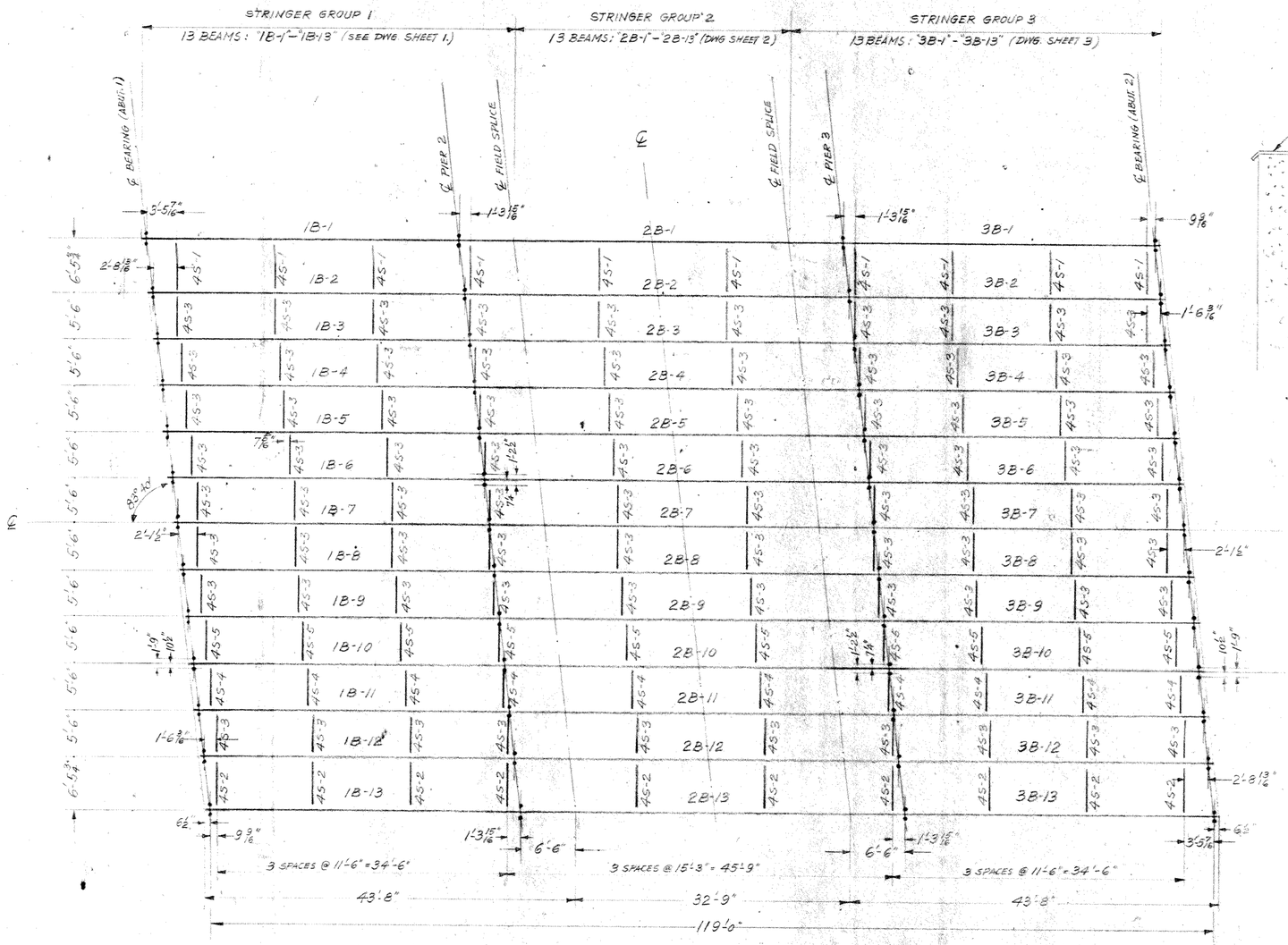
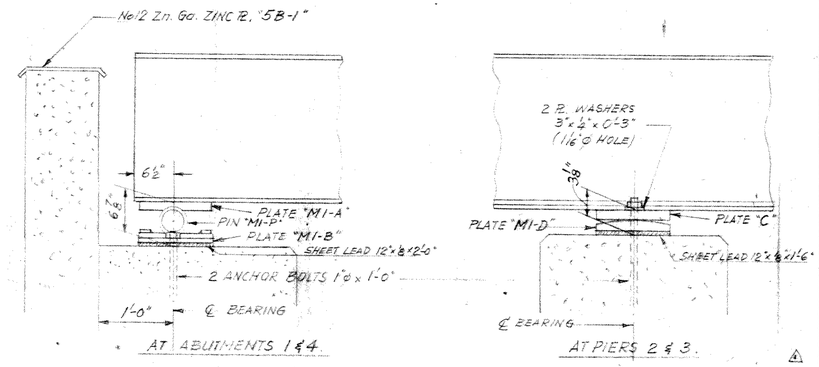
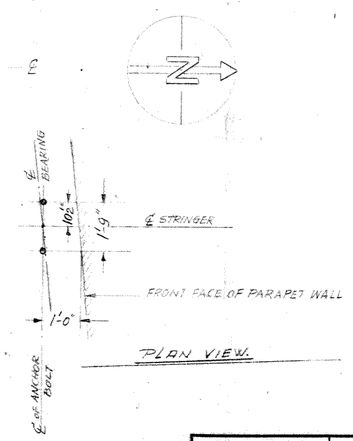




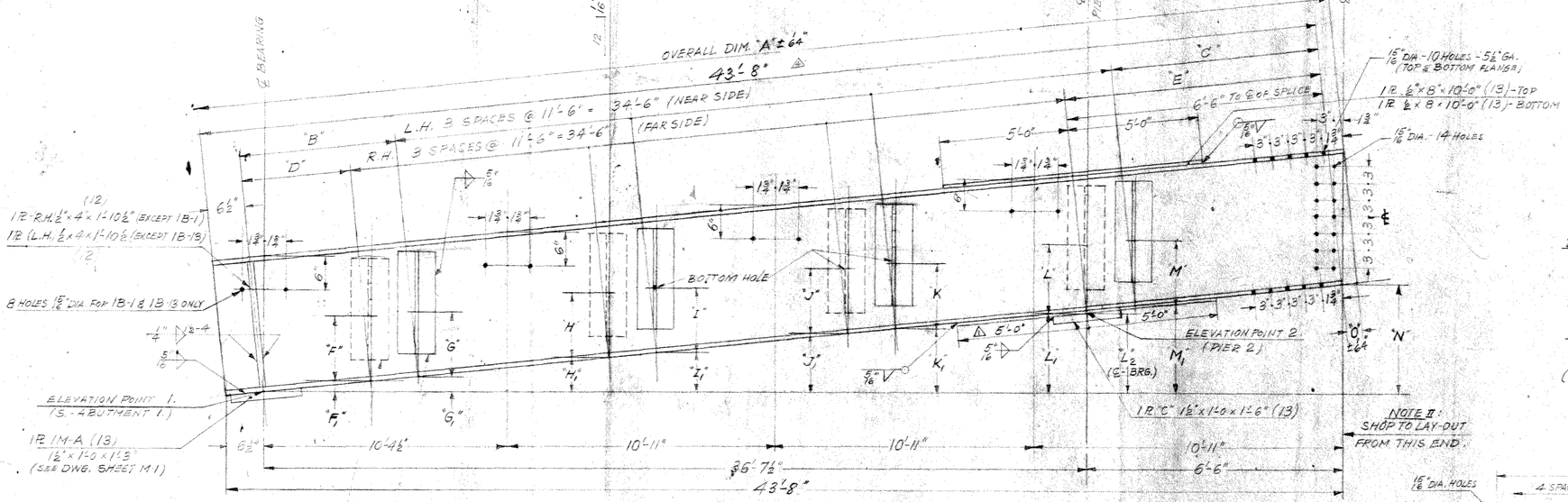
BEARING DETAILS △1



PLAN VIEW.

PRINT RECORD		CUST. P.O. NO.	ORDER NO.	SHEET NO.	
~~RECEIVED~~	1	814	S-303-1A	E-1	STRUCT. STEEL
~~OFFICE 7-20-48~~	2				
~~OFFICE 7-21-48~~	4	**A. F. WAGNER IRON WORKS** MILWAUKEE, WIS.			
~~" 7-22-48~~	1				
~~OFFICE 7-23-48~~	3				
~~OFFICE 7-23-48~~	5	JOB C. & N.W. RY. Co. BRIDGE No 438			
~~OFFICE 7-24-48~~	1	LOCATION HOWELL AVE., MILWAUKEE, WIS.			
~~OFFICE 8-14-48~~	1	ARCHITECT OFF. OF ENGR. OF BRIDGES			
~~OFFICE 8-21-48~~	1	INSPECTION BY COMM. REP. DEPT. OF PUB. WKS.			
~~OFFICE 9-4-48~~	1	ERECTION BY			
		WORK TO BE INSPECTED BEFORE SHOP PAINTING **IMPORTANT**			
		SHOP PAINT SEE SPECIFICATIONS			
REVISIONS		FIELD PAINT BY OTHERS			
7-23-48. Bolts △1		RIVETS ⅞"Ø x 3"	OPEN HOLES 15/16"Ø	UNLESS NOTED	
		SEE OUR SH. NO.			
		SEE ARCH. SH. NO.			
		MATL. BILL NO.			
		DRAWN BY	CHECKED BY	BILLED BY	TRACED BY
		E.W. 7-14-48	J.F. 7-14-48.		

NO. 17591—5000—5-17-49

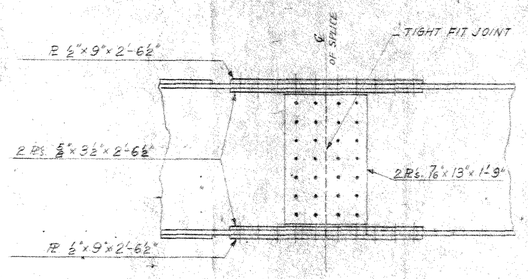


(48)
4 S.T. 4" WF 20# x 1'-6" (R.H.) EXCEPT 1B-1
4 S.T. 4" WF 20# x 1'-6" (L.H.) EXCEPT 1B-13
(48)

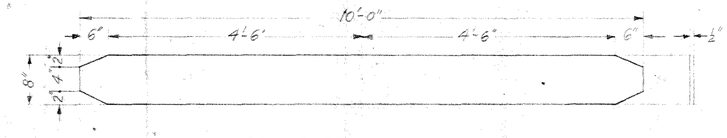
NOTE I:
EAST ELEVATION R.H. (F.S.) & L.H. (N.S.) LOOKING SOUTH

NOTE III: KEEP TOLERANCE FOR OVERALL DIM. "A" & DIM. "O"

1 BEAM	1B-1	(24" WF @ 76#	× 43'-8 1/4")
1 do	1B-2	do	× 43'-8 1/4")
1 do	1B-3	(24" WF @ 94#	× 43'-8 1/4")
1 do	1B-4	(do	× 43'-8 1/4")
1 do	1B-5	(do	× 43'-8 1/4")
1 do	1B-6	(do	× 43'-8 1/4")
1 do	1B-7	(do	× 43'-8 1/4")
1 do	1B-8	(do	× 43'-8 1/4")
1 do	1B-9	(do	× 43'-8 1/4")
1 do	1B-10	(do	× 43'-8 1/4")
1 do	1B-11	(do	× 43'-8 1/4")
1 do	1B-12	(24" WF @ 76	× 43'-8 1/4")
1 do	1B-13	(do	× 43'-8 1/4")



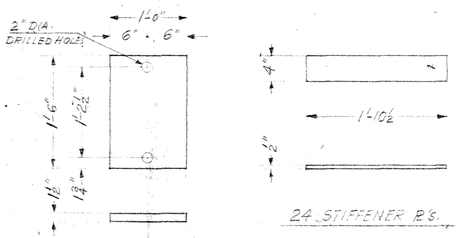
STRINGER SPLICE DETAIL



26 COVER PL'S

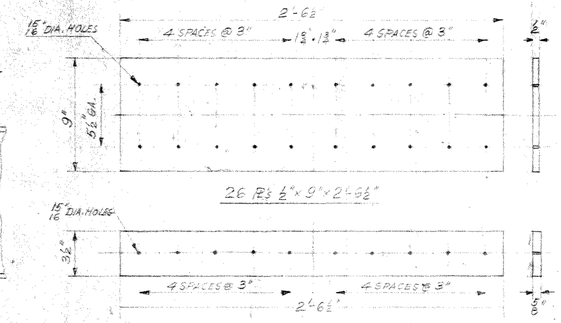
26 STD. STEEL WASHERS FOR 1" BOLT (FOR ABUTMENT PL 1M-A)

26 PL. WASHERS 3" x 1/4" x 0'-3" WITH 11/16" ⌀ HOLE. (FOR BEARING PL. "C")



13 BEARING PL'S "C"

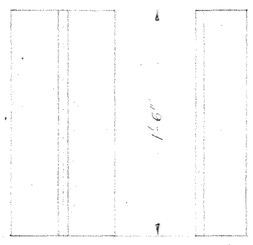
24 STIFFENER PL'S.



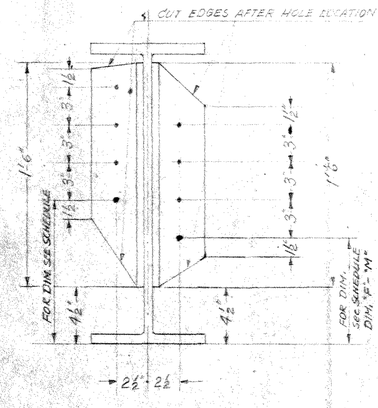
26 PL'S 1/2" x 9" x 2'-6 1/2"

26 PL'S 7/16" x 13" x 1'-9"

52 PL'S 5/8" x 3 1/2" x 2'-6 1/2"



96 S.T. 4" WF 20# x 1'-6"
NOTE: CUT FROM WF 8" x 8" 40# BEAM



SECTION SHOWING EXTREME POSITIONS OF S.T. 4" WF

(FOR VARIABLE LOCATION OF BOTTOM-HOLE SEE SCHEDULE)

EL. 1	EL. 2	MARK	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	"M"	"N"	"F₁"	"G₁"	"H₁"	"I₁"	"J₁"	"K₁"	"L₁"	"L₂" (℄ BRG)	"M₁"	"O"
67.6729	67.9321	1B-1	43'-8 5/32"	3'-5 7/16"	5'-2 1/16"	—	—	—	11 1/2"	—	11 1/2"	—	11 1/2"	—	11 1/2"	3 11/16"	—	5/16"	—	1 1/4"	—	2 1/4"	—	3 1/8"	3 1/4"	5/32"
△ 67.6829	67.9321	1B-2	43'-8 5/32"	2'-8 13/16"	5'-10 11/16"	2'-8 13/16"	5'-10 11/16"	11 3/8"	11 1/16"	11 9/16"	11 1/8"	11 5/8"	11 1/8"	11 11/16"	11 11/16"	3 15/32"	1/4"	1/4"	1 3/16"	1 3/16"	2 1/16"	2 1/16"	3 1/16"	3"	3 1/16"	5/32"
67.9129	68.1521	1B-3	43'-8 5/32"	2'-8 13/16"	5'-10 11/16"	2'-1 1/2"	6'-6"	8 1/2"	10 15/16"	8 1/2"	10 13/16"	8 1/2"	10 13/16"	8 1/2"	10 11/16"	3 3/8"	3/16"	3/16"	1 1/16"	1 1/8"	2"	2"	2 7/8"	2 7/8"	2 15/16"	5/32"
68.1229	68.3421	1B-4	43'-8 5/32"	2'-8 13/16"	5'-10 11/16"	2'-1 1/2"	6'-6"	8 1/2"	10 1/16"	8 1/2"	10 1/8"	8 1/2"	10 1/8"	8 1/2"	9 15/16"	3 3/32"	1/8"	3/16"	1"	1"	1 13/16"	1 7/8"	2 5/8"	2 5/8"	2 11/16"	5/32"
68.2629	68.4721	1B-5	43'-8 1/8"	2'-8 13/16"	5'-10 11/16"	2'-1 1/2"	6'-6"	8 1/2"	9 3/8"	8 1/2"	9 3/8"	8 1/2"	9 3/8"	8 1/2"	9 3/8"	2 15/16"	1/8"	3/16"	15/16"	1"	1 11/16"	1 3/4"	2 1/2"	2 1/2"	2 9/16"	1/8"
68.3429	68.5521	1B-6	43'-8 1/8"	2'-8 13/16"	5'-10 11/16"	2'-1 1/2"	6'-6"	8 1/2"	8 7/8"	8 1/2"	8 7/8"	8 1/2"	8 7/8"	8 1/2"	8 3/4"	2 15/16"	1/8"	3/16"	15/16"	1"	1 11/16"	1 3/4"	2 1/2"	2 1/2"	2 9/16"	1/8"
68.3829	68.5921	1B-7	43'-8 1/8"	2'-1 1/2"	6'-6"	2'-1 1/2"	6'-6"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	2 3/4"	1/8"	1/8"	7/8"	7/8"	1 9/16"	1 9/16"	2 3/8"	2 5/16"	2 3/8"	1/8"
68.3629	68.5521	1B-8	43'-8 1/8"	2'-1 1/2"	6'-6"	1'-6 3/16"	7'-1 15/16"	8 3/4"	8 1/2"	8 7/8"	8 1/2"	8 7/8"	8 1/2"	8 7/8"	8 1/2"	2 11/16"	1/8"	1/8"	1 13/16"	7/8"	1 1/2"	1 9/16"	2 1/4"	2 9/32"	2 1/4"	1/8"
68.2929	68.4721	1B-9	43'-8 1/8"	2'-1 1/2"	6'-6"	1'-6 3/16"	7'-1 15/16"	9 3/8"	8 1/2"	9 1/2"	8 1/2"	9 1/2"	8 1/2"	9 1/2"	8 1/2"	2 17/32"	1/16"	1/8"	3/4"	13/16"	1 7/16"	1 1/2"	2 1/8"	2 5/32"	2 1/8"	1/8"
68.1729	68.3321	1B-10	43'-8 5/32"	2'-1 1/2"	6'-6"	1'-6 3/16"	7'-1 15/16"	10 1/16"	8 1/2"	10 1/16"	8 1/2"	10 3/16"	8 1/2"	10 3/16"	8 1/2"	2 1/4"	1/16"	1/16"	11/16"	11/16"	1 3/8"	1 5/16"	2"	2"	2 1/16"	3/32"
67.9929	68.1521	1B-11	43'-8 5/32"	2'-1 1/2"	6'-6"	1'-6 3/16"	7'-1 15/16"	10 11/16"	8 1/2"	10 11/16"	8 1/2"	10 11/16"	8 1/2"	10 11/16"	8 1/2"	2 1/4"	1/16"	1/16"	11/16"	11/16"	1 1/4"	1 5/16"	1 7/8"	1 29/32"	1 7/8"	3/32"
67.7729	67.9321	1B-12	43'-8 5/32"	1'-6 3/16"	7'-1 15/16"	1'-6 3/16"	7'-1 15/16"	11 7/8"	11 5/8"	11 7/8"	11 3/8"	11 7/8"	11 1/2"	11 7/8"	11 3/8"	2 1/8"	1/16"	1/16"	11/16"	11/16"	1 1/4"	1 3/4"	1 7/8"	1 29/32"	1 3/4"	3/32"
△ 67.7829	67.9221	1B-13	43'-8 5/32"	—	—	9 1/16"	7'-9 15/16"	11 1/2"	—	11 1/2"	—	11 1/2"	—	11 1/2"	—	1 15/16"	1/16"	—	9/16"	—	1 1/16"	—	1 5/8"	1 31/32"	—	3/32"

REVISIONS	
ADDED L.B. 7-22-58	△1
CHANGED ELEVATION 7-22-58	△2
CHANGED EL. #2 FOR 1B-2 7-22-58	△3
CHANGED DIM. "A" 7-25-58	△4

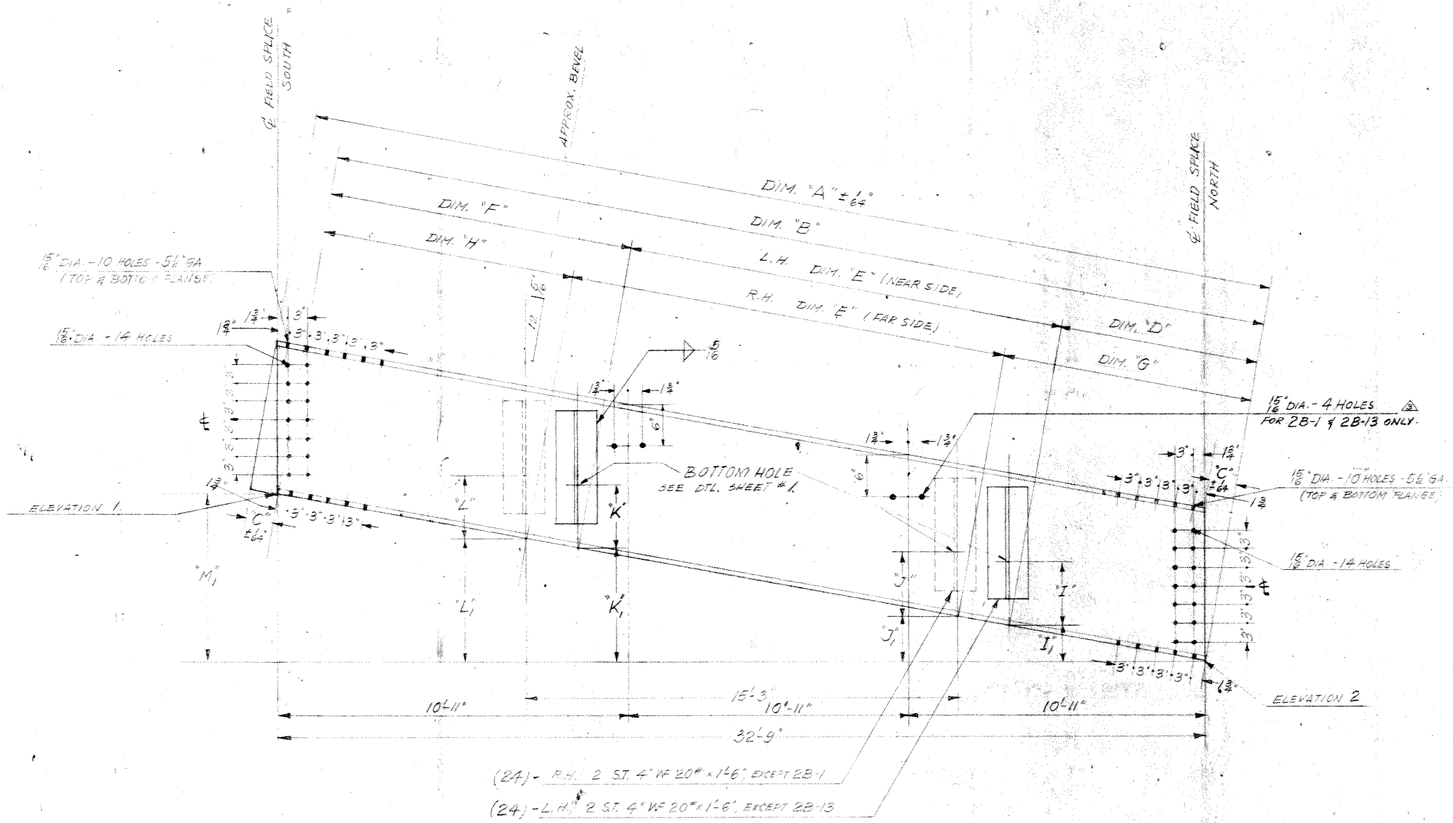
PRINT RECORD		CUST. P.O. #	ORDER NO.	SHEET NO.	
~~OFFICE~~	1	814	S-303-1A	1	STRUCT. STEEL
~~CHECK 7-11-58~~	2				
~~CHECK~~	3				
~~OFFICE 7-22-58~~	4				
~~APPR. 7-23-58~~	5				
~~OFFICE 7-25-58~~	6				
~~APPR. 7-25-58~~	5				
~~CHKD 7-28-58~~	4				
~~OFFICE 7-29-58~~	7				
~~CHKD 7-29-58~~	1				
~~OFFICE 8-4-58~~	1				
~~OFFICE 8-21-58~~	1				
OFFICE 9-9-58	1				

A. F. WAGNER IRON WORKS
MILWAUKEE, WIS.

JOB C. & N.W. RY. CO. BRIDGE No 438
LOCATION HOWELL AVE., MILWAUKEE, WIS.
ARCHITECT OFF. OF ENGR. OF BRIDGES
INSPECTION BY COMM. REP. DEPT. OF PUB. WKS.
ERECTION BY WORK TO BE INSPECTED BEFORE SHOP PAINTING
IMPORTANT
SHOP PAINT ONE COAT OF RED-LEAD PAINT
FIELD PAINT BY OTHERS
RIVETS 7/8" ⌀ x 3" OPEN HOLES 15/16" ⌀ UNLESS NOTED
SEE OUR SH. NO.
SEE ARCH. SH. NO.
MATL. BILL NO.

DRAWN BY	CHECKED BY	BILLED BY	TRACED BY
F.E.W. 7-14-58	J.F. 7-14-58		

NO. 17594—9000—5-17-49



NOTE I: EAST ELEVATION R.H. (FAR SIDE & L.H. (NEAR SIDE) LOOKING SOUTH.

NOTE II: KEEP TOLERANCE FOR DIM. "A" & "C".

MARK	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"		"I1"	"J1"	"K1"	"L1"	"M1"	EL. 1	EL. 2
2B-1	32'-9 7/32"	32'-9"	7/32"	7'-5 1/16"	15'-3"	10'-0 15/16"	—	—	11 1/2"	—	11 1/2"	—		13/16"	—	2 9/16"	—	3 23/32"	67.9922	67.6697
2B-2	32'-9 9/32"	32'-9"	9/32"	8'-1 1/16"	15'-3"	9'-4 5/16"	8'-1 11/16"	9'-4 5/16"	11 1/16"	11 9/16"	11 1/8"	11 9/16"		15/16"	15/16"	2 11/16"	2 11/16"	3 3/4"	67.977	67.6605
2B-3	32'-9 1/4"	32'-9"	1/4"	8'-1 11/16"	15'-3"	9'-4 5/16"	8'-9"	8'-9"	10 11/16"	8 1/2"	10 13/16"	8 1/2"		15/16"	1"	2 3/4"	2 13/16"	3 27/32"	68.1941	67.8735
2B-4	32'-9 1/4"	32'-9"	1/4"	8'-1 11/16"	15'-3"	9'-4 5/16"	8'-9"	8'-9"	9 15/16"	8 1/2"	10 3/16"	8 1/2"		1"	1 1/16"	2 7/8"	2 15/16"	4 1/32"	68.3807	68.0435
2B-5	32'-9 1/4"	32'-9"	1/4"	8'-1 11/16"	15'-3"	9'-4 5/16"	8'-9"	8'-9"	9 1/2"	8 1/2"	9 1/2"	8 1/2"		1"	1 1/16"	2 15/16"	3 1/8"	4 3/32"	68.516	68.1665
2B-6	32'-9 1/4"	32'-9"	1/4"	8'-1 11/16"	15'-3"	9'-4 5/16"	8'-9"	8'-9"	8 3/4"	8 1/2"	8 13/16"	8 1/2"		1 1/16"	1 1/8"	2 15/16"	3 1/16"	4 5/32"	68.5877	68.2400
2B-7	32'-9 1/4"	32'-9"	1/4"	8'-9"	15'-3"	8'-9"	8'-9"	8'-9"	8 1/2"	8 1/2"	8 1/2"	8 1/2"		1 1/8"	1 1/8"	3 3/16"	3 3/16"	4 5/16"	68.6095	68.2500
2B-8	32'-9 9/32"	32'-9"	9/32"	8'-9"	15'-3"	8'-9"	9'-4 5/16"	8'-1 11/16"	8 1/2"	8 3/4"	8 1/2"	8 3/4"		1 3/16"	1 1/4"	3 1/4"	3 5/16"	4 13/32"	68.5869	68.2208
2B-9	32'-9 9/32"	32'-9"	9/32"	8'-9"	15'-3"	8'-9"	9'-4 5/16"	8'-1 11/16"	8 1/2"	9 1/2"	8 1/2"	9 1/2"		1 3/16"	1 1/4"	3 1/4"	3 5/16"	4 7/16"	68.5038	68.1338
2B-10	32'-9 5/16"	32'-9 1/2"	9/32"	8'-9"	15'-3"	8'-9"	9'-4 5/16"	8'-1 11/16"	8 1/2"	10 1/8"	8 1/2"	10 3/16"		1 1/4"	1 3/8"	3 3/8"	3 7/16"	4 5/8"	68.3604	67.982
2B-11	32'-9 5/16"	32'-9 1/2"	9/32"	8'-9"	15'-3"	8'-9"	9'-4 5/16"	8'-1 11/16"	8 1/2"	10 13/16"	8 1/2"	10 3/4"		1 1/4"	1 3/8"	3 1/2"	3 9/16"	4 3/4"	68.1804	67.7838
2B-12	32'-9 11/32"	32'-9 1/2"	5/16"	9'-4 5/16"	15'-3"	8'-1 11/16"	9'-4 5/16"	8'-1 11/16"	11 7/16"	11 1/8"	11 5/8"	11 1/8"		1 7/16"	1 7/16"	3 11/16"	3 11/16"	4 13/16"	67.9604	67.5499
2B-13	32'-9 5/16"	32'-9 1/2"	9/32"	—	15'-3"	—	10'-0 15/16"	7'-5 1/16"	—	11 1/2"	—	11 1/2"		—	1 1/2"	—	3 3/4"	4 13/16"	67.9444	67.5433

ASSEMBLY PARTS

REQ.	ITEM	SIZE	REMARKS
48	S.T. 4" WF 20#	1'-6" LG.	CUT FROM WF 24 x 84# 40# BEAM

NOTE: FOR DETAILS SEE SHEET No. 1

1 BEAM	2B-1	(24" WF x 76# x 32'-9 3/8")
1 do	2B-2	(24" WF x 76# x 32'-9 9/32")
1 do	2B-3	(24" WF x 84# x 32'-9 1/4")
1 do	2B-4	(24" WF x 84# x 32'-9 1/4")
1 do	2B-5	(24" WF x 84# x 32'-9 1/4")
1 do	2B-6	(24" WF x 84# x 32'-9 1/4")
1 do	2B-7	(24" WF x 84# x 32'-9 1/4")
1 do	2B-8	(24" WF x 84# x 32'-9 9/32")
1 do	2B-9	(24" WF x 84# x 32'-9 9/32")
1 do	2B-10	(24" WF x 84# x 32'-9 5/16")
1 do	2B-11	(24" WF x 84# x 32'-9 5/16")
1 do	2B-12	(24" WF x 76# x 32'-9 11/32")
1 do	2B-13	(24" WF x 76# x 32'-9 5/16")

PRINT RECORD	
~~OFFICE~~	~~1~~
~~APPR. 7-11-58~~	~~2~~
~~OFFICE 7-22-58~~	~~1~~
~~APPR. 7-22-58~~	~~2~~
~~SHOP 7-28-58~~	~~4~~
~~OFFICE 7-29-58~~	~~1~~
~~SHOP 7-29-58~~	~~1~~
~~SHOP 7-31-58~~	~~2~~
~~OFFICE 8-4-58~~	~~1~~
~~OFFICE 8-21-58~~	~~1~~
OFFICE 9-4-58	1

REVISIONS

CHANGED ELEVATION. 7-22-58 △1
CHANGED ELEVATION. 7-28-58 △2
4 HOLE FOR 2B-1 & 2B-13 ADDED 7-31-58 △3

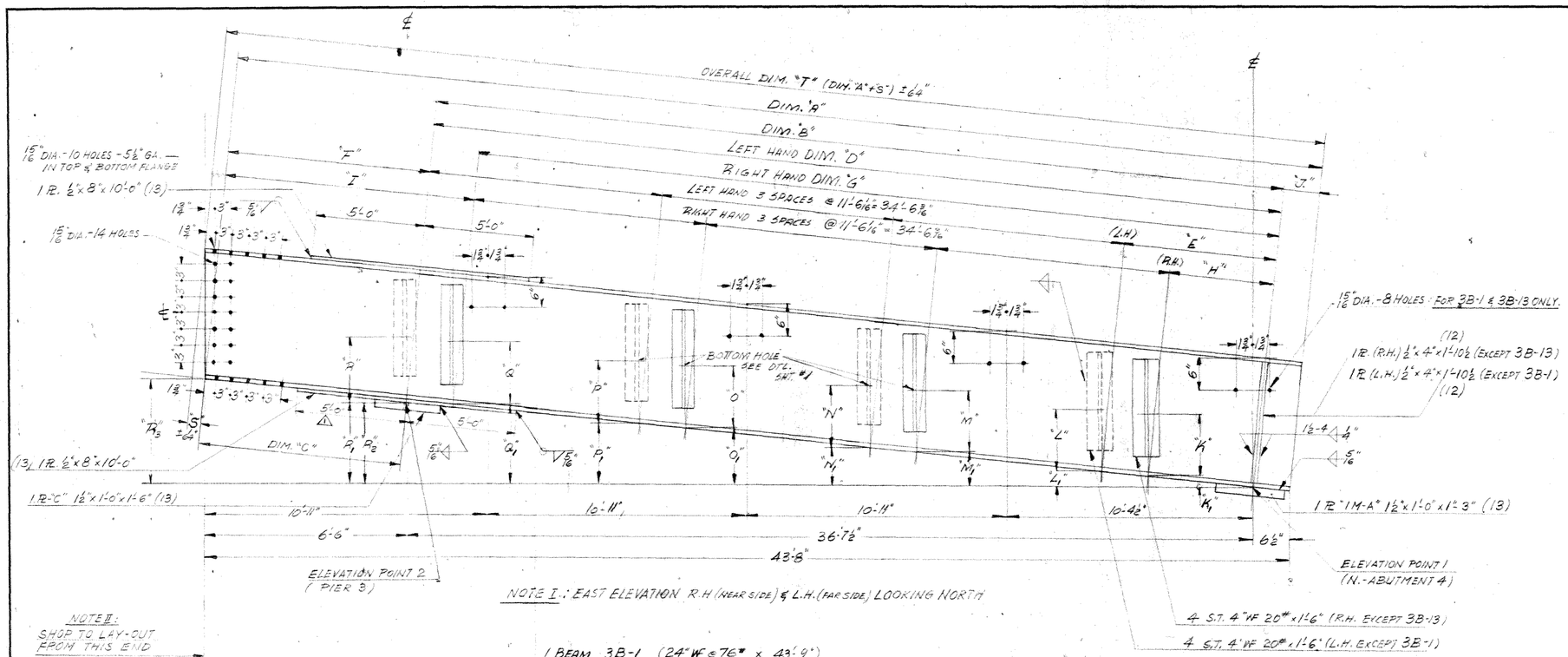
CUST. P.O. #	ORDER NO.	SHEET NO.	
814	S-303-1A	2	STRUCT STEEL

A. F. WAGNER IRON WORKS
MILWAUKEE, WIS.

JOB C. & N.W. Ry Co. BRIDGE No 438
LOCATION HOWELL AVE., MILWAUKEE, WIS.
ARCHITECT OFF. OF ENGR. OF BRIDGES
INSPECTION BY COMM. REP. DEPT. OF PUB. WKS.
ERECTION BY
WORK TO BE INSPECTED BEFORE SHOP PAINTING
IMPORTANT
SHOP PAINT ONE COAT OF RED LEAD PAINT
FIELD PAINT BY OTHERS
RIVETS 7/8" ϕ x 3" OPEN HOLES 15/16" ϕ UNLESS NOTED
SEE OUR SH. NO.
SEE ARCH. SH. NO.
MATL. BILL NO.

DRAWN BY	CHECKED BY	BILLED BY	TRACED BY
E.W. 7-14-58	J.F. 7-14-58		

NO. 1751H—5000—5-17-49



NOTE I.: EAST ELEVATION R.H. (NEAR SIDE) & L.H. (FAR SIDE) LOOKING NORTH

NOTE II: SHOP TO LAY-OUT FROM THIS END

NOTE III: KEEP TOLERANCE FOR OVERALL DIM "T" & DIM. "S"

1	BEAM	3B-1	(24" WF @ 76#	x 43'-9")
1	do	3B-2	do	x 43'-9")
1	do	3B-3	24" WF @ 84#	x 43'-9")
1	do	3B-4	do	x 43'-9")
1	do	3B-5	do	x 43'-9")
1	do	3B-6	do	x 43'-9")
1	do	3B-7	do	x 43'-9")
1	do	3B-8	do	x 43'-9")
1	do	3B-9	do	x 43'-9")
1	do	3B-10	do	x 43'-9")
1	do	3B-11	do	x 43'-9")
1	do	3B-12	24" WF @ 76#	x 43'-9")
1	do	3B-13	do	x 43'-9")

ASSEMBLY PARTS

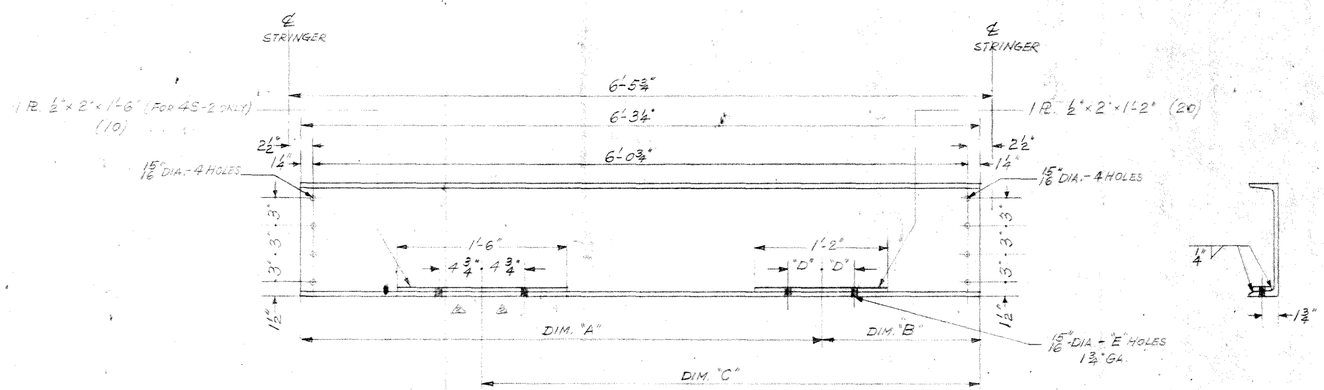
REQ.	ITEM	SIZE	REMARKS
26	COVER PLATES	1/2" x 8" x 10'-0"	
13	BEARING PLATES "1M-A"	1 1/2" x 1'-0" x 1'-3"	
13	BEARING PLATES "C"	1 1/2" x 1'-0" x 1'-6"	
24	STIFFENER PL'S	1/2" x 4" x 1'-10 1/2"	
26	JOINT PL'S	1/2" x 9" x 2'-6 1/2"	
26	-do-	7/16" x 13" x 1'-9"	
62	-do-	5/8" x 3 1/2" x 2'-6 1/2"	
96	S.T. 4" WF @ 20#	1'-6" LG.	CUT FROM WF 8"x8" @ 40#
26	PL. WASHERS (FOR BEARING PL. "C")	3" x 4" x 0'-3"	WITH 1 1/16" ø HOLE
26	STD. STEEL WASHERS (FOR ABUT. PL. 1M-A)		FOR 1" BOLT

NOTE: FOR DETAILS SEE DWG. SHEET #1.

MARK	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	K₁	L₁	M₁	N₁	O₁	P₁	Q₁	R₁	R₂ (℄ BEARING)	R₃	EL. #1	EL. #2
3B-1	43'-8 3/16"	36'-7 1/16"	6'-6"	—	—	—	35'-3 1/16"	9 9/16"	7'-9 15/16"	6 1/2"	11 1/2"	—	11 1/2"	—	11 1/2"	—	11 1/2"	—	5/8"	43'-8 13/16"	1/4"	—	3 13/16"	—	7 5/16"	—	10 7/8"	—	11 9/32"	1'-1 9/32"	66.5629	67.5021
3B-2	43'-8 3/16"	36'-7 1/16"	6'-6"	36'-0 3/8"	1'-6 3/16"	7'-1 5/16"	36'-0 3/8"	1'-6 3/16"	7'-1 5/16"	6 1/2"	11 1/16"	11 5/8"	11 1/16"	11 5/8"	11 1/16"	11 1/2"	11 3/16"	11 3/8"	5/8"	43'-8 13/16"	1/2"	1/2"	4 1/16"	4 1/16"	7 11/16"	7 11/16"	11 5/16"	11 5/16"	11 1/2"	1'-1 7/32"	66.5329	67.4921
3B-3	43'-8 3/16"	36'-7 1/16"	6'-6"	36'-7 1/16"	2'-1 1/2"	6'-6"	36'-0 3/8"	1'-6 3/16"	7'-1 5/16"	6 1/2"	10 11/16"	8 1/2"	10 11/16"	8 1/2"	10 13/16"	8 1/2"	10 13/16"	8 1/2"	5/8"	43'-8 13/16"	1/2"	11/16"	4 1/8"	4 5/16"	7 3/4"	8"	11 7/16"	11 5/8"	11 5/8"	1'-1 11/16"	66.7329	67.7021
3B-4	43'-8 3/16"	36'-7 1/16"	6'-6"	36'-7 1/16"	2'-1 1/2"	6'-6"	36'-0 3/8"	1'-6 3/16"	7'-1 5/16"	6 1/2"	10 1/16"	8 1/2"	10 1/16"	8 1/2"	10 1/16"	8 1/2"	10 1/16"	8 1/2"	5/8"	43'-8 13/16"	1/2"	11/16"	4 1/8"	4 5/16"	7 3/4"	8"	11 7/16"	11 5/8"	11 5/8"	1'-1 11/16"	66.9029	67.8721
3B-5	43'-8 3/16"	36'-7 1/16"	6'-6"	36'-7 1/16"	2'-1 1/2"	6'-6"	36'-0 3/8"	1'-6 3/16"	7'-1 5/16"	6 1/2"	8 1/2"	8 1/2"	9 3/8"	8 1/2"	8 1/2"	8 1/2"	9 1/2"	8 1/2"	5/8"	43'-8 13/16"	1/2"	11/16"	4 3/16"	4 3/8"	7 7/8"	8 1/16"	11 9/16"	11 3/4"	11 3/4"	1'-1 27/32"	67.070	67.9921
3B-6	43'-8 3/16"	36'-7 1/16"	6'-6"	36'-7 1/16"	2'-1 1/2"	6'-6"	36'-0 3/8"	1'-6 3/16"	7'-1 5/16"	6 1/2"	8 3/4"	8 1/2"	8 3/4"	8 1/2"	8 3/4"	8 1/2"	8 3/4"	8 1/2"	5/8"	43'-8 13/16"	1/2"	11/16"	4 7/16"	4 7/16"	8"	8 1/4"	11 13/16"	1'-0"	1'-0"	1'-2 1/8"	67.2029	68.0621
3B-7	43'-8 3/16"	36'-7 1/16"	6'-6"	36'-7 1/16"	2'-1 1/2"	6'-6"	36'-0 3/8"	2'-1 1/2"	6'-6"	6 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	5/8"	43'-8 13/16"	11/16"	11/16"	4 7/16"	4 7/16"	8 1/4"	8 1/4"	1'-0"	1'-0"	1'-0"	1'-2 1/8"	67.9729	68.0721
3B-8	43'-8 3/16"	36'-7 1/16"	6'-6"	37'-3"	2'-8 13/16"	5'-10 11/16"	36'-7 1/16"	2'-1 1/2"	6'-6"	6 1/2"	8 1/2"	8 7/8"	8 1/2"	8 3/4"	8 1/2"	8 3/4"	8 1/2"	8 3/4"	11/16"	43'-8 7/8"	11/16"	15/16"	4 9/16"	4 3/4"	8 3/8"	8 9/16"	1'-0 1/8"	1'-0 5/16"	1'-0 7/32"	1'-2 3/8"	67.0829	68.0421
3B-9	43'-8 3/16"	36'-7 1/16"	6'-6"	37'-3"	2'-8 13/16"	5'-10 11/16"	36'-7 1/16"	2'-1 1/2"	6'-6"	6 1/2"	8 1/2"	9 1/2"	8 1/2"	9 1/2"	8 1/2"	9 3/8"	8 1/2"	9 3/8"	11/16"	43'-8 7/8"	11/16"	15/16"	4 1/2"	4 13/16"	8 7/16"	8 11/16"	1'-0 1/4"	1'-0 7/16"	1'-0 11/32"	1'-2 17/32"	66.9329	67.9521
3B-10	43'-8 3/16"	36'-7 1/16"	6'-6"	37'-3"	2'-8 13/16"	5'-10 11/16"	36'-7 1/16"	2'-1 1/2"	6'-6"	6 1/2"	8 1/2"	10 3/16"	8 1/2"	10 3/16"	8 1/2"	10 1/8"	8 1/2"	10 1/16"	11/16"	43'-8 7/8"	11/16"	15/16"	4 9/16"	4 3/4"	8 1/2"	8 11/16"	1'-0 3/8"	1'-0 5/8"	1'-0 3/8"	1'-2 9/16"	66.7629	67.799
3B-11	43'-8 3/16"	36'-7 1/16"	6'-6"	37'-3"	2'-8 13/16"	5'-10 11/16"	36'-7 11/16"	2'-1 1/2"	6'-6"	6 1/2"	8 1/2"	10 13/16"	8 1/2"	10 3/4"	8 1/2"	10 3/4"	8 1/2"	10 3/4"	11/16"	43'-8 7/8"	11/16"	15/16"	4 5/8"	4 13/16"	8 9/16"	8 11/16"	1'-0 1/2"	1'-0 11/16"	1'-0 1/2"	1'-2 11/16"	66.556	67.6021
3B-12	43'-8 1/4"	36'-7 1/16"	6'-6"	37'-3"	2'-8 13/16"	5'-10 11/16"	37'-3"	2'-8 13/16"	5'-10 11/16"	6 1/2"	11 1/2"	11 3/16"	11 1/2"	11 1/8"	11 1/2"	11 1/8"	11 5/8"	11 1/8"	11/16"	43'-8 15/16"	15/16"	15/16"	4 7/8"	4 7/8"	8 7/8"	8 7/8"	1'-0 13/16"	1'-0 13/16"	1'-0 19/32"	1'-2 27/32"	66.3129	67.3621
3B-12	43'-8 1/4"	36'-7 1/16"	6'-6"	37'-11 5/16"	3'-5 7/16"	5'-2 1/16"	—	—	—	6 1/2"	—	11 1/2"	—	11 1/2"	—	11 1/2"	—	11 1/2"	11/16"	43'-8 15/16"	—	1 3/16"	—	5 1/4"	—	9 1/4"	—	1'-1 3/16"	1'-0 3/4"	1'-3"	66.2829	67.3521

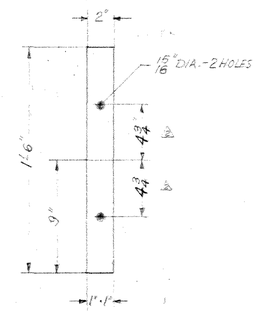
PRINT RECORD		CUST. P.O. NO.	ORDER NO.	SHEET NO.	
~~OFFICE~~	1	814	S-303-14	3	STRUCT. STEEL
~~OFFICE 7-11-58~~	2				
~~OFFICE 7-22-58~~	1	**A. F. WAGNER IRON WORKS** MILWAUKEE, WIS.			
~~SHOP 7-23-58~~	3				
~~SHOP 7-25-58~~	4	JOB C. & N.W. RY. CO. BRIDGE No 438			
~~OFFICE 7-28-58~~	1				
~~SHOP 7-29-58~~	1	LOCATION HOWELL AVE., MILWAUKEE, WIS.			
~~OFFICE 8-14-58~~	1	ARCHITECT OFF. OF ENGR. OF BRIDGES			
~~OFFICE 8-21-58~~	1	INSPECTION BY COMM. REP. DEPT. OF PUB. WKS.			
OFFICE 9-1-58	1	ERECTION BY			
		WORK TO BE INSPECTED BEFORE SHOP PAINTING			
		IMPORTANT			
REVISIONS		SHOP PAINT ONE COAT OF RED LEAD PAINT			
ADDED ℄ & ℄ 7-22-58	1	FIELD PAINT BY OTHERS			
CHANGED ELEVATIONS 7-22-58	2	RIVETS 7/8" ø x 3"	OPEN HOLES 15/16" ø	UNLESS NOTED	
CHANGED ELEVATION 7-28-58	3	SEE OUR SH. NO.			
		SEE ARCH. SH. NO.			
		MATL. BILL NO.			
		DRAWN BY	CHECKED BY	BILLED BY	TRACED BY
		EW. 7-14-58	VF. 7-18-58		

NO. 17511—5000—5-12-49

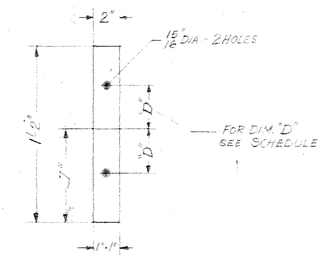


10 STRUTS 4S-1
10 do 4S-2

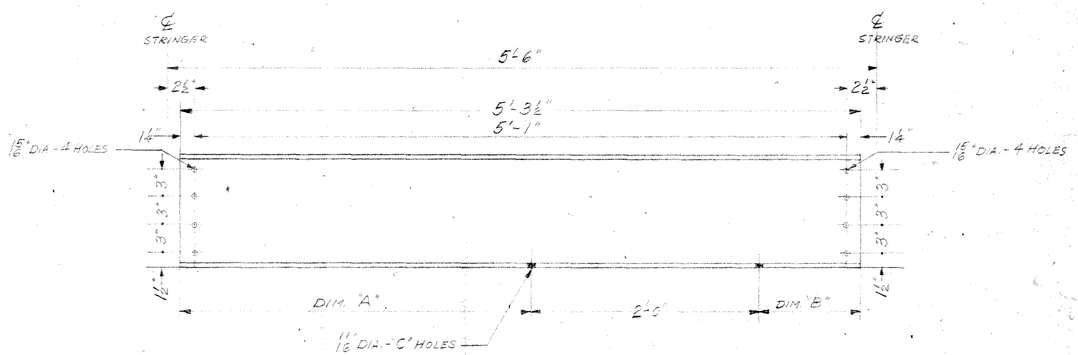
MARK	"A"	"B"	"C"	"D"	"E" HOLES	
4S-1	1'-4¾"	4'-10½"	—	3 15/16"	2	△
4S-2	4'-10½"	1'-4¾"	4'-4¾"	2 3/16"	4	△



10 REINFORCING BAR ½"×2"×1'-6"



20 REINFORCING BARS ½"×2"×1'-2"



80 STRUTS 4S-3
10 do 4S-4
10 do 4S-5

MARK	"A"	"B"	"C"
4S-3	—	—	NO HOLES IN BOTT. FLANGE
△ 4S-4	2'-4¾"	10¾"	2
4S-5	10¾"	2'-4¾"	2

△

NOTE: ALL STRUTS - AM. ST. CHANNEL 12"×3" @ 25#

PRINT RECORD		CUST. P.O. #	ORDER NO.	SHEET NO.	
~~LAYD 7-21-58~~	2	814	S-303-1A	4	STRUCT. STEEL
~~SHOP 7-21-58~~	3				
~~OFFICE 7-21-58~~	1				
~~" 7-22-58~~	1				
~~APPR. 7-23-58~~	9				
~~OFFICE 7-25-58~~	5				
~~OFFICE 7-14-59~~	1				
~~OFFICE 8-21-68~~	1				
OFFICE 9-4-68	1				

A. F. WAGNER IRON WORKS
MILWAUKEE, WIS.

JOB C. & N.W. Ry. Co. BRIDGE No 433
LOCATION HOWELL AVE, MILWAUKEE, WIS.
ARCHITECT OFF. OF ENGR. OF BRIDGES
INSPECTION BY COMM. REP. DEP. OF PUB. WKS.
ERECTION BY
WORK TO BE INSPECTED BEFORE SHOP PAINTING
IMPORTANT
SHOP PAINT ONE COAT OF RED LEAD PAINT
FIELD PAINT BY OTHERS
RIVETS 7/8" ϕ × 3" OPEN HOLES 15/16" ϕ UNLESS NOTED
SEE OUR SH. NO.
SEE ARCH. SH. NO.
MATL. BILL NO.

REVISIONS
DIM. 20-440 AND 5-25-67 △
DIM. 4¾ WAS 4½ & 3 3/16 - 3 1/16 △
△ 3 1/16 - 1 7/16 △
℄ STRINGER ADDED

DRAWN BY	CHECKED BY	BILLED BY	TRACED BY
EW. 7-14-21	LF 7/24-58		