INDEX TO SHEETS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDIN
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	NO.
122	42B-11 42F-11 42E-11 42P-11	COOK	30	
THIS ROAD IMP. NO.	ILLINOIS	PROJECT	U.I.-246(1)	

SCALES

PLAN	1 INCH	100 FT.
PROFILE HOR.	1 INCH	100 FT.
PROFILE VERT.	1 INCH	10 FT.
CROSS SECTIONS	1 INCH	5 FT.

F.A.R.T. 122 SECTION 42B-11, 42F-11, 42E-11 & 42P-11 COOK COUNTY
PROJECT U.I.-246(1)

SUMMARY OF QUANTITIES

Section 42B-11

51,200	Cu Yds	Borrow Excavation
42,680	Cu Yds	Compaction by Watersoaking
336	Cu Yds	Handrail Concrete
8493.7	Cu Yds	Class X Concrete
483450	Lbs	Reinforcement Bars
12.00	Lbs	Structural Carbon Steel
33420	Lin. Ft	Furnish Steel Piles
20320	Lin Ft	Driving Steel Piles 40 ft long
6000	Lin Ft	Driving Steel Piles 30 ft long
7100	Lin. Ft	Driving Steel Piles 25 ft long
1540	Lin Ft	Furnishing Treated Piles 25 ft to 38
1540	Lin Ft	Driving Timber Piles 35 feet long
10	Each	Steel Test Piles
10	Each	Emergency Splices
6980	Ft B.M.	Creosoted Lumber
130	Each	Expansion Bolts
227	Lbs	Hardware

Section 42F-11

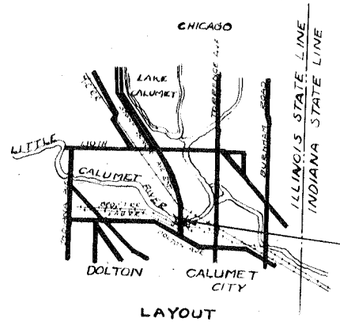
3486020	Lbs	Structural Carbon Steel
879,580	Lbs	Structural Silicon Steel
14,000	Lbs	Cast Steel

Section 42E-11

2552	Cu Yds	Class X Concrete
88270	Lbs	Reinforcement Bars
3486,020	Lbs	Structural Carbon Steel
879,580	Lbs	Structural Silicon Steel
14,000	Lbs	Cast Steel
62,850	Sq Ft	Open Steel Floor

Section 42P-11

4,380,800	Lbs	Painting Structural Steel
62,850	Sq Ft	Painting Open Steel Floor



LAYOUT

Approx Scale 1" = 1.6 Miles

N

Section 42B-11
Includes the construction of the substructure for two parallel bridges; I Beam spans, 4@ 57'-4", 2@68'-10" and one (1) steel truss Span @ 420', each bridge at Sta 721+54.39 over Little Calumet River at 140th St in Calumet City

Section 42F-11
Includes furnishing and fabricating the structural steel and cast steel for the unloading point at Calumet City for two parallel bridges, I-beam spans 4@57'-4", 2@68'-10" and 1-steel truss span@420, each bridge, at Sta 721+54.39 over Little Calumet River at 140th Street in Calumet City.

Section 42E-11
Includes unloading transporting from the unloading point at Calumet City to the bridge site and erection of fabricated structural steel and cast steel, furnishing and erection of open steel floor, construction of curbs and sidewalks, furnishing and applying the grout keyway to all abutments for the superstructures for two(2) parallel bridges, I beam spans 4@57'-4", 2@68'-10" and 1 steel truss span @ 420', each bridge, at Sta 721+54.39 over Little Calumet River, at 140th Street in Calumet City

Section 42P-11
Includes the furnishing and applying the field coats of paint to two(2) parallel bridges, I beam spans, 4@57'-4", 2@68'-10" and one Steel truss span @ 420', each bridge, at Sta 721+54.39 over Little Calumet River at 140th St in Calumet City

LOCATION OF SECTION INDICATED THUS:—

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

SUBMITTED Sept 19, 1949 — C. H. APPLE
EXAMINED 9-23-49 — DISTRICT ENGINEER
PASSED 9-23-1949 — ROAD ENGINEER
APPROVED 9-23-49 — ENGINEER OF DESIGN
APPROVED 9-23-49 — STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL DATE

DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
U.S. DEPARTMENT OF COMMERCE

APPROVED DATE

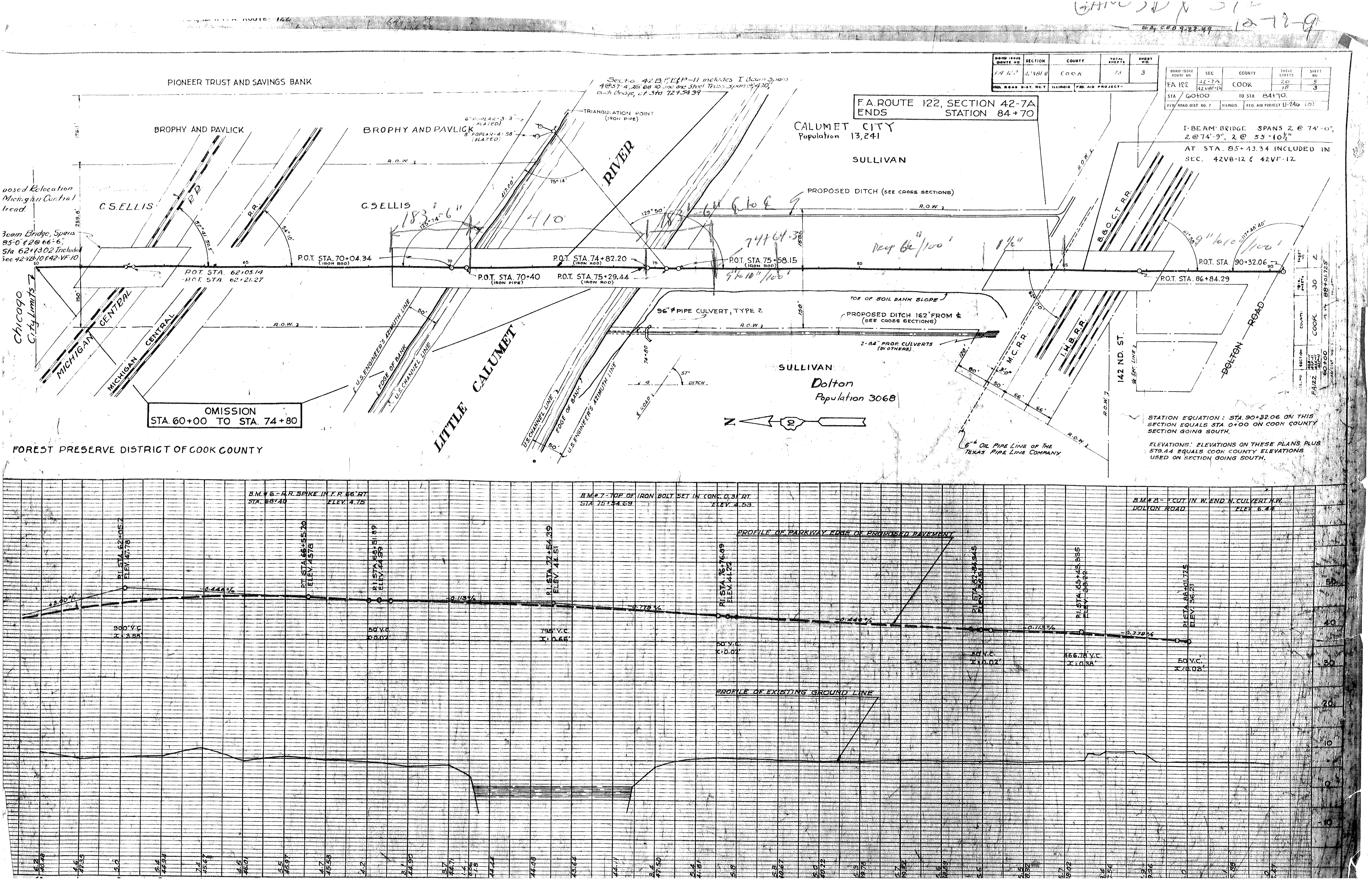
DIVISION ENGINEER
BUREAU OF PUBLIC ROADS
U.S DEPARTMENT OF COMMERCE

Bridges over little Cal River

ORIGINAL
016-0158
0159

Marked

016-0160


F.A. ROUTE 122, SECTION 42-7A ENDS STATION 84+70
FA 122 | 42-7A 42VB-12 | COOK | 20 18 | 5 3
STA 60+00 TO STA 84+70
FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT U-246
PIONEER TRUST AND SAVINGS BANK
BROPHY AND PAVLICK
C.S.ELLIS
CALUMET CITY
Population 13,241
SULLIVAN
PROPOSED DITCH (SEE CROSS SECTIONS)
TRIANGULATION POINT (IRON PIPE)
RIVER
LITTLE CALUMET
MICHIGAN CENTRAL
Chicago City Limits
OMISSION STA. 60+00 TO STA. 74+80
FOREST PRESERVE DISTRICT OF COOK COUNTY
P.O.T. STA. 62+05.14
P.O.T. STA. 62+21.27
P.O.T. STA. 70+04.34 (IRON ROD)
P.O.T. STA. 70+40 (IRON PIPE)
P.O.T. STA. 74+82.20 (IRON ROD)
P.O.T. STA. 75+29.44 (IRON ROD)
P.O.T. STA. 75+58.15 (IRON ROD)
P.O.T. STA. 86+84.29
P.O.T. STA. 90+32.06
96" PIPE CULVERT, TYPE 2
PROPOSED DITCH 162' FROM ℄ (SEE CROSS SECTIONS)
TOE OF SOIL BANK SLOPE
2-84" PROP. CULVERTS (BY OTHERS)
U.S. ENGINEER'S AZIMUTH LINE
EDGE OF BANK
U.S. CHANNEL LINE
SULLIVAN
Dolton
Population 3068
B.&O.C.T. R.R.
M.C.R.R.
I.H.B.R.R.
142 ND. ST.
DOLTON ROAD
6" OIL PIPE LINE OF THE TEXAS PIPE LINE COMPANY
I-BEAM BRIDGE SPANS 2 @ 74'-0", 2 @ 74'-9", 2 @ 55'-10½" AT STA. 85+43.34 INCLUDED IN SEC. 42VB-12 & 42VF-12
STATION EQUATION: STA. 90+32.06 ON THIS SECTION EQUALS STA. 0+00 ON COOK COUNTY SECTION GOING SOUTH.
ELEVATIONS: ELEVATIONS ON THESE PLANS PLUS 579.44 EQUALS COOK COUNTY ELEVATIONS USED ON SECTION GOING SOUTH.
B.M.#6 - R.R. SPIKE IN F.P. 66' RT. STA. 68+40 ELEV. 4.75
B.M.#7 - TOP OF IRON BOLT SET IN CONC. 0.31' RT. STA 75+54.69 ELEV. 4.53
B.M.#8 - CUT IN W. END N. CULVERT H.W. DOLTON ROAD ELEV. 6.44
PROFILE OF PARKWAY EDGE OF PROPOSED PAVEMENT
PROFILE OF EXISTING GROUND LINE
P.I. STA. 62+05.2 ELEV. 47.78
P.T. STA. 66+55.20 ELEV. 45.78
P.I. STA. 68+31.89 ELEV. 44.99
P.I. STA. 72+54.39 ELEV. 44.51
P.I. STA. 76+76.89 ELEV. 41.22
P.I. STA. 82+84.845 ELEV. 38.51
P.I. STA. 85+43.335 ELEV. 38.22
P.I. STA. 88+01.725 ELEV. 36.21
900' V.C.
795' V.C.
50' V.C.
466.78' V.C.
-0.446%
-0.113%
-0.779%
-0.448%
-0.113%
-0.779%

B.M. #6 R.R. Spike in Power Pole 66' Rt. Sta. 68+40 Elev. + 4.75

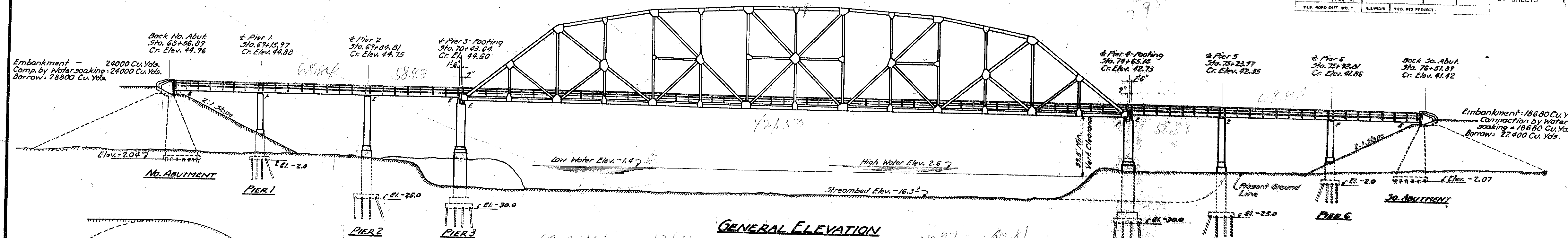
No Existing Structure.

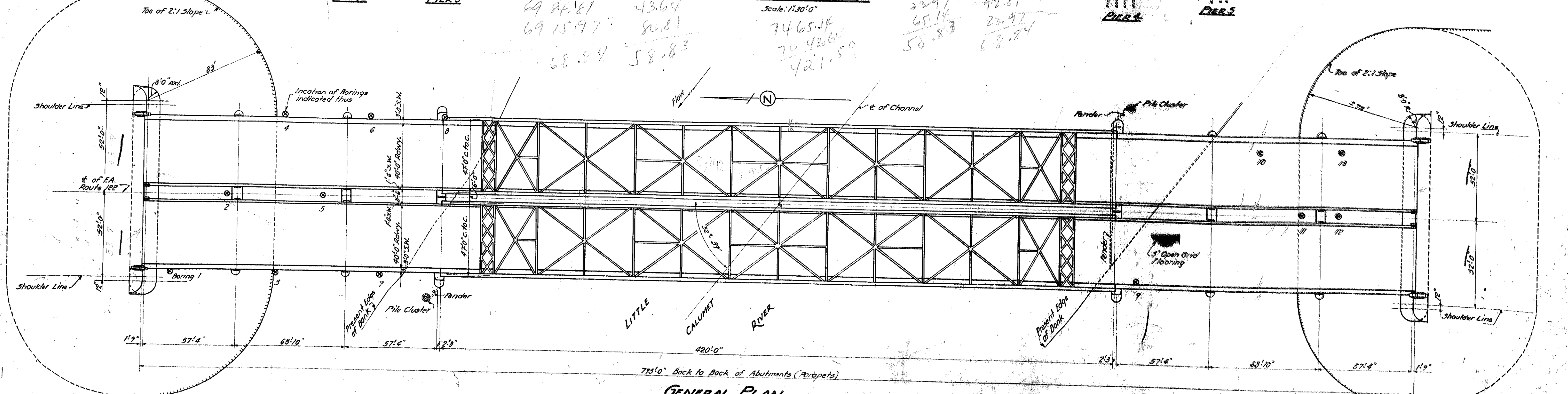
All elevations on plans are to Chicago City Datum. Low Water -1.4 Chicago City Datum, equals Low Water Datum 0.0 on War Department Instrument & equals elevation 578.5 Mean Tide New York.

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

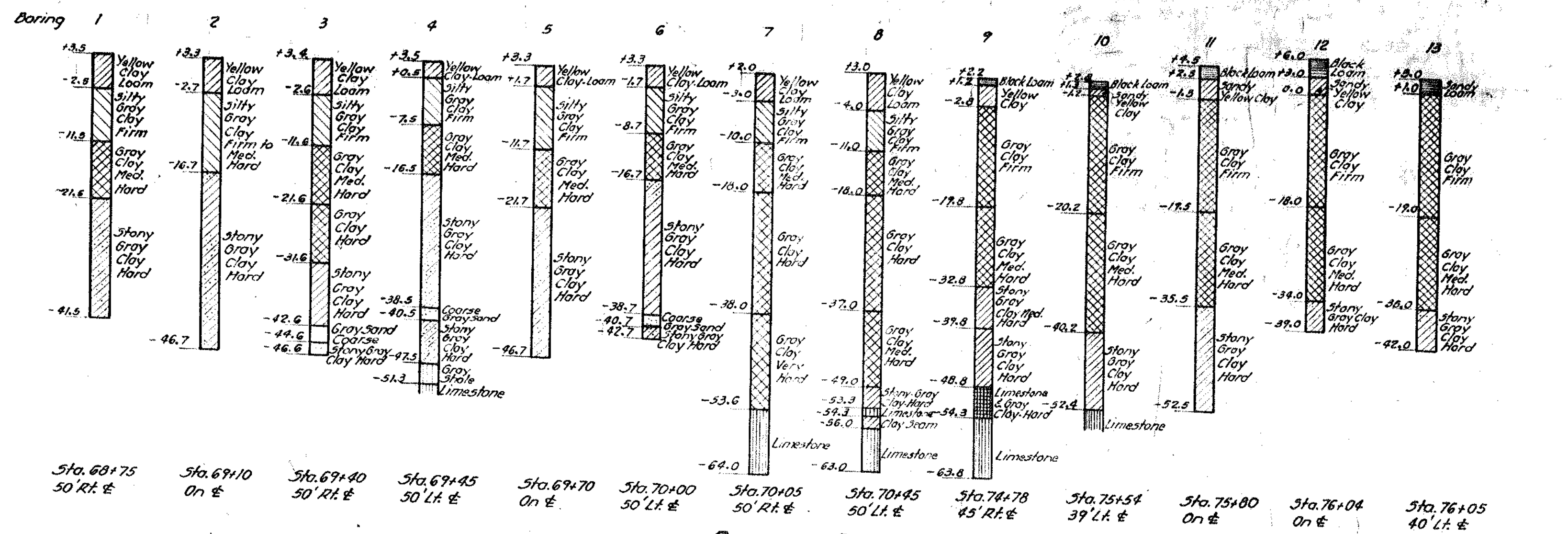
BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 122	42-B-F, 42B-F-E-P-11	Cook	30	3
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
27 SHEETS





Note: Embankment around abutments shall be made by the Contractor for Sec. 42B-11 before the Superstructure is placed, from Borrow to be furnished by this Contractor. See Sect. 16.3(d) of the Standard Specifications.



Boring Data

Note: Boring Data are shown on drawing merely as a guide to bidders in estimating soil conditions which may be encountered in the work.

Stresses

fs	:	20000 psi Reinf.
fs	:	18000 psi Carbon Steel
fs	:	24000 psi Silicon Steel
fc	:	1200 psi Super
fc	:	800 psi Sub.
n	:	10

COMPUTED	G. C. Wood	EXAMINED	7-14 1951
CHECKED	J. A. Fraser		BRIDGE ENGINEER
DRAWN	H. Baumann, P. Miller	PASSED	ENGINEER OF DESIGN
CHECKED	J.A.F.	APPROVED	CHIEF HIGHWAY ENGINEER

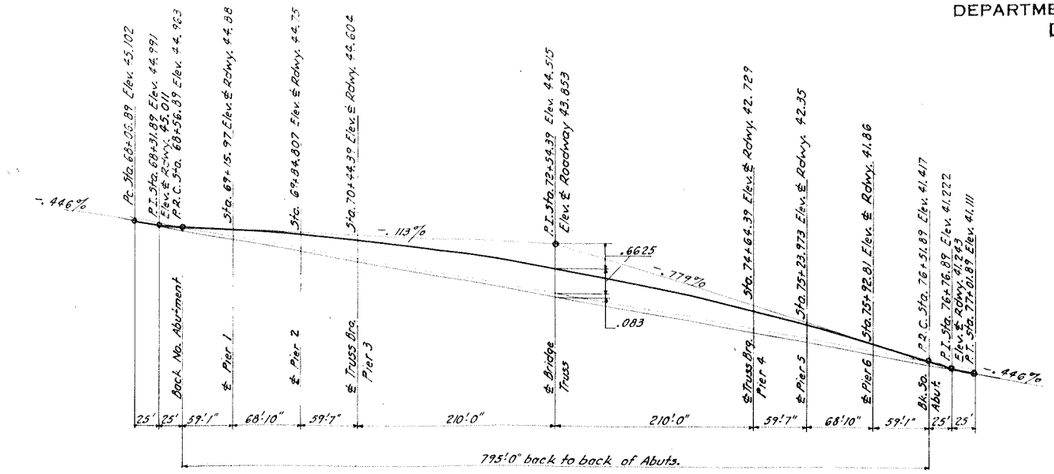
H-20-S-16-44 Loading

General Plan
Little Calumet River Bridge
F.A. Project U-I-246 (1)
F.A. Rte. 122 ~ Sec. 42-B-F-E-P-11
Cook County
Sta. 72+54.39

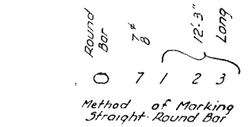
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

HIGHWAY DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1		Cook	30	2
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

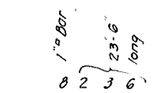
SHEET NO 2
27 SHEETS



GRADE OF BRIDGE



Method of Marking Straight Round Bar



Method of Marking Straight Square Bar

Bent bars have one or two letters added

STATION 72+54.39
BUILT 1949 BY
STATE OF ILLINOIS
F.A. RT. 122 / SEC. 42-B-FE-P-11
F.A. PROJ. U.I-246(1)
LOADING H20-S16-44

~~LETTERING FOR NAME PLATES~~

GENERAL NOTES

SECTION 42-B-11

Class "X" Concrete, shall be used throughout except as noted.
The Contractor shall drive 10 Steel test piles as directed by the Engineer before ordering the remainder of Piles.

SECTION 42-F-11

All Rivets for approach spans shall be 3/4" and Open Holes 13/16" unless noted.
All splices for approach stringers shall have rivet holes punched 1/16" and reamed to size shown on plans with all stringers of a continuous unit assembled in the shop in their proper position. Leave assembled for shop inspection.
All rivets for Truss Spans shall be 8" and Open Holes 7/8" except as noted.
All fills shall be shop welded to truss members with fillet welds 3" long at 6'-0" c/s. except as noted.
The Trusses shall be completely assembled in the shop and all main truss Conns. Shop and field, and floor beam connections shall be reamed in accordance with Art. 55.6(9) of the Standard Specifications.
Ends of floor beams shall be milled with end connection angles riveted in accordance with Art. 55.15(3) of the Standard Specifications.
All Rockers, Bearing Plates, Lead Plates and Anchor Bolts shall be furnished and painted in accordance with Art. 56.3(C) of the Standard Specifications and are included for payment as Structural Steel except cast steel castings.
Provide one lock washer on all bolts connecting hand rail to posts.
Also provide one 1/8" and one 1/4" shims for rail connections to 50% of Posts.
All Structural Steel shall receive one shop coat of red lead paint after inspection. Paint shall be furnished and applied by this Contractor.

SECTION 42-E-11

Open Steel Floor and Roadway Expansion Devices at Piers 3 & 4 to be Furnished and erected by this Contractor.
All field connections shall be riveted except as noted.
All connections between Rail Posts and brackets shall be reamed in field from 1/8" to 1/16" after preliminary alignment of the railing to the satisfaction of the Engineer.
All Bearing Plates, Anchor Bolts and Rockers shall be set in accordance with Art. 54.3(C) of the Standard Specifications.
Anchor Bolts shall be set before riveting diaphragms over abutments and piers. The open steel floor shall receive one shop coat of red lead paint.
All field rivet heads, field welds and abrasions, from any cause, shall be spot painted one coat of red lead paint. See Special Provisions.
Field welds shall be cleaned before spot painting.
Paint shall be furnished and applied by this Contractor.

SECTION 42-P-11

All Structural Steel and Open Steel Floor shall be spot painted where necessary, with red lead paint and shall be given two complete field coats of aluminum paint.
Paint shall be furnished and applied by this Contractor.
See Special Provisions.

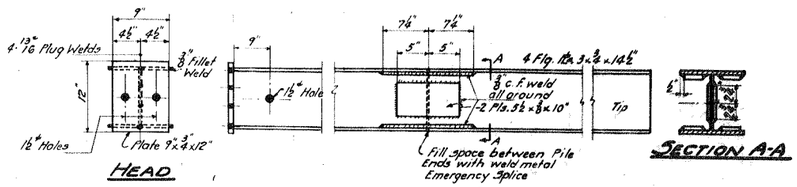
TOTAL BILL OF MATERIAL

	ITEM		SECTION 42-B	SECTION 42-F	SECTION 42-E	SECTION 42-P	TOTAL
	Class "X" Concrete	Cu. Yds.	8492.7		* 255.2		8747.9
	Handrail Concrete	Cu. Yds.	33.6				33.6
	Reinforcement Bars	Lbs.	493450		88270		581720
**	Structural Carbon Steel	Lbs.	1200	3486020	3486020		3487220
	Structural Silicon Steel	Lbs.		879580	879580		879580
	Cast Steel	Lbs.		14000	14000		14000
	Furnishing Steel Piles	Lin. Ft.	33,420				33,420
	Driving Steel Piles	Lin. Ft.	33,420				33,420
	Steel Test Piles	Each	10				10
***	Open Steel Floor	Sq. Ft.			62850	62850	62850
	Painting Structural Steel	Lbs.				4980800	
	Emergency Splices (Steel Pile)	Each	10				10
	Treated Piles (35' lg.)	Lin. Ft.	1540				1540
	Hardware	Lbs.	227				227
	Creosoted Lumber (1000#)	F.B.M.	6980				6980
	Expansion Bolts	Each	130				130
	Borrow Excavation	Cu. Yds.	51200				51200
	Compaction by Watersoaking	Cu. Yds.	42680				42680

* Curbs, Sidewalks and Tops of Parapets

** Includes Weight of Rockers, Bearing Plates, Lead Plates and Anchor Bolts.
Weight of Structural Carbon Steel for each 420' Span = 1142240#
Weight of Structural Silicon Steel for each 420' Span = 439790#
Weight of Cast Steel for each 420' Span = 7000#
1589,030# Total for each 420' Span

*** Includes Roadway Expansion Devices at Piers 3 & 4 which are to be included for payment as open Steel Floor.



DETAIL OF 10" 49# STEEL BRO. PILE

Estimated Wt. of Splice = 55#

DESIGNED	J.A. Fraser	
CHECKED	M.G. Peter	
DRAWN	J.A.F.	M. Miller
CHECKED	M.G.P.	

9-19 1949

EXAMINED G.J. Benzel, BRIDGE ENGINEER

PASSED [signature], ENGINEER OF DESIGN

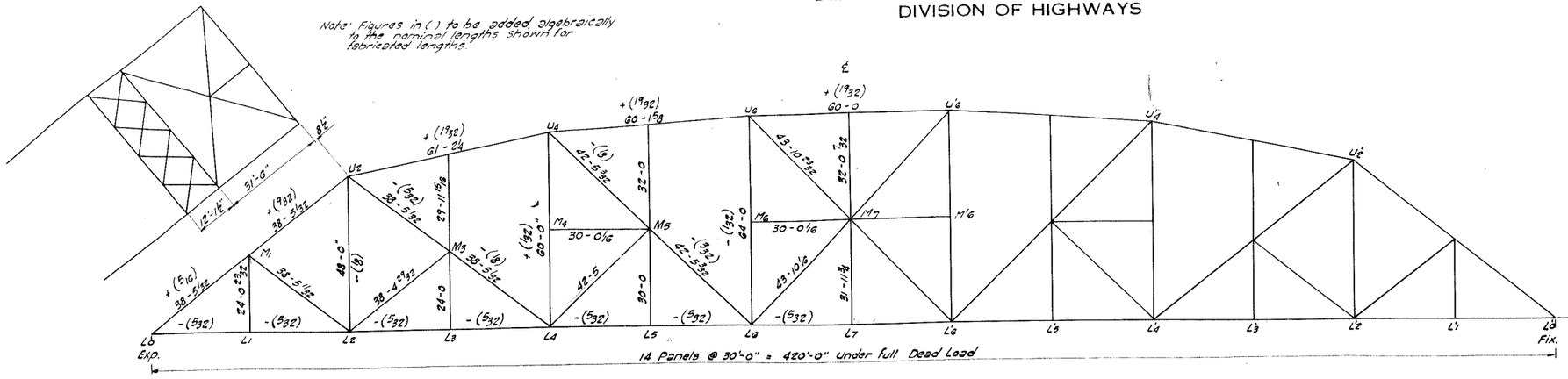
APPROVED [signature], CHIEF HIGHWAY ENGINEER

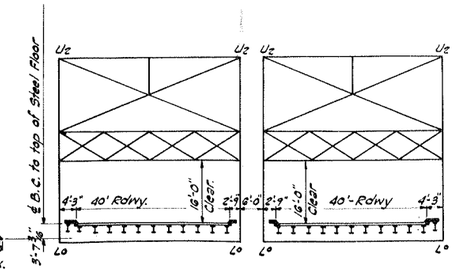
GENERAL NOTES-QUANTITIES & ETC.
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U-I-246(1)
F.A. RTE. 122 ~ SEC. 42-B-F-E-P-11
COOK COUNTY

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

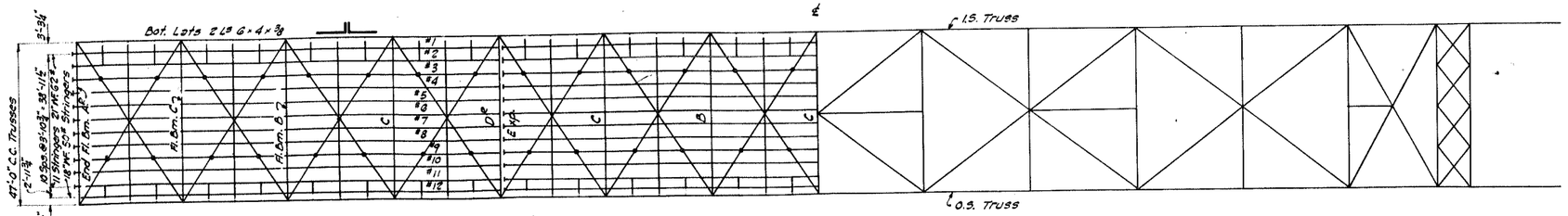
ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
F.A. 122	42B-11 42C-11 42E-11 42P-11	Cook	30	5	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Note: Figures in ( ) to be added algebraically to the nominal lengths shown for fabricated lengths.



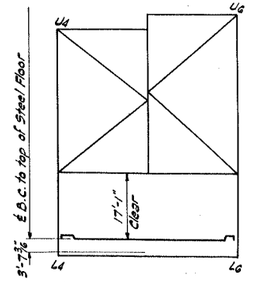


WEST BRIDGE EAST BRIDGE



HALF BOTTOM PLAN - WEST BRIDGE

HALF TOP PLAN - WEST BRIDGE



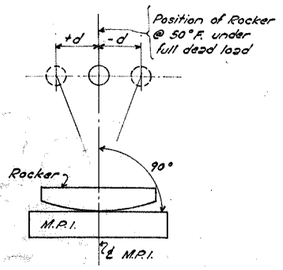
DEAD PANEL LOADS - (OUTER TRUSS)
21 K At all Upper panel points including M
54 K At all Lower Panel points except Lo
(INNER TRUSS)
21 K At all Upper panel points including M
47.5 K At all Lower panel points except Lo

LIVE PANEL LOAD (OUTER TRUSS)
U.L.L. = 26.94 K
C.L.L.(Mom) = 25.25 K
C.L.L.(V) = 36.48 K
S.W.L.L. = 3.40 K

(INNER TRUSS)
U.L.L. = 28.59 K
C.L.L.(Mom) = 26.80 K
C.L.L.(V) = 38.72 K
Live Load - 90% of 3 lanes

Temp. at time of Erection °F.	d inches under D.C.
20	-1
30	- 5/8
40	- 5/16
* 50	0
60	+ 5/16
70	+ 5/8
80	+1
90	+1 5/16
100	+1 5/8

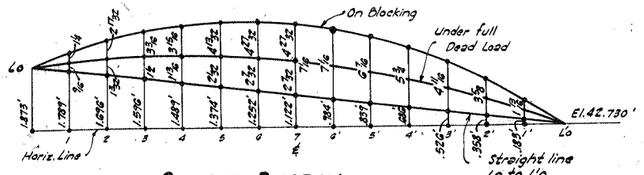
* Normal d on account of camber while on blocking = 2 3/16



FLOOR SYSTEM H20-S16 CARBON STEEL

	MAXIMUM MOMENT (KIP FT.) D	L	I	SWLL	TOTAL	SECTION	MAX. REACT.
Intermediate Floor Beam	390.1	1004.2	319.2	11.9	1785.4	Web 48 x 3/8 4 L8. 7 x 4 x 5/8 1 Cov. 16 x 1/2 FL. Top. 1 Cov. 16 x 1/2 x 85'-8" Bot. 2 Cov. 16 x 1/16 x 25'-7"	R=138.9 K Rc=146.2 K Δ = .66"
End Floor Beam *	253.8 1708	1034.1	310.2	5.6	1603.7	Web 48 x 3/8 4 L8. 7 x 4 x 1/2 2 Cov. 16 x 3/8 F.L.	Rx=45.7 Ro=152.8 Rc=46.0
Roadway Stringer	14.8	110	33	—	157.8	21" WF 62 #	27.1
Sidewalk Stringer	42.1	—	—	19.4	61.5	18" WF 50#	7.9

* Jacking - Full dead load = 521 K



CAMBER DIAGRAM

TRUSS DESIGN DATA H20-S16 LOADING

MEMBER	STRESSES OUTER TRUSS D	L	I	SWLL	TOTAL	SECTION	L/r	AREA GROSS	NET	UNIT STRESS #/□" ALLOW	USED*	KIND OF STEEL	STRESSES INNER TRUSS D	L	I	TOTAL	MEMBER
Lo M1	-780.4	-318.0	- 29.2	- 35.4	-1163.0	2 Cov. Pls. 16 x 5/8 2 Web Pls. 24 x 3/8 4 L8. 4 x 4 x 5/8	50.1 45.5	79.76	—	23,810	21,900	Silicon	- 712.8	- 337.4	- 31.0	-1081.2	Lo M1
M1 U2	-720.4	-293.4	- 26.9	- 32.7	-1073.4								- 658.0	- 311.5	- 28.6	- 998.1	M1 U2
U2 U4	-704.9	-311.6	- 28.6	- 34.7	-1079.8	2 Cov. Pls. 16 x 1/2 2 Web Pls. 24 x 11/16 4 L8. 4 x 4 x 5/8	43.4	61.44	—	19033	18550	do	- 698.6	- 330.7	- 30.4	-1059.7	U2 U4
U4 U6	-846.7	-344.5	- 31.6	- 38.3	-1260.1	2 Cov. Pls. 16 x 1/2 2 Web Pls. 24 x 15/16 4 L8 4 x 4 x 5/8	42.5	67.44	—	19170	18700	do	- 772.4	- 365.6	- 33.6	-1171.6	U4 U6
U6 U'6	-861.1	-350.8	- 32.2	- 39.0	-1283.1					19170	19030		- 786.5	- 372.4	- 34.2	-1193.1	U6 U'6
Lo L2	+609.4	+248.2	+ 22.8	+ 27.6	+ 908.0	2 Web Pls. 24 x 5/8 4 L8. 4 x 4 x 5/8	—	48.44	38.44	24000	24100	do	+ 556.6	+ 263.4	+ 24.2	+ 844.2	Lo L2
L2 L4	+609.4	+259.5	+ 23.8	+ 27.6	+ 920.3					do	24400	do	+ 556.6	+ 275.4	+ 25.9	+ 857.3	L2 L4
L4 L6	+787.5	+328.0	+ 30.1	+ 35.7	+1181.3	2 Web Pls. 24 x 7/8 4 L8 4 x 4 x 5/8	—	60.44	48.44	do	24400	do	+ 719.2	+ 348.1	+ 32.0	+1099.3	L4 L6
L6 L'6	+861.1	+356.8	+ 32.8	+ 39.0	+1289.7	2 Web Pls. 24 x 11/16 2 Web Pls 16 x 1/2 4 L8 4 x 4 x 5/8	—	67.44	54.94	do	24000	do	+ 786.5	+ 373.7	+ 34.8	+1200.0	L6 L'8
U2 M3	+ 240.0	+129.7	+ 14.2	+ 13.2	+ 397.1	2 Cov 18" x 42.7#	—	24.96	22.26	18000	17840	Carbon	+ 219.2	+ 137.7	+ 15.1	+ 372.0	U2 M3
M3 L4	+ 180.0	+126.6	+ 14.7	+ 12.8	+ 334.3	2 [] 15" x 35#	—	20.46	18.78	do	17300	do	+ 164.4	+ 134.4	+ 15.8	+ 314.6	M3 L4
U4 M5	+ 132.5	+105.6	+ 13.4	+ 10.3	+ 261.8	2 [] 12" x 30#	—	17.58	15.54	do	16350	do	+ 121.0 + 34.7	+ 112.0 - 55.7	+ 14.2 - 11.4	+ 247.2 + 17.8	U4 M5
M5 L6	+ 77.5 - 35.7	+103.6 - 69.4	+ 14.2 - 12.8	+ 10.0 - 8.4	+ 207.3 - 52.7	2 [] 12" x 25#	—	14.64	13.08	do	17100	do	+ 72.6 - 50.8	+ 103.9 - 73.8	+ 18.1 - 19.4	+ 197.6 - 36.4	M5 L6
U6 M7	+ 25.7	+ 70.8	+ 11.5	+ 7.0	+ 121.0	2 [] 12" x 25#	—	14.64	13.08	do	9250	do	+ 23.5	+ 81.5	+ 12.2	+ 117.2	U6 M7
L6 M7	- 18.0	+ 70.8	+ 12.8	+ 7.0	+ 78.4	2 [] 12" x 25#	110.5	14.64	13.08	11980 18000	9150 7000	do	- 23.5 - 16.5	- 54.4 + 81.5	- 16.3 + 13.4	- 94.2 + 78.4	L6 M7
U2 L2	+129.0	+ 90.4	+ 21.0	+ 6.8	+ 247.2	1 WGD 19 x 5/8 2 L8 3 1/2 x 3 1/2 x 5/16	216	19.62	16.00	13000	15490	do	+ 117.8	+ 95.9	+ 22.3	+ 236.0	U2 L2
U4 L4	- 21.0 - 14.7	- 80.9 + 57.4	- 6.4 + 15.1	- 4.8 + 4.9	- 83.1 + 61.7	1 WGD 19 x 9/16 4 L8 6 x 3 1/2 x 7/16	115	15.88	12.38	11700 18000	7130 7420	do	- 19.2 + 13.4	- 84.1 + 63.0	- 6.8 + 18.7	- 80.1 + 82.5	U4 L4
U6 L6	+ 18.8 + 11.6	+ 70.1 - 45.0	+ 17.5 - 6.4	+ 8.3 - 3.8	+ 114.5 - 36.7	do	123	15.88	12.38	13000 11220	9740 9350	do	+ 15.1 + 10.6	+ 74.3 - 46.7	+ 12.2 - 6.8	+ 101.6 - 41.9	U6 L6
M1 L2	- 60.0	- 59.9	- 18.0	- 2.7	- 140.6	2 [] 12" x 25#	96	14.64	—	12700	9600	do	- 54.8	- 63.6	- 19.1	- 137.5	M1 L2
L2 M3	- 60.0	- 59.9	- 18.0	- 2.7	- 140.6	do	98	do	—	12700	9600	do	- 54.8	- 63.6	- 19.1	- 137.5	L2 M3
L4 M5	- 53.0	- 52.9	- 15.9	- 2.4	- 124.2	do	107	do	—	12140	8500	do	- 48.4	- 56.1	- 16.8	- 121.3	L4 M5
M1 - M5 M2 M7						2 CJ 10" x 20#	90	11.72	—			do					M2 M7 M1 L1 M3 L3 M5 L5 M7 L7
M1 L1 M3 L3 M5 L5 M7 L7	+ 54.0	+ 74.8	+ 22.4	+ 3.4	+154.6	18 WF 64#	—	18.80	16.06	18000	9650	do	+ 47.5	+ 79.4	+ 23.8	+150.7	M3 L3 M5 L5 M7 L7
U3 M3	- 21.0	—	—	—	- 21.0	2 CJ 10" x 20#	88.5	11.72	—	13000	1800	do	- 21.0	—		- 21.0	U3 M3
U5 M5	- 21.0	—	—	—	- 21.0	do	95	11.72	—	12700	1800	do	- 21.0	—		- 21.0	U5 M5
U7 M7	- 23.0	—	—	—	- 23.0	do	95	11.72	—	12700	1970	do	- 23.0	—		- 23.0	U7 M7
Grass R	511.8	225.1	20.7	25.8	781.4								466.3	238.8	21.9	727.0	Grass R.

M in Lo U2 @ Lo = 313 K' M in Lo U2 @ Bott. of Partial = 251 K'

C.C. Wood + Fraser

H20-S16-44-Loading.

Weight of Structural Carbon Steel for each 420' Span = 1142240#
Weight of Structural Silicon Steel for each 420' Span = 439790 #
Weight of Cast steel for each 420' Span = 7000 #
1589030 Total for each 420' Span

* Includes Stress due to weight of member and to bending from Partial action & etc.

COMPUTED	C.C. Wood + Fraser
CHECKED	J.A. Fraser + W.G. Peter
DRAWN	J.A.F. Oehmke
CHECKED	

EXAMINED 9-19 1949
G. F. Burch BRIDGE ENGINEER
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

STRESS SHEET
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U1 246 (1)
F.A. RTE. 122 - SEC. 42 F.E.P.-11
COOK COUNTY
STA. 72+54.39

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 122	42B-11 42E-11 42F-11	Cook	30	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 4
27 SHEETS

ELEV. OF PORTAL

END VIEW

SEC. A-A

NOTE - Make Hand Holes 9"x6" elliptical openings

NOTE - Handrails connected to all Diags., Posts and Hangers as shown here.

NOTE - Material marked ⑤ to be Silicon Steel Rivets ⅞"ϕ unless noted Open Holes 15/16"ϕ

COMPUTED	C.C. Wood
CHECKED	J.A. Fraser
DRAWN	C.C.W.
CHECKED	J.A.F.

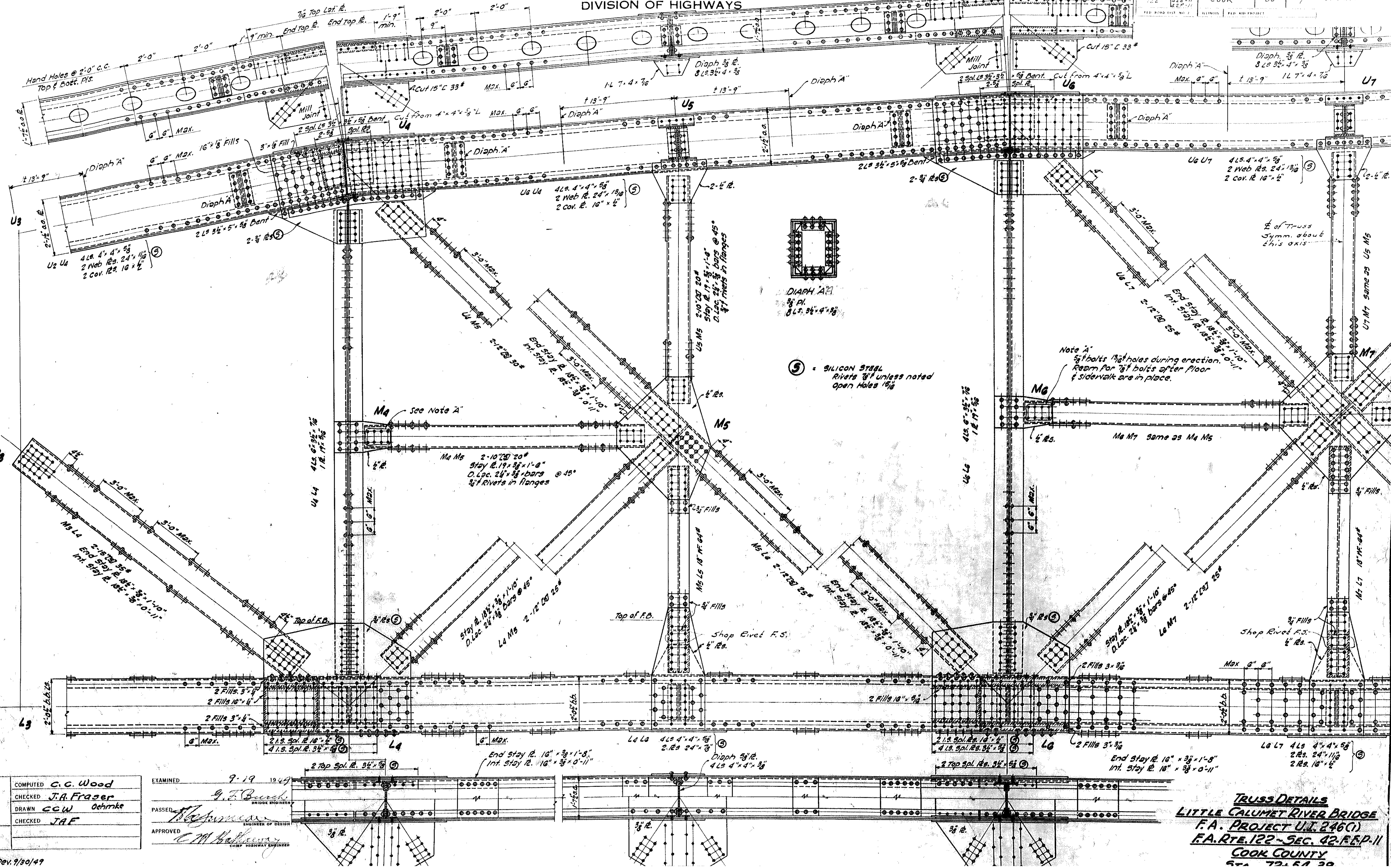
EXAMINED ..... 19..
G. F. Brack
BRIDGE ENGINEER
PASSED .....
ENGINEER OF DESIGN
APPROVED .....
CHIEF HIGHWAY ENGINEER

Rev. 9/30/49

TRUSS DETAILS
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 - SEC. 42-F.E.-P-11
COOK COUNTY
Sta. 72+54.38

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

F.A. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
F.A. 122	42B-II 42F-II 42S-II 42P-II	Cook	30	7	SHEET No 5 27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



COMPUTED	C. C. Wood
CHECKED	J. A. Fraser
DRAWN	CCW Oehmke
CHECKED	JAF

EXAMINED 9-19 1949
G. F. Burch — BRIDGE ENGINEER
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

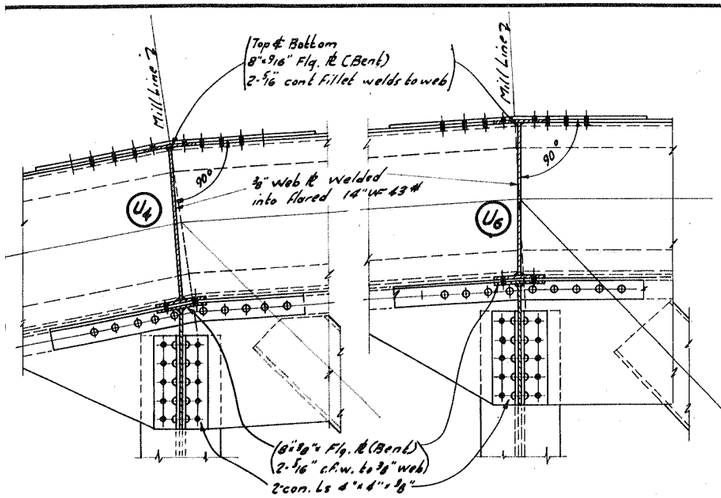
Rev. 9/30/49

TRUSS DETAILS
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 – SEC. 42-F.F.P.-II
COOK COUNTY
STA. 73+54.39

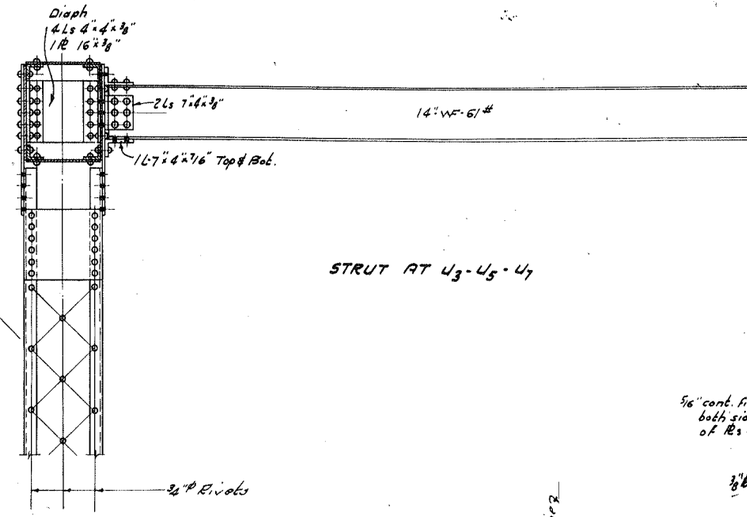
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 122	38B-1 I 42S-1 I 42S-2 I 42F-1 I	Cook	30	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

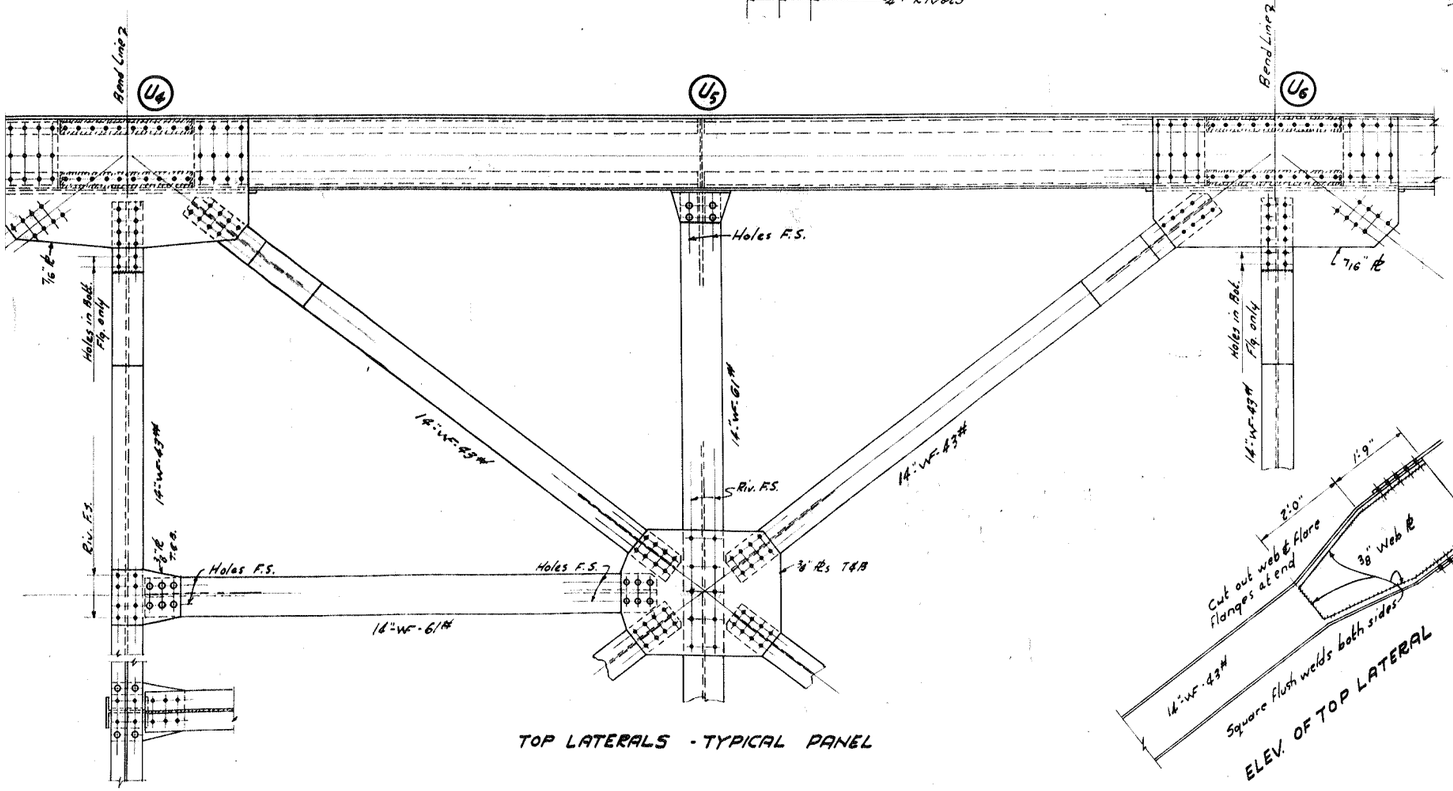
SHEET NO. 6
27 SHEETS



SEC. B-B
SHOWING SWAY BRACE CONNECTION

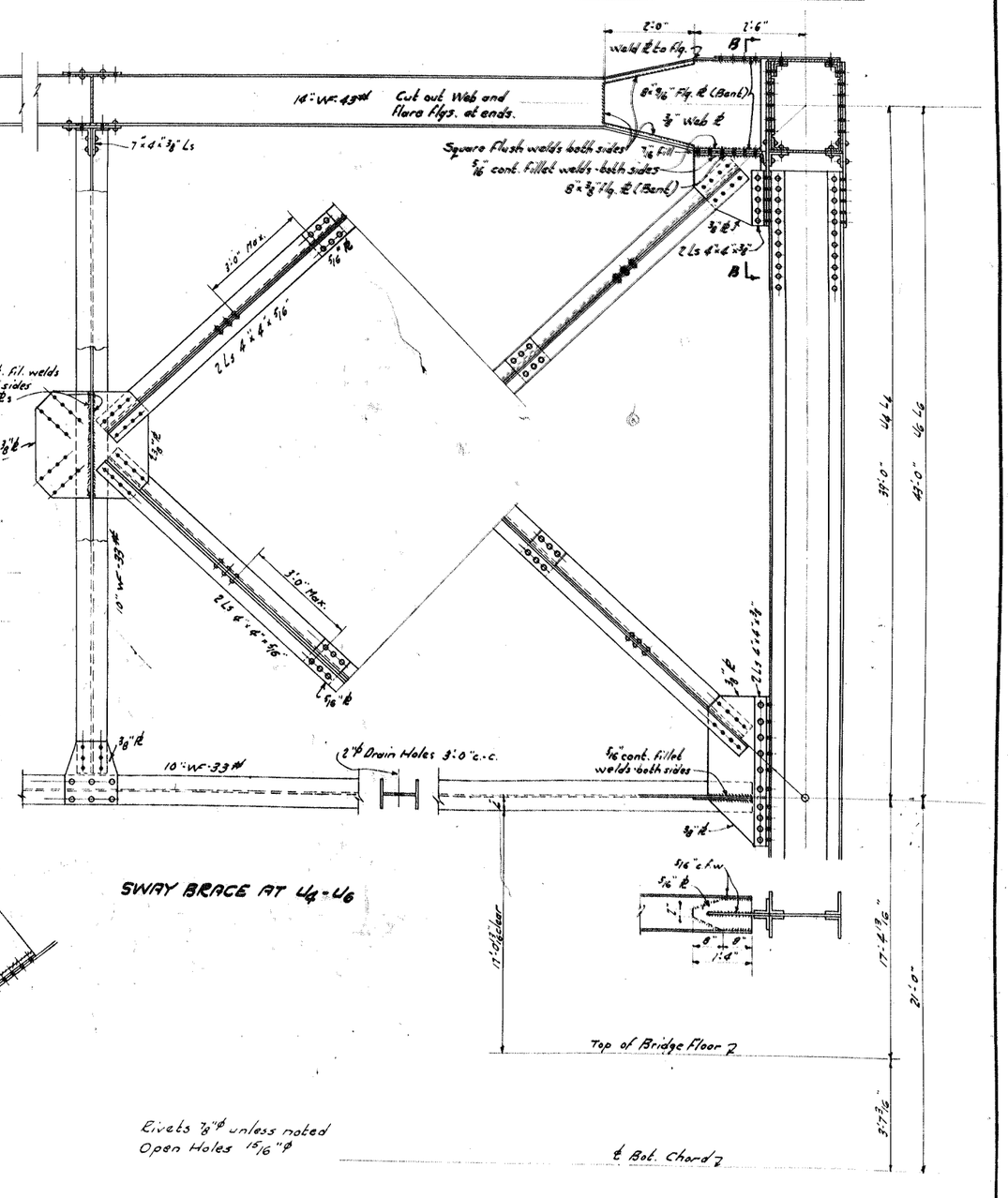


STRUT AT U3 - U5 - U7



TOP LATERALS - TYPICAL PANEL

ELEV. OF TOP LATERAL



SWAY BRACE AT U4 - U6

Rivets 7/8"ϕ unless noted
Open Holes 15/16"ϕ

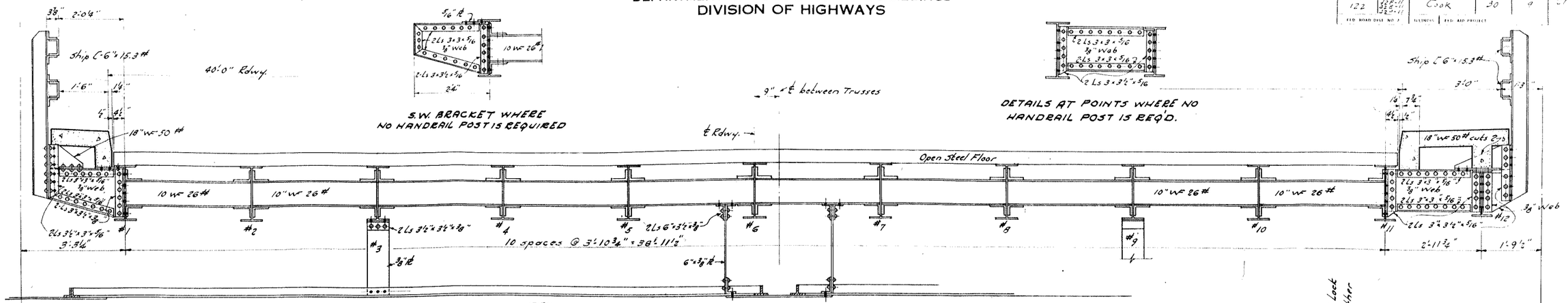
COMPUTED	C.C. Wood	
CHECKED	J.A. Fraser	
DRAWN	C.C.W.	Sulzer
CHECKED	J.A.F.	

EXAMINED 7-7 19-41
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

SWAY BRACING
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 ~ SEC. 42-F.F-P-11
COOK COUNTY
STA. 72+54.39

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

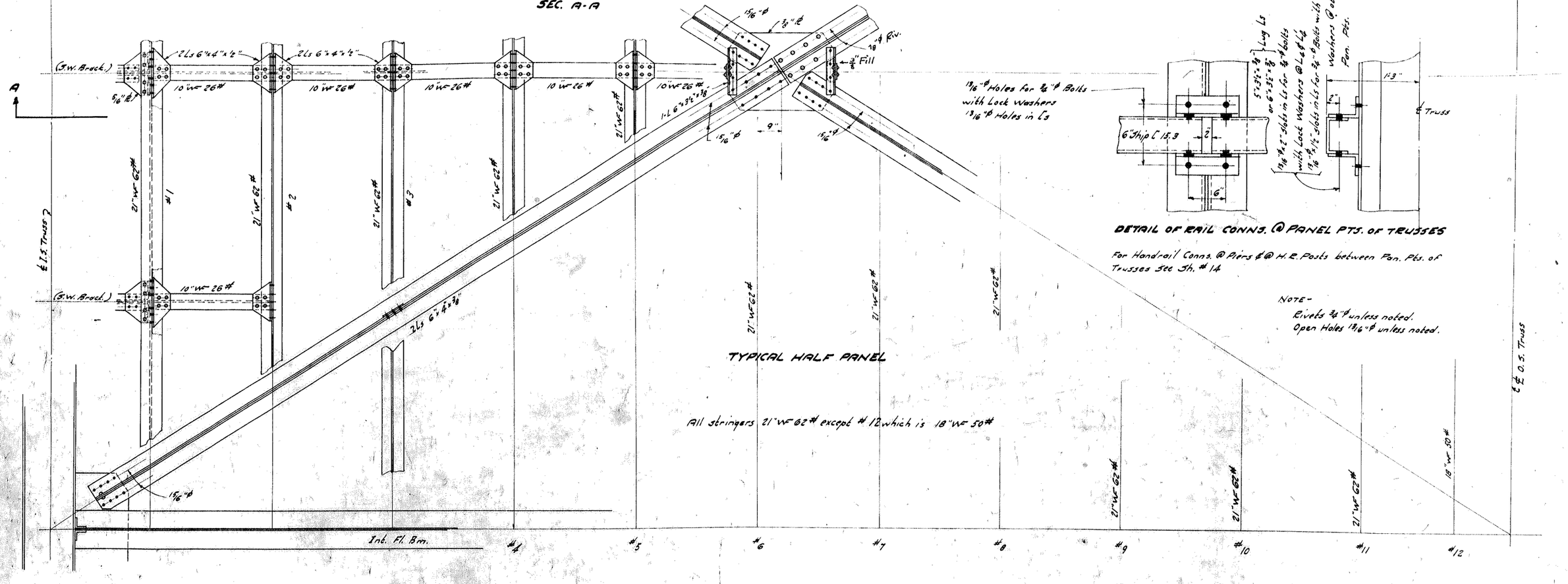
ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEETS 7
FA 122	42B-1 42C-1 42D-1 42E-1	Cook	30	9	27 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			



S.W. BRACKET WHERE NO HANDRAIL POST IS REQUIRED

DETAILS AT POINTS WHERE NO HANDRAIL POST IS REQ'D.

SEC. A-A



TYPICAL HALF PANEL

All stringers 21"WF 62# except #12 which is 18"WF 50#

DETAIL OF RAIL CONNS. @ PANEL PTS. OF TRUSSES

For Handrail Conns. @ Piers & @ H.R. Posts between Pan. Pts. of Trusses See Sh. #14

NOTE-
Rivets ¾"ϕ unless noted.
Open Holes 13/16"ϕ unless noted.

COMPUTED	C.C. Wood
CHECKED	J.C. Fraser
DRAWN	C.C.W. Sutzer
CHECKED	J.G.P.

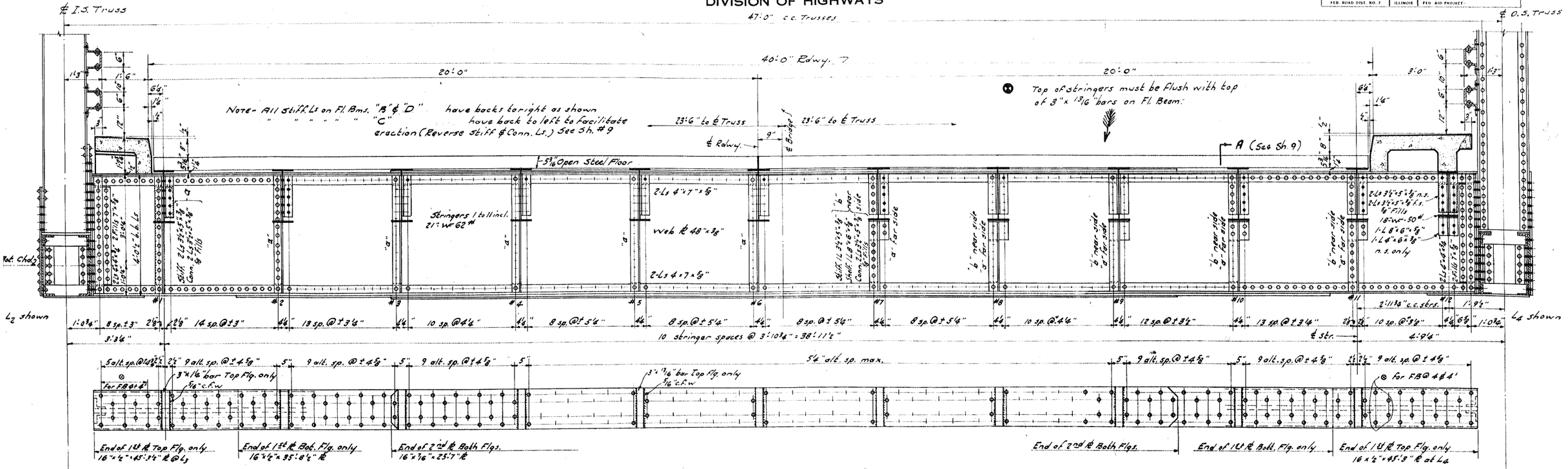
EXAMINED 8-19 1949
G. F. Bruck BRIDGE ENGINEER
PASSED H. A. Finnegan ENGINEER OF DESIGN
APPROVED E. M. Kelly CHIEF HIGHWAY ENGINEER

STRINGER DIAPHS. & BOTT. LATS.
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 - SEC. 42-F.E-P-11
COOK COUNTY
STA. 72+54.39

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

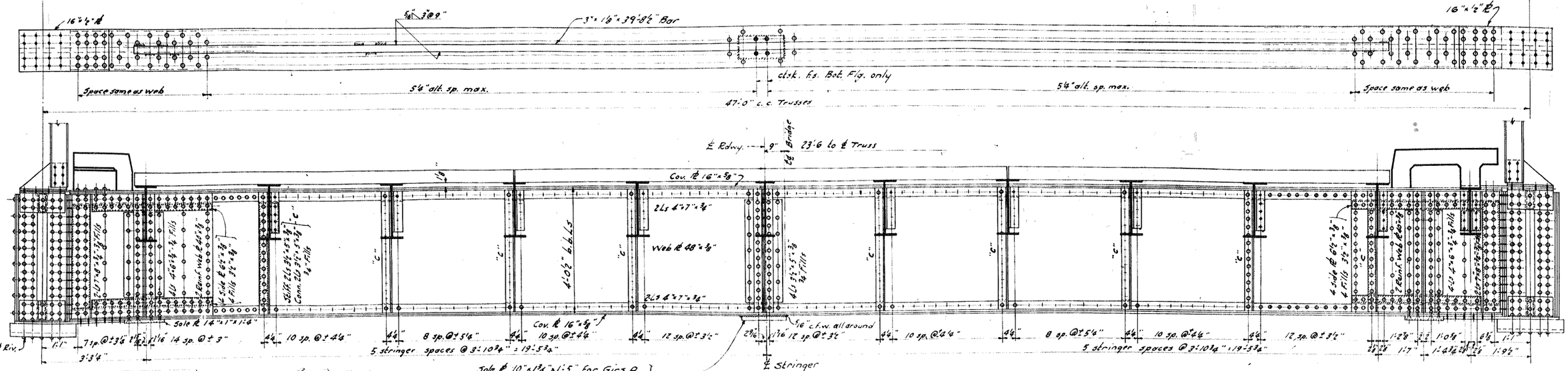
ROAD DIST. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 122	42B-11 42F-11 42E-11 42P-11	Cook	30	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
27 SHEETS



HALF INTERMEDIATE FLOOR BEAM "B" ℄ "C"
(Floor Beam "C" has stiffener Ls reversed.)

HALF INTERMEDIATE FLOOR BEAM "DR"



END FLOOR BEAM (AR ℄ A1R)
3/8"=1'-0"

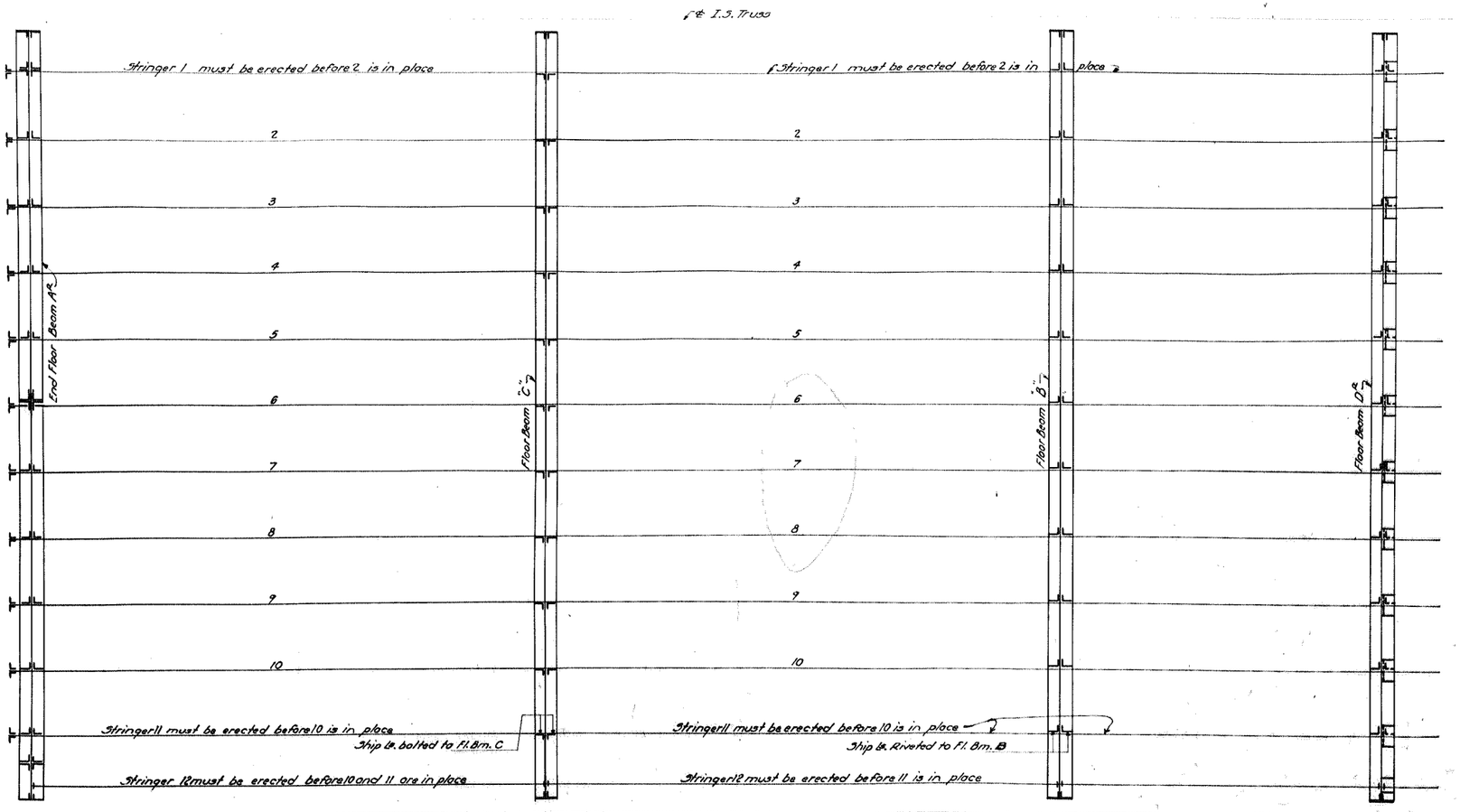
COMPUTED	C. C. Wood	EXAMINED 7-7 19---
CHECKED	W. Fraser	BRIDGE ENGINEER
DRAWN	C. C. W. Jr.	PASSED
CHECKED	W. F.	ENGINEER OF DESIGN
		APPROVED
		CHIEF HIGHWAY ENGINEER

Riv. 7/8" ⌀
Open Holes 15/16" ⌀
Finish Both Ends of All Stiffener Ls
Work this Sheet with Sheet # 9

FLOOR BEAM DETAILS
LITTLE CALUMET RIVER BRIDGE
F. A. PROJECT U.I. 246(1)
F.A. RTE. 122 - SEC. 42-F-E-P-11
COOK COUNTY
STA. 72+54.39

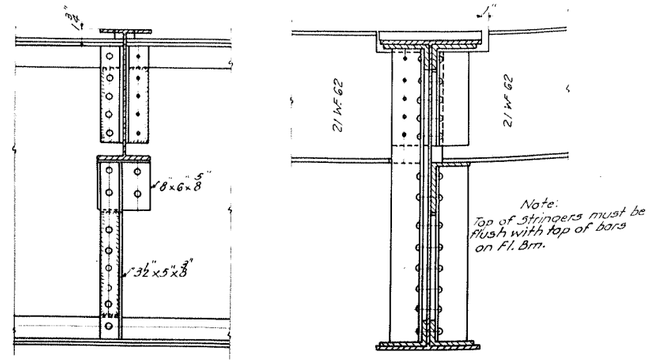
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

F.A. 122		Cook	30		27 SHEETS

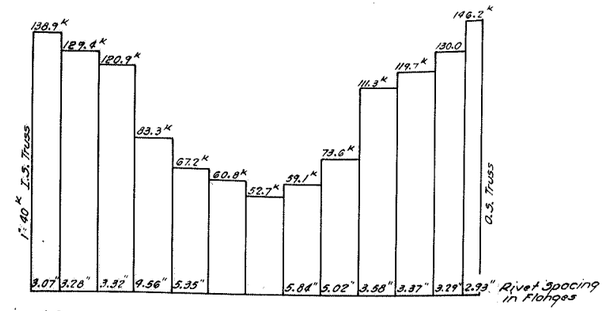


Note: Conn. lg. opp. stiff lg. not shown here.

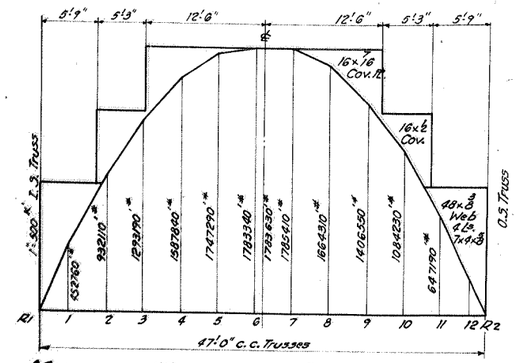
DIAGRAM SHOWING ARRANGEMENT OF STIFF. LG. ON FLOOR BEAMS TO FACILITATE ERECTION OF STRINGERS



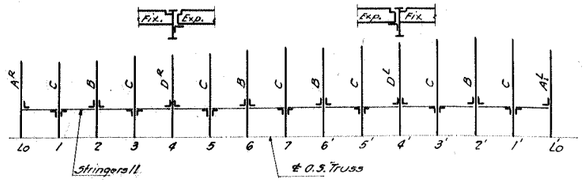
SECTION A-A
See Sheet #8



MAXIMUM SHEARS IN INT. FLOOR BEAMS



MAXIMUM MOMENTS IN INTERIOR FLOOR BEAMS



COMPUTED	J.A. Fraser	EXAMINED	9-19 1944
CHECKED	M. G. Petri		G. F. Burch, BRIDGE ENGINEER
DRAWN	J.A.F.	PASSED	ENGINEER OF DESIGN
CHECKED	M.G.P.	APPROVED	CHIEF HIGHWAY ENGINEER

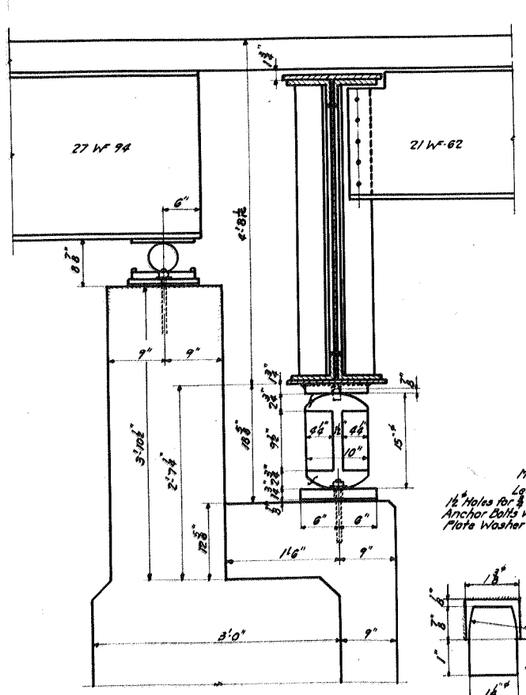
M. Miller

FLOOR BEAM STIFFENER DIAG.
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246 (1)
F.A. RTE. 122 - SEC. 42-F.F.P.-11
COOK COUNTY
STA. 72+54.39

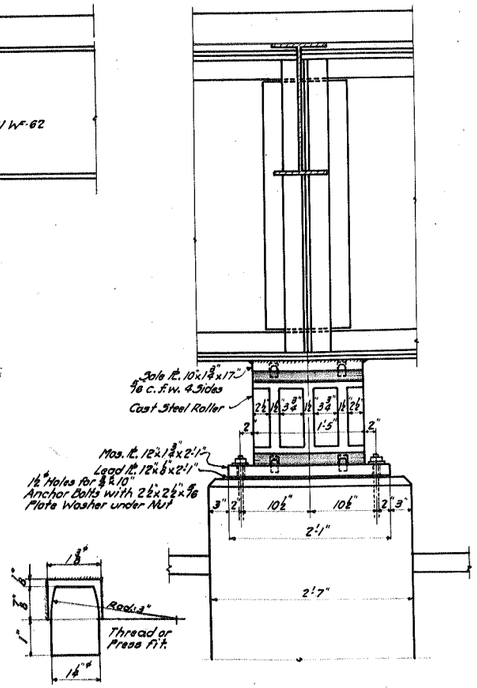
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 122	128-11 126-11 128-11	Cook	30	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO 10
27 SHEETS



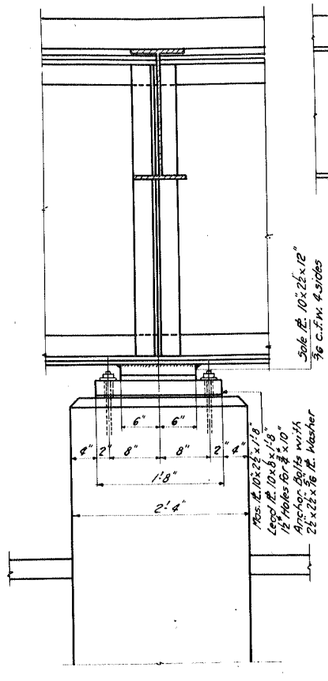
PIER 3

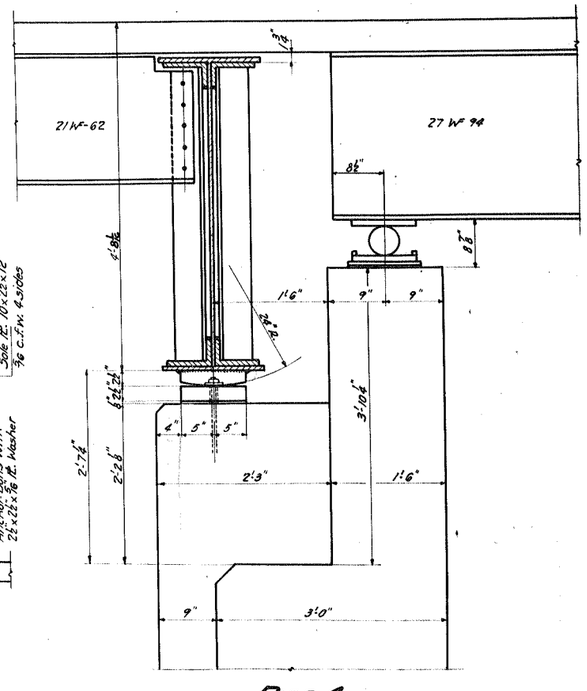


PINTLE DETAIL

FLOOR BEAM SUPPORT NEAR & FLOOR BEAM AT PIER 3
Scale: 1"=1'0"
2 Req'd.

Weight of Rocker (Cast Steel) 420#
Weight of Structural Steel 252#
Total 672# Each Support.





PIER 4

FLOOR BEAM SUPPORT NEAR & FLOOR BEAM AT PIER 4
Scale: 1"=1'0"
2 Req'd.
Weight of Bearing Complete 241#

Steel Castings: Estimated Weight 840#
Included for payment as Class E Steel

COMPUTED	J.A. Fraser	
CHECKED	M.G. Peter	
DRAWN	J.A.F.	M. Miller
CHECKED	M.G.P.	

EXAMINED 1-2-19[illegible]
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

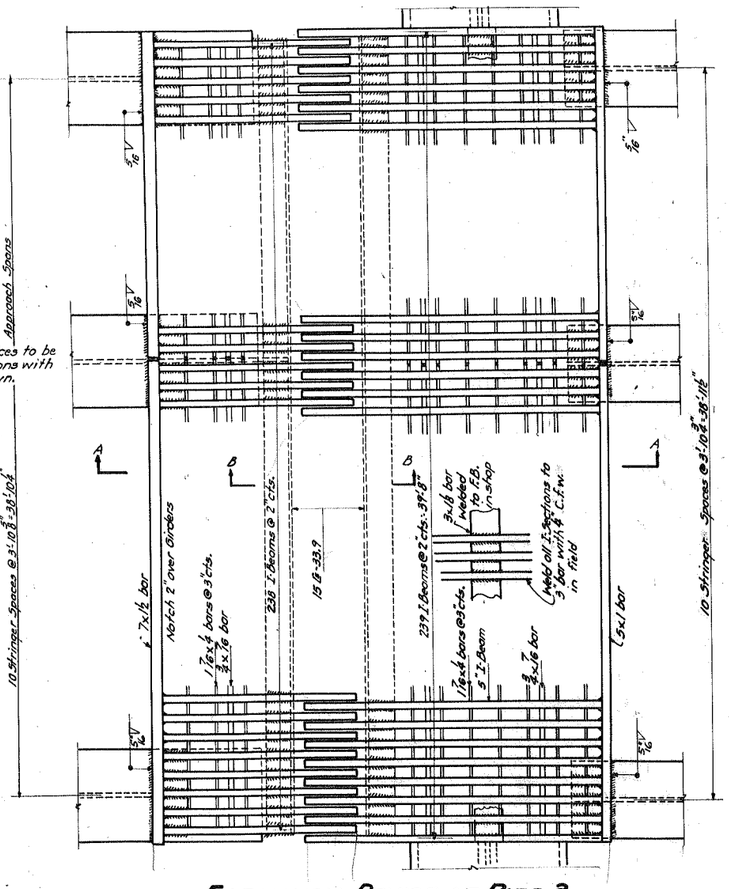
SUPPORTS AT & END FL. BEAMS
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246 (1)
F.A. RTE. 122 ~ SEC. 42-B-F-E-P-11
COOK COUNTY
STA. 72+54.39

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

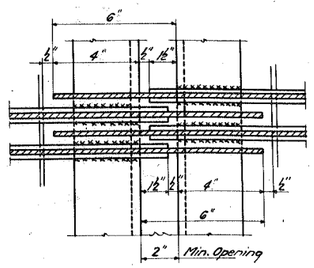
STATE-AID-SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 122	42B-11 42E-11 42G-11 42H-11	Cook	30	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

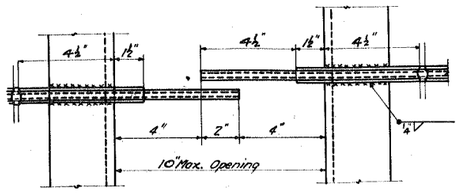
SHEET NO. 11
27 SHEETS

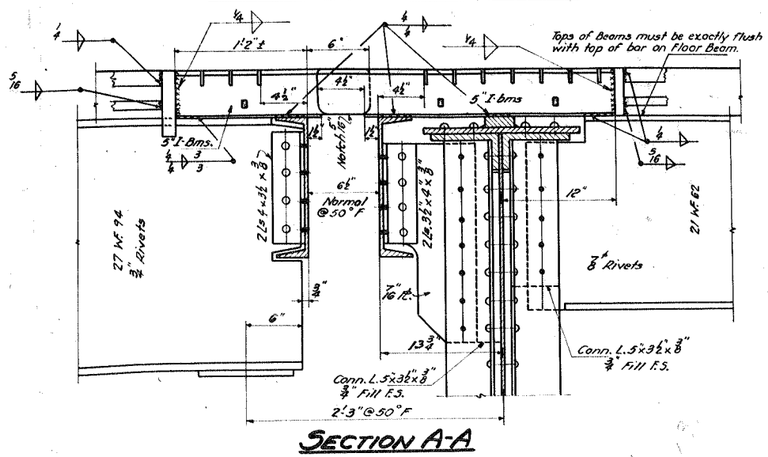
Note: All welds to be 4" c.f. welds unless otherwise shown.



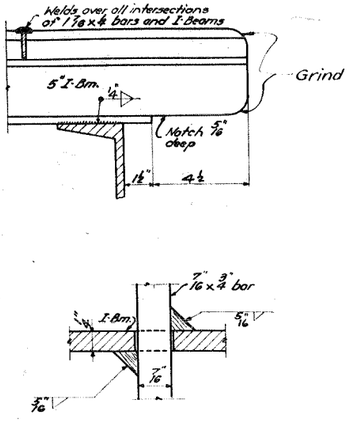
EXPANSION DEVICE AT PIER 3



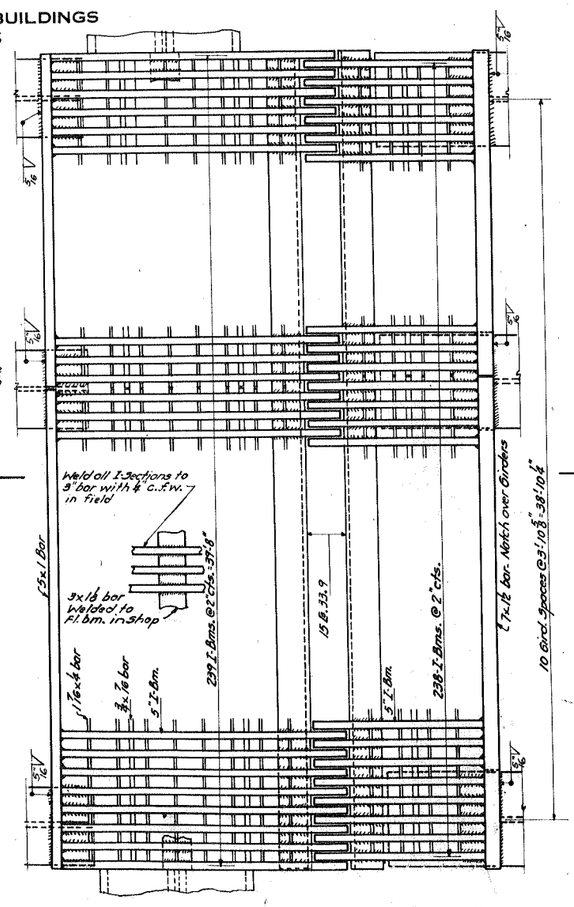




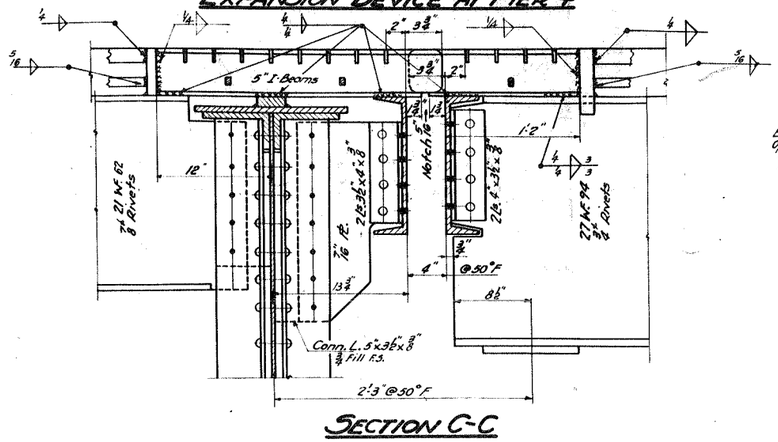
SECTION A-A



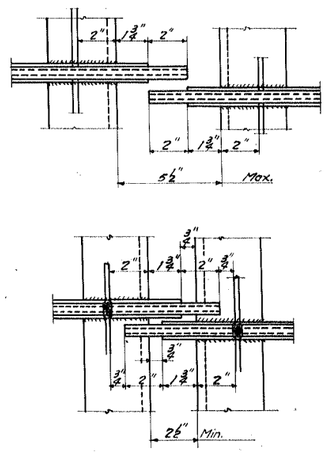
¾"x⅜" Welds of all intersections of ¾"x⅜" bars and I Beams.

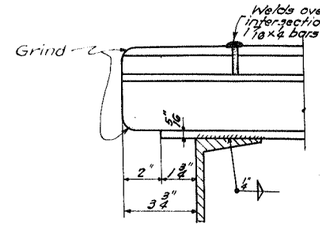


EXPANSION DEVICE AT PIER 4



SECTION C-C





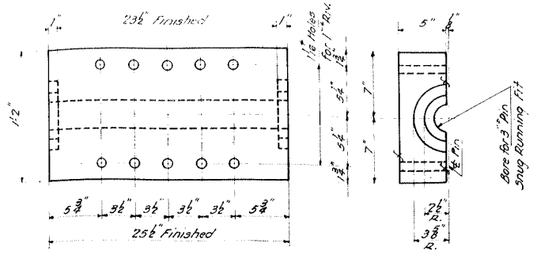
Expansion Devices included for payment as Open Steel Floor - 4 Reqd.
"Expansion Devices shown on this sheet are composed of Sections used in Open Steel Floor.

COMPUTED	J.A. Fraser	EXAMINED	1-11 19 57
CHECKED	W.G. Peter		BRIDGE ENGINEER
DRAWN	J.A.F. M. Miller	PASSED	ENGINEER OF DESIGN
CHECKED	W.G.P.	APPROVED	CHIEF HIGHWAY ENGINEER

EXPANSION DEVICE
AT PIERS 3 & 4
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 ~ SEC. 42-F-E-P-11
COOK COUNTY
STA. 72+54.39

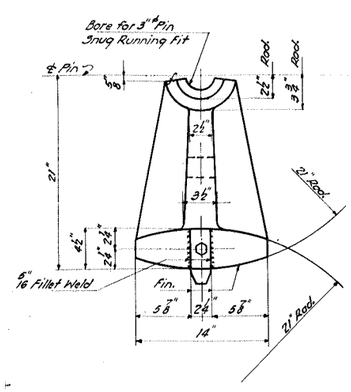
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

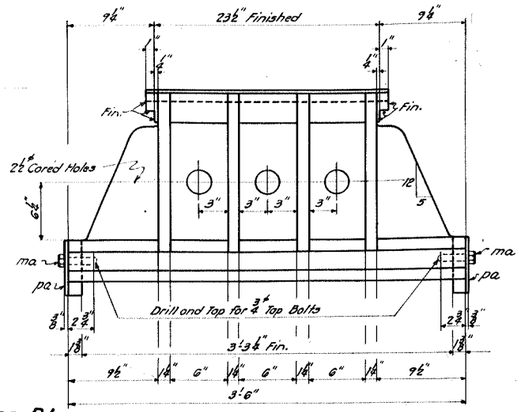
BUREAU ROUTE NO.	SECTION	COUNTY	FED. SHEETS	SHEET NO.	SHEET NO. 12
FA 122	42A-11 42B-11 42C-11	COOK	30	14	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ.			



STRUCTURAL STEEL SLAB-BP1

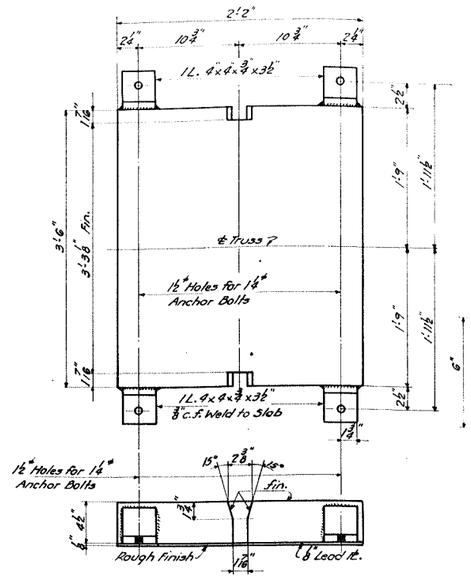
14"x5"x2'-1⅛" Finished Top & Bottom
8 Req'd. Weight each: 470#





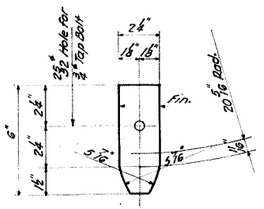
ROCKER-R1

Cast Steel Annealed Class B Hard
4 Req'd. Weight 1362 each



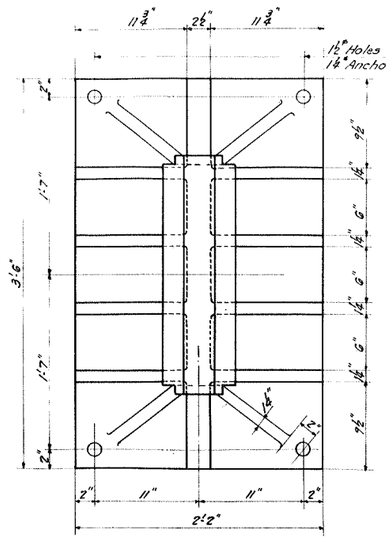
SLAB-MP1

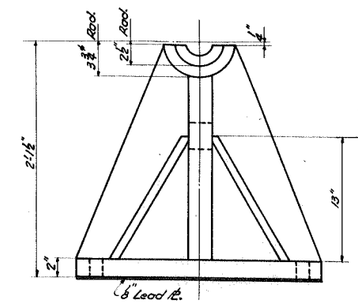
26"x4½"x3'-6"
Structural Steel
6 Req'd.
Weight Each: 141#

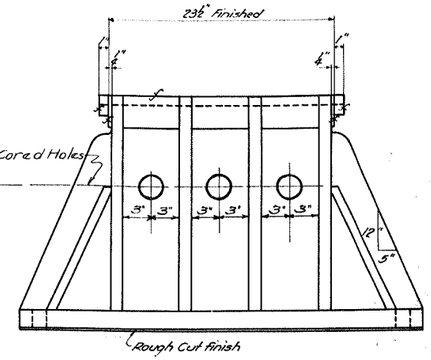


TOOTH BAR-pa

2½"x1⅜"x6"-Fin. Edges
Weight each: 6.5#
8 Req'd.

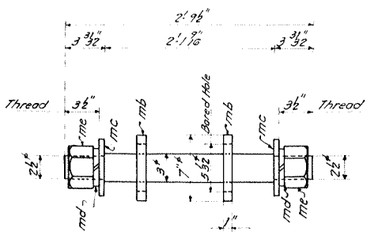






FIXED SHOE-CB2

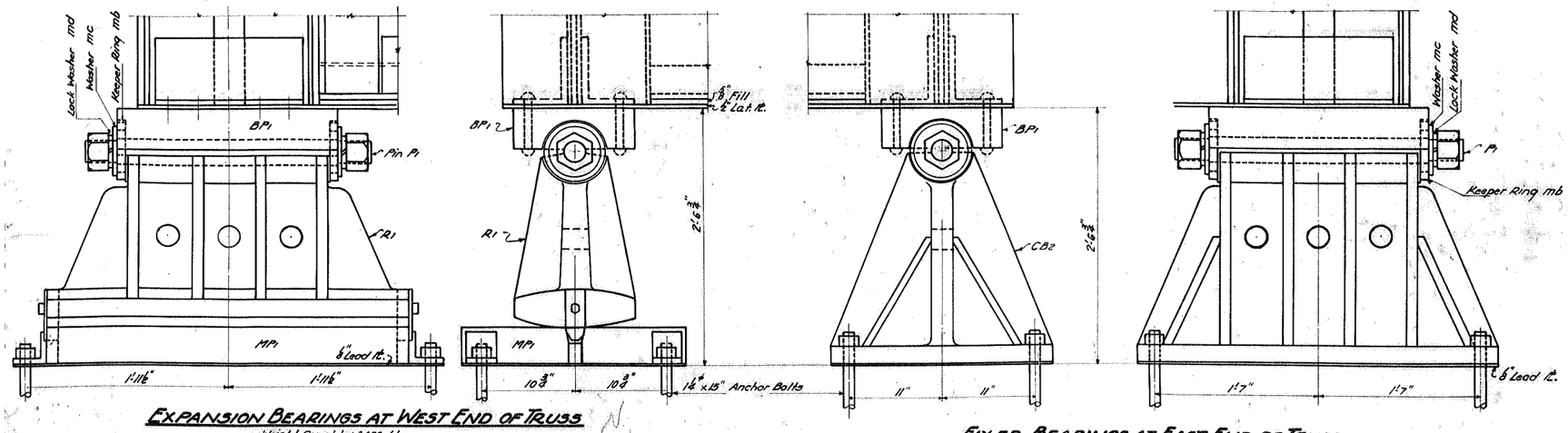
Cast Steel Annealed
4 Req'd. Weight Each: 172#



PIN-P1

8 Req'd.

1-Pin 3"x 2'-9½"
2-Keeper Rings 7⅛" with 3½" Drilled Hole-mb
2-Washers 6½"x with 2⅜" Hole-mc
2-Lock Washers 2" thick with 2⅜" Hole md
2-Stad. Hex. Nuts-2½" Top-me
Weight of one Complete: 90 Lbs.

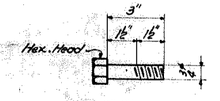


EXPANSION BEARINGS AT WEST END OF TRUSS

Weight Complete: 3420 Lbs.

FIXED BEARINGS AT EAST END OF TRUSS

Weight Complete: 2570 Lbs.



TAP BOLT-ma

Note
Steel Castings Est. Weight 13160 # shall be included for payment as Cast Steel. Weight of all other parts of Bearing Details including Anchor Bolts and Lead Plates are included for payment as "Structural Carbon Steel"

COMPUTED	J.A.F. Fraser	
CHECKED	M.G.P.	
DRAWN	J.A.F.	M. Miller
CHECKED	J.M.	G.P.

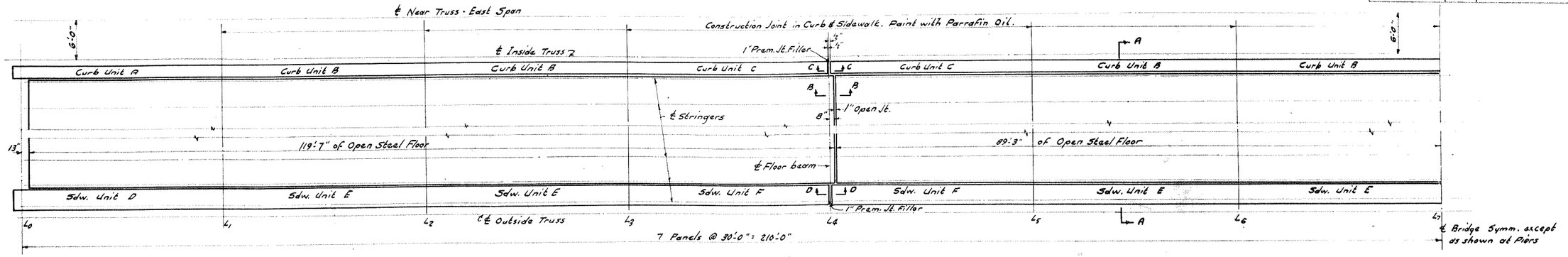
EXAMINED 9-19 1947
S. F. Bush
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

BEARINGS FOR TRUSS SPANS
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 - SEC. 42-F.E.P.-11
COOK COUNTY

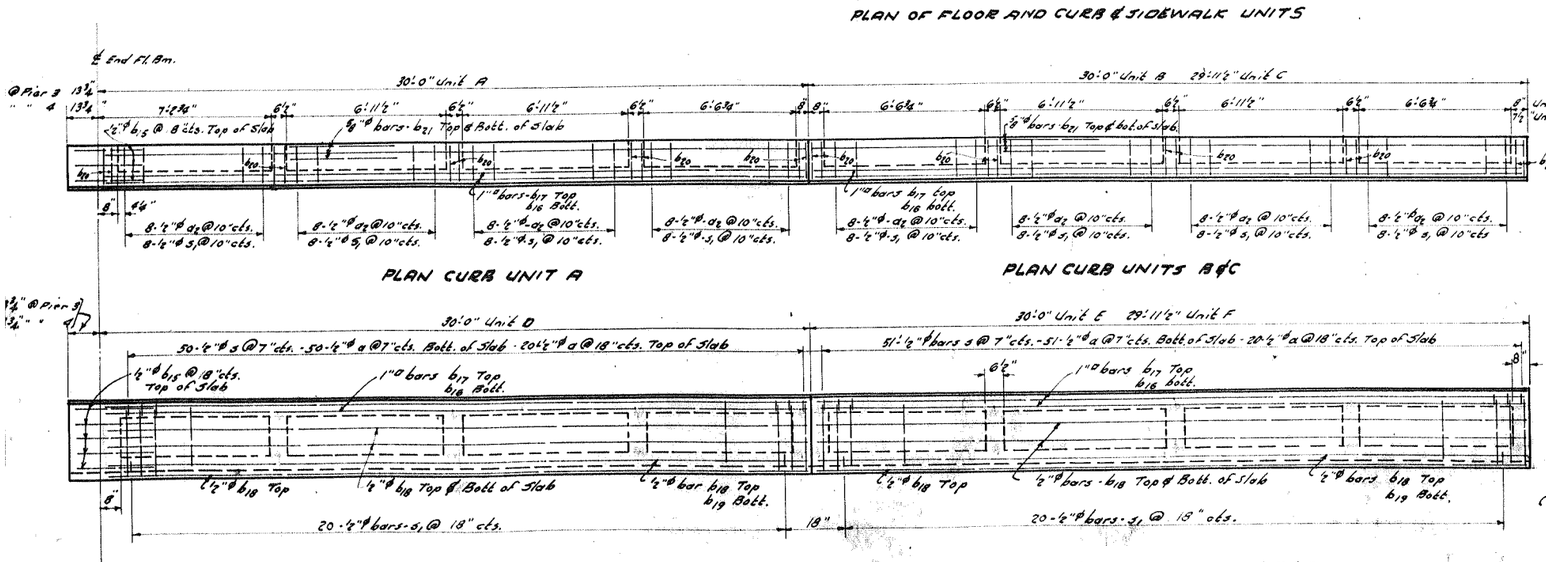
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

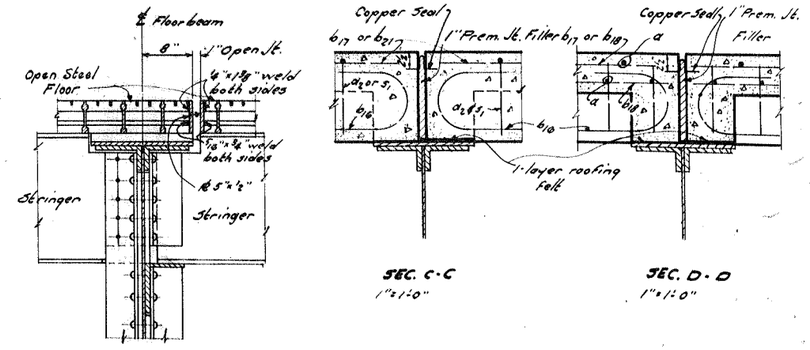
BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 122	42B-11 42E-11 42E-11 42F-11	COOK	30	15
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 13
27 SHEETS

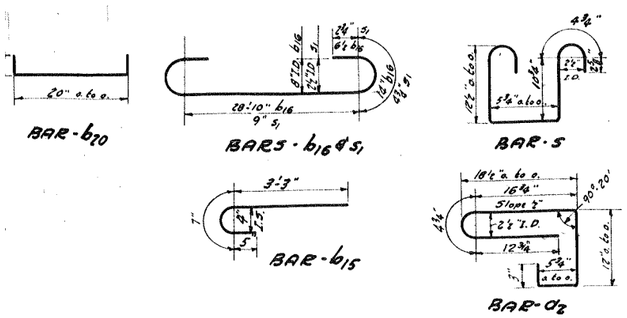


PLAN OF FLOOR AND CURB & SIDEWALK UNITS

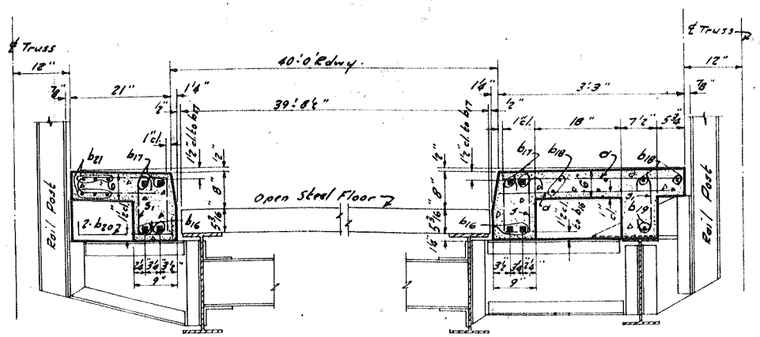




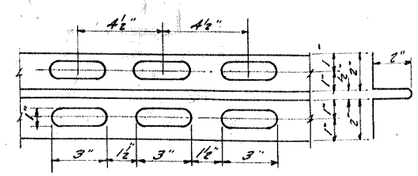
PLAN SIDEWALK UNIT D



PLAN SIDEWALK UNITS E & F



Roadway floor shall consist of 3 Beam Lok Open Floor units (TR Type) 5 5/16" thick as detailed on Sh. 17 of the plans, or equal.



DETAIL OF COPPER SEAL

Copper Seal shall be 10 oz. cold rolled annealed Copper with perforated flanges. Splices, where necessary, shall be soldered or brazed. Cost shall be included in contract unit price for Class X Concrete.

BILL OF MATERIAL FOR 2 BRIDGES
FLOOR, CURB & SIDEWALK

Bar	No	Size	Length	Shape
a	1984	½"ϕ	3'-0"	
a_2	896	"	4'-6"	
b_{15}	32	"	4'-3"	
b_{16}	112	1" ϕ	32'-3"	
b_{17}	112	1" ϕ	29'-6"	
b_{18}	336	½"ϕ	15'-9"	
b_{19}	112	"	7'-3"	
b_{20}	280	"	2'-7"	
b_{21}	336	⅝"ϕ	15'-9"	
s	1424	½"ϕ	3'-6"	
s_1	1456	½"ϕ	2'-0"	
Cl. X Conc.			Cu. Yds.	131.8
Reinf. Bars			Lbs.	45570
Open Steel Floor			Sq. ft.	33600

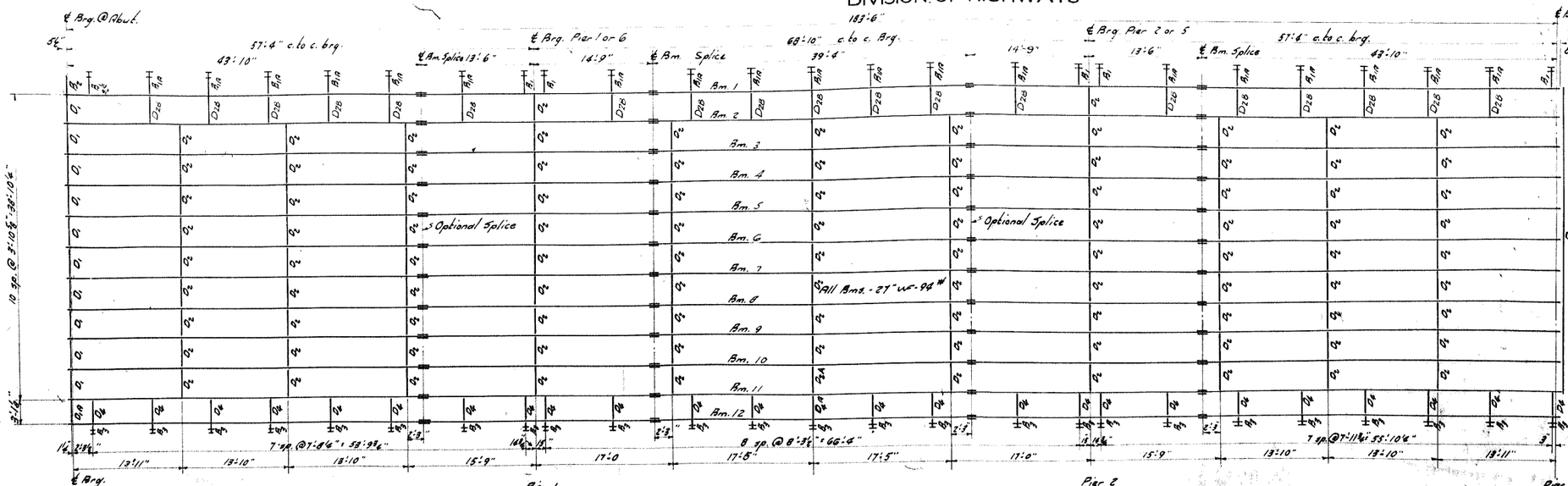
COMPUTED	R. Smith	
CHECKED	J.A. Fraser	
DRAWN	R. S.	Sutter
CHECKED	J.A.F.	

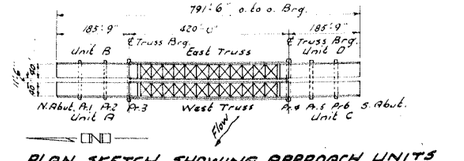
EXAMINED ____ 19__
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

CURB, SIDEWALK AND FLOOR
FOR TRUSS SPANS
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 ~ SEC. 42-E-P-11
COOK COUNTY
STA. 72+54.39

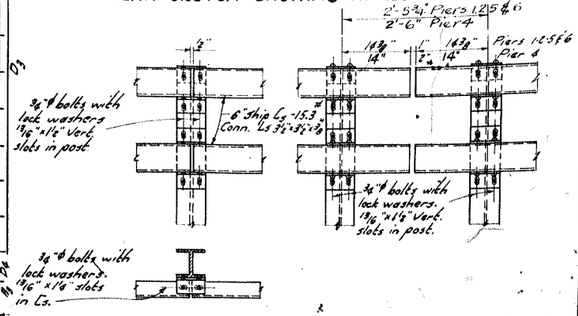
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
FAI 22	42B-11 42C-11 42D-11 42P-11	COOK	30	16	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			





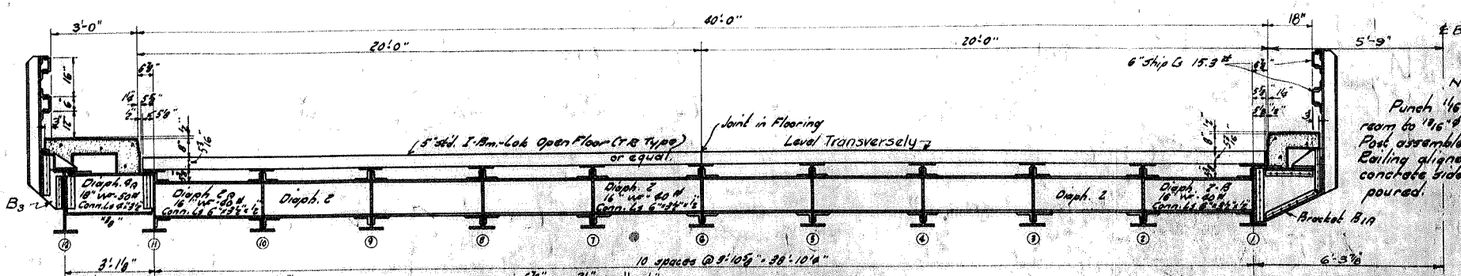
PLAN SKETCH SHOWING APPROACH UNITS



DETAIL OF RAIL JOINTS AT INTERMEDIATE POINTS AT PIERS 1-2-4-5 & 6

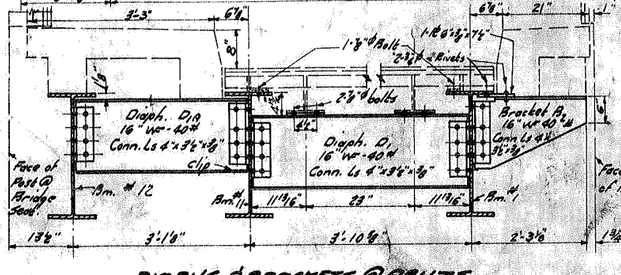
DETAIL OF RAIL AT PIERS 1-2-4-5 & 6

STRUCTURAL STEEL LAYOUT - SHOWING UNIT A
UNITS B-C & D ARE SIMILAR - SEE SKETCH
Optional splices may be omitted, if preferred by agreement between Erector & Fabricator.

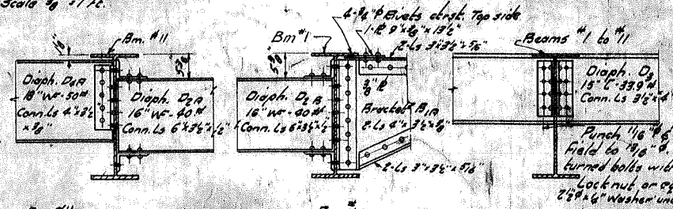


NOTE "A"
Punch 1/16" ϕ in shop and ream to 13/16" ϕ in field with Post assembled to Beam & Railing aligned before concrete sidewalk is poured.

TYPICAL CROSS-SECTION
Scale ¾" = 1'-0"



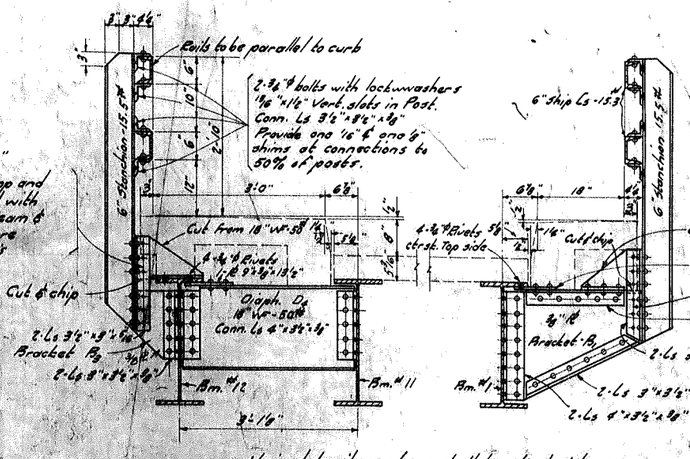
DIAPHS. & BRACKETS @ ABUTS.



DETAIL OF DIAPHS. D_{2A} & D_{2A} @ BM. # 11

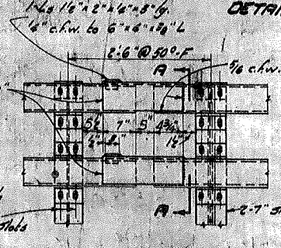
DETAIL OF DIAPH. D_{2B} & BRACKET B_{1A} @ BM. # 1

DETAIL OF DIAPH. D_3 @ BMS. 1 TO # 11 (INCL.)

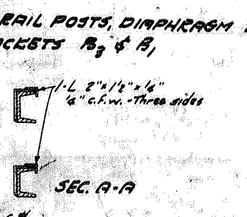


Horizontal rail members shall be adjusted to true alignment after concrete sidewalk has been poured.

DETAIL OF RAIL POSTS, DIAPHRAGM D_4 & BRACKETS B_3 & B_1



DETAIL OF RAIL AT PIER # 3



NOTE - Rivets ¾" ϕ, Holes 13/16" ϕ unless noted.

STANDARD	COMPUTED	M.G.P.	
	CHECKED	E.R.M.	
	DRAWN	M.G.P.	Sutzer
	CHECKED	E.R.M.	
SPECIAL			

EXAMINED 9-19 1944
L. F. Burch
PASSED H. E. Conover ENGINEER OF DESIGN
APPROVED C. M. Hathaway CHIEF HIGHWAY ENGINEER

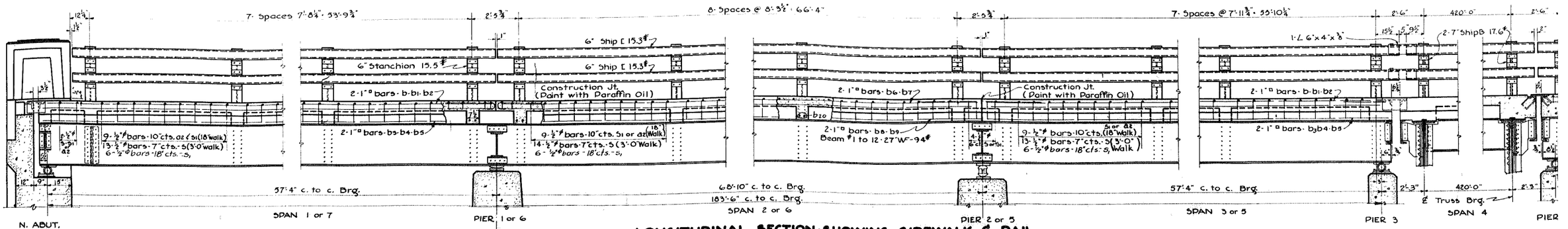
APPROACH SPANS - STR. STEEL

LITTLE CALUMET RIVER BRIDGE
PROJECT U1 246 (1)
F.A.R.T. 122 SEC. 42-F-E-P-11
COOK COUNTY

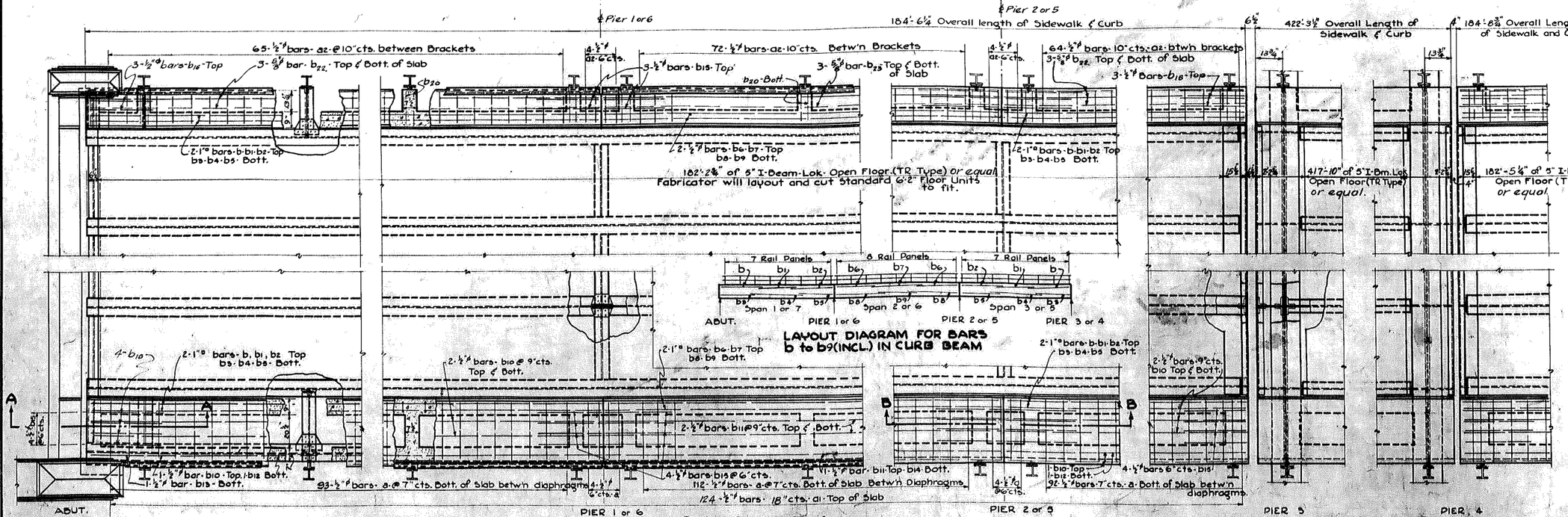
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 122	422B-11 422C-11 422E-11 422I-11	COOK	30	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

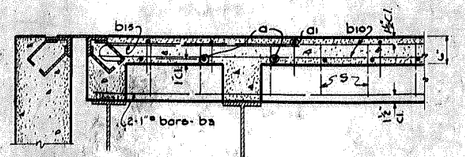
SH 27

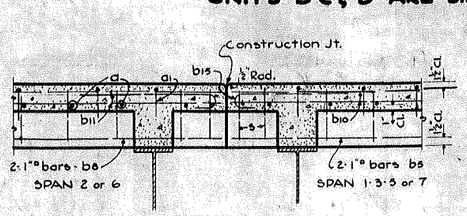


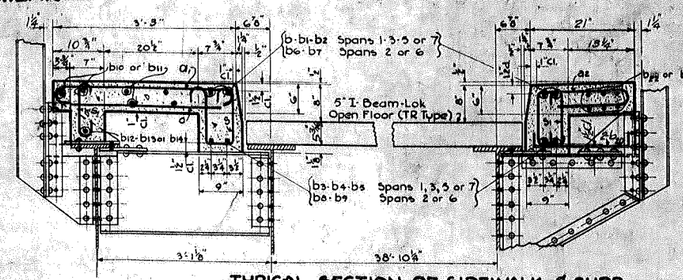
LONGITUDINAL SECTION · SHOWING SIDEWALK & RAIL

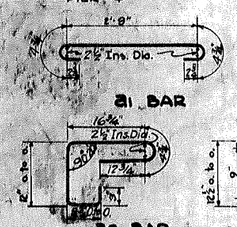


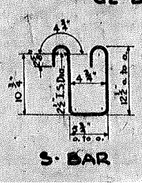
PLAN OF UNIT A
UNITS B-C & D ARE SIMILAR











BILL OF MATERIAL FOR APPROACH UNITS A

BAR	NO.	SIZE	LENGTH
a	1220	½" ø	3'-0"
a1	496	½" ø	4'-0"
a2	836	½" ø	4'-6"
b	32	1" ø	22'-6"
b1	32	"	19'-6"
b2	32	"	23'-0"
b3	32	"	18'-6"
b4	32	"	27'-6"
b5	32	"	19'-0"
b6	32	"	23'-9"
b7	16	"	28'-6"
b8	32	"	23'-0"
b9	16	1" ø	20'-0"
b10	144	½" ø	20'-6"
b11	72	½" ø	24'-3"
b12	56	½" ø	7'-6"
b13	4	"	2'-6"
b14	32	"	8'-0"
b15	168	"	4'-3"
b20	208	½" ø	2'-3"
b22	144	⅝" ø	20'-6"
b23	72	⅝" ø	24'-3"
S	1220	½" ø	3'-6"
S1	1400	½" ø	2'-0"

Reinforcement Bars	Lbs.
Class "X" Concrete	Cu. Yd.
Structural Steel	Lbs.
Open Steel Floor	Sq. Ft.

APPROACH SPANS - SIDEW

COMPUTED	M. G. Petry	
CHECKED	E. [illegible]	
DRAWN	M. G. P.	10/15/48
CHECKED	E. R. S.	

EXAMINED 9-19 1949
G. F. Bunch
BRIDGE ENGINEER
PASSED [signature]
ENGINEER OF DESIGN
APPROVED K. M. Hathaway
CHIEF HIGHWAY ENGINEER

LITTLE CALUMET RIVE
PROJ. UI 24.6 (
F.A. RT. 122 SEC. 42-
COOK COUNT
STA. 72+54.3

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

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 122	228-11 415-11 426-11 427-11	COOK	30	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHE
27 S

Expansion Device
13"x¾" PL 5/16" c.f.w. to L
5"x3½"x½" Ls ⅜" c.f.w. to Pedestals
Cut Pedestals from 16"WF-71#

½" Prem. Jt. Filler installed by Paving Contr.

Cl. X Conc. to be placed by Contr. for Sec. 42-2-11

5" 36# I-Bm. Lok. Open Floor (TR Type) or equal.

2-⅞" ϕ Bolts with Anco Nuts or equal ϕ 2'-6" x 4" washers

Diaph. D1 16"WF-40# Conn. Ls 3½"x4"x⅜" 27"WF-94#

Top Brg. PL 10"x1"x11" 5/16" Fillet weld-4 sides

6" Roller

Bott. Brg. PL 10"x1"x11" 4 sides

Lead PL 11"x⅜"x21"

2-Anchor bolts ⅞" ϕ x10" with 2½"x2½"x5/16" PL wash.

2-¾" ϕ Bars 11" lg.

DETAILS AT ABUTS

clip

Diaph. D2 16"WF-40# Conn. Ls 3½"x6"x½"

2¾" Rod

Top Brg. PL 9"x2"x11" 5/16" Fillet weld

Bott. Brg. PL 9"x1½"x19" 2-1¼" ϕ Pintles

Lead PL 9"x⅜"x19"

2-Anchor Bolts ¾" ϕ x 12" with 2½"x2½"x5/16" PL wash.

℄ Brg. & Pier

DETAIL @ PIERS #1 & #6

A

A

2-Fl. Sp. PLs. 4"x1"x3'-6¼"

2-Web Sp PLs 12"x⅜"x22½"

1 Fl. Sp. PL 10"x⅝"x3'-10¾"

SEC. A-A

6 sp. @ 3" 3¼" 6 sp. @ 3"

TOP FLANGE

5 sp. @ 3" 3¼" 5 sp. @ 3"

BOTT. FLANGE

⅞" ϕ Rivets

DETAIL OF BM. SPLICE & TYPICAL INTERMEDIATE DIAPHRAGM

clip

Diaph. D2 16"WF-40 Conn. Ls. 3½"x6"x½"

Top Brg. PL 10"x1½"x11" 5/16" Fillet weld-4 sides 1¼" Basker-Use 10"WF-112#

Bott. Brg. PLs 10"x1½"x19" Lead PL 10"x⅜"x19" 2-Anchor Bolts ¾" ϕ x 10" with 2½"x2½"x5/16" PL wash.

℄ Brg. & Pier

DETAIL @ PIERS #2 & #5

7"x1½" Trim PL

Diaph. D3 15"C-33.9# Conn. L's 4"x3½"x⅜"

Top Brg. PL 10"x1"x11" 5/16" Fillet weld-4 sides

6" Roller

℄ Brg. of Truss.

Bott. Brg. PL 10"x1"x11" 11"x⅜"x21" Lead PL 11"x⅜"x21" 2-Anchor Bolts ¾" ϕ x 10" with 2½"x2½"x5/16" PL washers 2-¾" ϕ Bars 11" lg.

DETAIL @ PIER #3

5"x1" Trim PL

7"x1½" Trim PL

Diaph. D3 15"C-33.9# Conn. L's 4"x3½"x⅜"

Brg. Details same as Pier

℄ Brg. of Truss

DETAIL @ PIER #4

11"

6½" 4½"

4" 5" 5" ½"

21"

6" "L"

PLAN @ ABUTS.

9"

14 ϕ holes

1¼" ϕ Pintles

4½" 4½"

19"

PLAN @ PIERS #1 & #6

10"

5" 5"

14 ϕ Pintles

1½" ϕ holes

2"

19"

PLAN @ PIERS #2 & #5

11"

5" 5"

1½" ϕ Holes

21"

PLAN @ PIERS #3 & #4

14¾"

1" 11⅜" ½"

Anch. Pins 2½" ϕ

1"x½" Ring 5/16" c.f.w. Outside

6"

Rollers may be turned from solid

DETAIL OF ROLLERS
96 Req'd.

1¾" ϕ

⅛"

1"

¾"

3" Rad.

Pintle shall be press fit or threaded in base plate

1¼" ϕ

288 Req'd.

DETAIL OF PINTLE

11¼"

¾" ϕ

½"

½"

¾" Brg. PL

1" Abut. Pier 3 & 4

6" Lead ℄

1" Piers 3 & 4

℄ of Rs.

10" Piers 3 & 4

5/16" Fillet weld 4 sides

¾" ϕ bar

Seam weld

⅜" c.f.w.

¾" ϕ x 10" Anchor Bolts 2½"x2½"x5/16" PL wash. under Nut. 1½" ϕ Holes in bott. of Brg. PL

17½"

13¼"

21" Abuts. Piers 2, 3 & 5

11" Piers 3 & 4

DETAIL OF EXPANSION BEARINGS ABUTS. PIERS #3 & #4

11" Piers 1 & 6

1½"

5½"

½"

14" ϕ Pintles 5/16" Fillet welds 4 sides

13¼" Piers 1 & 6

6" Lead ℄

1"x½" Anchor Bolts 2½"x2½"x5/16" PL washers under Nut. 1½" ϕ Holes in Bott. PLs.

2"

15"

19" Piers #1 & 6

4½"

9"

℄ & ℄ Brg.

2¾" Rod

Piers 1 & 6

DETAIL OF FIXED BEARINGS PIERS #1 & #6

℄ Brg.

3½" 1" 4½" @ 50° F.

10" Abut.

1"

5/16" fillet weld 4 sides

¾" ϕ bar

Seam weld

⅜" c.f.w.

5½" 5½"

11" Abut.

℄ Bott. Brg. PL @ Abut.

Plane edges 2-1¼" ϕ Pintles

10"

Use 10"WF-112#

11¼"

12½"

2-PL 3½"x⅝" weld all around & both sides with 5/16" c.f.w.

8"

DETAIL OF ROCKER
24 Req'd.

℄ Brg.

5" 5"

5/16" fillet weld 4 sides

5/16" c.f.w. Both sides

11¼"

10"

¾" ϕ x 10" Anchor Bolts. 2½"x2½"x5/16" PL wash. under Nut. 1½" ϕ Holes in Bott. Brg. PL.

DETAIL OF EXPANSION BEAR
PIERS #2 & #5

DESIGNED M. J. Feler
DETAILED E. R. Nikolaou
DRAWN M. J. F.
CHECKED E. R. N.
EXAMINED
APPROVED

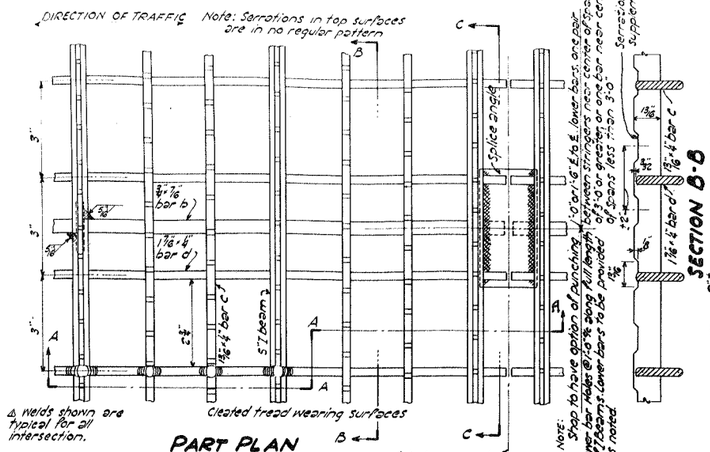
BEARING DETAILS & BEAM S

LITTLE CALUMET RIVER BRI
PROJECT U I 246(1)
F.A. RTE. 122 SEC. 42-F-
COOK COUNTY
STA. 72+54.39

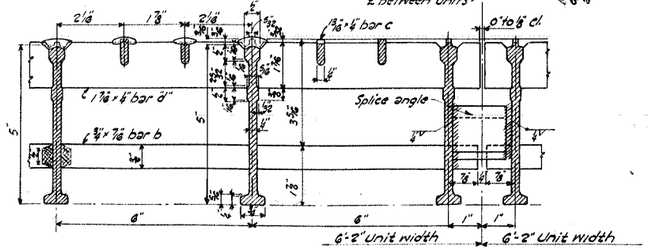
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUND-LOOSE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 122	42B-1 H 42C-1 H 42D-1 H	COOK	30	13
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		

SHEET NO. 275



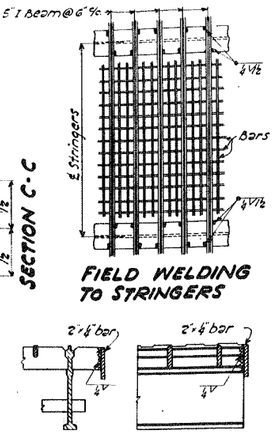
PART PLAN



SECTION A-A

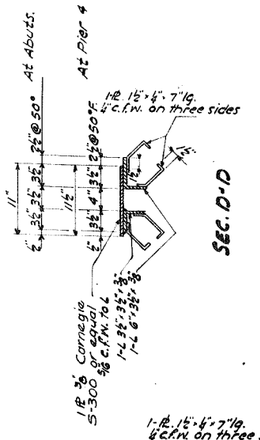
SECTION B-B

SECTION C-C

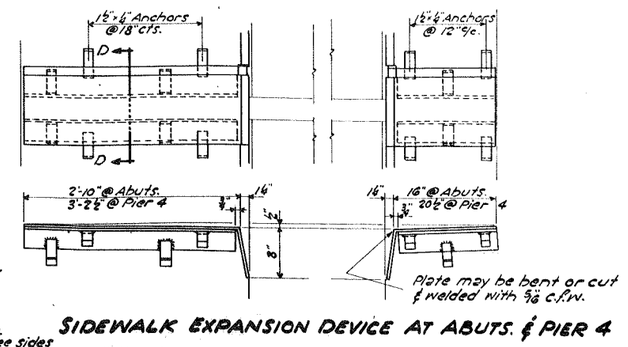


FIELD WELDING TO STRINGERS

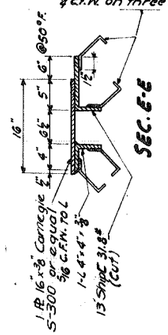
SIDE TRIM END TRIM



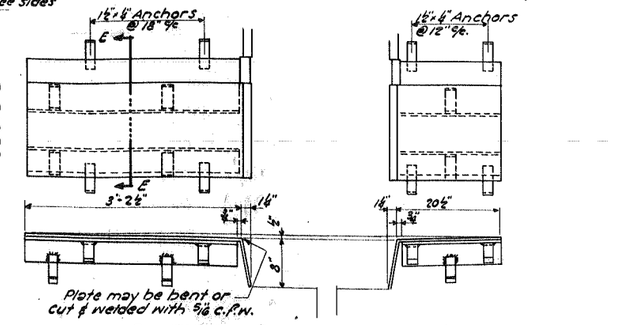
SEC. D-D



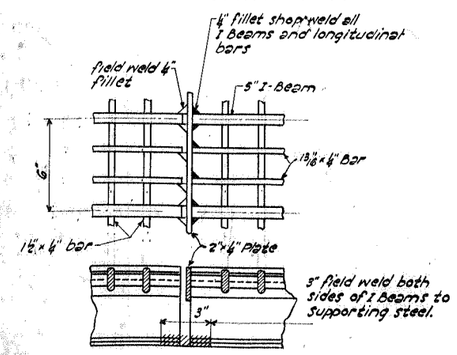
SIDEWALK EXPANSION DEVICE AT ABUTS. & PIER 4



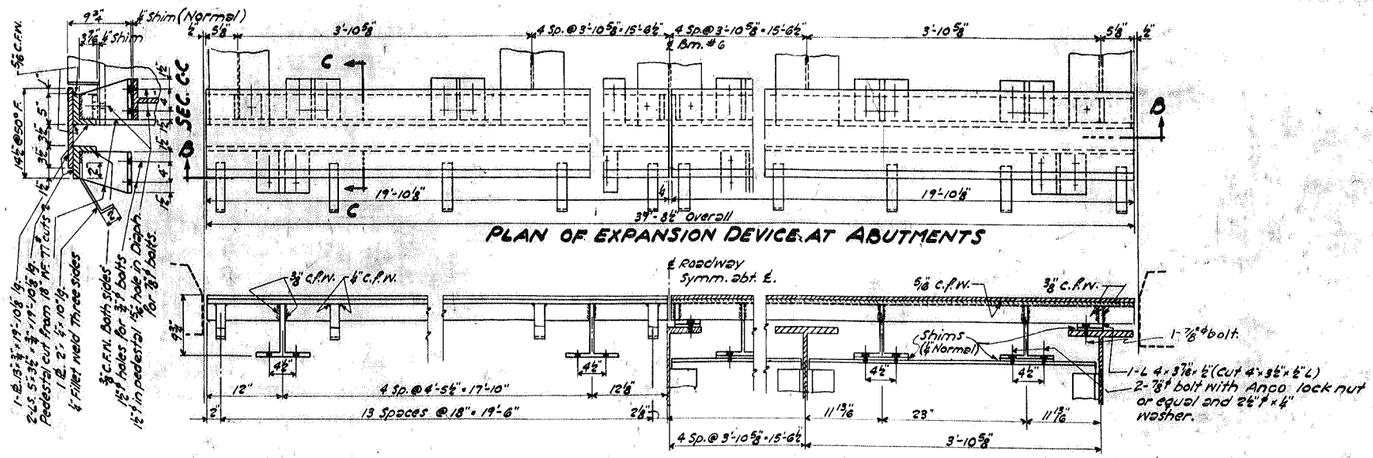
SEC. E-E



SIDEWALK EXPANSION DEVICE AT PIER 3



TYPICAL FIELD SPLICE FOR END OF UNITS



PLAN OF EXPANSION DEVICE AT ABUTMENTS

SECTION B-B

¼" normal shims shall be composed of 1-⅛" and 2-1/16" shims.
In addition to ¼" normal shim, provide 1-1/16" and 1-⅛" shim at each support.

Copper Bearing Steel (ASTM Designation A-7 with copper added) shall be used in all angles and plates of and roadway expansion devices.
Estimated weight of Copper Bearing Steel, 14120 Lbs for payment as Structural carbon steel.

DESIGNED	M. G. Peters	
CHECKED	J. A. Fraser	
DRAWN	M. G. P.	
CHECKED	J. A. F.	

7-1 19 47

EXAMINED	E. E. Burch, BRIDGE ENGINEER
PASSED	ENGINEER OF DESIGN
APPROVED	CHIEF HIGHWAY ENGINEER

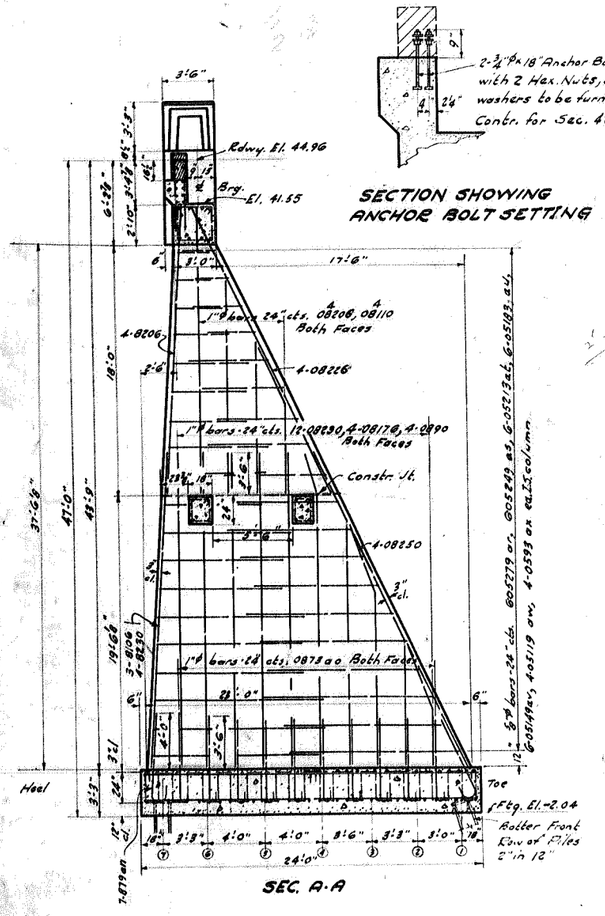
OPEN STEEL FLOOR DETAILS
AND EXPANSION DEVICES

LITTLE CALUMET RIVER BRIDGE
PROJ. U1-246 (1)
F.A. RT 122 SEC. 42-F-E-P-I
COOK CO.
STA. 72+54.39

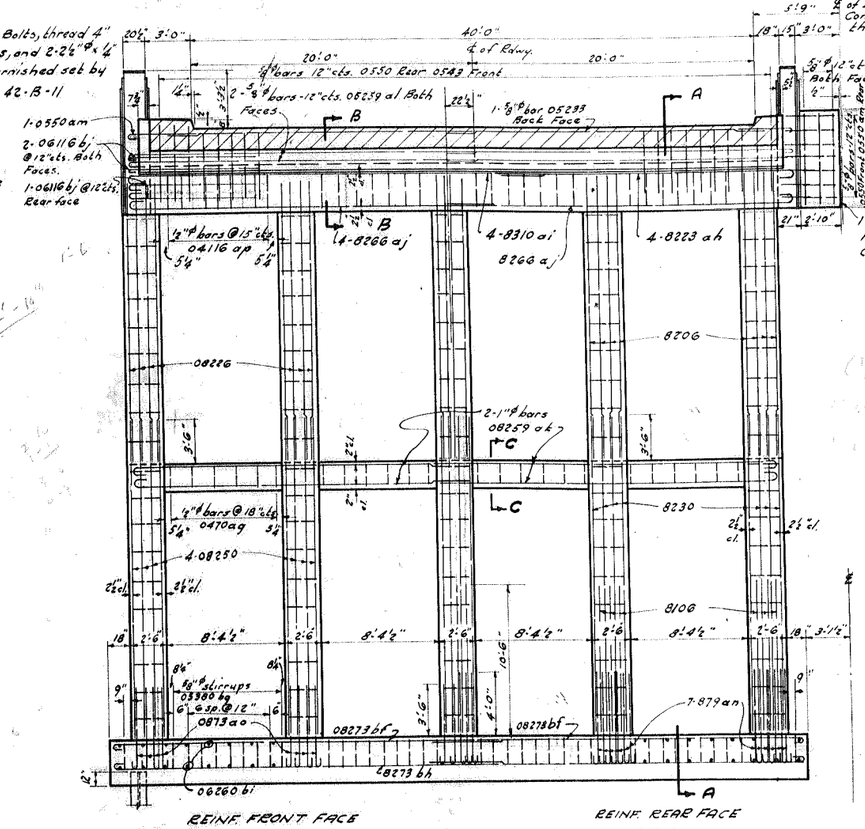
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND-ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 122	42B-11 42F-11 42E-11 42F-11	COOK	30	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

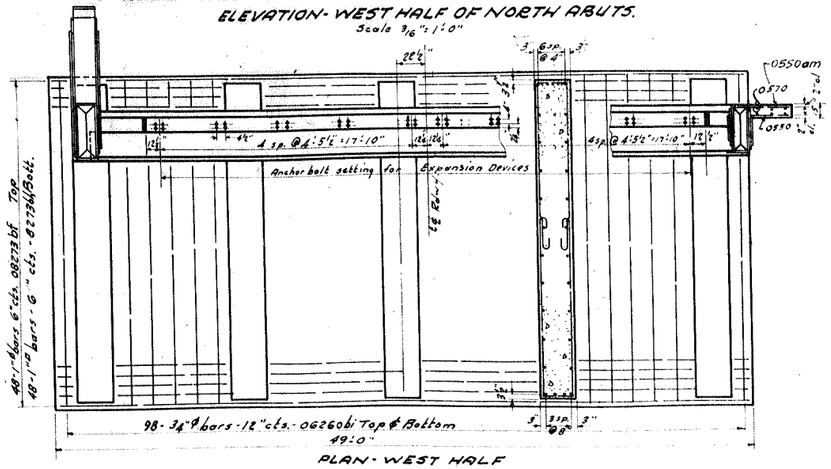
SHE 27



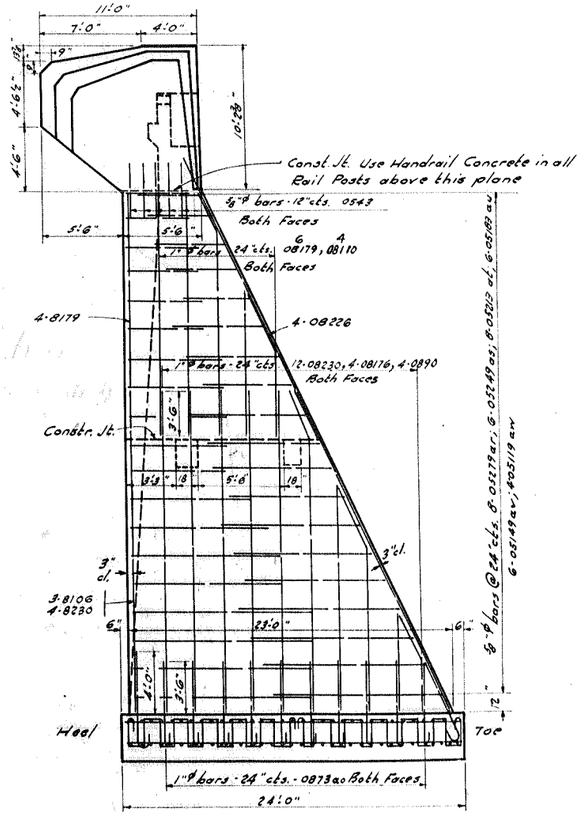
SECTION SHOWING ANCHOR BOLT SETTING



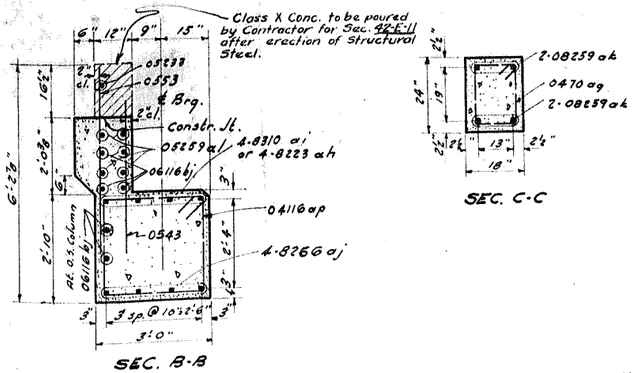
ELEVATION - WEST HALF OF NORTH ABUTS.
Scale 3/16" = 1'-0"

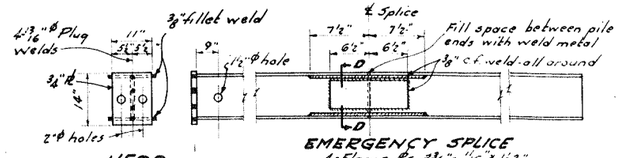


PLAN - WEST HALF

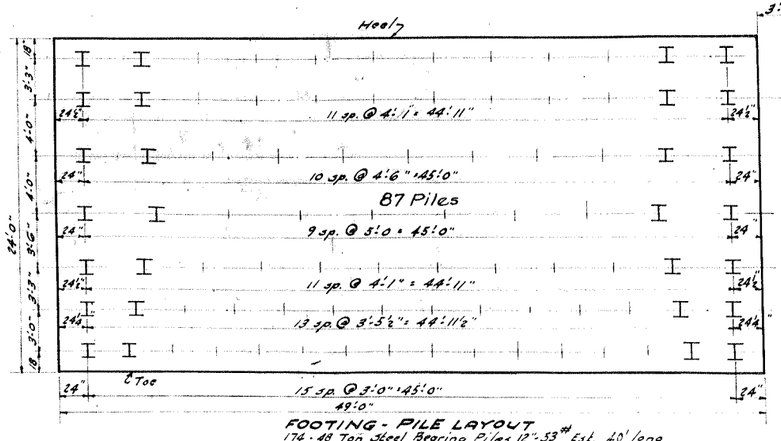


END ELEVATION





DETAIL OF 12" - 53# STEEL BEARING PILE



FOOTING - PILE LAYOUT
174 - 48 Ton Steel Bearing Piles 12"-53# Est. 40' long
Total Lin. Ft. of Piling = 6960 Lin. Ft.

See Sh. #19 for details of Rail Posts & Rail Post Reinforcement.

DESIGNED W. G. Peter
CHECKED J. A. Fraser
DRAWN W. G. P.
CHECKED J. A. Fraser

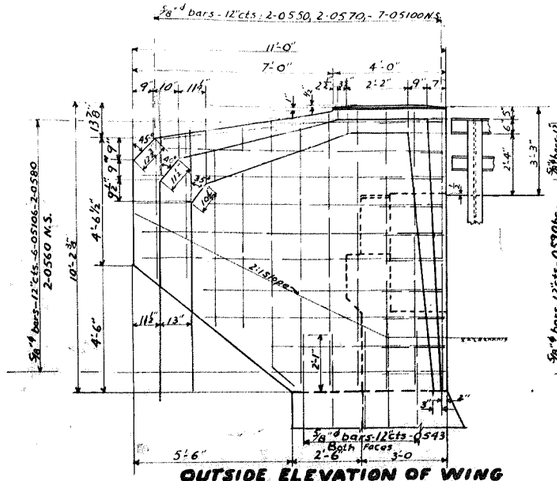
EXAMINED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

NO. ABU
LITTLE CALUMET RIV
PROJECT U
F.A. RTE. 122 SE
COOK CO
STA. 72+

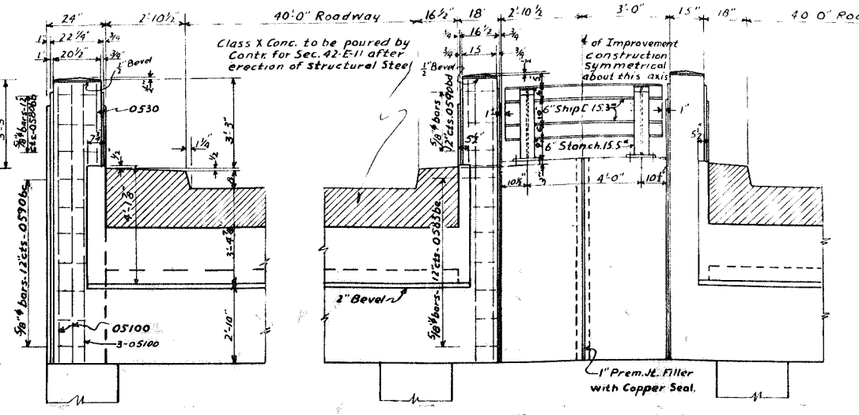
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 122	420-11 421-11 422-11	COOK	30	21

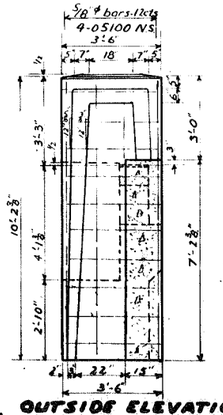
SHEET 27



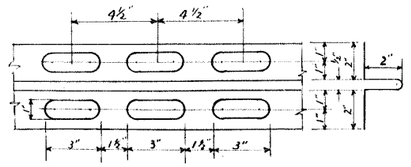
OUTSIDE ELEVATION OF WING
Scale 3/8" = 1'-0"



FRONT ELEVATION-SHOWING WING, RAIL POST & HANDRAIL

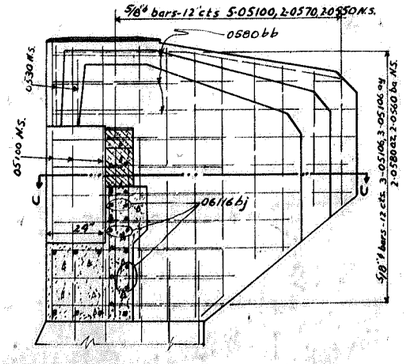


OUTSIDE ELEVATION-RAIL POST

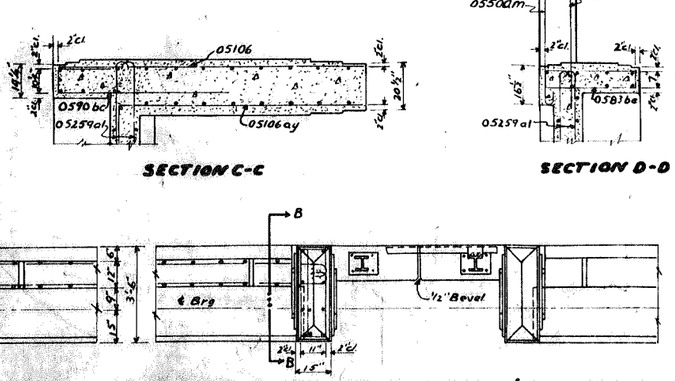


DETAIL OF COPPER SEAL

Copper Seal shall be 16 oz. Cold Rolled Annealed Copper with perforated Flanges. Splices if necessary shall be soldered or brazed. Cost shall be included in contract unit price for Class X Concrete.



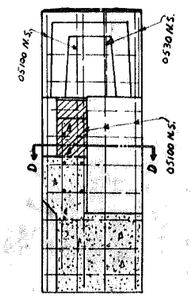
SECTION A-A



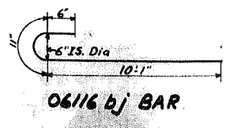
PLAN-SHOWING, RAILPOST & HANDRAIL

SECTION C-C

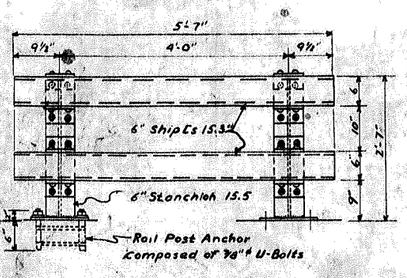
SECTION D-D



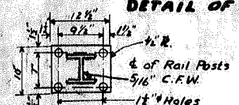
SECTION B-B



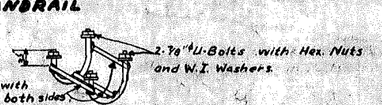
06116 bj BAR



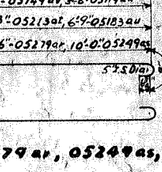
DETAIL OF METAL HANDRAIL



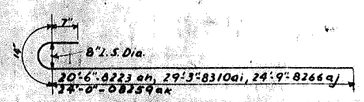
DETAIL OF BASE PL.



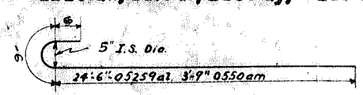
DETAIL OF RAILPOST ANCHORS
2 ea. Required



0873 aa, 879 an BARS 05149 av, 05119 aw, 0593 ax Bars

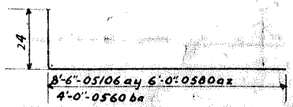


8223 ah, 8310 ai, 8266 aj, 08259 ak BARS

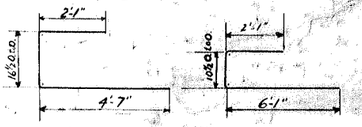


05259 al, 0550 am BARS

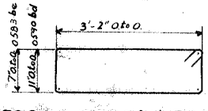
0411 6 ap BAR 0470 ag BAR



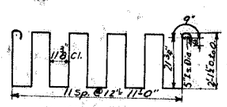
05106 ay, 0580 az, 0560 ba BARS



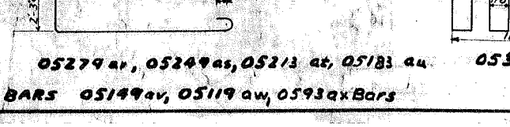
0580 bb BAR 0590 bc BAR



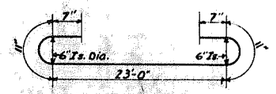
0583 ba, 0590 bd BARS



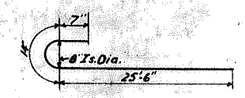
0538 0 bg BAR



05279 ar, 05249 as, 05213 at, 05183 au



06260 bi BAR



08273 bf, 8273 bh BARS

NORTH ABUTMENT BILL OF MATERIAL

Mark	No.	Size	Length
8223 ah	8	1" ϕ	22'-3"
8310 ai	8	1" ϕ	31'-0"
8266 aj	16	1" ϕ	26'-6"
08259 ak	32	1" ϕ	25'-9"
8273 bh	192	1" ϕ	27'-3"
08179	12	1" ϕ	17'-9"
05233	4	5/8" ϕ	23'-3"
06260 bi	196	3/4" ϕ	26'-0"
05259 al	16	5/8" ϕ	25'-9"
0550 am	18	5/8" ϕ	5'-0"
0550	110	5/8" ϕ	5'-0"
0570	12	5/8" ϕ	7'-0"
879 an	70	1" ϕ	7'-9"
0873 aa	240	1" ϕ	7'-3"
8106	30	1" ϕ	10'-6"
8230	40	1" ϕ	23'-0"
8206	32	1" ϕ	20'-6"
8179	8	1" ϕ	17'-9"
08250	40	1" ϕ	25'-0"
08226	40	1" ϕ	22'-6"
0543	108	5/8" ϕ	4'-3"
08230	120	1" ϕ	23'-0"
08176	40	1" ϕ	17'-6"
0890	40	1" ϕ	9'-0"
08206	32	1" ϕ	20'-6"
08110	40	1" ϕ	11'-0"
04116 ap	56	1 1/4" ϕ	11'-6"
04709 g	96	1 1/4" ϕ	7'-0"
05279 ar	64	1 1/4" ϕ	27'-9"
05249 as	60	1 1/4" ϕ	24'-9"
05213 at	64	1 1/4" ϕ	21'-3"
05183 au	60	1 1/4" ϕ	18'-3"
05149 av	60	1 1/4" ϕ	14'-9"
05119 aw	40	1 1/4" ϕ	11'-9"
0593 ax	32	1 1/4" ϕ	9'-3"
05100	50	1 1/4" ϕ	10'-0"
0570	8	1 1/4" ϕ	7'-0"
0550	8	1 1/4" ϕ	5'-0"
0530	8	1 1/4" ϕ	3'-0"
05106	18	1 1/4" ϕ	10'-6"
0580	4	1 1/4" ϕ	8'-0"
0560	4	1 1/4" ϕ	6'-0"
05106 ay	6	1 1/4" ϕ	10'-6"
0580 az	4	1 1/4" ϕ	8'-0"
0560 ba	4	1 1/4" ϕ	6'-0"
0580 bb	6	1 1/4" ϕ	8'-0"
0590 bc	18	1 1/4" ϕ	9'-0"
0590 bd	6	1 1/4" ϕ	9'-0"
0383 ba	14	1 1/4" ϕ	9'-3"
08273 bf	192	1" ϕ	27'-3"
06116 bj	12	3/4" ϕ	11'-6"
05380 bg	152	5/8" ϕ	38'-0"

Sec 42-E-11		
	Class X Conc.	Cu.Yds.
	Hand Rail Concrete	Cu.Yds.
	Class X Conc.	Cu. Yds.
	Reinforcement Bars	Lbs.
	Furnishing Steel Piles	Lin.Ft.
	Driving Steel Piles	Lin.Ft.
	Steel Test Piles	Ea.
	Structural Carbon Steel	Lbs.

Hand Rail concrete shall be used in end and wing

DESIGNED	M. G. Polic	EXAMINED	2-19 19[illegible]
CHECKED	J.A. Fraser	PASSED	
DRAWN	M.G.P. A.Vidal	APPROVED	
CHECKED	J.A.F.		

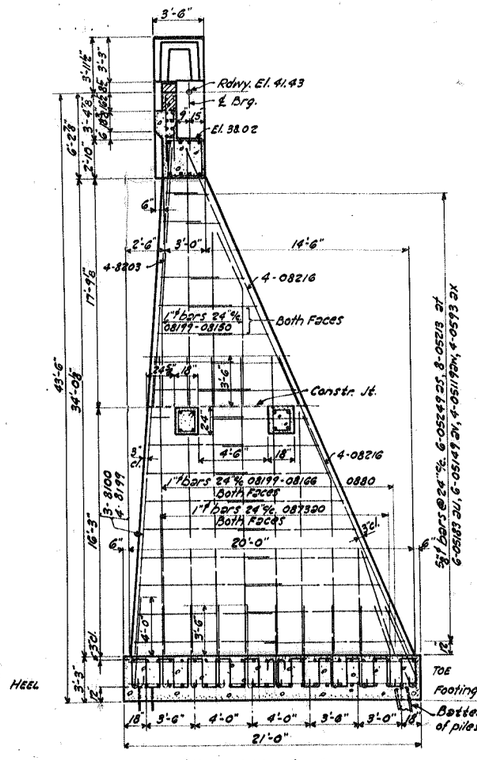
NORTH ABUTMENT

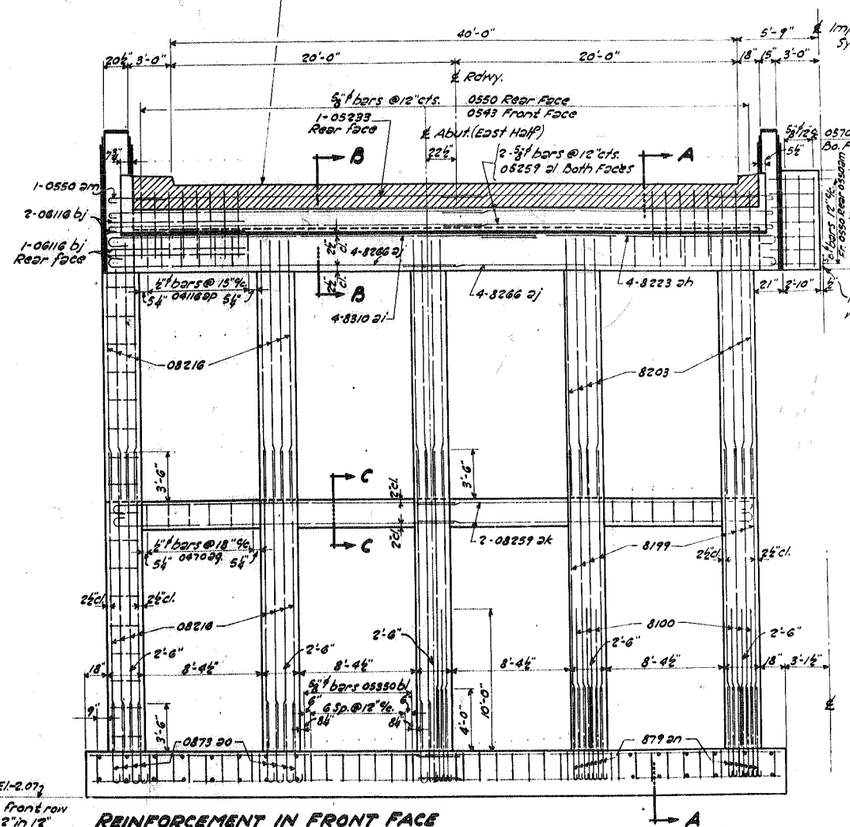
LITTLE CALUMET RIVER BRIDGE
PROJECT UI 246(1)
F.A.R.T. 122 SEC 42-B-E-11
COOK COUNTY
STA. 72+54.39

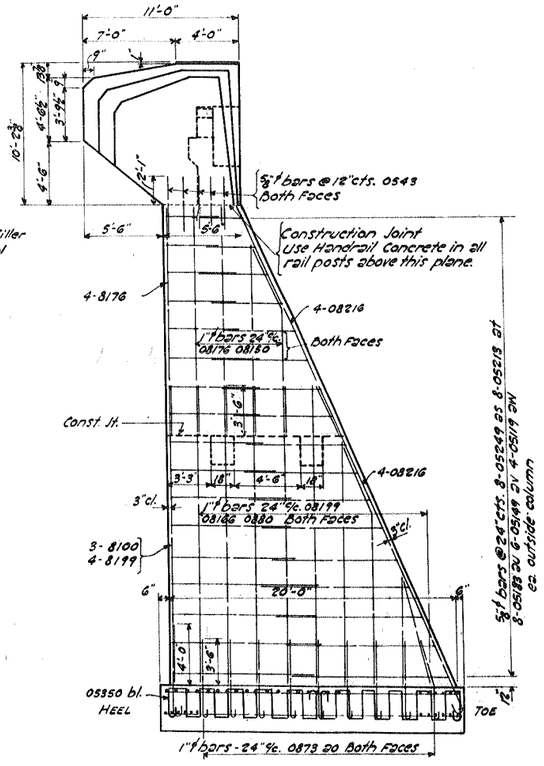
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

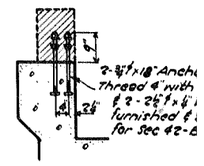
60000-19901 ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 122	42B-11 42E-11 42F-11 42H-11	COOK	30	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

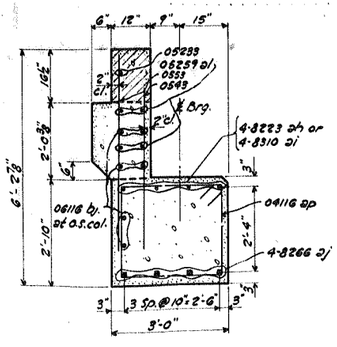
SHEE
27 SH

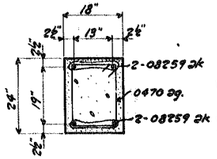


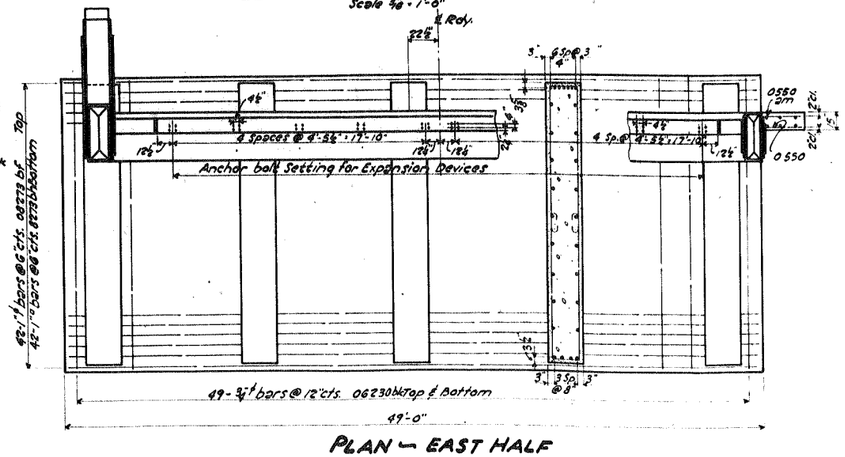


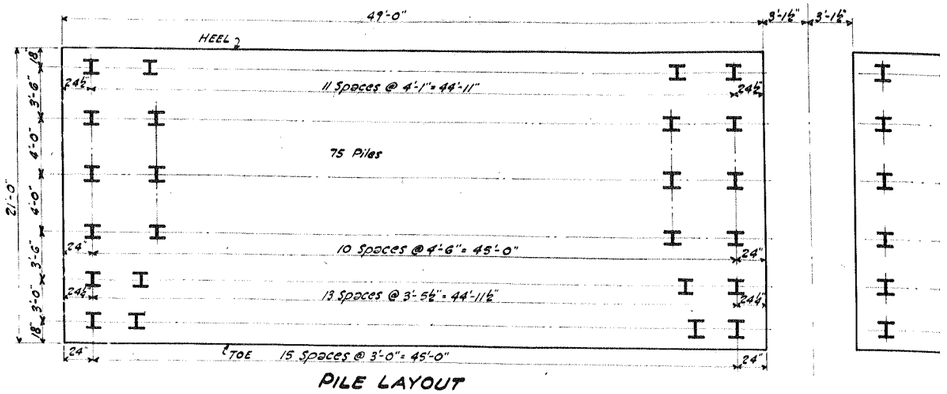












See Sheet No. 21 for details of Rail Posts and Rail Post Reinforcement.
See Sheet No. 18 for Steel bearing Pile details.

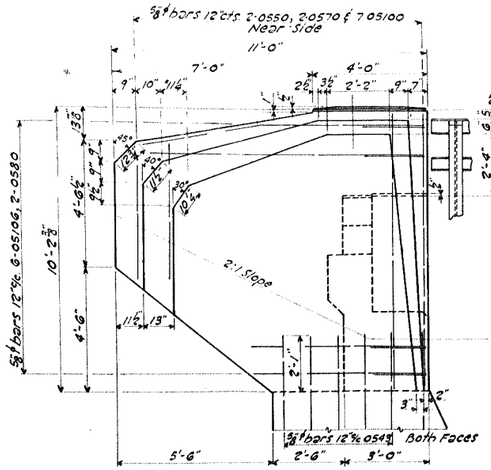
DESIGNED H.G.P.
CHECKED J.A. Fraser
DRAWN H.G.P.
CHECKED J.A.F.
EXAMINED ..... 19 ..
BY ..... ENGINEER
APPROVED ..... ENGINEER OF BR.
..... HIGHWAY ENGINEER

SOUTH ABUTMENT
LITTLE CALUMET RIVER BRIDGE
PROJECT UI 246 (1)
F.A.R.T. 122 SEC. 42-B-E-11
COOK COUNTY
STA. 72+54.39

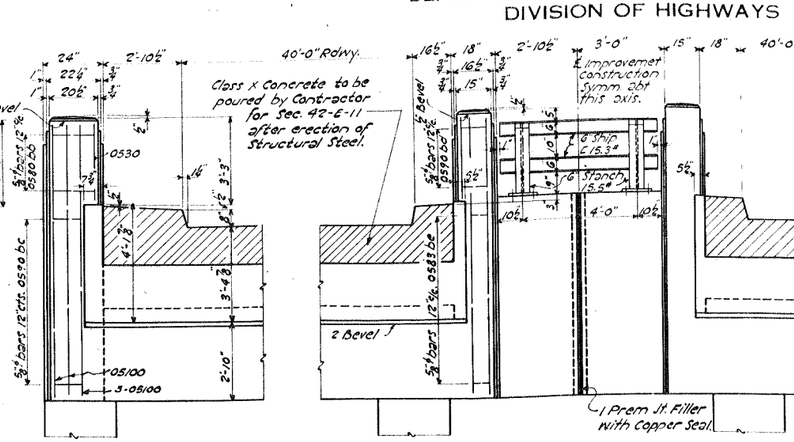
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SH
FAP 122	422E-3 422E-11 422E-12 422E-13 422E-14	COOK	30	23	27

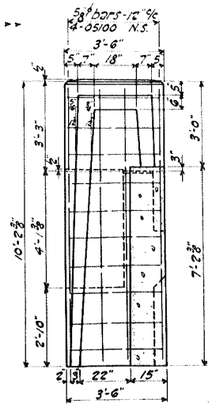
SEC. ROAD DIST. NO. 2 | ILLINOIS | FED. AID PROJECT



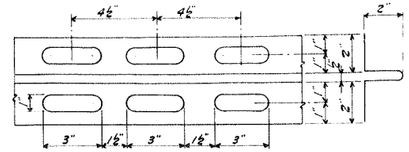
OUTSIDE ELEVATION OF WING



FRONT ELEVATION · SHOWING WING, RAIL POST & HANDRAIL



OUTSIDE ELEVATION OF RAIL POST



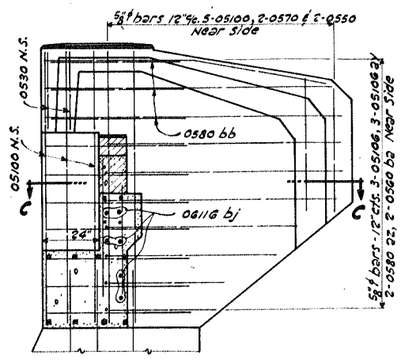
DETAIL OF COPPER SEAL

Copper Seal shall be 16 oz Cold Rolled Annealed Copper with perforated flanges. Splices if necessary shall be soldered or brazed. Cost shall be included in contract unit price per Class X Concrete.

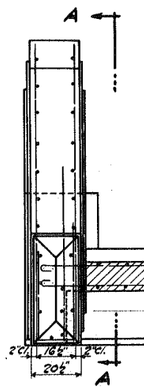
SOUTH ABUTMENT BILL OF MATERIAL

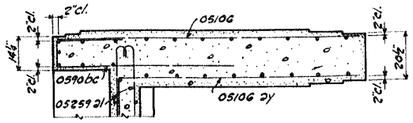
BAR	NO	SIZE	LENGTH
8223 2h	8	1"	22'-3"
8310 2i	8	1"	31'-0"
8226 2j	16	1"	26'-6"
08259 2k	32	1"	25'-9"
8273 bh	168	1"	27'-3"
08273 bf	168	1"	27'-3"
06230 bk	196	3/4"	23'-0"
0525921	16	5/8"	25'-9"
0550 2m	18	5/8"	5'-0"
0550	110	5/8"	5'-0"
0570	12	5/8"	7'-0"
879 2n	70	1"	7'-9"
0873 20	220	1"	7'-3"
8100	30	1"	10'-0
8199	40	1"	19'-9"
8203	32	1"	20'-8"
8176	8	1"	17'-6"
08216	80	1"	21'-6"
08199	132	1"	19'-9"
08176	8	1"	17'-6"
08166	40	1"	16'-6"
08150	40	1"	15'-0"
0880	40	1"	8'-0"
04116 2p	56	3/4"	11'-6"
0470 2g	96	3/4"	7'-0"
0524925	64	5/8"	24'-9"
05218 2f	80	5/8"	21'-3"
05183 2u	64	5/8"	18'-3"
05149 2v	60	5/8"	14'-9"
05119 2w	40	5/8"	11'-9"
05932x	32	5/8"	9'-3"
05100	50	5/8"	10'-0"
0570	8	5/8"	7'-0"
0550	8	5/8"	5'-0"
0530	8	5/8"	3'-0"
0510G	18	5/8"	10'-6"
0580	4	5/8"	8'-0"
0580	4	5/8"	6'-0"
0510G 2y	6	5/8"	10'-6"
0580 2z	4	5/8"	8'-0"
0560 ba	4	5/8"	6'-0"
0580 bb	6	5/8"	8'-0"
0590 bc	14	5/8"	9'-0"
0590 bd	6	5/8"	9'-0"
0583 be	14	5/8"	8'-3"
05350 bl	152	5/8"	35'-0"
0543	108	5/8"	4'-3"
06116 bj	12	3/4"	11'-6"

SEC. 42-E-11		
	Class X Concrete	Cu.
	Handrail Concrete	Cu.
	Class X Concrete	Cu.
	Reinforcement Bars	
	Furnishing Steel Piles	Lin.
	Driving Steel Piles (40')	Lin.
	Steel Test Piles	
	Structural Carbon Steel	Lb.

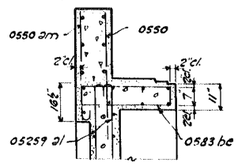


SECTION A-A

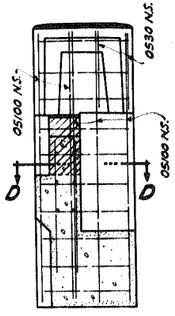




SECTION C-C

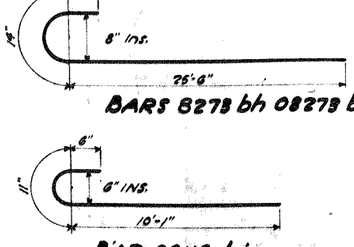


SECTION D-D



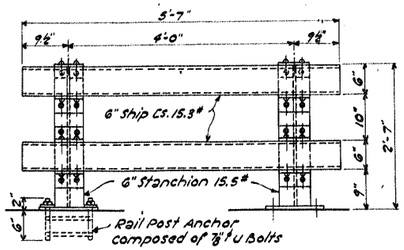
SECTION B-B

PLAN SHOWING WING, RAIL POST & HANDRAIL

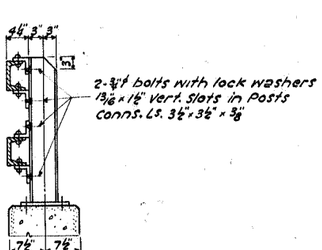


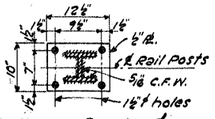
BARS 8278 bh 08278 bf

BAR 06116 bj



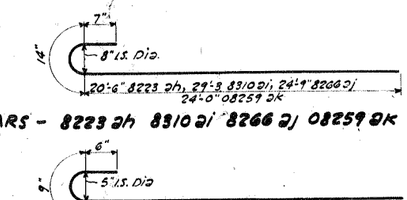
DETAIL OF METAL HANDRAIL



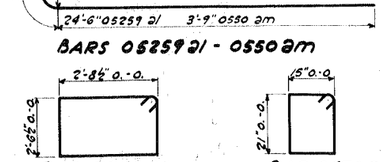


DETAIL OF BASE PL.

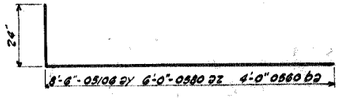
See Sheet #19 for Anchor bolt Details



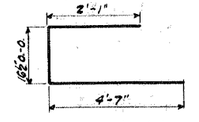
BARS - 8223 2h 8310 2i 8266 2j 08259 2k



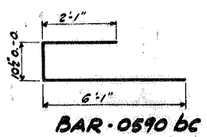
BARS 05259 2l - 0550 2m



BARS - 05106 2y - 0580 2z - 0560 ba



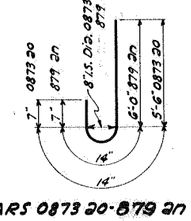
BAR - 0580 bb



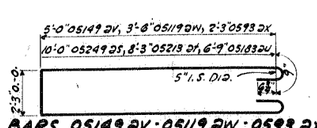
BAR - 0590 bc

BAR 04116 2p

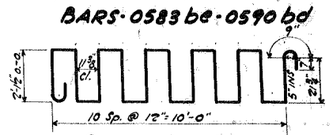
BAR 0470 2g



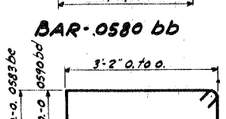
BARS 0873 20 - 879 2n



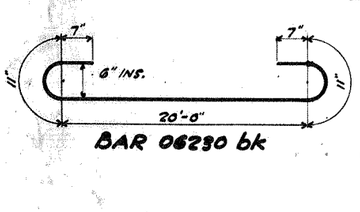
BARS 05149 2v - 05119 2w - 0593 2x



BAR 05250 bl



BARS - 0583 be - 0590 bd



BAR 06230 bk

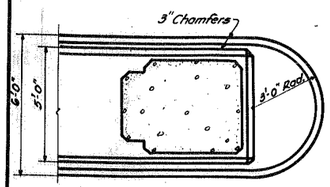
DESIGNED	M.G. Peters	EXAMINED	7-1	19 47
CHECKED	JA Fraser		BRIDGE ENGINEER	
DRAWN	M.G.P.	PASSED	ENGINEER OF DESIGN	
CHECKED	JA F	APPROVED	CHIEF HIGHWAY ENGINEER	

SOUTH ABUTMENT
LITTLE CALUMET RIVER
PROJECT UI 246
F.A. RT. 122 SEC. 4
COOK COUNTY
STA. 72 + 64.24

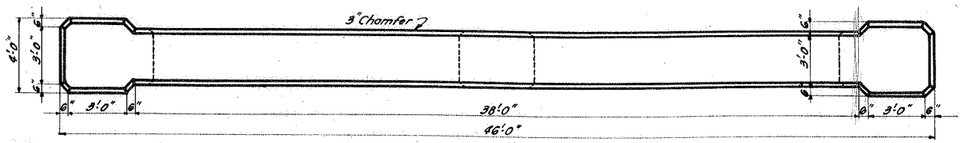
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 22	42B-11 42F-11 42P-11	COOK	30	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

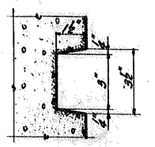
SHE 27



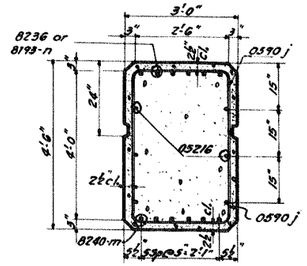
SECTION F-F



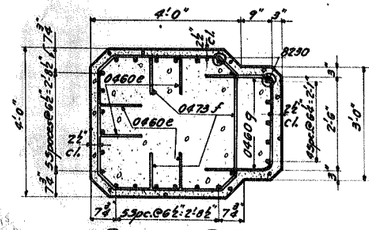
TOP PLAN



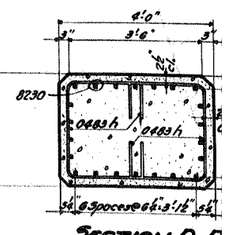
SECTION THRU NOTCH



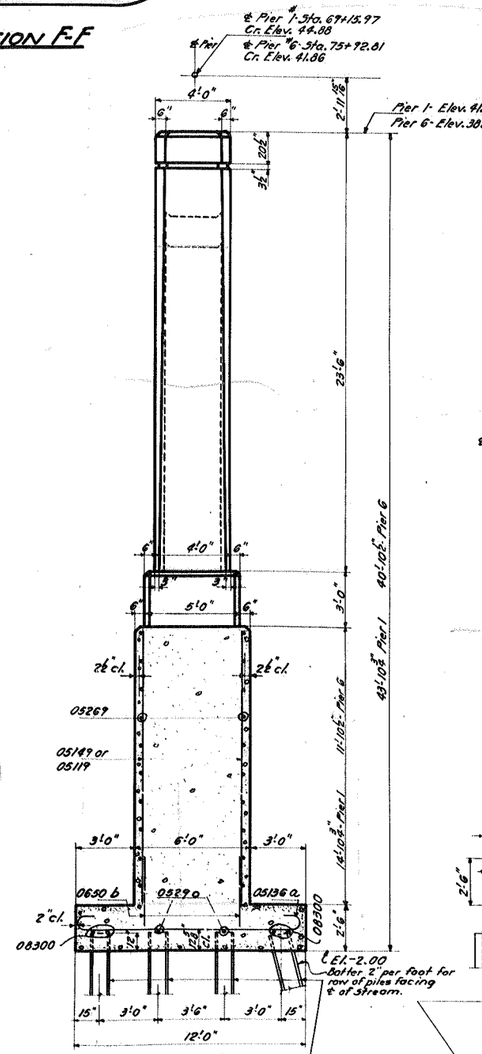
SECTION B-B



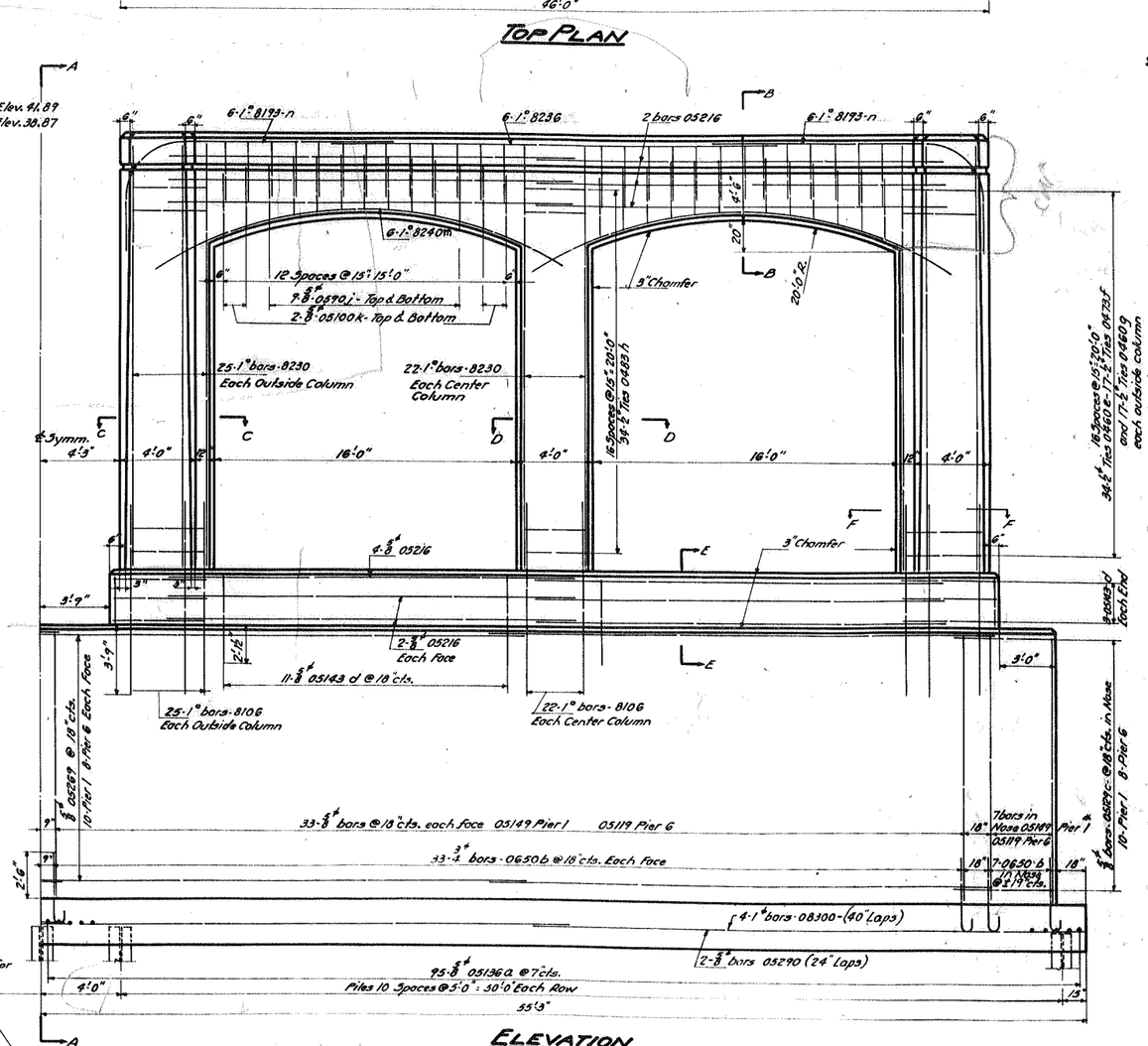
SECTION C-C



SECTION D-D

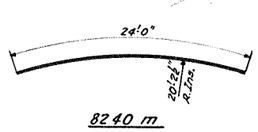


SECTION A-A

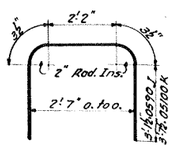


ELEVATION

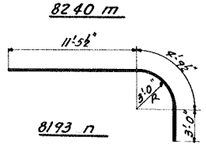
Steel Piles 12"x12" 53#
Min. Cap. 33 Ton.
Est. Length 40'0"
92 Piles Req'd. for each Pier



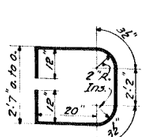
8240 m



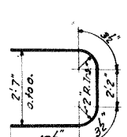
0590 j & 05100 K



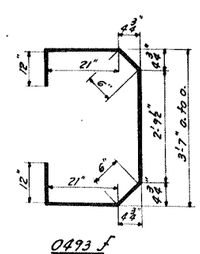
8193 n



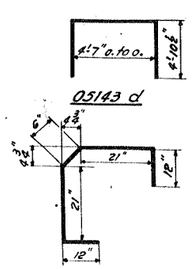
0483 h



0460 g



0473 f

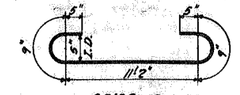


05143 d

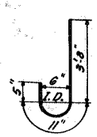
0460 e

BILL OF MATERIAL - PIERS

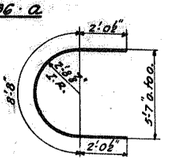
MARK	NUMBER PIER 1	NUMBER PIER 6	SIZE	LENGTH
05269	80	64	⅜"	26'9"
05129 c	20	16	⅜"	12'9"
05216	36	36	⅜"	21'6"
8240 m	24	24	1"	28'0"
8198 n	24	24	1"	19'3"
8236	12	12	1"	23'6"
0650 b	146	146	¾"	8'0"
05149	146		⅜"	16'9"
05119		146	⅜"	11'9"
8106	144	144	1"	10'6"
8230	144	144	1"	23'0"
05143 d	36	36	⅜"	14'3"
0483 h	68	68	½"	8'9"
0460 e	136	136	½"	6'0"
0479 f	68	68	½"	7'3"
0460 g	68	68	½"	6'0"
0590 j	72	72	⅜"	9'0"
05100 k	32	32	⅜"	10'0"
05136 a	190	190	⅞"	13'6"
05290	8	8	⅞"	29'0"
08300	16	16	1"	30'0"
				Pier 1
Class X Concrete			Cu. Yds.	849.5
Reinforcement Bars			Lbs.	35330
Furnishing Steel Piles			Lin. Ft.	3680
Driving Steel Piles			Lin. Ft.	3680



05136 - a



0650 - b



05129 c

COMPUTED	M.E. Baumann
CHECKED	J.A. Fraser
DRAWN	M.E. Baumann, H. Miller
CHECKED	J.A.F.

EXAMINED ____ 19__

PASSED ____ BRIDGE ENGINEER
ENGINEER OF DESIGN

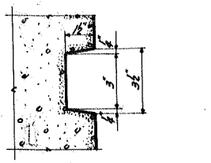
APPROVED ____
CHIEF HIGHWAY ENGINEER

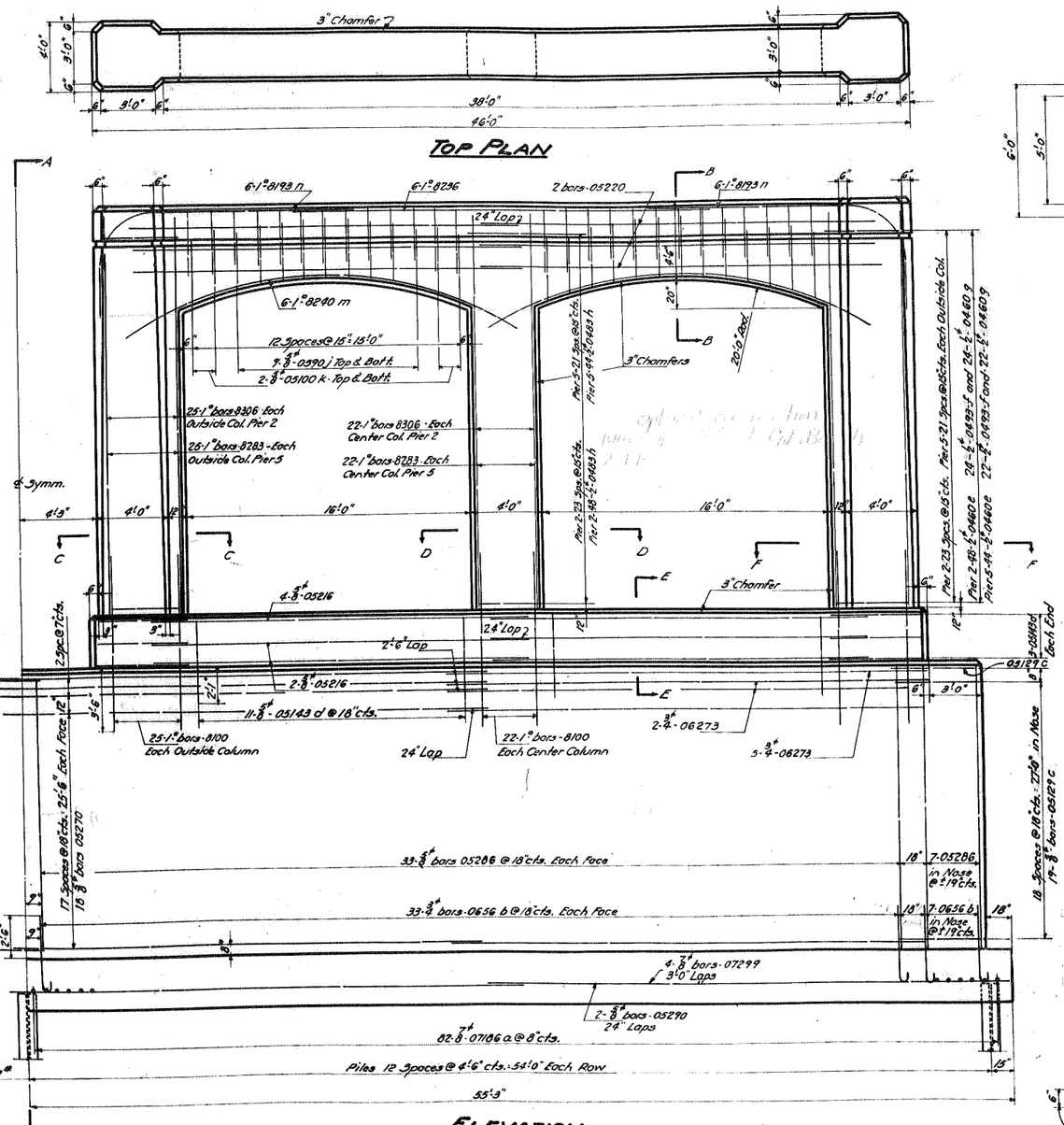
PIERS 1 & 6
LITTLE CALUMET RIVER
F.A. PROJECT U.I. 246(1)
F.A. RTE. 122 - SEC. 42-B
COOK COUNTY
STA. 72+54.39

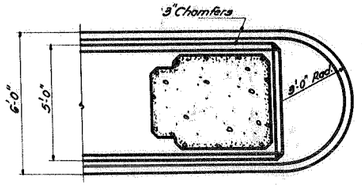
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

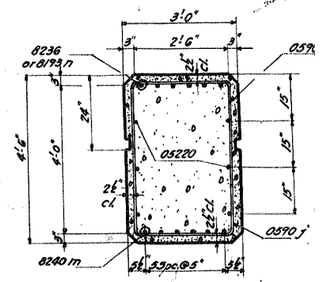
BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 22	422-1I 422-2I 422-4I 422-1I	COOK	30	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

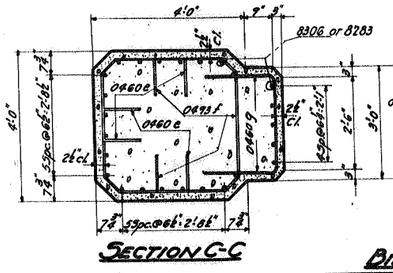
SH 27

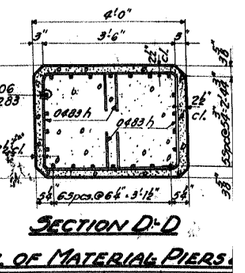


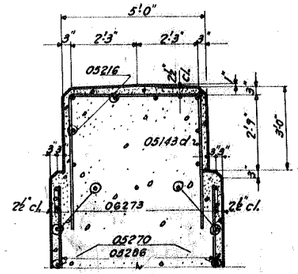








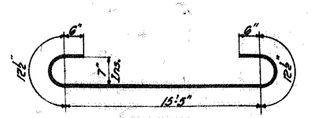


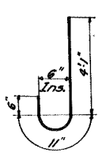


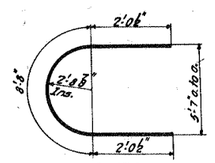
BILL OF MATERIAL PIERS

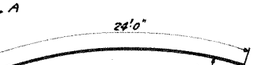
MARK	NUMBER PIER 2	NUMBER PIER 5	SIZE	LENGTH
05216	32	32	⅞"	2'-1 6"
05220	24	24	⅞"	22'-0"
05286	146	146	⅞"	28'-6"
05270	144	144	⅞"	27'-0"
05290	8	8	⅞"	29'-0"
07299	16	16	⅞"	29'-9"
8100	144	144	1"	10'-0"
8236	12	12	1"	23'-6"
8283		144	1"	28'-9"
8306	144		1"	30'-6"
06273	36	36	¾"	27'-3"
0460 e	192	176	½"	6'-0"
0493 f	96	88	½"	9'-9"
0493 h	96	88	½"	8'-9"
0460 g	96	88	½"	6'-0"
0590 j	72	72	⅜"	9'-0"
05100 k	32	32	⅞"	10'-0"
05129 c	40	40	⅝"	12'-9"
05143 d	56	56	⅞"	14'-3"
0656 b	146	146	¾"	5'-6"
07186 a	164	164	⅞"	18'-6"
8193 n	24	24	1"	19'-3"
8240 m	24	24	1"	24'-0"

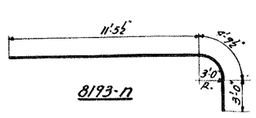
		Pier 2
Class X Concrete	Cu. Yds.	1081.6
Reinforcement Bars	Lbs.	48280
Furnishing Steel Piles	Lin. Ft.	3000
Driving Steel Piles "	Lin. Ft.	3000

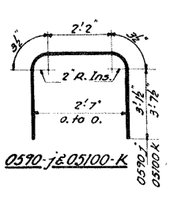


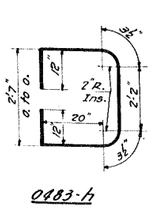


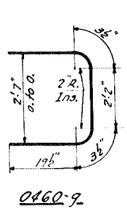


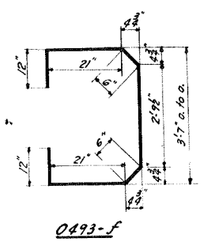


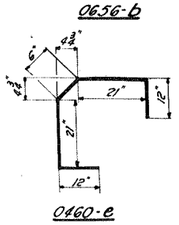


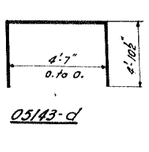












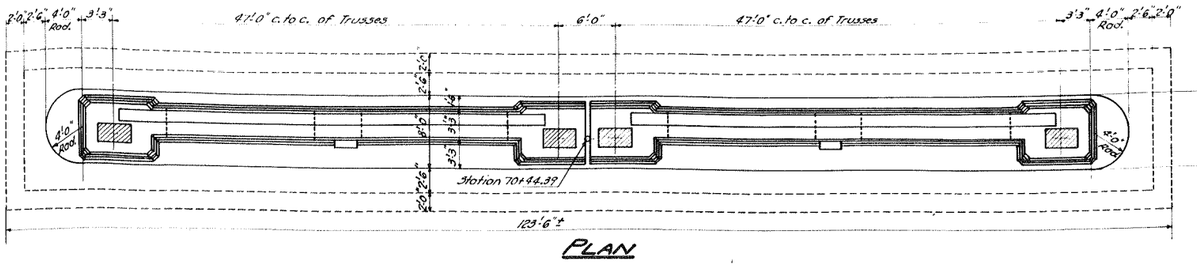
COMPUTED	N.E. Baumann	EXAMINED	, 19
CHECKED	J.A. Fraser		BRIDGE ENGINEER
DRAWN	N.E. Baumann M. Miller	PASSED	
CHECKED	J.A.F.		ENGINEER OF DESIGN
		APPROVED	
			CHIEF HIGHWAY ENGINEER

PIERS 2 & 5
LITTLE CALUMET RIVER
F.A. PROJECT U.I.
F.A. RTE. 122 ~ SEC
COOK COUNTY

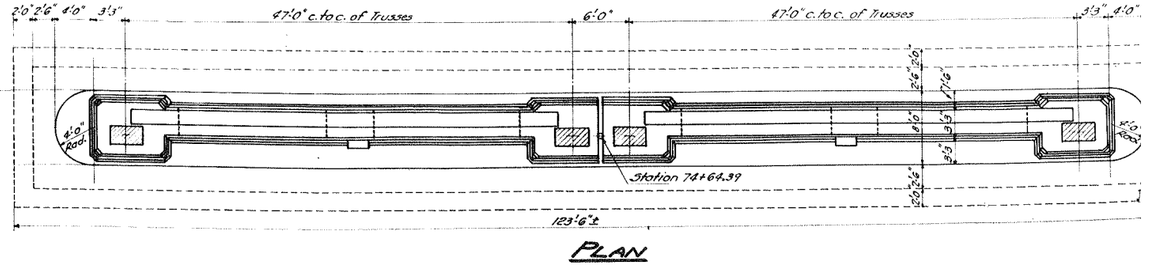
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DIVISION OF HIGHWAYS	SECTION	COUNTY	SHEET NO.	SHEETS
FA 122	42B-11 42E-11 42F-11	COOK	30	26

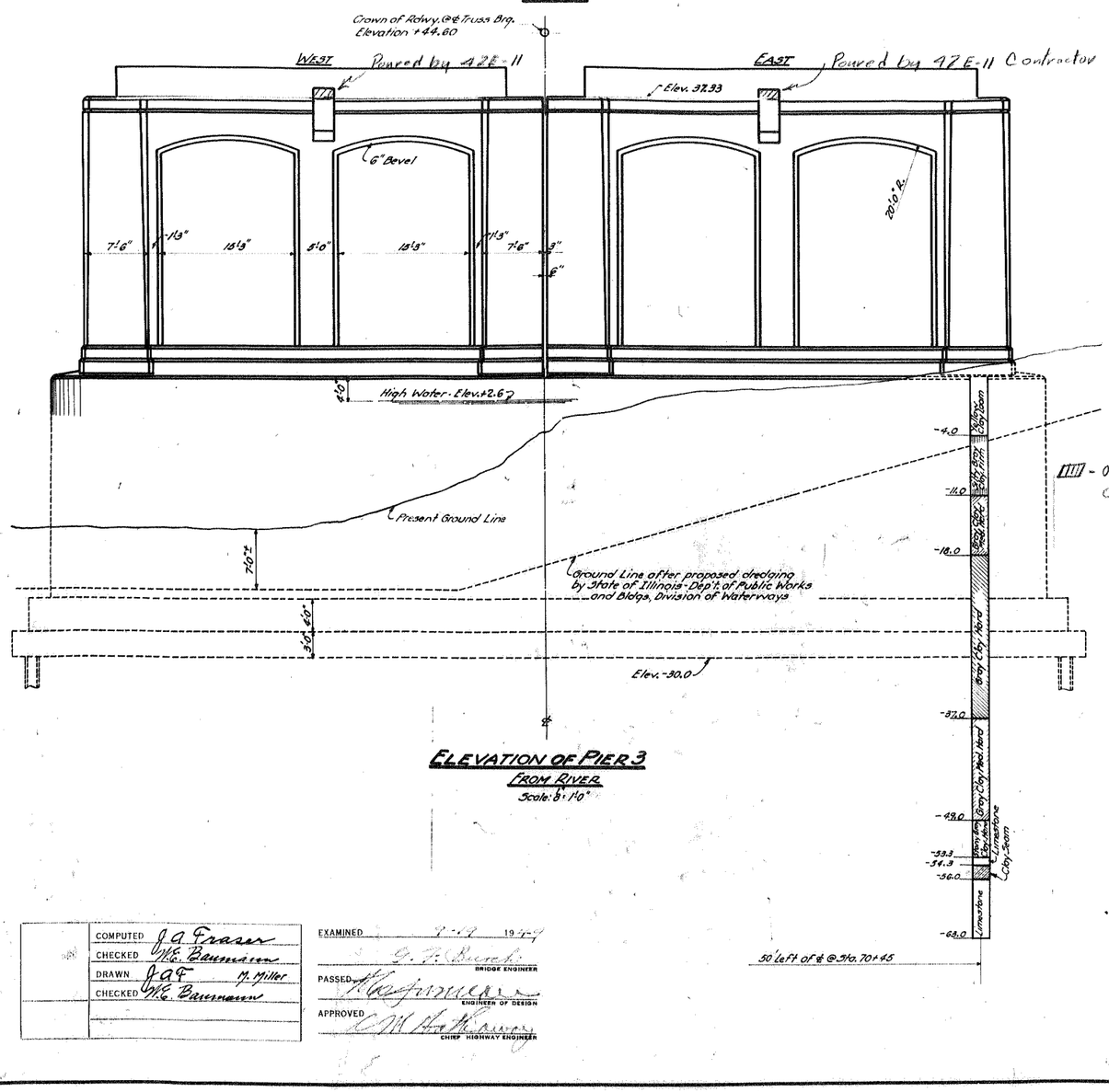
FED. ROAD DIST. NO. 2 | ILLINOIS | FED. AID PROJECT



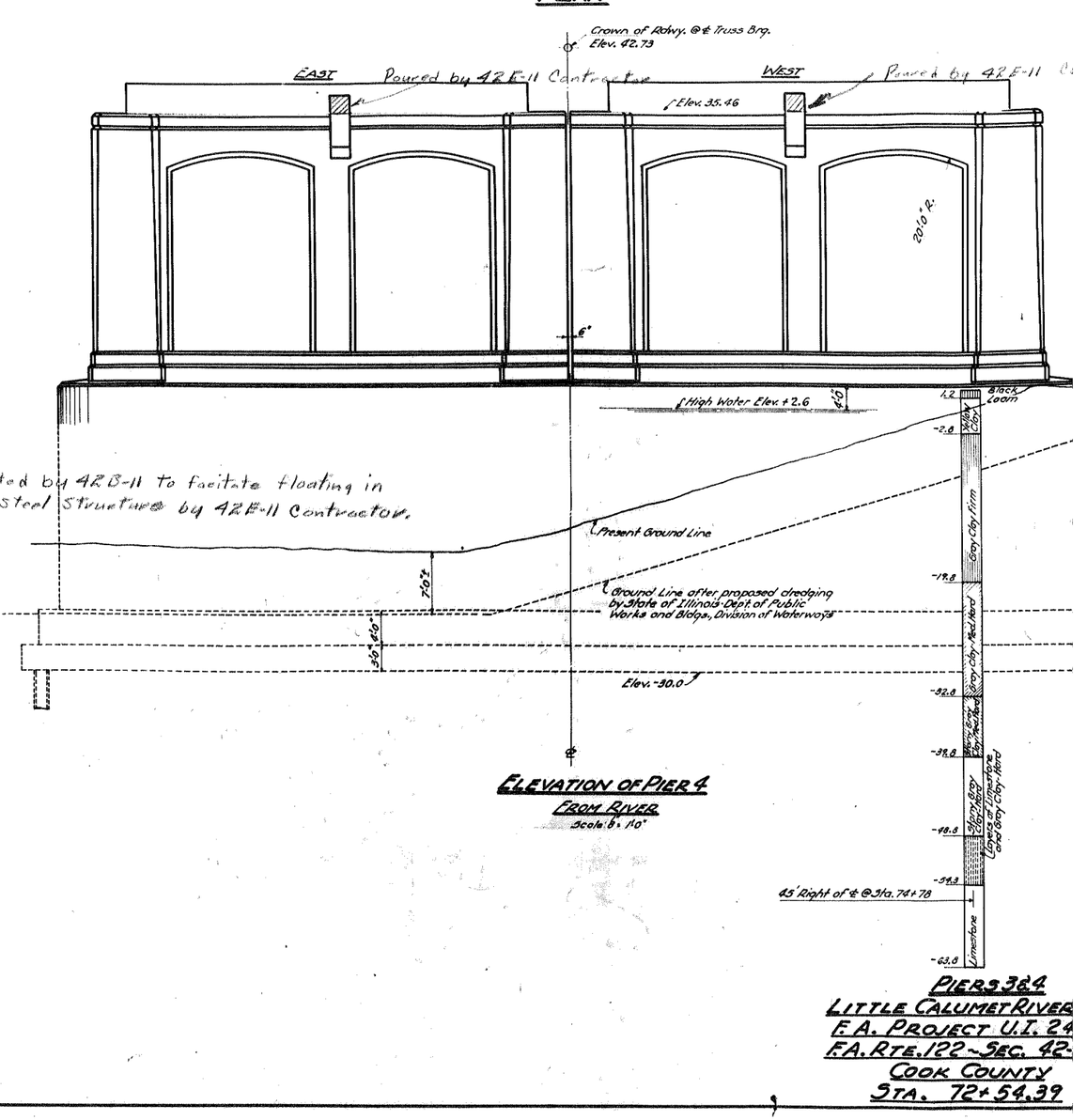
PLAN



PLAN



ELEVATION OF PIER 3
FROM RIVER
Scale: 1" = 10'



ELEVATION OF PIER 4
FROM RIVER
Scale: 1" = 10'

[////] - Omitted by 42B-11 to facitate floating in of Steel Structure by 42E-11 Contractor.

COMPUTED	J.A. Fraser	
CHECKED	M.E. Baumann	
DRAWN	J.A.F.	M. Miller
CHECKED	M.E. Baumann	

EXAMINED 7-12 1947
P. T. Burch
BRIDGE ENGINEER
PASSED H. Westphalen
ENGINEER OF DESIGN
APPROVED C. M. Hathaway
CHIEF HIGHWAY ENGINEER

PIERS 3 & 4
LITTLE CALUMET RIVER
F.A. PROJECT U.I. 24
F.A. RTE. 122 - SEC. 42-
COOK COUNTY
STA. 72+54.39

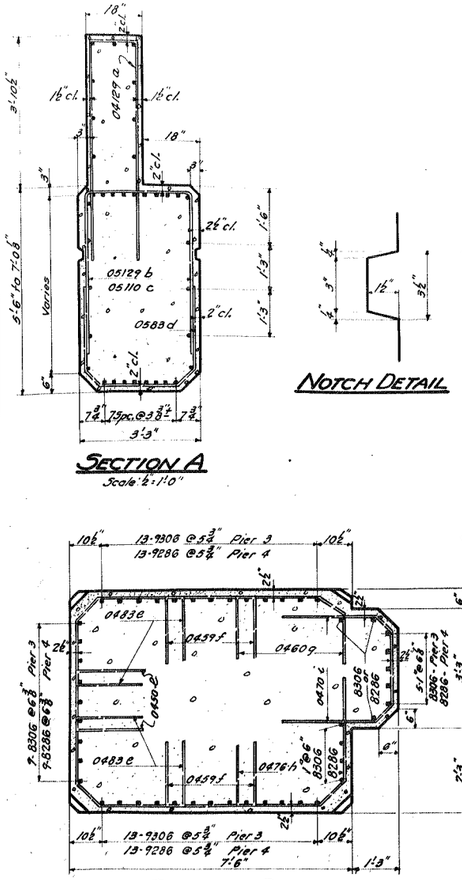
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET
FA 122	42B-11 43E-11 43E-11 43D-11	COOK	30	27	27 SHEE
FED ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

BILL OF MATERIAL-PIE

Pier # Dir.	Mark	Pier #	Size	Length
8	04323	8	4"	32'-3"
16	04300	16	4"	30'-0"
152	05283	152	3/4"	28'-9"
166	05296	166	3/4"	29'-6"
36	05236	36	3/4"	23'-6"
24	05226	24	3/4"	22'-6"
28	03220	28	3/4"	22'-0"
166	0690	166	3/4"	9'-0"
32	07330	32	3/4"	33'-0"
	8306	132	1"	30'-6"
132	866	132	1"	6'-6"
	9306	108	1 3/8"	30'-6"
108	976	108	1 3/8"	7'-6"
92	04129 a	92	1/2"	16'-7"
24	05129 b	24	3/4"	12'-7"
24	05110 c	24	3/4"	11'-0"
48	0583 d	48	3/4"	8'-3"
76	0483 e	84	1/2"	8'-3"
152	0459 f	168	1/2"	5'-9"
76	0460 g	84	1/2"	6'-0"
76	0476 h	84	1/2"	7'-6"
76	0470 i	84	1/2"	7'-0"
76	04100 j	84	1/2"	10'-0"
38	0499 k	42	1/2"	9'-9"
76	0450 l	84	1/2"	5'-0"
76	0489 m	84	1/2"	8'-9"
44	8229 n	44	1"	22'-9"
40	8260 p	40	1"	26'-0"
40	05140 q	40	3/4"	14'-0"
	06190 t	212	3/4"	19'-0"
44	05156 u	44	3/4"	15'-6"
212	07193 v		3/4"	19'-3"
132	8286		1"	28'-6"
108	9286		1 3/8"	28'-6"
	0424	4	1/2"	2'-4"
4	0421		1/2"	2'-1"
4	0546 aa	4	3/4"	4'-6"
	0583 ab	8	3/4"	8'-3"
8	0593 ac		3/4"	9'-3"
	0393 ad	2	3/4"	9'-3"
	0376 ae	6	3/4"	7'-6"
2	0390 af		3/4"	9'-0"
6	0573 ag		3/4"	7'-3"
12	8233	12	1"	23'-3"
44	08293	44	1"	29'-0"

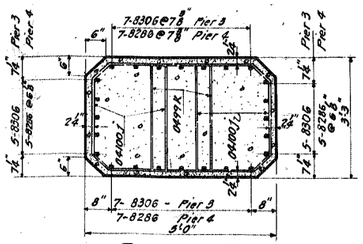
QUANTITIES		Pier #3
Class X Concrete	Cu.Yds.	1831
Reinforcement Bars	Lbs.	78320
Furnishing Steel Piles	Lin.Ft.	3000
Driving Steel Piles	Lin.Ft.	3000



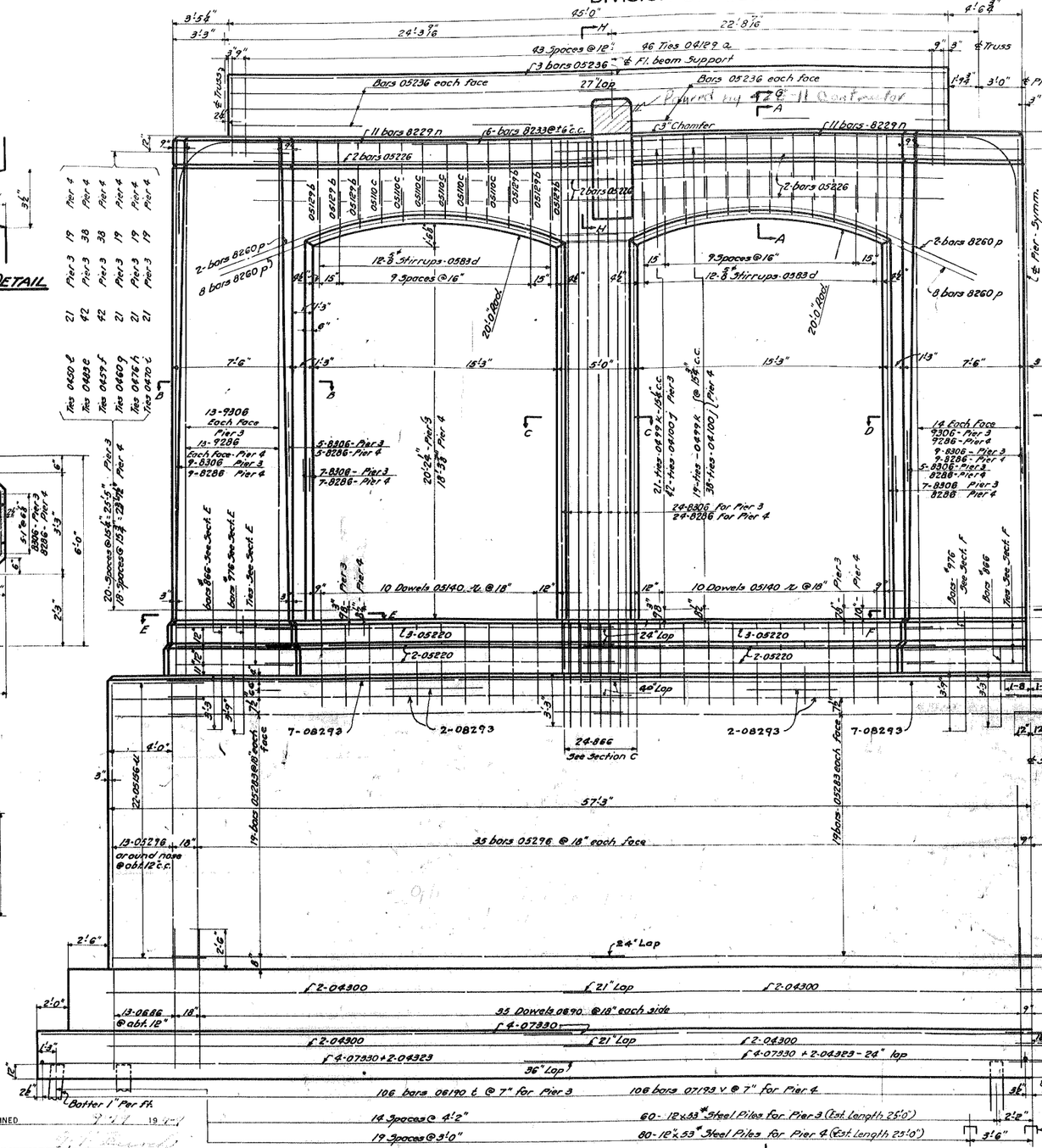
SECTION A
Scale: 1/2" = 1'-0"

NOTCH DETAIL

SECTION B
Scale: 1/2" = 1'-0"

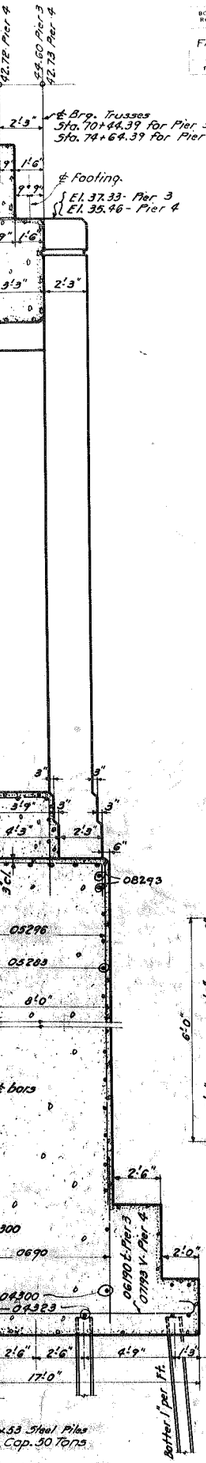


SECTION C
Scale: 1/2" = 1'-0"

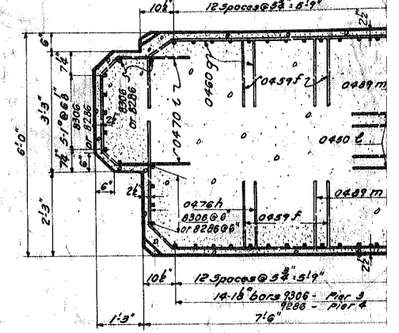


ELEVATION OF PIERS 3 & 4
FROM RIVER

Sections E-F-H on Sheet 26



SECTION G



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

STANDARD		
	COMPUTED	J.J. Fraser
	CHECKED	M. Baumann
	DRAWN	J.J.F. M. Miller
	CHECKED	M. Baumann
SPECIAL		

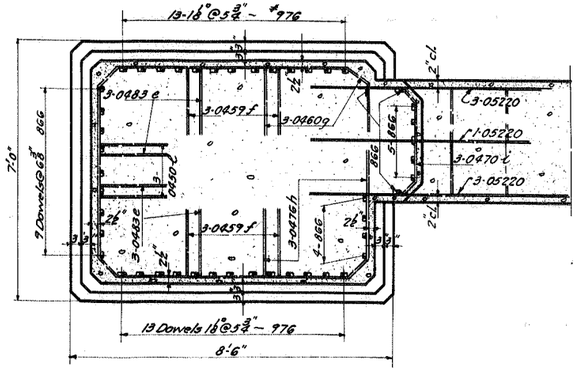
EXAMINED 7-11 19 71
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

PIERS 3 & 4
LITTLE CALUMET RIVER
F.A. PROJECT U.I.2
F.A. RTE. 122 - SEC. 4
COOK COUNTY
STA. 72+54.39

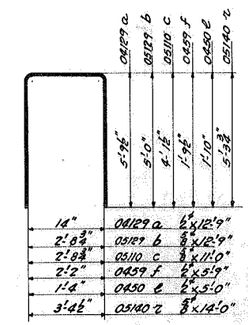
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

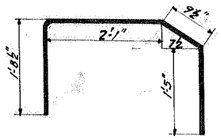
SCHED. ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA122	41B-11 41F-11 41E-11 42F-11	COOK	30	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SH 27

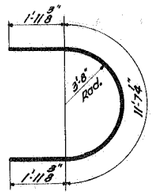


SECTION E
Scale: 1/2"=1'-0"

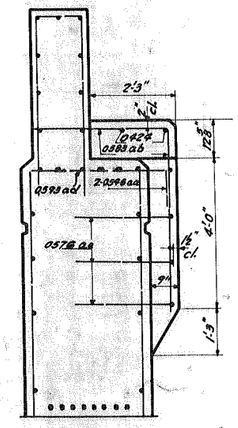


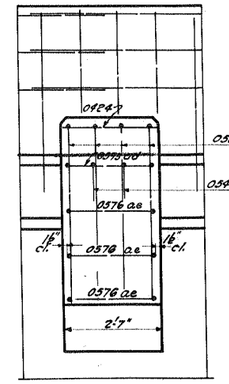


0460 g
1/2"x6'-0"

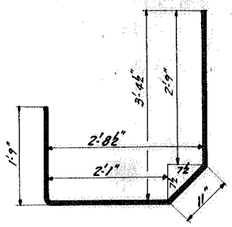


05156 u
3/8"x15'-6"

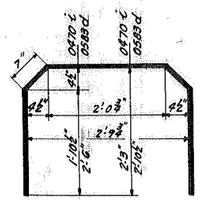




SECTION H
FOR PIER 3
Scale: 1/2"=1'-0"

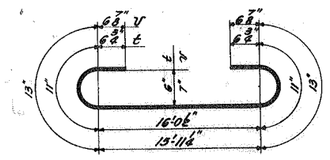


0476 h
1/2"x7'-6"



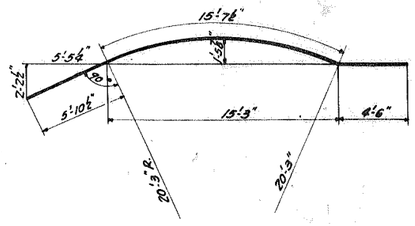
0583 d
3/8"x8'-3"

0470 i
1/2"x7'-0"

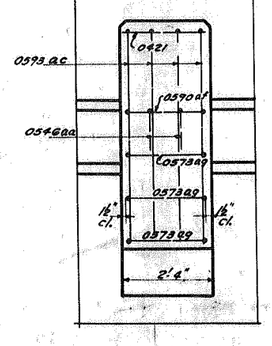


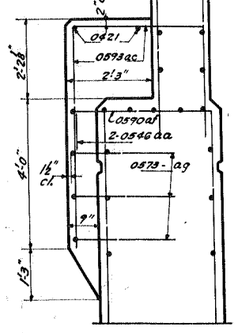
06190 t
3/4"x19'-0"

07193 V
3/8"x19'-3"

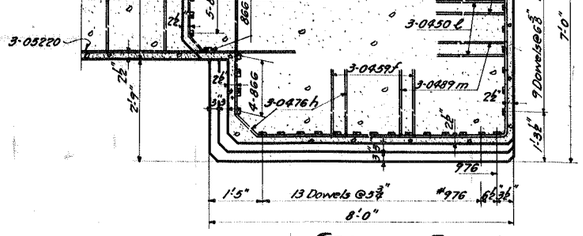


8260 P
1"x26'-0"

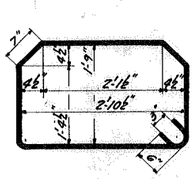




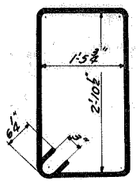
SECTION H
FOR PIER 4
Scale: 1/2"=1'-0"



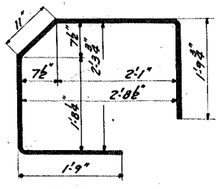
SECTION F
Scale: 1/2"=1'-0"



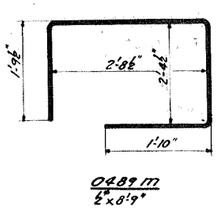
04100 f
1/2"x10'-0"



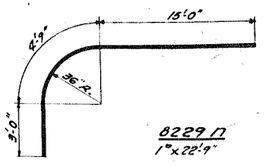
0479 K
1/2"x9'-9"



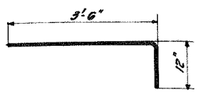
0483 e
1/2"x8'-3"



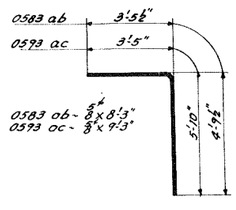
0489 m
1/2"x8'-9"



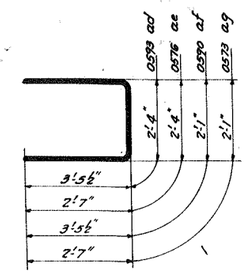
8229 n
1"x22'-9"



0546 aa
3/8"x4'-6"



0583 ab - 3/8"x8'-3"
0593 ac - 3/8"x9'-3"



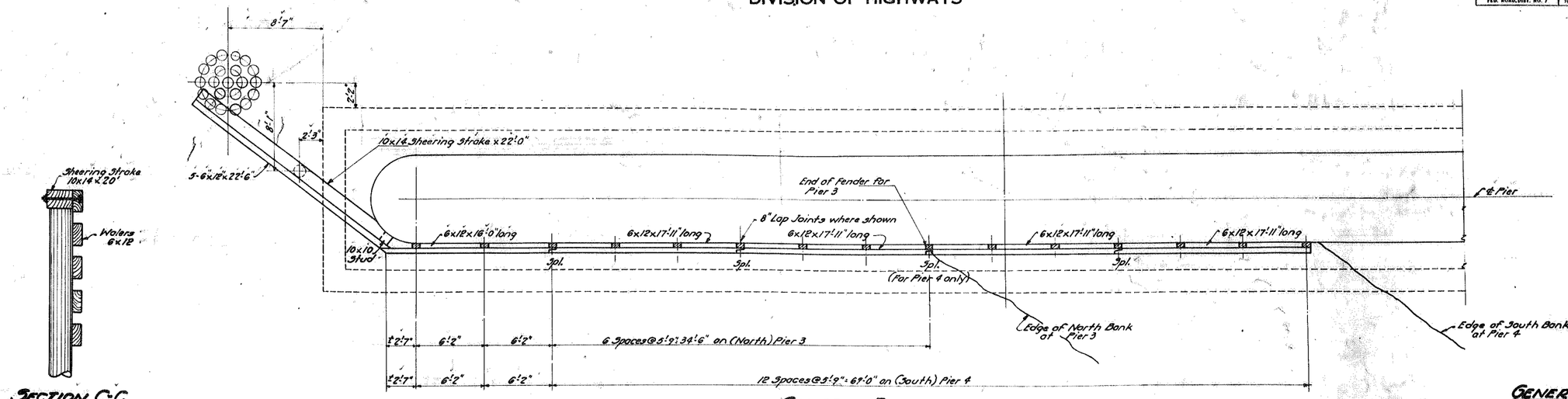
0593 ad 5/8"x9'-3"
0576 ae 3/8"x7'-6"
0590 af 3/8"x9'-0"
0573 ag 3/8"x7'-3"

COMPUTED	J.G. Fraser	EXAMINED ____ 19__
CHECKED	H.E. Dawmann	BRIDGE ENGINEER
DRAWN	J.G. Fraser / Miller	PASSED ____
CHECKED	H.E. Dawmann	ENGINEER OF BRIDGES
		APPROVED ____
		CHIEF HIGHWAY ENGINEER

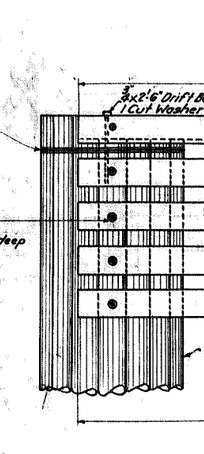
DETAILS FOR PIERS 3 & 4
LITTLE CALUMET RIVER BRIDGE
F.A. PROJECT U.I. 246 Q
F.A. RTE. 122 - SEC. 42-
COOK COUNTY
STA. 72+54.39

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

GOOD-ROADS ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 122	#28-H #25-H #26H #26H	COOK	30	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

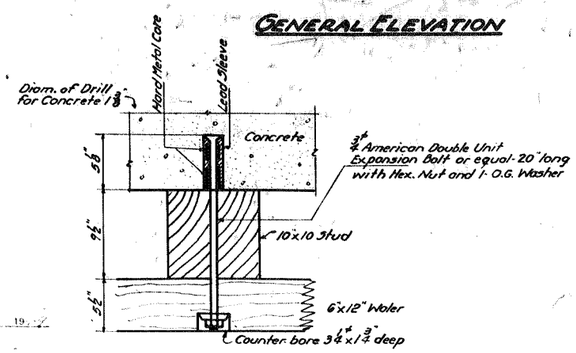


GENERAL PLAN
Scale: 1/8"=1'-0"

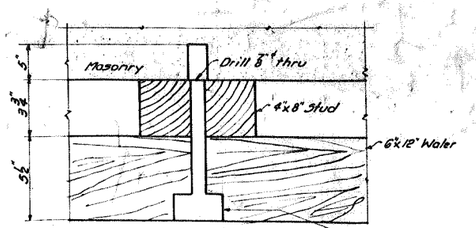


SECTION C-C

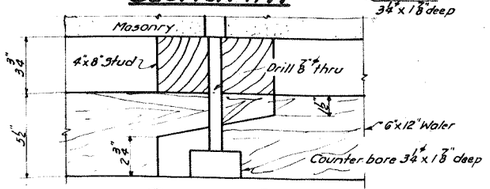
GENERAL ELEVATION



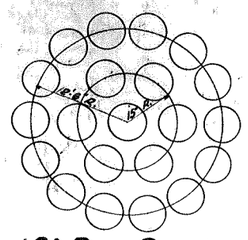
SECTION D-D
Scale 1½"=1'-0"



SECTION A-A



SECTION B-B



21 PILE CLUSTER

GENERAL NOTES

Each Pile Cluster shall consist of 21-35' Piles bound around the top
3 wraps of ¾" cable. Each wrap shall be fastened to each Pile with a ¾
All Piling shall be creosoted Yellow pine, 35ft. long, 7" minimum tip.

All bolts shall be wrought iron with O.G. washers under head and
Bolts must not project beyond face of Waler.
Contract unit price each for "Expansion Bolts" shall include furnishin
drilling holes and setting of Expansion Bolts.
Cost of ¾" Cable to be included in unit price bid for Creosoted Piles.
All Lumber shall be creosoted, prime structural long leaf (1800 #)
structural short leaf (1800 #) southern pine, or dense select str
(1800 #) Douglas Fir.

BILL OF LUMBER - 2 PIERS

Sheering Stroke	2	10"x14"x22'-0"
Walers	10	6"x12"x16'-0"
	30	6"x12"x18'-0"
	10	6"x12"x22'-6"
Studs	24	4"x8"x 7'-6"
	2	10"x10"x26'-3"

BILL OF EXP. BOLTS

Expansion Bolts	10	¾"x20
Expansion Bolts	120	¾"x14

BILL OF HARDWARE

Drift Bolts	4	¾
Machine Bolts	18	¾
Cut Washers	4	¾
O.G. Washers	174	¾
Lag Screw	8	¾

TOTAL BILL OF MATERIAL - 21

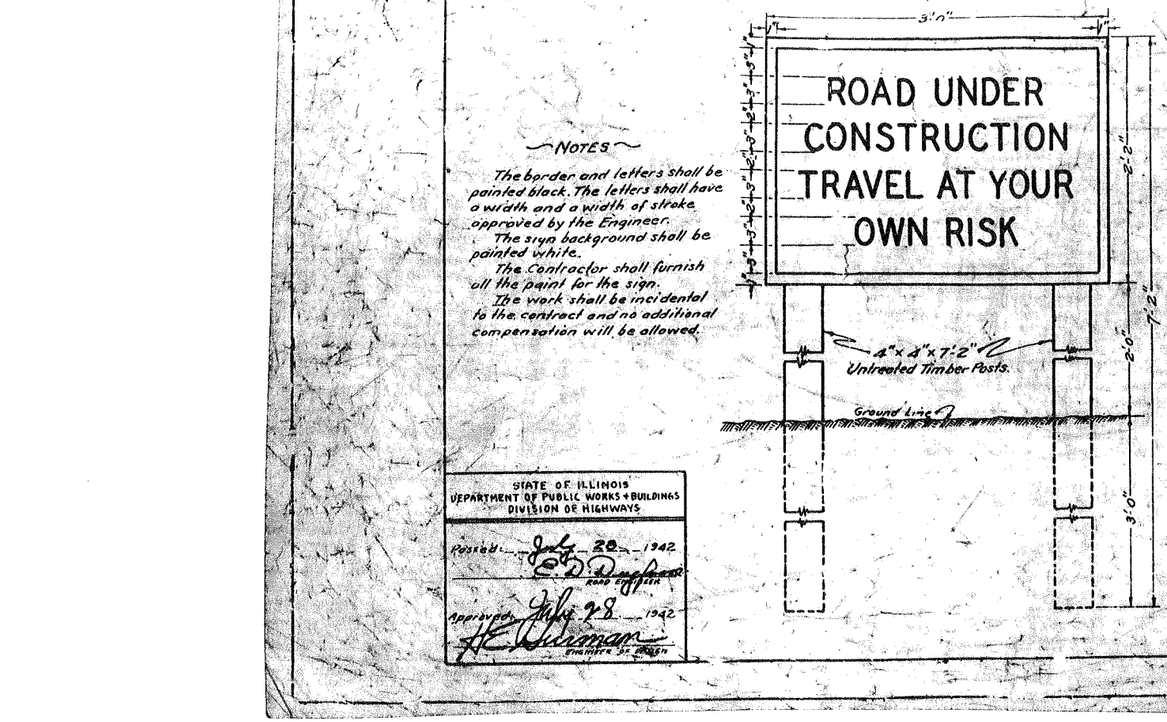
Treated Piles (35' lg.)	Lin. Ft.
Creosoted Lumber (1800 #)	F.B.M.
Hardware	Lbs.
Expansion Bolts	Each

COMPUTED	W. E. Baumann
CHECKED	J. A. Fraser
DRAWN	W. E. Baumann M. Miller
CHECKED	J. A. F.

EXAMINED _____ 19__
PASSED _____ BRIDGE ENGINEER
APPROVED _____ ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

FENDER PIE
LITTLE CALUMET RIV
F. A. PROJECT U.T.
F.A. RTE. 122 ~ SEC
COOK COUNT
STA. 72+54.3

STANDARD DESIGN FOR TRAVEL AT YOUR OWN RISK SIGN



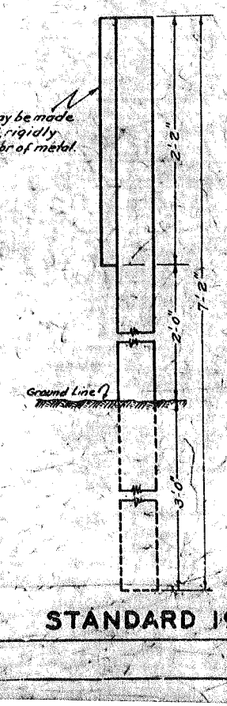
NOTES

The border and letters shall be painted black. The letters shall have a width and a width of stroke approved by the Engineer.

The sign background shall be painted white.

The Contractor shall furnish all the paint for the sign.

The work shall be incidental to the contract and no additional compensation will be allowed.



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

Passed July 28 1942
Road Engineer

Approved July 28 1942
Engineer of Design

STANDARD 1971