30	24	-	-
	26	-	-
35	37	-	-
	10	0.4	33
40	18	0.9	22
	10	0.8	24
45	8	0.3P	26
	27	-	-
50	28	-	-
	30	-	-
55	39	-	-
	40	-	-
60	A	4.5+P	10
	B	4.5+P	6

B 9 / PIER 9

Surface Water El. ——
Groundwater El. at Completion 442
After —— Hours
Ground Surface 443.5+

Black organic silty loam
Gray-brown silty loam
Brown medium-grained sand and gravel with occasional boulders
Gray silty clay
Gray medium to coarse sand-gravel with occasional silty clay seams
Gray medium to coarse sand-gravel with occasional silty clay seams (Continued)
Gray silty, clayey shale

End of Boring

Note A - 100 blows/6 inches
Note B - 100 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
	3	0.1	56
5	4	0.4	40
	6	0.9	32
10	5	0.3	38
15	17	✓	-
	13	-	-
20	22	-	-
	24	-	-
25	27	-	-
	35	-	-
30	31	-	-
	12	0.9	23
35	17	1.0	18
	40	-	-
40	32	-	-
	36	-	-
45	41	-	-
	31	-	-
50	29	-	-
	29	-	-
55	33	-	-
	36	-	-
60	A	4.5	11
	B	4.5	9

B 10 / PIER 10

Surface Water El. ——
Groundwater El. at Completion 443+
After —— Hours
Ground Surface 444.0+

Black organic silty loam
Gray-brown silty loam
Gray-brown medium-grained sand-gravel with silty clay seams
Brown medium-grained sand-gravel with occasional boulders
Gray coarse-grained sand and gravel with silty clay seams and occasional small boulders
Gray silty clay with occasional small pebbles
Gray silty, clayey shale

End of Boring

Note A - 100 blows/3 inches
Note B - 100 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	5	0.2P	54
5	6	0.4	25
	5	-	26
10	2	-	24
	19	-	19
15	12	-	15
	20	-	-
20	28	-	-
	29	-	-
25	35	-	-
	40	-	-
30	32	-	-
	36	-	-
35	40	-	-
	31	-	-
40	34	-	-
	14	0.4P	19
45	17	0.8	21
	20	1.0	19
50	24	0.9	20
	21	1.7	20
55	22	1.0	17
	20	0.8	21
60	A	4.5+P	8
	B	4.5+P	7

B 11 / PIER 11

Surface Water El. ——
Groundwater El. at Completion 443.5
After —— Hours
Ground Surface 444.0+

Gray-black organic silty loam
Gray-brown silty loam
Gray-brown fine to medium-grained sand with gravel
Large Boulders
Brown fine to medium-grained sand with gravel
Boulders
Gray-brown medium to coarse-grained sand and gravel with silty clay seams and occasional small boulders
Gray-brown medium to coarse-grained sand and gravel with silty clay seams and occasional small boulders (Continued)
Gray coarse grained sand-gravel with silty clay seams
Gray clayey shale

End of Boring

Note A - 100 blows/3 inches
Note B - 100 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.1	57
5	7	0.4	32
	4	0.3	23
10	4	-	-
	4	-	-
15	19	-	-
	18	-	-
20	17	-	-
	9	-	-
25	10	-	-
	28	-	-
30	32	-	-
	33	-	-
35	33	-	-
	30	-	-
40	33	-	-
	27	-	-
45	33	-	-
	11	-	-
50	16	-	-
	13	-	-
55	A	4.5+P	8
	B	4.5+P	8
60			

B 12 / PIER 12

Surface Water El. ——
Groundwater El. at Completion 443
After —— Hours
Ground Surface 447.0+

Black organic silty clay loam, decayed vegetable matter
Dark brown silty loam
Gray-brown silty loam to sandy loam with thin silty clay seams
Gray-brown medium to coarse-grained sand and gravel with silty clay seams
Gray silty clay with numerous pebbles
Gray silty clay with sand-gravel particles
Gray silty clay with sand-gravel particles (Continued)
Gray medium to coarse-grained sand-gravel with silty clay seams
Gray clayey shale

End of Boring

Note A - 180 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.8	53
5	2	0.9	49
	3	0.9	45
10	4	1.2	27
	4	0.9	28
15	3	0.8	27
	2	0.4	27
20	3	0.4	28
	10	0.8	29
25	18	-	26
	21	1.3	25
30	26	3.1	17
	29	4.1	13
35	32	6.0	13
	36	6.1	12
40	42	6.6	12
	30	-	27
45	16	3.8	15
	23	-	13
50	42	-	13
	44	-	-
55	40	-	-
	A	4.5+P	8
60			

B 13 / PIER 13

Surface Water El. ——
Groundwater El. at Completion 443
After —— Hours
Ground Surface 447.0+

Black organic silty loam
Brown-gray silty loam
Gray-brown silty clay
Gray-brown medium to coarse sand-gravel with occasional clay seams
Gray-brown fine-grained sand with some gravel
Gray coarse-grained sand-gravel with occasional boulders
Gray coarse-grained sand-gravel with occasional boulders
Gray clayey shale

End of Boring

Note A - 100 blows/2 inches
Note B - 120 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	5	0.6	27
5	7	0.4	38
440	2	0.4	36
10	6	0.7	26
	5	0.6	28
15	5	0.6	29
430	5	0.7	27
20	6	0.9	25
	4	-	-
25	12	-	-
420	8	-	-
30	11	-	-
	19	-	-
35	26	-	-
410	19	-	-
40	17	-	-
	21	-	-
45	21	-	-
400	24	-	-
	22	-	-
50	24	-	-
	31	-	-
55	A	4.5+P	10
390	B	4.5+P	7
60			

FOR NOTES SEE SHEET 9

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

BORINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F.A.P. PROJECT I-180-7(5)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 691+02

SOIL TEST BORINGS

FAI 180	(06-3, 78-1)B	COUNTY	TOTAL SHEETS	SHEET NO.
		BUREAU-PUTNAM	39	37

B 14
PIER 14

Surface Water El. ——
Groundwater El. at Completion 442
After ... Hours ——
Ground Surface 444.0

Elevation	N	Qu t/s.f.	w (%)
	3	0.1	35
	3	0.2	26
	4	0.4	28
	7	0.9	25
	5	0.6	29
	5	0.6	26
	4	0.5	25
	4	0.2	25
	20	-	-
	14	-	-
	19	-	-
	23	-	-
	27	-	-
	28	-	-
	23	-	-
	20	-	-
	31	-	-
	36	-	-
	38	-	-
	54	-	-
	37	-	-
	A	4.5+P	8
	B	4.5+P	7

Black silty clay loam (organic)
Gray-brown silty loam
Gray-brown silty clay
Gray silt
Gray fine to medium-grained sand with some gravel
Gray medium to coarse sand-gravel with occasional boulders
Gray medium to coarse sand-gravel with occasional boulders (Continued)
Gray clayey shale

End of Boring

Note A - 100 blows/4 inches
Note B - 100 blows/2 inches

B 15
WEST ABUTMENT

Surface Water El. ——
Groundwater El. at Completion 442
After ... Hours ——
Ground Surface 444.0

Elevation	N	Qu t/s.f.	w (%)
	6	0.4	40
	5	0.6	27
	9	1.1	26
	5	0.8	28
	4	0.7	29
	3	0.3	32
	4	0.3	26
	2	0.1	28
	3	-	-
	4	-	-
	6	-	-
	5	-	-
	35	-	-
	18	-	-
	35	-	-
	38	-	-
	30	-	-
	31	-	-
	37	-	-
	30	-	-
	28	-	-
	A	4.5+P	13
	B	4.5+P	7

Black organic silty clay
Gray-brown silty loam
Gray-brown silty clay
Brown silty loam to sandy loam
Gray very-fine grained sand (silty)
Gray fine to medium grained sand with some gravel
Boulders
Gray medium to coarse grained sand-gravel with silty clay seams
Gray medium to coarse grained sand-gravel with silty clay seams (Continued)
Gray weathered shale

End of Boring

Note A - 100 blows/3 inches

B 16
STA. 48+75±

Surface Water El. ——
Groundwater El. at Completion 442.5
After ... Hours ——
Ground Surface 444.0±

Elevation	N	Qu t/s.f.	w (%)
	4	0.6	41
	6	0.9	38
	4	0.7	48
	7	1.0	35
	8	0.9	28
	6	0.6	27
	3	-	28
	4	-	-
	4	-	-
	16	-	-
	18	-	-
	34	-	-
	28	-	-
	38	-	-
	27	-	-
	34	-	-
	37	-	-
	33	-	-
	40	-	-
	A	4.5+P	10
	B	4.5+P	7

Brownish-black organic silty clay loam
Brown-gray silty loam
Gray-brown silty loam to sandy loam
Brown medium-grained sand-gravel
Gray medium to coarse sand-gravel with occasional boulders
Gray medium to coarse sand-gravel with occasional boulders
Gray clayey shale

End of Boring

Note A - 100 blows/6 inches
Note B - 120 blows/3 inches

B 17
STA. 47+50±

Surface Water El. ——
Groundwater El. at Completion 442
After ... Hours ——
Ground Surface 445.0

Elevation	N	Qu t/s.f.	w (%)
	2	0.2	49
	3	0.4	25
	3	0.9	25
	8	1.8	23
	5	1.1	29
	4	0.6	30
	3	0.4	27
	2	0.2	34
	3	-	-
	3	-	-
	8	-	-
	13	-	-
	17	-	-
	21	-	-
	24	-	-
	29	-	-
	52	-	-
	33	-	-
	36	-	-
	30	-	-
	83	4.5+	12
	A	4.5+	8

Brownish-black silty loam, some organic matter
Brown silty clay loam with traces of sand
Gray very fine grained sand
Gray medium to coarse-grained sand-gravel with occasional boulders
Dense gravel
Gray weathered shale
Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

B 18
STA. 46+25±

Surface Water El. ——
Groundwater El. at Completion 443
After ... Hours ——
Ground Surface 448±

Elevation	N	Qu t/s.f.	w (%)
	5	1.2	37
	2	0.4	33
	3	0.6	27
	2	0.5	29
	3	0.6	34
	3	0.6	23
	3	0.7	35
	2	0.5	28
	2	0.4	25
	3	-	23
	8	-	-
	12	-	-
	13	-	-
	11	-	-
	21	-	-
	26	-	-
	33	-	-
	32	-	-
	37	-	-
	91	-	-
	53	-	-
	63	-	-
	A	4.5+P	10

Black organic silty clay loam
Gray-brown silty loam
Gray silty clay
Gray fine to medium-grained sand
Gray-brown medium to coarse sand with some gravel
Gray-brown medium to coarse sand with some gravel
Gray coarse-grained sand-gravel with occasional silty clay seams
Gray clayey shale

End of Boring

Note A - 100 blows/4 inches

B 19
STA. 45+60±

Surface Water El. ——
Groundwater El. at Completion 442
After ... Hours ——
Ground Surface 444±

Elevation	N	Qu t/s.f.	w (%)
	2	0.1	55
	5	0.6	32
	3	0.3	34
	5	0.4	26
	6	0.7	23
	6	0.7	25
	7	0.9	22
	5	0.6	26
	4	0.3	27
	6	-	-
	14	-	-
	12	-	-
	19	-	-
	22	-	-
	31	-	-
	40	-	-
	41	-	-
	68	-	-
	45	-	-
	67	-	-
	52	-	-
	49	-	-
	A	4.5+P	9

Dark brown organic silty clay loam
Gray-brown silty loam
Gray-brown silty clay loam
Gray fine to medium-grained sand and gravel
Gray medium to coarse grained sand and gravel
Boulders
Gray medium to coarse-grained sand and gravel (Continued)
Gray coarse-grained sand-gravel with some clayey seams
Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

B 20
STA. 43+75±

Surface Water El. ——
Groundwater El. at Completion 442
After ... Hours ——
Ground Surface 444.0±

Elevation	N	Qu t/s.f.	w (%)
	2	0.1	49
	2	0.3	29
	2	-	-
	3	-	-
	6	-	-
	12	-	-
	11	-	-
	13	-	-
	13	-	-
	18	-	-
	21	-	-
	20	-	-
	23	-	-
	29	-	-
	36	-	-
	46	-	-
	30	-	-
	24	-	-
	28	-	-
	31	-	-
	A	4.5+P	8

Gray-black organic silty loam
Gray silty loam
Gray-brown fine to medium-grained sand
Gray silt to very fine-grained sand
Gray medium to coarse-grained sand with gravel
Gray medium to coarse-grained sand with silty clay seams and gravel
Gray medium to coarse-grained sand with silty clay seams and gravel
Gray clayey shale

End of Boring

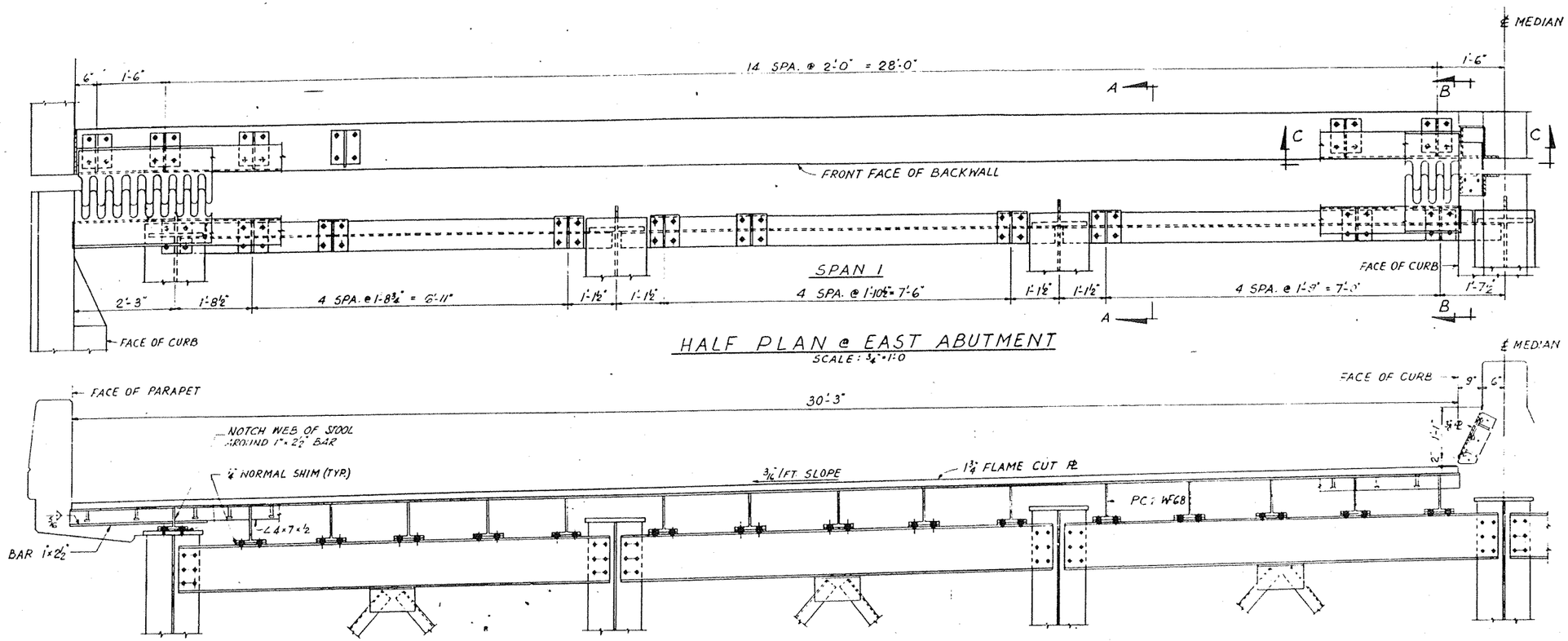
Note A - 100 blows/3 inches

FOR NOTES SEE SHEET 9

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

BORINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A PROJECT I-180-7(5)0
SECTION (06-3, 78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+10±

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-180	(06-3,78-1) B	BUREAU-PUTNAM	39	39
STA. 50+16.08		TO STA 80+98.25		
B. P. R. REG. NO. 4	ILLINOIS	PROJECT	I-180-7(6)10 (F&E)12	



HALF PLAN @ EAST ABUTMENT

SCALE: 3/16" = 1'-0"

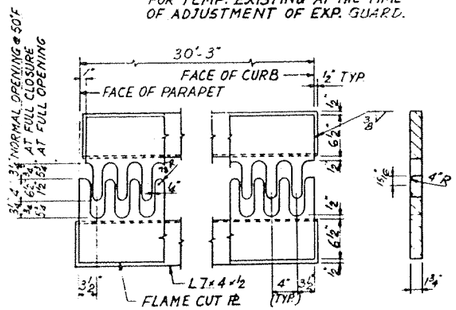
HALF ELEVATION

SCALE: 3/16" = 1'-0"

TABLE OF A, B & C DIMENSIONS

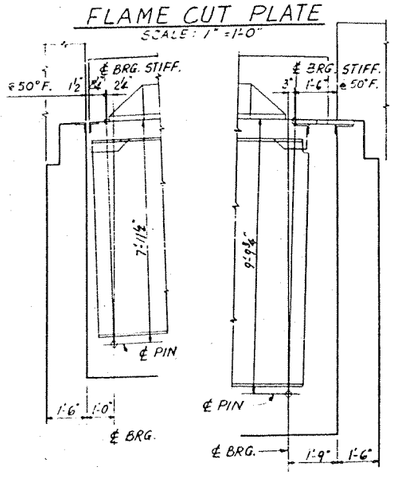
TEMP.	E. ABUT. A	E. ABUT. B	W. ABUT. C
130°F	¾"	6½"	½"
110°F	1⅜"	5⅞"	¾"
90°F	2"	5¼"	1"
70°F	2⅝"	4⅝"	1¼"
50°F	3¼"	4"	1½"
30°F	3⅞"	3⅜"	1¾"
10°F	4½"	2¾"	2"
- 10°F	5⅛"	2⅛"	2¼"
- 30°F	5¾"	1½"	2½"

USE THESE VALUES OF A, B & C FOR TEMP. EXISTING AT THE TIME OF ADJUSTMENT OF EXP. GUARD.



FLAME CUT PLATE

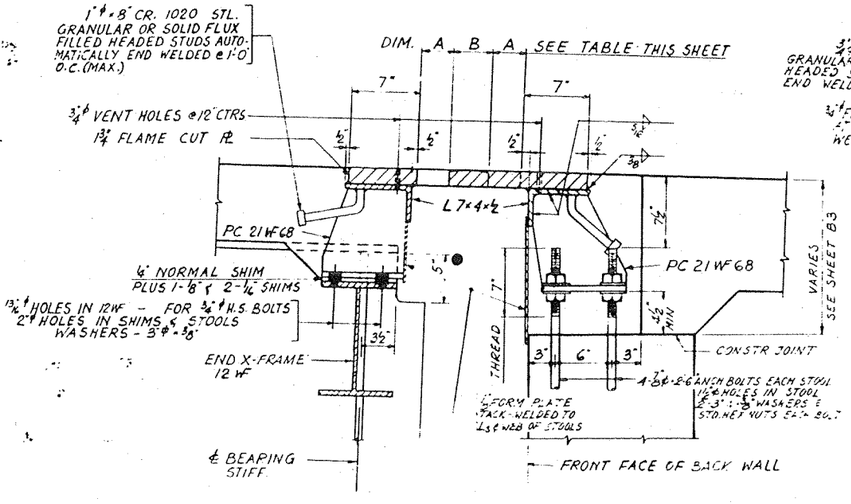
SCALE: 1" = 1'-0"



WEST ABUTMENT EAST ABUTMENT

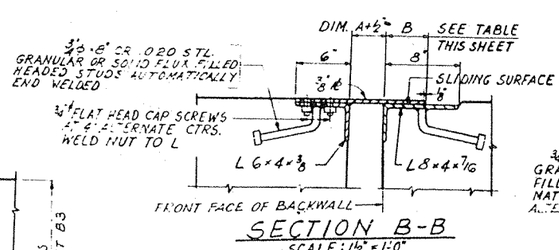
WORK LINES

SCALE: 3/8" = 1'-0"



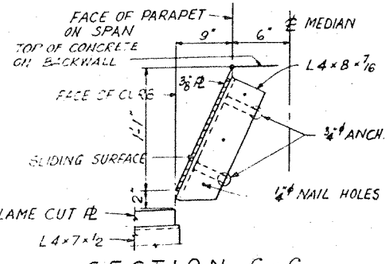
SECTION A-A

SCALE: 1½" = 1'-0"



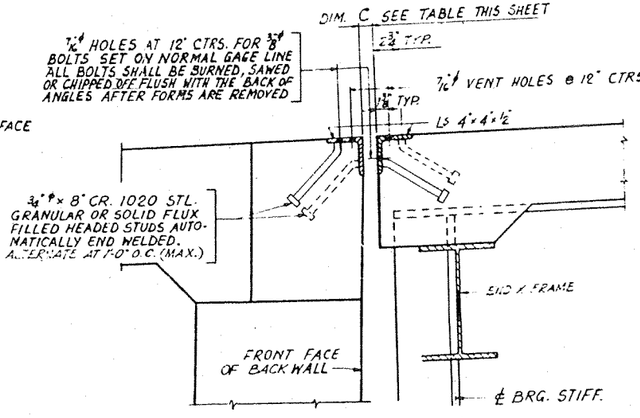
SECTION B-B

SCALE: 1½" = 1'-0"



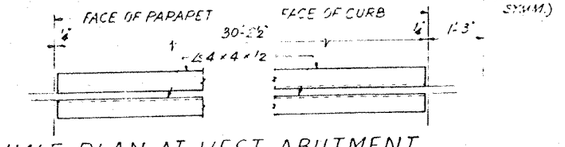
SECTION C-C

SCALE: 1½" = 1'-0"



SECTION AT WEST ABUTMENT

SCALE: 1½" = 1'-0"



Samuel Eisman

HALF PLAN AT WEST ABUTMENT

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

1-27-67

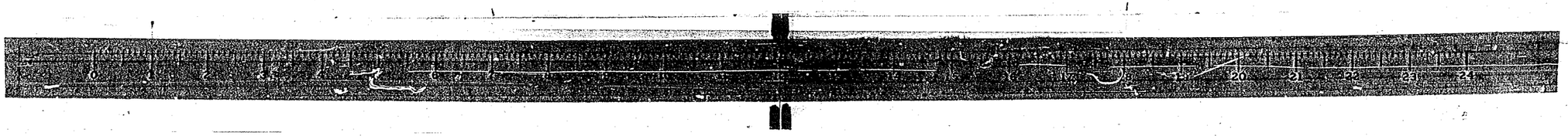
APPROVED DRAWING
NOV. 27. 1967

NOVEMBER 21, 1967

EXPANSION GUARD-EAST & WEST ABUTMENT
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(5) 0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+29.50

RT. FAI-180

SEC. 106-3
78-11F&E



F.A.I. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-3, 78-1)	BUREAU-PUTNAM	12	1
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

P-92-007-67

SECTION (06-3, 78-1) INCLUDES:
FURNISHING OF ALL MATERIALS AND THE COMPLETE CONSTRUCTION OF THE PIERS AND ABUTMENTS SUPPORTING A PLATE GIRDER DECK STRUCTURE CONSISTING OF (A) NINE APPROACH SPANS (3 @ 135 FT. AND 6 @ 170 FT.), (B) A THREE SPAN UNIT OVER THE MAIN CHANNEL (2 @ 300 FT. AND 1 @ 375 FT.) AND (C) A THREE SPAN UNIT OVER THE SECONDARY CHANNEL (2 @ 200 FT. AND 1 @ 280 FT.) CARRYING F.A.I. ROUTE 180 OVER THE ILLINOIS RIVER AT HENNEPIN.

SECTION (06-3, 78-1) F & E INCLUDES:
FURNISHING, FABRICATING, SHOP PAINTING, TRANSPORTING AND ERECTING ALL STRUCTURAL STEEL FOR THE ABOVE DESCRIBED STRUCTURE.

SECTION (06-3, 78-1) INCLUDES:
FURNISHING OF ALL MATERIALS AND THE COMPLETE CONSTRUCTION OF THE DECK AND THE INSTALLATION OF THE NAVIGATION LIGHTING SYSTEM COMPLETE FOR THE ABOVE DESCRIBED STRUCTURE.

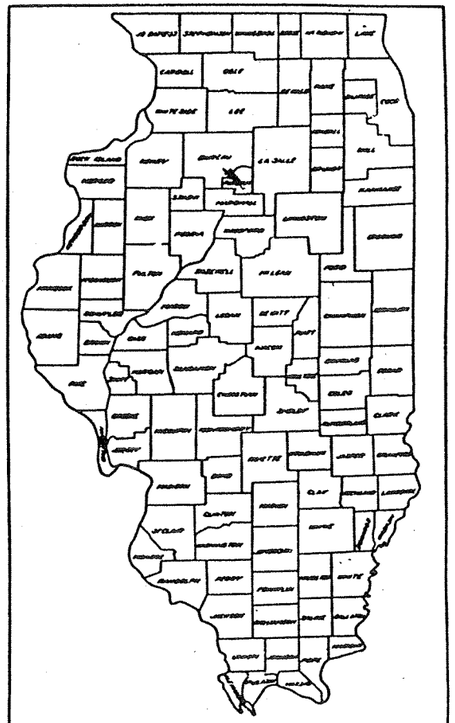
SECTION (06-3, 78-1) P INCLUDES:
FURNISHING OF ALL MATERIALS AND FIELD PAINTING ALL STRUCTURAL STEEL FOR THE ABOVE DESCRIBED STRUCTURE.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED

SCALES

PLAN	1 INCH	FT
PROFILE, HOR	1 INCH	FT
PROFILE, VERT	1 INCH	FT
CROSS SECTIONS	1 INCH	FT

F.A.I. ROUTE 180 - SECTION (06-3, 78-1) F & E BUREAU PUTNAM COUNTIES
PROJECT I-180-7(6)0
C-92-045-67

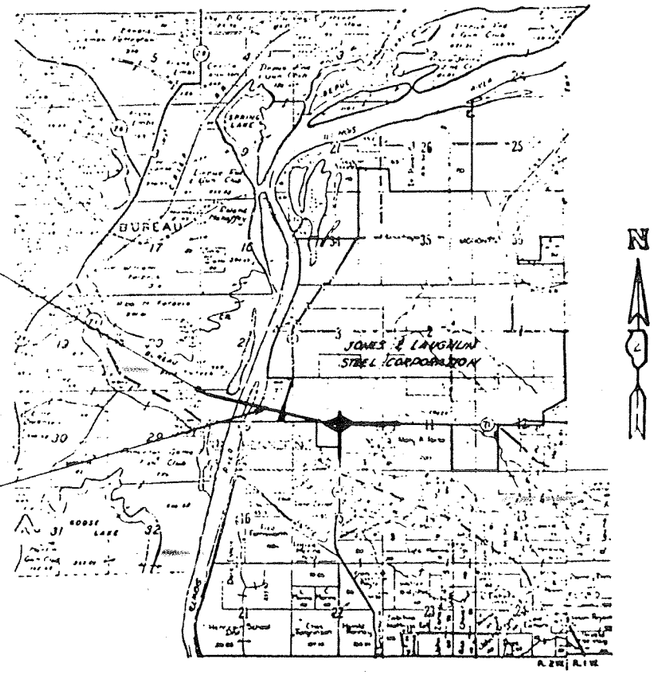


INDEX OF SHEETS

ON STANDARD NO. 2153-6 THE WORDING "U. S. DEPT. OF COMMERCE", SHALL BE CHANGED TO READ "U. S. DEPT. OF TRANSPORTATION".

BEGIN PROJECT
F.A.I ROUTE 180
PROJECT I-180-7(6)0
STA 50+15.58

END PROJECT
F.A.I ROUTE 180
PROJECT I-180-7(6)0
STA. 80+98.25



ONE SIGN ACCORDING TO STD. 2153-6 SHALL BE ERECTED AT THE LOCATION AS DIRECTED BY THE ENGINEER. SECTION (06-3, 78-1) F & E

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

SUBMITTED 3-17 19 67
D. E. Swanson
DISTRICT ENGINEER

EXAMINED 4-6 19 67
A. Von Ambrose
CHIEF ENGINEER OF MAIN PLANS AND CONTRACTS

PASSED 4-6 19 67
W. E. Bowman
ENGINEER OF DESIGN

APPROVED 4-6 19 67
CHIEF ENGINEER

APPROVED 4-6 19 67
Thomas H. Boyd
DIRECTOR

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER | DATE

APPROVED
FOR STRUCTURAL ASPECTS ONLY
Carl C. Thurman
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

GROSS LENGTH OF IMPROVEMENT (3082.67' = 0.584 MILES)
NET LENGTH OF IMPROVEMENT (3082.67' = 0.584 MILES)

CONTRACT NO. 20014

3 BUREAU-PUTNAM COUNTY SECTION (06-3, 78-1) F & E F.A.I. ROUTE 180

F.A.I. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-3, 78-1)	BUREAU - PUTNAM	12	1
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

P-92-007-67

SECTION (06-3, 78-1)B INCLUDES:
FURNISHING OF ALL MATERIALS AND THE COMPLETE CONSTRUCTION OF THE PIERS AND ABUTMENTS SUPPORTING A PLATE GIRDER DECK STRUCTURE CONSISTING OF (A) NINE APPROACH SPANS (3 @ 135 FT. AND 6 @ 170 FT.), (B) A THREE SPAN UNIT OVER THE MAIN CHANNEL (2 @ 300 FT. AND 1 @ 375 FT.) AND (C) A THREE SPAN UNIT OVER THE SECONDARY CHANNEL (2 @ 200 FT. AND 1 @ 280 FT.) CARRYING F.A.I. ROUTE 180 OVER THE ILLINOIS RIVER AT HENNEPIN.

SECTION (06-3, 78-1)F & E INCLUDES:
FURNISHING, FABRICATING, SHOP PAINTING, TRANSPORTING AND ERECTING ALL STRUCTURAL STEEL FOR THE ABOVE DESCRIBED STRUCTURE.

SECTION (06-3, 78-1)D INCLUDES:
FURNISHING OF ALL MATERIALS AND THE COMPLETE CONSTRUCTION OF THE DECK AND THE INSTALLATION OF THE NAVIGATION LIGHTING SYSTEM COMPLETE FOR THE ABOVE DESCRIBED STRUCTURE.

SECTION (06-3, 78-1)P INCLUDES:
FURNISHING OF ALL MATERIALS AND FIELD PAINTING ALL STRUCTURAL STEEL FOR THE ABOVE DESCRIBED STRUCTURE.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED

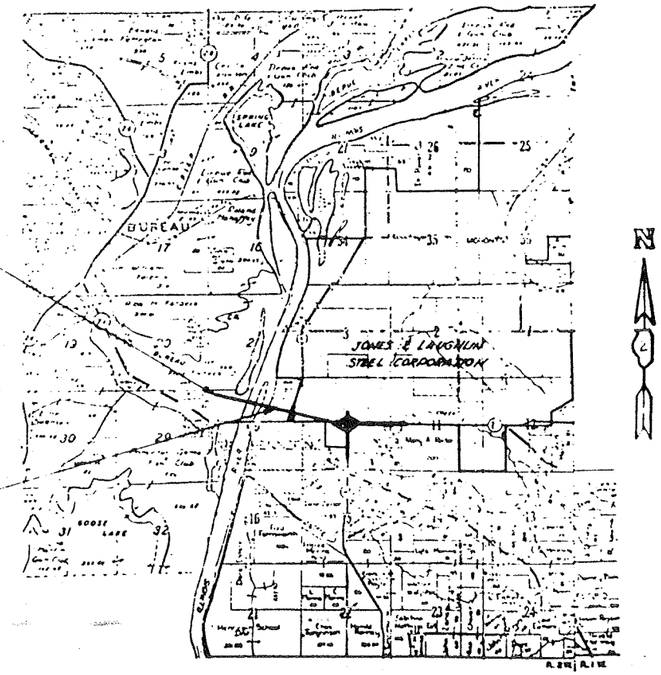
SCALES

PLAN	1 INCH	FT
PROFILE, HOR	1 INCH	FT
PROFILE, VERT	1 INCH	FT
CROSS SECTIONS	1 INCH	FT

F.A.I. ROUTE 180 - SECTION (06-3, 78-1)B. BUREAU PUTNAM COUNTIES
PROJECT I-180-7(5)0
C-92-044-67

INDEX OF SHEETS

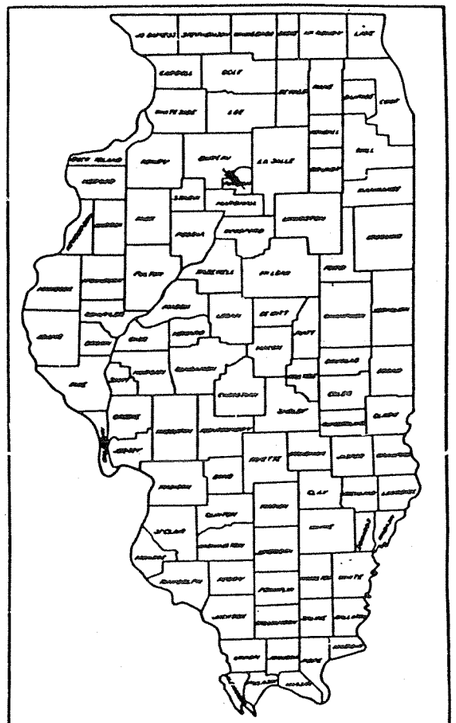
ON STANDARD NO. 2153-6 THE WORDING "U. S. DEPT. OF COMMERCE", SHALL BE CHANGED TO READ "U. S. DEPT. OF TRANSPORTATION".



BEGIN PROJECT
FAI ROUTE 180
PROJECT I-180-7(5)0
STA 50+15.58

END PROJECT
F.A.I. ROUTE 180
PROJECT I-180-7(5)0
STA 80+98.25

ONE (1) SIGN ACCORDING TO STD. 2153-6 SHALL BE ERECTED AT THE LOCATION AS DIRECTED BY THE ENGINEER SECTION (06-3,78-1)B



LOCATION OF SECTION INDICATED THUS:—

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

SUBMITTED 3-17 ,67 — DE Summers, DISTRICT ENGINEER
EXAMINED 4-6 ,67 — W Bauman, ENGINEER OF FOOD PLANS AND CONTRACTS
PASSED 4-6 ,67 — W Bauman, ENGINEER OF DESIGN
APPROVED 4-6 ,67 — [signature], CHIEF ENGINEER
APPROVED 4-6 ,67 — Theresa A Bourey, SECRETARY

2-74

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER — DATE

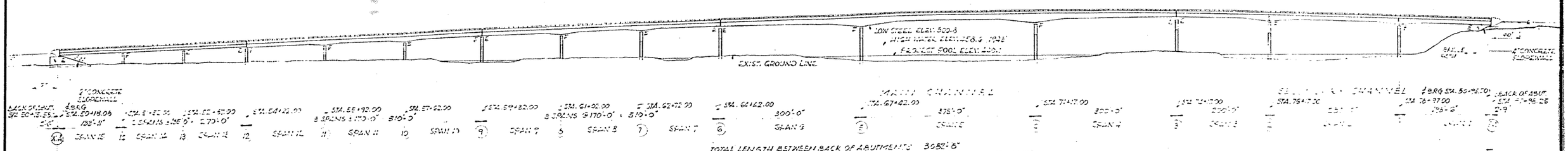
APPROVED
FOR STRUCTURAL DESIGN ONLY
Carl E Thummel
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

GROSS LENGTH OF IMPROVEMENT (3082.67' = 0.584 MILES)

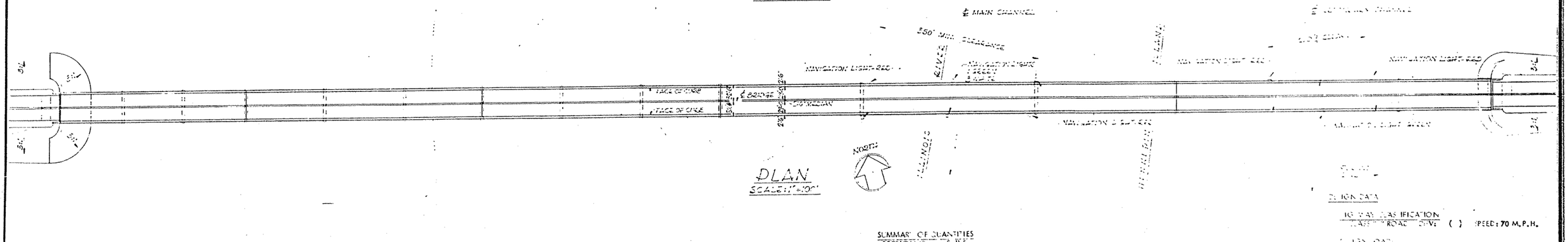
CONTRACT NO. 25074

BUREAU PUTNAM COUNTY SECTION(06-3,78-1)B F.A.I. ROUTE 180

FAI 180 106-3 78-1) BUREAU PUTNAM 12 2



ELEVATION
SCALE 1" = 100'



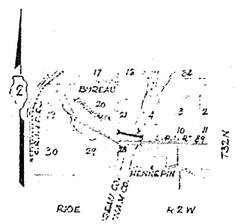
PLAN
SCALE 1" = 100'

SUMMARY OF QUANTITIES
SECTION (G.F. & B-I) F.E.

QUANTITY	UNIT	ITEM	CODE
*1,9 0,000	LB.	ERECTING STRUCTURAL STEEL (LOW ALLOY)	0 [illegible]
*4,280,000	LB.	ERECTING STRUCTURAL STEEL (CARBON)	0 [illegible]
*5,280,000	LB.	FURNISHING STRUCTURAL STEEL (CARBON)	0 [illegible] **
*1,9 0,000	LB.	FURNISHING STRUCTURAL STEEL (LOW ALLOY)	0 [illegible] **

		CARBON	LOW ALLOY
* MAIN CHANNEL SPANS	LB.	4,0,000	[illegible]
SECONDARY CHANNEL SPANS	LB.	[illegible],000	1,600,000
APPROACH SPANS	LB.	[illegible],000	[illegible]
TOTAL	LB.	4,280,000	1,9 0,000

** SPECIALITY ITEMS



LOCATION SKETCH

SUMMARY OF QUANTITIES
SECTION (G.F. & B-I) F.E.

QUANTITY	UNIT	ITEM	CODE
2	ACRE	TREE REMOVAL, ACRES	010005
54,000	CU. YD.***	EARTH EXCAVATION	011001
33,000	CU. YD.	BORROW EXCAVATION	013001
58,000	CU. YD.	POROUS GRANULAR EMBANKMENT	019001
500	CU. YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
1,000	CU. YD.	CLASS B EXCAVATION FOR STRUCTURES	050002
17,200	CU. YD.	COFFERDAM EXCAVATION	050005
1	EACH	COFFERDAM PIER 1	050006
1	EACH	COFFERDAM PIER 2	050007
1	EACH	COFFERDAM PIER 3	050008
1	EACH	COFFERDAM PIER 4	050009
1	EACH	COFFERDAM PIER 5	050010
1	EACH	COFFERDAM PIER 6	050011
1	EACH	COFFERDAM PIER 7	050012
1	EACH	COFFERDAM PIER 8	050013
1	EACH	COFFERDAM PIER 9	050014
1	EACH	COFFERDAM PIER 10	050015
1	EACH	COFFERDAM PIER 11	050016

SUMMARY OF QUANTITIES
SECTION (G.F. & B-I) F.E.

CODE	QUANTITY	UNIT	ITEM	CODE
050017	1	EACH	COFFERDAM PIER 12	050017
050018	1	EACH	COFFERDAM PIER 13	050018
050019	1	EACH	COFFERDAM PIER 14	050019
052003	10,900	CU. YD.	CLASS X CONCRETE	052003
052004	5,000	CU. YD.	SEAL COAT CONCRETE	052004
059001	1,200,000	LB.	REINFORCEMENT BARS	059001
060004	240	LIN. FT.	FURNISHING CREOSOTED PILES UP TO 20 FEET	060004
060005	360	LIN. FT.	FURNISHING CREOSOTED PILES 20.1 TO 35 FEET	060005
060006	480	LIN. FT.	FURNISHING CREOSOTED PILES OVER 35 FEET	060006
060038	1,080	LIN. FT.	DRIVING TIMBER PILES	060038
060027	67,800	LIN. FT.	FURNISHING STEEL PILES (BBP36)	060027
060036	16	EACH	TEST PILES STEEL (BBP36)	060036
060037	67,800	LIN. FT.	DRIVING STEEL PILES	060037
061001	2	EACH	NAME PLATES	061001
083002	400	SQ. YD.	SLOPE WALL 4 INCH	083002
083003	2,100	SQ. YD.	SLOPE WALL 7 INCH	083003
Z01025	*	L. SUM	BRIDGE SEAT SEALANT	Z01025
Z01079	1	EACH	ENGINEER'S FIELD LABORATORY	Z01079
Z01098	2	EACH	ENGINEER'S FIELD OFFICE TYPE A	Z01098

*** This material shall be disposed of outside the right-of-way or as directed by the Engineer

APPLIED AT EXPANSION ENDS & ABUTMENTS

DESIGN DATA

HIGHWAY CLASSIFICATION
CLASS I ROAD OPEN ( ) SPEED: 70 M.P.H.

DESIGN LOADS
L.L. = H-20-44 AND ALT.
FUTURE WEARING = 1-1/2" BITUMINOUS WEARING SURFACE

DESIGN STRESSES
CONCRETE
f'c = 3,000 P.S.I.
fc = 1,400 P.S.I.
fc = 1,200 P.S.I. (WITH EARTH PRESSURE)
fc = 650 P.S.I. (FOOTINGS)
n = 10

REINFORCING STEEL
fs = 20,000 P.S.I.

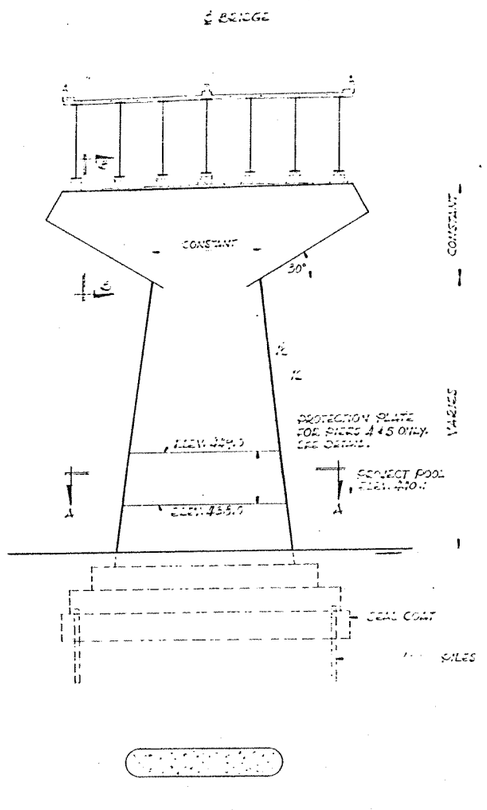
STRUCTURAL STEEL
fs = 20,000 P.S.I. (A36)
fs = 22,000 P.S.I. (A441 3/4" AND UNDER)
fs = 21,000 P.S.I. (A441 3/4" TO 1-1/2" INCL.)
fs = 20,000 P.S.I. (A441 1-1/2" TO 4" INCL.)

FILL LOADS
EQUIVALENT FLUID PRESSURE (EARTH)

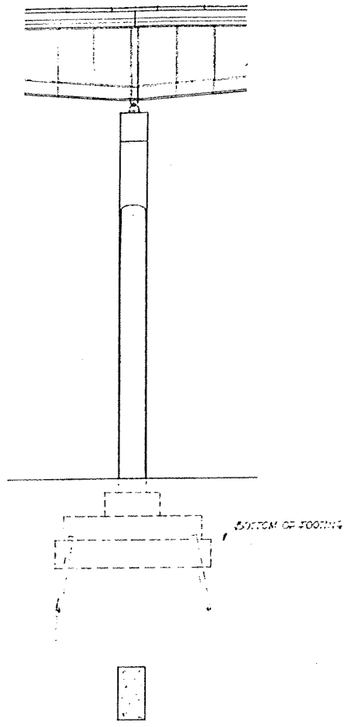
MAXIMUM DEFLECTION
Δ = L/1000 (NON-COMPOSITE)
Δ = L/1200 (COMPOSITE)

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(4)0
SECTION 06-1[illegible]R,FE
STATION [illegible]

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

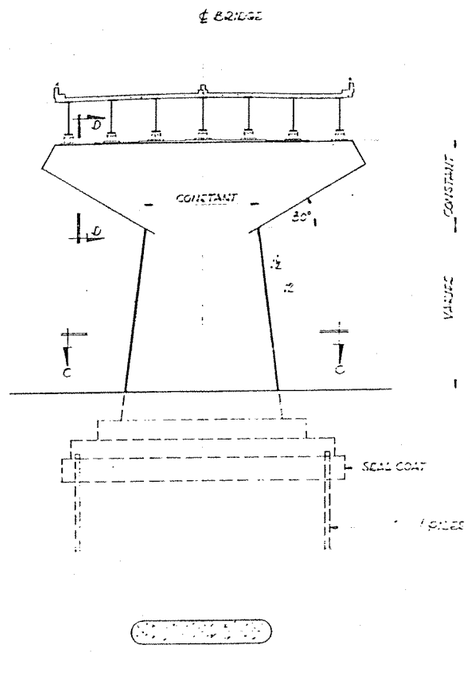


SECTION A-A

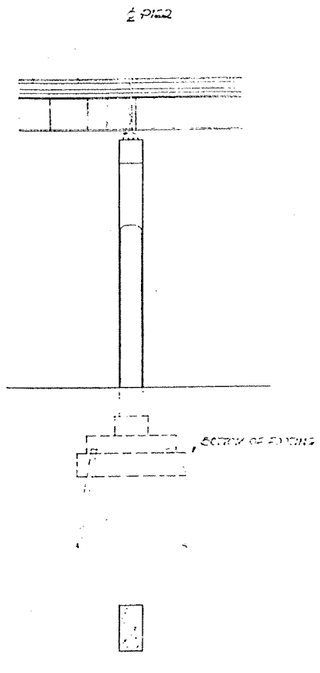


SECTION B-B

PIERS 1 TO 6 INCL.
SCALE: 1/8" = 1'-0"



SECTION C-C

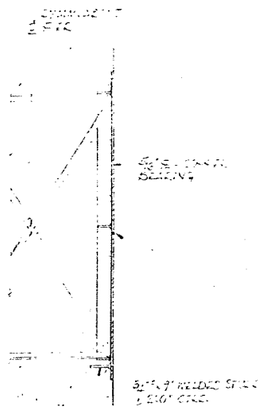


SECTION D-D

PIERS 7 TO 14 INCL.
SCALE: 1/8" = 1'-0"

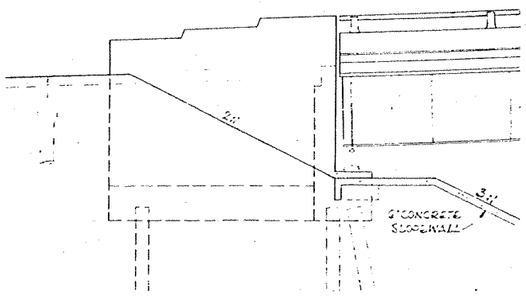
BOTTOM OF FOOTING ELEVATIONS ASSUMED

PIER NO.	BOTTOM OF FTG.
1	424
2	429
3	431
4	431
5	429
6	431
7	427
8	426
9	429
10	431
11	425
12	432
13	428
14	430

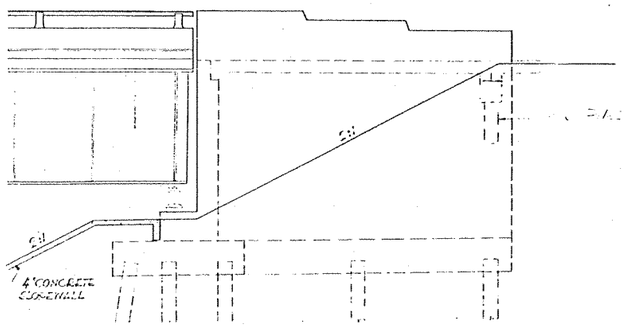


SECTION

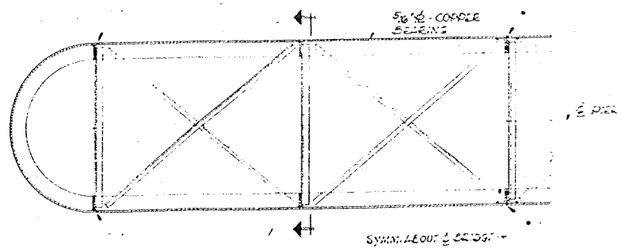
SCALE: 3/8" = 1'-0"



WEST ABUTMENT
SCALE: 3/16" = 1'-0"



EAST ABUTMENT
SCALE: 3/16" = 1'-0"

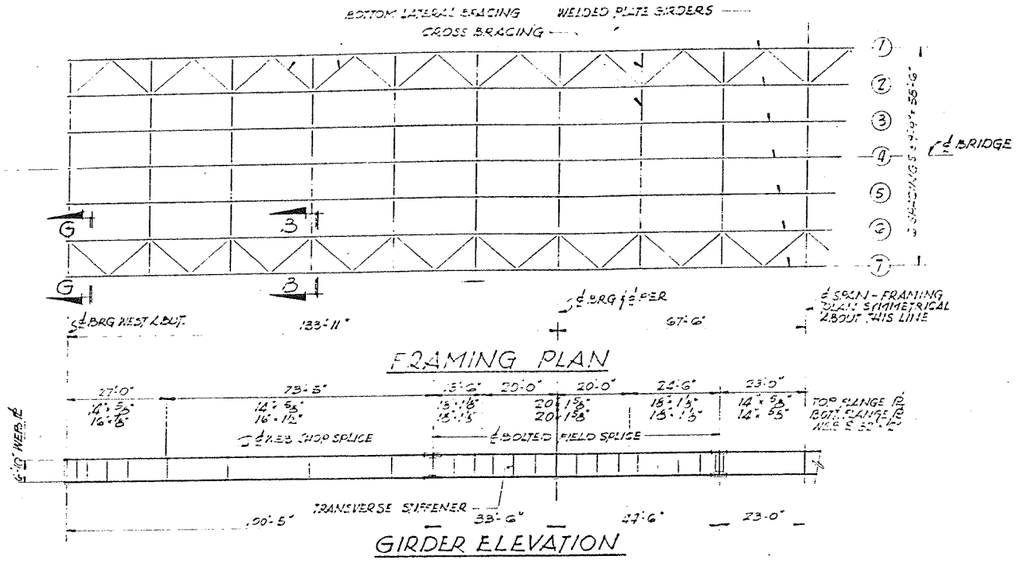


PROTECTION PLATE
SCALE: 1/8" = 1'-0"

TO BE FABRICATED UNDER SECTION (06-3,78-1)FAE AND ERECTED UNDER SECTION (06-3,78-1)B SEE SPECIAL PROVISIONS.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

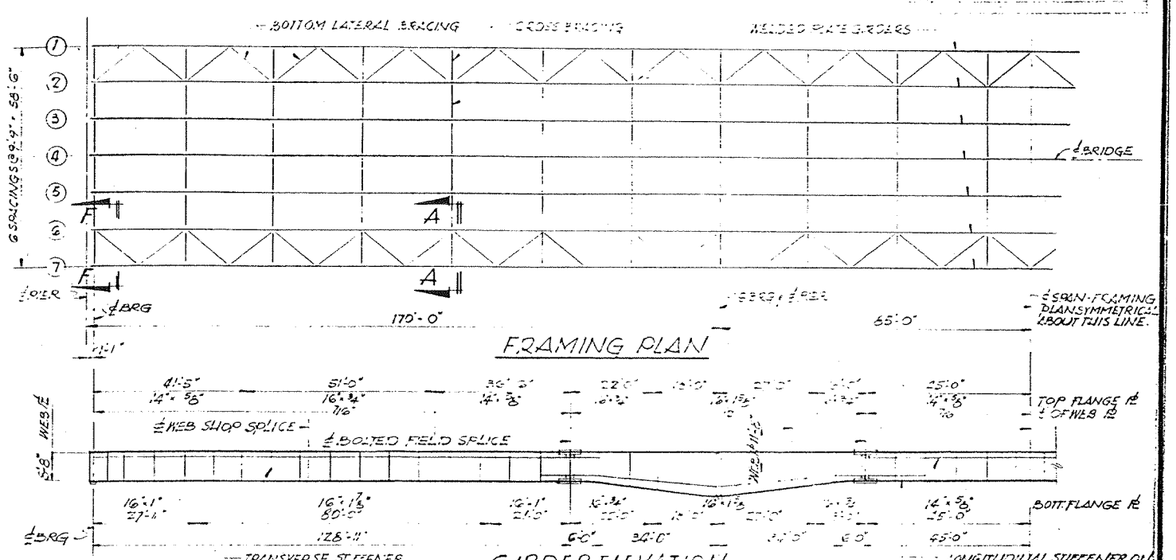
SUBSTRUCTURE-TYPICAL DETAILS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(4)0
SECTION (06-3, 78-1)B, FAE
BUREAU AND PUTNAM COUNTIES



FRAMING PLAN

GIRDER ELEVATION
(ALL MATERIAL TO BE A-36)

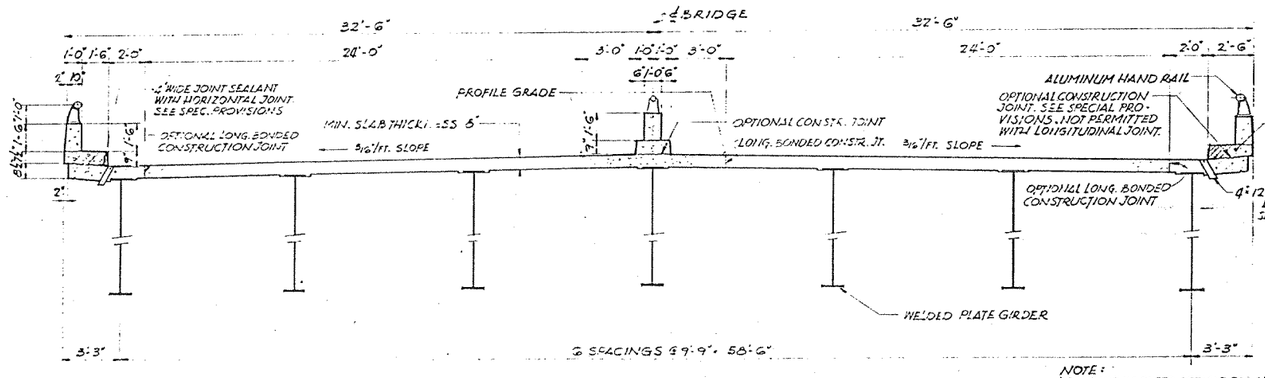
SPANS 13, 14 & 15
SCALE 1" = 20'-0"



FRAMING PLAN

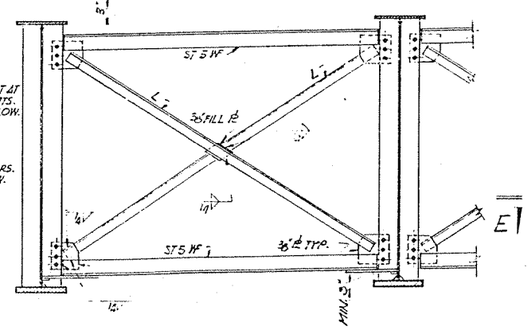
GIRDER ELEVATION
(ALL MATERIAL TO BE A-36)

SPANS 7 TO 12 INCL.
SCALE 1" = 20'-0"

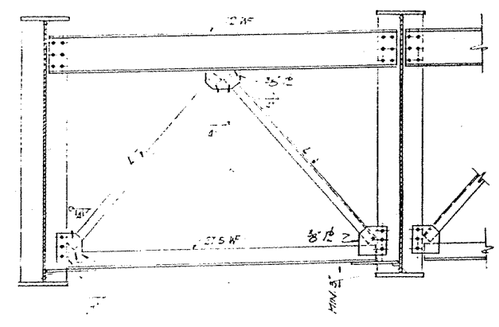


CROSS SECTION
TYPICAL FOR ALL SPANS
SCALE ½" = 1'-0"

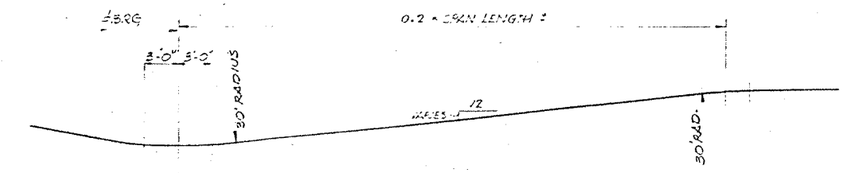
NOTE:
½" ALUMINUM SHEET ASTM-B 209 ALLOY 3003-H14. ALUMINUM FLOOR DRAIN WELDED OF ⅜" ALUM. SHEETS ASTM-B 209 ALLOY 6061-T6. COST OF ALUMINUM SHEETS AND DRAINS SHALL BE INCIDENTAL TO CLASS X CONCRETE.



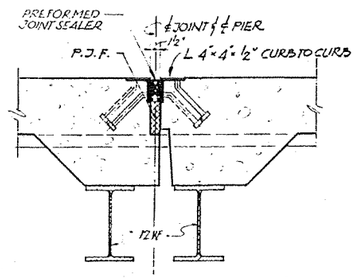
SECTION A-A
SECTIONS B-B, C-C & D-D SIMILAR



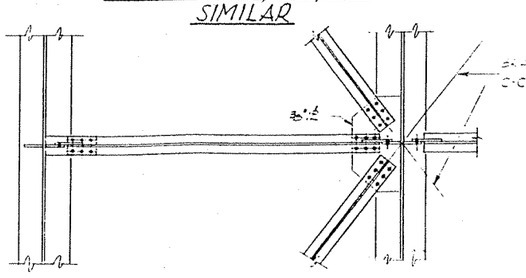
SECTION F-F
SECTIONS G-G, H-H, I-I SIMILAR



DETAIL OF HAUNCH



DECK DEFLECTION JOINT AT PIERS 1, 2, 4 & 5



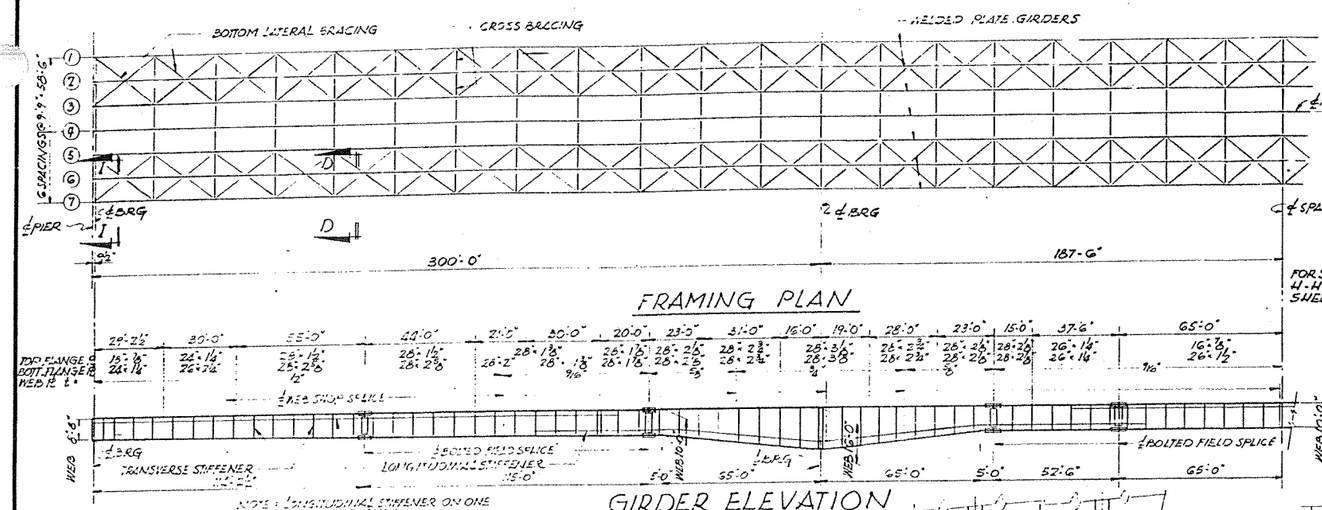
SECTION E-E

NOTE: SPAN LENGTH AND GIRDER SECTIONS SHOWN ARE APPROXIMATE.

SUPERSTRUCTURE - TYPICAL DETAILS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(4) 0
SECTION (06-378-1)B, F & E
BUREAU AND PUTNAM COUNTIES

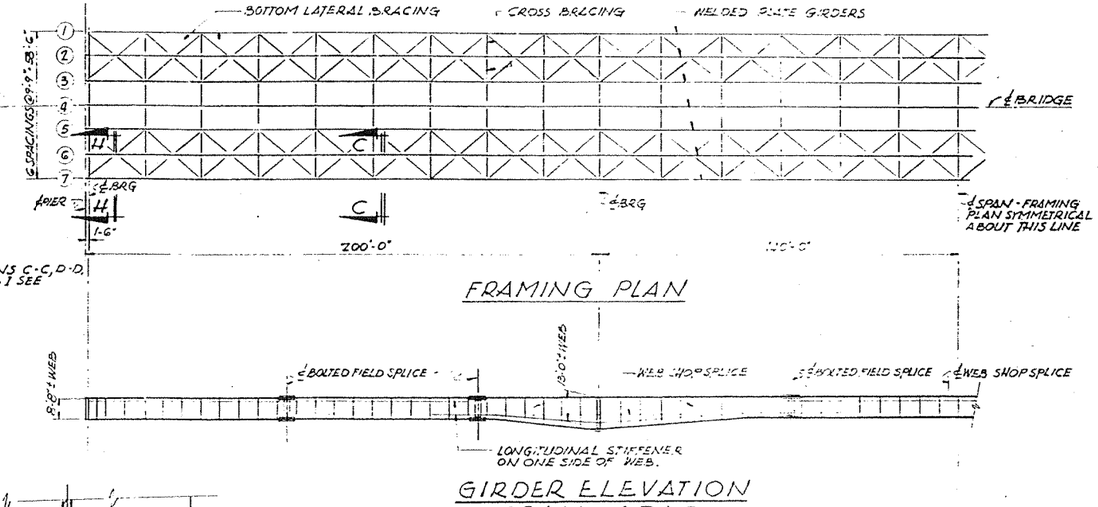
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 180 (106-3 78-1)	ILLINOIS	BUREAU-PUTNAM	12	5



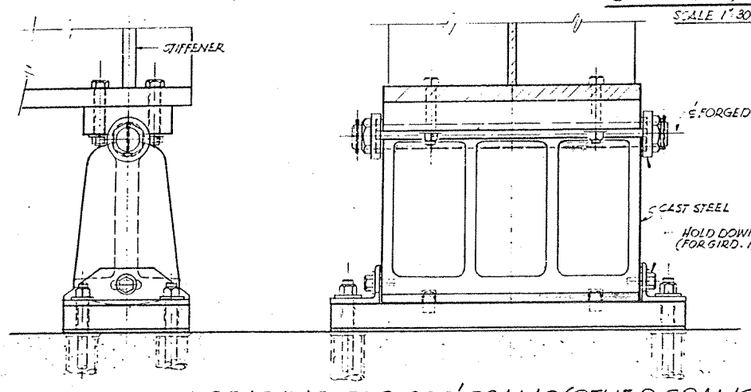
GIRDER ELEVATION SPANS 4, 5 & 6

SCALE 1"=30'-0"

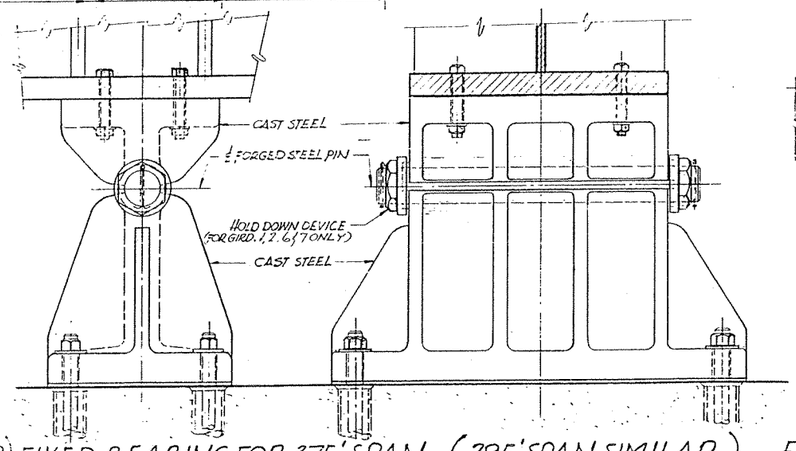


GIRDER ELEVATION SPANS 1, 2 & 3

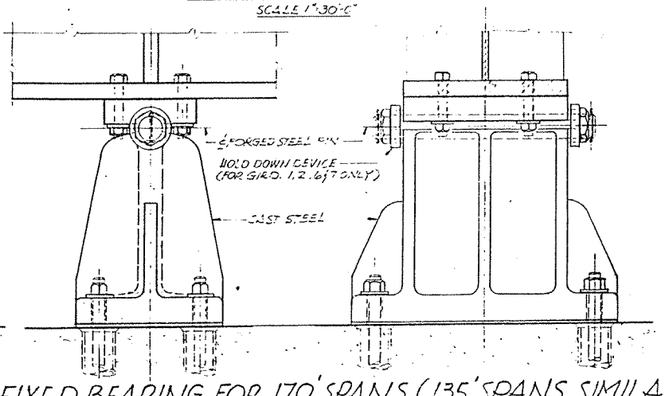
SCALE 1"=30'-0"



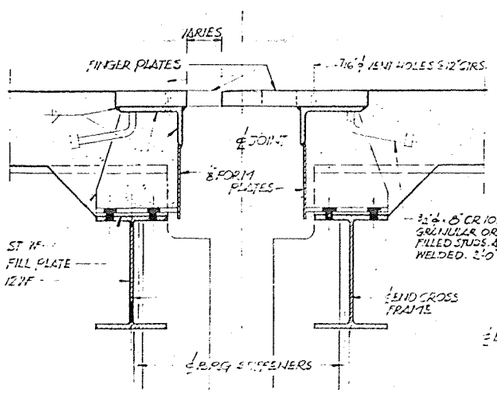
EXPANSION BEARING FOR 300' SPANS (OTHER SPANS SIMILAR)



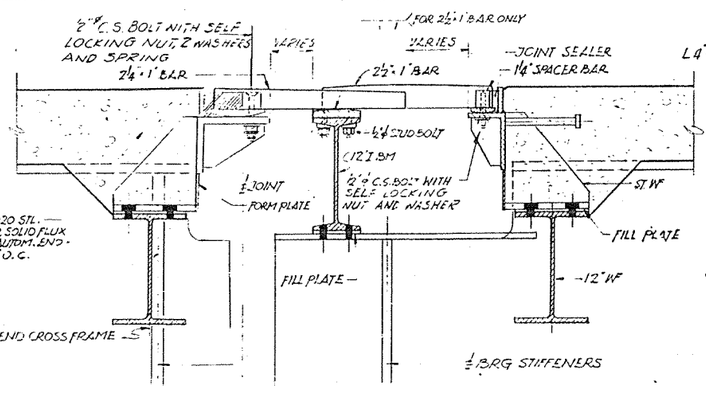
FIXED BEARING FOR 375' SPAN (295' SPAN SIMILAR)



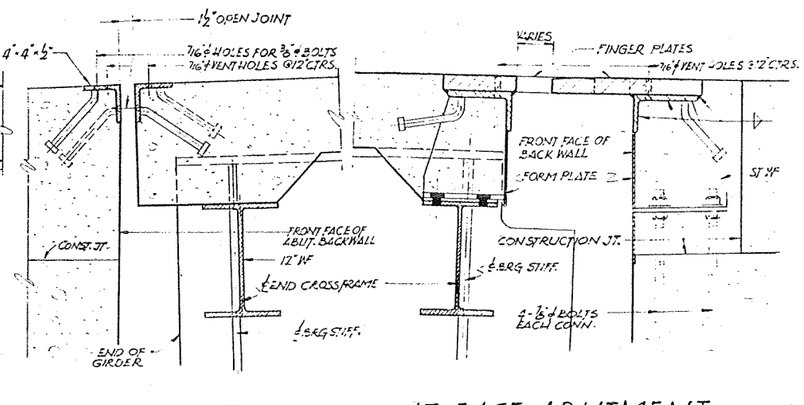
FIXED BEARING FOR 170' SPANS (135' SPANS SIMILAR)



AT PIERS 9 & 12



AT PIERS 3 & 6

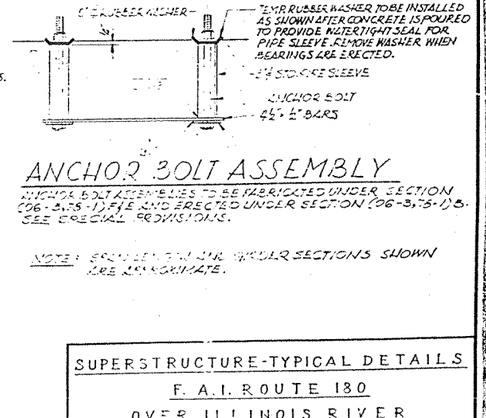


AT WEST ABUTMENT

AT EAST ABUTMENT

EXPANSION DEVICES

SCALE 1/2"=1'-0"



ANCHOR BOLT ASSEMBLY

ANCHOR BOLT ASSEMBLIES TO BE FABRICATED UNDER SECTION (06-3.15-1) F & E AND ERECTED UNDER SECTION (06-3.15-1) B. SEE SPECIAL PROVISIONS.

NOTE: SPACING FOR ANCHOR BOLTS SHOWN ARE APPROXIMATE.

SUPERSTRUCTURE-TYPICAL DETAILS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(4) 0
SECTION (06-3,7-8-1) E, F & E
BUREAU AND PUTNAM COUNTIES
STATION

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS

SOIL TEST BORINGS

ROUTE NO	SEC.	COUNTY	DIST.	SHEET
FAI180	06-3 78-1	BUREAU-PUTNAM	6	
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		TOT. SHEETS

B 0
EAST ABUTMENT

Surface Water El. ——
Groundwater El. at Completion 445
After —— Hours

Ground Surface 495±

Elevation	N	Qu t/s.f.	w (%)
490	6	2.?	19
	15	1.7	15
	22	-	10
480	21	-	-
	27	-	-
	27	-	-
470	26	-	-
	48	-	-
	27	-	-
	28	-	-
460	27	-	-
	31	-	-
	23	-	-
	28	-	-
450	30	-	-
	29	-	-
	32	-	-
	36	-	-
440	30	-	-
	32	-	-
	27	-	-
	21	-	-
430	18	-	-
	23	-	-
	36	-	-
	30	-	-
	47	-	-

Dark-brown sandy clay loam

Brown medium to coarse-grained sand with gravel

Brown medium to coarse-grained sand with gravel (Continued)

Brown coarse-grained sand with medium-grained gravel

End of Boring

B 1
PIER1

Surface Water El. 444.0
Groundwater El. at Completion 444.0
After —— Hours

Ground Surface 444.0 (River)

Elevation	N	Qu t/s.f.	w (%)
440	0	-	42
	0	-	45
430	0	-	50
	1/2"	-	43
	1/1"	-	36
	1	0.1	29
420	3	-	-
	6	-	-
	7	-	-
410	7	-	-
	8	-	-
	8	-	-
	14	-	-
400	16	-	-
	17	-	-
	15	-	-
	16	-	-
390	19	-	-
	21	-	-
	24	-	-
	18	-	-
380	20	-	-
	24	-	-
	170	4.5+	B

Water

Black organic silty clay loam

Gray-brown fine to medium-grained sand

Gray-brown coarse grained sand - some gravel

Gray-brown coarse grained sand

Gray-brown well-graded sand

Gray-brown well-graded sand (Continued)

Gray-brown coarse-grained sand with some gravel

Gray soft shale (augered)

Note A

Note B

Note B

Note B

Note B

Note B

Note C

Note D

Note E

Core - Hard shale. Contains numerous phosphatic nodules. 100 percent recovery.

End of Boring

B 2
PIER2

B 3
PIER3

Surface Water El. 443
Groundwater El. at Completion 443.0
After —— Hours

Ground Surface 443.0 (River)

Elevation	N	Qu t/s.f.	w (%)
440	1	-	60
	1	-	53
430	4	-	32
	6	-	-
	7	-	-
420	6	-	-
	8	-	-
	9	-	-
410	8	-	-
	11	-	-
	14	-	-
400	26	-	-
	30	-	-
	26	-	-
390	21	-	-
	11	-	-
	14	-	-
380	18	-	-
	19	-	-
	24	-	-
	A	4.5+	10

Water

Black organic silty clay loam

Gray black medium grained sand

Brown fine to medium-grained sand with gravel

Brown coarse-grained sand with gravel

Brown coarse-grained sand with gravel (Continued)

Gray clayey shale

End of Boring

Note A - 100 blows/4 inches

Surface Water El. 444.0
Groundwater El. at Completion 444.0
After —— Hours

Ground Surface 446.9

Elevation	N	Qu t/s.f.	w (%)
	4	1.0	38
	5	2	0.4	32
	2	0.3P	37
	3	0.3P	36
	2	0.2P	45
	3	0.2P	35
	4	-	
	5	-	
	6	-	
	7	-	
	8	-	
	7	-	
	6	-	
	6	-	
	8	-	
	7	-	
	8	-	
	11	-	
	13	-	
	14	-	
	17	-	
	22	-	
	26	-	
	25	-	
	27	-	
	39	-	
	50/4"	4.5+	6

Dark brown silty loam

Dark brown organic silty clay loam

Gray-black organic silty clay loam with occasional thin sand lenses

Dark gray sandy loam

Brown medium-grained sand

Gray-brown medium-grained sand

Brown medium to coarse-grained sand

Brown coarse-grained sand with occasional silty seams and gravel particles

Brown coarse-grained sand with occasional silty seams and gravel particles (Continued)

Gray-brown medium to coarse-grained sand with occasional gravel pockets

Gray clay shale - soft

Gray clay shale - weathered

Core - Gray clay shale. Upper 2 feet weathered. Occasional soft seams. 30 percent recovery.

Core - Gray clay shale, medium strength. 62 percent recovery.

End of Boring

B 4
PIER4

Surface Water El. 442.5
Groundwater El. at Completion 442.5
After —— Hours

Ground Surface 442.5 (River)

Elevation	N	Qu t/s.f.	w (%)
	1	-	38
20	4	-	25
	9	-	-
25	8	-	-
	13	-	-
30	12	-	-
	6	-	-
35	7	-	-
	17	-	-
40	15	-	-
	18	-	-
45	21	-	-
	17	-	-
	25	-	-
50	27	-	-
	28	-	-
55	29	-	-
	32	-	-
60	35	-	-
	A	-	9

Water

Black organic silty clay loam

Gray-brown medium-grained sand

Brown fine to medium-grained sand

Brown fine to medium-grained sand with some gravel

Gray-brown coarse-grained sand with gravel

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

B 5
PIER5

Surface Water 442.5
Groundwater El. at Completion 442.5
After —— Hours

Ground Surface 442.5

Elevation	N	Qu t/s.f.	w (%)
	1	-	84
	2	-	28
20	2	-	26
	3	-	28
25	3	-	27
	7	-	-
30	11	-	-
	18	-	-
35	22	-	-
	10	-	-
40	12	-	-
	14	-	-
45	18	-	-
	24	-	-
50	28	-	-
	22	-	-
55	24	-	-
	40	-	-
60	60	-	12
	A	4.5+	6

Water

Black organic silty clay loam

Gray sandy loam

Brown fine to medium-grained sand with gravel

Brown medium to coarse-grained sand with gravel

Brown medium to coarse-grained sand with gravel

Gray-brown medium-grained sand

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

B 6
PIER6

NOTES FOR B1

Note A - Core, gray clayey shale, soft with medium-hard layers. 70 percent recovery.

Note B - Gray clayey shale, soft with medium-hard layers, 100 percent recovery.

Note C - Core, medium to soft clayey shale. Upper 1.1' hard shale. 67 percent recovery.

Note D - Soft clayey shale interbedded with medium-hard shale. 83 percent recovery.

Note E - Hard shale. 100 percent recovery.

NOTES:

FIGURES IN COLUMN MARKED "N" INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE 2 INCH O.D. SPLIT SPOON SAMPLER 12" WITH 140 LB. HAMMER FALLING 30 INCHES.

"Qu" INDICATES THE UNCONFINED COMPRESSIVE STRENGTH IN TONS PER SQUARE FOOT, AS DETERMINED IN THE FIELD ON THOSE SAMPLES SUITABLE FOR TESTING.

"w" INDICATES WATER CONTENT IN PERCENTAGE OF OVEN DRY WEIGHT.

BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WACKER AVENUE

BORINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F.A. PROJECT I-180-7(4)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+10±

	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 180 (06-3, 78-1)	BUREAU-PUTNAM	12	7

SOIL TEST BORINGS

B 7 / PIER 7

Surface Water El. ——
Groundwater El. at Completion 443
After ___ Hours ——

Ground Surface 443.5±

Brown sandy loam

Gray silty loam

Gray-brown coarse-grained sand to sandy loam with some gravel

Small boulders

Large gravel & boulders

Gray silty loam

Gray-brown medium to coarse-grained sand-gravel with occasional silty clay seams

Gray-brown medium to coarse-grained sand-gravel with occasional silty clay seams

Gray clayey shale

End of Boring

Note A - 100 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
440	2	-	38
	3	-	44
	2	-	38
	4	-	34
430	7	-	-
	16	-	-
	21	-	-
	26	-	-
420	27	-	-
	31	-	-
	19	-	-
	11	0.6	23
410	8	0.5	18
	7	0.5	20
	13	-	-
400	20	-	-
	40	-	-
	48	-	-
	38	-	-
	39	-	-
390	52	-	-
	A	4,5+P	8

B 8 / PIER 8

Surface Water El. ——
Groundwater El. at Completion 443
After ___ Hours ——

Ground Surface 444.0+

Black organic silty loam with decaying wood particles

Gray silty clay

Gravel

Gray coarse-grained sand and gravel with occasional silty clay seams

Gray-brown medium to coarse grained sand to sandy loam with some gravel

Large gravel

Gray silty loam

Gray medium to coarse sand-gravel with occasional silty clay seams

Gray medium to coarse sand-gravel with occasional silty clay seams

Boulders

Boulders

Gray silty clayey shale

End of Boring

Note A - 100 blows/5 inches
Note B - 100 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	3	0.2P	57
	3	0.2P	55
	5	0.5P	42
	7	0.4P	36
	15	-	30
	23	-	-
	18	-	-
	21	-	-
	18	-	-
	20	-	-
	24	-	-
	26	-	-
	37	-	-
	10	0.4	33
	14	0.9	32
	10	0.8	24
	8	0.3P	26
	27	-	-
	28	-	-
	30	-	-
	39	-	-
	40	-	-
	A	4.5+P	10
	B	4,5+P	6

B 9 / PIER 9

Surface Water El. ——
Groundwater El. at Completion 442
After ___ Hours ——

Ground Surface 443.5+

Black organic silty loam

Gray-brown silty loam

Brown medium-grained sand and gravel with occasional boulders

Gray silty clay

Gray medium to coarse sand-gravel with occasional silty clay seams

Gray medium to coarse sand-gravel with occasional silty clay seams (Continued)

Gray silty, clayey shale

End of Boring

Note A - 100 blows/6 inches
Note B - 100 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
	3	0.1	56
	4	0.4	40
	6	0.9	32
	5	0.3	38
	17	-	-
	13	-	-
	22	-	-
	24	-	-
	27	-	-
	35	-	-
	31	-	-
	12	0.9	23
	17	1.0	18
	40	-	-
	32	-	-
	36	-	-
	41	-	-
	31	-	-
	29	-	-
	29	-	-
	33	-	-
	36	-	-
	A	4.5	11
	B	4,5	9

B 10 / PIER 10

Surface Water El. ——
Groundwater El. at Completion 443±
After ___ Hours ——

Ground Surface 444.0+

Black organic silty loam

Gray-brown silty loam

Gray-brown medium-grained sand-gravel with silty clay seams

Brown medium-grained sand-gravel with occasional boulders

Gray coarse-grained sand and gravel with silty clay seams and occasional small boulders

Gray silty clay with occasional small pebbles

Gray silty, clayey shale

End of Boring

Note A - 100 blows/3 inches
Note B - 100 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	5	0.2P	54
	6	0.4	25
	5	-	26
	2	-	24
	19	-	19
	12	-	15
	20	-	-
	28	-	-
	29	-	-
	35	-	-
	40	-	-
	32	-	-
	36	-	-
	40	-	-
	31	-	-
	34	-	-
	14	0.4P	19
	17	0.8	21
	20	1.0	19
	24	0.9	20
	21	1.7	20
	22	1.0	17
	20	0.6	21
	A	4.5+P	8
	B	4.5+P	7

B 11 / PIER 11

Surface Water El. ——
Groundwater El. at Completion 443.5
After ___ Hours ——

Ground Surface 444.0+

Gray-black organic silty loam

Gray-brown silty loam

Gray-brown fine to medium-grained sand with gravel

Large Boulders

Brown fine to medium-grained sand with gravel

Boulders

Gray-brown medium to coarse-grained sand and gravel with silty clay seams and occasional small boulders

Gray-brown medium to coarse-grained sand and gravel with silty clay seams and occasional small boulders (Continued)

Gray coarse grained sand-gravel with silty clay seams

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches
Note B - 100 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.1	57
	7	0.4	32
	4	0.3	23
	4	-	-
	4	-	-
	19	-	-
	18	-	-
	17	-	-
	9	-	-
	10	-	-
	28	-	-
	32	-	-
	33	-	-
	33	-	-
	30	-	-
	33	-	-
	27	-	-
	11	-	-
	16	-	-
	13	-	-
	A	4.5+P	9
	B	4.5+P	8

B 12 / PIER 12

Surface Water El. ——
Groundwater El. at Completion 443
After ___ Hours ——

Ground Surface 447.0+

Black organic silty clay loam, decayed vegetable matter

Dark brown silty loam

Gray-brown silty loam to sandy loam with thin silty clay seams

Gray-brown medium to coarse-grained sand and gravel with silty clay seams

Gray silty clay with numerous pebbles

Gray silty clay with sand-gravel particles

Gray silty clay with sand-gravel particles (Continued)

Gray medium to coarse-grained sand-gravel with silty clay seams

Gray clayey shale

End of Boring

Note A - 180 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.8	53
	2	0.9	49
	3	0.9	45
	4	1.2	27
	4	0.9	28
	3	0.8	27
	2	0.4	27
	3	0.4	28
	10	0.8	29
	18	-	26
	21	1.3	25
	26	3.1	17
	29	4.1	13
	32	6.0	13
	36	6.1	12
	42	6.6	12
	30	-	27
	16	3.8	15
	23	-	13
	42	-	13
	44	-	-
	40	-	-
	A	4.5+P	8

B 13 / PIER 13

Surface Water El. ——
Groundwater El. at Completion 443
After ___ Hours ——

Ground Surface 447.0+

Black organic silty loam

Brown-grey silty loam

Grey-brown silty clay

Gray-brown medium to coarse sand-gravel with occasional clay seams

Gray-brown fine-grained sand with some gravel

Gray coarse-grained sand-gravel with occasional boulders

Gray coarse-grained sand-gravel with occasional boulders

Gray clayey shale

End of Boring

Note A - 100 blows/2 inches
Note B - 120 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	5	0.6	27
	3	0.4	38
	2	0.4	36
	6	0.7	26
	5	0.6	28
	5	0.6	29
	5	0.7	27
	6	0.9	25
	4	-	-
	12	-	-
	8	-	-
	11	-	-
	19	-	-
	26	-	-
	19	-	-
	17	-	-
	21	-	-
	24	-	-
	22	-	-
	23	-	-
	31	-	-
	A	4,5+P	10
	B	4,5+P	7

FOR NOTES SEE SHEET 9

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
CHICAGO, ILLINOIS

BORINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A. PROJECT I-180-7(4) 0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION 69+10±

SOIL TEST BORINGS

FAI 180	SEC. (06-3, 78-1)	COUNTY BUREAU-PUTNAM	TOTAL SHEETS 12	SHEET NO. 8

B 14
PIER 14

Surface Water El. ——
Groundwater El. at Completion 442
After —— Hours ——

Ground Surface 444.0

Black silty clay loam (organic)

Gray-brown silty loam

Gray-brown silty clay

Gray silt

Gray fine to medium-grained sand with some gravel

Gray medium to coarse sand-gravel with occasional boulders

Gray medium to coarse sand-gravel with occasional boulders (Continued)

Gray clayey shale

End of Boring

Note A - 100 blows/4 inches
Note B - 100 blows/2 inches

Elevation	N	Qu t/s.f.	w (%)
	3	0.1	35
5	3	0.2	26
	4	0.4	28
10	7	0.9	25
	5	0.6	29
15	5	0.6	26
	4	0.5	25
20	4	0.2	25
	20	-	-
25	14	-	-
	19	-	-
30	23	-	-
	27	-	-
35	28	-	-
	23	-	-
40	20	-	-
	31	-	-
45	36	-	-
	38	-	-
50	54	-	-
	37	-	-
55	A	4.5+P	8
	B	4.5+P	7

B 15
WEST ABUTMENT

Surface Water El. ——
Groundwater El. at Completion 442
After —— Hours ——

Ground Surface 444.0

Black organic silty clay

Gray-brown silty loam

Gray-brown silty clay

Brown silty loam to sandy loam

Gray very-fine grained sand (silty)

Gray fine to medium grained sand with some gravel

Boulders

Gray medium to coarse grained sand-gravel with silty clay seams

Gray medium to coarse grained sand-gravel with silty clay seams (Continued)

Gray weathered shale

End of Boring

Note A - 100 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	6	0.4	40
5	5	0.6	27
	9	1.1	26
10	5	0.8	28
	4	0.7	29
15	3	0.3	32
	4	0.3	26
20	2	0.1	28
	3	-	-
25	4	-	-
	6	-	-
30	5	-	-
	25	-	-
35	18	-	-
	35	-	-
40	38	-	-
	30	-	-
45	31	-	-
	37	-	-
50	30	-	-
	78	4.5+P	13
55	A	4.5+P	7

B 16
STA. 48+75±

Surface Water El. ——
Groundwater El. at Completion 442.5
After —— Hours ——

Ground Surface 444.0±

Brownish-black organic silty clay loam

Brown-gray silty loam

Gray-brown silty loam to sandy loam

Brown medium-grained sand-gravel

Gray medium to coarse sand-gravel with occasional boulders

Gray medium to coarse sand-gravel with occasional boulders

Gray clayey shale

End of Boring

Note A - 100 blows/6 inches
Note B - 120 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	4	0.6	41
5	6	0.9	38
	4	0.7	48
10	7	1.0	35
	8	0.9	28
15	6	0.6	27
	3	-	28
20	4	-	-
	4	-	-
25	16	-	-
	18	-	-
30	34	-	-
	28	-	-
35	38	-	-
	27	-	-
40	34	-	-
	37	-	-
45	33	-	-
	40	-	-
50	A	4.5+P	10
	B	4.5+P	7

B 17
STA. 47+50±

Surface Water El. ——
Groundwater El. at Completion 442
After —— Hours ——

Ground Surface 445.0

Brownish-black silty loam, some organic matter

Brown silty clay loam with traces of sand

Gray very fine grained sand

Gray medium to coarse-grained sand-gravel with occasional boulders.

Dense gravel

Gray weathered shale

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.2	49
5	3	0.4	25
	3	0.9	25
10	8	1.8	23
	5	1.1	29
15	4	0.6	30
	3	0.4	27
20	2	0.2	34
	3	-	-
25	3	-	-
	8	-	-
30	13	-	-
	17	-	-
35	21	-	-
	24	-	-
40	29	-	-
	52	-	-
45	33	-	-
	36	-	-
50	30	-	-
	83	4.5+	12
55	A	4.5+	8

B 18
STA. 46+25±

Surface Water El. ——
Groundwater El. at Completion 443
After —— Hours ——

Ground Surface 448+

Black organic silty clay loam

Gray-brown silty loam

Gray silty clay

Gray fine to medium-grained sand

Gray-brown medium to coarse sand with some gravel

Gray-brown medium to coarse sand with some gravel

Gray coarse-grained sand-gravel with occasional silty clay seams

Gray clayey shale

End of Boring

Note A - 100 blows/4 inches

Elevation	N	Qu t/s.f.	w (%)
	5	1.2	37
5	2	0.4	33
	3	0.6	27
10	2	0.5	29
	3	0.6	34
15	3	0.6	23
	3	0.7	35
20	2	0.5	28
	2	0.4	25
25	3	-	23
	8	-	-
30	12	-	-
	13	-	-
35	41	-	-
	21	-	-
40	26	-	-
	23	-	-
45	32	-	-
	37	-	-
50	91	-	-
	53	-	-
55	63	-	-
	A	4.5+P	10

B 19
STA. 45+00 ±

Surface Water El. ——
Groundwater El. at Completion 442
After —— Hours ——

Ground Surface 444+

Dark brown organic silty clay loam

Gray-brown silty loam

Gray-brown silty clay loam

Gray fine to medium-grained sand and gravel

Gray medium to coarse grained sand and gravel

Boulders

Gray medium to coarse-grained sand and gravel (Continued)

Gray coarse-grained sand-gravel with some clayey seams

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.1	55
5	5	0.6	32
	3	0.3	34
10	5	0.4	26
	6	0.7	23
15	6	0.7	25
	7	0.9	22
20	5	0.6	26
	4	0.3	27
25	6	-	-
	14	-	-
30	12	-	-
	19	-	-
35	22	-	-
	31	-	-
40	40	-	-
	41	-	-
45	68	-	-
	45	-	-
50	67	-	-
	52	-	-
55	49	-	-
	A	4.5+P	9

B 20
STA. 43+75±

Surface Water El. ——
Groundwater El. at Completion 442
After —— Hours ——

Ground Surface 444.0±

Gray-black organic silty loam

Gray silty loam

Gray-brown fine to medium grained sand

Gray silt to very fine-grained sand

Gray medium to coarse-grained sand with gravel

Gray medium to coarse-grained sand with silty clay seams and gravel

Gray clayey shale

End of Boring

Note A - 100 blows/3 inches

Elevation	N	Qu t/s.f.	w (%)
	2	0.1	49
5	2	0.3	29
	2	-	-
10	3	-	-
	6	-	-
15	12	-	-
	11	-	-
20	13	-	-
	13	-	-
25	12	-	-
	12	-	-
30	21	-	-
	16	-	-
35	20	-	-
	22	-	-
40	29	-	-
	36	-	-
45	46	-	-
	30	-	-
50	24	-	-
	28	-	-
55	31	-	-
	A	4.5+P	8

440
430
420
410
400
390

FOR NOTES SEE SHEET 9

ALFRED BENESCH & COMPANY
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

BORINGS
F. A. I. ROUTE 180
OVER ILLINOIS RIVER
F. A PROJECT 1-180-7(4)0
SECTION (06-3,78-1)B
BUREAU AND PUTNAM COUNTIES
STATION ——

ROUTE	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 180	(06-3, 78-1)	BUREAU-PUTNAM	12	9

BEGIN PROJECT
SECTION (06-3, 78-1) B
PROJECT I-180-7(4) 0
STATION 50+15.58

END PROJECT
SECTION (06-3, 78-1) B
PROJECT I-180-7(4) 0
STATION 80+98.25

SECTION A-A

SECTION B-B

PAVEMENT, SUBBASE & SHOULDERS BY OTHERS

EMBANKMENT BY BRIDGE CONTRACTOR

LIMITS OF POROUS GRANULAR EMB.

EMBANKMENT BY BRIDGE CONTRACTOR E.EV. 645.0

EXIST. ILL. RTE. 71 STRUCT. TO REMAIN IN PLACE

VILLAGE OF HENNEPIN

SEC. 28 T15N R10E 4 P.M.

SEC. 9 T15N R10E / SEC. 10 T15N R10E

E.C.H. 1 (FAS. 255)

DRENNEN

BUREAU CO.

PUTNAM CO.

DORE ET AL.

ILLINOIS POWER CO. TRANS. LINE

ILLINOIS GWIRE

ILLINOIS RIVER

HENNEPIN ISLAND

SANDBERG

O'CONNOR

MARY POLTER

ILLINOIS GRAIN TERMINAL

JONES & LAUGHLIN STEEL CORP.

F. BOGGIO

F&P O'CONNO

P.V.I. STA. 78+79.00
ELEV. 538.63
(700' V.C.)
(600' SSD)
(60 M.P.H.)

P.V.I. STA. 48+31.33
EL. 462.00
700' V.C.

P.V.I. STA. 50+50
ELEV. 538.30
(700' V.C.)
(70 M.P.H.)

+ BACK OF ABUTMENT STA. 50+15.58

+ BACK OF ABUTMENT STA. 80+98.25

EMBANKMENT SECTION (06-3, 78-1)B

+3.00%

-3.00%

+2.20%

PROFILE GRADE LINE

LOW STEEL ELEV. 500.8

350' MINIMUM CLEARANCE

HIGH WATER ELEV. 454.6 (1938)

PROJECT POOL ELEV. 440.0

EXISTING GROUND LINE

HENNEPIN ISLAND

UNSUITABLE MATERIAL EXCAVATION AND POROUS GRANULAR EMBANKMENT SECTION (06-3, 78-1) B

NOTE:
EMBANKMENT TO BE CONSTRUCTED FROM BOUNDOR OBTAINED BY CONTRACTOR FOR SECTION (06-3, 78-1) B.

MAIN CHANNEL

SECONDARY CHANNEL

546
520
500
480
460
440
420
400

46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98

GENERAL PLAN AND PROFILE

F.A.I. ROUTE 180

OVER ILLINOIS RIVER

F.A. PROJECT I-180-7(4)0

SECTION (06-3,78-1)B

BUREAU AND PUTNAM COUNTIES

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS