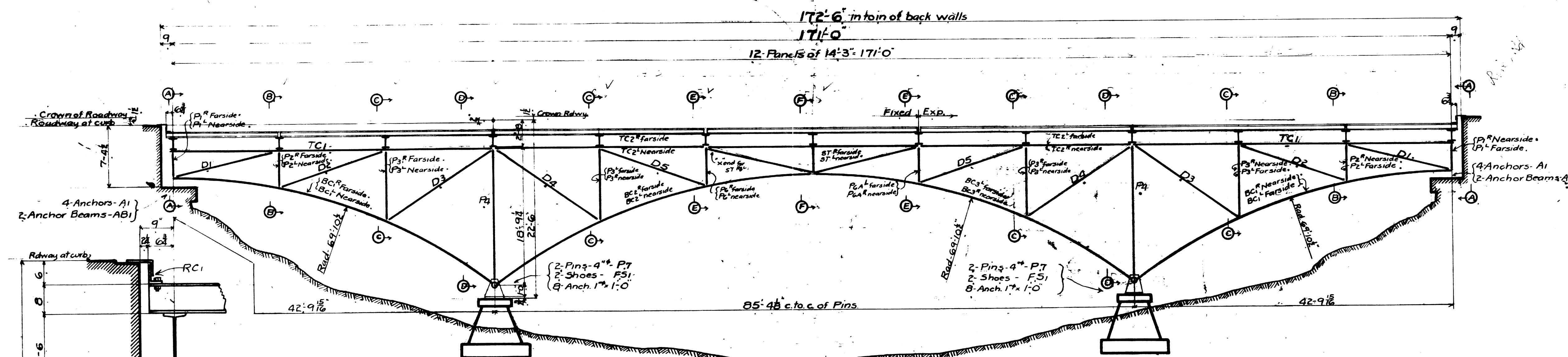
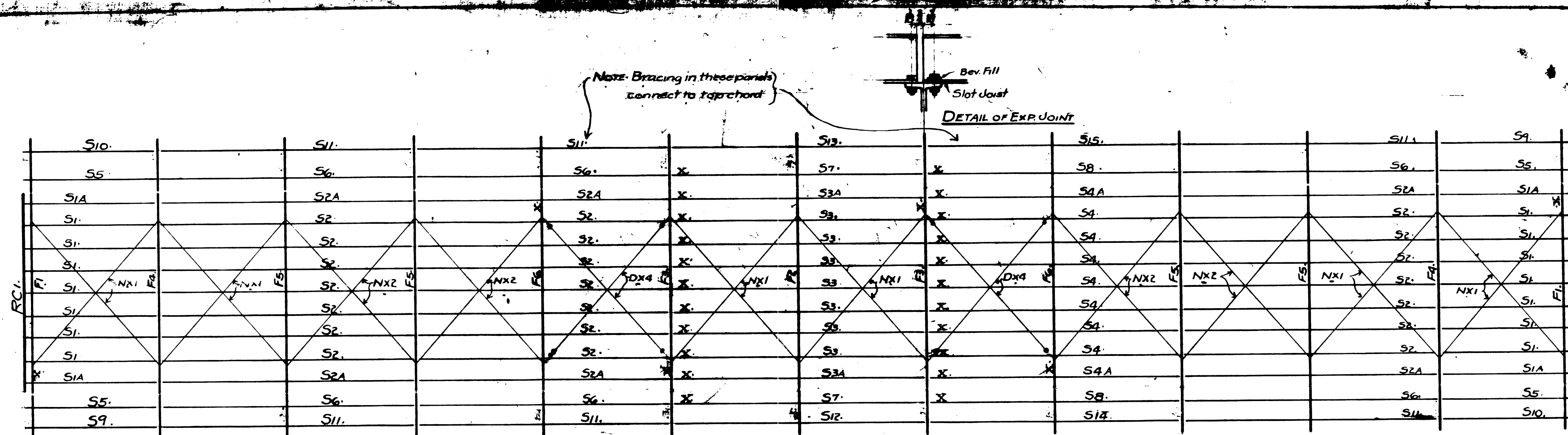


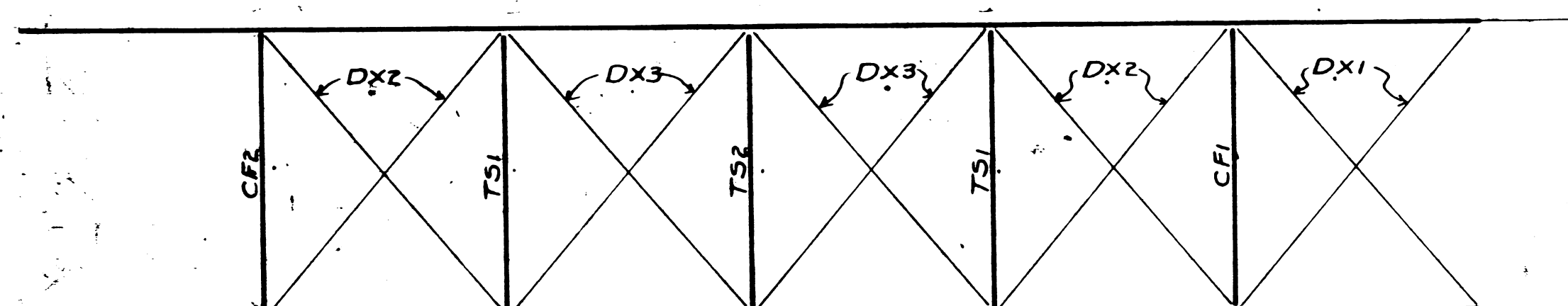
Note: Bevel abutments as shown to clear bottom chord

#1050

DATE 8/12	NAME C. A. C.	RIVET #	HOLES "	CONTENTS OF SHEET MASONRY PLAN	STANDARD ENGINEERING CO. TOLEDO, OHIO	NAME OF STRUCTURE CANTILEVER DECK BRIDGE ON MARENGO ST. ADAMS TWP. LUCAS CO. OHIO	DATE 8/12	AMERICAN BRIDGE COMPANY PLANT Toledo, Ohio	ORDER No. D3672	SHEET No. E1
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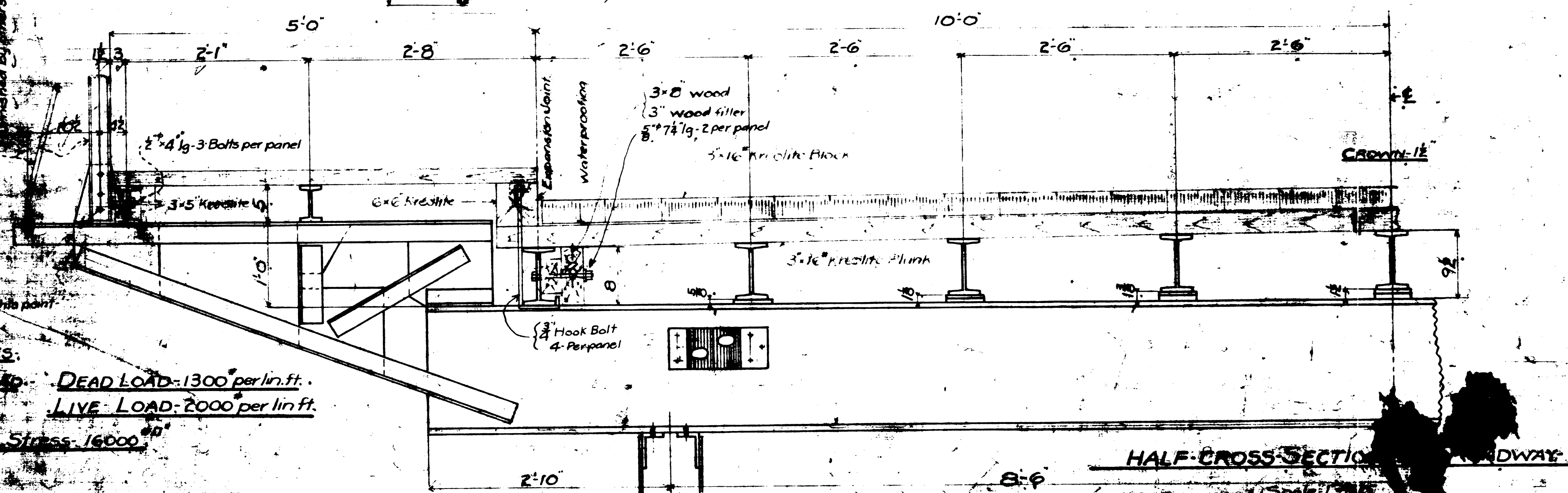


No.	DESCRIPTION
E1	Masonry Plan
E2	This Sheet
1	Truss
2	Truss
3	Sway Bracing
4	Floor System
C1	Anchors & Anchor Beams
C2	Pins
C3	Sway Rods
C4	Anchors & Floor Bolts
C5	Field Rivets & Bolts



BOTTOM CHORD BRACING

-TONNAGE-	
structural steel	113076
Railing	8785
4 Lamp Posts	1720
	123581 = 61.75 Tons.
Copied from Shipping Bills. 12-17-36.	



Cantilever Deck Bridge
MARENGO ST. OVER RAVINE EAST OF M. & C. CANAL
ADAMS TOWNSHIP, LUCAS CO., OHIO.
THE STANDARD ENGINEERING CO. TOLEDO, OHIO.

Scale 3/8" = 1'-0"

AMERICAN BRIDGE COMPANY

Drawings Made at Toledo

Work Fabricated at Toledo

In Charge of Kach

Drawn by J. J.

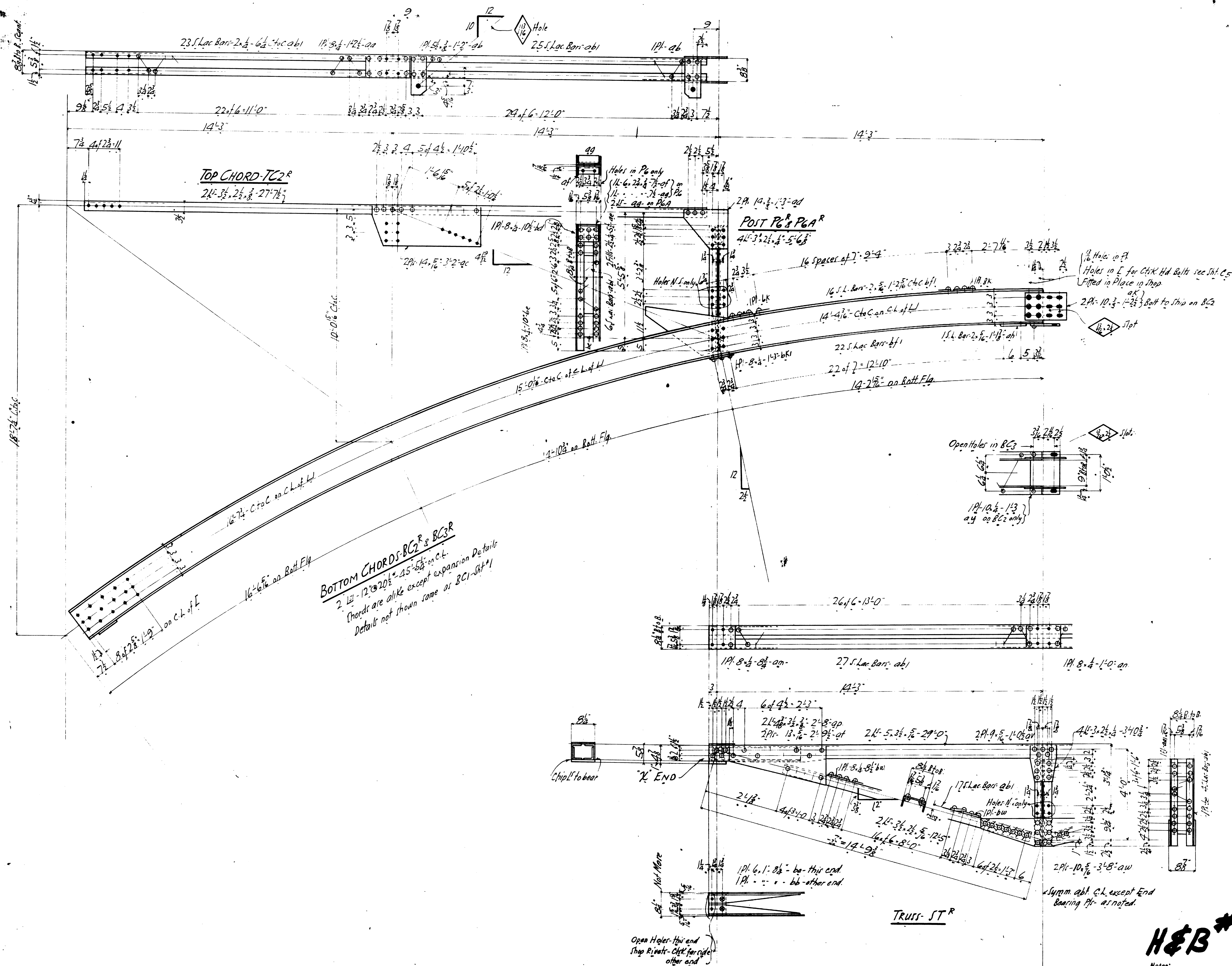
Check by H. J.

Order No. D3672

Sheet E2

H&B #1050

Notes:
Rivets: - dia.
Open Holes: - dia.
Shop Paint: One coat of black lead, black graphite.
Erection: By others.
Field Paint: By others.



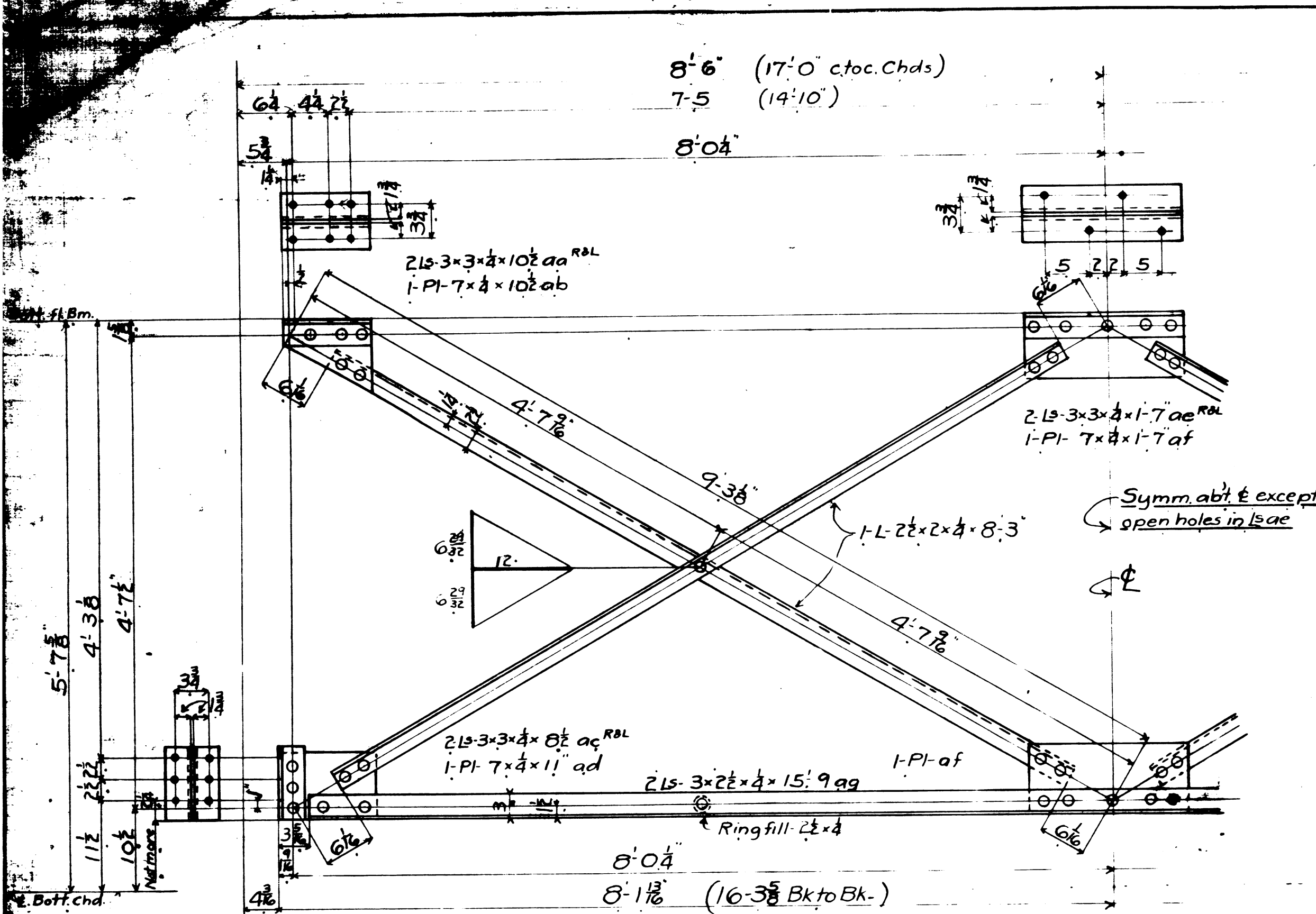
REQUIRED		
2	TOP CHORDS	TC2 ^R
2		TC2 ^L
1	BOTT	BC2 ^R
1		BC2 ^L
1		BC3 ^R
1		BC3 ^L
1	POST	P6 ^R
1		P6 ^L
1		P6A ^R
1		P6A ^L
1	TRUSS	ST ^R
1		ST ^L

Cantilever Deck Bridge
 MARENGO ST. OVER RAVINE EAST OF N. & E. CANAL
 ADAMS TOWNSHIP LUCAS CO. OHIO
 THE STANDARD ENGINEERING CO. TOLEDO, OHIO

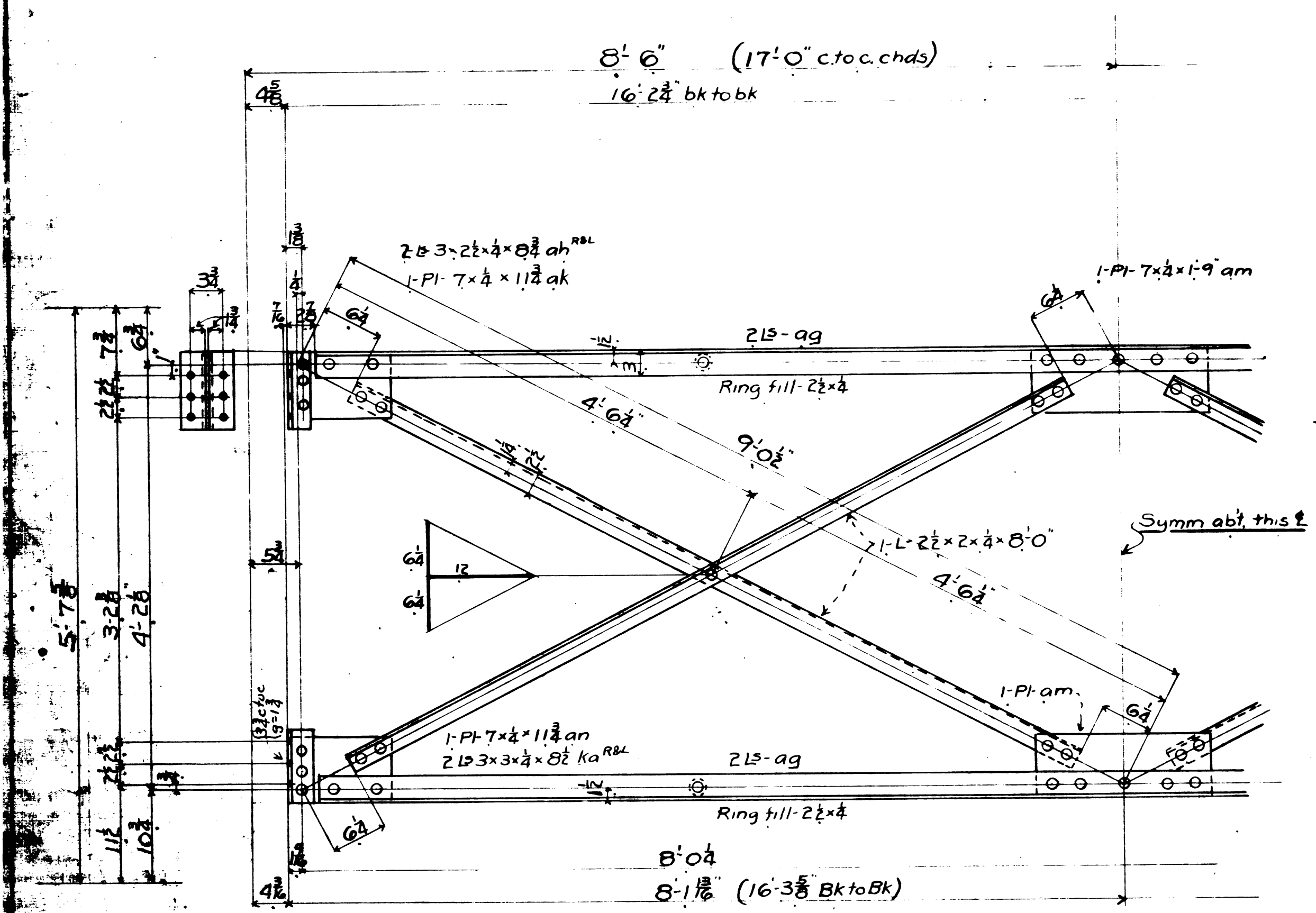
H&B #1050

Notes:
 Rivets: 3/4" dia.
 Open Holes: 1/2" dia. except noted
 Shop Paint: One coat of standard black graphitic
 Erection: By others.
 Field Paint: By others.

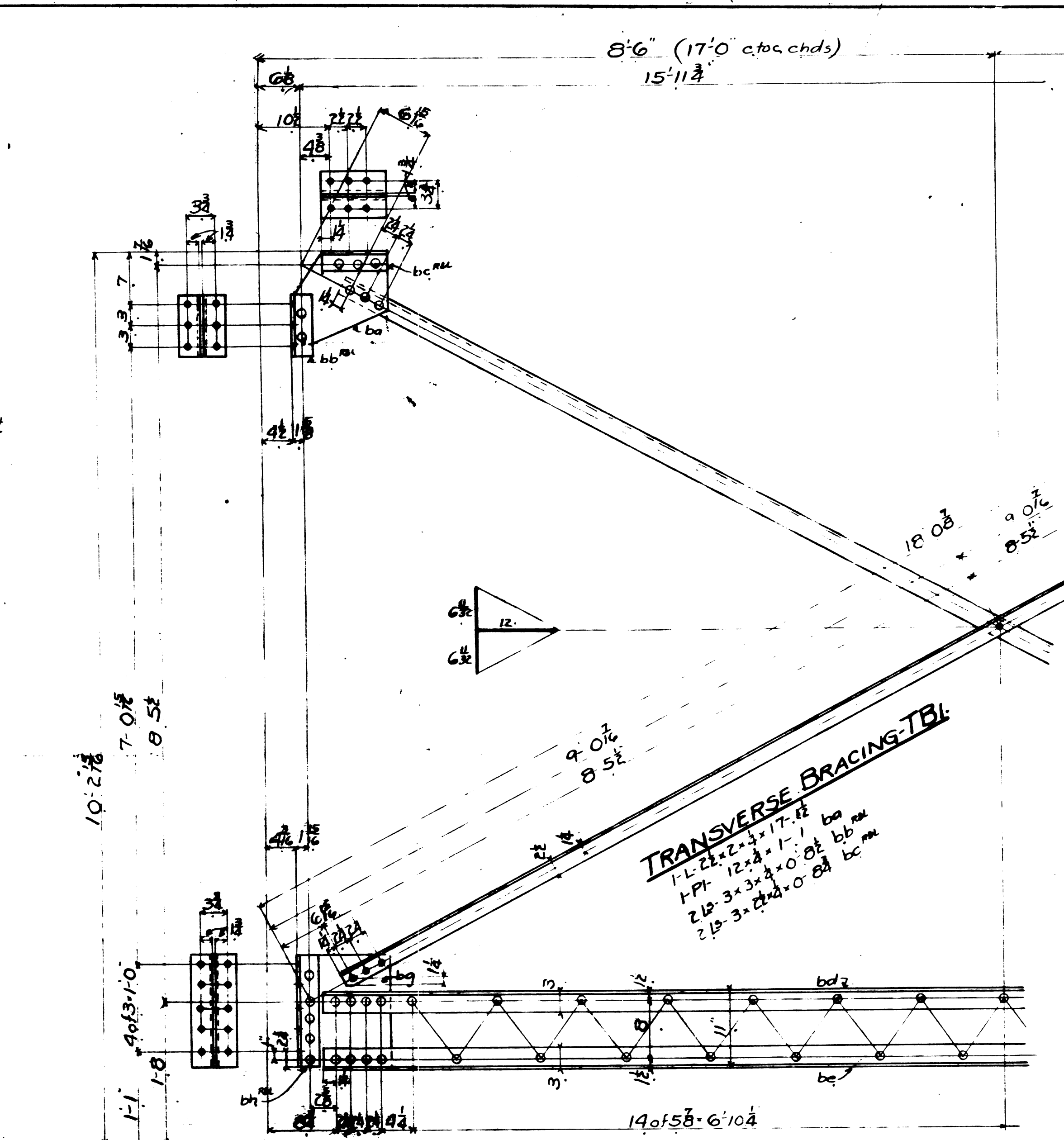
Scale: 1/4" = 1'-0"
 AMERICAN BRIDGE COMPANY
 DRAWINGS MADE AT Toledo
 WORK FABRICATED AT Toledo
 IN CHARGE OF Koch
 DRAWN BY H&B
 CHECKED BY H&B
 ORDER No. 1050



CROSS FRAME - CF1

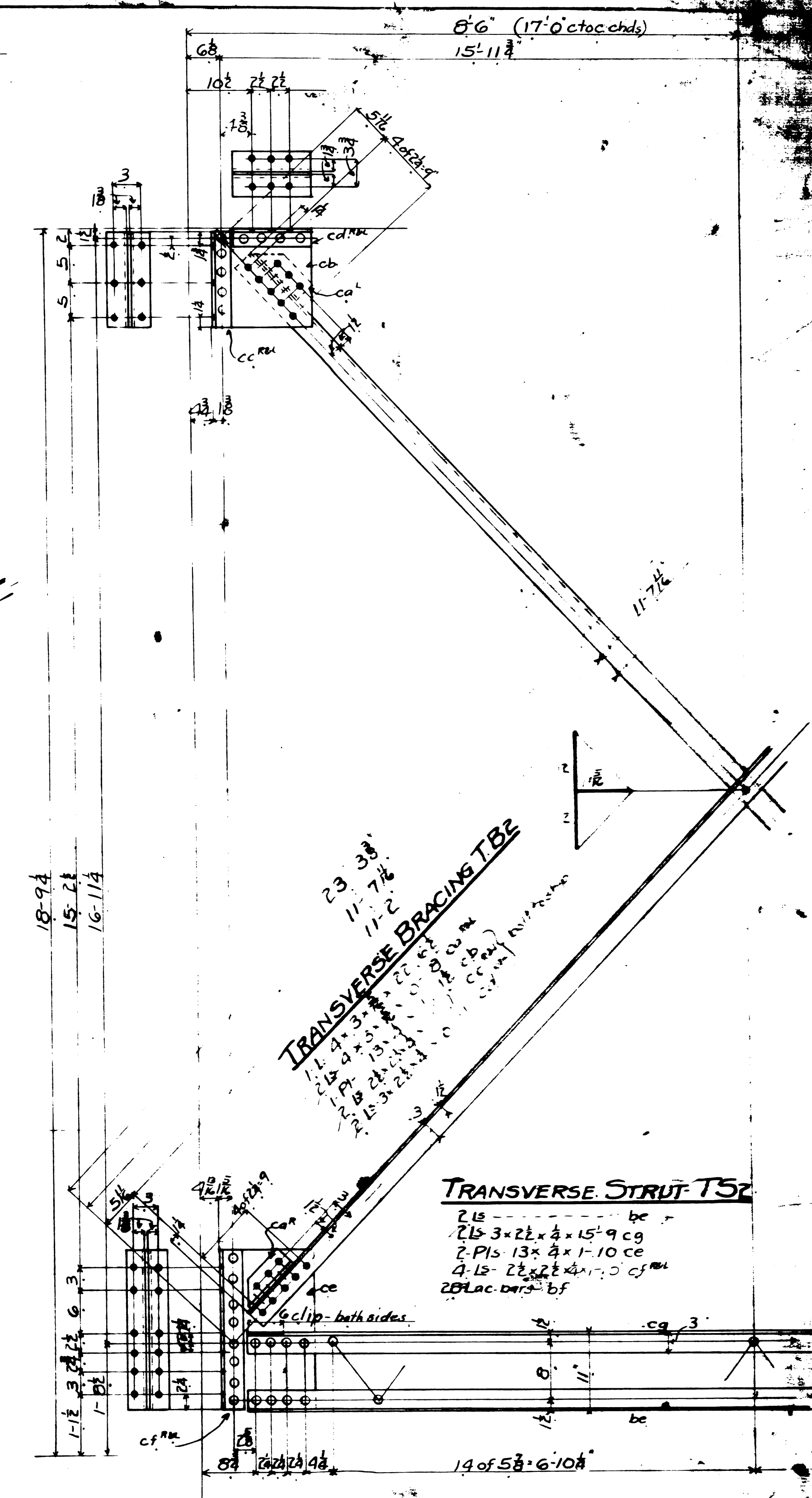
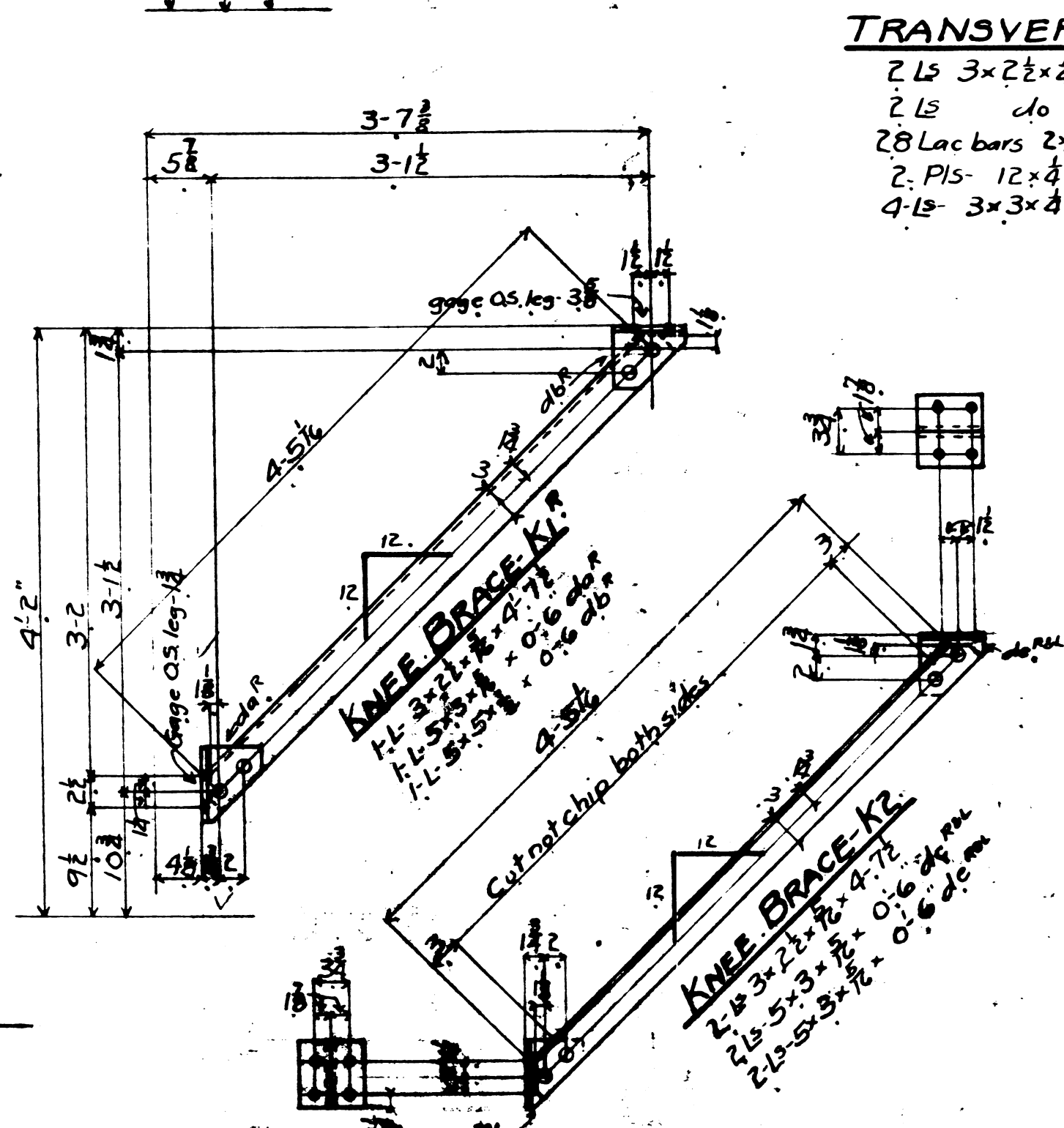


CROSS FRAME - CF2



TRANSVERSE STRUT TS1

2 Ls 3x2x1/2 x 15'-9" bd
2 Ls do x 15'-9" be
2 Ls Lac bars 2x4 x 0'-9" c.to.c. bf
2-Pls 12x4 x 1'-3 1/2" cg
4-Ls 3x3x1/2 x 1'-3 1/2" bh

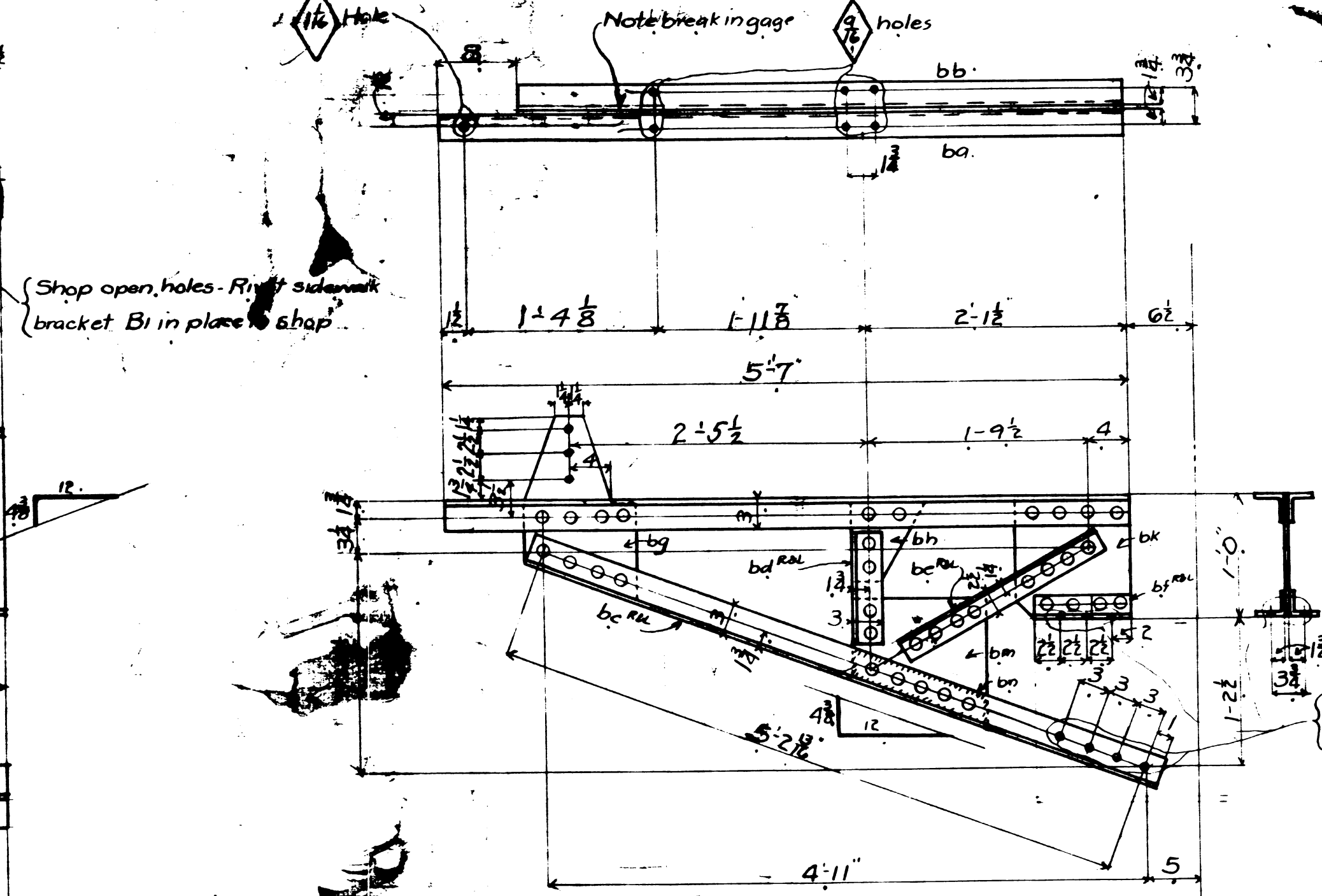
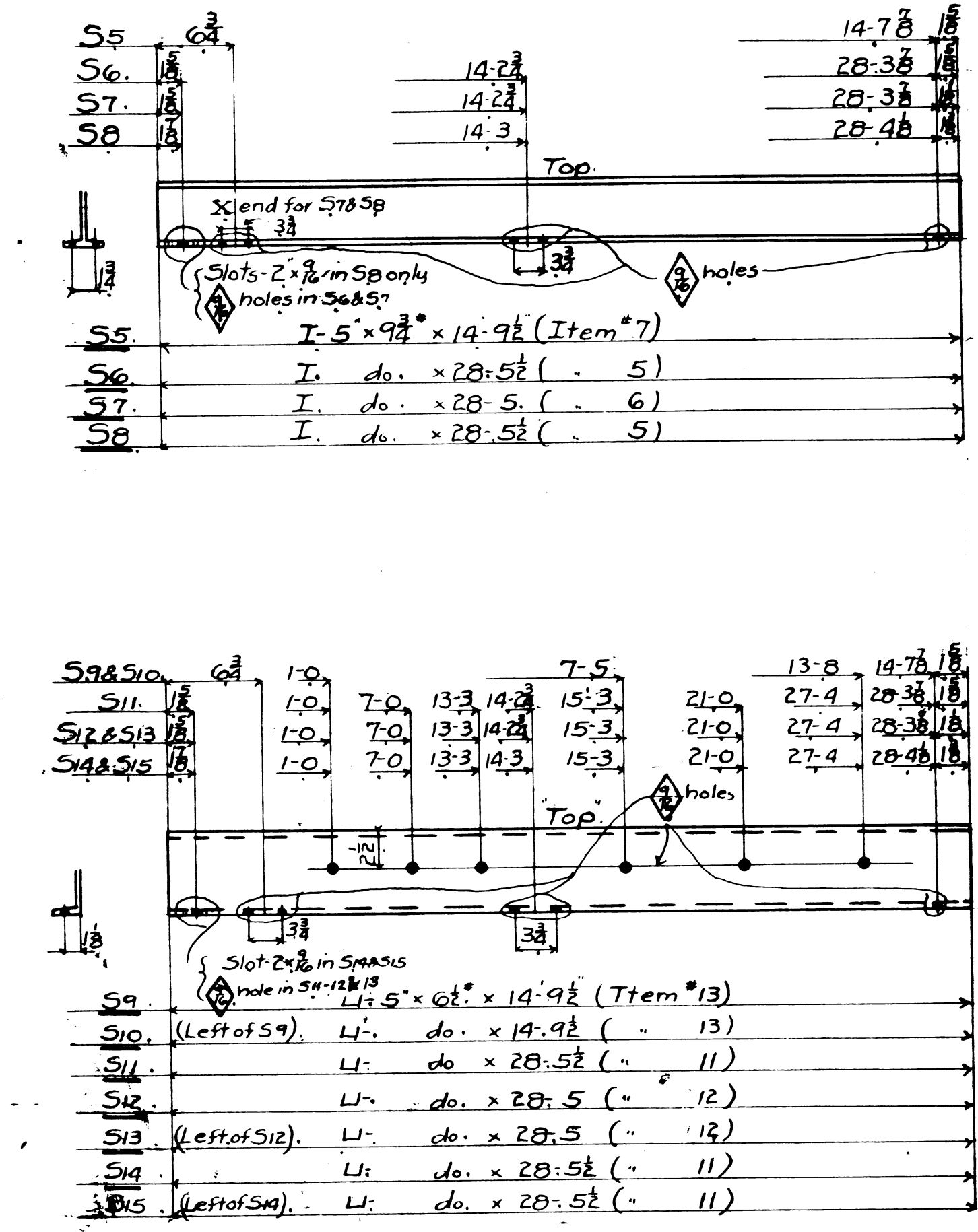
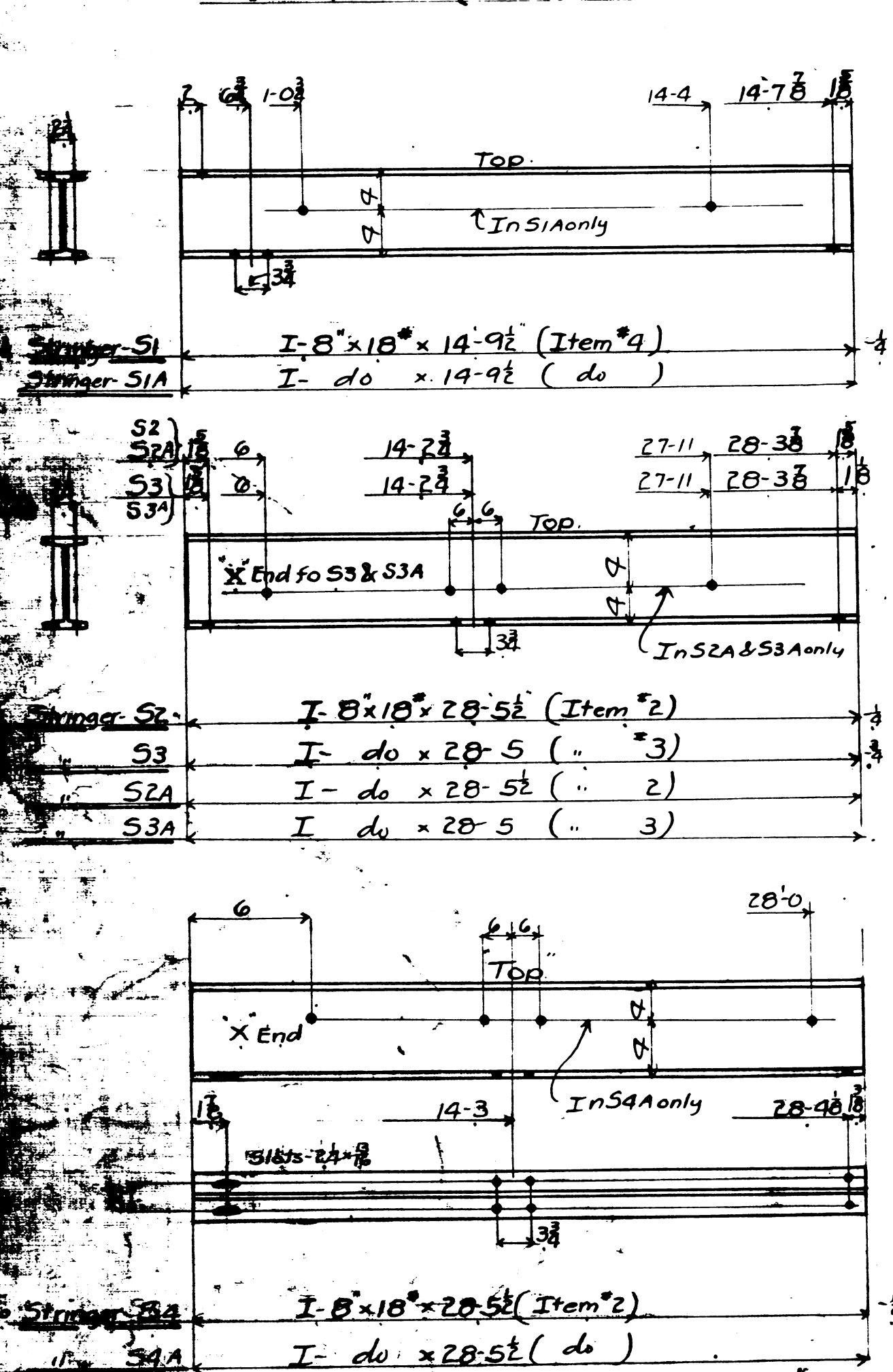
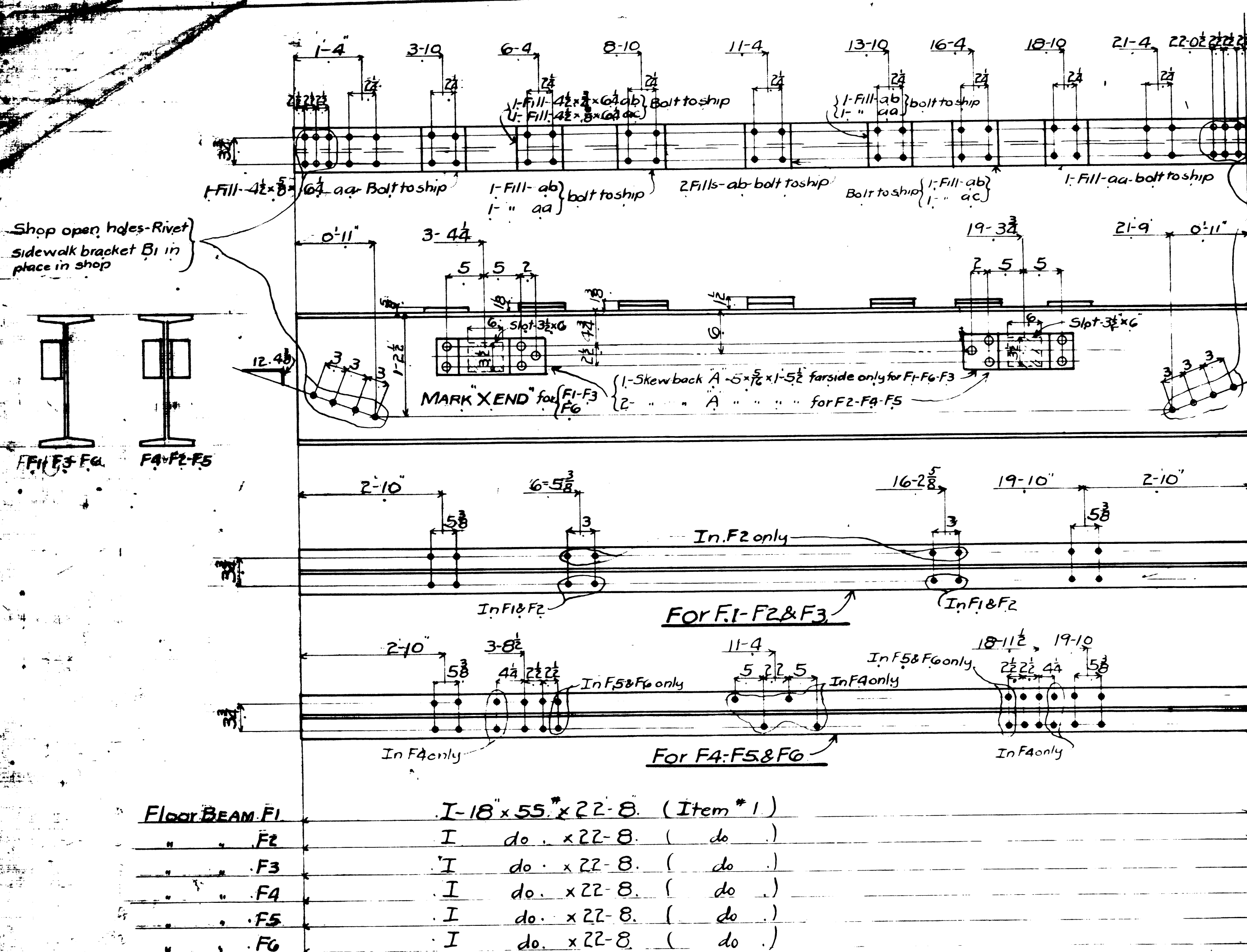


REQUIRED.		
2	CROSS FRAMES	CF1
2	"	CF2
8	TRANS. BRACING	TB1
4	"	TB2
4	"	STRUTS
2	"	TS1
2	"	TS2
2	KNEE BRACES	K1
2	"	K1
2	"	K2

H & B #1050

Notes:
Rivets: 3/4 dia.
Open Holes: 1/2 dia.
Shop Paint: One coat of standard black graphite.
Erection: By others.
Field Paint: By others.

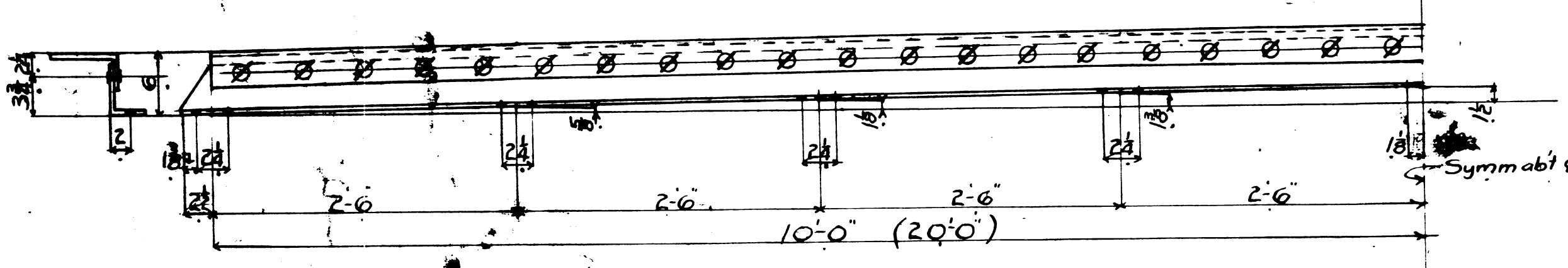
Cantilever Deck Bridge
MARENGO ST. OVER RAVINE EAST OF N. & S. R.
ADAMS TOWNSHIP LUCAS CO. OHIO
THE STANDARD ENGINEERING CO. TOLEDO, OHIO
Scale 3/4" = 1'-0"
AMERICAN BRIDGE COMPANY
DRAWING MADE AT: Toledo
WORK FABRICATED AT: Toledo
IN CHARGE OF: Koch
CHECKED BY: [Signature]
DATE: [Date]
D3672



SIDEWALK BRACKET B1 (26 Required)

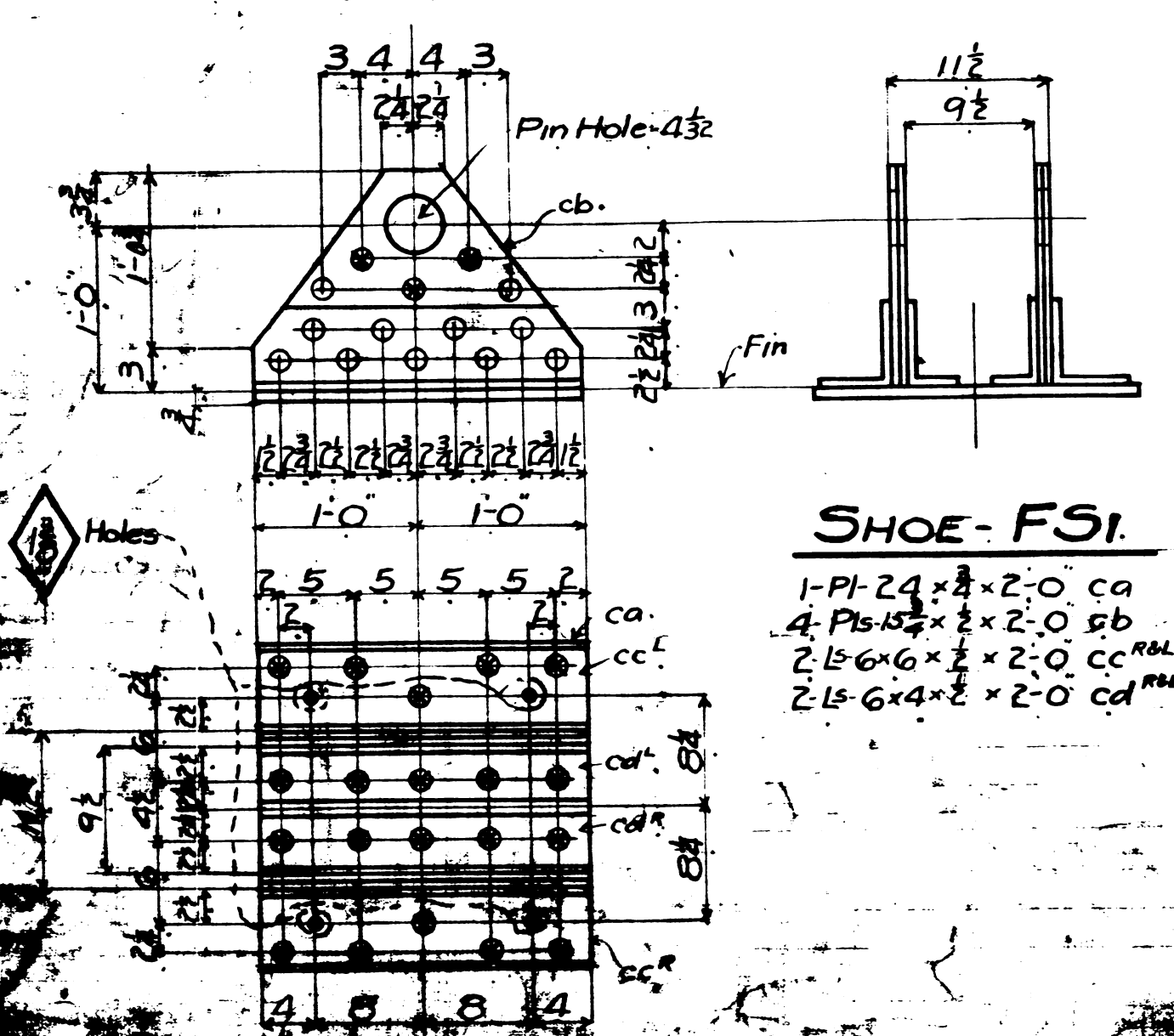
To be shop riveted on both ends of fl. bms-F1 to F6 and

1-L 3x2 1/2 x 4 x 5 1/2 T ba
 1-L do x 4 1/2" bb
 2-Ls do x 5 1/2" bc
 2-Ls do x 0 1/2" bd
 2-Ls 2 1/2 x 2 1/2 x 1 1/2" be
 2-Ls 3 x 2 1/2 x 0 1/2" bf
 1-Pl 11 x 4 x 1 1/2" bg
 1-Pl 7 x 4 x 0 1/2" bh
 1-Pl 11 x 4 x 0 1/2" bk
 1-Pl 12 x 4 x 1 1/2" bm
 2-Fills 3 x 3 x 1-3 bn



ROADWAY CURB- RC1

1-L 7 x 3 1/2 x 1/2 x 20' 0" Bent
 1-L 5 x 3 1/2 x 1/2 x 20' 5"



SHOE- FS1

1-Pl 24 x 4 x 2-0 ca
 4-Pls 15 x 2 x 2-0 sb
 2-Ls 6 x 6 x 1/2 x 2-0 cc
 2-Ls 6 x 4 x 1/2 x 2-0 cd

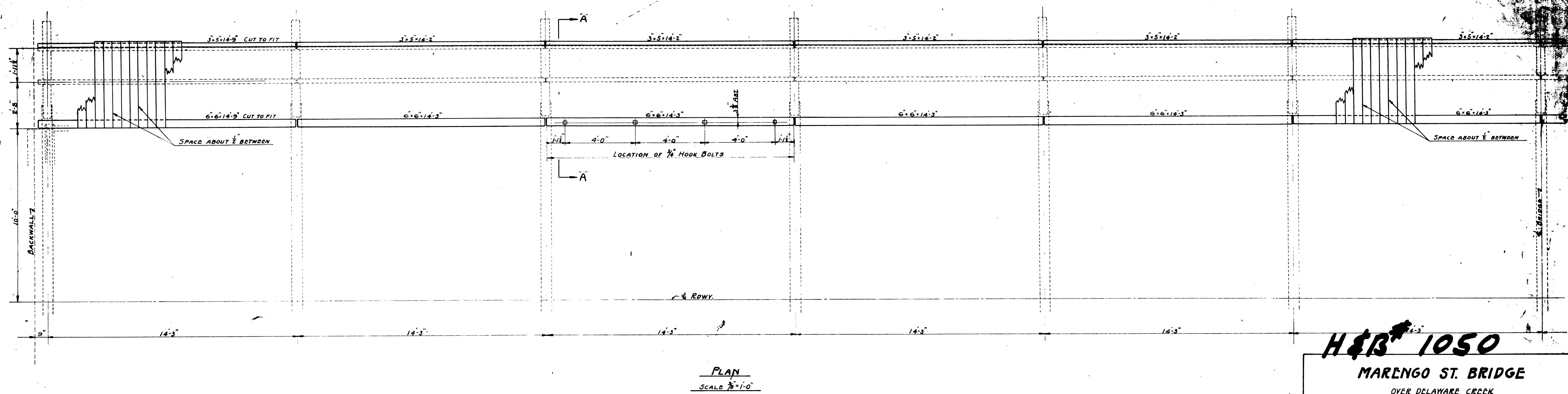
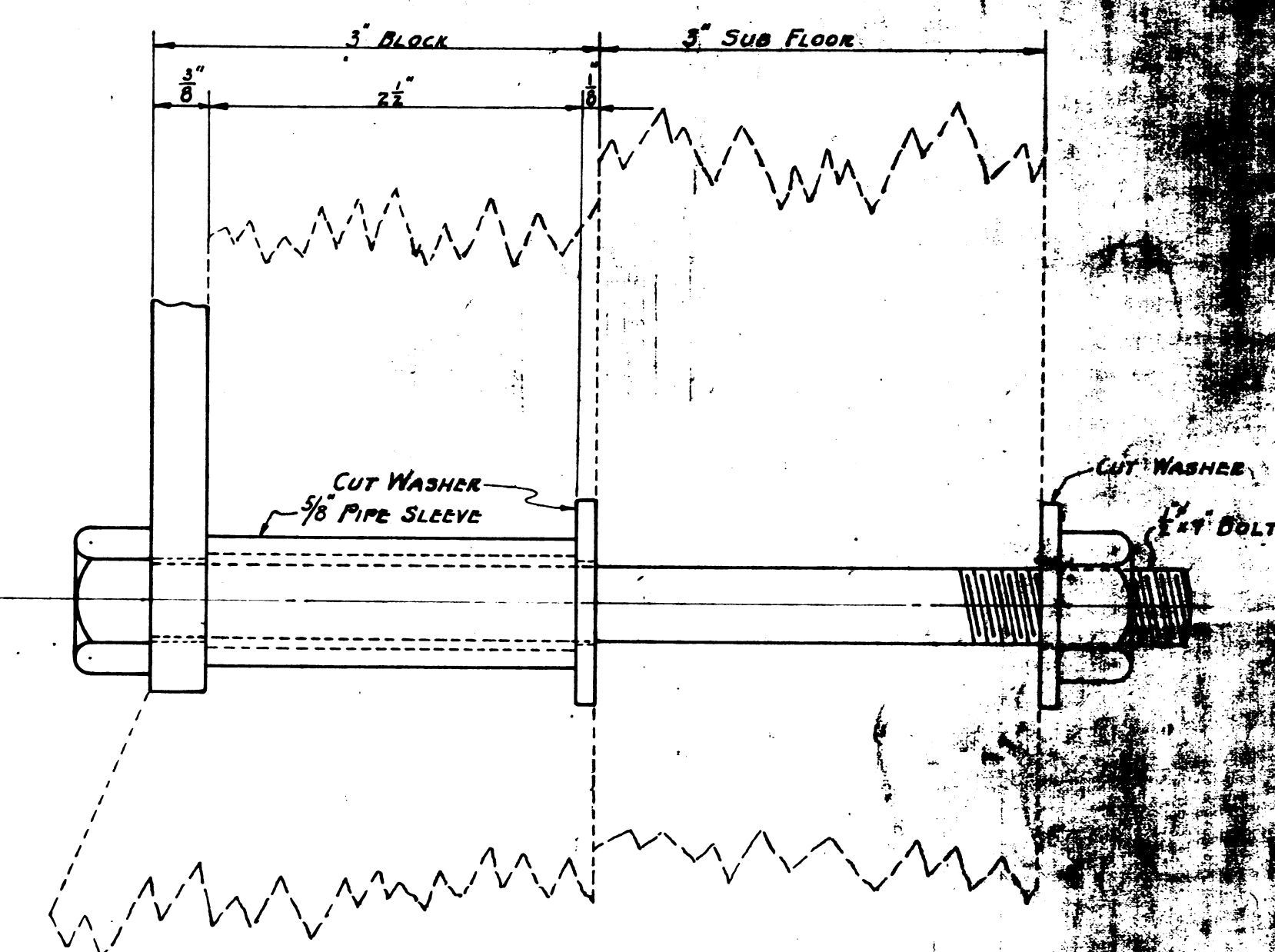
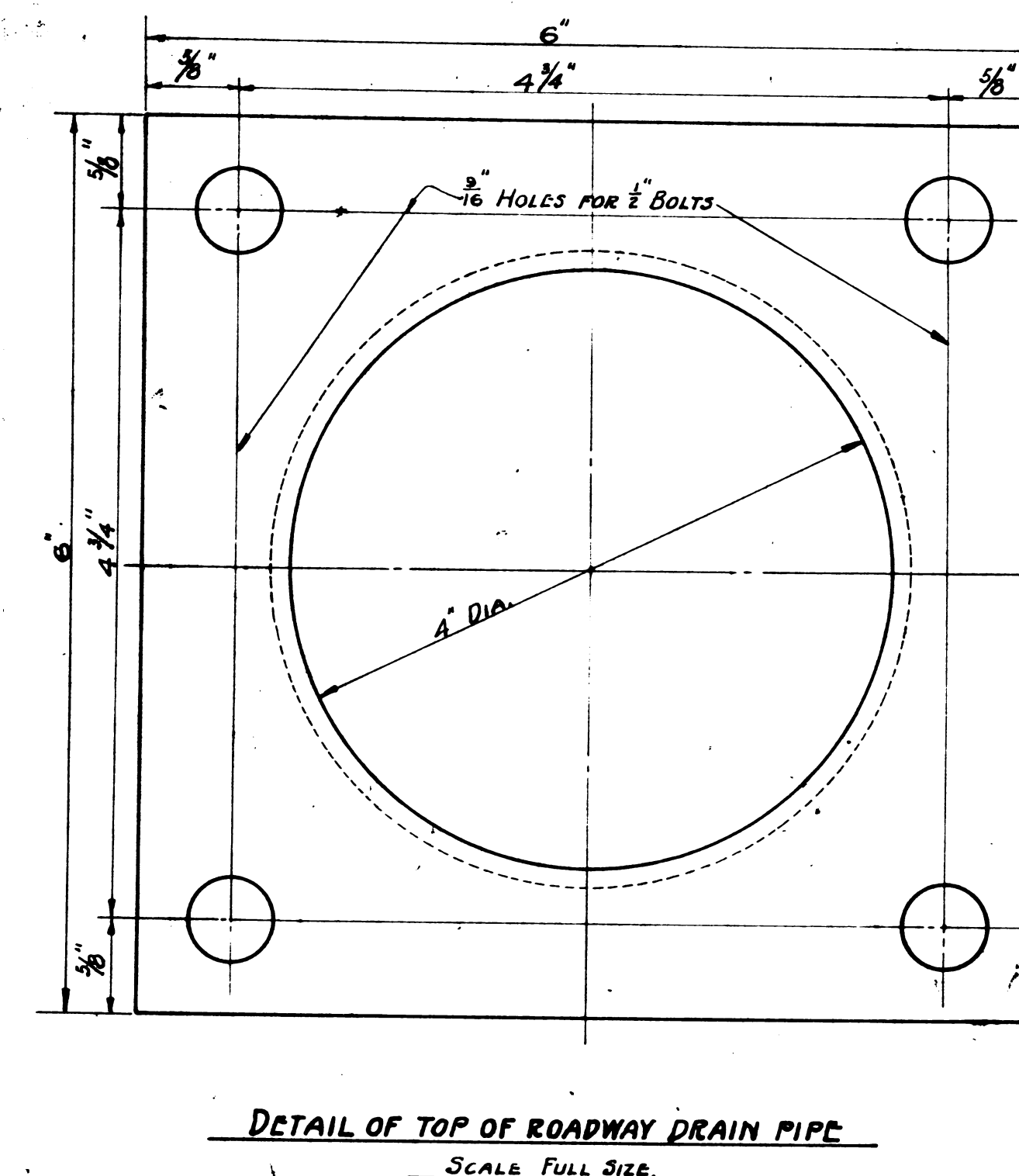
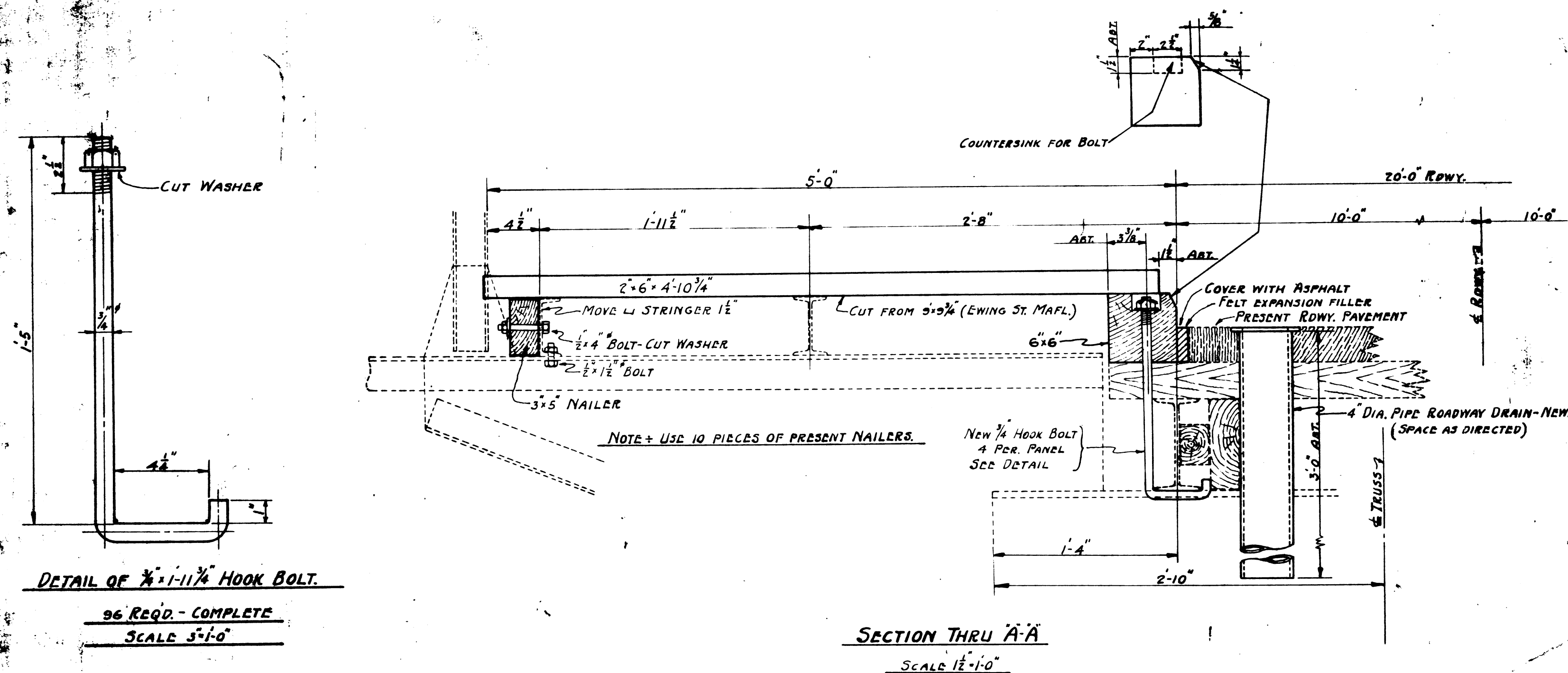
REQUIRED		
2	FLOOR BEAMS	F1
1	"	F2
2	"	F3
2	"	F4
4	"	F5
2	"	F6
14	STRINGERS	S1
21	"	S2
7	"	S3
4	"	S4
4	"	S5
6	"	S6
2	"	S7
2	"	S8
2	"	S9
2	"	S10
6	"	S11
1	"	S12
1	"	S13
1	"	S14
1	"	S15
2	SHOES	FS1
2	ROADWAY CURBS	RC1
4	SHOES	FS1
4	STRINGERS	S1A
6	"	S2A
2	"	S3A
2	"	S4A

H&B#1050

Notes:
 Rivets: 3/4" dia.
 Open Holes: 1/2" dia. Ex. Noted
 Shop Paint- Only coat of standard black graphite
 Erection- By others
 Field Paint- By others

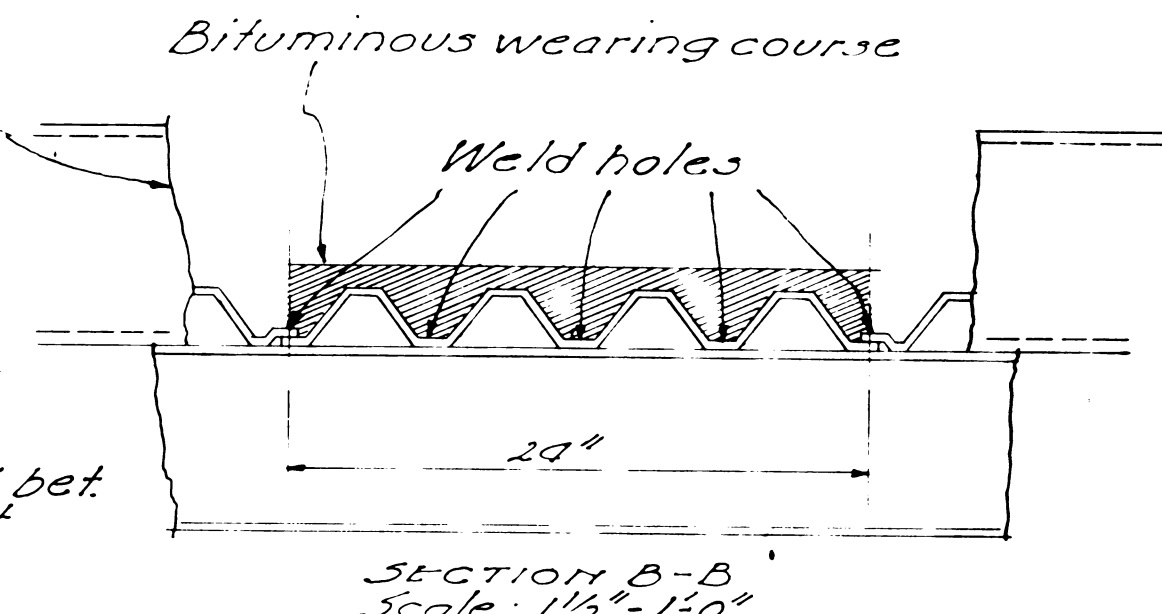
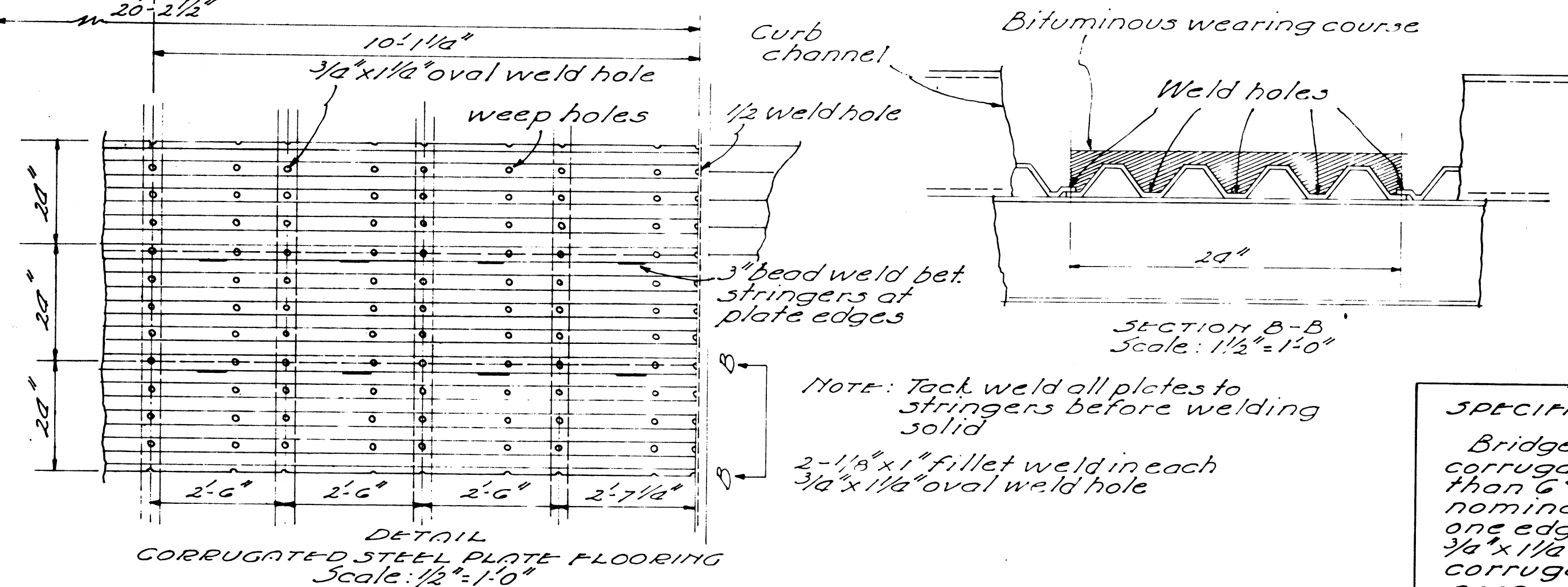
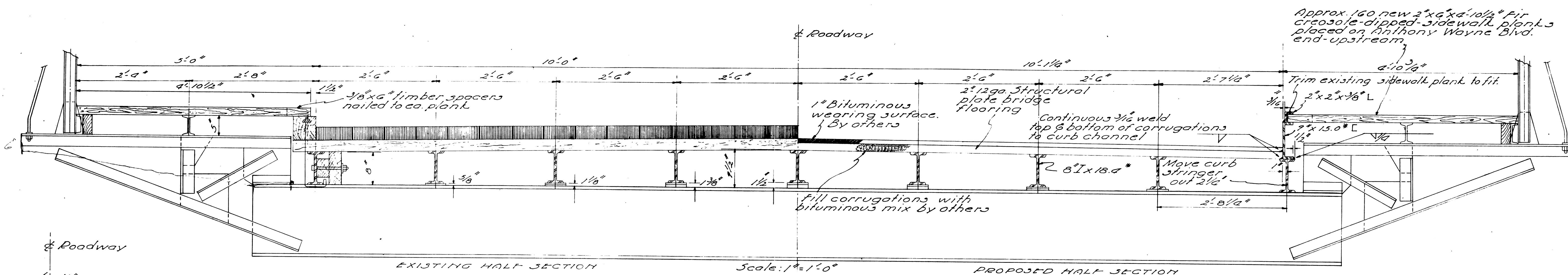
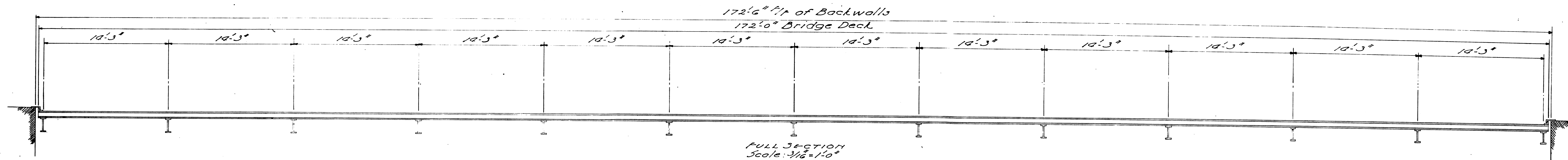
Cantilever Deck Bridge
 MARENGO ST. OVER RAVINE EAST OF M. & E. CANAL
 ADAMS TOWNSHIP, LUCAS CO. OHIO
 THE STANDARD ENGINEERING CO. TOLEDO, OHIO
 Scale: 1" = 10'-0"

AMERICAN BRIDGE COMPANY
 DRAWINGS MADE AT: Toledo
 WORK FABRICATED AT: Toledo
 IN CHARGE OF: Koch
 D36



H&B 1050
MARENGO ST. BRIDGE
OVER DELAWARE CREEK
NEW SIDEWALK

CITY OF TOLEDO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGR. & CONST. - HARBOR & BRIDGES
FIELD BY _____ PA. _____ DRAWN BY EL
SCALE - AS SHOWN CHECKED BY _____
DATE 5-16-44. REVISED _____



Note: Tack weld all plates to stringers before welding solid

2-1/8"x1" fillet weld in each 3/8"x1 1/2" oval weld hole

SPECIFICATIONS FOR BRIDGE FLOORING PLATE

Bridge flooring plates shall have a trapezoidal corrugation not less than 2" deep and not more than 6" pitch. Corrugated plates shall have a nominal laying width of 24". Plates shall have one edge offset to permit lapping. Oval holes 3/8"x1 1/2" shall be provided in the valley of every corrugation at every stringer for welding purposes. Weep holes shall be placed in the valley of every corrugation between stringers.

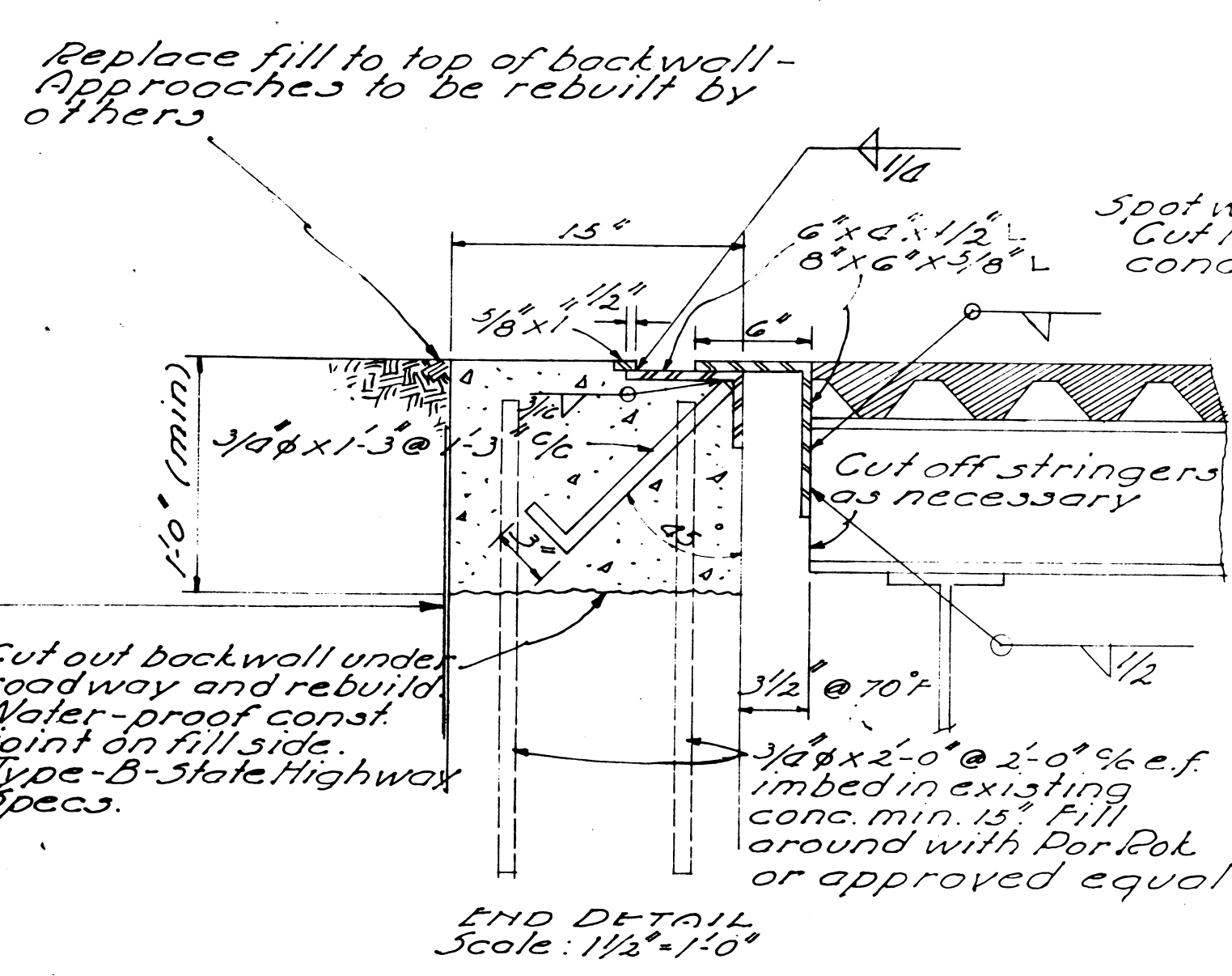
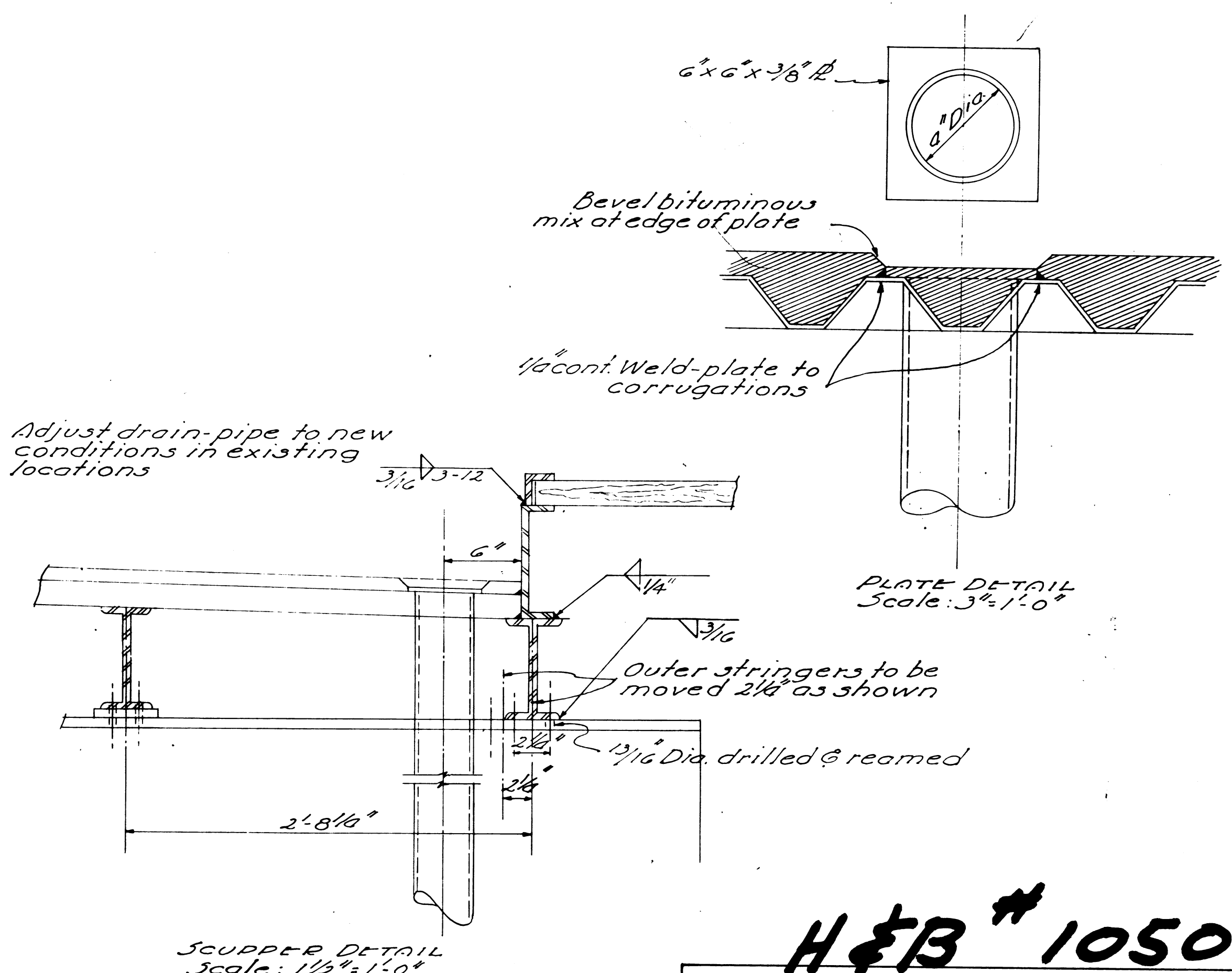
Plates shall be given one coat of baked-on-rust inhibitive primer applied immediately after fabrication.

Plates shall be sufficient to carry the design load on an allowable fiber stress of 20,000 lbs. per sq. in. and otherwise in accordance with current AASHO standard specifications for highway bridges.

Plates shall be made of open-hearth or electric furnace steel in accordance with ASTM specification A-243 grade C. Plates shall have a minimum thickness of 12ga. subject to standard mill tolerance for gauge.

Plates shall be furnished in 20'-2 1/2" lengths as shown on the plans. Not more than two splices shall be allowed in the 20'-2 1/2" length and splices shall be so placed that they occur over the center line of stringers. All splices shall be made in the shop and shall be of continuous butt welds on both sides of the plate except that portion of the weld on the bottom of the plate which shall actually bear on the stringers shall be omitted or ground flush.

Flooring designed for H-10 loading



H&B #1050

CITY OF TOLEDO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF HARBOUR AND BRIDGES

MARENGO BRIDGE

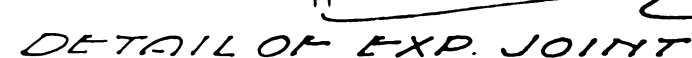
CORRUGATED STEEL PLANK FLOOR

Scale: As shown
DESIGNED DRAWN CHECKED REVISED
JULY, 1936
1/11/36 1/11/36 1/11/36 1/11/36

1 Sheet

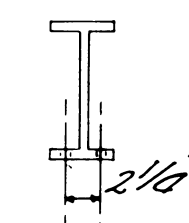
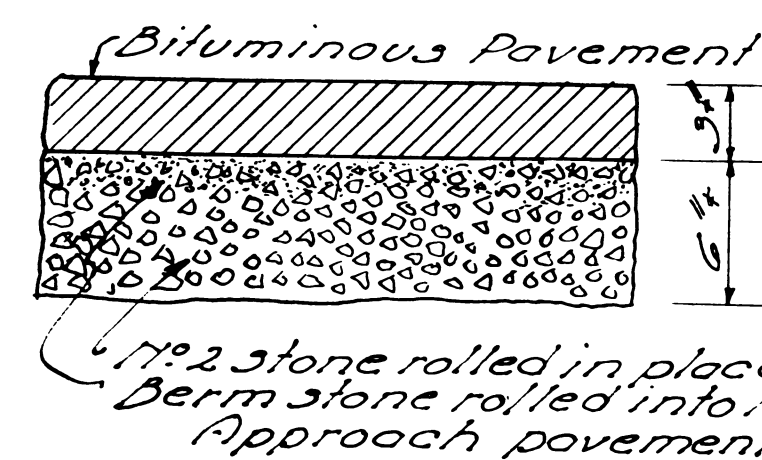
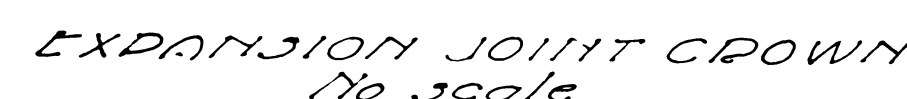
Built July-Aug 1937

ANTHONY WAYNE BLVD.



Approach pavement rebuilt
30' from back wall

21-7113 DIVE-P 2000



STRINGER DETAILS

MATERIALS FURNISHED BY
CITY OF TOLERO

[illegible]

GENERAL NOTES

SPECIFICATIONS

The current State of Ohio; Department of Highways, Construction and Materials Specifications as amended to date shall govern and are hereby made a part of this proposal and contract, unless specifically noted in this proposal, the contract, or on the plans.

MATERIALS

The City of Toledo shall furnish materials in quantities and lengths as itemized on Ch. 2 or plans & any additional stringers ordered by the engineer. All other materials shall be furnished by the contractor.

PLACING CORRUGATED STEEL PLANT FLOORING

Plank shall be placed alternating Rand L as marked so that welded splices shall not coincide on adjoining planks.

Weld holes shall, if the Engineer so requires, be hammered down to the stringer sufficiently to insure a satisfactory weld.

REPLACING STRINGERS
Where replacement is required of one span of a stringer that is continuous for two spans cut the existing stringer at the center of the span to be replaced.

continuous for two spans cut the existing stringers on center line of the floor beam and replace rejected half of stringer with new using rivets or rivet bolts through existing holes.

Beams shall be so fabricated that any curved beam shall be placed convex flange up.

FABRICATION & ERECTION

FABRICATION & ERECTION
All fabrication & erection shall be the responsibility of the contractor.

BOLTS & NUTS

Where stringers are to be moved or replaced $\frac{3}{4}$ " rivets or rivet bolts shall be used for fastening in place except at the expansion joint between stringer spans where bolted connections as existing shall be used.

WELDING

WELDING All welding shall be checked.

EXPANSION JOINTS AT ABUTMENT:

Expansion joints at abutments shall be fabricated with a crown as shown on the plans. Joints shall be so fabricated and placed as to assure a firm contact of expansion and bearing steel.

LUBRICATING JOINTS

Expansion surfaces shall be coated with a mixture of graphite and grease as designated by the Engineer.

CONCRETE

All concrete shall be

Back wall construction joints against which earth is to be placed, to be waterproofed with Type 'B' Waterproofing extending to the top of concrete and 12" (min) below the construction joint.

PAINTING

Painting shall be done by others.

BITUMINOUS PAVING

All bituminous paving shall be done by others

H&B # 1050

CITY OF TOLEDO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF BRIDGES

MARENGO BRIDGE
CORRUGATED STEEL
PLANK FLOOR

Scale: As shown April 1953

DESIGNED	DRAWN	CHECKED	REVISED	
	Irwin	MSJ		2/2