

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

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

Superstructure for the Bridge over the Illinois River at the West end of Dearborn Street
in the City of Havana

1089.8	Cu	W/s	Classy Concrete
305.770	Lbs		Reinforcement Bars
2620	Lbs		Structural Steel (Carbon)
1931.0	Lbs		Cast Iron Frangibles Inlets
4.4	Sq	W/s	Reinforced Concrete Pavement (16" - 10 1/2" - 16 1/2")
20	Sq	L/T	Plain Concrete Gutter, Type 8
100	Cu	Yds.	Barrow
1981	Sq.	FT	Welded Wire Fabric
136.4	Sq.	FT	Halfway House air Wall Tile
175.2	Sq.	FT	Decorative

2,949,300	Lbs.	Structural Steel (Carbon)
562,520	Lbs.	Structural Steel (Silicon)
34,550	Lbs.	Cast Steel Shoes
1	Each	Lifting System complete

2,951,920	Lbs.	Structural steel (Carbon)
562520	Lbs.	Structural steel (Silicon)
34550	Lbs.	Cast steel shoes
1	Each	Nonre. plate

351,820 Lbs. Applying Paint for Field Coats to Structural Steel
34550 Lbs. Applying Paint for Field Coats to Cast Steel Shoes.

A detailed street map of the City of Havana, Cuba. The map shows a grid of streets including Jefferson Ave, Dearborn St, State St, Water St, and others. The Illinois River is shown flowing through the city. The map is labeled 'CITY OF HAVANA' and 'Pop 3457'. It also shows the city of Washington and the city of Havana. The map is a black and white line drawing with some shading to indicate the river and city areas.

Construction of the reinforced concrete floor, the rail post, parapet wall and wing walls on the west abutment; part of the parapet wall on the east abutment; the west approach box, and, in further, the completion of the embankment of the west abutment, the turning and installation of cast iron frames, girders and the installation from unloading point at Havana and erection of fabricated roadway and curb expansion guards for the Illinois River Bridge at Havana.

Unloading and transportation from the unloading point at Havana to the bridge, site and erection of fabricated structural steel and installation of cast steel shoes and furnishing and installation of the Roadway Navigation lighting system for the Illinois River Bridge at Havana.

Furnishing and Fabrication of all Structural steel, cast steel shoes, and Name Plate. the application of the shop coat of paint on all exposed surfaces and delivery F.O.B. Havana, Illinois for the Illinois River Bridge at Havana.

Consists of the application of the point for spot painting of rivet heads and abrasions of the shop coat, and for two field coats of point for the entire steel structure, including the cast steel shoes for the Illinois River Bridge at Havana.

Approximate Scale 1 inch = 400 Feet

ROAD TRAIL ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
76	140 D E P	Mason & Fulton	39	1
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	137-F



LOCATION OF SECTION INDICATED THUS:-

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

NO. 10172 *September 14, 1935*

THROW PLACK

EXAMINE TO *10-22-35* DISTRICT *10-22-35*

F. B. KEE *E. D. Dwyer* No. 10172

APPROVE *W. J. Harrison*

10-24-35

10-24-35

PROPOSE *Robert Kingery*

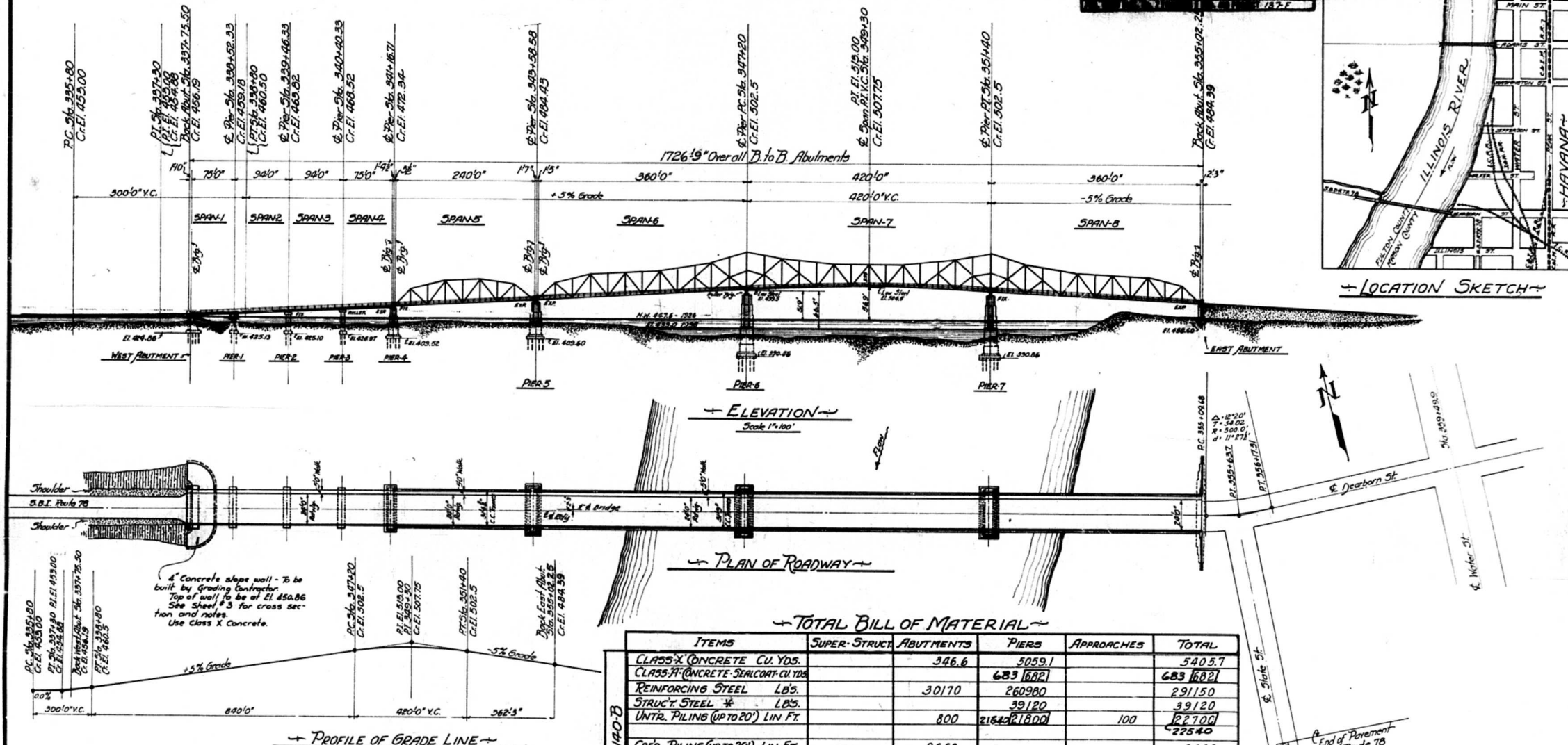
RECOMMENDED FOR APPROVAL
[REDACTED]
DISTRICT ENGINEER, Bureau of Public Road
RECOMMENDED FOR APPROVAL
[REDACTED]
CHIEF ENGINEER, Bureau of Public Road
APPROVED
[REDACTED]
CHIEF, Bureau of Public Road

B.M. #62 - S. & W. Vertical in 18' Elm - 100' Lt. Sta 356+15
Elevation 467.08 - U.S.G.S. (1929) Datum
B.M. #61 - S. & W. Horiz. in Power Pole #4 - 100' Lt. Sta 344+50
Elevation 442.40 - U.S.G.S. (1929) Datum

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

COUNTY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
COUNTY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

SHEET NO. 1
40 SHEETS



TOTAL BILL OF MATERIAL

ITEMS	SUPER-STRUCT	ABUTMENTS	PIERS	APPROACHES	TOTAL
CLASS 'X' CONCRETE CU. YDS.		346.6	505.1		540.5
CLASS 'A' CONCRETE SEALCOAT CU. YDS.			683 [682]		683 [682]
REINFORCING STEEL LBS.		30170	260980		291150
STRUCT. STEEL # LBS.			39120		39120
UNTR. PILING (UP TO 20') LIN. FT.		800	21640 [21800]	100	22540
CREO. PILING (UP TO 20') LIN. FT.		2660			2660
CONDUITS COMPLETE EACH		1			1
OTHER METAL PIPE (FOR) LIN. FT.		100			100
TEST PILES EACH		6	15		21
CLASS 'X' CONCRETE CU. YDS.	838.5	11.0		239.5	1089.0
REINFORCING STEEL LBS.	235120			70650	305770
STRUCT. STEEL CARBON LBS.	2000	380		240	2620
C.I. FORMS, GATES AND JUNCTIONS	16460			2850	19310
P.C. PAVT. 18" 10:16 LBS.				444	444
STD. TYPE 'B' BUTTER LIN. FT.				20	20
BORROV. CU. YDS.				±100	±100
WIRE MESH - SQ. FT.		10.5		1970	1980.5
HOLLOW BUILDING TILE - SQ. FT.		8.0		1356	1364
STRUCT. STEEL (CARBON) LBS.	2618610			333310	2951920
STRUCT. STEEL (SILICON) LBS.	562520				562520
CAST STEEL SHOES LBS.	34550				34550
NAME PLATES EACH	1				1
STRUCT. STEEL (CARBON) LBS.	2616610			332690	2949300
STRUCT. STEEL (SILICON) LBS.	562520				562520
CAST STEEL SHOES LBS.	34550				34550
LIGHTING SYSTEM COMPLETE	1				1
2 FIELD COATS OF PAINT - LBS. OF STEEL	3173130				3173130
2 FIELD COATS OF PAINT - LBS. OF CARBON	34550				34550

Note:
Result of Foundation Borings may be seen at the
office of the Division of Highways - Springfield, Illinois.

GENERAL ELEVATION & PLAN
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 B-D-E-F-P
FULTON-MASON COUNTIES

STANDARD	COMPUTED	BY	DATE
CHECKED	BY	DATE	
DRAWN	BY	DATE	
CHECKED	BY	DATE	
SPECIAL	TRACED	BY	DATE
CHECKED	BY	DATE	

EXAMINED *Sept 16 1935*
G. F. Burch
PASSED *[Signature]*
APPROVED *[Signature]*

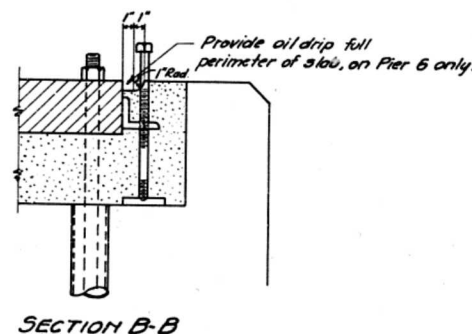
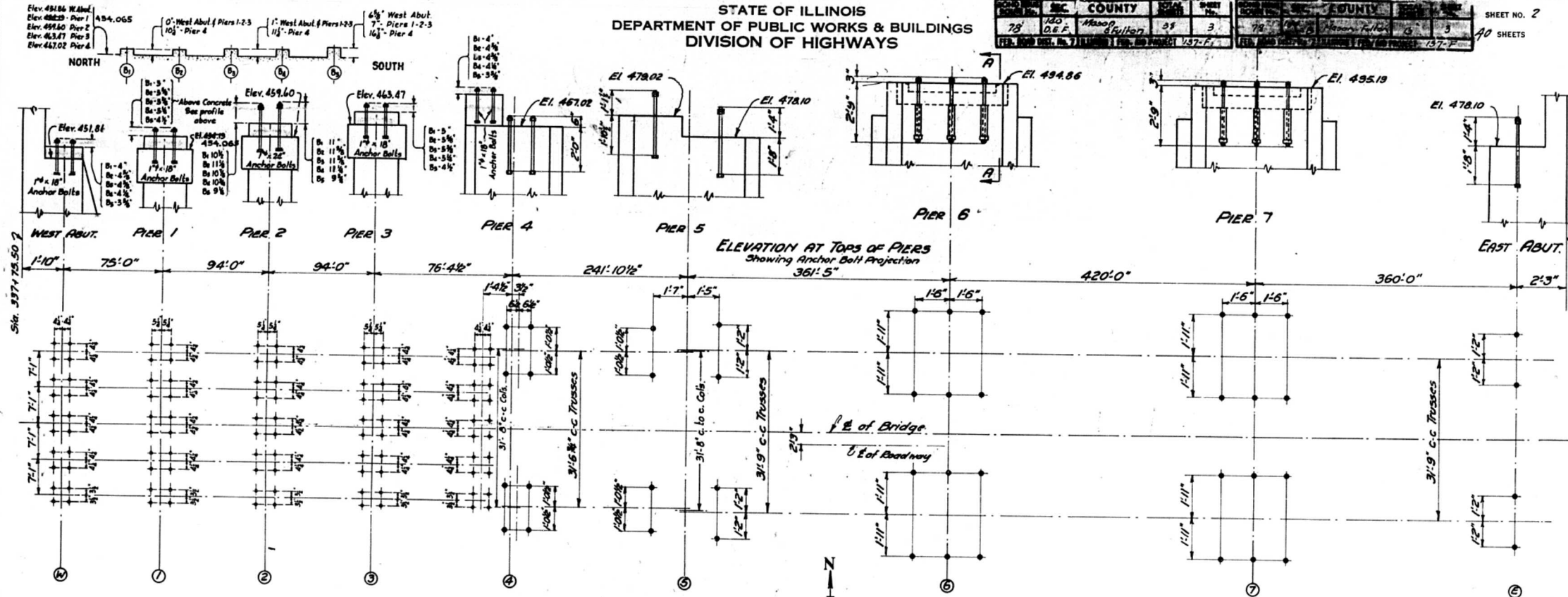
INCLUDE IN GRADING CONTRACT -
APPROX. QUANTITIES FOR
4' CONCRETE SLOPE WALL
4' Concrete Wall - Sq. Yds. - 550.
Wire Mesh - Sq. Ft. - 4950.

* Structural Steel in Sec. 140-B
includes wrought iron ice breakers.
+ Struct. Steel Sec. 140-D Erect. Only.

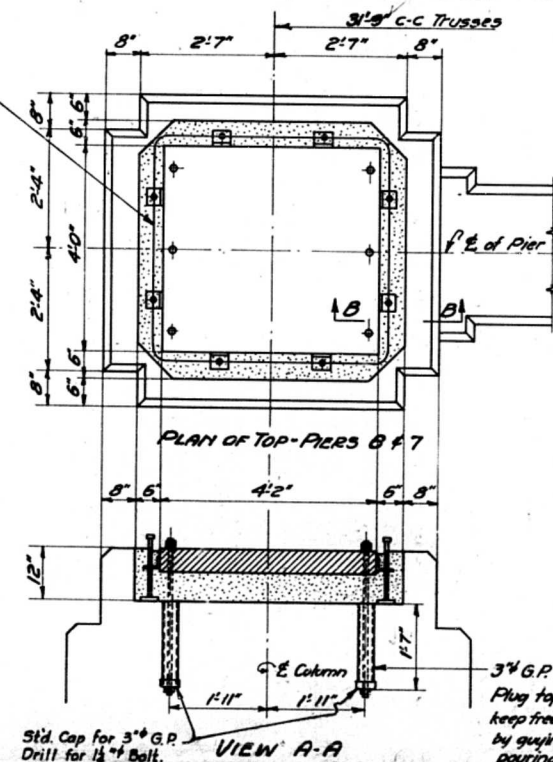
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SEC	COUNTY	FILE	SHEET	SEC	COUNTY	FILE	SHEET
78	DE	140	3	78	DE	140	3
78	DE	140	3	78	DE	140	3

SHEET NO. 2
40 SHEETS



ANCHOR BOLT PLAN



Note: Anchor bolts shall be furnished and set by the superstructure contractor to correct line and level. Substantial templates shall be used to set anchor bolts. These templates shall be approved by the Engineer before anchor bolts are placed.

STANDARD	COMPUTED	J.F. Keeler W.J.M.
	CHECKED	R.B. ALT.
	DRAWN	J.F.K. - W.J.M.
SPECIAL	CHECKED	R.B. ALT.
	ASSEMBLED	
	CHECKED	

EXAMINED	9-25-1935
PASSED	A.J. Bunch
APPROVED	Ernest Silberman

ANCHOR BOLT PLAN
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 D-E-F-B
FULTON-MASON COUNTIES

REV. A.A. 3-17-36. EL. PIER 3.

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

ROAD DIST. No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	140 B	Mason	35	4

ROAD DIST. No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	140 B	Mason	35	4

SHEET NO. 3

40 SHEETS

DETAIL OF n_2 BAR

SECTION GG

10" 12" 12" Hollow Tile.
Tile shall be given a heavy paint coat of asphalt before slab is poured.

SECTION FF

Back of Abutment
Sta. 337+75.50
Crown El. 456.19

All Class X Concrete above bridge seat except blocks under beams to be furnished & poured by Contractor for Section D - See note on Sheet No. 15

Concrete Slope Wall - To be built by grading Contractor. See Sheet #1 for Plan and Bill of Material.

Wire Mesh reinforcement shall be of electrically welded fabric with longitudinal and transverse wires each spaced 6" - Fabric shall be 4 gauge cold drawn steel wire. Weight 58#/100 sq. ft.

Butter outside rows of piles $\frac{1}{2}$ " per foot.

END ELEVATION

- ⊙ Denotes 20 Ton Untreated Pile 10 Required
- Denotes 17 Ton Untreated Pile 30 Required

ELEVATION

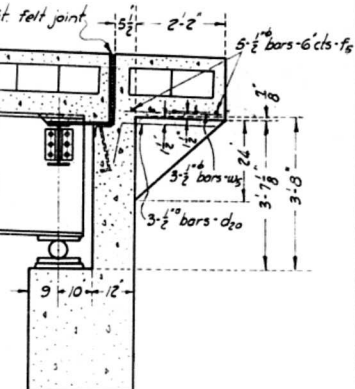
9 spaces @ 2'-10" = 25'-6"

PLAN OF FOOTING

BARS	NO	SIZE	LENGTH
d ₁₂	8	$\frac{1}{2}$ "	8'-9"
d ₁₃	8	$\frac{1}{2}$ "	9'-9"
d ₁₄	32	$\frac{1}{2}$ "	10'-0"
d ₁₅	3	$\frac{1}{2}$ "	5'-3"
d ₁₆	5	$\frac{1}{2}$ "	4'-0"
d ₁₇	4	$\frac{1}{2}$ "	6'-3"
d ₁₈	18	$\frac{1}{2}$ "	3'-3"
d ₁₉	8	$\frac{1}{2}$ "	8'-6"
d ₂₀	3	$\frac{1}{2}$ "	3'-3"
f ₁	7	$\frac{1}{2}$ "	12'-6"
f ₂	14	$\frac{1}{2}$ "	25'-3"
f ₃	7	$\frac{1}{2}$ "	17'-3"
f ₄	5	$\frac{1}{2}$ "	6'-0"
f ₅	6	$\frac{1}{2}$ "	17'-0"
f ₆	5	$\frac{1}{2}$ "	5'-6"
f ₇	15	$\frac{1}{2}$ "	7'-6"
f ₈	30	$\frac{1}{2}$ "	5'-9"
f ₉	3	$\frac{1}{2}$ "	3'-0"
f ₁₀	9	$\frac{1}{2}$ "	4'-0"
f ₁₁	4	$\frac{1}{2}$ "	3'-3"
s ₁₂	16	$\frac{1}{2}$ "	9'-3"
s ₁₃	3	$\frac{1}{2}$ "	26'-6"
s ₁₄	3	$\frac{1}{2}$ "	25'-0"
s ₁₅	3	$\frac{1}{2}$ "	23'-6"
s ₁₆	3	$\frac{1}{2}$ "	22'-0"
s ₁₇	3	$\frac{1}{2}$ "	20'-9"
s ₁₈	3	$\frac{1}{2}$ "	19'-3"
s ₁₉	3	$\frac{1}{2}$ "	17'-9"
s ₂₀	3	$\frac{1}{2}$ "	16'-3"
s ₂₁	3	$\frac{1}{2}$ "	14'-9"
s ₂₂	3	$\frac{1}{2}$ "	13'-3"
s ₂₃	3	$\frac{1}{2}$ "	11'-9"
v ₁₄	15	$\frac{1}{2}$ "	8'-0"
v ₁₅	6	$\frac{1}{2}$ "	10'-3"
v ₁₆	9	$\frac{1}{2}$ "	19'-0"
v ₁₇	12	$\frac{1}{2}$ "	21'-6"
v ₁₈	6	$\frac{1}{2}$ "	17'-9"
v ₁₉	6	$\frac{1}{2}$ "	12'-6"
v ₂₀	6	$\frac{1}{2}$ "	7'-0"
v ₂₁	9	$\frac{1}{2}$ "	23'-0"
t ₂	13	$\frac{3}{4}$ "	30'-0"
t ₁₀	8	$\frac{3}{4}$ "	30'-0"
z	11	$\frac{1}{2}$ "	27'-6"
z ₁	8	$\frac{1}{2}$ "	27'-6"
w ₁	14	$\frac{1}{2}$ "	12'-6"
w ₂	3	$\frac{1}{2}$ "	2'-3"

SECTION DD

Concrete floor shall be finished according to Art. 45.3(c) of the Specs.



SECTION EE

NOTES
Class X Concrete to be used throughout.
All reinforcing steel to be wired securely in place before concrete is poured.
A cluster of three test piles shall be jettied in place, allowed to set 24 hrs, then tested with a test load. Test piles to be part of footing piles. All piles in footing to be jettied in place.

WEST ABUTMENT
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B. ROUTE 78 SEC. 140 B-D
FULTON-MASON COUNTIES

COMPUTED	J. F. F. 10/25
CHECKED	F. S. J. 11/10
DRAWN	A. J. 11/10
CHECKED	J. M. 11/10
ASSEMBLED	
CHECKED	

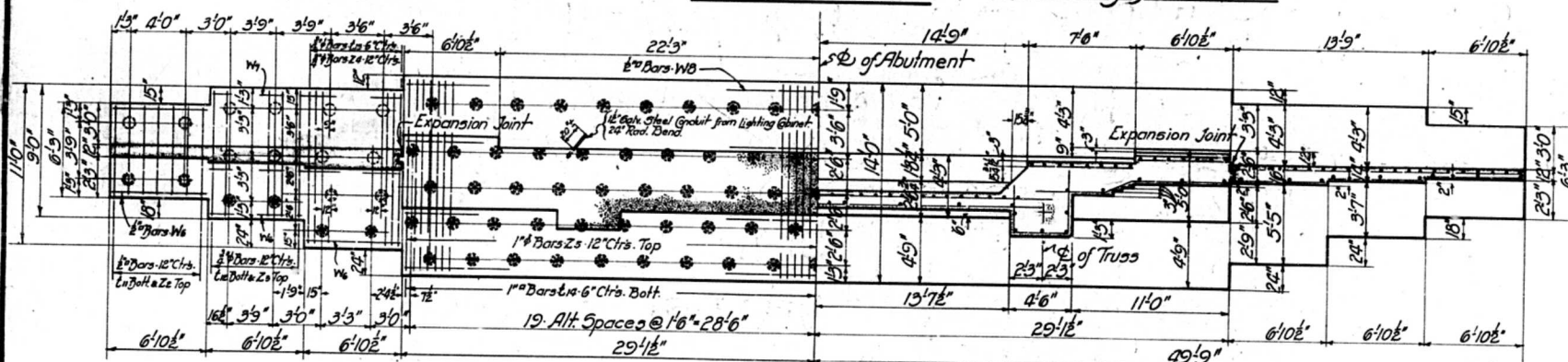
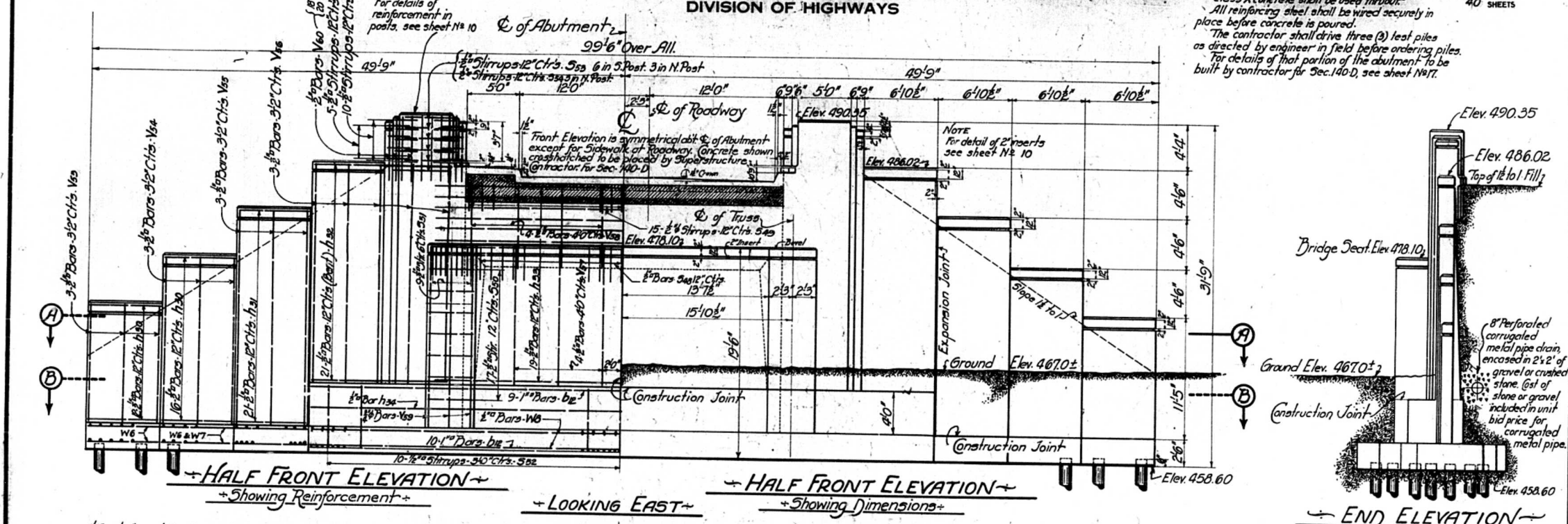
EXAMINED	10/35
APPROVED	E. J. Burek
APPROVED	E. J. Burek

Top of Foot - 11'-4" bars @ 12" cts - n_1
Bot of Foot - 13'-4" bars @ 12" cts - n_2

SEC. B	Class X Concrete - Cu 105 - 776
SEC. D	Reinforcing Steel - Lbs. - 5590
	Unt. Piles - Lin. Ft. - 800
	Class X Concrete - Cu 105 - 8.8
	Wire Mesh - Sq. Ft. - 18.8
	Hollow Building Tile - Sq. Ft. - 8.0
	Structural Steel - Lbs. - 380

Notes:

- Class X concrete shall be used thru-out.
- All reinforcing steel shall be wired securely in place before concrete is poured.
- The contractor shall drive three (3) test piles as directed by engineer in field before ordering piles.
- For details of that portion of the abutment to be built by contractor for Sec. 140-D see sheet N17.



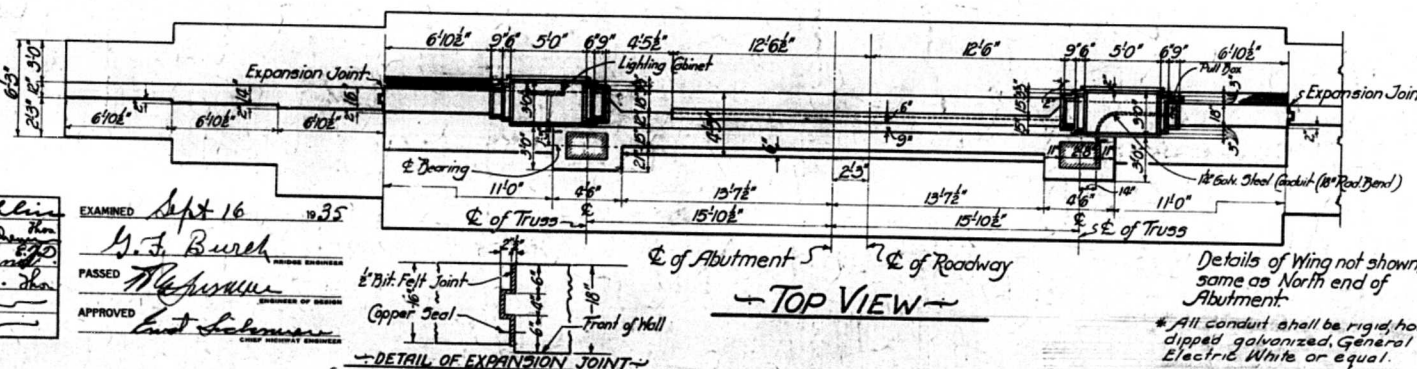
~ HALF SECTION - BB ~
Showing Pile Layout and Reinforcement:
Symmetrical abt. Φ .

HALF SECTION-AA
Symmetrical abt. ϕ

- NOTE-**
 22-Ton creosoted piles 97 Reg'd.
 Estimated length = 1940 lin. ft.
 15-Ton creosoted piles 8 Reg'd.
 Estimated length = 180 lin. ft.
 12-Ton creosoted piles 8 Reg'd.
 Estimated length = 160 lin. ft.
 10-Ton creosoted piles 20 Reg'd.
 Estimated length = 400 lin. ft.

STANDARD	COMPUTED	<i>Edw. J. Dahlin</i>
	CHECKED	<i>Wm. D. Driscoll</i>
	DRAWN	<i>L. F. Beardsmore</i>
SPECIAL	CHECKED	<i>Wm. R. M. J. J.</i>
	ASSEMBLED	_____
	CHECKED	_____

EXAMINED Sept 16 1935
G. F. Burch REGISTERED ENGINEER
 PASSED [Signature]
ENGINEER OF DESIGN
 APPROVED [Signature]



— TOP VIEW —

Details of Wing not shown,
same as North end of
Abutment.

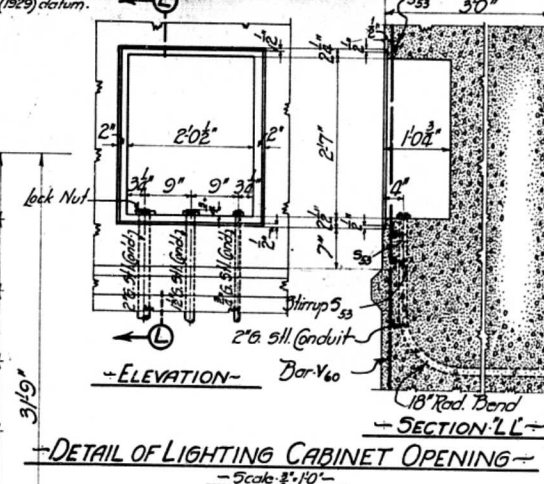
* All conduit shall be rigid, hot dipped galvanized, General Electric White or equal.

← BILL OF MATERIAL →							
Bar	No.	Size	Length	Bar	No.	Size	Length
b12	28	1"o	30'1"	b28	28	3/8"	6'6"
d12	98	3/8"	4'6"	b29	4	3/8"	6'6"
d22	14	3/8"	9'6"	b25	12	1/2"	20'3"
d23	12	3/8"	6'3"	b26	12	3/4"	7'3"
d24	14	1/2"	10'9"	b27	2	3/4"	4'9"
d25	14	1/2"	7'6"	b28	22	3/8"	16'9"
d26	14	1/2"	14'0"	b29	2	3/8"	22'0"
d27	14	1/2"	11'0"	b30	56	3/8"	8'0"
d28	16	1/2"	14'6"	b31	42	3/8"	6'6"
d29	14	1/2"	11'9"	b32	42	3/8"	18'0"
d30	59	1/2"	7'3"	b33	38	3/8"	17'3"
d31	30	1/2"	7'9"	b34	2	3/4"	29'9"
d32	29	1/2"	11'0"				
V42	14	3/4"	11'6"	S48	54	3/4"	70'
V43	14	3/4"	10'9"	S49	50	3/4"	50'
V44	14	3/4"	4'6"	S50	34	3/4"	11'3"
V45	14	3/4"	11'9"	S51	30	3/4"	9'8"
V46	14	3/4"	5'6"	S52	20	3/4"	20'8"
V47	14	3/4"	12'6"	S53	9	3/4"	17'0"
V48	16	3/4"	5'0"	S54	3	3/4"	12'3"
V49	8	3/4"	11'3"	S55	20	3/4"	5'6"
V50	8	3/4"	11'0"	S56	20	3/4"	5'6"
V51	29	3/4"	6'6"	W 6	16	3/4"	70'
V52	29	3/4"	9'0"	W 7	6	3/4"	13'6"
V53	6	3/4"	11'3"	W 8	14	3/4"	29'9"
V54	6	3/4"	13'9"	Z 2	14	3/4"	6'9"
V55	6	3/4"	20'3"	Z 3	14	3/4"	6'9"
V56	10	3/4"	20'5"	Z 4	14	3/4"	6'9"
V57	8	3/4"	12'9"	Z 5	58	1 1/2"	7'6"
V58	8	3/4"	6'9"	E 11	14	3/4"	6'0"
V59	10	3/4"	16'9"	E 12	14	3/4"	8'9"
V60	38	3/4"	6'9"	E 13	26	3/4"	10'9"
				L 14	117	1"o	13'9"
Class X Concrete				Cu. Yds.			
Reinforcing Steel				166			
Crested Piling (up to 20 ft.)				166			
6" Corrugated Metal Pipe (under 10 ft.)				2,580			
Ends Piles Complete				160			
Test Piles				each			
				one			

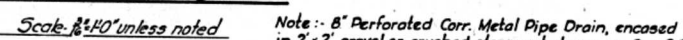
**EAST ABUTMENT
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE -78 SEC. 140- B-D
FULTON-MASON COUNTIES**

SHEET NO. 10
40 SHEETS

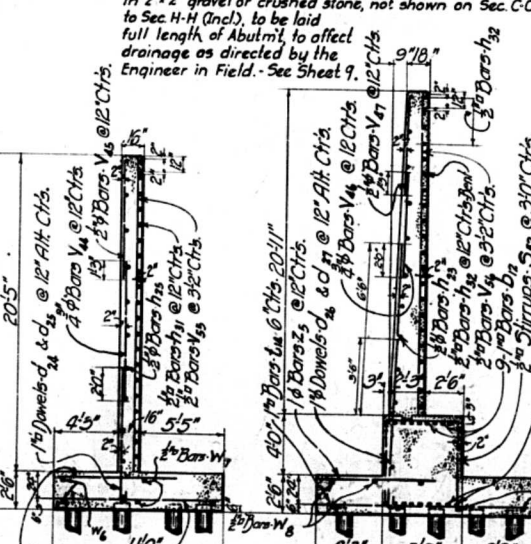
D.M.*62. S&W. Vertical in 18" Elm, 100' left
of Sta. 356+15. Elevation 467.08 U.S.G.S. (1929) datum.



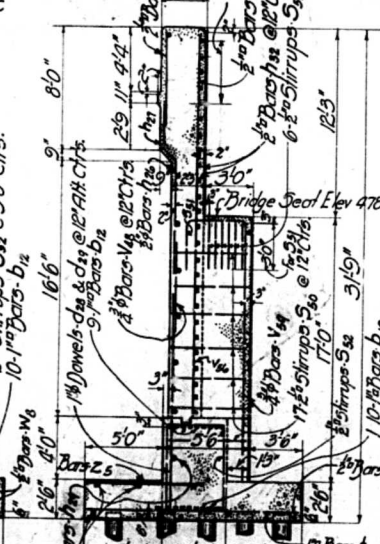
1+ HALF REAR ELEVATION
LOOKING WEST Showing Dimensions



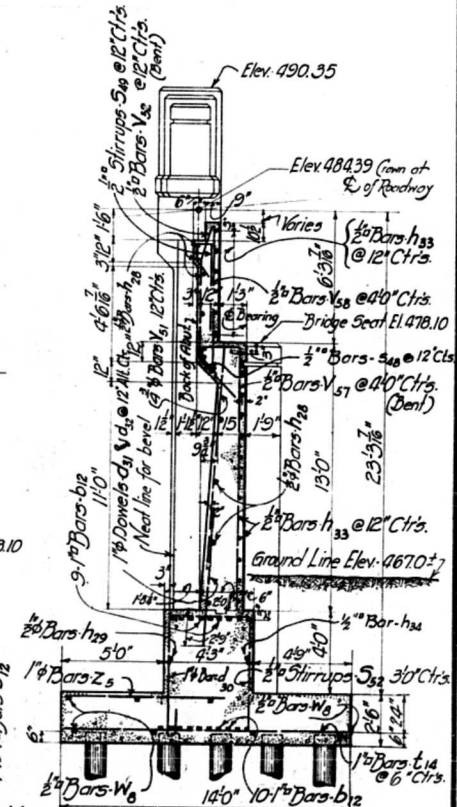
2" Bars 12 @ 12" Ctr's.
2" Bars 2 @ 12" Ctr's.



~ SECTION - FF ~



4 SECTION "GG"



SECTION "HH"

**EAST ABUTMENT
ILLINOS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE-78 SEC. 140-B-D
FULTON-MASON COUNTIES**

STANDARD	COMPUTED <i>Edw. J. Dahlin</i>
	CHECKED <i>Edw. J. Dahlin</i>
	DRAWN <i>Edw. J. Dahlin</i>
SPECIAL	CHECKED <i>Edw. J. Dahlin</i>
	ASSEMBLED _____
	CHECKED _____

EXAMINED *Sept 16*
W. F. Burch
PASSED *W. J. [unclear]*
APPROVED *Earl L. [unclear]*

SECTION "DD"

14' for 1st Bors
7' for 2nd Bors
4' for 3rd Bors
6' for 4th Bors
7' for 5th Bors

38'

SECTION 'EE'

D

B

BAR 548
AND 541

SIZE MARK A B

SECTION FF

25° 74°

D

DAR-V

H

SECTION-GG-

4.8"

2.8"

2.8"

1.6"

1.0"

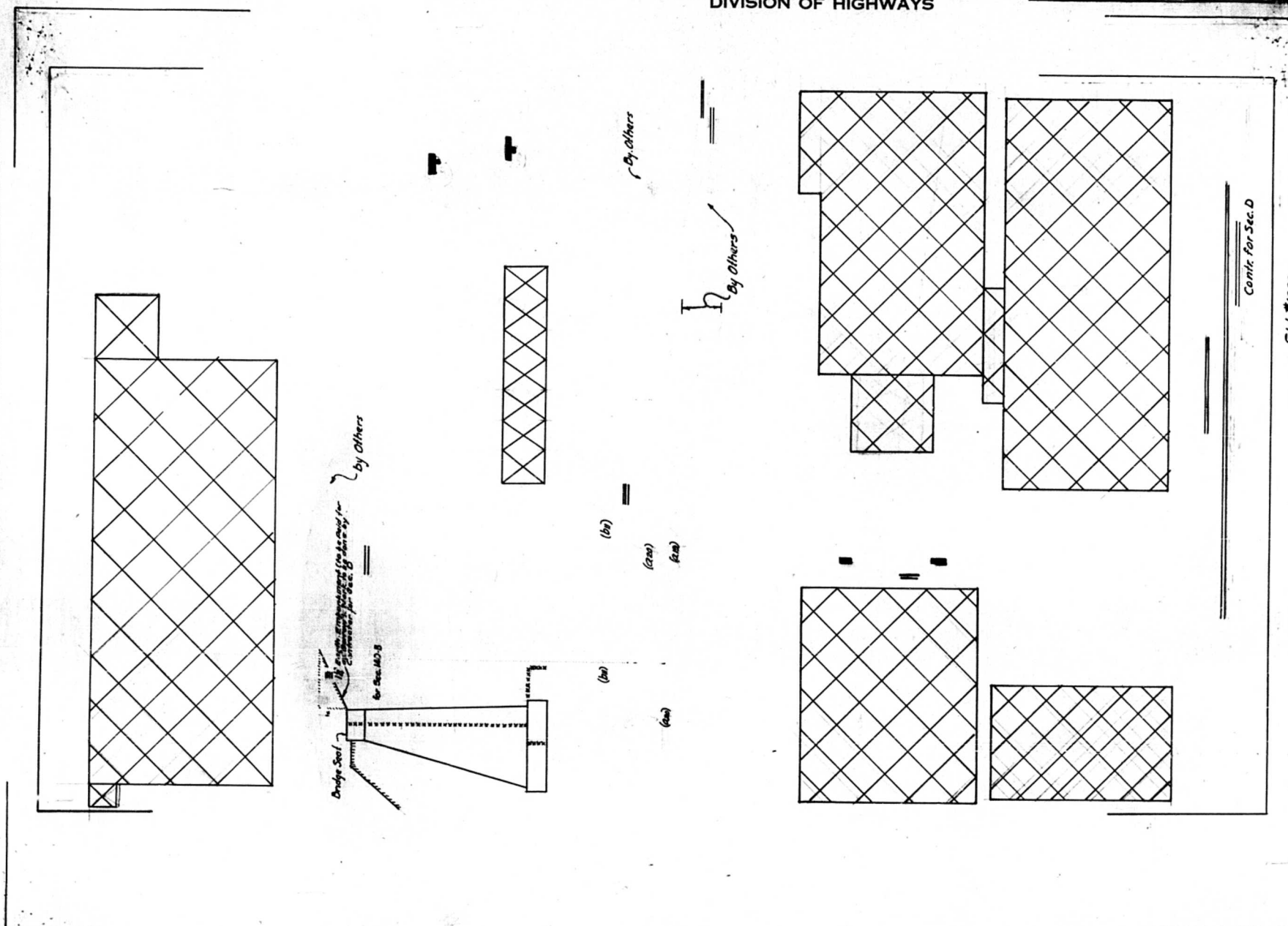
1.0"

EAST ABU
ILLINOS RIV
HAVANA.
S.B.I. ROUTE-78

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

BOND FREE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140 D	Mason	38	7
FED. ROAD DIST. No. 7 ILLINOIS 1 FEB. 1937 PROJECT 137-7				

SHEET NO. 11
40 SHEETS



WEST APPROACH PAVEMENT QUANTITIES				
Bore	Av.	Size	Length	
B11	33	2"	19'6"	
C19	14	1"	18'0"	
C20	27	1"	22'0"	
R.C.C. Pav. (16 1/2' x 16 1/2')			Sq. Yds.	44.4
Std. Type B Gutter			Lin. Ft.	20.
Class X Concrete (Transition Curb)			Cu. Yds.	0.9
Reinforcing Steel			Lbs.	2810.
Barrow			Cu. Yds.	± 100.
Untr. Piling			Lin. Ft.	100

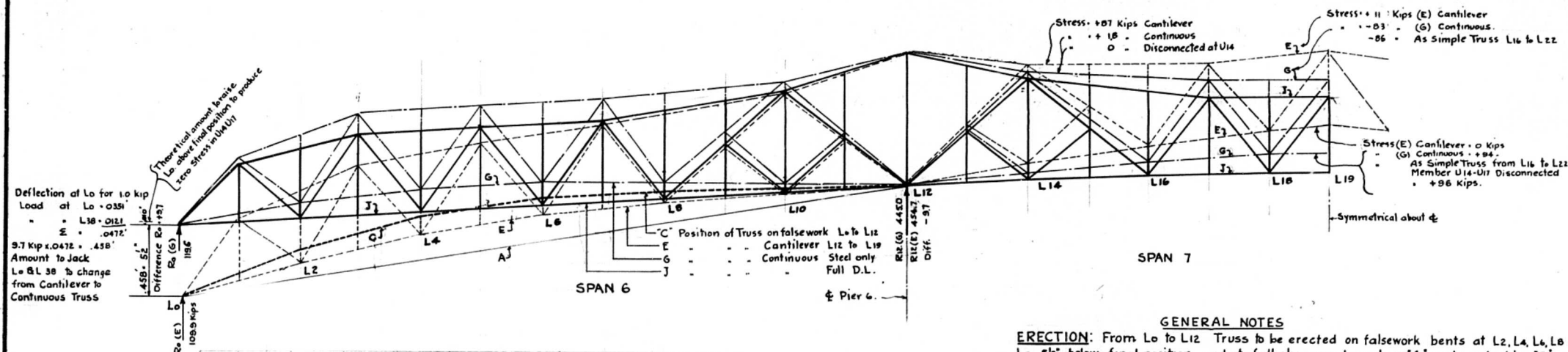
STANDARD	COMPUTED
	CHECKED
	DRAWN
SPECIAL	CHECKED
	ASSEMBLED <i>A.L. Jones</i>
	CHECKED <i>R.B. Murphy</i>

EXAMINED *Sept 16* 35
G.F. Busch
PASSED *[Signature]*
APPROVED *[Signature]*

WEST APPROACH PAVEMENT
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 D-B
FULTON-MASON COUNTIES

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

SHEET NO. E 1
SHEETS



	A	B	C	D	E	F	G	H	J
	CHANGE IN ELEV BY ROTATION ABOUT L12	SHOP CAMBER	POSITION OF BOTTOM CHORD ON FALSEWORK L0 TO L12	CANTILEVER L12-L19 DEFLECTION	CONTINUOUS (STEEL) DEFLECTION	CONTINUOUS (STEEL) DEFLECTION	CONTINUOUS (STEEL) DEFLECTION	CONTINUOUS (STEEL) DEFLECTION	REL. DL.
L0	-458	0	-458	0	-458	0	0	0	0
L2	-382	+183	-199	-070	-269	-081	+102	-102	0
L4	-305	+278	-027	-104	-131	-124	+154	-153	+001
L6	-229	+281	+052	-100	-048	-127	+154	-153	+001
L8	-153	+203	+060	-066	-016	-093	+110	-109	+001
L10	-076	+091	+015	-026	-011	-043	+048	-047	+001
L12	0	0	0	0	0	0	0	0	0
L14	+076	+052	—	-040	+088	-020	+032	-033	-001
L16	+153	+135	—	-104	+184	-049	+086	-086	0
L18	+229	+201	—	-171	+259	-075	+126	-126	0

Ordinates A, C, E, G, J are with reference to position of truss under full dead load.

GENERAL NOTES

ERECTION: From L0 to L12 Truss to be erected on falsework bents at L2, L4, L6, L8 & L10. L0 5' below final position, and at full shop camber above "A" as shown by Line "C". Rivet bottom chord from L0 to L10 at "C". Defer riveting Joint L12 until cantilever erection has progressed far enough beyond L12 for Derrick to be located at L16. Top chord joints U5 & U7 shall be riveted under compression unless reinforced by additional rivets at U5 and U7, also splice angles at U7.

From L12 to L19, Cantilever Erection, riveting to follow erection except as specified above, and at Joints U14, U17 at U17, U21, U24 at U21. These joints to be riveted after the truss has been connected and Reactions adjusted. The closing members in panel L19-L20 including laterals are to be cut to exact length and drilled in the field at temperature estimated when setting rollers at L12 Pier No. 6.

During Erection from L0 to L12 on falsework the trusses are to be anchored at L0 against longitudinal movement due to temperature. As soon as trusses are landed at Piers, release anchorage.

At L12 & L26, the joints are to be assembled to correct line and grade, with jacks under stiffeners provided on floor beams, the shoes & base plates brought to bearing by means of leveling screws provided in the base plates, jack up floor beam sufficient to remove the bearing pins and fill pits under base plates with high early strength concrete. As soon as concrete has attained sufficient strength lower trusses to bear on pins. In setting expansion bearings at Pier 6, the rollers are to be set and temporarily locked at an angle such that the rollers will be vertical at 60°, taking into account the bottom chord deformation and temperature change between 60° and estimated temperature at time of closing. As soon as closure has been made at L19, the locking device at Pier 6 must be immediately released. During cantilever erection temporary roller bearings are to be provided at L0 & L38. The bearings used at the Meredosia Bridge can be used with slight modification.

During erection sufficient bracing should be installed to maintain correct alignment and to provide for safety during wind storms. A sufficient number of jacks of ample capacity should be available at all times to maintain the required elevations at the falsework bents without overloading any of the bents.

ADJUSTMENT OF TRUSSES

After closure the following adjustments are to be made: Jack up L0 & L38 to approximately their final position and until stresses in U14, U17 & U21, U24 = zero. Remove pins from jointbone at a time, and replace with bolts. Loosen bolts allowing truss between L16 & L22 to be stressed as a simple truss. Set L0 & L38 to correct elevation, Ream U17 & U21 if necessary and rivet.

Check computed stresses by means of Extensometer readings taken on L0, L1, L12, L13, L14, L15 & corresponding members in opposite half of Truss, and make further adjustments if necessary. Install rockers & base plates at L0 & L38 in a manner similar to that described for L12 & L26. All adjustment of trusses shall be under direct supervision of the Engineer.

COMPUTED	Franklin
CHECKED	R.B. Murphy
DRAWN	FAB
CHECKED	R.B.M.
SPECIAL	ASSEMBLED
	CHECKED

EXAMINED 12-4-1936
H. J. Smith
PASSED H. E. Surman
APPROVED Ernest Liberman

ERECTION PROCEDURE REVISED DEC. 4-1936
CHECKED L. T. W.

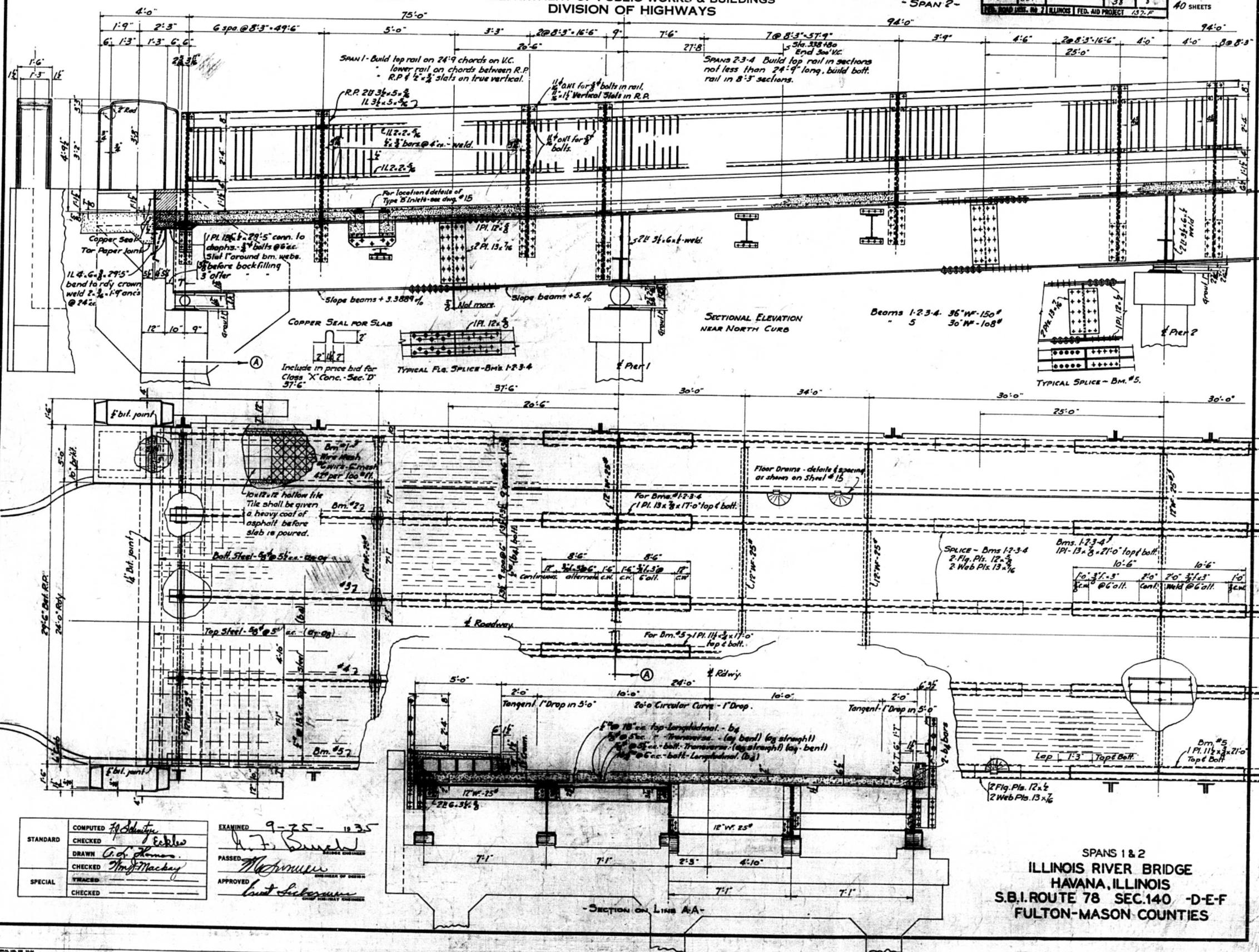
SPANS 6-7-8
ERECTION PROCEDURE
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 - SEC. 140 E
FULTON-MASON COUNTIES

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

ROAD DIST. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140	Mason - Fulton	38	12
ILLINOIS FED. AID PROJECT 137-F				

- SPAN 1 -

- SPAN 2 -



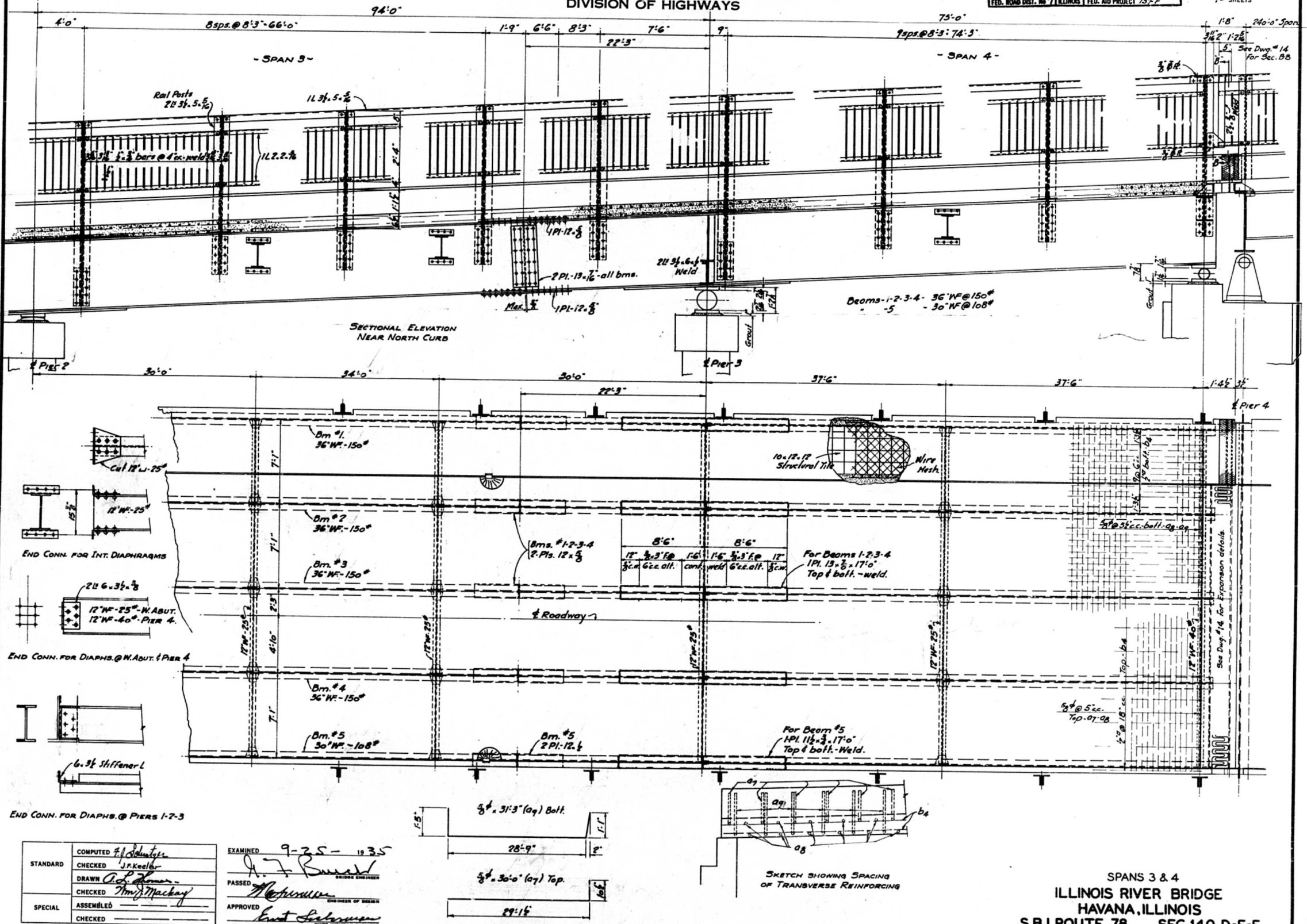
STANDARD	COMPUTED	7/1/35
CHECKED	7/1/35	
DRAWN	7/1/35	
CHECKED	7/1/35	
SPECIAL	TRACED	
CHECKED		

EXAMINED	9-25-1935
PASSED	7/1/35
APPROVED	7/1/35

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

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140 D-E	Mason, Fulton	38	9
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 157-F				

SHEET NO. 13
40 SHEETS

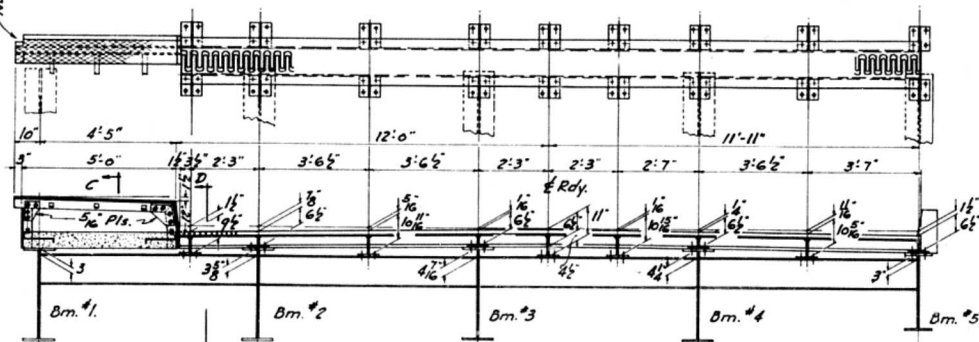


STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

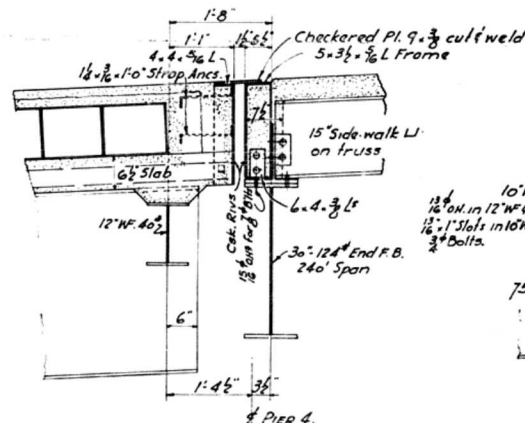
CONTRACT	SEC.	COUNTY	TOTAL SHEETS	SHEET
78	140	D-E-F	38	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	137-F	

SHEET NO. 14
40 SHEETS

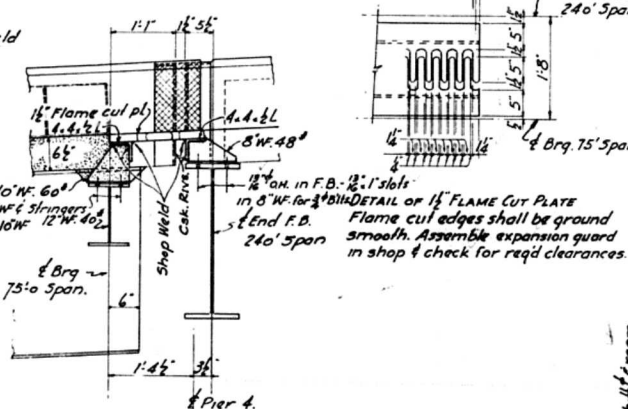
Match for R.P.



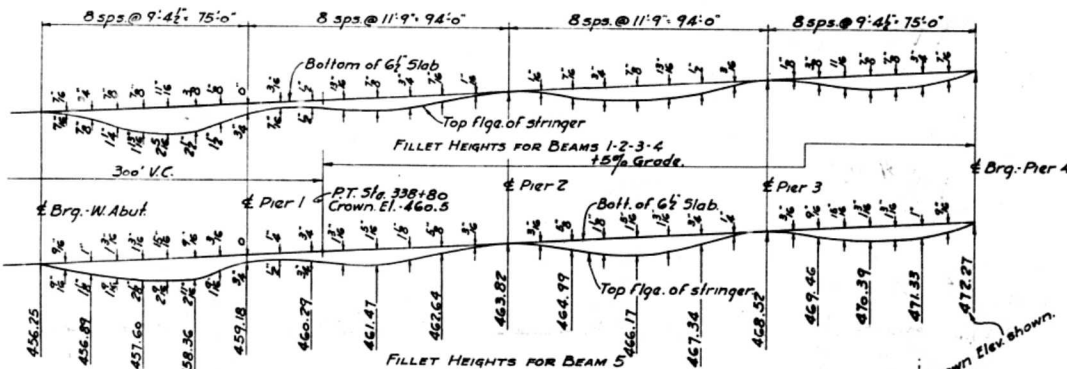
SECTION THRU SPAN 4-LOOKING EAST-
EXPANSION GUARD FOR PIER 4
All welds shall be 3/8" fillet welds.



SECTION C-C

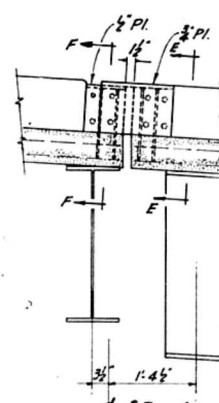
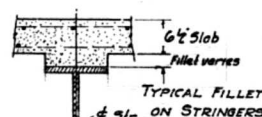


SECTION D-D

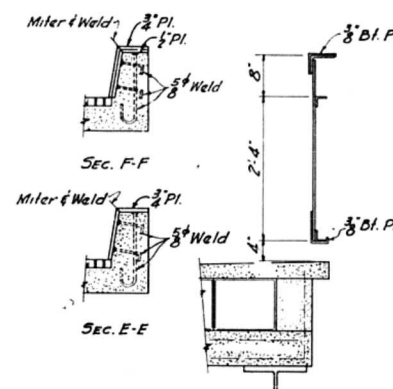


Fillet heights shown above line are for deflection of beams under full dead load for all spans.
For Span 1 portion of Span 2 from Pier 1 to P.T.
Fillet heights below line are the total for full dead load plus the tangent offsets between beam & bottom of slab on V.C.

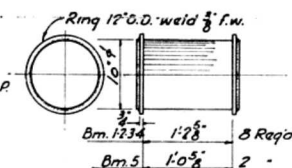
ROADWAY CROWN DIAGRAM



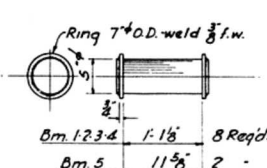
EXP. GUARD FOR SOUTH CURB
PIER #4



SECTION B-B THRU RAIL EXP.
DEVICE AT PIER 4



ROLLERS AT PIERS 1&3



ROLLERS AT W. ABUT. & PIER 4

RR-2B 5.31x1.5 - For North Rail - All Posts
- For South Rail, see SH 40 15

TYPICAL RAIL POST CONNECTION & BRACKET -
For posts adjacent to Piers 1-2-3, connect posts
below & of beam, and weld connection to brackets
to top cover plate. On all other posts, provide conn-
ection above & of bracket & will be field riveted.



BEARING PLATES AT PIER 2

Weld top bearing plates to beams with 3/8" contin. fillet welds.
" rings to rollers with 3/8" continuous fillet welds.

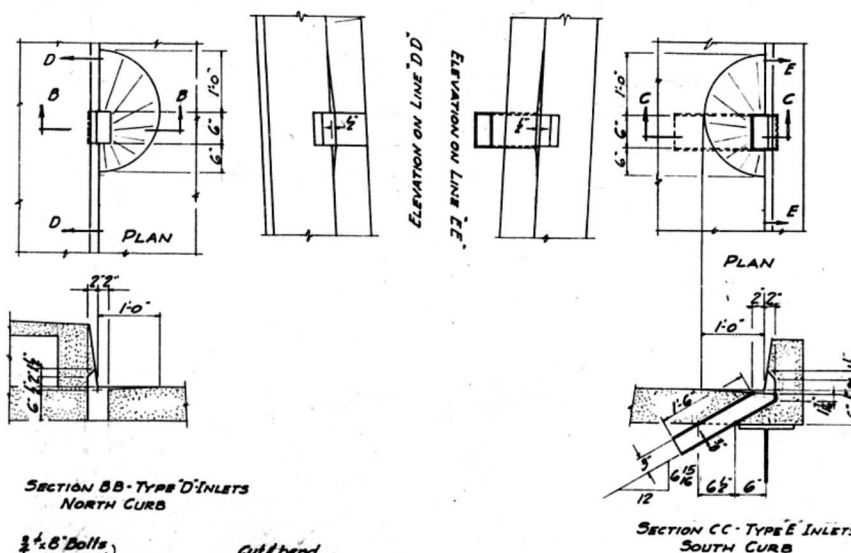
SPANS 1-2-3-4
DETAILS OF EXPANSION GUARDS & ROLLERS
DEFLECTION DIAGRAM
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 D-E-F
FULTON-MASON COUNTIES

STANDARD	COMPUTED	7/2
	CHECKED	J.F. Keeler
	DRAWN	A.L. Jones
SPECIAL	CHECKED	Mr. Mackay
	ASSEMBLED	
	CHECKED	

EXAMINED	9-25-1935
	J.F. Keeler
PASSED	Mr. Mackay
APPROVED	Chief Highway Engineer

BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.	BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	160 05.F.P.	Mason Gilbert	35	11	78	160 05.F.P.	Mason Gilbert	13	12
FED. ROAD DIST. No. 7	BLINDING	FED. AID PROJECT	137.5		FED. ROAD DIST. No. 7	BLINDING	FED. AID PROJECT	137.5	

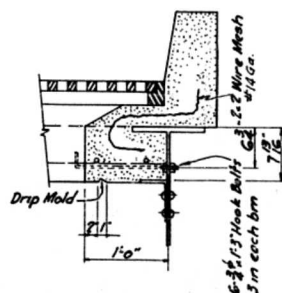
40 SHEETS



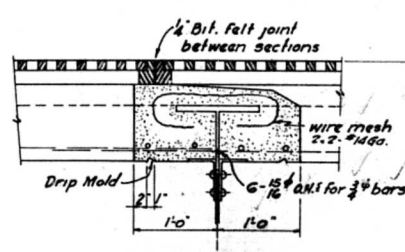
SECTION AA thru roadway showing Type B Inlet
C.I. Frames & Grates & details of openings are same
or similar to those on truss spans. See Dwg. #16

SECTION BB-TYPE D INLETS
NORTH CURB

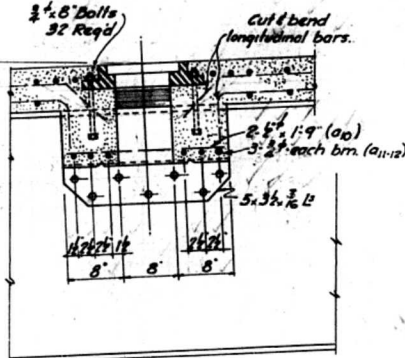
SECTION CC - TYPE E INLETS
SOUTH CURB



DETAIL AT BEAM #5

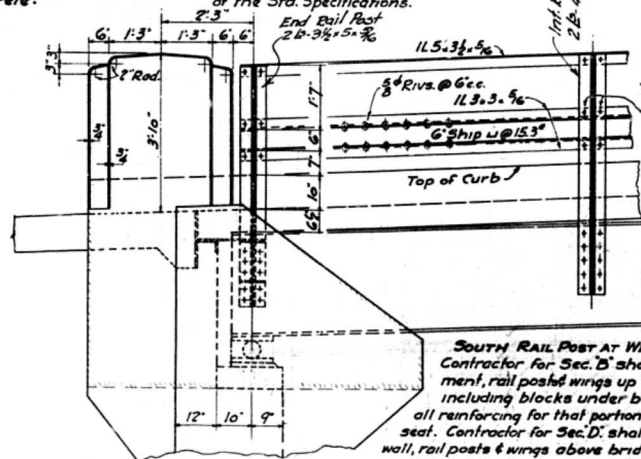


DETAIL AT BEAM #5

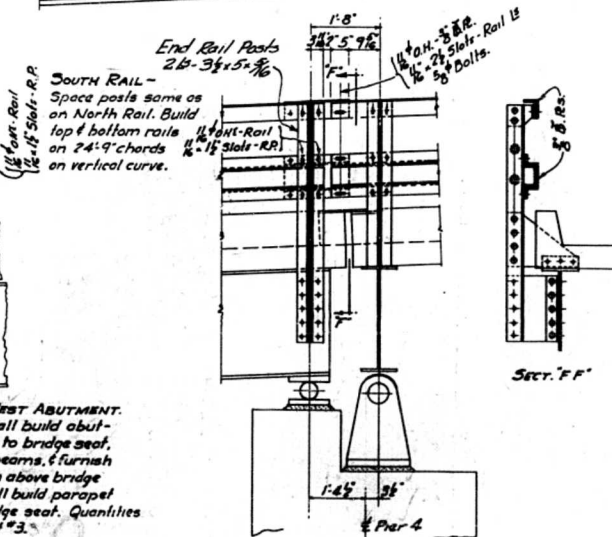


NOTE -
Asphalt Painting, Wire Mesh,
& Hook Bolts shall be included
in the unit price bid for Class
X Concrete.

NOTE - Paint inside of inlet openings & bottom of slob to & including drip mold. 1 priming coat of Cut-back Asphalt & 2 coats of Hot Asphalt as per Sec. 42.18 of the Std. Specifications.



SOUTH RAIL POST AT WEST ABUTMENT.
Contractor for Sec. B shall build abutment, rail posts wings up to bridge seat, including blocks under beams, & furnish all reinforcing for that portion above bridge seat. Contractor for Sec. D shall build parapet rail posts & wings above bridge seat. Quantities set in Bill of Material on Sheet "3."



SECT. 'F F'

-EXPANSION-SOUTH RAIL AT PIER 4-

BILL OF MATERIALS - SUPER-STRUCTURE
SPANS 1-2-3-4

BAR	N ^o	SIZE	LGTH.
b4	756	4 ⁰	29'6"
a7	408	5 ⁸	30'0"
a8	777	5 ⁸	29'3"
a9	371	5 ⁸	31'3"
a11	18	3 ⁸	9'0"
a12	6	3 ⁸	6'9"
a10	16	6 ⁸	1'9"

GENERAL NOTES FOR SPANS 1-2-3-4

Splice, $\frac{3}{4}$ DIA. $\frac{1}{2}$ except as noted, & in stringer splices, where $\frac{1}{2}$ for shop & field rivs shall be sub-punched $\frac{3}{4}$ & reamed for $\frac{3}{4}$ rivs.
Beam spans shall be shop assembled, complete, to correct lines & elevations, & holes in splices shall be reamed while assembled.
Shop inspection will be made by Illinois Dept. of Highways while spans are assembled & before painting.
Contact surfaces between steel & concrete shall not be painted.

Note-

Contractor for Sec. D - Slab shall be poured in one continuous pour. - Spans - 1-2-3-4.

Sec. 140-D.	Class X Concrete	Cu. Yds.	232.6	*
	Reinforcing Steel	Lbs.	67,840.	
	C.I. Grates, Frames & Inlets	- Lbs.	2850.	
	Wire Mesh.	Sq. Ft.	1970.	*
	Hollow Building Tile	" "	1356.	*
	Structural Steel-Carbon	- Lbs.	240	

* These quantities do not include abutment materials above bridge seat.

SPANS 1-2-3-4

DRAINAGE DETAILS -

-BILL OF MATERIAL

ILLINOIS RIVER BRIDGE

HAVANA, ILLINOIS

S.B.I.ROUTE 78 SEC.140 D-E-F-B-P
FULTON-MASON COUNTIES

Sec. 100F	Structural Steel-Carbon-Lbs. 332,690
Sec. 100F	Structural Steel-Carbon-Lbs. 333,310
Sec. P	2 Field Coats of Paint- Lbs. of Steel 333,310

STANDARD	COMPUTED	<i>W.S.</i>
	CHECKED	<i>J. F. Keeler</i>
	DRAWN	<i>C. D. Thomas</i>
SPECIAL	CHECKED	<i>Wm. J. Macbary</i>
	ASSEMBLED	_____
	CHECKED	_____

EXAMINED Sept 16 1935
G. F. Burch
 PASSED [Signature]
 APPROVED [Signature]

BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	DATE
78	180 D-E-F	Mason-Fulton	38	12
FED. ROAD DIST. No 7	ILLINOIS	FED. AID PROJECT	157-F	

[illegible]

STANDARD	COMPUTED	<i>Franklin Ray</i>
	CHECKED	<i>R.B. Murphy: J.F.K.</i>
	DRAWN	<i>Fab. - J.R. Kacker</i>
SPECIAL	CHECKED	<i>R.B.M.</i>
	ASSEMBLED	_____
	CHECKED	_____

EXAMINED 9-25-1935
J. F. Burch
CHIEF ENGINEER
PASSED
H. J. Burch
ENGINEER OF DESIGN
APPROVED
H. J. Burch

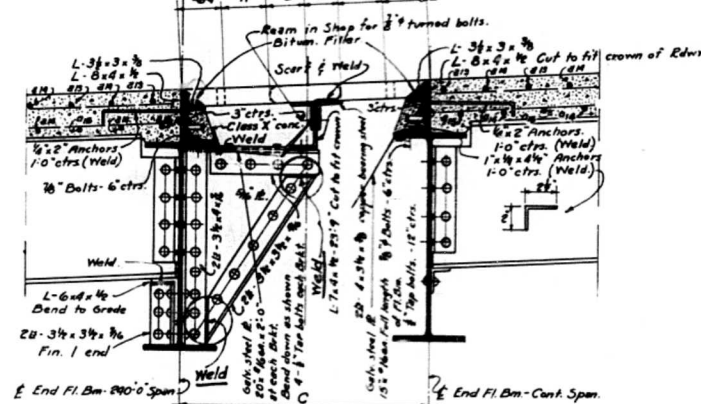
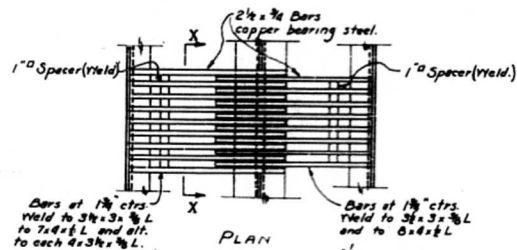
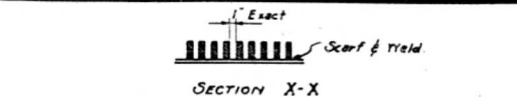
Note:- $\frac{1}{2}$ " Bit. Felt Joints, Asphalt Painting, Wire Mesh and Hook Bolts shall be included in unit price bid for Class X Concrete.

SPANS 5-6-7-8
FLOOR DRAINAGE DETAILS
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 D-E-F
FULTON-MASON COUNTIES

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

ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	140-D-E	Havana-Fulton	38	13

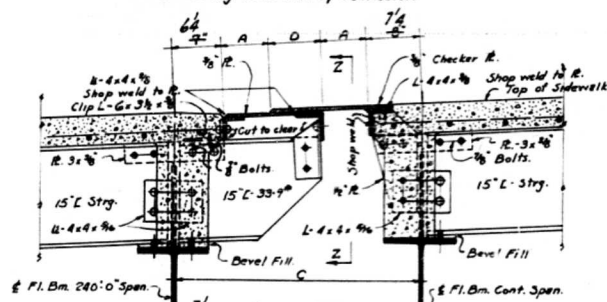
SHEET NO. 17
40 SHEETS



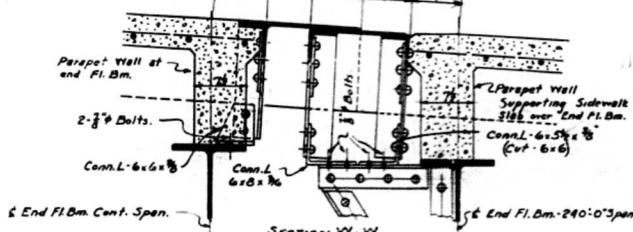
SECTION AT CROWN.

ROADWAY EXPANSION GUARD AT PIER 5

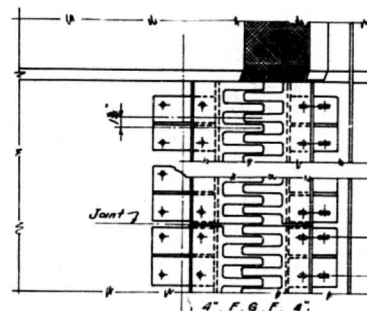
Expansion Guard to be made in sections about 6'-0" long.
All welding to be done by fabricator.



SECTION Y-Y

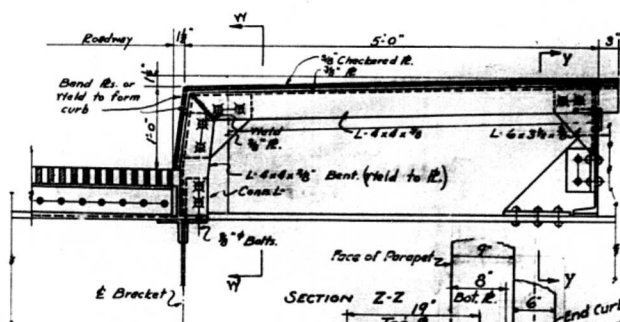


SECTION YI-YI



SECTION AT CROWN

ROADWAY EXPANSION GUARD AT E. ABUTMENT



SECTION Z-Z

SIDEWALK EXPANSION GUARD AT PIER 5

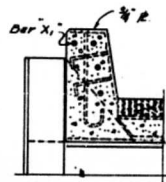
TABLE OF DIMENSIONS FOR EXPANSION GUARDS

Temp.	A	B	C	D	E	F	G	H	J
90°	4 1/2"	7 1/2"	2'-9"	10 1/2"	5 1/2"	2 1/2"	3 1/2"	1'-2 1/2"	4 1/2"
80°	5"	6 1/2"	2'-10 1/2"	9 1/2"	6"	2 1/2"	3 1/2"	1'-2 1/2"	4 1/2"
70°	5 1/2"	6"	2'-11 1/2"	8 1/2"	6 1/2"	2 1/2"	3 1/2"	1'-2 1/2"	4 1/2"
60°	6 1/2"	5 1/2"	3'-0"	8"	6 1/2"	3"	3 1/2"	1'-3"	4 1/2"
50°	7 1/2"	4 1/2"	3'-0 1/2"	7 1/2"	6 1/2"	3 1/2"	2 1/2"	1'-3 1/2"	3 1/2"
40°	8"	3 1/2"	3'-1 1/2"	6 1/2"	7"	3 1/2"	2 1/2"	1'-3 1/2"	3 1/2"
30°	8 1/2"	3"	3'-2 1/2"	5 1/2"	7 1/2"	3 1/2"	2 1/2"	1'-3 1/2"	3 1/2"

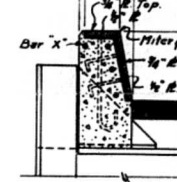
* Assumed Normal Temperature.

NOTES.

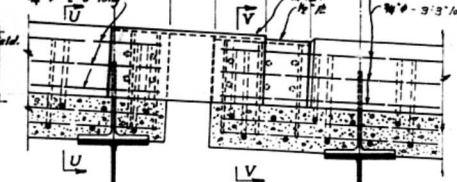
All material to be carbon steel, unless noted.
Rivets 3/4" Open holes 1 1/2", unless noted.
All material noted Copper bearing steel to conform to A.S.T.M. Specifications for copper bearing steel; Serial designation A-7-36.
Expansion Devices complete, including all copper bearing steel, anchors, bolts, washers, etc. to be included in the quantity, STRUCTURAL STEEL-CARBON.
Portions of Exp. Guards which are entirely anchored by concrete shall be installed by Contr. for Sec. 140-D.
Portions of Exp. Guards which are connected to other steel members shall be installed by the Contractor for Sec. 140-E.
For Quantities & General Notes, see Sheet No. 36.



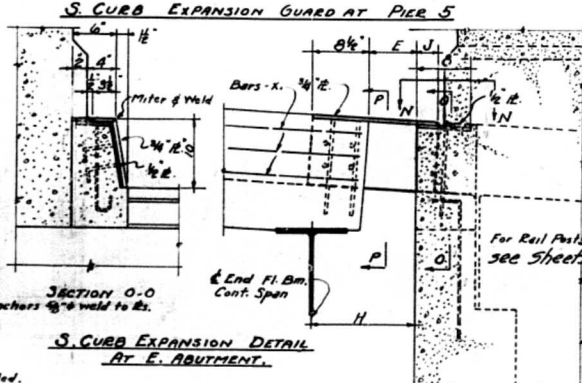
SECTION U-U



SECTION V-V



VIEW (Looking south).



SECTION O-O

S. CURB EXPANSION GUARD AT E. ABUTMENT.

**EXPANSION GUARD DETAILS
PIER 5 & EAST ABUTMENT**

ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE-78 SEC. 140-D-E
FULTON-MASON COUNTIES

COMPUTED	J.F. Keeler
CHECKED	RBM
DRAWN	J.F.K.
CHECKED	RBM
TRACKED	E.C. STRANDBERG
CHECKED	RBM

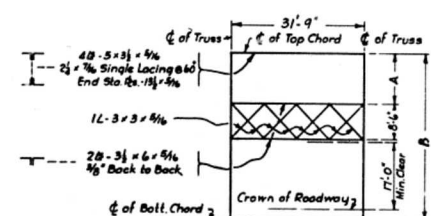
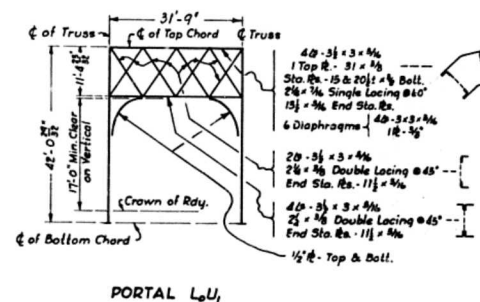
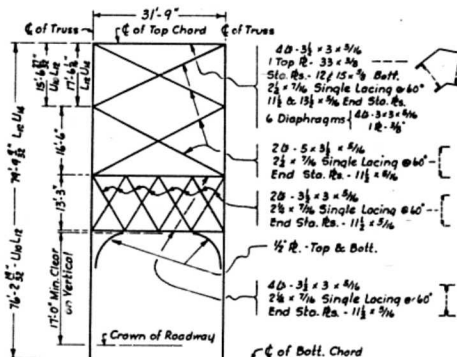
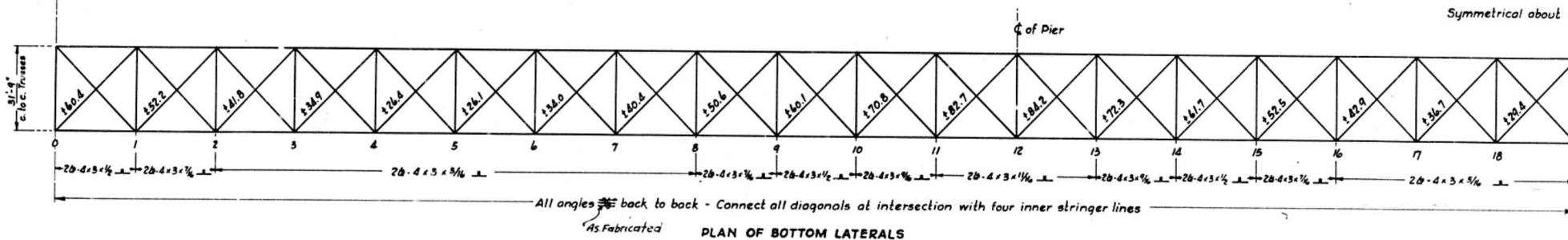
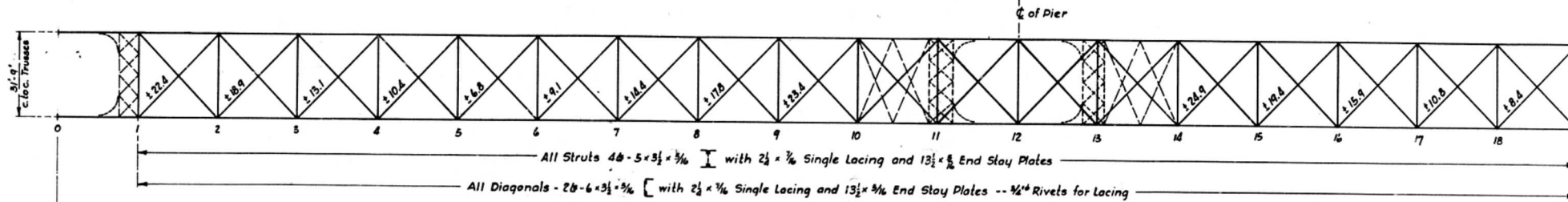
EXAMINED	9-25-35
PASSED	A. J. Burch
APPROVED	Robert Seligman

Exp. Guard Pier 5 Revised-8-3-36

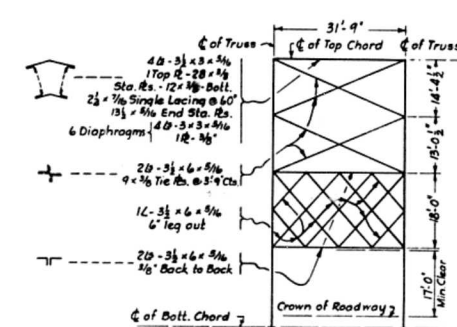
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
73	140 E-F	Mason, Fulton	38	18
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 137-F				

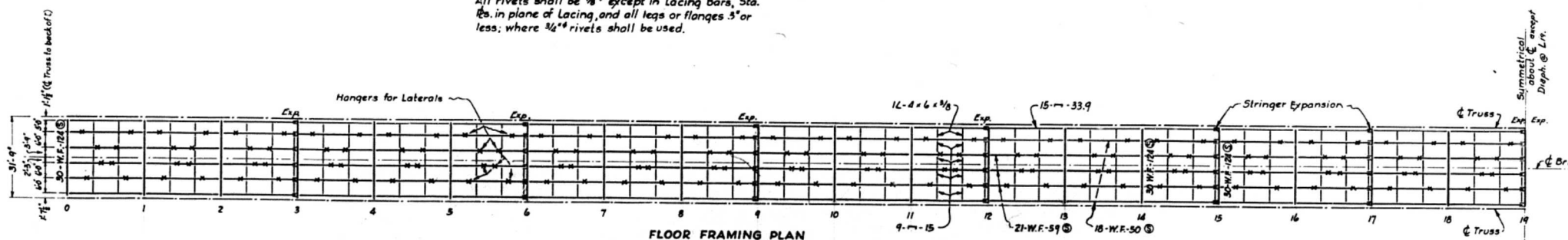
SHEET NO. 18
40 SHEETS



Panel Point No.	A	B	Panel Point No.	A	B
2	5'-11"	34'-0"	15	17'-5 3/8"	45'-8"
3 to 7 Incl.	11'-11"	40'-0"	16	13'-3"	41'-4"
8	15'-3"	43'-4"	17	9'-2 3/8"	37'-5 3/8"
9	18'-7"	46'-8"	18	8'-11"	37'-0"
10 & 14	21'-11"	50'-0"	19	8'-9 3/8"	37'-0"



Note: All steel in Sway Struts, Sway Frames & Portals shall be carbon steel.
All rivets shall be 3/4" except in Lacing Bars, Sta. Rs. in plane of Lacing, and all legs or flanges 5" or less; where 3/4" rivets shall be used.



STANDARD	COMPUTED	W.J. Maahay.
	CHECKED	J.F. Keeler.
	DRAWN	W.J.M.
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

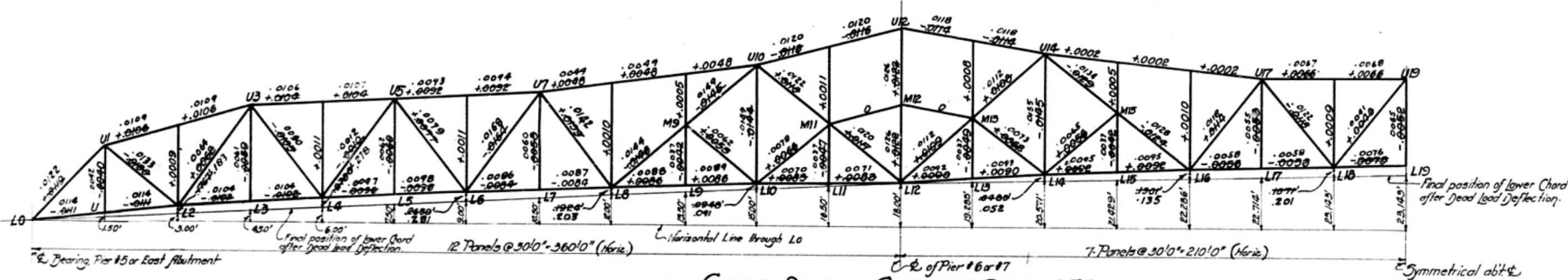
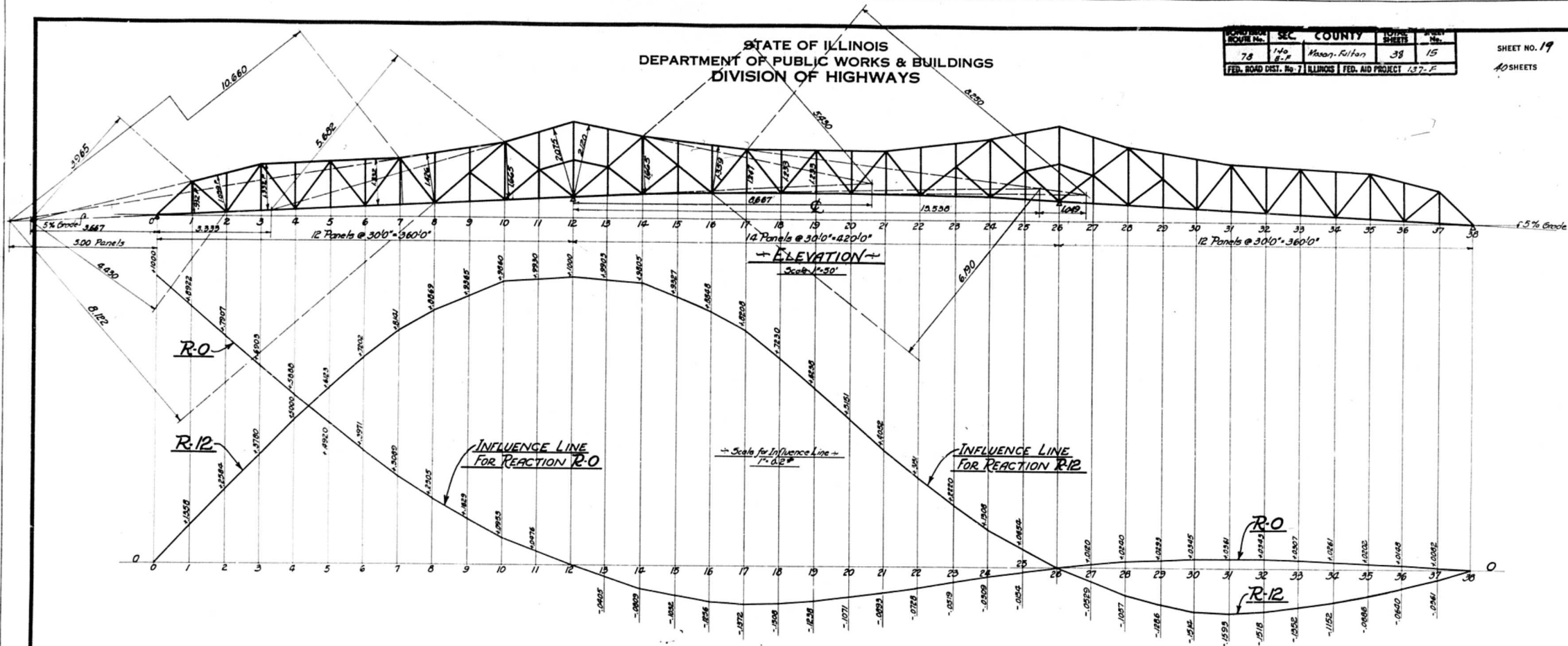
EXAMINED	9-25-1935
DRAWN	A.J. Bunch
PASSED	
APPROVED	

CONTINUOUS TRUSS
WIND BRACING & FLOOR SYSTEM
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

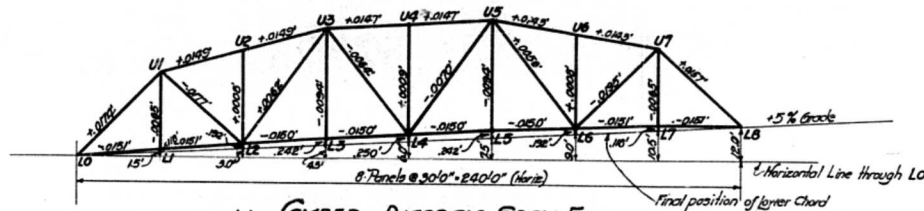
ROUTE No.	SEC.	COUNTY	SHEET	NO.
78	140	Mason-Fulton	38	15
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 137-F				

SHEET NO. 19
40 SHEETS



AMBER DIAGRAM: CONTINUOUS SPANS 6-7-8
Scale 1"=30'

Showing Blocking and changes in lengths of members due to Dead load including concrete floor (computed truss centers (See Sheet #20) shall be corrected by amounts shown above.



AMBER DIAGRAM: SPAN 5
Scale 1"=30'

Showing Blocking and changes in lengths of members due to D.L. + L.L. without impact.
+ Amount member shall be lengthened.
- Amount member shall be shortened.

STANDARD	COMPUTED FAC-PRM-ALT-JFK
CHECKED	PRM-FAC-12/1/1935
DRAWN	12/1/1935
CHECKED	PRM
SPECIAL	ASSEMBLED
CHECKED	

Revised: 6-11-36

EXAMINED	9-25-1935
PASSED	
APPROVED	

CAMBER & INFLUENCE DIAGRAMS
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

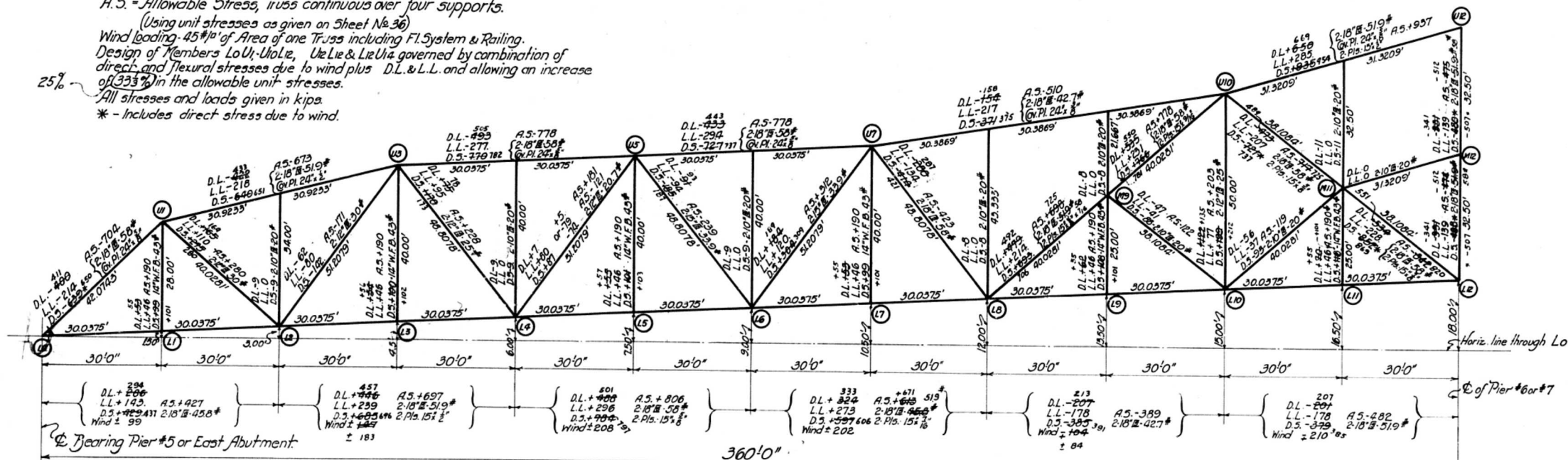
ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET
78	140 E	Mason-Fulton	38	16
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 137-F				

SHEET NO 20
40 SHEETS

GENERAL NOTES

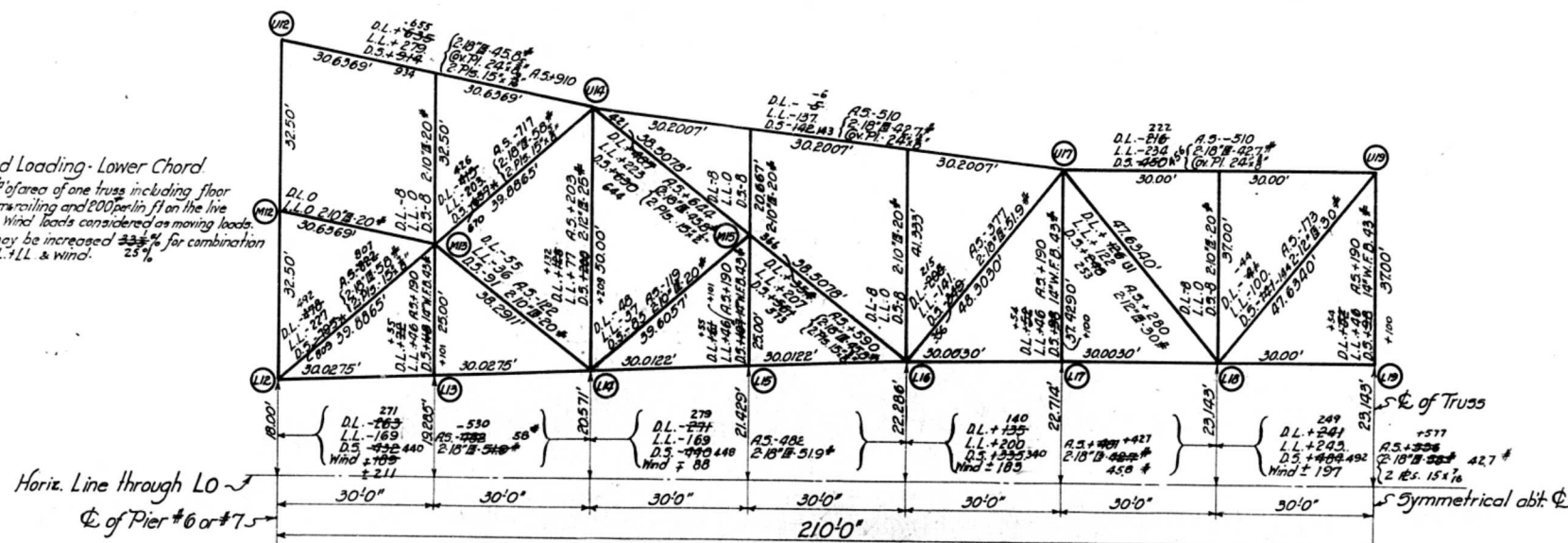
D.L. = Dead Load Stress.
L.L. = Live Load Stress, including Impact
D.S. = Total Stress.
A.S. = Allowable Stress, truss continuous over four supports.

(Using unit stresses as given on Sheet No. 36)
Wind loading - 45# of Area of one Truss including Fl. System & Railing.
Design of Members LoU, UoL, UeL & Lue governed by combination of direct and flexural stresses due to wind plus D.L. & L.L. and allowing an increase of 33% in the allowable unit stresses.
All stresses and loads given in kips.
* - Includes direct stress due to wind.



STRESSES FOR 360'0" SPAN

Wind Loading - Lower Chord
45# of area of one truss including floor system railing and 200 per ft on the live load. Wind loads considered as moving loads. A.S. may be increased 33% for combination of D.L. & L.L. & wind.



STRESSES FOR 420'0" SPAN

Stresses shown for South Truss

PANEL LOADS AND REACTIONS

	SOUTH TRUSS			NORTH TRUSS		
	Steel	Concrete	Total	Steel	Concrete	Total
L-0	16.9	10.2	27.1	16.5	10.2	26.7
L-1	30.8	10.2	41.0	30.2	10.2	40.4
L-2	29.2	10.2	39.4	28.6	10.2	38.8
L-3	29.7	10.2	39.9	29.1	10.2	39.3
L-4	30.2	10.2	40.4	29.6	10.2	39.8
L-5	30.9	10.2	41.1	30.3	10.2	40.5
L-6	31.2	10.2	41.4	30.6	10.2	40.8
L-7	30.6	10.2	40.8	30.0	10.2	40.2
L-8	31.9	10.2	42.1	31.3	10.2	41.5
L-9	32.0	10.2	42.2	31.4	10.2	41.6
L-10	36.7	10.2	46.9	36.1	10.2	46.3
L-11	42.7	10.2	52.9	42.1	10.2	52.3
L-12	65.3	10.2	75.5	64.7	10.2	74.9
L-13	44.0	10.2	54.2	43.4	10.2	53.6
L-14	37.2	10.2	47.4	36.6	10.2	46.8
L-15	31.0	10.2	41.2	30.4	10.2	40.6
L-16	29.6	10.2	39.8	29.0	10.2	39.2
L-17	27.5	10.2	37.7	26.9	10.2	37.1
L-18	26.4	10.2	36.6	25.8	10.2	36.0
L-19	13.0	10.2	23.2	12.7	10.2	22.9
RO (Cent)	126.5	10.2	136.7	125.8	10.2	136.0
R12 (Cent)	510.3	10.2	520.5	501.5	10.2	511.7
E-RO, R12	646.8	10.2	657.0	635.5	10.2	645.7

Live Load (South Truss)
Uniform Live Load = 21 Kips Per Panel
Concentrated Live Load (Moment) = 19 Kips.
(Shear) = 28 Kips.
Impact 10% of Live Load Stress.

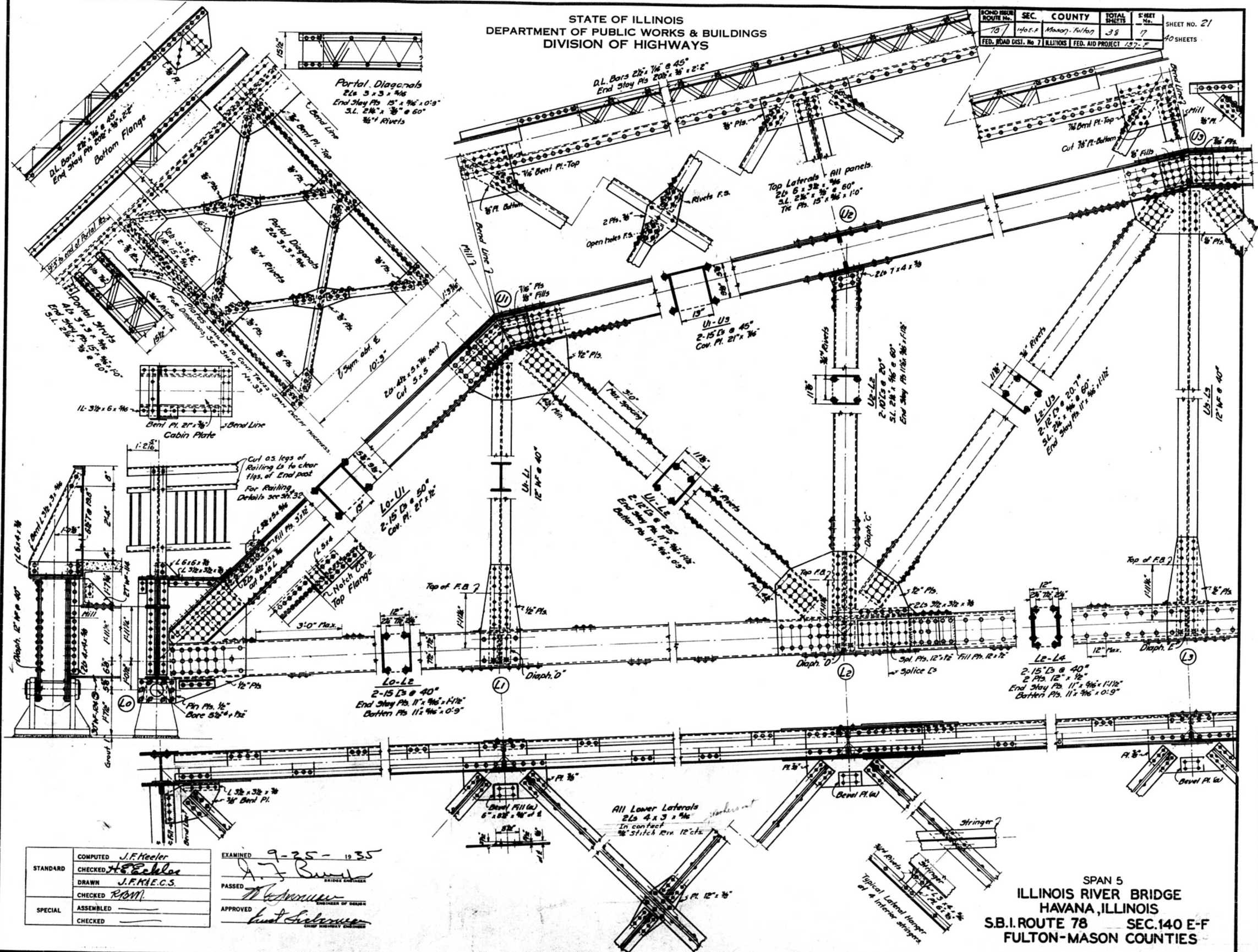
STANDARD	COMPUTED R.M. - F.A. - A.L.T.
	CHECKED F.A. - A.L.T. - R.M.
	DRAWN J.F. Keeler
	TRACED L.H. Bergquist
SPECIAL	ASSEMBLED
	CHECKED R.H. Murphy

EXAMINED 9-25-1935
APPROVED
Revised - 6-11-36, F.A.C.

STRESS SHEET
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

ROAD DIST. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
78	140 E-F	Mason, Fulton	38	17	40 SHEETS
FED. ROAD DIST. NO. 78 ILLINOIS FED. AID PROJECT 137-F					



COMPUTED	J.F. Meeler
CHECKED	H.E. Eckler
DRAWN	J.F. Meeler & Co.
CHECKED	ROM
ASSEMBLED	
CHECKED	

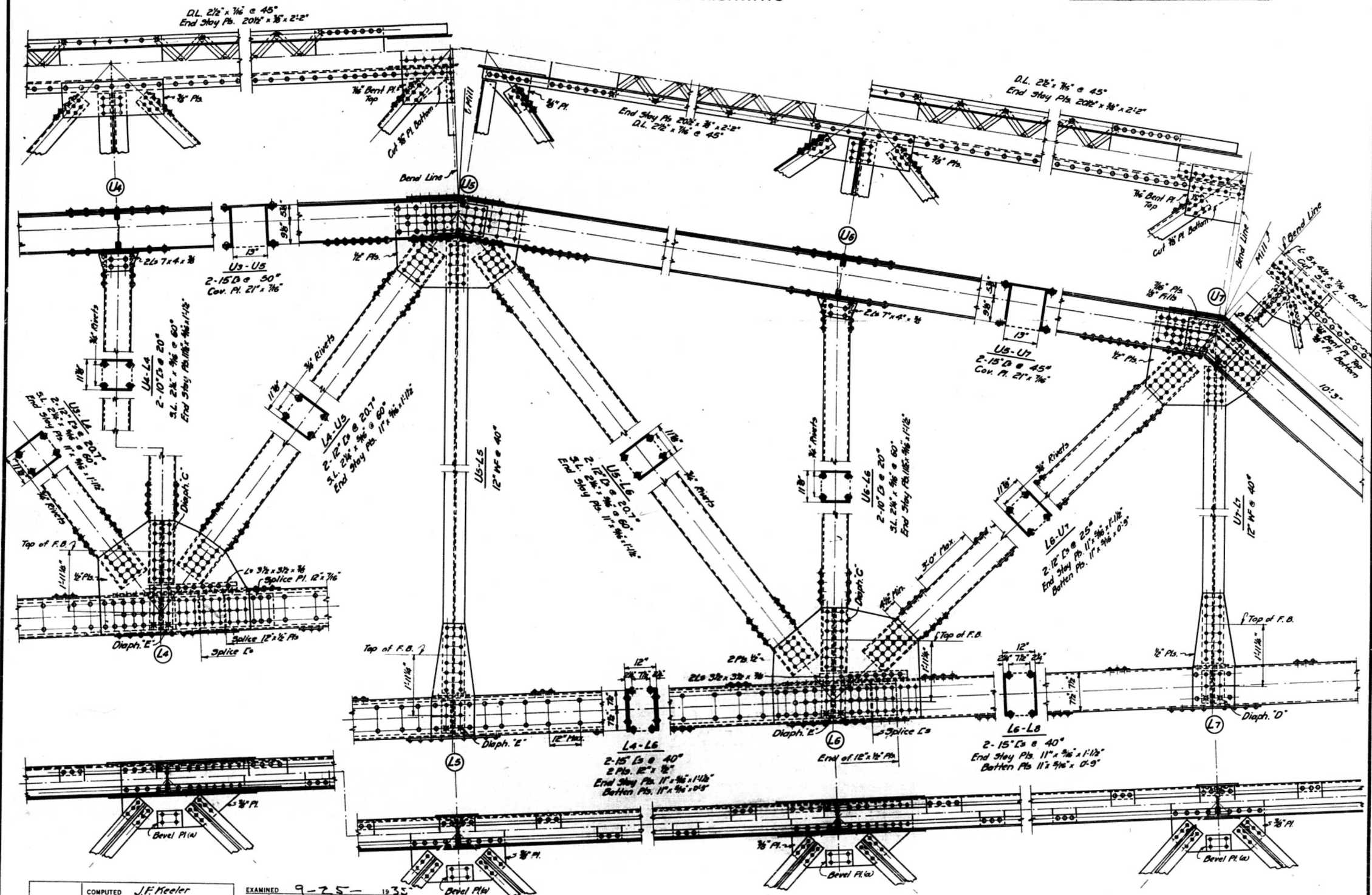
EXAMINED	9-25-35
PASSED	J.F. Meeler
APPROVED	W. J. Meeler

SPAN 5
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

ROAD DIST.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140	Mason-Fulton	38	18
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT	137-F	

SHEET NO. 22
40 SHEETS



STANDARD	COMPUTED	J.F. Meier
	CHECKED	H.E. Saklas
	DRAWN	J.F.H.
	CHECKED	R.B. Murphy
SPECIAL	ASSEMBLED	
	CHECKED	

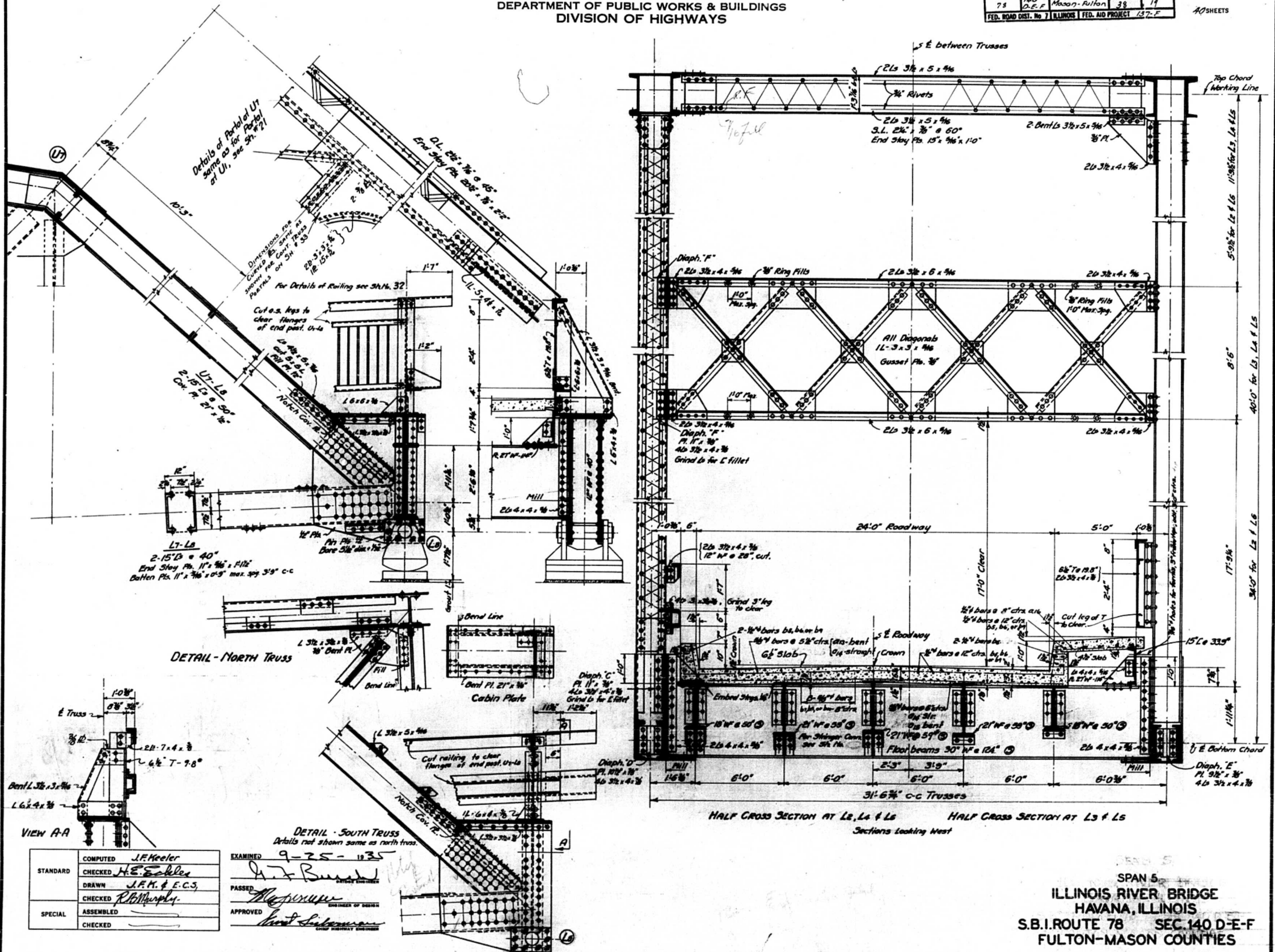
EXAMINED 9-25-1935
J.F. Bunch
BRIDGE ENGINEER
PASSED
APPROVED
Chief Highway Engineer

SPAN 5
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

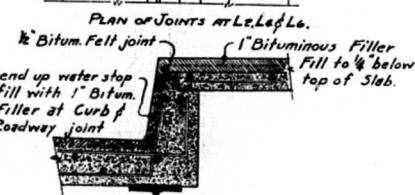
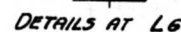
ROAD DIST.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140	Mason - Fulton	38	19
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT	137-F	

SHEET NO. 23
40 SHEETS

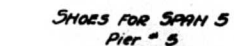


BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	140 D-E-F-D	Mason-Rulton	34	20
FED. ROAD DIST. No 7	ILLINOIS	FED. AID PROJECT	137-F	

SHEET NO. 24
40 SHEETS



SECTION AT $\frac{1}{2}$ FL. BM.



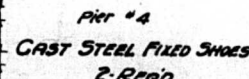
CAST STEEL EXP SHOES
2-REQ'D.

ROLLED STEEL SLAB
2-REF'D.

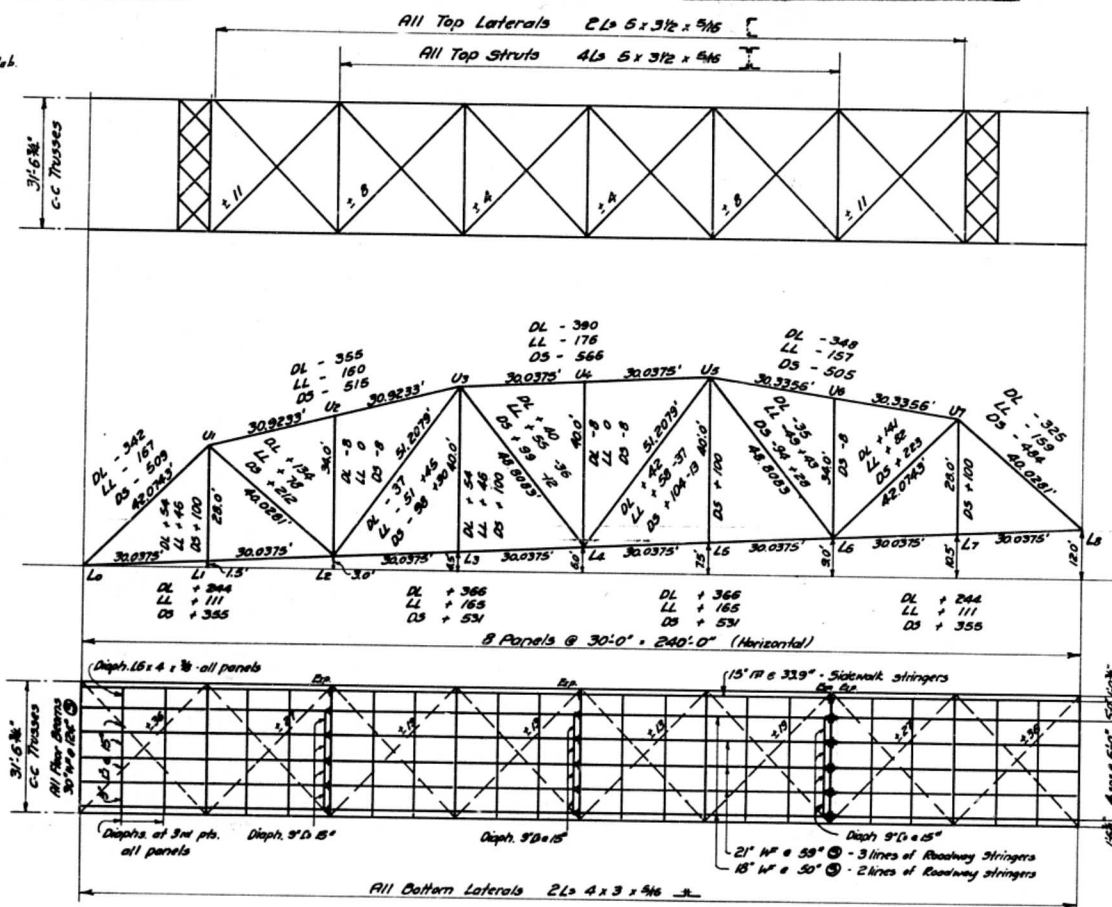
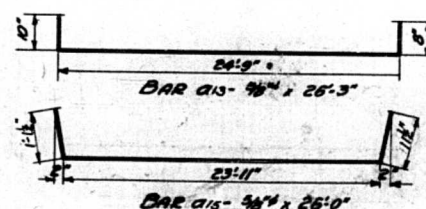
5 1/2" PINS - 4 Req'd.

ANCHOR BOLTS - 1 1/2" x 3'-0" 4-REQ.

EXAMINED 9-25-1935
H. F. Burch
PASSED [Signature]
APPROVED [Signature]
ENGINEER OF DESIGN



ANCHOR BOLTS
1 1/2" x 2'6" - 8-Reg'd



MAXIMUM STRESSES
NOMINAL TRUSS DIMENSIONS
FLOOR SYSTEM - TOP & BOTTOM LATERAL SYSTEMS

NOTE - SPAN 5
For General Notes see Sh. No. 36.
Stringers and Floorbeams marked $\odot$ shall be of Silicon Steel, all other steel in Span 5 shall be Carbon.
Rivets - $\frac{3}{4}$ " ; Open holes - $\frac{1}{2}$ " unless noted, or in flanges of channels and angle legs $\frac{3}{16}$ "s unless noted, where rivets shall be $\frac{3}{4}$ " and open holes $\frac{1}{4}$ ".
One Name Plate shall be furnished by Contractor for Sec. F. To be located on the right hand end and past of the west end of Span 5, at a point 5'-0" above Crown of roadway, Contr. for Sec. E.
Longitudinal reinforcing bars shall be cut & bent in field to fit drainage openings in Slabs and Curbs.
For Drainage Details see Sh. No. 16.
For details of Expansion device see Sh. No. 17.
For details of Stringer diaphragms and Railings see Sh. No. 32.

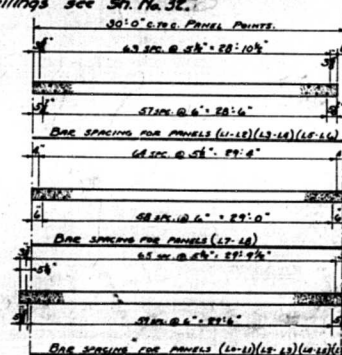
BILL OF MATERIAL - SPAN 5

BAR	Nº	SIZE	LENGTH	BAR	Nº	SIZE	LENGTH
a ₁₃	261	5/8"	26'-3"	b ₅	136	1/2"	30'-0"
a ₁₄	496	"	24'-6"	b ₆	102	"	29'-0"
a ₁₅	237	"	26'-0"	b ₇	128	5/8"	30'-0"
a ₁₆	362	1/2"	4'-9"	b ₈	96	"	29'-0"
a ₁₀	18	"	1'-8"	b ₉	34	1/2"	29'-9"
a ₁₇	18	3/8"	8'-0"	b ₁₀	32	5/8"	29'-9"
a ₁₈	6	"	5'-9"	x	4	3/4"	3'-3"

Class 'X' Concrete	Cu Yds.	146.5	Sec. D
Structural Steel - Silicon	Lbs.	109,40	" E-F
Structural Steel - Carbon	Lbs.	338,610	" E-F
Cast Steel Shoes	Lbs.	3870	" E-F
Reinforcing Steel	Lbs.	40,980	" D
Name Plates	Each	1	" F
G.I. Frames, Grates & Inlets	Lbs.	3200	" D
2 Field Coats of Paint- Lbs. of Steel		438,750	" P
2 Field Coats of Paint- Lbs. of Cast Steel		3870	" P

* Name Pl. shall be brozed on in field, as noted above, by Contractor for Sec. E. SPAN 5

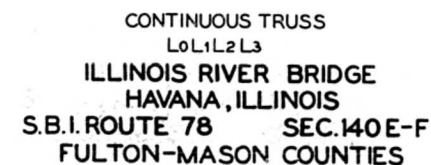
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. D-E-F-P
FULTON - MASON COUNTIES



Above bar spacing applies also to similar panels on spans 6-7 & 8

BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEET	SHEET No.
78	140 E-F	Mason-Fulton	38	21
FED. ROAD DIST. No 7	ILLINOIS	FED. AID PROJECT	157	

40 SHEETS



6' Max. 6' Max. 3 1/2' Max. Top Lat. # 2" SHEET NO. 26 of 4

1/4' Fill

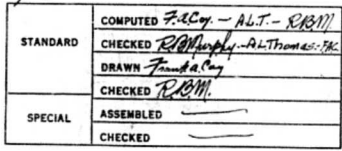
Bottom Lat. # 7 1/2

Bottom Lat. # 13 1/2

Mill

2. Sp. # 2 to 154 7/8
2. Fills 154 4
width 6 0.

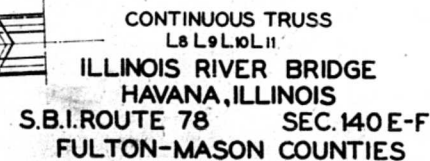
ROAD BRIDGE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	S. REET
78	140	Mason-Fulton	38	22
FED. ROAD DIST. No. 7	U 7	ILLINOIS	FED. AID PROJECT	127. F



EXAMINED 9-25-1935
A. J. Bunch
BRIDGE ENGINEER
PASSED [Signature]
ENGINEER OF DESIGN
APPROVED [Signature]
CHIEF HIGHWAY ENGINEER

CONTINUOUS TRUSS
L4L5L6L7
ILLINOIS RIVER BRIDGE
HAVANA ILLINOIS
S.B.I.ROUTE 78 SEC.140 E-F
FULTON-MASON COUNTIES

STATE OF ILLINOIS



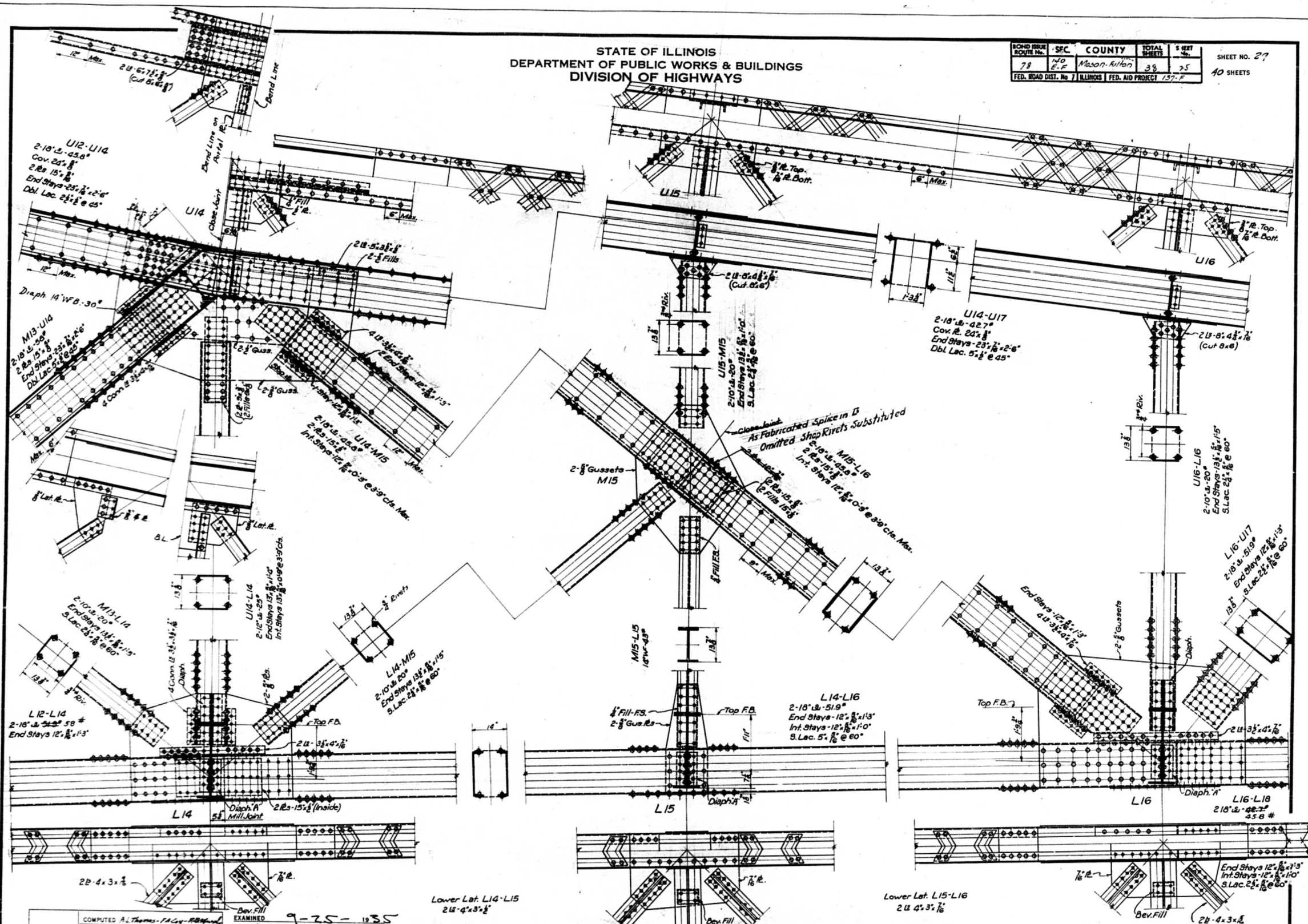
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ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

ROAD DIST. No.	SFC.	COUNTY	TOTAL SHEETS	SHEET No.
78	140 E-F	Mason-Renton	38	25
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT	137-F	

SHEET NO. 27
40 SHEETS



STANDARD	COMPUTED A. Thomas - FAC - RBM - ALT
	CHECKED FAC - RBM - ALT
	DRAWN A. Thomas
	CHECKED RBM
SPECIAL	TRACED H. Lagerstrom
	CHECKED RBM

9-25-1935
EXAMINED
PASSED
APPROVED
CHIEF ENGINEER

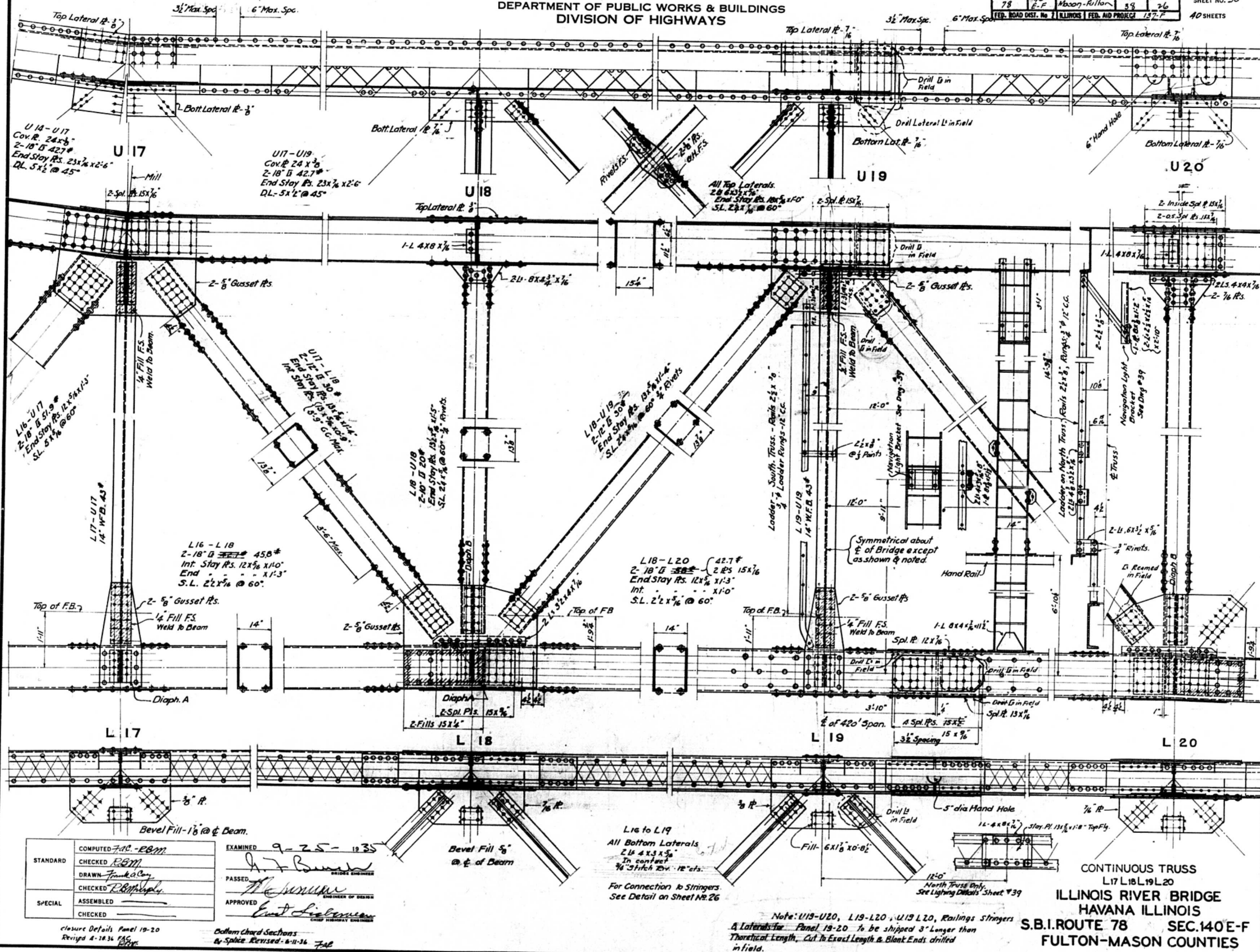
Lower Lat. L14-L15
215' 4" x 3' 1/2"

Lower Lat. L15-L16
215' 4" x 3' 1/2"

CONTINUOUS TRUSS
L14-L15-L16
ILLINOIS RIVER BRIDGE
HAVANA ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

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

ROUTE NO.	SEC.	COUNTY	SHEET NO.	SHEET TOTAL
78	140 E-F	Mason-Rullan	39	76
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 157-F				
				SHEET NO. 30
				40 SHEETS



STANDARD	COMPUTED <i>FAC - RBM</i>
CHECKED	<i>RBM</i>
DRAWN	<i>Frank A. Ray</i>
CHECKED	<i>RBM</i>
ASSEMBLED	
SPECIAL	CHECKED

EXAMINED *9-25-1935*
H. F. Bunch
PASSED
APPROVED *E. J. Sullivan*
CHIEF HIGHWAY ENGINEER

closure Details Panel 19-20
Revised 4-18-36 *FAC*

Bottom Chord Sections
Revised 6-11-36 *FAC*

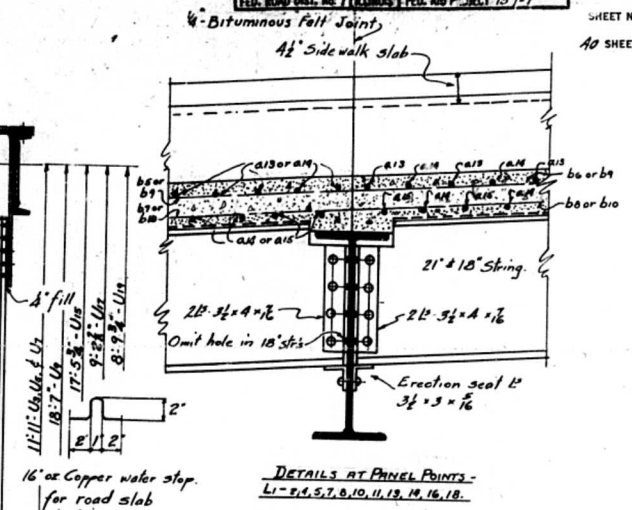
L18 to L19
All Bottom Laterals
2-18" B 42.7
In contact
3/4" Stiff. Riv. 18" c/c
For Connection to Stringers
See Detail on Sheet No. 26

Note: U19-U20, L19-L20, U19 L20, Railings Stringers
& Laterals for Panel 19-20 to be shipped 3" longer than
Theoretical Length, Cut to Exact Length & Blank Ends drilled
in field.

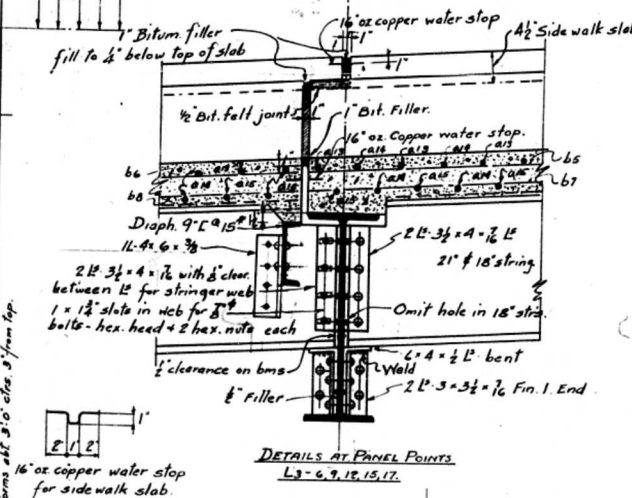
CONTINUOUS TRUSS
L17 L18 L19 L20
ILLINOIS RIVER BRIDGE
HAVANA ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

BOND ROAD ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	IND D.F.F	Mason & Fulton	39	27
FED. ROAD DIST. No. 7 (KUROSI) FED. AID PROJECT 137-F				

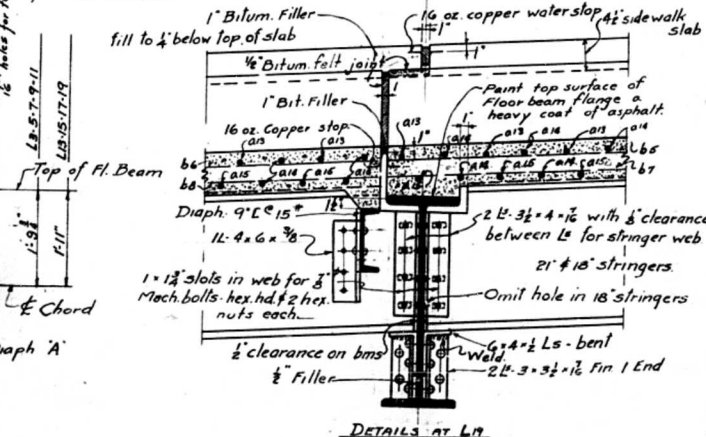
SHEET NO. 31
40 SHEETS



DETAILS AT PANEL POINTS
L1-2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 18.



DETAILS AT PANEL POINTS
L3-6, 9, 12, 15, 17.



DETAILS AT L19

NORTH-HALF CROSS SECTION

SHOWING SWAY BEARING AT U3-5-7-9-15-17 & 19.
TOP STRUT ONLY AT U11 & U13.

EXAMINED 9-25- 19 35 ^{OF PORTAL SEA SHEET #34}
A. F. Burch ^{FOR BRACING AT USE SEA SHEET #35}
BRIDGE CONTRACTOR
 PASSED H. J. Dunning
ENGINEER OF BRIDGE
 APPROVED W. L. Liberman

CONTINUOUS TRUSS
TYPICAL CROSS SECTION & STRINGER DETAILS
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 D-E-F
FULTON-MASON COUNTIES.

ROAD NAME ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	40 E.F.	Macoupin	38	24
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 157-F				

31-6 1/2 c.o.c. Trusses Span 5

DETAIL OF INTERMEDIATE RAIL POSTS AND DIAPHRAGMS AT THIRD POINTS OF EACH PANEL.

DETAILS SIMILAR AT STRINGER EXP. PANEL POINTS. EXCEPT E' CONN. B. SEE SHEET #24 & 31

Section "B-B"

See cross section sh #31 for conn. to truss.

16.5 x 3 1/2 x 1/8

See detail above for conn. to post.

16.3 x 3 x 1/8

16" holes in rail
1/2 x 1/2 vertical slots in posts
for 8" bolts

8" rivs. 6" max. dia.

1 Ship E. 6" @ 15.3"

16.3 x 3 x 1/8

Top of curb

1/2" Bottom Chord

10' 0" 10' 0" 10' 0"

30' 0" PANEL

1/2" Truss Vertical

1/2" x 1/2" slot holes
 @ L8-4/6 on Span
 L3-6-9-12-15-17-19
 Truss Spans. Span
 L1-3-5-7-8-10-11-13-14
 Cont. Truss Spans.
 1/2" Truss Vertical

STANDARD	COMPUTED	<u>A.L.T. - F.A.C. - R.B.M.</u>
	CHECKED	<u>F.A.C. - R.B.M. - A.L.T.</u>
	DRAWN	<u>Lindskoog</u>
SPECIAL	CHECKED	<u>R.B.Murphy</u>
	ASSEMBLED	<u> </u>
	CHECKED	<u> </u>

EXAMINED 9-25-1935
A. J. Buehler
PASSED
E. J. Buehler
APPROVED
Ernst L. Lichtenhan

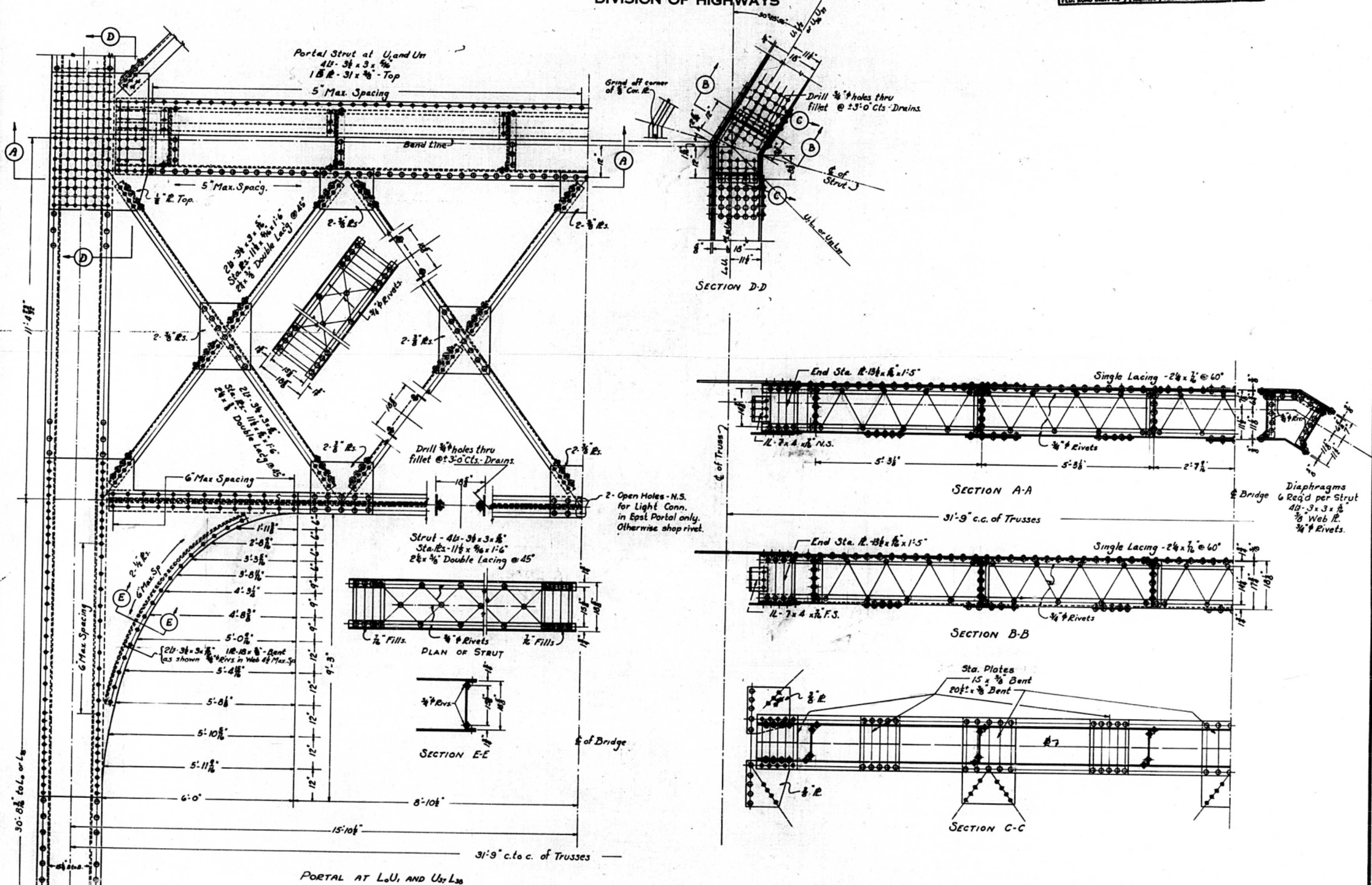
Section 'C-C'

TYPICAL RAILING DETAILS
ILLINOIS RIVER BRIDGE
HAVANA-ILLINOIS
S.B.I. ROUTE 78 SEC.140 E-F
FULTON-MASON COUNTIES

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

ROAD DISTRICT	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140 E	Mason-Renton	39	29
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 137-F				

SHEET NO. 33
40 SHEETS

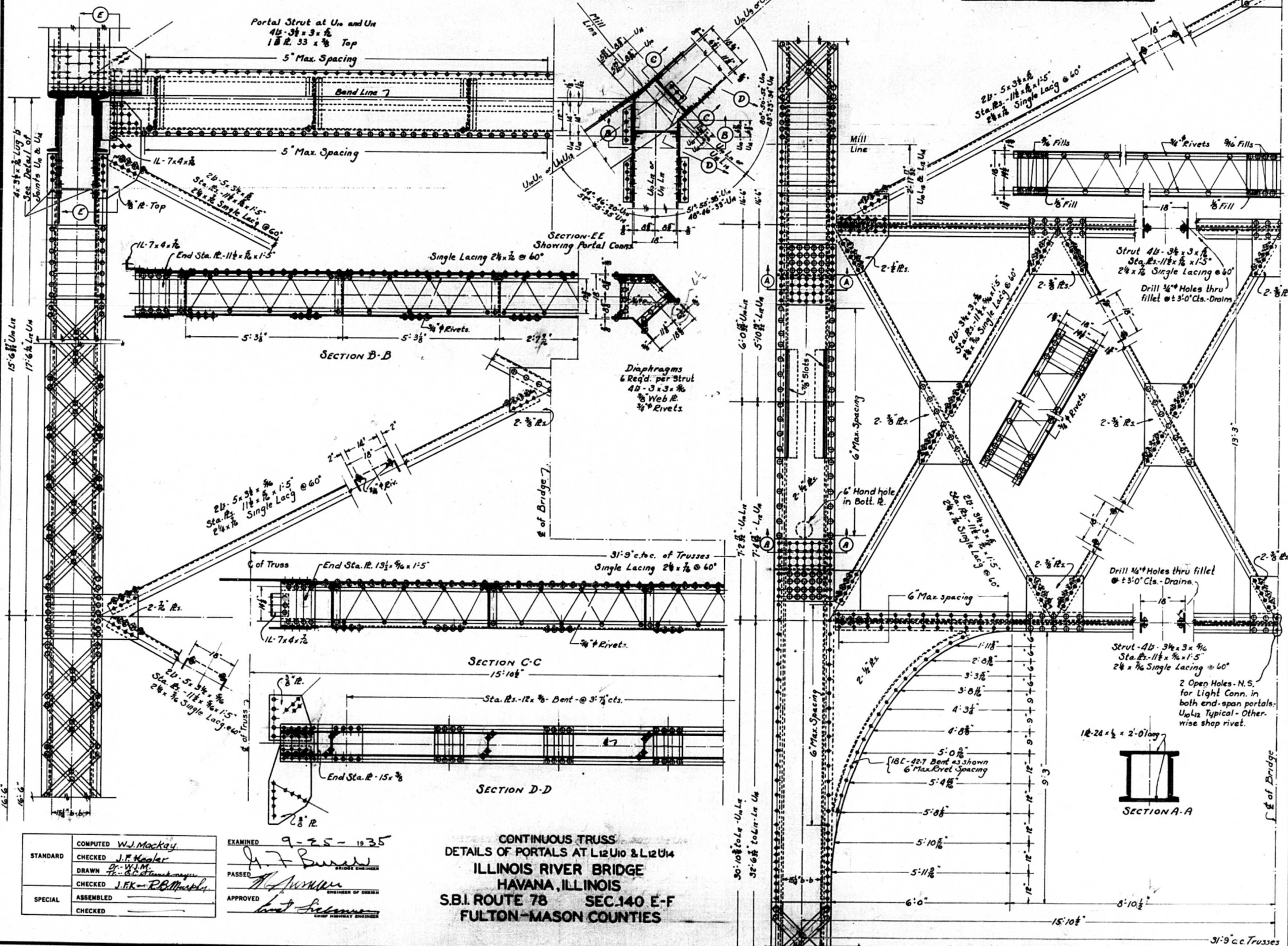


STANDARD	COMPUTED <i>M.J. Mackay</i>
	CHECKED <i>J.F. Koeler</i>
	DRAWN <i>W.J.M.</i>
	CHECKED <i>R. J. K.</i>
SPECIAL	DESIGNED <i>E.C. Brundage</i>
	CHECKED <i>R.B.M.</i>

EXAMINED 9-25-1935
A. F. Smith
PASSED *McNair*
APPROVED *Ed. Schumann*

CONTINUOUS SPAN
END PORTAL DETAILS
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.	SHEET No. 34
78	402-F	Mason, Fulton	39	30	40 SHEETS
FED. ROAD DIST. No 7	ILLINOIS	FED. AID PROJECT	137-F		



CONTINUOUS TRUSS
DETAILS OF PORTALS AT L12 U10 & L12 U14
ILLINOIS RIVER BRIDGE
HAYANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E-F
FULTON-MASON COUNTIES

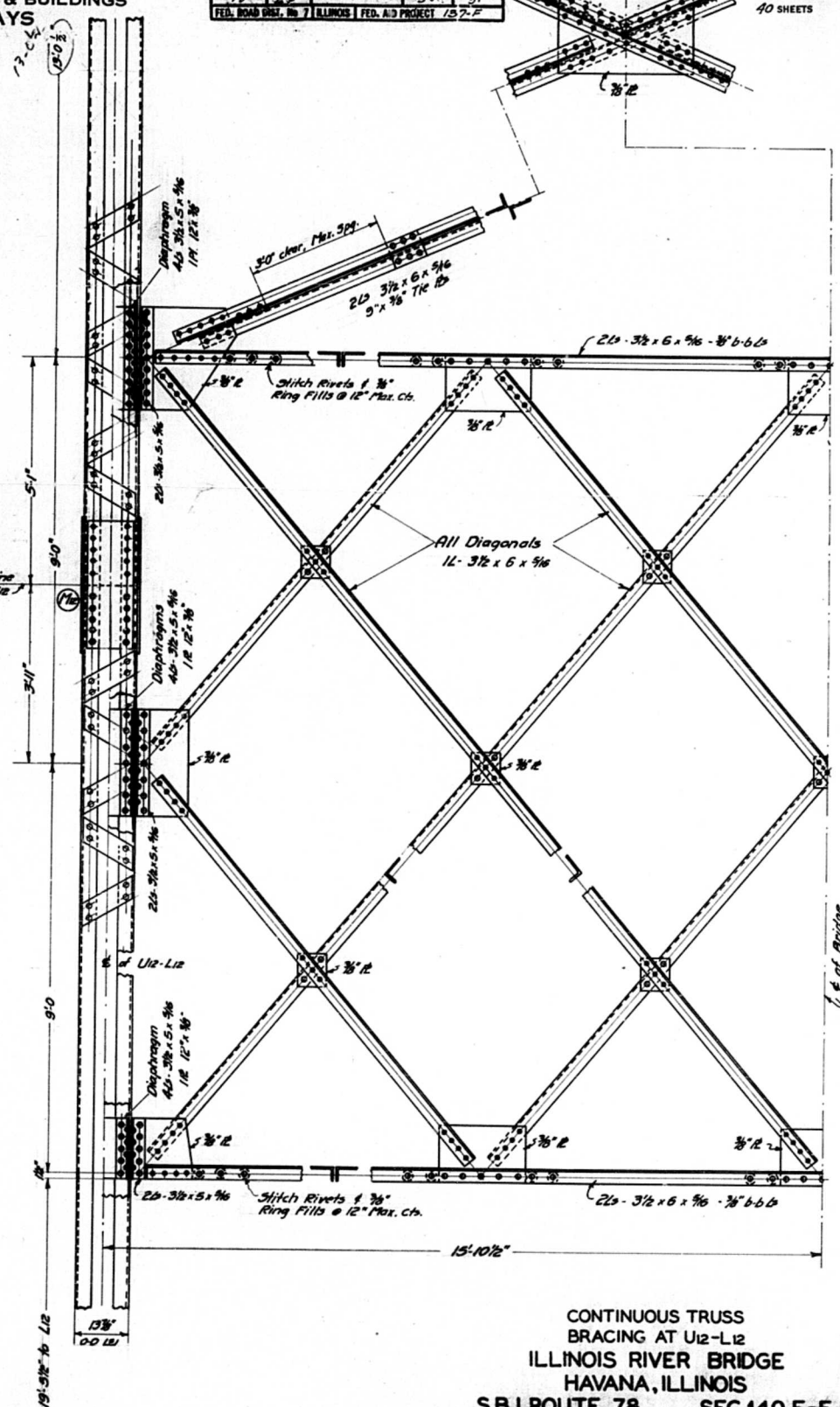
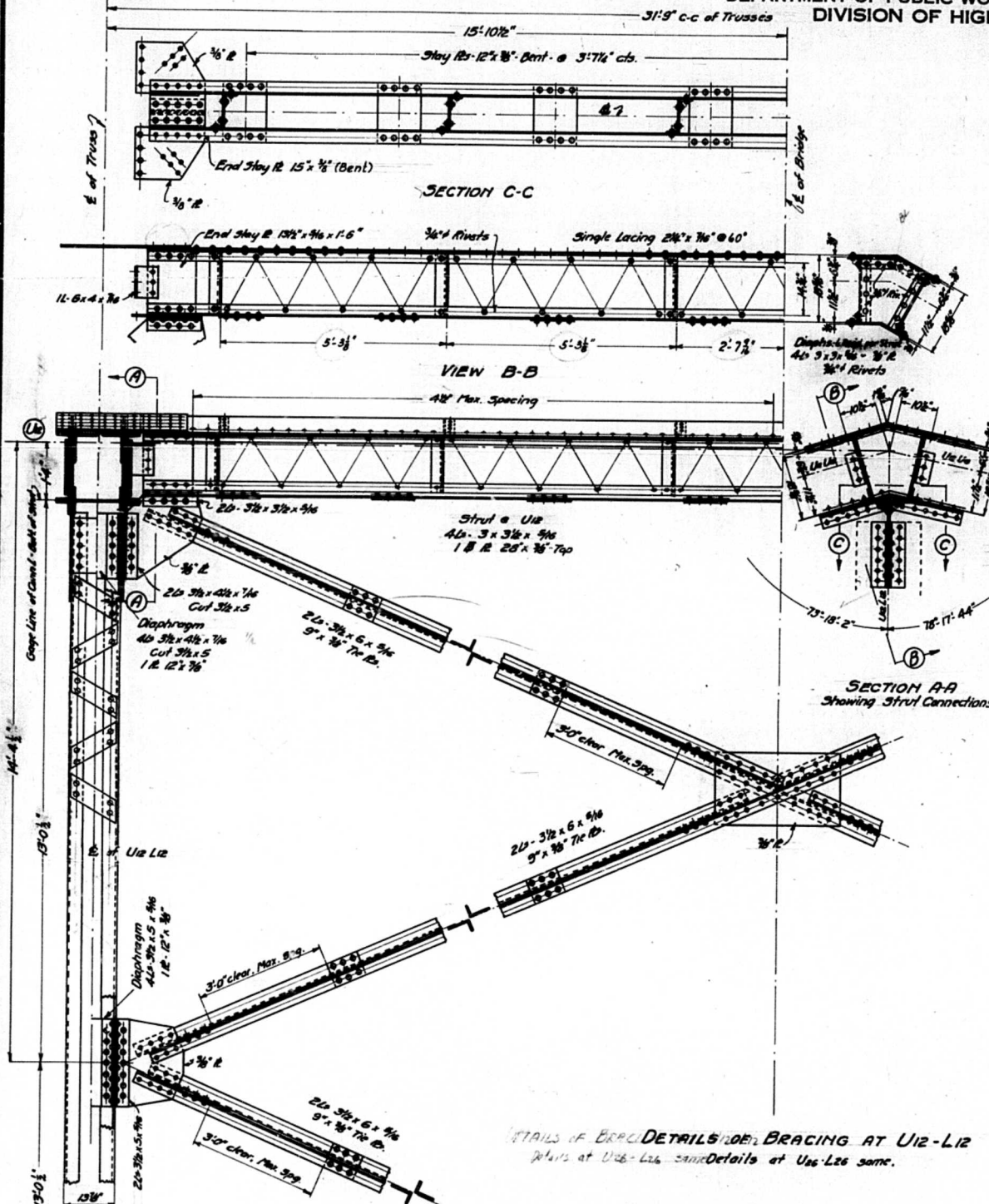
STANDARD	COMPUTED	W.J. Mackay.
	CHECKED	J.F. Kaefer
	DRAWN	Dr. W.J.M. TR. G.C. Stueckmeyer
SPECIAL	CHECKED	J.F.K. - R.B. Murphy
	ASSEMBLED	_____
	CHECKED	_____

EXAMINED 9-25-1935
H. F. Burch
BRIDGE ENGINEER
PASSED H. F. Burch
ENGINEER OF DESIGN
APPROVED East

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

ROAD DIST. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140	Mason-Fulton	39	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	137-F	

SHEET NO. 35
40 SHEETS



STANDARD	COMPUTED	W. J. Mackay
	CHECKED	K. E. Keeler
	DRAWN	W. J. M.
	CHECKED	R. E. Murphy
SPECIAL	TRACED	J. F. K. Hulse
	CHECKED	R. E. M.

EXAMINED	9-25-1935
	H. F. Burch
PASSED	W. J. M.
APPROVED	W. J. M.

ROAD DIST. No. 7	SEC. 140	COUNTY Mason & Kilborn	TOTAL SHEETS 38	SHEET No. 32
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 132-F				

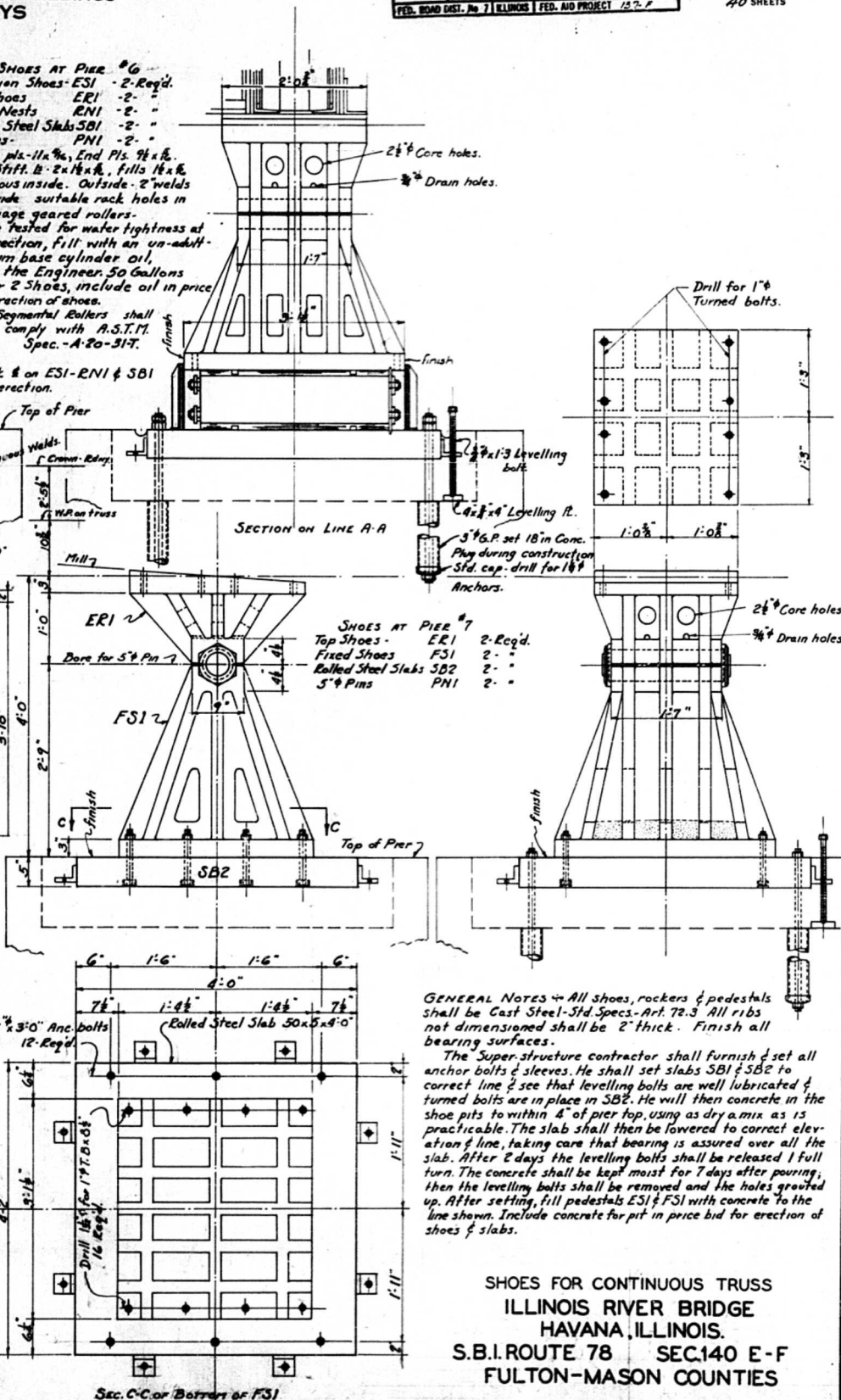
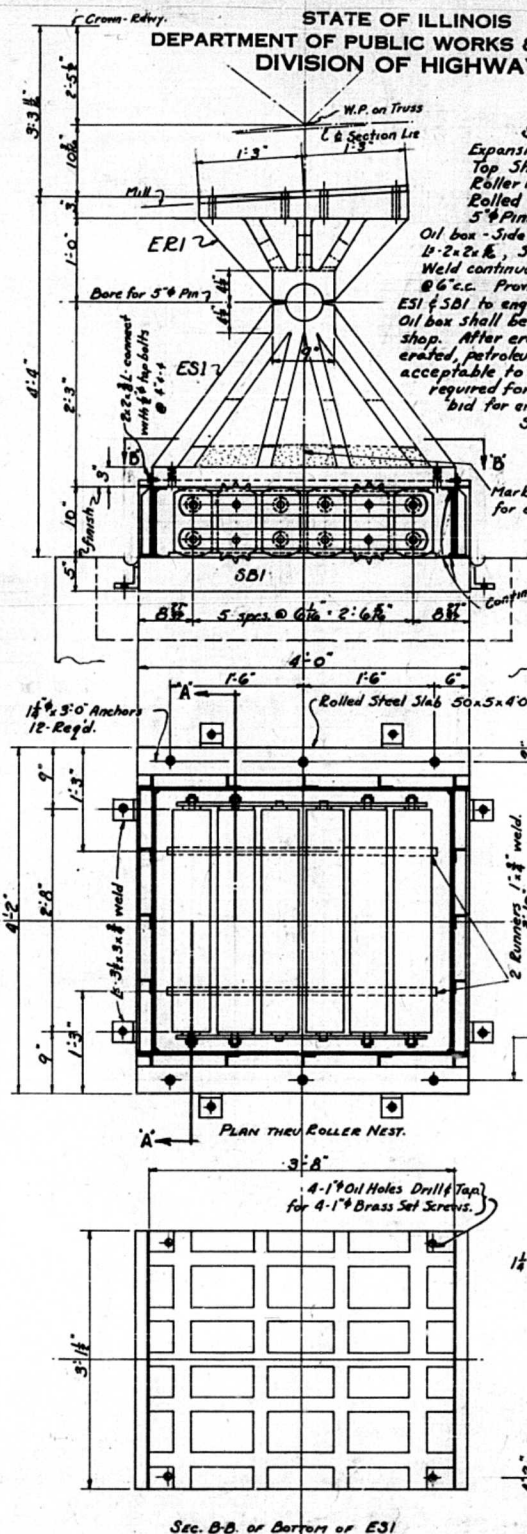
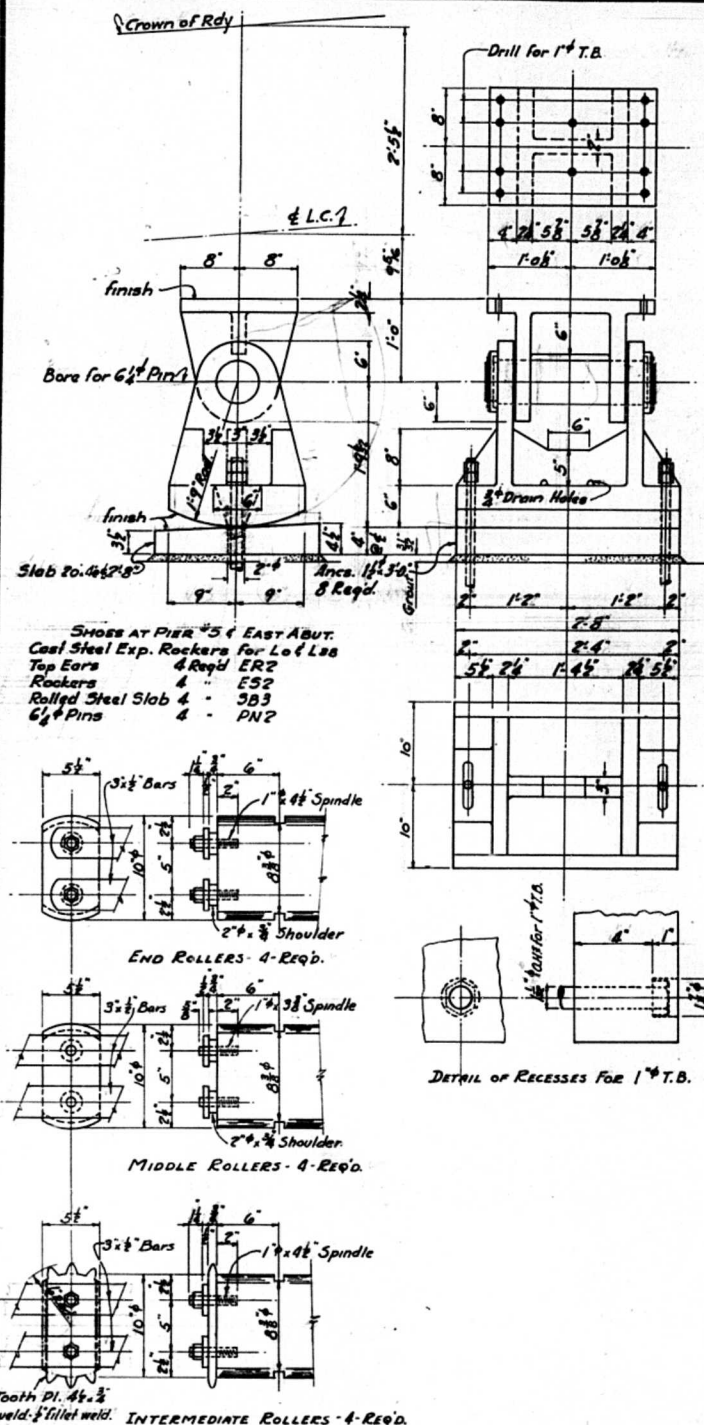
~BILL OF MATERIAL~
~CONTINUOUS TRUSS-SPANS-6-7&8~

GENERAL NOTES &
BILL OF MATERIAL - SPANS 6-7-8
ILLINOIS RIVER BRIDGE
HAYANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 D-E-F-P
FULTON-MASON COUNTIES

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

SECTION	COUNTY	DATE	BY	CHKD
140	E-F	1935	W. F. B.	W. F. B.
78	E-F	1935	W. F. B.	W. F. B.

SHEET NO. 37
40 SHEETS

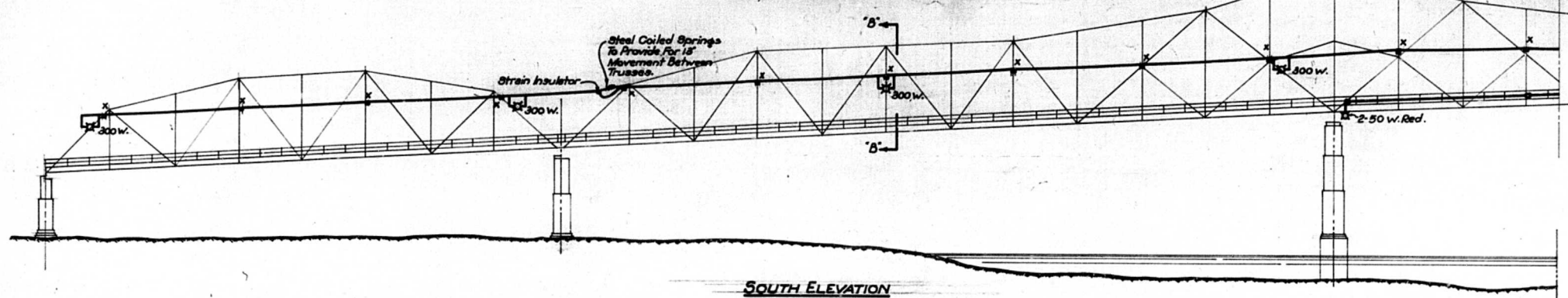


STANDARD	COMPUTED	G. L. Howe
	CHECKED	RBM
	DRAWN	G. L. Howe
	CHECKED	RBM
SPECIAL	TRACED	E. C. Strunkmeyer
	CHECKED	RBM

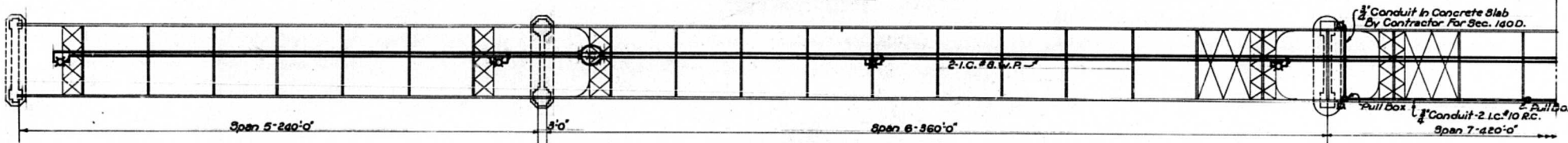
EXAMINED	9-25-1935
PASSED	W. F. B.
APPROVED	W. F. B.

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

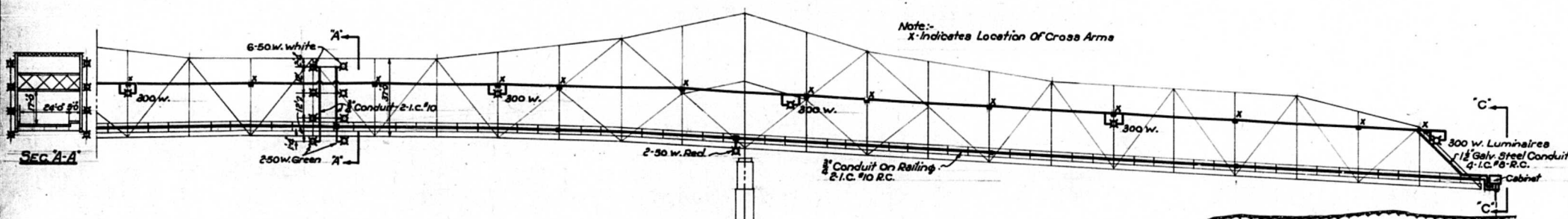
ROAD DISTRICT	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
78	140 E	Mason-Rifton	58	32
FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 137-F 40 SHEETS				



SOUTH ELEVATION

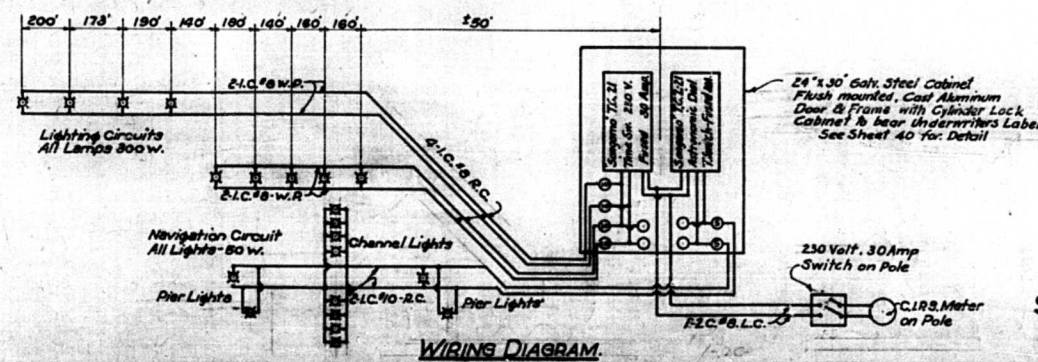
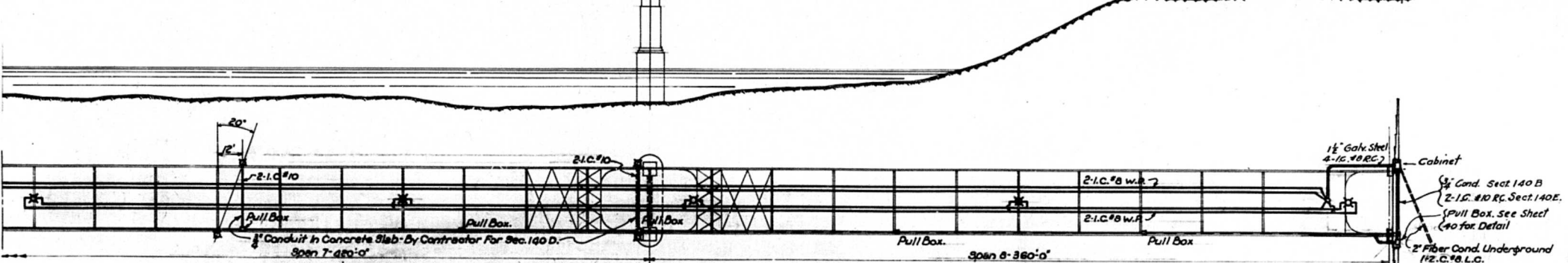


PLAN



Sec. A-A

Sec. C-C



LIGHTING DETAILS
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E
FULTON-MASON COUNTIES

COMPUTED	7.22
CHECKED	<i>L. Allen</i>
DRAWN	<i>F. Kelly</i>
CHECKED	<i>R.B.M.</i>
TRACED	<i>H.L.</i>
CHECKED	<i>Jab.</i>
EXAMINED	9-25-1935
PASSED	<i>H. F. Burch</i>
APPROVED	<i>W. J. Sullivan</i>

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	40 E	Mason, Fulton	58	35
FED. ROAD DIST. No 7		ILLINOIS	FED. AID PROJECT	137.5

78	40 E	Mason, Fulton	38	35
FED. ROAD DIST. No 7		ILLINOIS	FED. AID PROJECT 137-F	



Norwood Noonan Fig 2. Aired mounting- 8° 180°
Red Fresnel Lens-4-Required. Cast Aluminum Body

LIGHTING DETAILS
ILLINOIS RIVER BRIDGE
HAVANA ILLINOIS
S.B.J. ROUTE 78 SEC. 140 E
FULTON - MASON COUNTIES

EXAMINED 9-25-1935
H. F. Burch
PASSED
APPROVED

DETAILS OF CHANNEL LIGHTS

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

BOND ISSUE ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
78	140	Mason Fulton	38	36

FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT 137-F

SHEET NO. 40
40 SHEETS

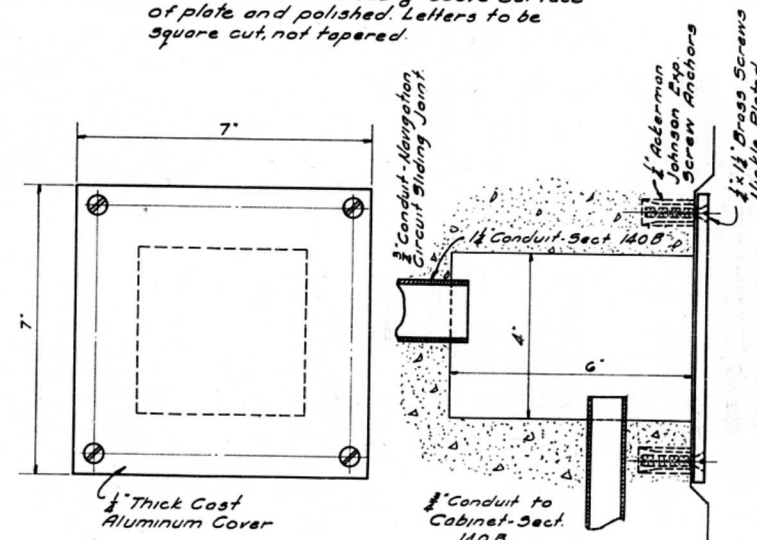
A BRGE

Stippled Background

ILLINOIS

FULL SIZE DETAIL OF TYPICAL LETTERS

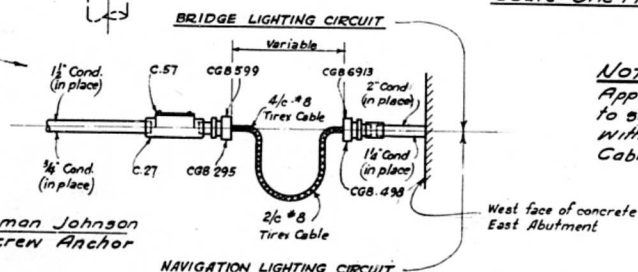
Letters shall be raised $\frac{3}{8}$ " above surface of plate and polished. Letters to be square cut, not tapered.



DETAIL OF PULL BOX IN PYLON AT EAST ABUTMENT

Scale: One Half Full Size

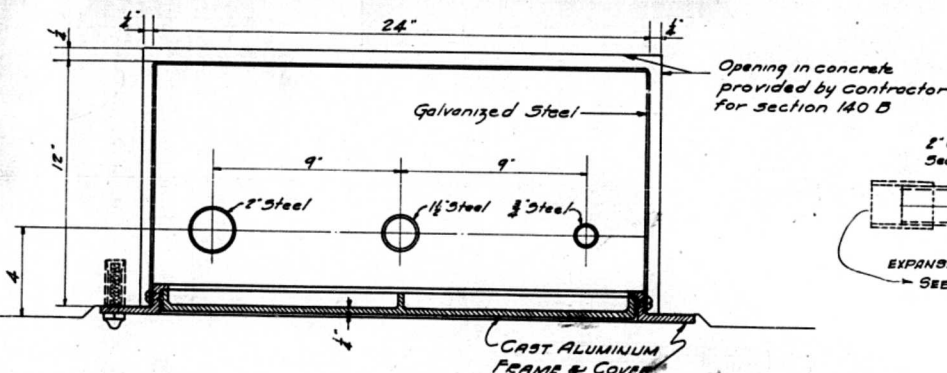
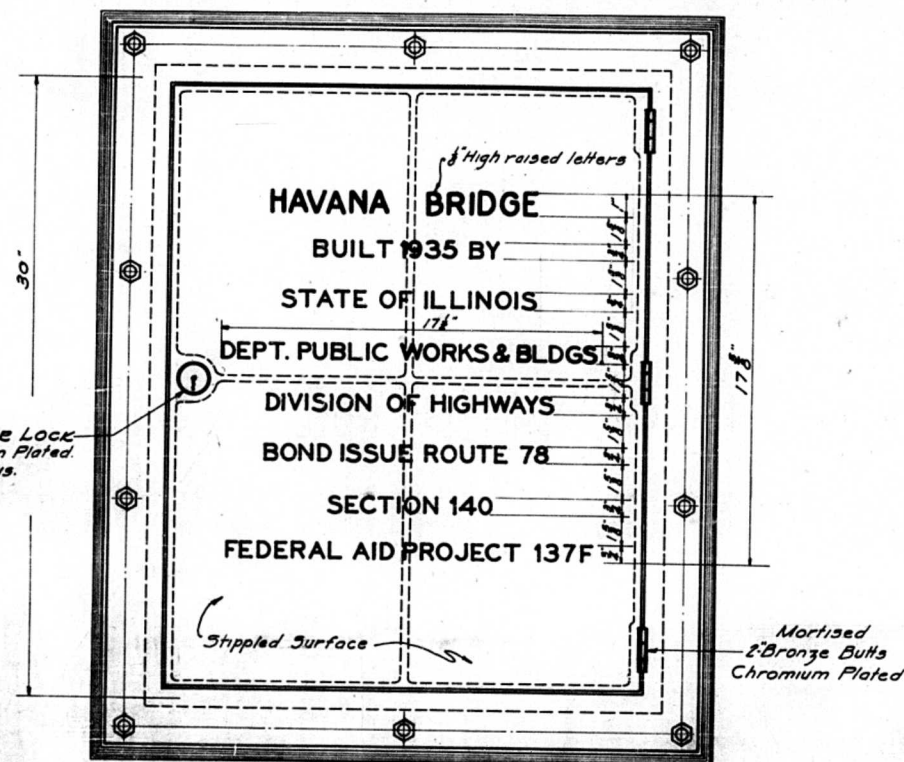
NOTE:
Apply heavy coat of white lead to surfaces of aluminum in contact with concrete before tightening bolts. Cabinet shall bear Underwriters Label



BRIDGE LIGHTING CIRCUIT
Provide 1- Crou-Hinds, or equal, conduit-Type 'C' cat. No C57 with cover and gasket.
1- Type CGB connector-male thread cat # CGB-599,
1- Type CGB connector-female thread cat # CGB-6913,
25 ft. 4/8 # Tires Portable cable as manufactured by the Simplex Wire & Cable Co., or equal
NAVIGATION LIGHTING CIRCUIT
Provide 1- Crou-Hinds, or equal, conduit-Type 'C' cat. No C27 with cover and gasket.
1- Type CGB connector- Cat # CGB 295,
1- Type CGB connector- Cat # CGB 498,
25 ft. 3/8 # Tires portable cable as manufactured by the Simplex Wire & Cable Co., or equal.

LIGHTING DETAILS

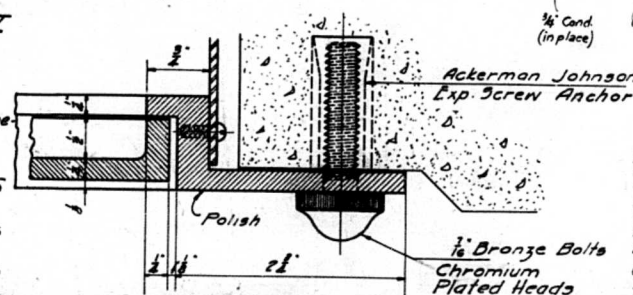
ILLINOIS RIVER BRIDGE
HAVANA, ILLINOIS
S.B.I. ROUTE 78 SEC. 140 E
FULTON-MASON COUNTIES



DETAIL OF LIGHTING CABINET WITH CAST ALUMINUM FRAME & COVER

Scale 3"-1'-0"

See wiring diagram Sheet 38 for arrangement of time switches & fuses



JAMB DETAIL

Full Size

COMPUTED	708
CHECKED	RBM
DRAWN	Franklin
CHECKED	RBM
TRACED	W. S. Nelson
CHECKED	708

EXAMINED	9-25-1935
PASSED	W. S. Nelson
APPROVED	W. S. Nelson