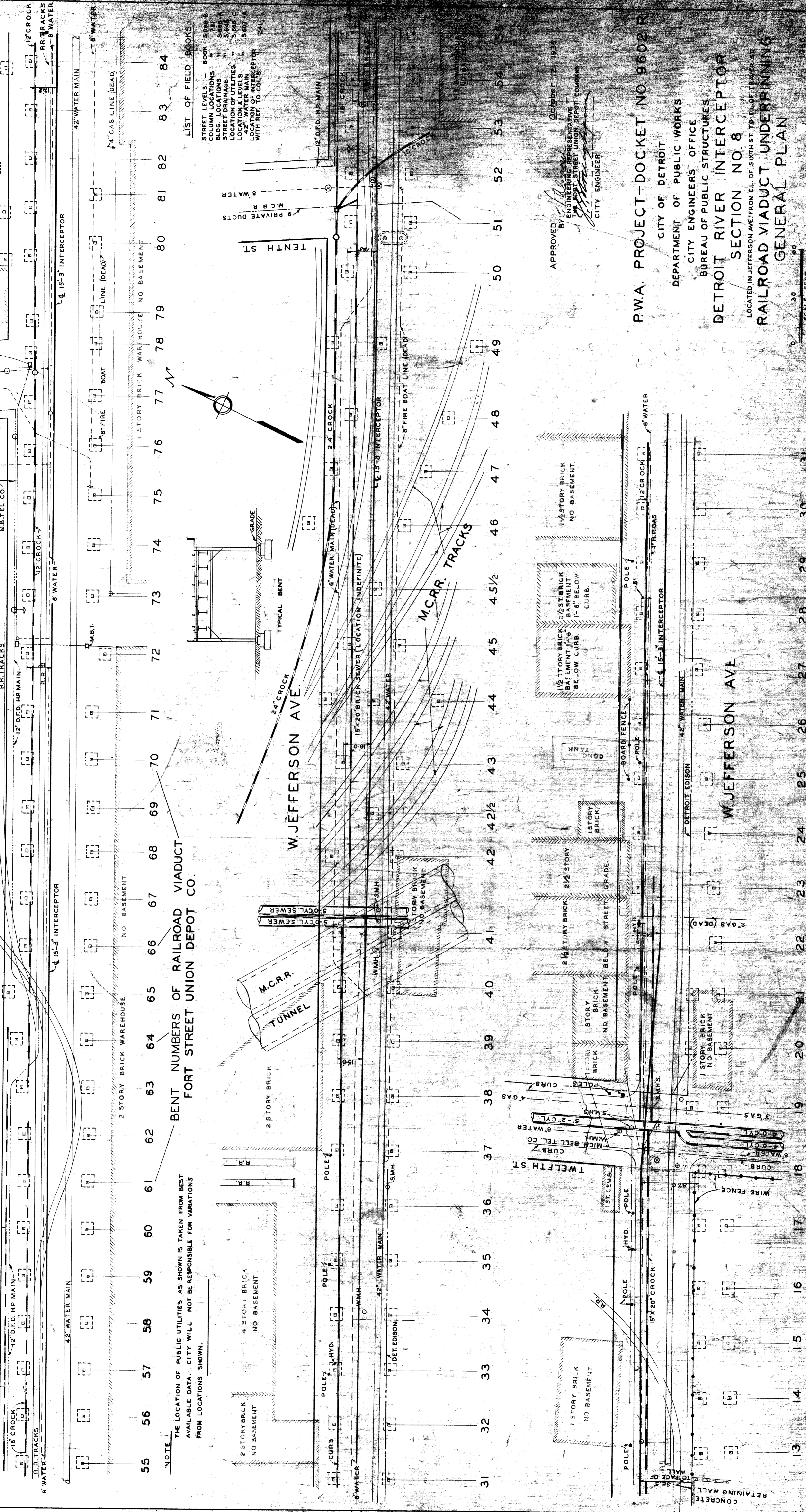


W. JEFFERSON AVE.

W. JEFFERSON AVE.

W. JEFFERSON AVE.



**BENT NUMBERS OF RAILROAD VIADUCT
FORT STREET UNION DEPOT CO.**

NOTE
THE LOCATION OF PUBLIC UTILITIES AS SHOWN IS TAKEN FROM BEST AVAILABLE DATA. CITY WILL NOT BE RESPONSIBLE FOR VARIATIONS FROM LOCATIONS SHOWN.

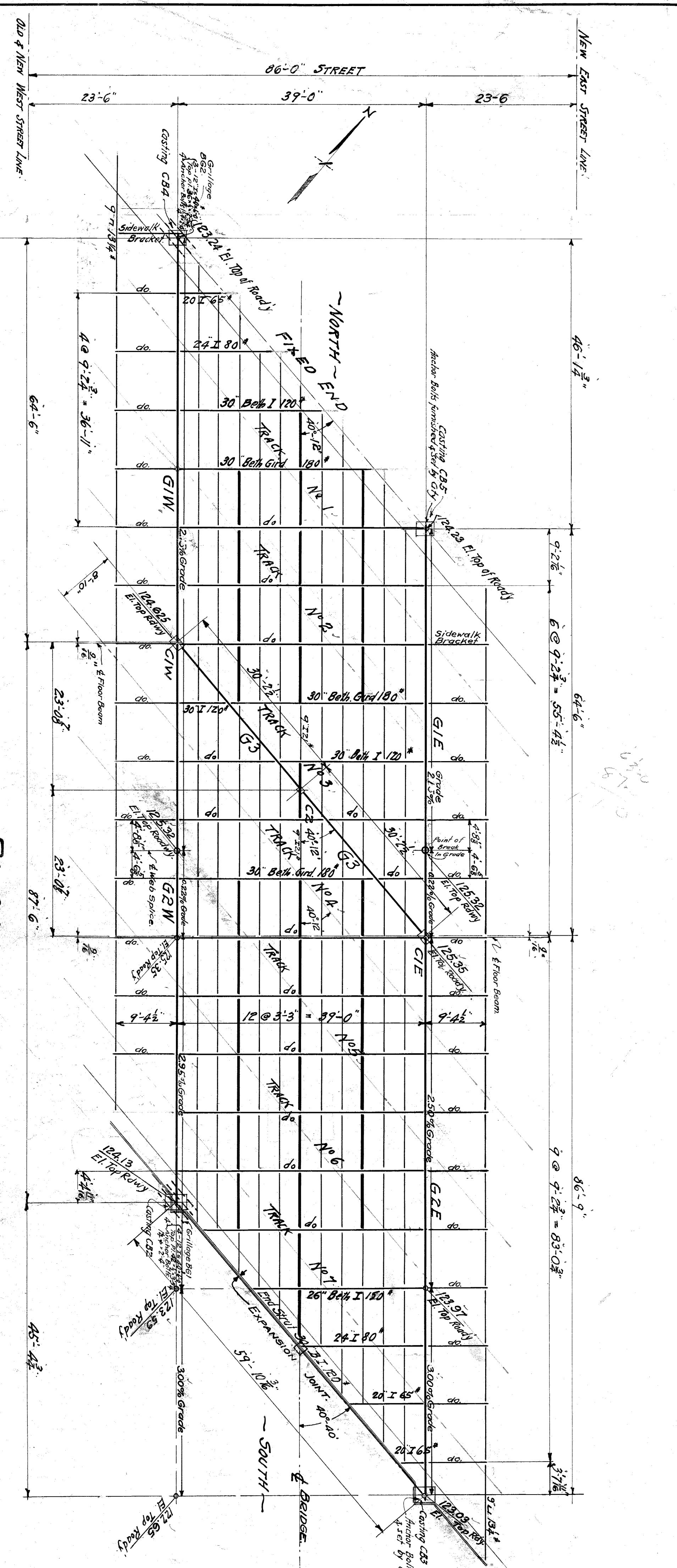
LIST OF FIELD BOOKS

STREET LEVELS	BOOK - S 886-B
COLUMN LOCATIONS	781
BLDG. LOCATIONS	S 886-A
STREET DRAINAGE	S 885
LOCATION OF UTILITIES	S 885-C
42\"/>	

APPROVED: *[Signature]* October 12, 1936
BY: *[Signature]*
CITY ENGINEER

P.W.A. PROJECT-DOCKET NO. 9602 R
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS' OFFICE
BUREAU OF PUBLIC STRUCTURES
DETROIT RIVER INTERCEPTOR
SECTION NO. 8
LOCATED IN JEFFERSON AVE. FROM E.L. OF SIXTH ST. TO E.L. OF TRAVER ST.
RAILROAD VIADUCT UNDERPINNING
GENERAL PLAN

SCALE - FEET
0 30 60
DRAWN BY: E.S.M.
CHECKED BY: W.C.R.
SHEET NO. 1 OF 30 SHEETS
1936
FILE NO. DRI-9-2
E45
E70



PLAN
Scale: 1/2" = 1'-0"

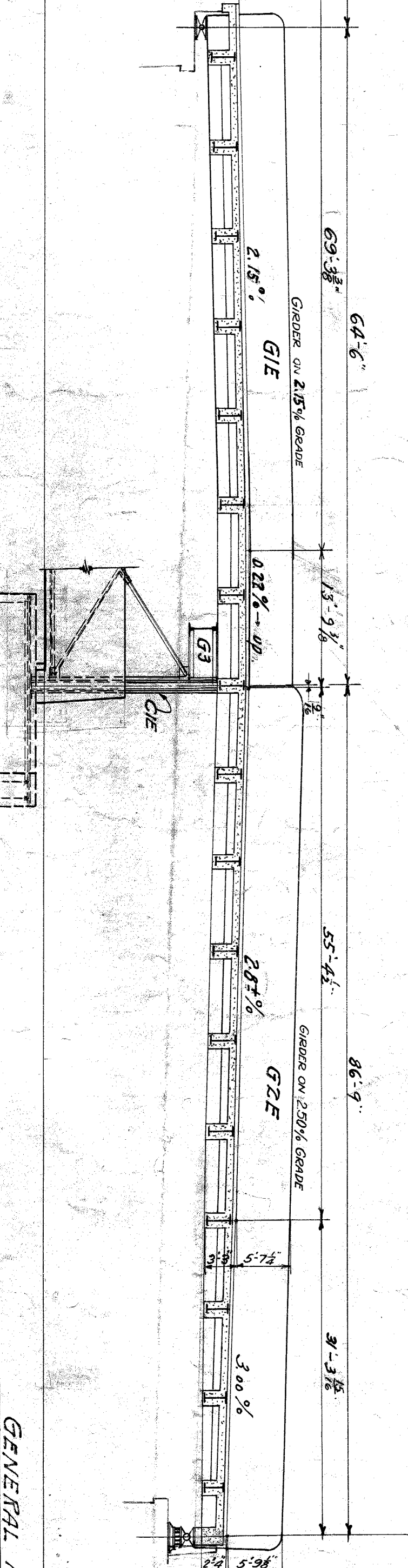
GIRDER SCHEDULE

MARK	SPAN	END SHEAR MOM.	MAX. DEPTH	EFF. MATERIAL IN EACH RANGE	COVER PL.	LENGTH	WEIR R.	GRAND AREA	NET AREA
G1E	64'-6"	376,000	14,500	7.22'	2-8-8-3/4"	18'-0"	37'-7 1/2"	45,550	37,600
G1W	64'-6"	433,000	14,500	8.13'	2-8-8-3/4"	18'-0"	102'-1 1/2"	83,880	73,660
G2E	30'-2 1/2"	84,000	7,100	2.82'	2-6-4-3/8"	1-10'-0"	36'-3/8"	20,620	16,640
G2W	31'-6"	44,000	7,100	4.5'	2-6-4-3/8"	1-10'-0"	20'-0"	126,500	111,300
G3	27'-0"	47,000	5,500	4.45'	2-6-4-3/8"	1-10'-0"	25'-4 1/2"	85,680	74,480

COLUMN SCHEDULE

MARK	MAX. HEIGHT	MAX. AREA	LOADING BY MAX. DEFLECTION	SECTION	SKETCH	AREA
C1	15'-3"	200,000	470,000	34,000	712,000	2-15" x 17" I 30 2-12" x 14" I 20 4-5" x 5 1/2" L 5
C2	15'-3"	770,000				4-5" x 5 1/2" L 5 1-12" x 14" I 20 1-14" I 20

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

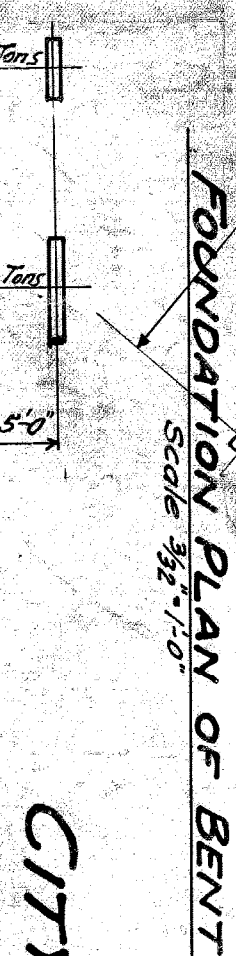


GENERAL NOTES

As per Michigan State Highway Department specifications for Highway Bridges, 1920 Edition, except Foundations and Gradients.

Four lines of 18 Ton Trucks on roadway. The diagrams were assumed to distribute the load over the spans on either side of the foundation in question. An impact allowance of 15% was added to the moment and shear on the foundations. No impact, however, was added on the girders for a roadway loaded with four lines of trucks.

Stringers and Slab: 18 Ton Truck - 25% impact. Side walk - 100 lbs. No impact. Columns - Four lines of trucks on roadway and 100 lbs on sidewalks. Impact: 25% on roadway only. Foundations under Beak: Same as for Column except no impact.



FOUNDATION PLAN OF BENT
Scale: 1/2" = 1'-0"

ELEVATION OF BENT
Scale: 1/2" = 1'-0"

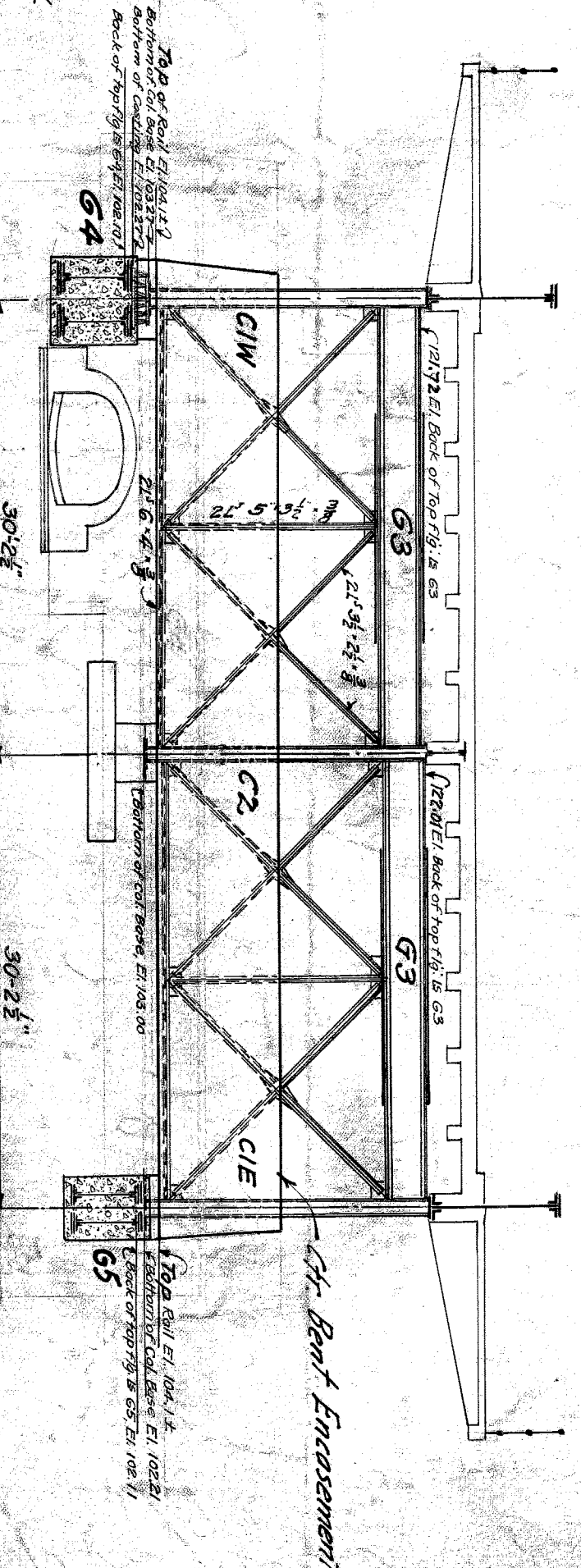
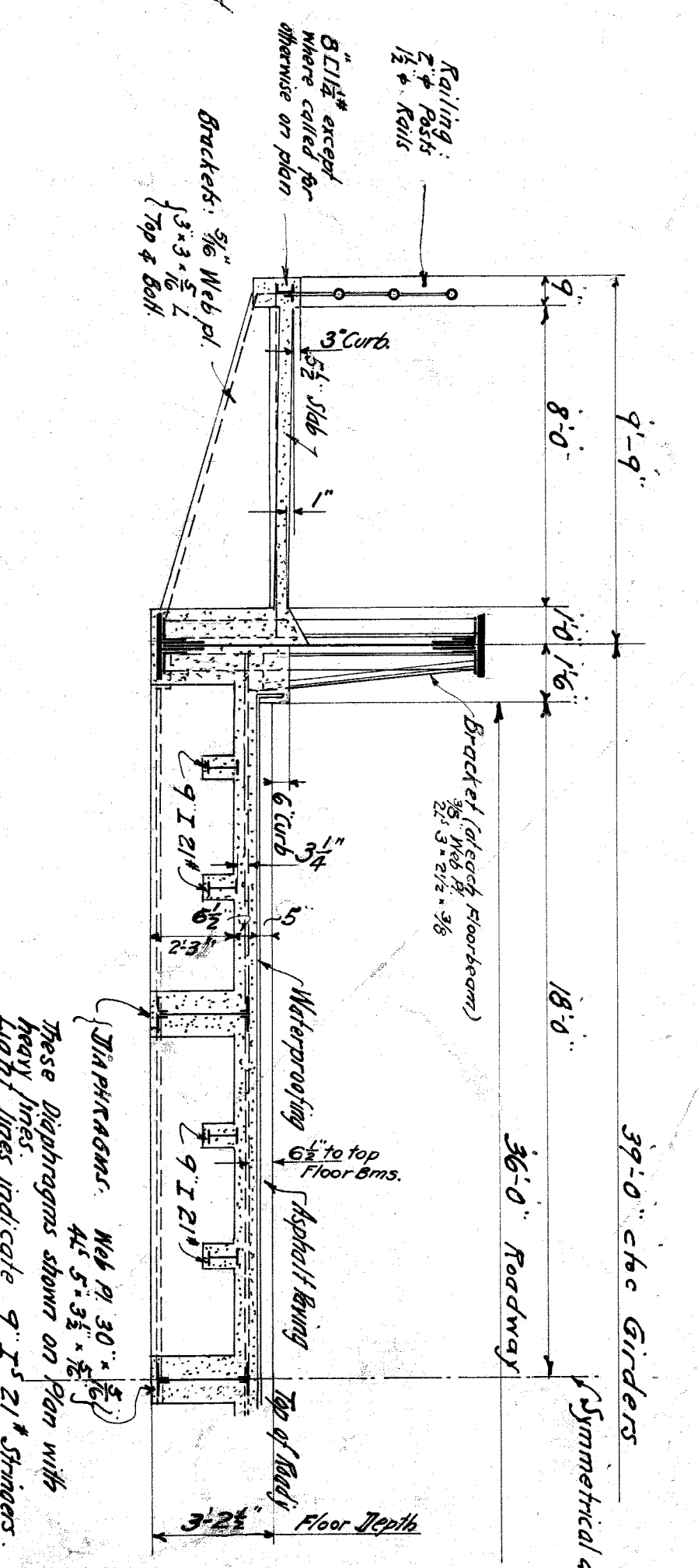


TABLE OF OVERHEAD TRACK CLEARANCES

TRACK NO.	ELEVATION BENT GIRDERS		ELEVATION TOP OF RAIL		CLEARANCE
	WEST	EAST	WEST	EAST	
1	120.97	121.08	104.64	104.37	14.53 (6.53)
2	124.79	121.49	104.24	104.17	16.55 (6.32)
3	121.23	121.94	104.12	103.94	17.11 (7.17)
4	121.66	121.76	104.22	104.04	17.44 (7.44)
5	122.06	121.28	104.21	104.00	17.85 (7.85)
6	121.55	121.93	104.20	104.04	17.35 (7.31)
7	121.06	120.81	104.15	104.01	16.91 (6.95)

NOTE: Figures in parentheses () show clearance under existing trusses.

HALF CROSS-SECTION, DECK
Scale: 1/2" = 1'-0"



CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS

OFFICE OF CITY ENGINEER

DIVISION OF GRADE SEPARATION & BRIDGES

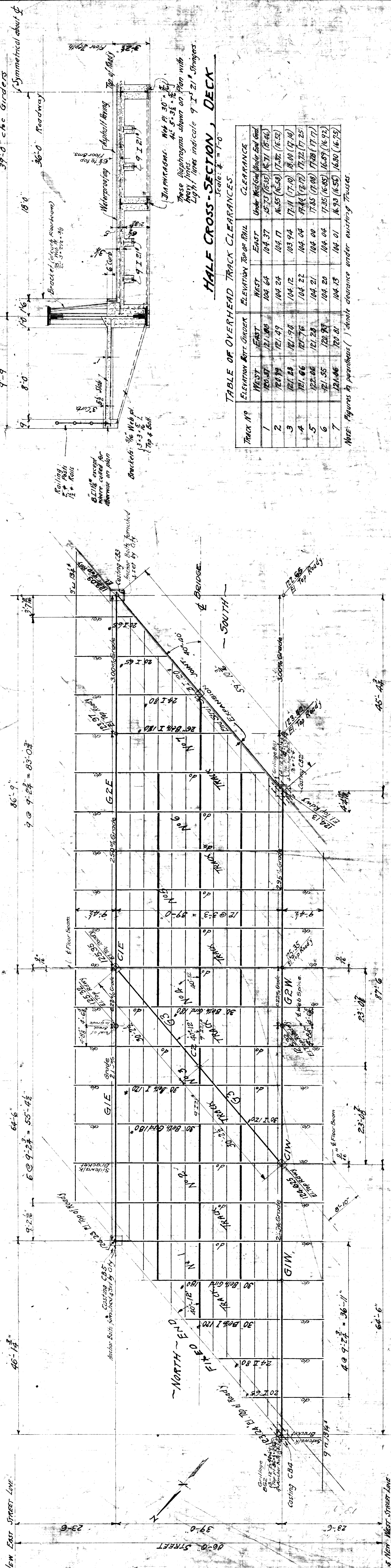
TWELFTH STREET BRIDGE

OVER M.C.R.R. MAIN LINE

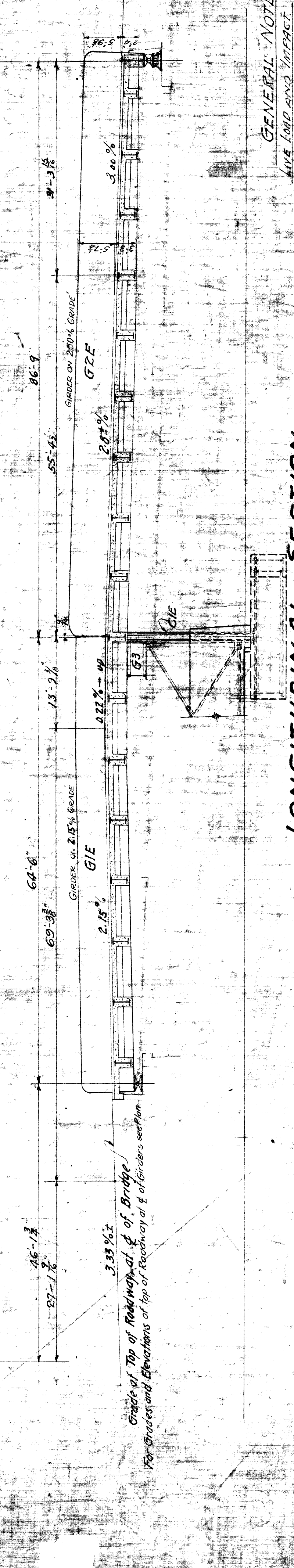
GENERAL PLAN - SUPERSTRUCTURE

March 1922

File: X.O. 60-1



PLAN
Scale: 1/4" = 1'-0"



LONGITUDINAL SECTION
Scale: 1/4" = 1'-0"

GIRDER SCHEDULE

MARK	SPAN	END SHEAR	MAX MOM	EFF DEPTH	EFF WIDTH	EFF ANGLE	COVER PLATE	WEB PLATE	NET AREA	RTT BE
G1E	36'-6"	370,000	4,500,000	7'22"	18" x 1/2"	2-8 x 6-3/8"	18" x 3/8"	87 x 7/16"	45.55"	37.60"
G1W	36'-6"	433,000	5,040,000	8'13"	18" x 3/8"	2-8 x 6-3/8"	18" x 3/8"	87 x 7/16"	48.88"	37.60"
G2E	30'-2 1/2"	84,000	716,000	2'82"	1-10 x 5/8"	2-6 x 4-3/8"	10 x 3/8"	36 x 5/8"	20.62"	16.64"
G2W	30'-2 1/2"	44,000	3,700,000	2'15"	1-10 x 5/8"	2-6 x 4-3/8"	10 x 3/8"	36 x 5/8"	20.62"	16.64"
G3	30'-2 1/2"	44,000	3,700,000	2'15"	1-10 x 5/8"	2-6 x 4-3/8"	10 x 3/8"	36 x 5/8"	20.62"	16.64"
G4	41'-0"	44,000	3,700,000	2'15"	1-10 x 5/8"	2-6 x 4-3/8"	10 x 3/8"	36 x 5/8"	20.62"	16.64"
G5	27'-0"	44,000	3,700,000	2'15"	1-10 x 5/8"	2-6 x 4-3/8"	10 x 3/8"	36 x 5/8"	20.62"	16.64"

COLUMN SCHEDULE

MARK	MAX. MOMENT	MAX. LOAD	MAX. EXCENTRICITY	SECTION	AREA
C1	15.3	200,000	470,000	1-15" I 70" 2-12" L 50" 2-12" L 50" 4-5" x 5" PL	830.0
C2	15.3	170,000	470,000	1-12" I 70" 4-5" x 5" PL	22.00

PAINTING
As per Specifications and Notes on Design Drawings. Steel in contact with concrete shall not be painted at all.

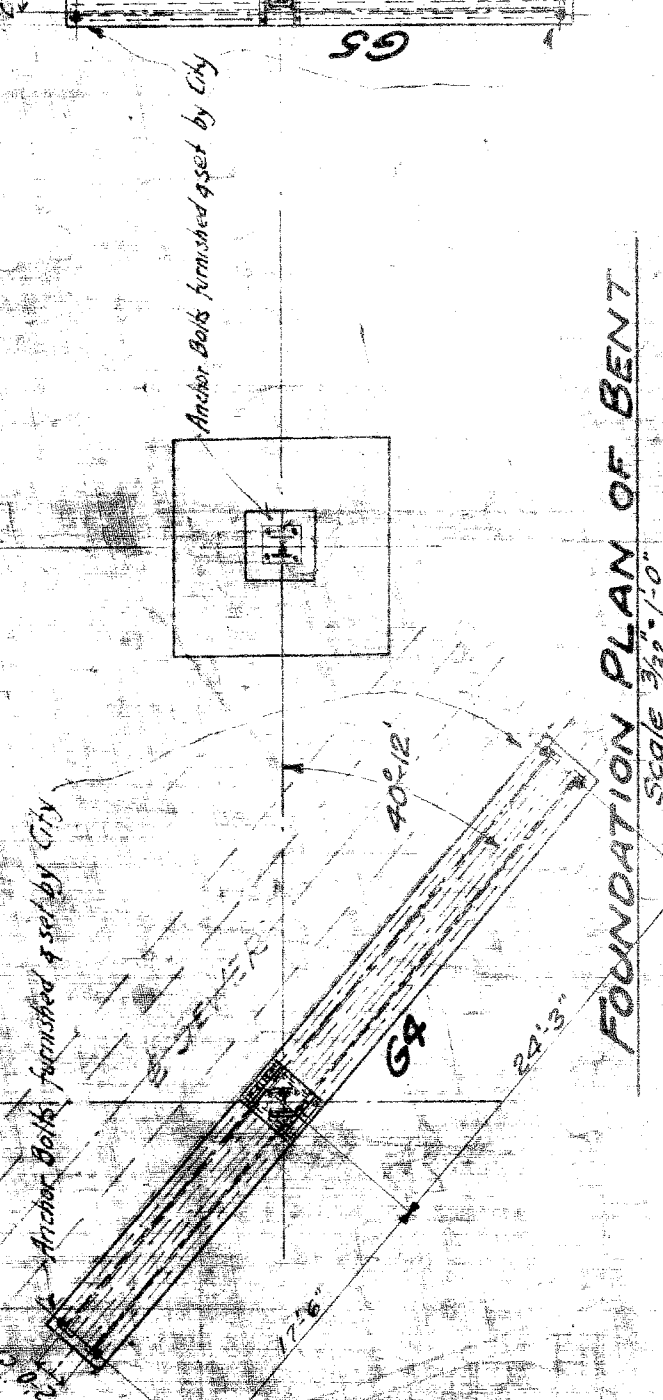
HALF CROSS-SECTION, DECK
Scale: 1/4" = 1'-0"

TABLE OF OVERHEAD TRACK CLEARANCES

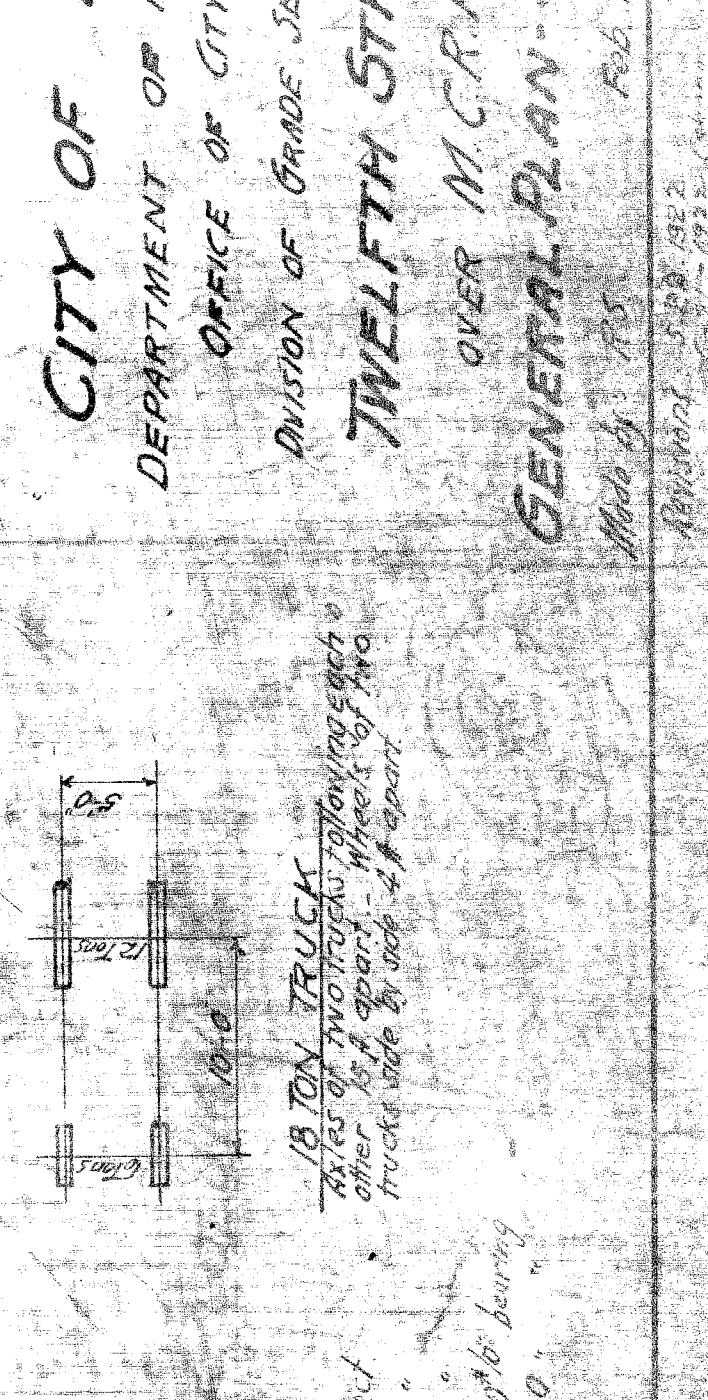
TRACK NO	ELEVATION TOP OF RAIL		CLEARANCE
	WEST	EAST	
1	120.87	104.37	15.73 (6.52) (6.71) (6.66)
2	121.89	104.24	16.55 (6.68) (7.32) (6.83)
3	121.23	104.12	17.11 (7.10) (8.00) (7.44)
4	121.66	104.04	17.64 (7.77) (8.22) (7.75)
5	122.08	104.21	17.85 (7.80) (8.20) (7.77)
6	121.55	104.00	17.55 (6.85) (6.89) (6.92)
7	121.46	104.13	16.93 (6.55) (6.50) (6.72)

NOTE: Figures in parentheses () show clearance under existing trusses.

ELEVATION OF BENT
Scale: 1/4" = 1'-0"

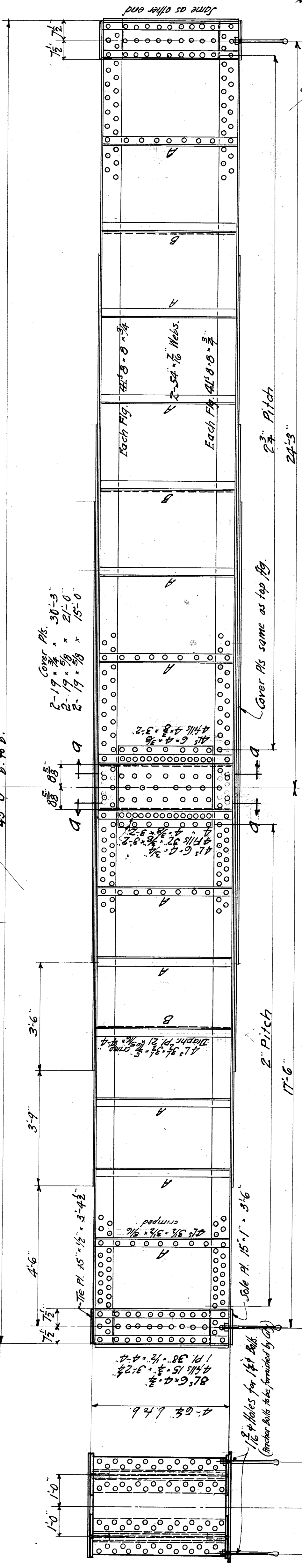
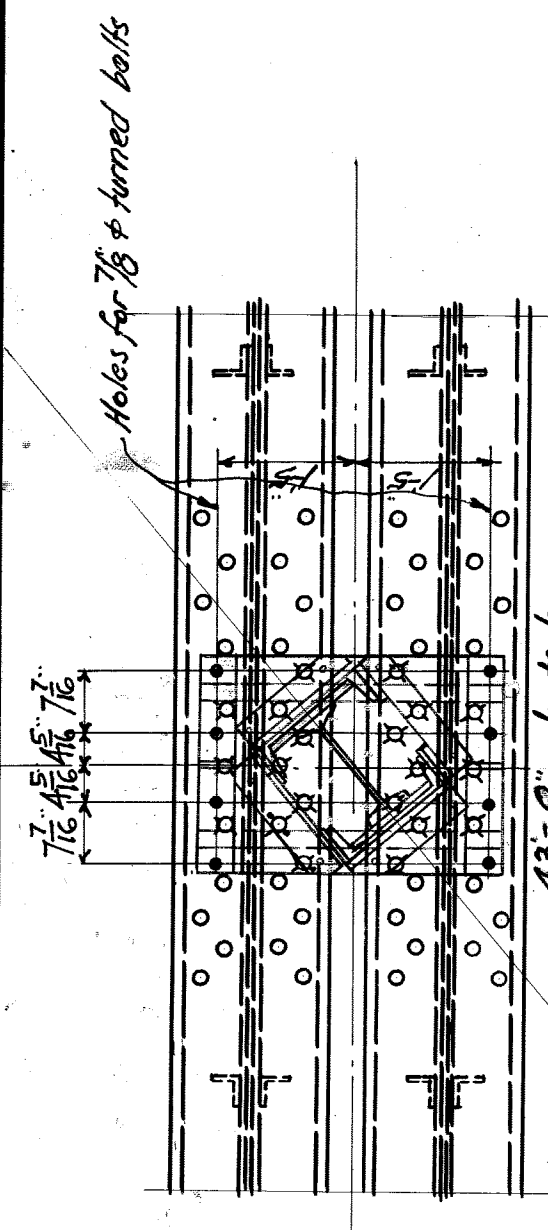


FOUNDATION PLAN OF BENT
Scale: 1/4" = 1'-0"



CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
OFFICE OF CITY ENGINEER
DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH STREET BRIDGE
OVER M.C.R.R. MAIN LINE
GENERAL PLAN - SUPERSTRUCTURE
Made by J.S. Feb. 1922

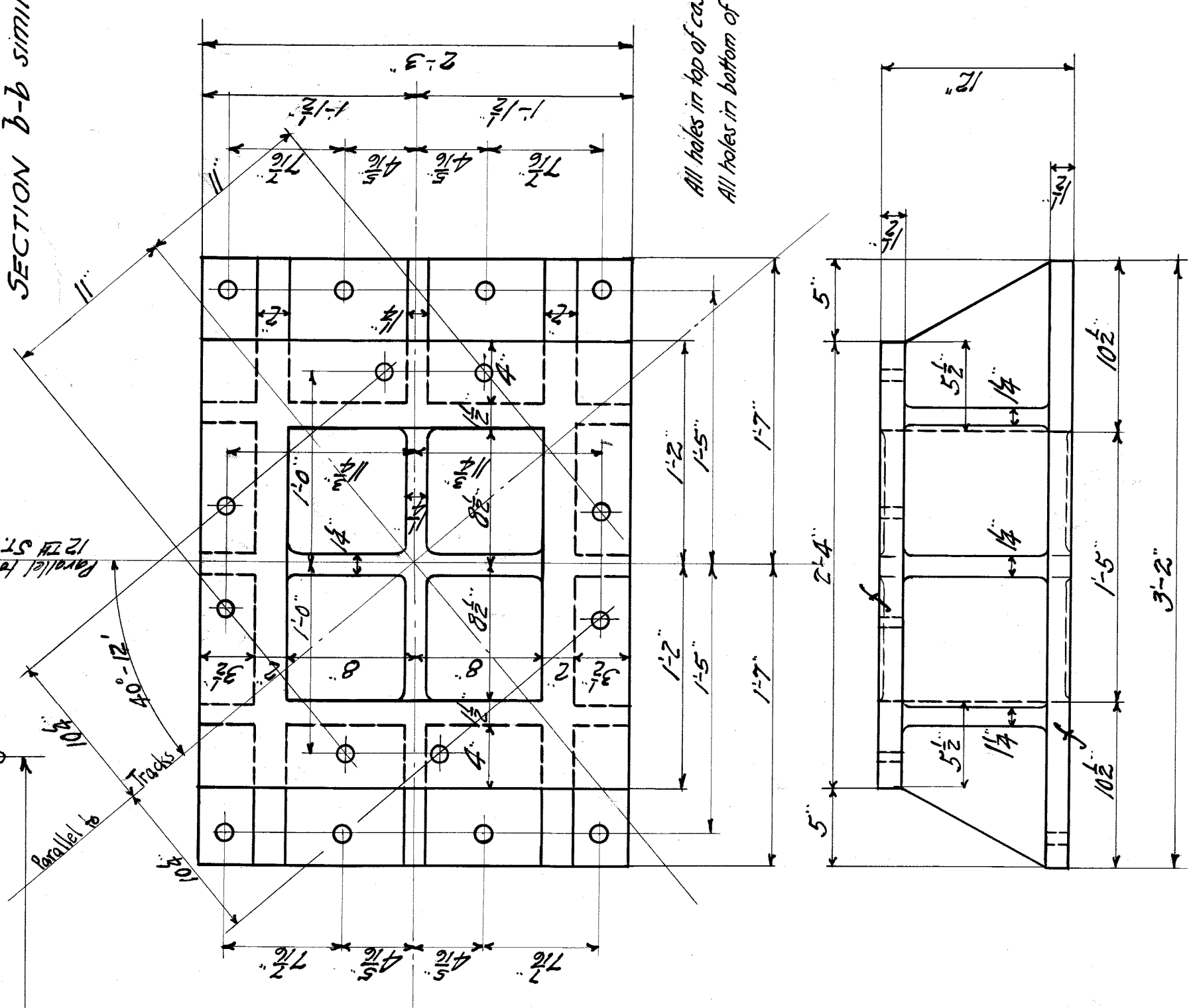
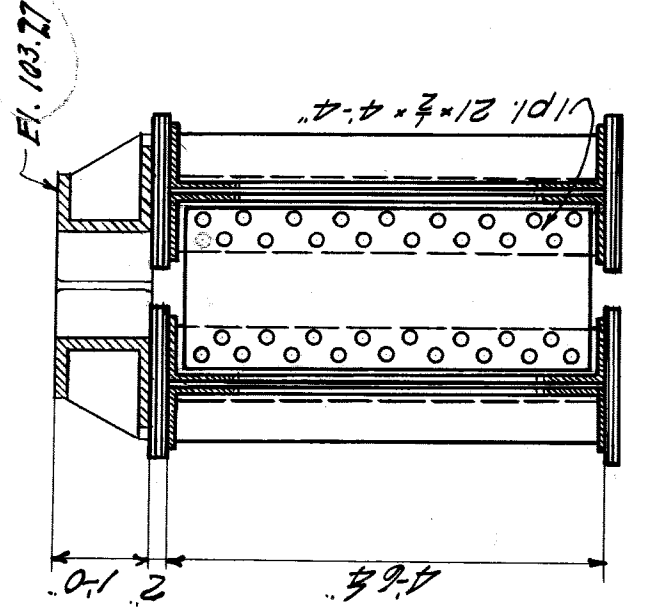
GENERAL NOTES
1. LIVE LOAD AND IMPACT: As per Michigan State Highway Department Specifications for Highway Bridges, 1920 Edition, except Floorbeams and Girders.
2. FOUR LINES OF 28 Ton Trucks on Roadway. The diagrams were assumed to distribute the four-ton loads by considering their longitudinal and transverse positions on either side of the roadway and wheel at the footboard. 1/2" impact, however, was added on the girders for a roadway loaded with four lines of trucks.
3. 18 Ton Truck - 25% impact.
4. Side-tracks, 100% impact on tracks on roadway and 100% on overheads.
5. Impact: 25% on roadway only.
6. Foundations under Bent: Same as for Column except no impact.
7. MATERIALS: WORKMANSHIP AND DESIGN: As per Specifications and Design Drawings, Steel in contact with concrete shall not be painted at all.
8. UNIT STRESSES: Tension 15,000 lbs. per sq. in. Compression 10,000 lbs. per sq. in. Shear 10,000 lbs. per sq. in. Shop Weld 20,000 lbs. per sq. in. Field Weld 15,000 lbs. per sq. in. Bearing in Flange 20,000 lbs. per sq. in.



GIRDER GA

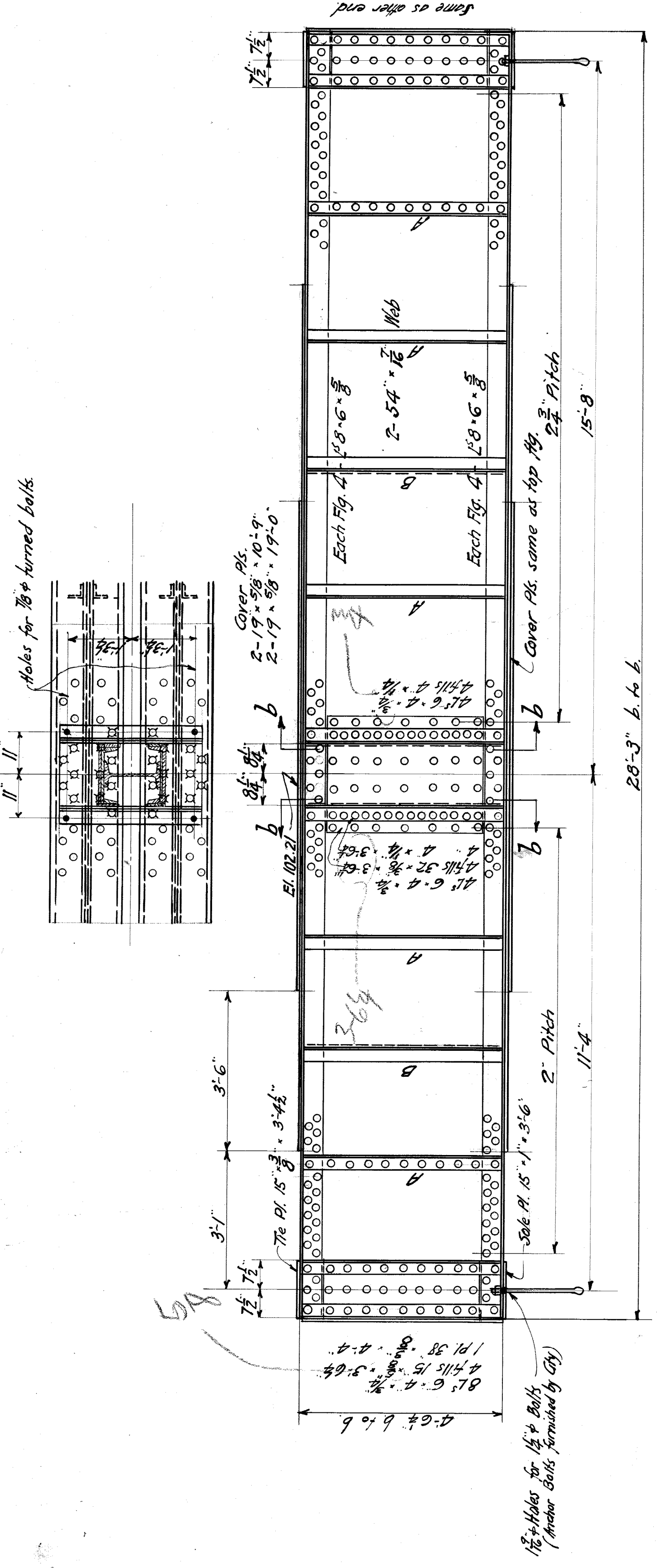
END VIEW

SECTION a-a
SECTION b-b similar



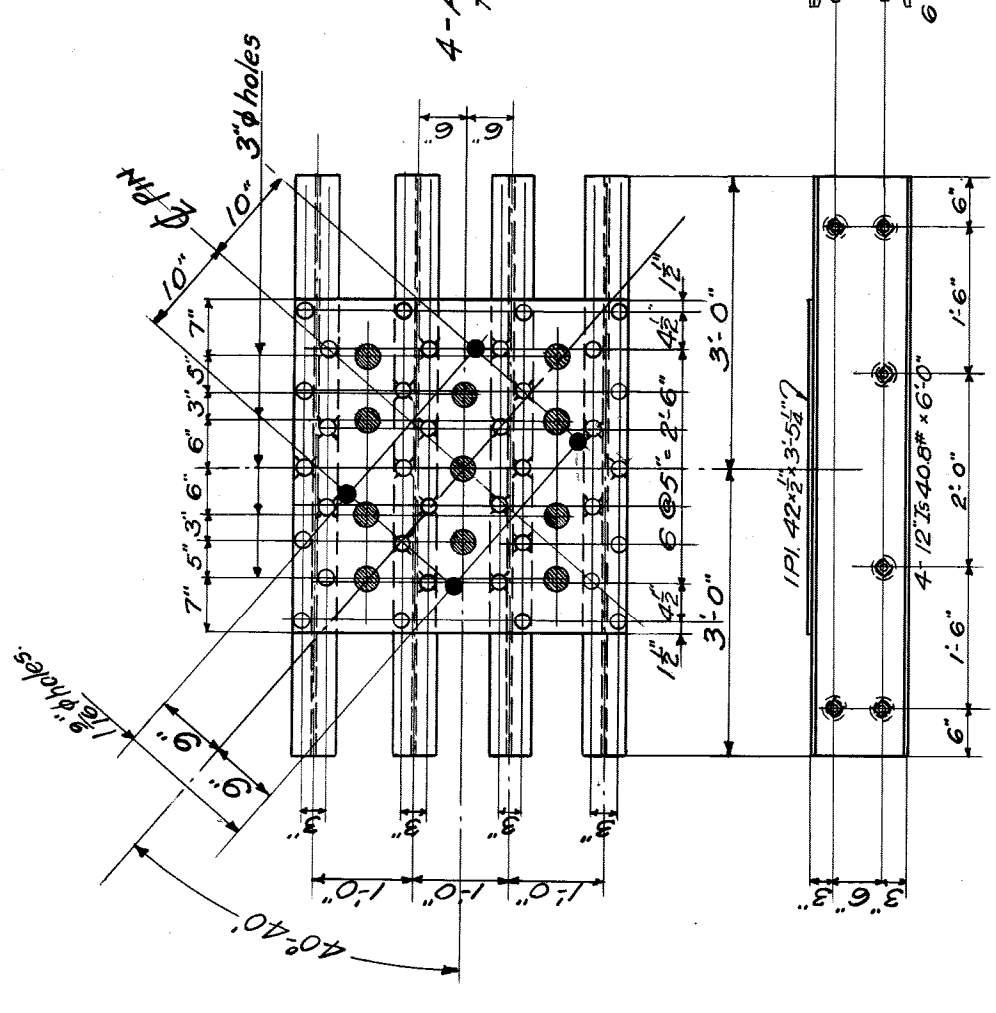
All holes in top of casting drilled for 1/2" bolts
All holes in bottom of casting drilled for 3/8" turned bolts

CAST STEEL BASE - CBI

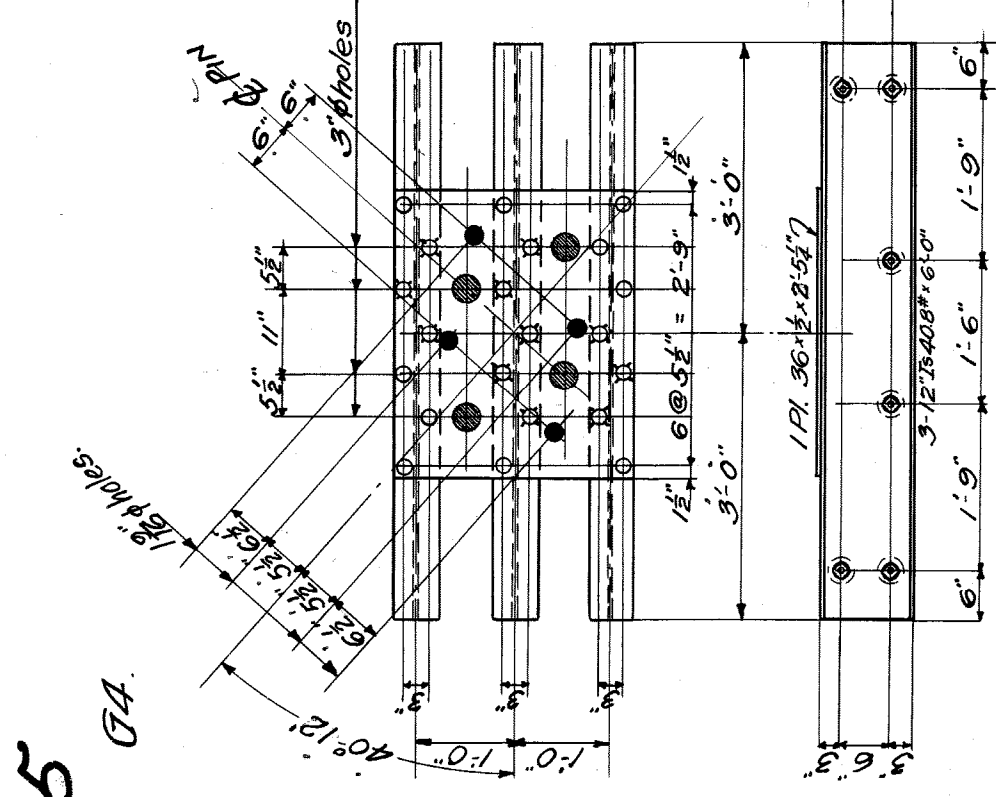


GIRDER G5

All not shown same as for G4.



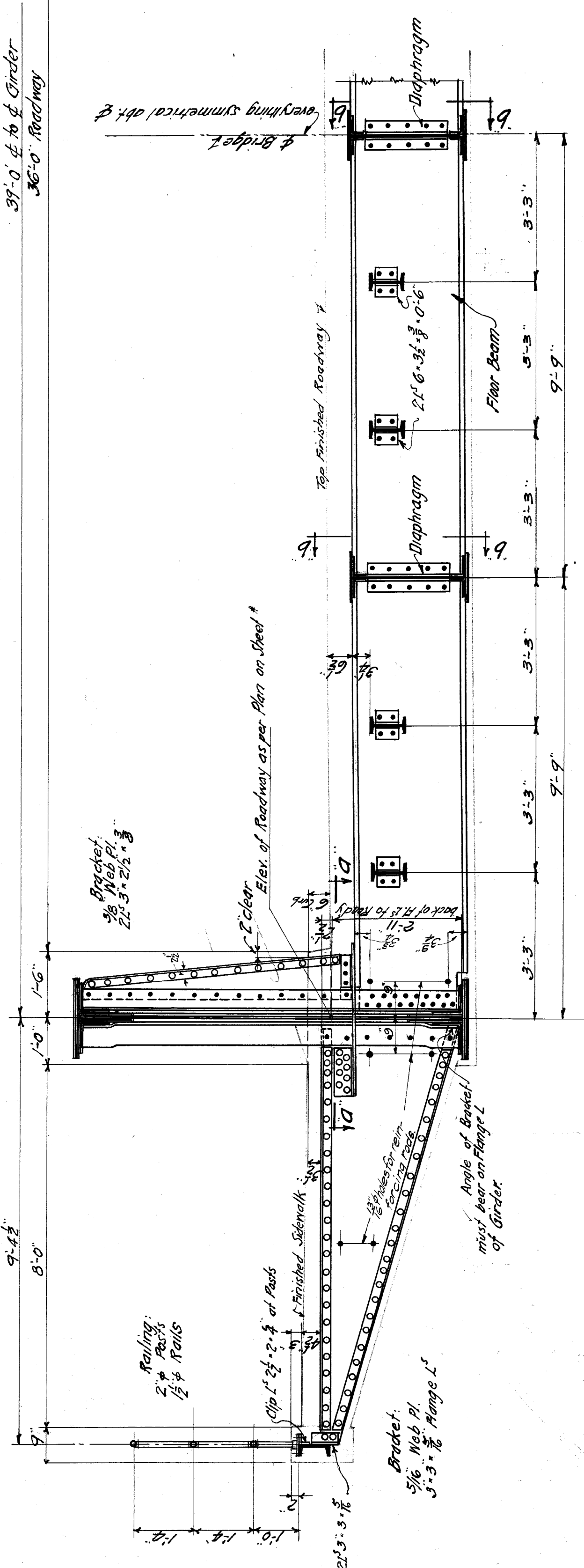
**GRILLAGE BGI
(EXPANSION END)**



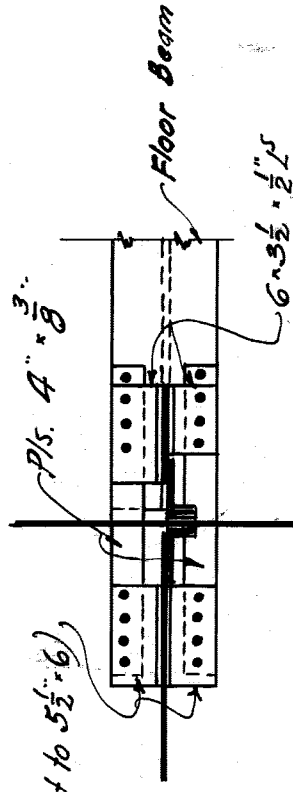
**GRILLAGE BG2
(FIXED END)**

General Notes:
All work shown on this sheet is necessary for the completion of the abutments and the foundation of the bent. It will therefore have to be fabricated immediately, and shipped to site as soon as practicable.
Rivets for G4 & G5 - 1/2" dia, holes 1/16" dia.
Rivets for BG1 & BG2 - 3/4" dia, holes 1/16" dia.
Open holes as noted.
Shop Paint - One coat red lead as per specifications before assembling on all surfaces in contact with each other. All other surfaces to remain unpainted.

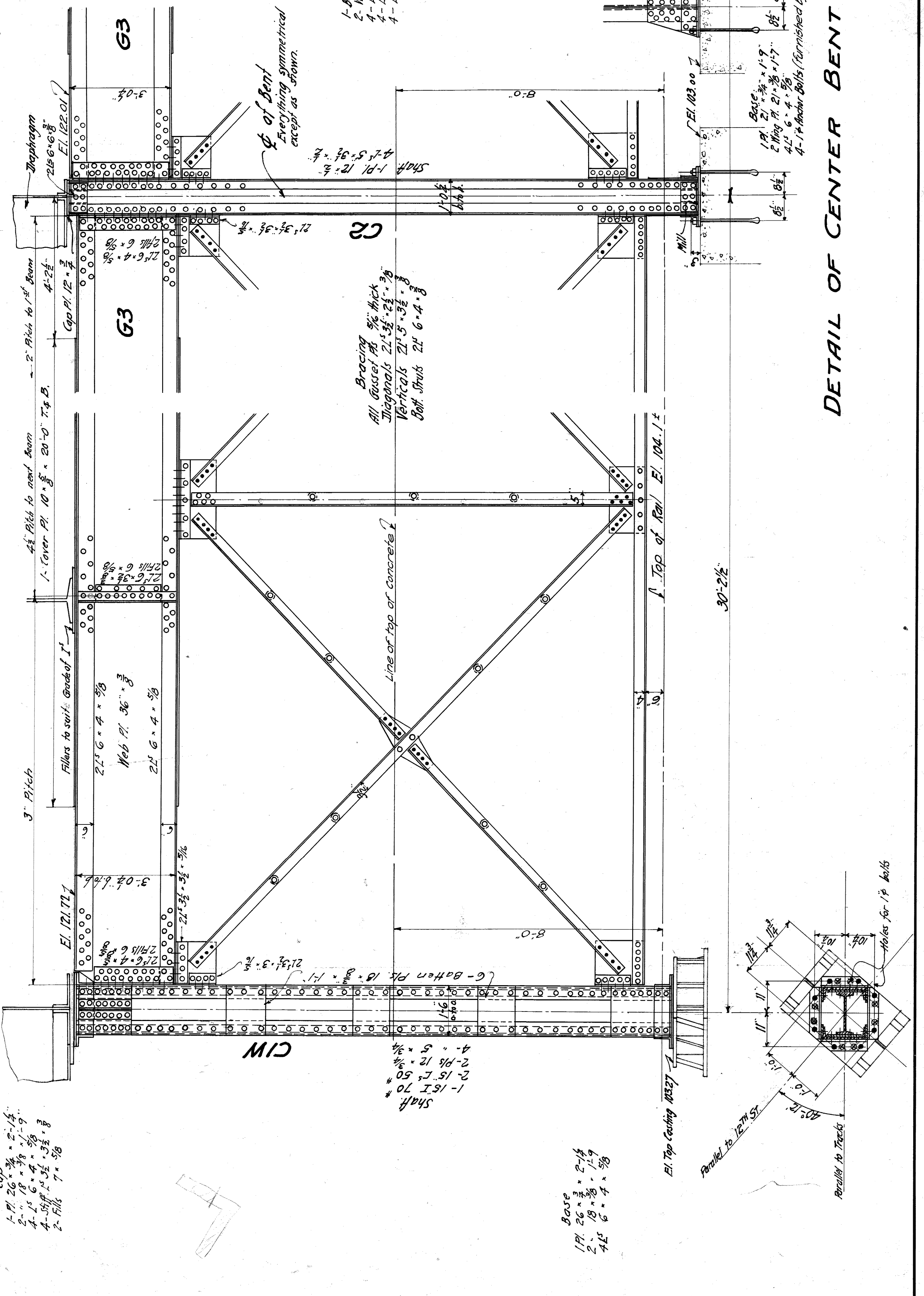
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
OFFICE OF CITY ENGINEER
DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH ST. BRIDGE
OVER M. C. MAIN LINE
STRUCTURAL STEEL DETAILS
Scale: 1/8" = 1'-0"
May 22^d 1922
Made by: F.S.



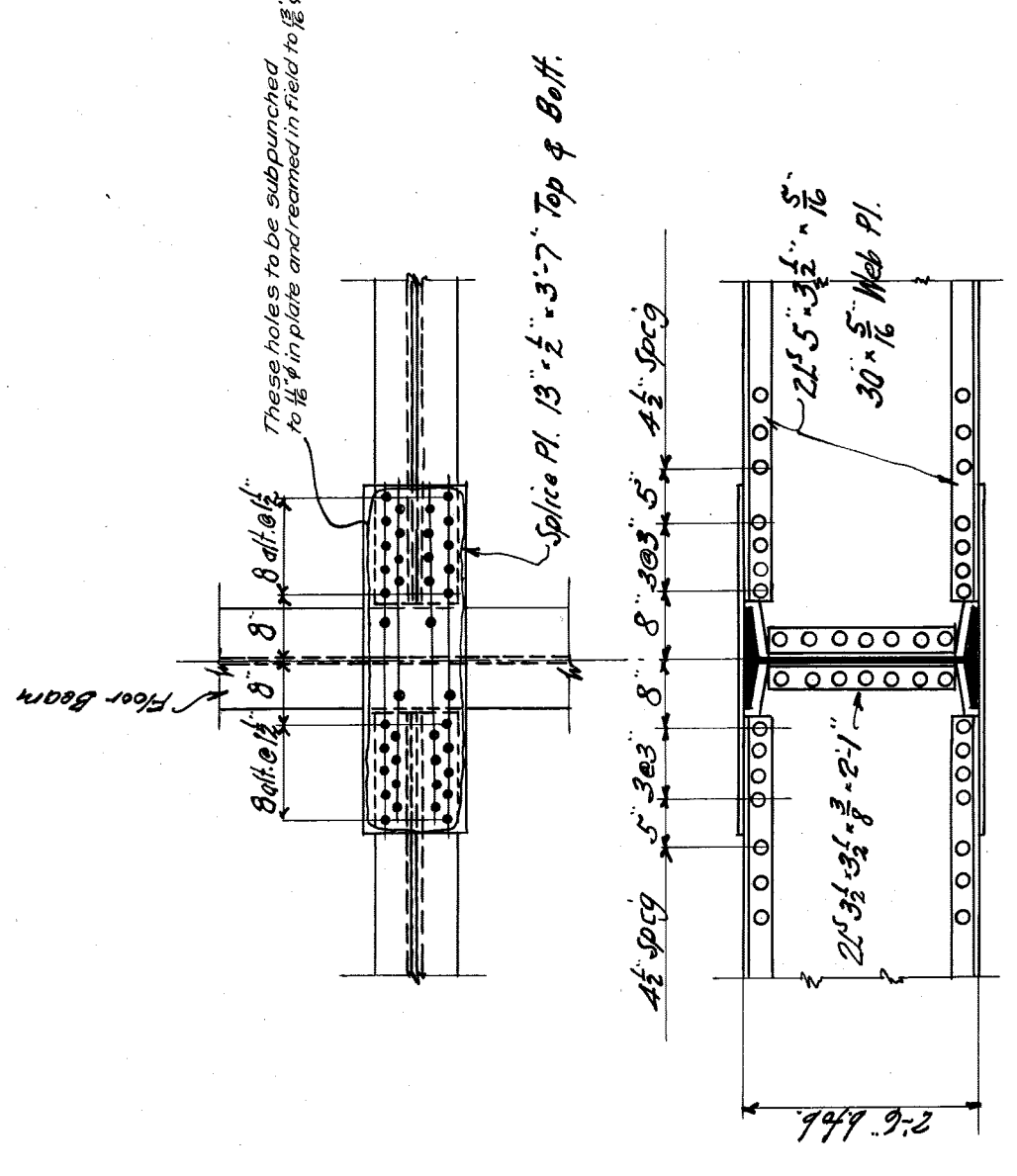
TYPICAL CROSS SECTION OF DECK.



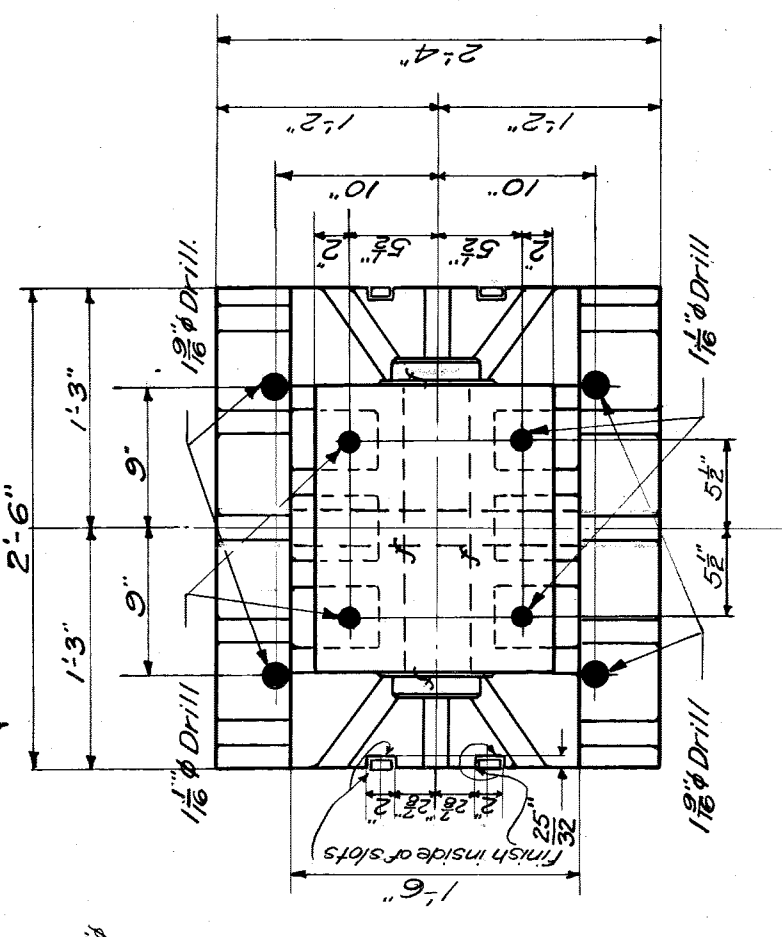
SECTION a-a



DETAIL OF CENTER BENT

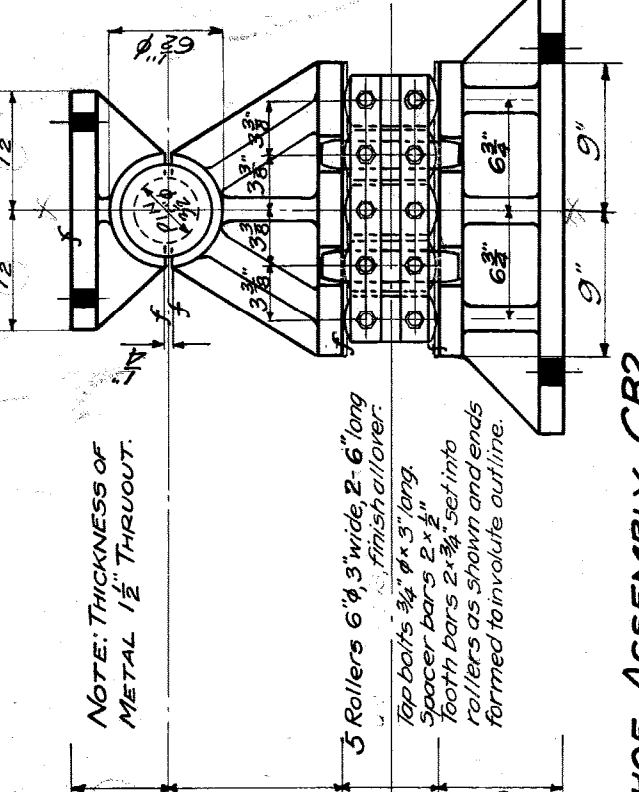


SECTION b-b



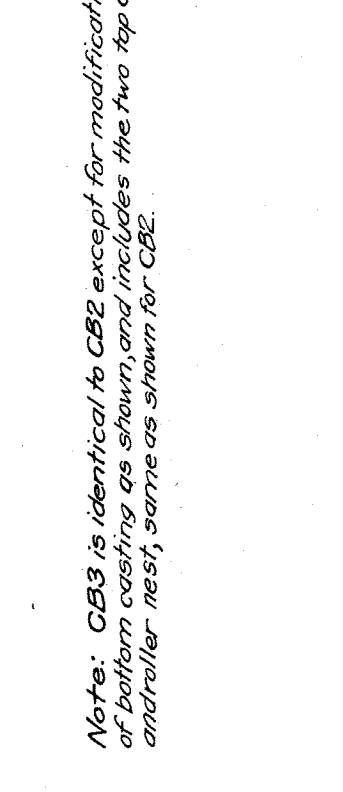
BRIDGE SHOE ASSEMBLY CB2

(To be set on beam girders G1 for South end bearing of Girder G1M)



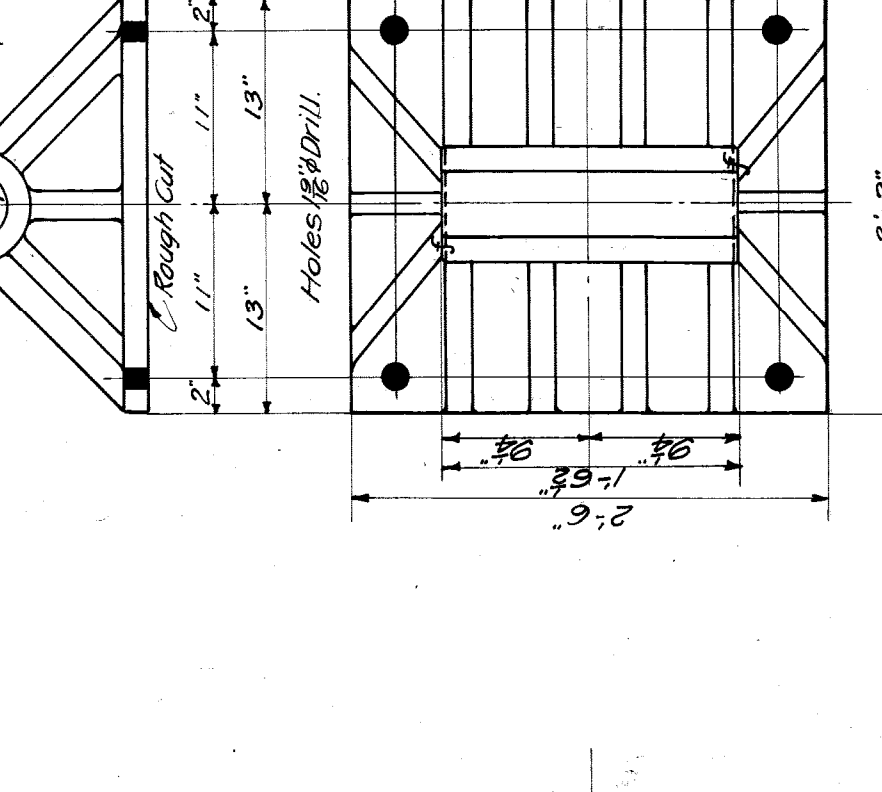
BRIDGE SHOE ASSEMBLY CB3

(To be set on masonry for South end bearing of G1E)



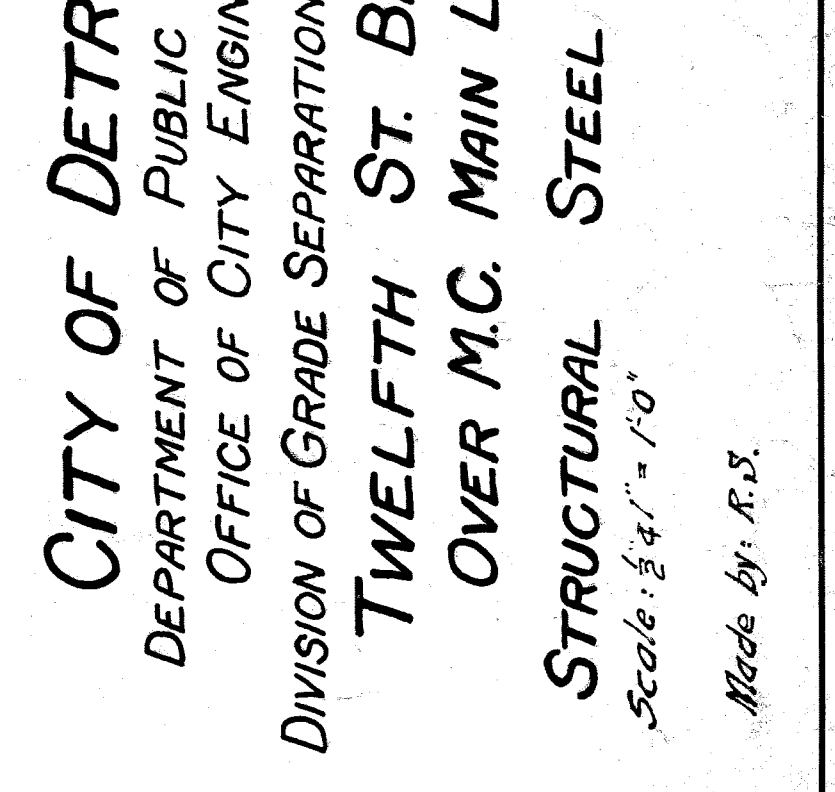
BRIDGE SHOE ASSEMBLY CB4

(To be set on beam girders G2 for North end bearing of G1M)



BRIDGE SHOE ASSEMBLY CB5

(To be set on masonry for North end bearing of G1E)



GENERAL NOTES
 Rivets 3/4" - Open holes 1/4" unless otherwise noted
 Shop priming the coated lead per spec. -
 cannot be applied on all surfaces in
 contact with each other at all surfaces in
 and the part of G1s, C1E and C2 and Bracing
 and the part of G1s, C1E and C2 and Bracing
 between top and line of concrete as shown.
 One coat red lead on steel above top
 of sidewalk or curb, remainder to be unpainted.

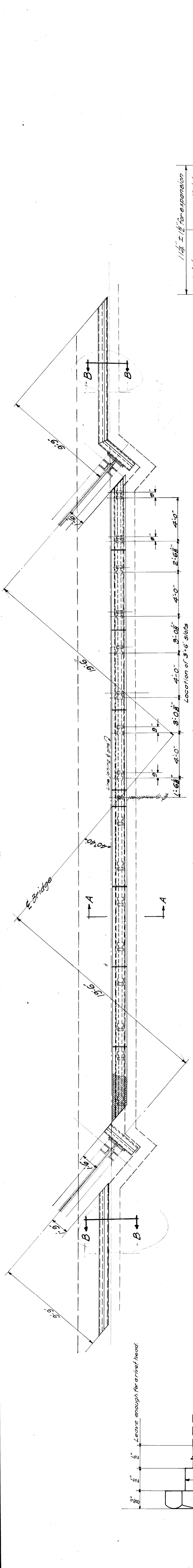
Note: CB3 is identical to CB2 except for modification
 and other details as shown for CB2.

Note: CB5 includes modification to casting shown,
 open and upper coating of some pattern as in CB2
 BRIDGE SHOE ASSEMBLY CB5

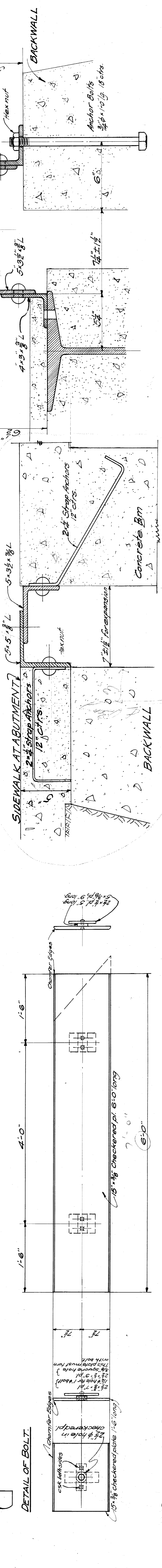
Note: CB4 includes modification to casting shown,
 open and upper coating of some pattern as in CB2
 BRIDGE SHOE ASSEMBLY CB4

Note: CB2 includes modification to casting shown,
 open and upper coating of some pattern as in CB2
 BRIDGE SHOE ASSEMBLY CB2

Note: CB1 includes modification to casting shown,
 open and upper coating of some pattern as in CB2
 BRIDGE SHOE ASSEMBLY CB1

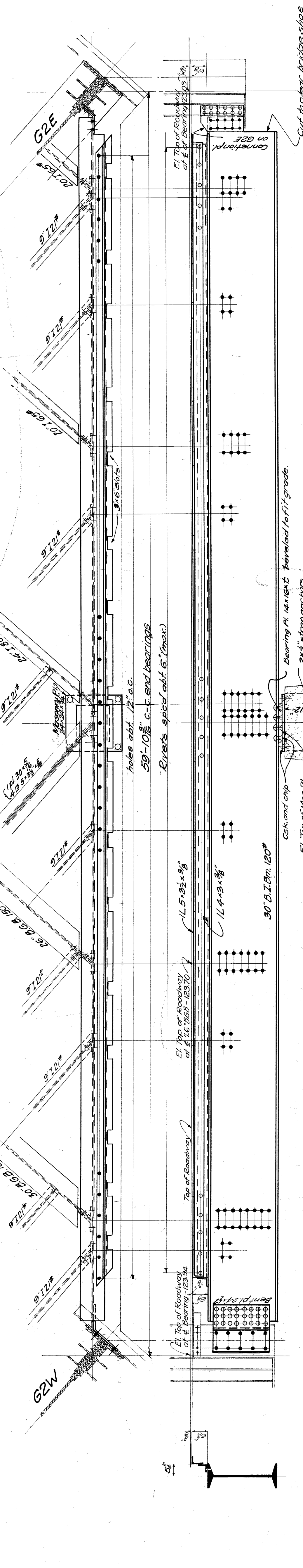


PLAN OF EXPANSION JOINT - SOUTH END

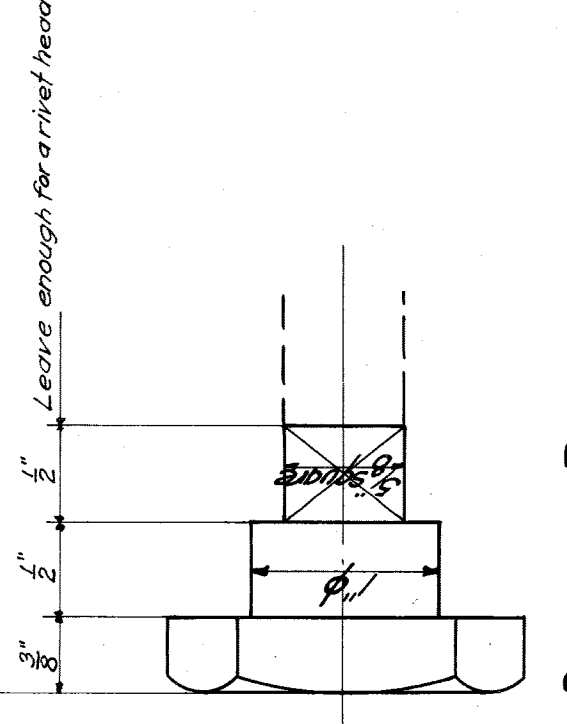


SECTION A-A

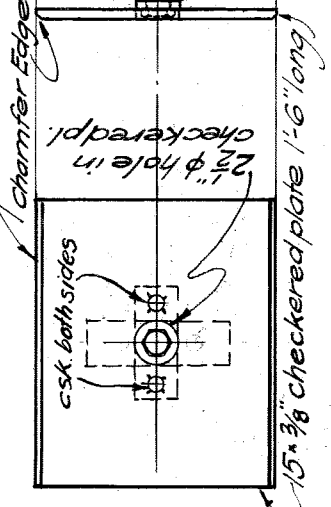
SECTION B-B



DETAIL OF STRUT AT EXPANSION END

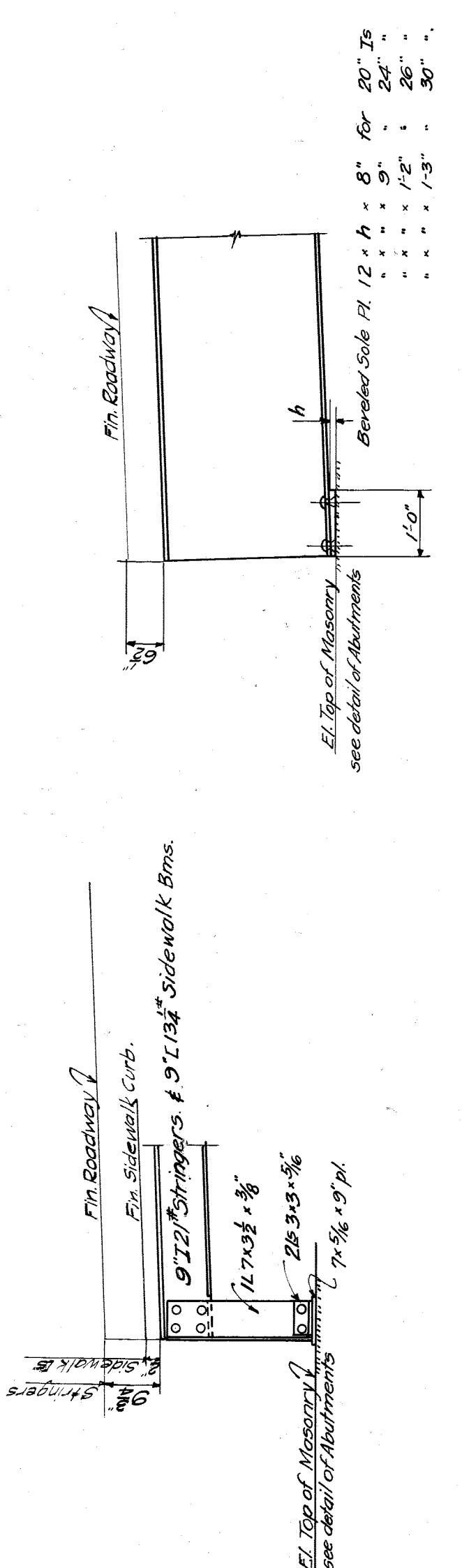


DETAIL OF BOLT

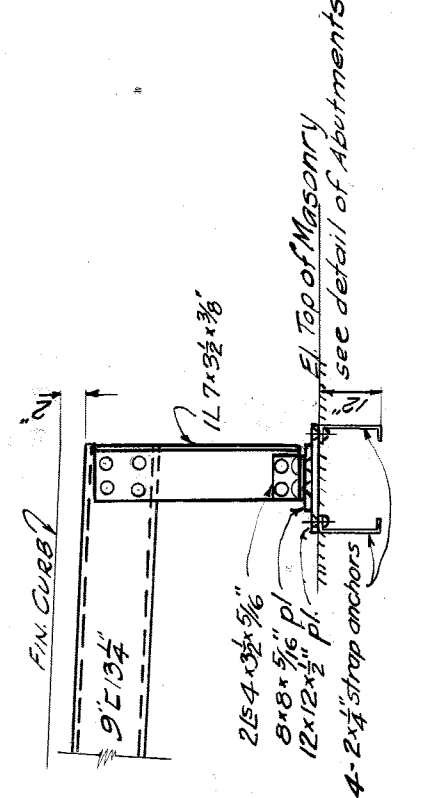


DETAIL OF KEY PLATE

DETAIL OF CHECKERED PLATES



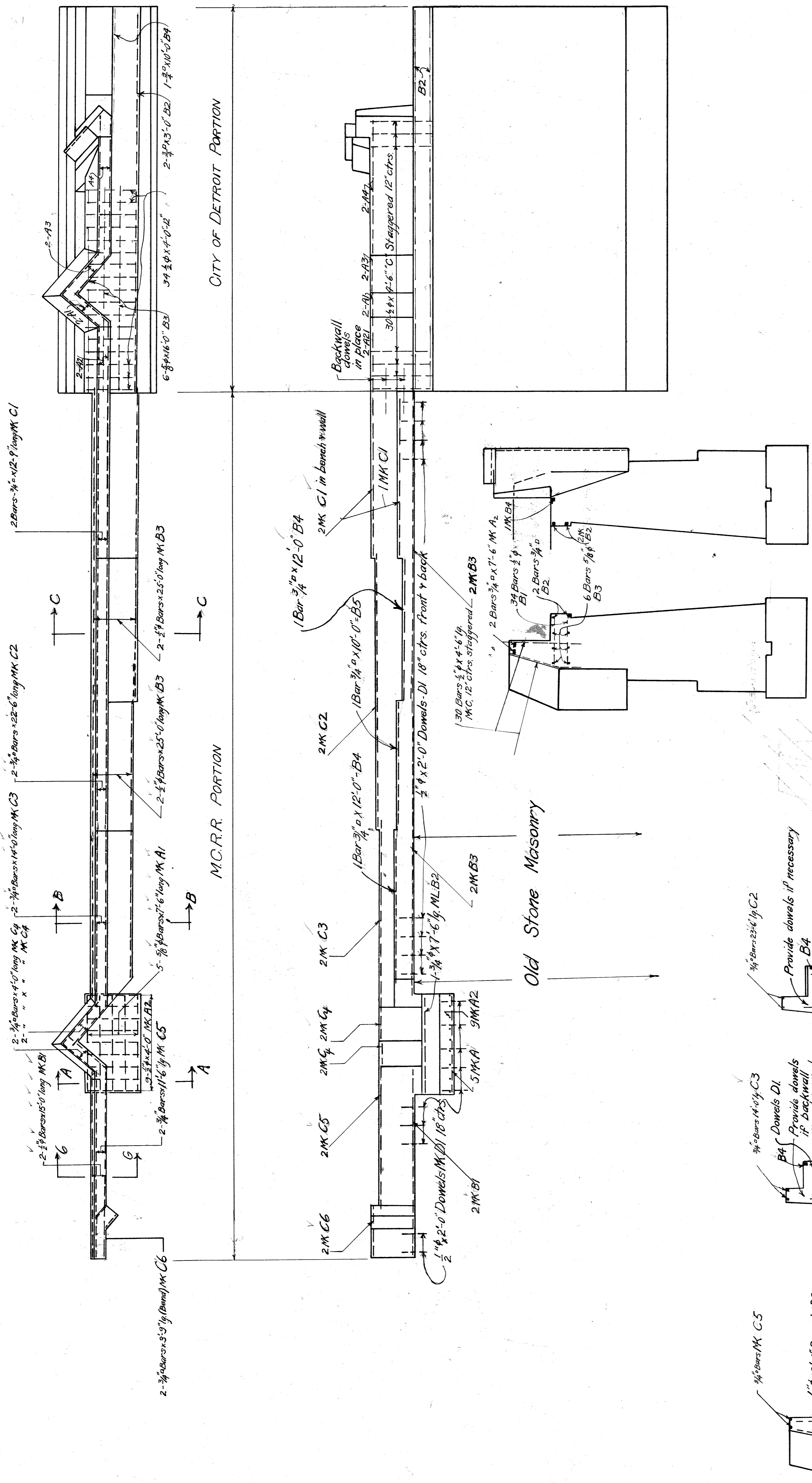
DETAILS OF ABUTMENT ENDS OF FLOOR BEAMS & STRINGERS AT FIXED END



DETAIL OF ABUTMENT ENDS OF SIDEWALKS AT EXPANSION END

General Notes
 1. Open holes if unless otherwise noted.
 2. Shop Paint - One coat red lead or per specifications before assembling on all surfaces in contact with each other.
 3. One coat red lead on surfaces shown to remain unpainted.

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 OFFICE OF CITY ENGINEER
 DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH ST. BRIDGE
OVER M.C. MAIN LINE
 Made by [Signature]
 Checked by: [Signature]
 Revised 6-26-22



SECTION E.E.

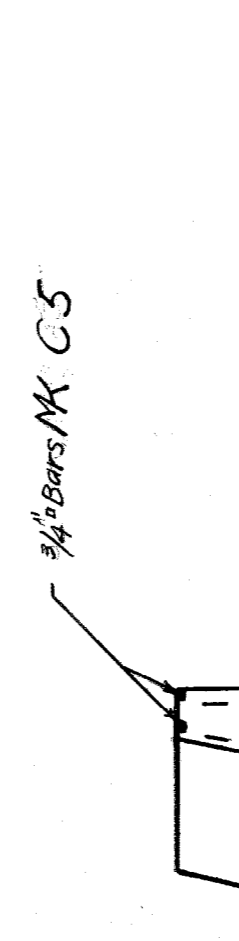
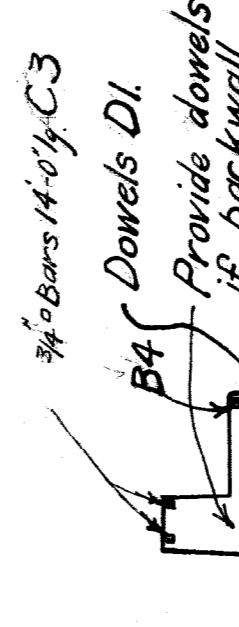
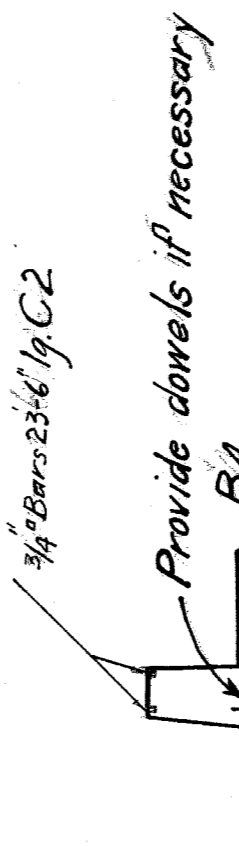
SECTION D.D.

BAR LIST FOR M.C.R.R. PORTION

No.	SIZE	LENGTH	MARK
1	1/2"	4'-0"	A1
2	1/2"	4'-0"	A2
3	1/2"	4'-0"	A3
4	1/2"	4'-0"	A4
5	3/4"	7'-6"	B1
6	3/4"	7'-6"	B2
7	3/4"	25'-0"	B3
8	3/4"	12'-0"	B4
9	3/4"	12'-0"	B5
10	3/4"	12'-0"	B6
11	3/4"	12'-0"	B7
12	3/4"	12'-0"	B8
13	3/4"	12'-0"	B9
14	3/4"	12'-0"	B10
15	3/4"	12'-0"	B11
16	3/4"	12'-0"	B12
17	3/4"	12'-0"	B13
18	3/4"	12'-0"	B14
19	3/4"	12'-0"	B15
20	3/4"	12'-0"	B16
21	3/4"	12'-0"	B17
22	3/4"	12'-0"	B18
23	3/4"	12'-0"	B19
24	3/4"	12'-0"	B20
25	3/4"	12'-0"	B21
26	3/4"	12'-0"	B22
27	3/4"	12'-0"	B23
28	3/4"	12'-0"	B24
29	3/4"	12'-0"	B25
30	3/4"	12'-0"	B26
31	3/4"	12'-0"	B27
32	3/4"	12'-0"	B28
33	3/4"	12'-0"	B29
34	3/4"	12'-0"	B30
35	3/4"	12'-0"	B31
36	3/4"	12'-0"	B32
37	3/4"	12'-0"	B33
38	3/4"	12'-0"	B34
39	3/4"	12'-0"	B35
40	3/4"	12'-0"	B36
41	3/4"	12'-0"	B37
42	3/4"	12'-0"	B38
43	3/4"	12'-0"	B39
44	3/4"	12'-0"	B40
45	3/4"	12'-0"	B41
46	3/4"	12'-0"	B42
47	3/4"	12'-0"	B43
48	3/4"	12'-0"	B44
49	3/4"	12'-0"	B45
50	3/4"	12'-0"	B46
51	3/4"	12'-0"	B47
52	3/4"	12'-0"	B48
53	3/4"	12'-0"	B49
54	3/4"	12'-0"	B50
55	3/4"	12'-0"	B51
56	3/4"	12'-0"	B52
57	3/4"	12'-0"	B53
58	3/4"	12'-0"	B54
59	3/4"	12'-0"	B55
60	3/4"	12'-0"	B56
61	3/4"	12'-0"	B57
62	3/4"	12'-0"	B58
63	3/4"	12'-0"	B59
64	3/4"	12'-0"	B60
65	3/4"	12'-0"	B61
66	3/4"	12'-0"	B62
67	3/4"	12'-0"	B63
68	3/4"	12'-0"	B64
69	3/4"	12'-0"	B65
70	3/4"	12'-0"	B66
71	3/4"	12'-0"	B67
72	3/4"	12'-0"	B68
73	3/4"	12'-0"	B69
74	3/4"	12'-0"	B70
75	3/4"	12'-0"	B71
76	3/4"	12'-0"	B72
77	3/4"	12'-0"	B73
78	3/4"	12'-0"	B74
79	3/4"	12'-0"	B75
80	3/4"	12'-0"	B76
81	3/4"	12'-0"	B77
82	3/4"	12'-0"	B78
83	3/4"	12'-0"	B79
84	3/4"	12'-0"	B80
85	3/4"	12'-0"	B81
86	3/4"	12'-0"	B82
87	3/4"	12'-0"	B83
88	3/4"	12'-0"	B84
89	3/4"	12'-0"	B85
90	3/4"	12'-0"	B86
91	3/4"	12'-0"	B87
92	3/4"	12'-0"	B88
93	3/4"	12'-0"	B89
94	3/4"	12'-0"	B90
95	3/4"	12'-0"	B91
96	3/4"	12'-0"	B92
97	3/4"	12'-0"	B93
98	3/4"	12'-0"	B94
99	3/4"	12'-0"	B95
100	3/4"	12'-0"	B96
101	3/4"	12'-0"	B97
102	3/4"	12'-0"	B98
103	3/4"	12'-0"	B99
104	3/4"	12'-0"	B100

BAR LIST FOR CITY PORTION

No.	SIZE	LENGTH	MARK
1	1/2"	4'-0"	A1
2	1/2"	4'-0"	A2
3	1/2"	4'-0"	A3
4	1/2"	4'-0"	A4
5	3/4"	7'-6"	B1
6	3/4"	7'-6"	B2
7	3/4"	25'-0"	B3
8	3/4"	12'-0"	B4
9	3/4"	12'-0"	B5
10	3/4"	12'-0"	B6
11	3/4"	12'-0"	B7
12	3/4"	12'-0"	B8
13	3/4"	12'-0"	B9
14	3/4"	12'-0"	B10
15	3/4"	12'-0"	B11
16	3/4"	12'-0"	B12
17	3/4"	12'-0"	B13
18	3/4"	12'-0"	B14
19	3/4"	12'-0"	B15
20	3/4"	12'-0"	B16
21	3/4"	12'-0"	B17
22	3/4"	12'-0"	B18
23	3/4"	12'-0"	B19
24	3/4"	12'-0"	B20
25	3/4"	12'-0"	B21
26	3/4"	12'-0"	B22
27	3/4"	12'-0"	B23
28	3/4"	12'-0"	B24
29	3/4"	12'-0"	B25
30	3/4"	12'-0"	B26
31	3/4"	12'-0"	B27
32	3/4"	12'-0"	B28
33	3/4"	12'-0"	B29
34	3/4"	12'-0"	B30
35	3/4"	12'-0"	B31
36	3/4"	12'-0"	B32
37	3/4"	12'-0"	B33
38	3/4"	12'-0"	B34
39	3/4"	12'-0"	B35
40	3/4"	12'-0"	B36
41	3/4"	12'-0"	B37
42	3/4"	12'-0"	B38
43	3/4"	12'-0"	B39
44	3/4"	12'-0"	B40
45	3/4"	12'-0"	B41
46	3/4"	12'-0"	B42
47	3/4"	12'-0"	B43
48	3/4"	12'-0"	B44
49	3/4"	12'-0"	B45
50	3/4"	12'-0"	B46
51	3/4"	12'-0"	B47
52	3/4"	12'-0"	B48
53	3/4"	12'-0"	B49
54	3/4"	12'-0"	B50
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56	3/4"	12'-0"	B52
57	3/4"	12'-0"	B53
58	3/4"	12'-0"	B54
59	3/4"	12'-0"	B55
60	3/4"	12'-0"	B56
61	3/4"	12'-0"	B57
62	3/4"	12'-0"	B58
63	3/4"	12'-0"	B59
64	3/4"	12'-0"	B60
65	3/4"	12'-0"	B61
66	3/4"	12'-0"	B62
67	3/4"	12'-0"	B63
68	3/4"	12'-0"	B64
69	3/4"	12'-0"	B65
70	3/4"	12'-0"	B66
71	3/4"	12'-0"	B67
72	3/4"	12'-0"	B68
73	3/4"	12'-0"	B69
74	3/4"	12'-0"	B70
75	3/4"	12'-0"	B71
76	3/4"	12'-0"	B72
77	3/4"	12'-0"	B73
78	3/4"	12'-0"	B74
79	3/4"	12'-0"	B75
80	3/4"	12'-0"	B76
81	3/4"	12'-0"	B77
82	3/4"	12'-0"	B78
83	3/4"	12'-0"	B79
84	3/4"	12'-0"	B80
85	3/4"	12'-0"	B81
86	3/4"	12'-0"	B82
87	3/4"	12'-0"	B83
88	3/4"	12'-0"	B84
89	3/4"	12'-0"	B85
90	3/4"	12'-0"	B86
91	3/4"	12'-0"	B87
92	3/4"	12'-0"	B88
93	3/4"	12'-0"	B89
94	3/4"	12'-0"	B90
95	3/4"	12'-0"	B91
96	3/4"	12'-0"	B92
97	3/4"	12'-0"	B93
98	3/4"	12'-0"	B94
99	3/4"	12'-0"	B95
100	3/4"	12'-0"	B96
101	3/4"	12'-0"	B97
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103	3/4"	12'-0"	B99
104	3/4"	12'-0"	B100

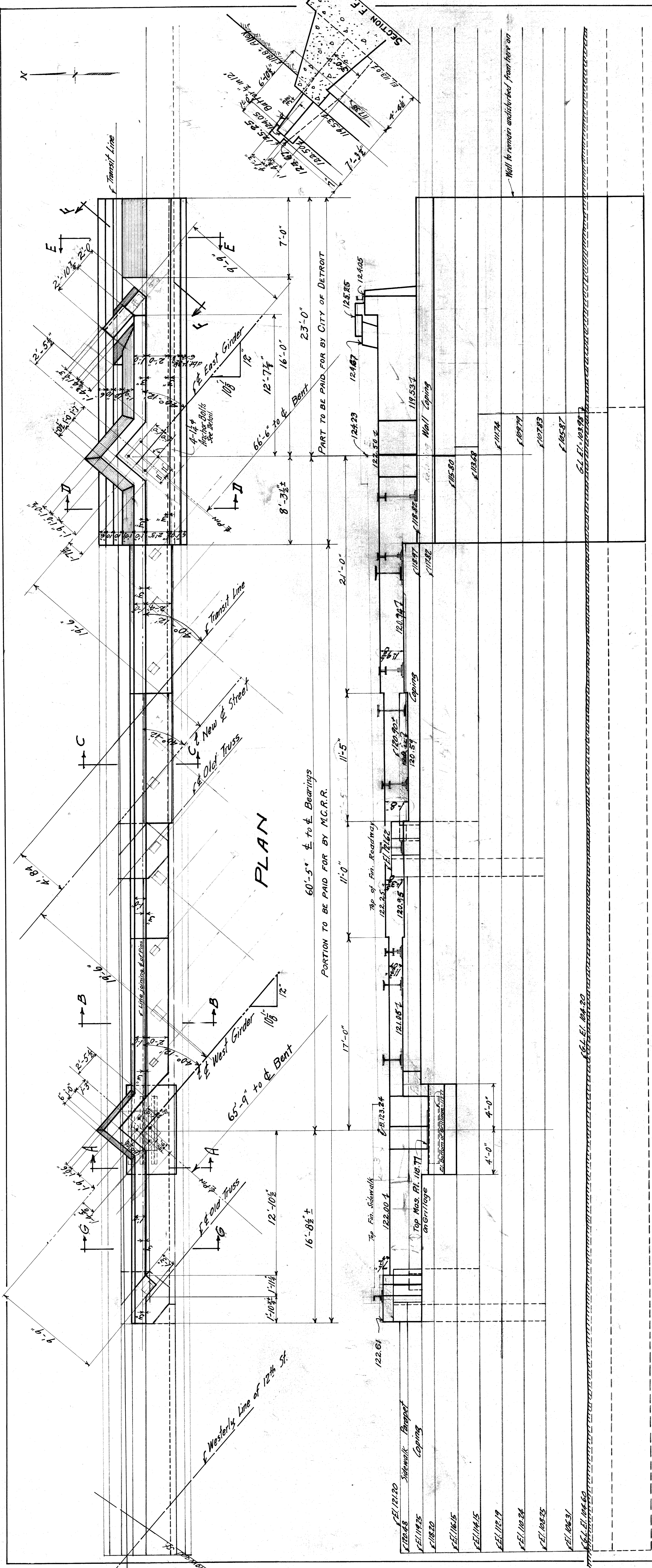


SECTION C-C

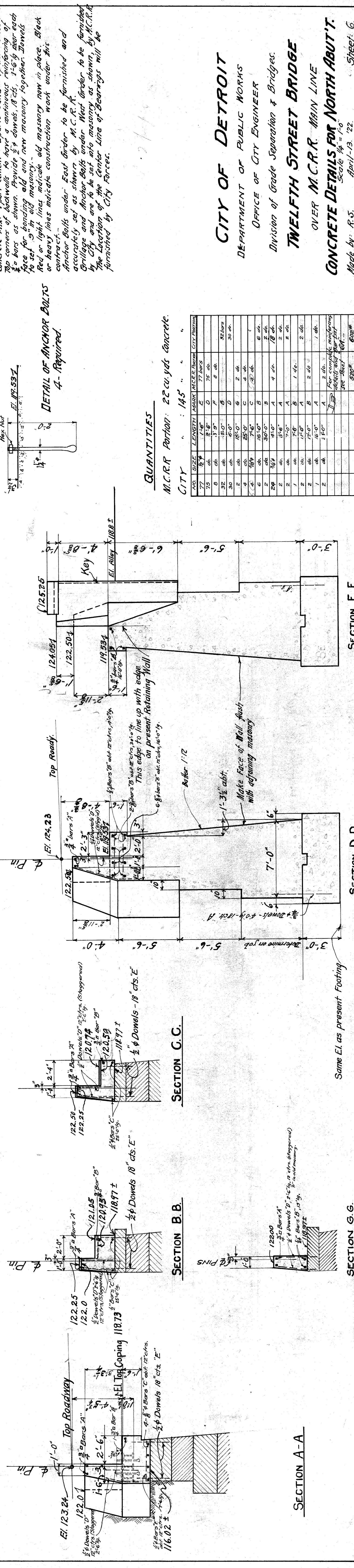
SECTION B-B

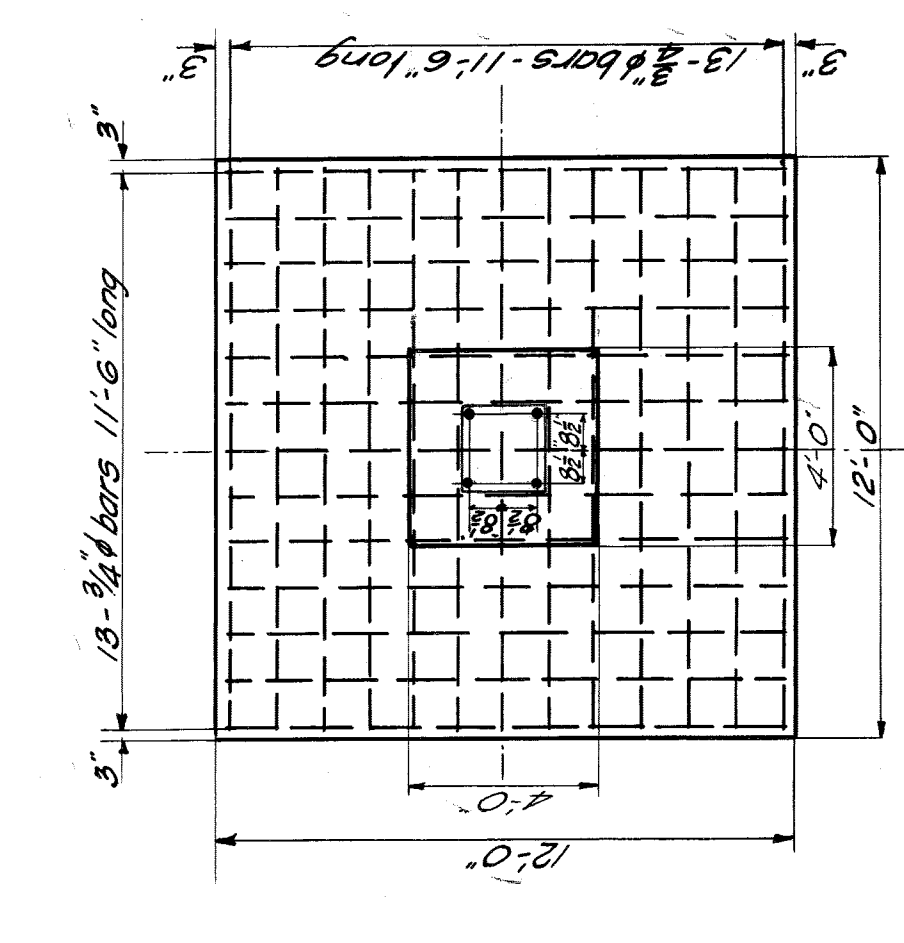
SECTION A-A

SECTION G-G



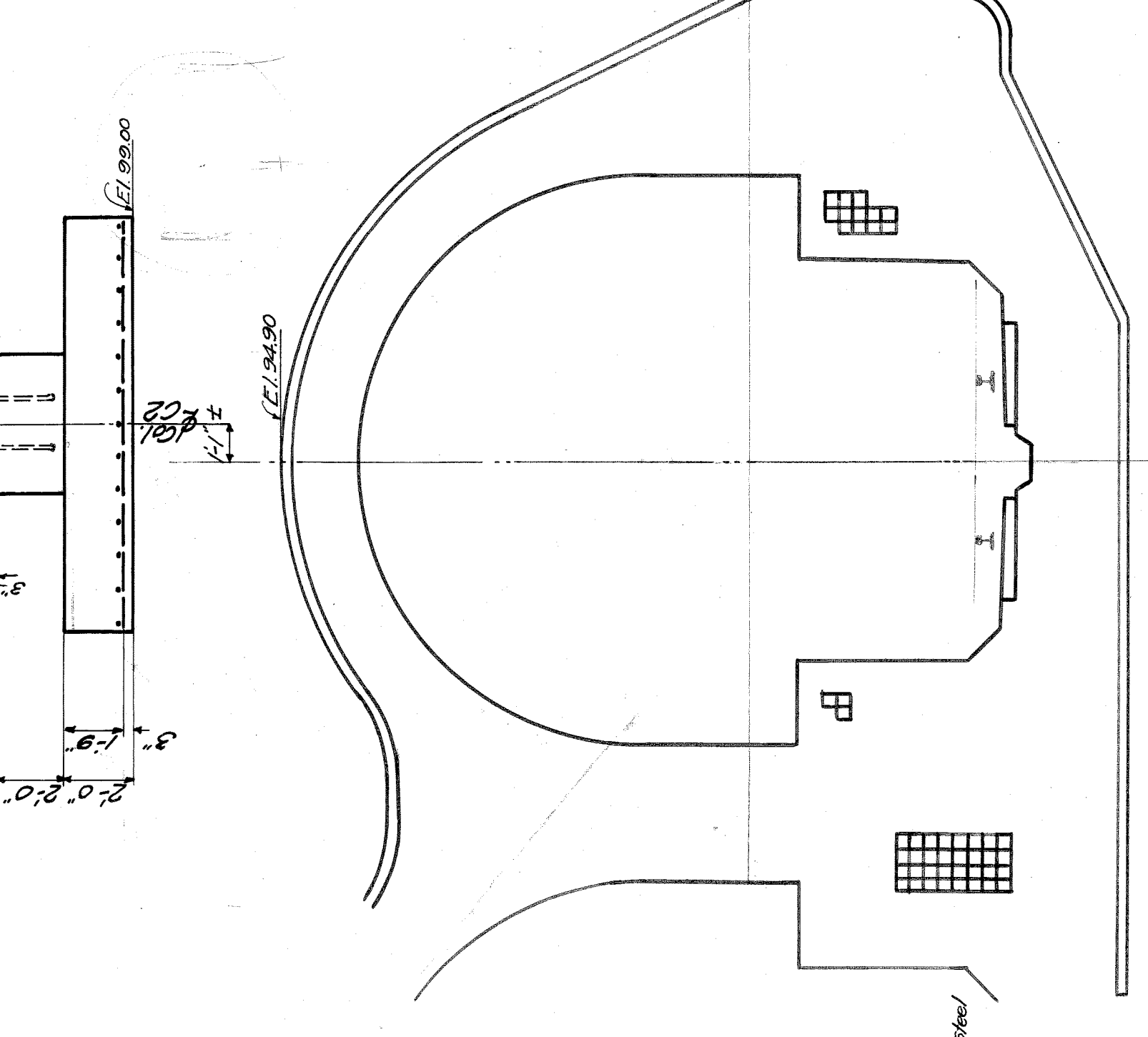
ELEVATION





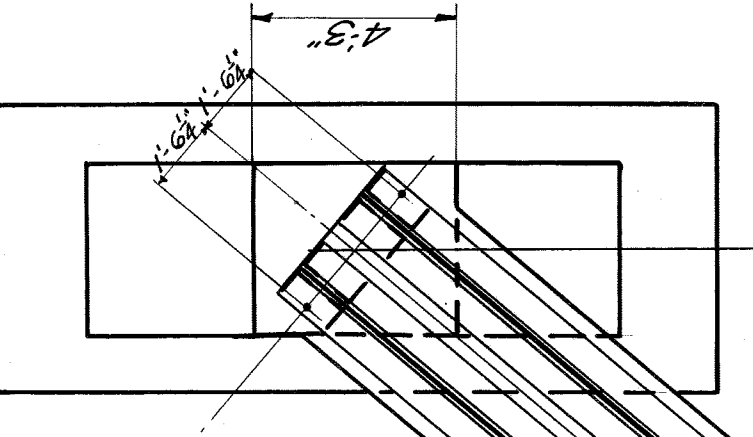
PLAN

4-1/4" Bolts - See Detail
 Top of Rail - El. 104.104
 Top of Concrete - El. 103.00

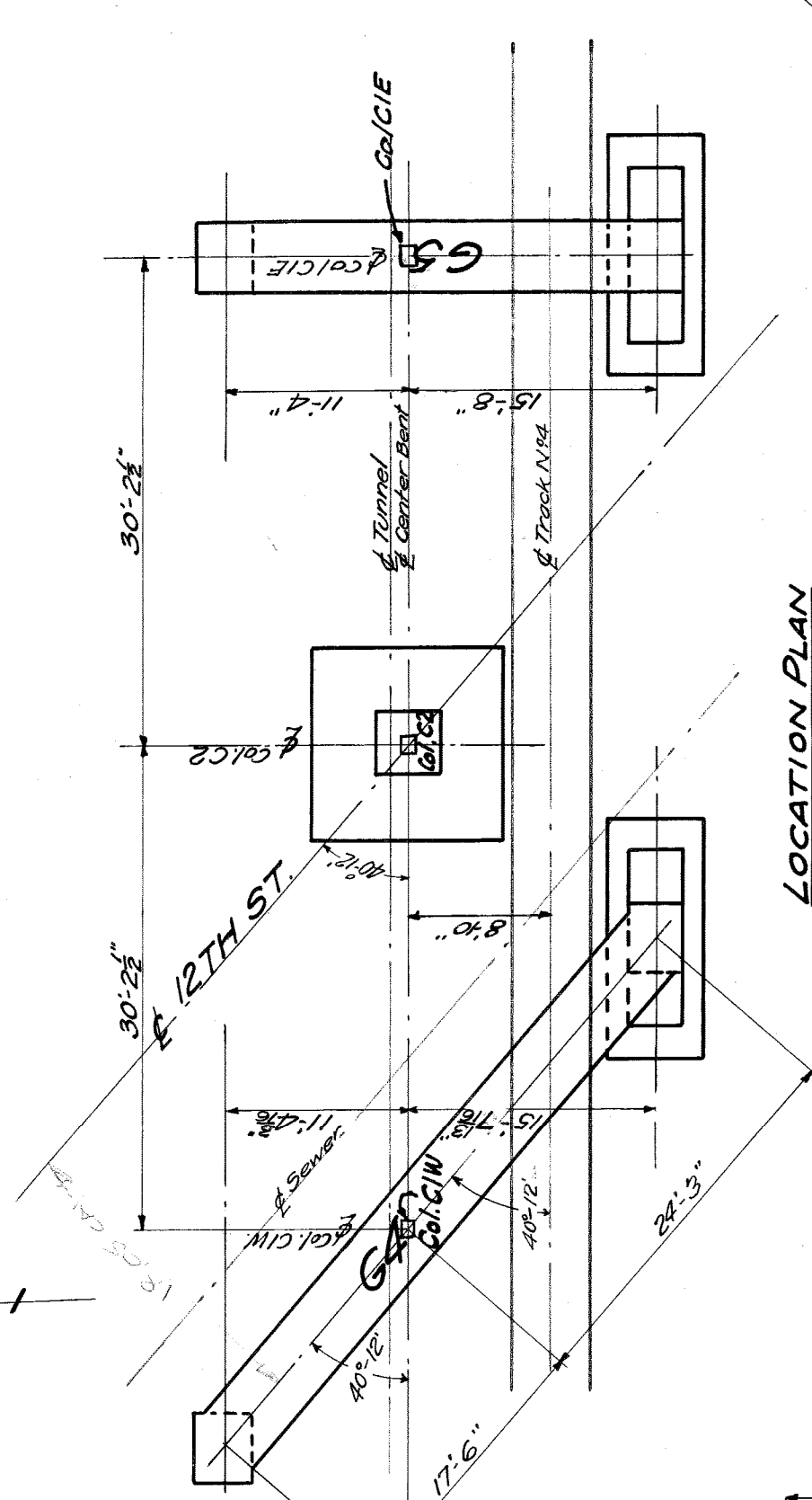


ELEVATION
 FOUNDATION FOR COLUMN C2

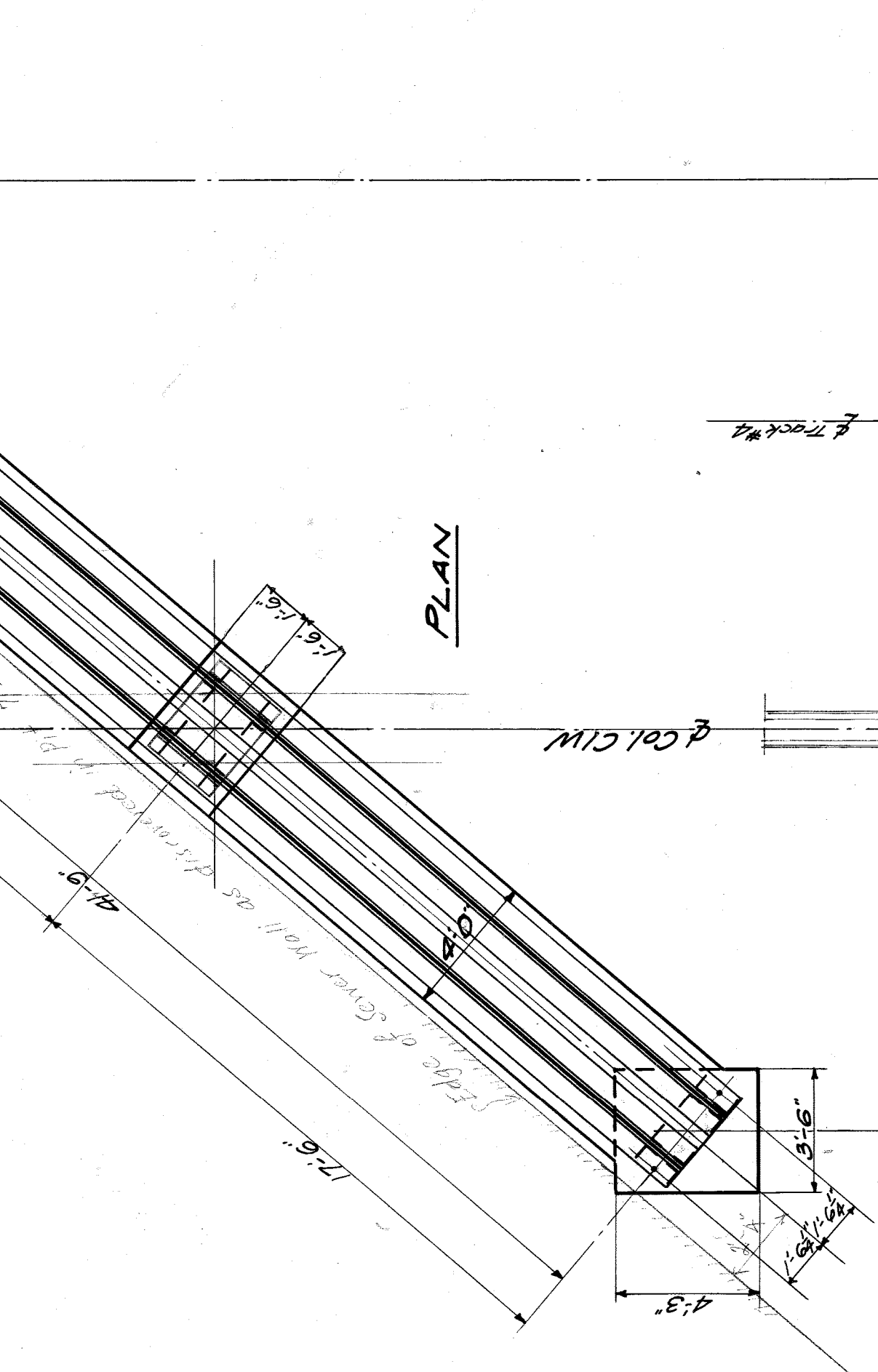
General Notes:
 Piers under ends of Girders
 to end 65 to be poured to El. 97.50 as shown,
 1/4" anchor bolts and girders shall be placed on
 concrete above El. 97.50 in proper holes in top flanges before
 concrete above El. 97.50 is placed.
 Concrete 1:2:4 mix.



DETAIL OF ANCHOR BOLTS

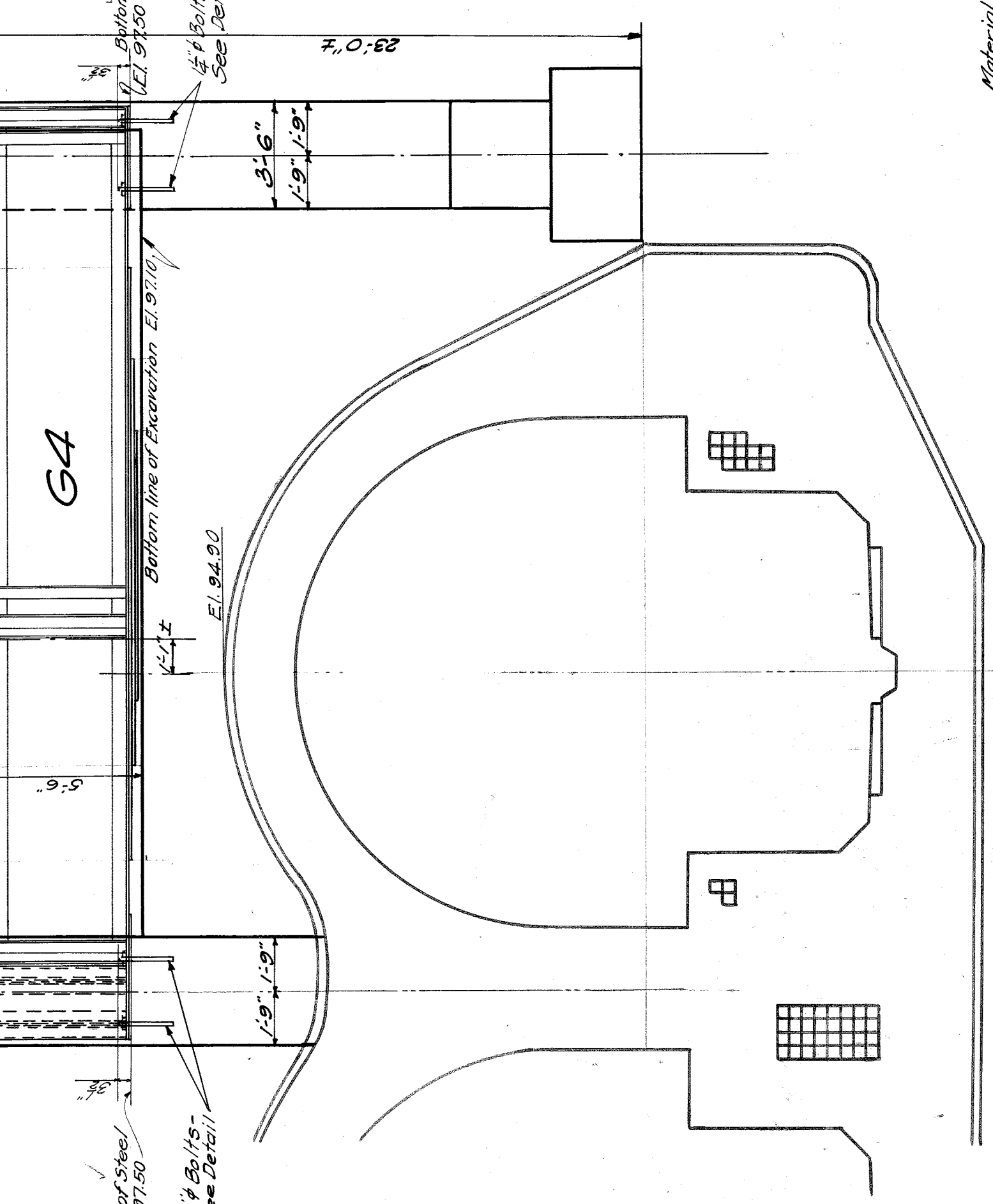


LOCATION PLAN
 Scale 1/4" = 1'-0"



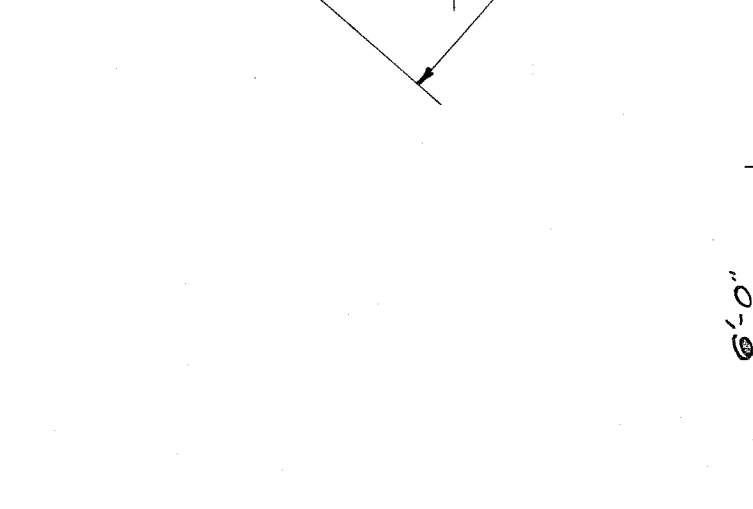
PLAN

Edge of Rail - El. 103.6 (12)
 Top of Concrete - El. 102.6 (12)

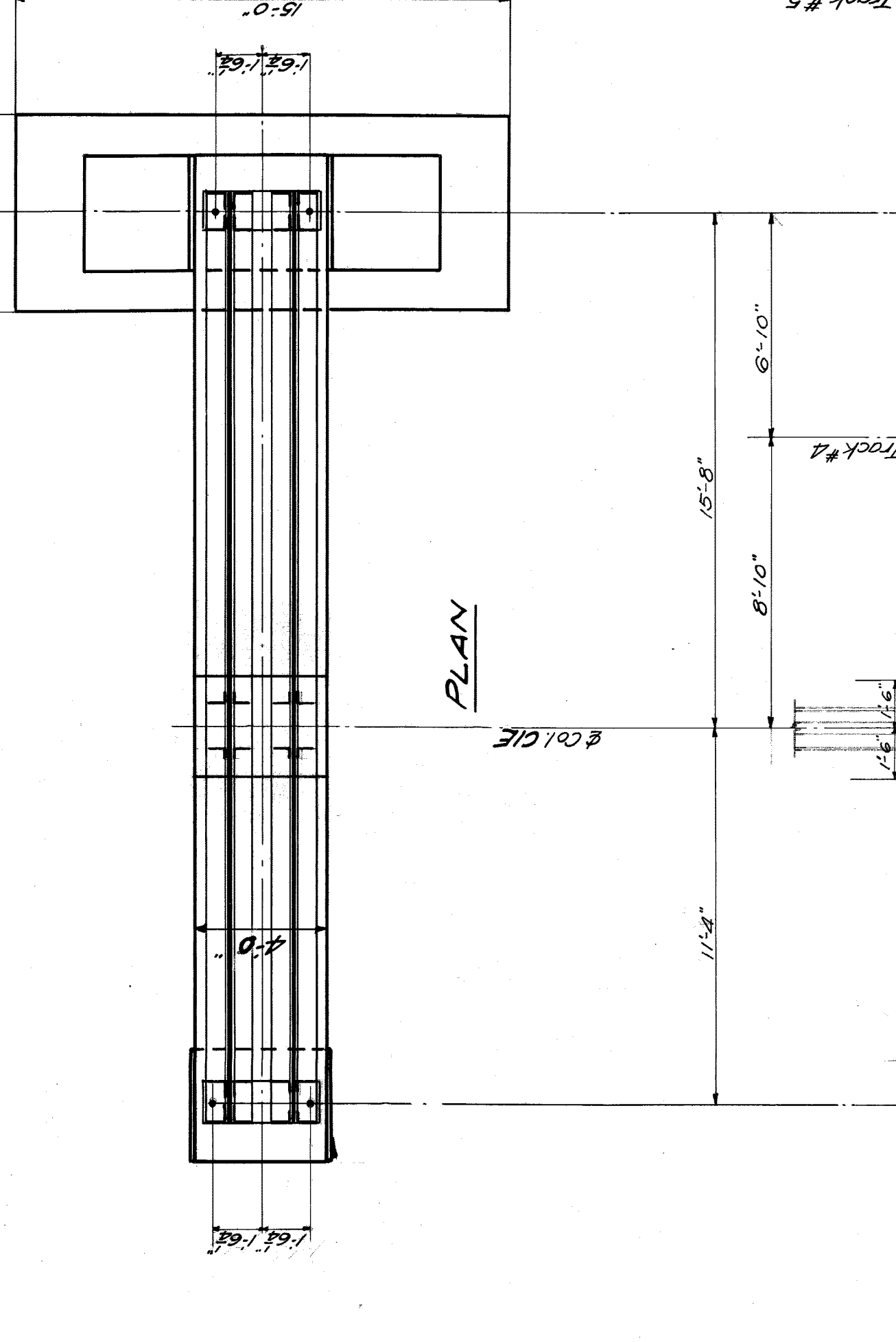


ELEVATION
 FOUNDATION FOR COLUMN C1

Material Required:
 110 Cu Yds (Max) - 1:2:4 Concrete
 450# Steel - 26-3/4# Rebar 1'-6" long
 8-1/4" Anchor Bolts 2'-0" long (min) see detail
 4-1/4"

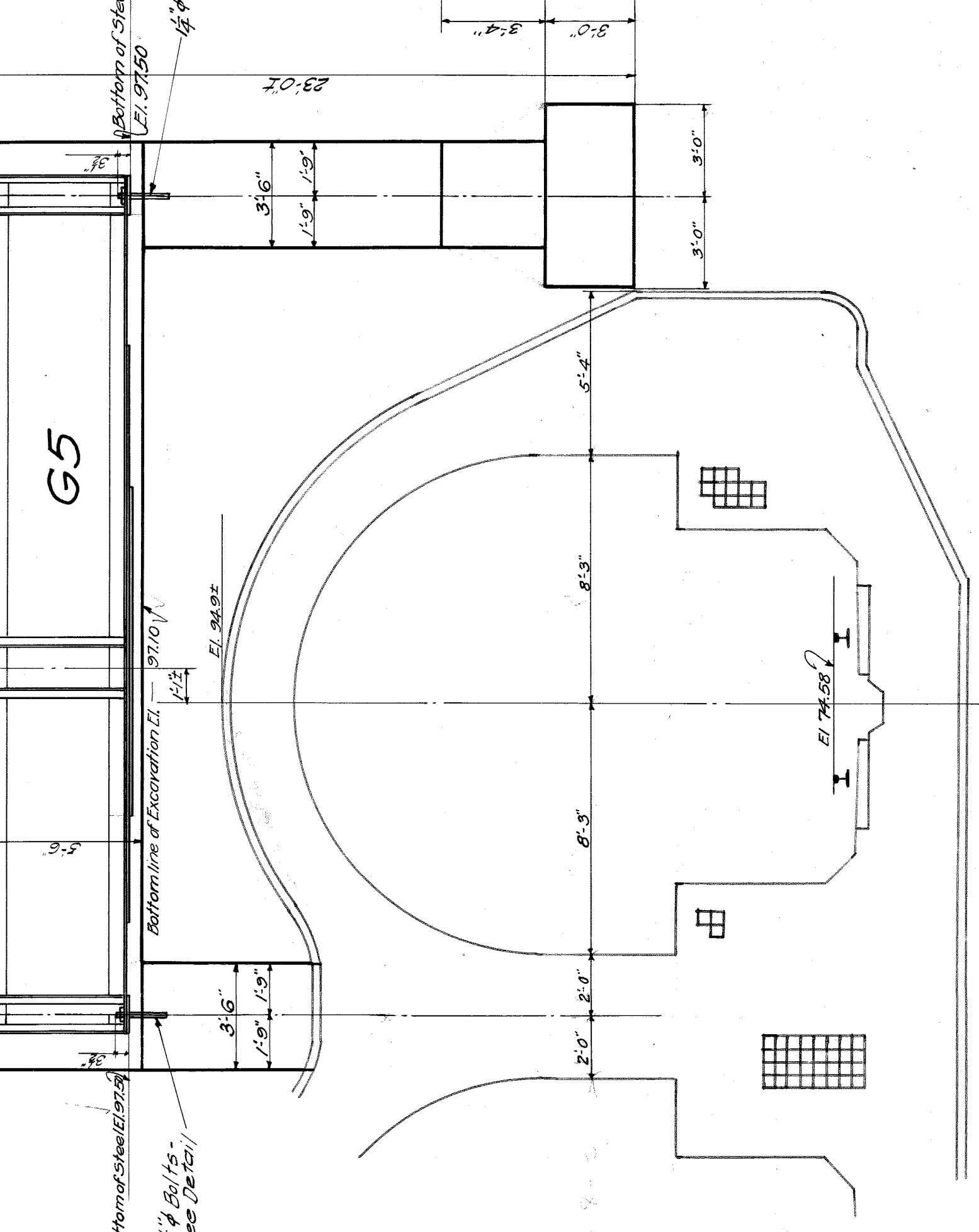


ELEVATION
 FOUNDATION FOR COLUMN C1



PLAN

Edge of Rail - El. 103.6 (12)
 Top of Concrete - El. 102.6 (12)

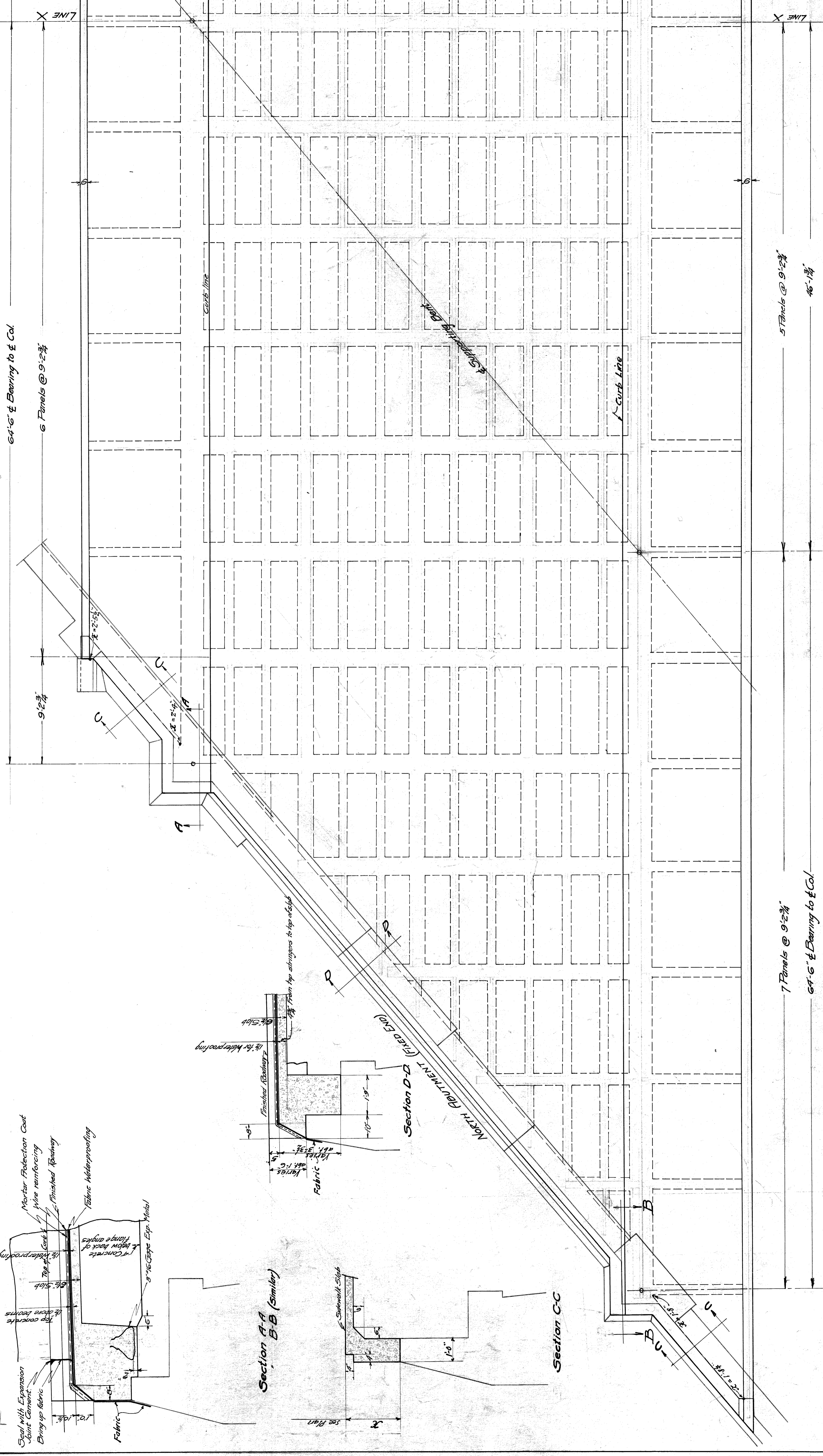


ELEVATION
 FOUNDATION FOR COLUMN C1

END VIEW.
 End View of Staggered Frame Similar

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 OFFICE OF CITY ENGINEER
 DIVISION OF GRADE SEPARATION & BRIDGES
TWELTH STREET BRIDGE
 OVER M.C.R.R. MAIN LINE
 CONCRETE DETAILS-FOUNDATION CENTRE BENT.
 Made by R.S. Scale 1/4" = 1'-0" Sheet No. 8

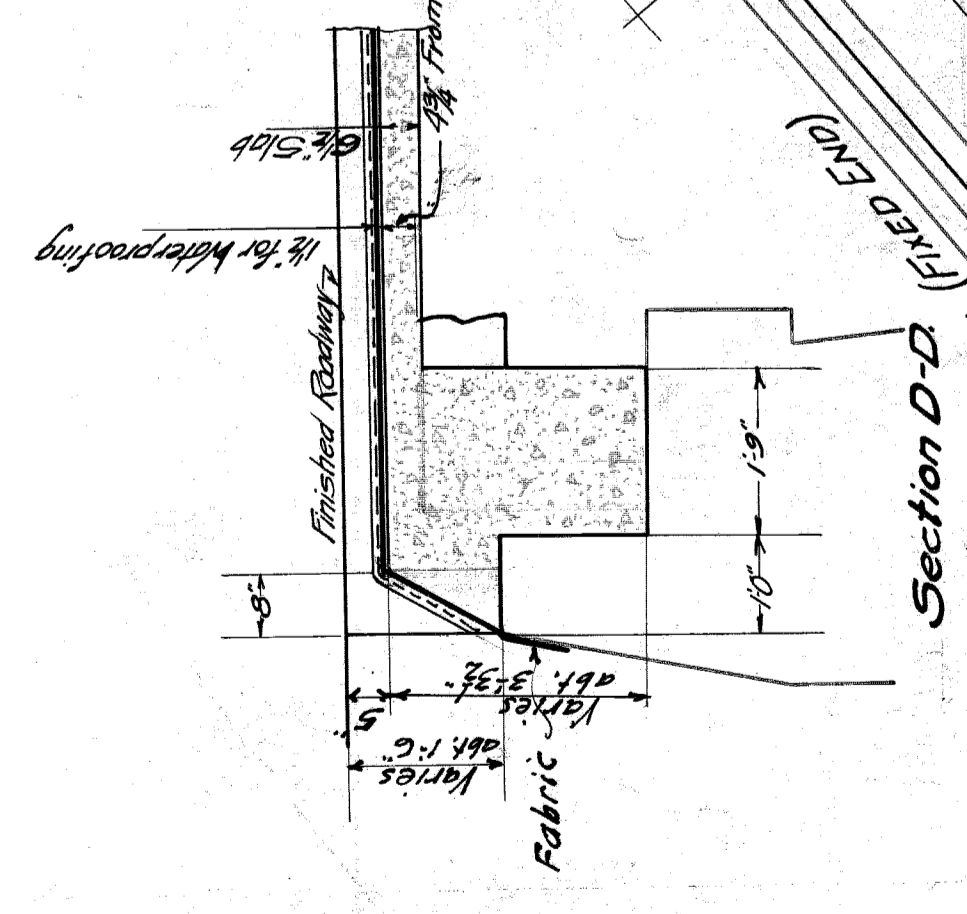
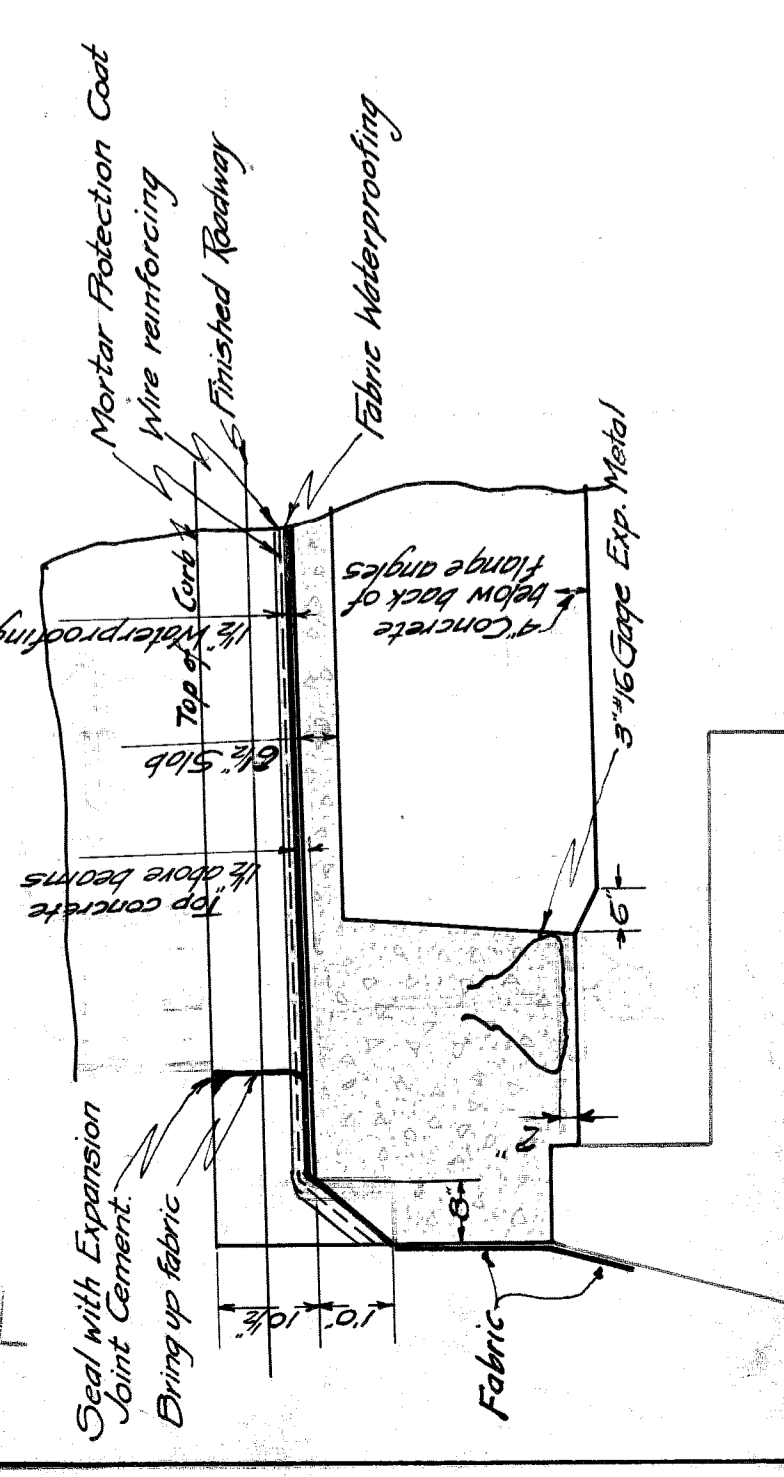
For portion between Line X and South Abutment see Sheet #11



64'-6" & Bearing to & Col.
6 Panels @ 9'-2 3/4"

57 Panels @ 9'-2 1/4"
46'-1 1/2"

7 Panels @ 9'-2 3/4"
64'-6" & Bearing to & Col.



NOTES:
All concrete (port cement, spalls and
4 parts crushed stone, all exposed surfaces to be troweled off.
For reinforcing bar details see sheet #9
For General Notes see sheet #9.

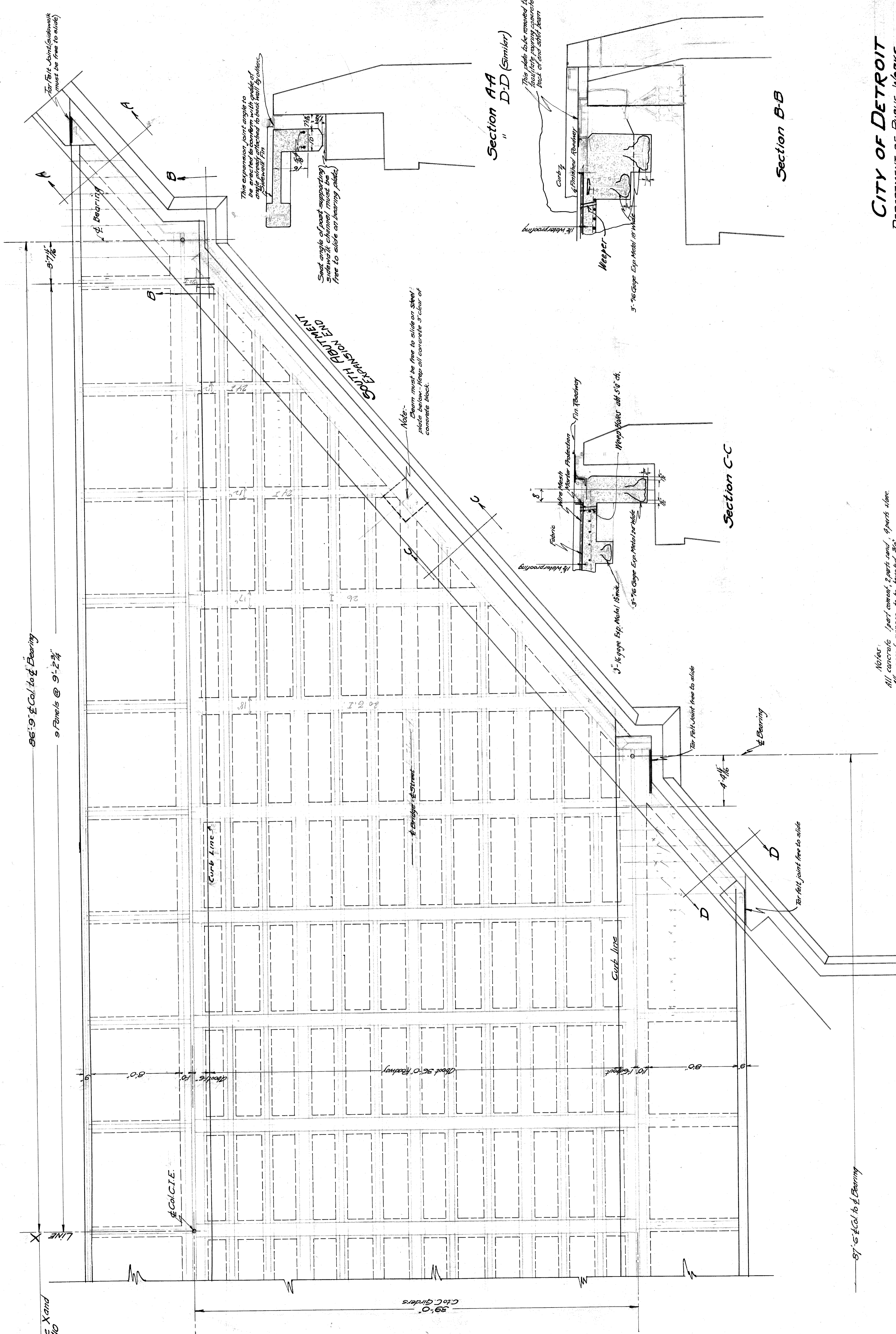
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
OFFICE OF CITY ENGINEER
DIVISION OF GRADE SEPARATIONS & BRIDGES
TWELFTH STREET BRIDGE
OVER M.C.R.R. MAIN LINE
CONCRETE DECK-NORTH ABUTMENT
Made by R.S. Sept. 5, 1922 Sheet #10

Scale: 1/8" = 1'-0"
Plan: 1/8" = 1'-0"
Sections: 1/2" = 1'-0"

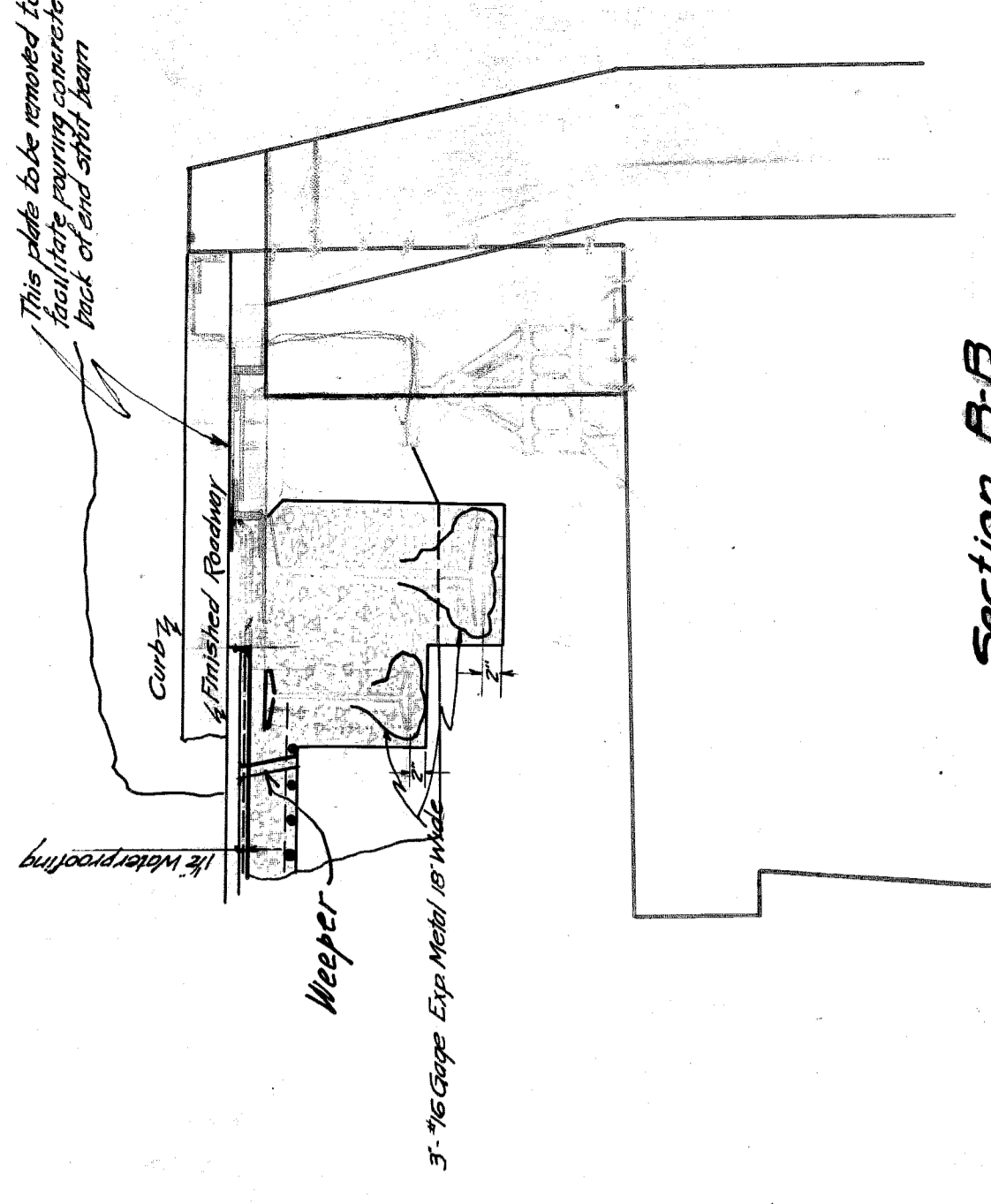
F/16 X0.60-12

86'-9" C.C. to E. Bearing
9 Panels @ 9'-2 3/4"

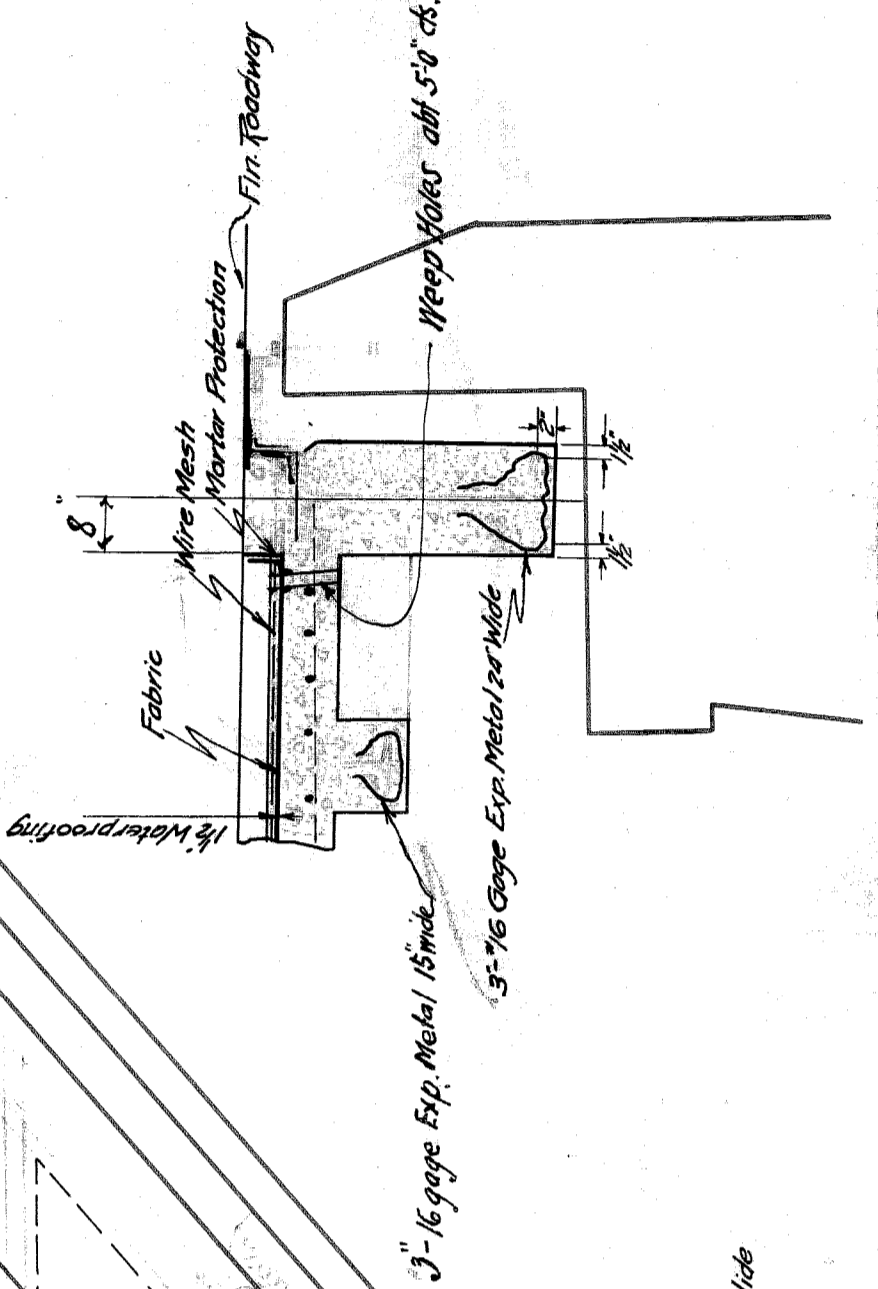
For portion between Line X and North Abutment see sheet #0



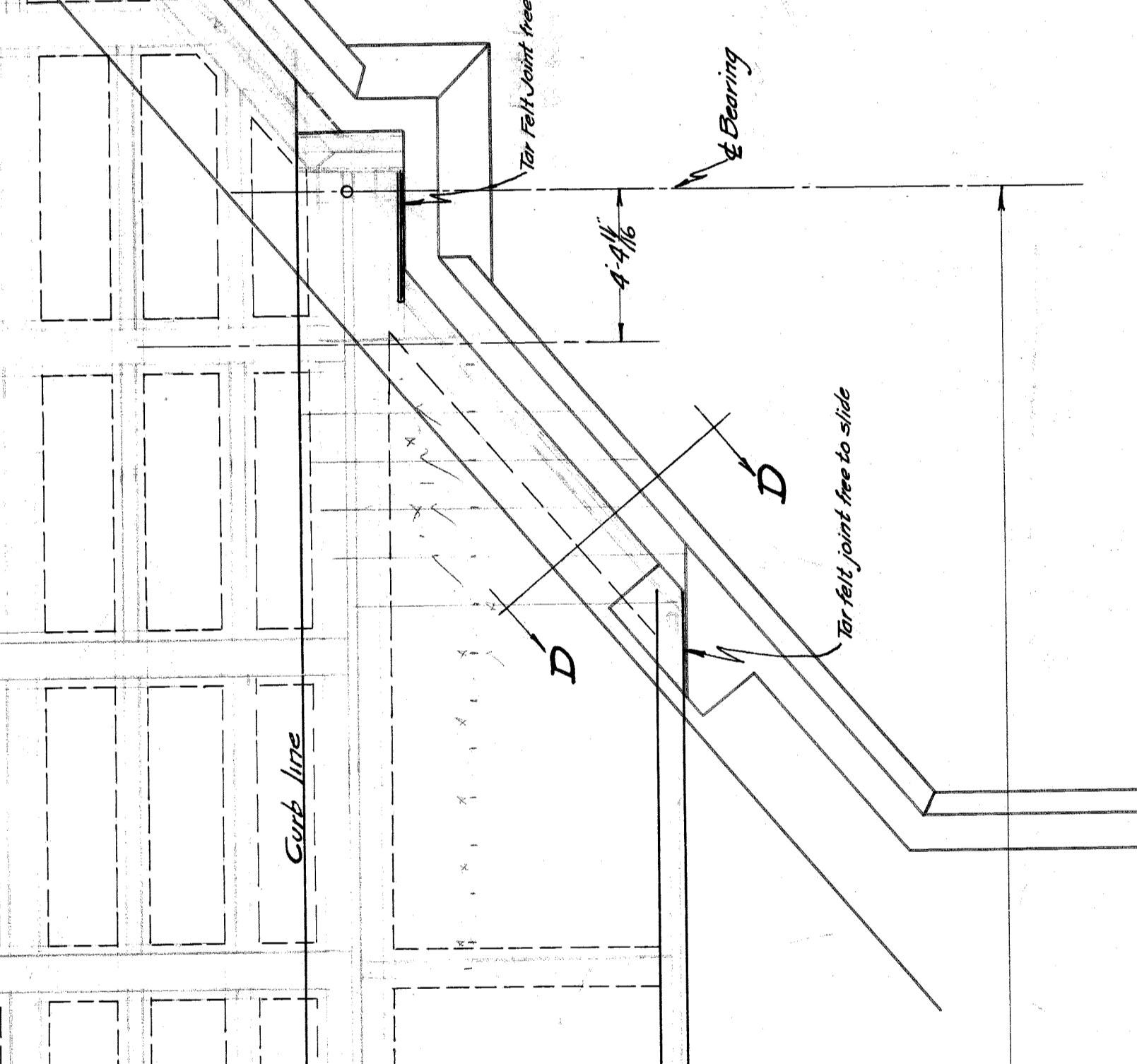
Section A-A
" D-D (Similar)



Section B-B



Section C-C



This expansion joint angle to be erected to conform with grade of sidewalk. Channel must be anchored to base wall by which this expansion joint angle to be erected to conform with grade of sidewalk. Channel must be free to slide on bearing plate.

Note: Beam must be free to slide on steel plate below. Keep all concrete 3\"/>

Note: Beam must be free to slide on steel plate below. Keep all concrete 3\"/>

3\"/>

Notes:
All concrete part consist 2 parts sand, 4 parts stone.
All exposed concrete to be finished by
for reinforcing bar details see sheet #9.
For General Notes see sheet #9.

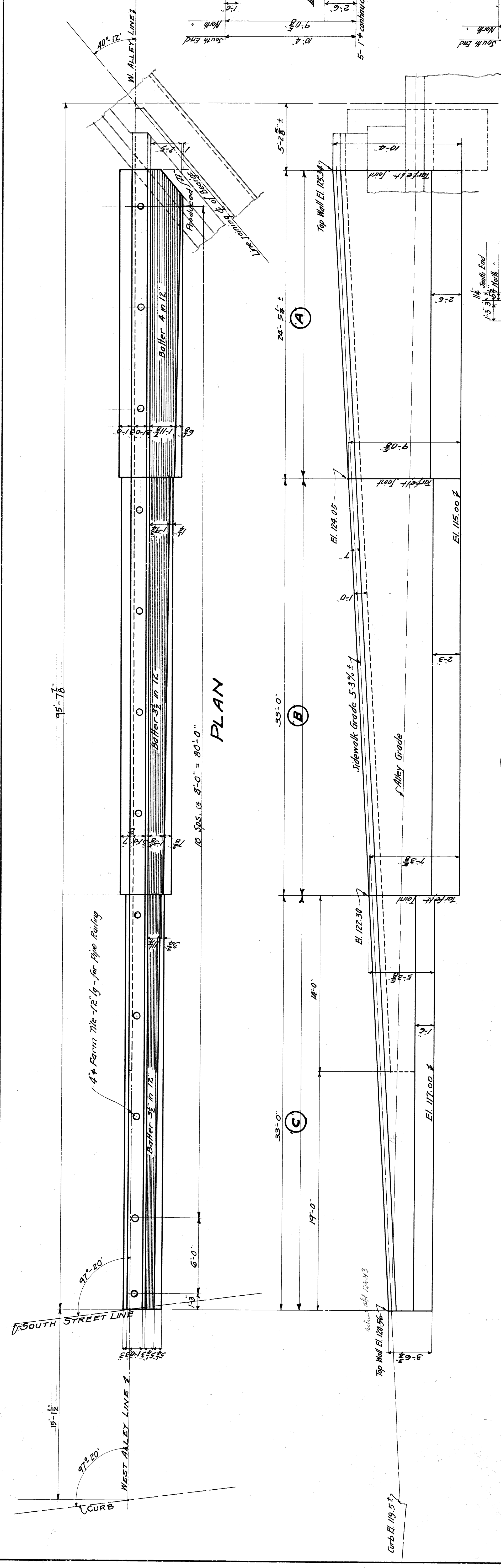
Scale:
Plan: 1/4" = 1'-0"
Section: 1/2" = 1'-0"

87'-5" C.C. to E. Bearing

CITY OF DETROIT
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DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH STREET BRIDGE
OVER M.C.R.R. MAIN LINE
CONCRETE DECK-STK. ABUTMENT
Made by R.S. Sept. 5, 1922 Sheet #11

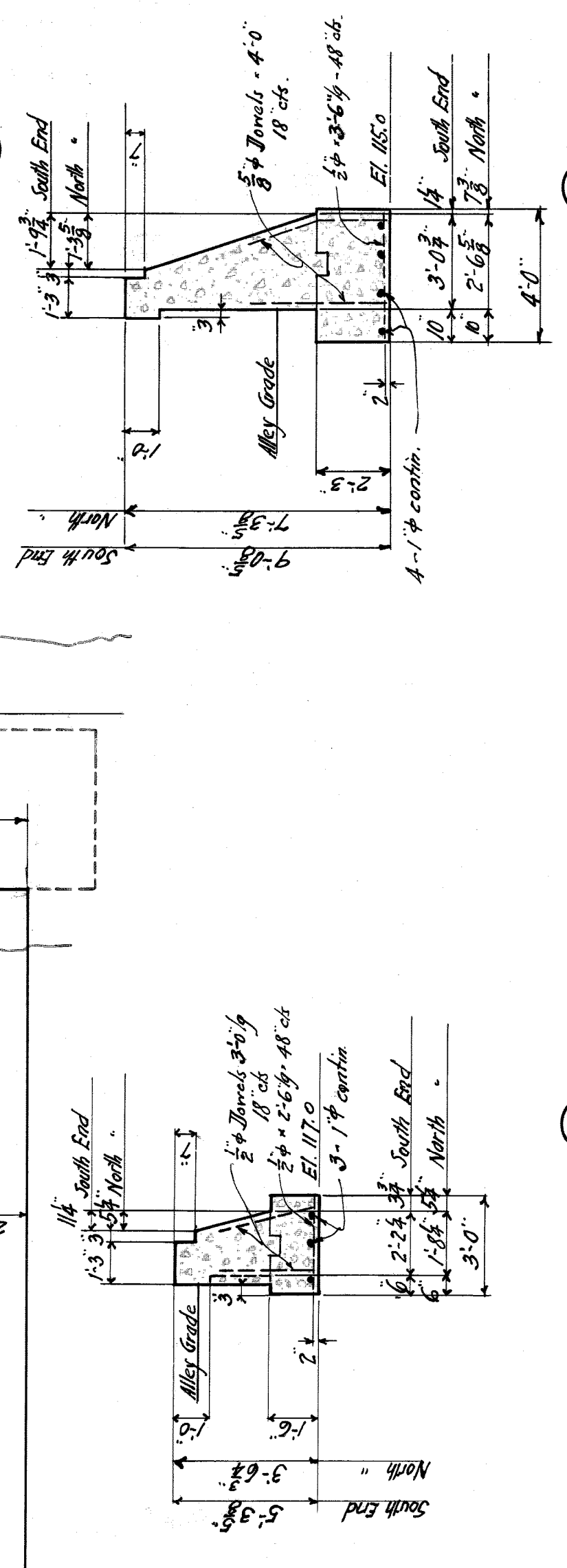
File X0 60-13

Dist over Weep hole



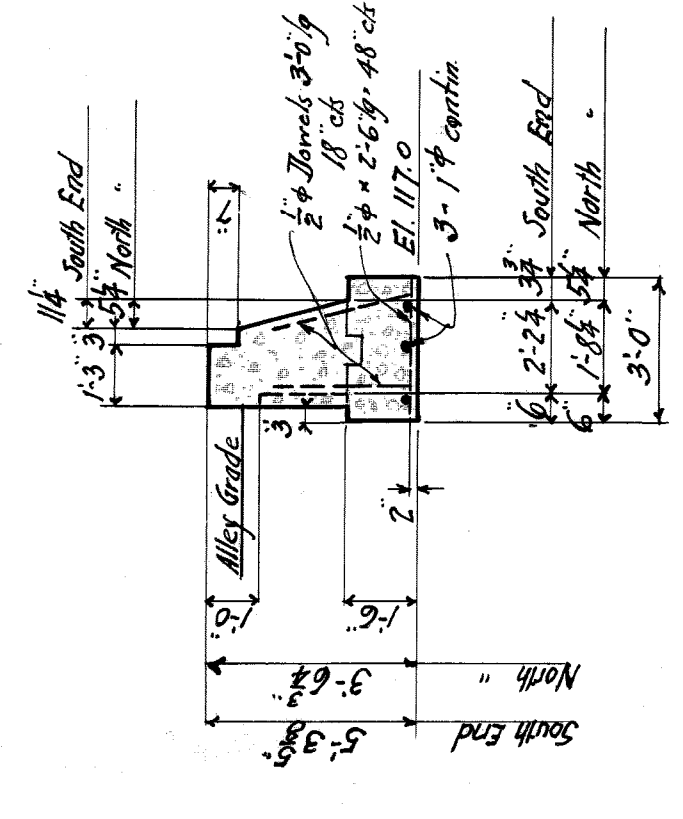
PLAN

REAR ELEVATION
RETAINING WALL - EAST SIDEWALK

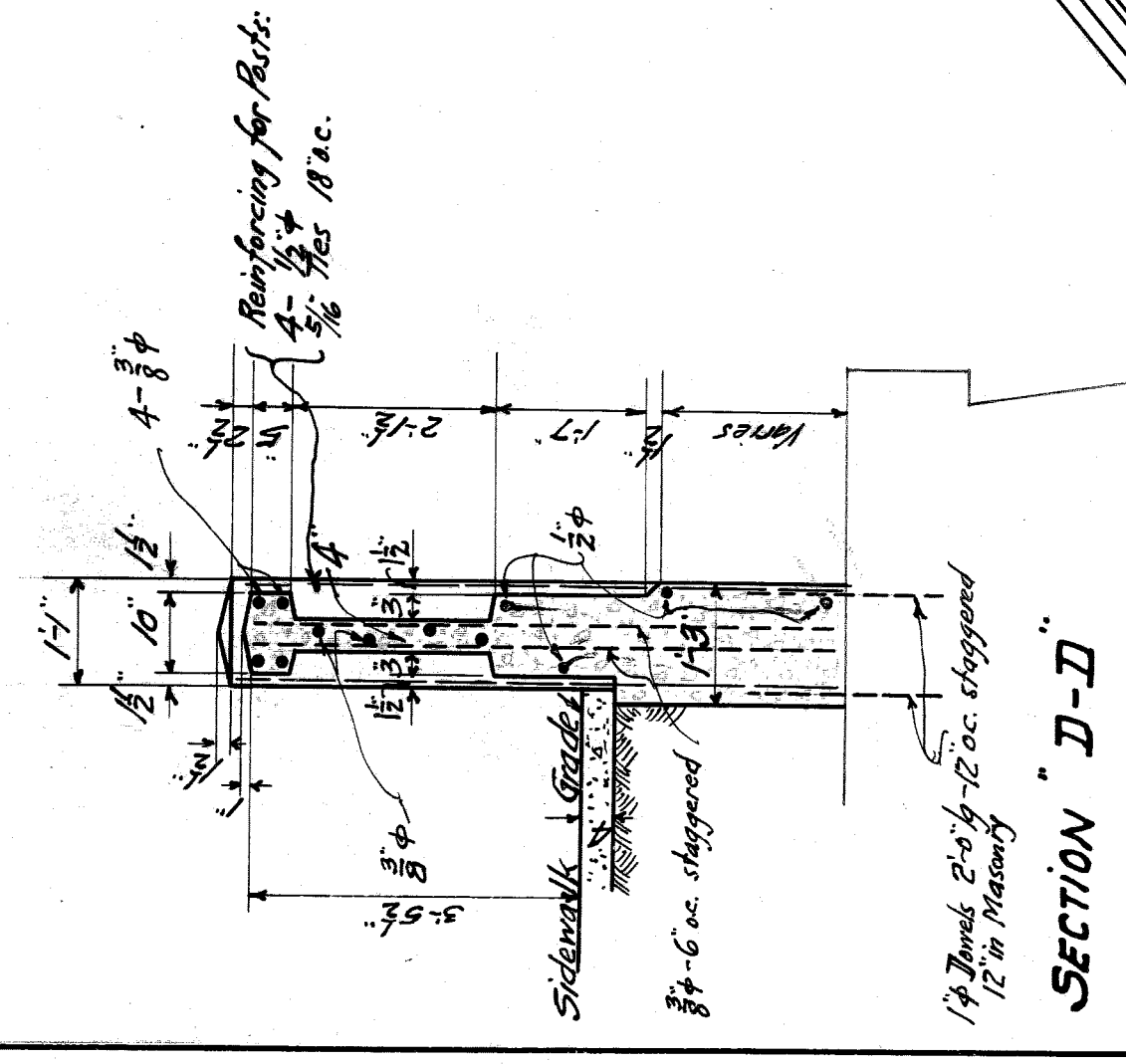


SECTION A

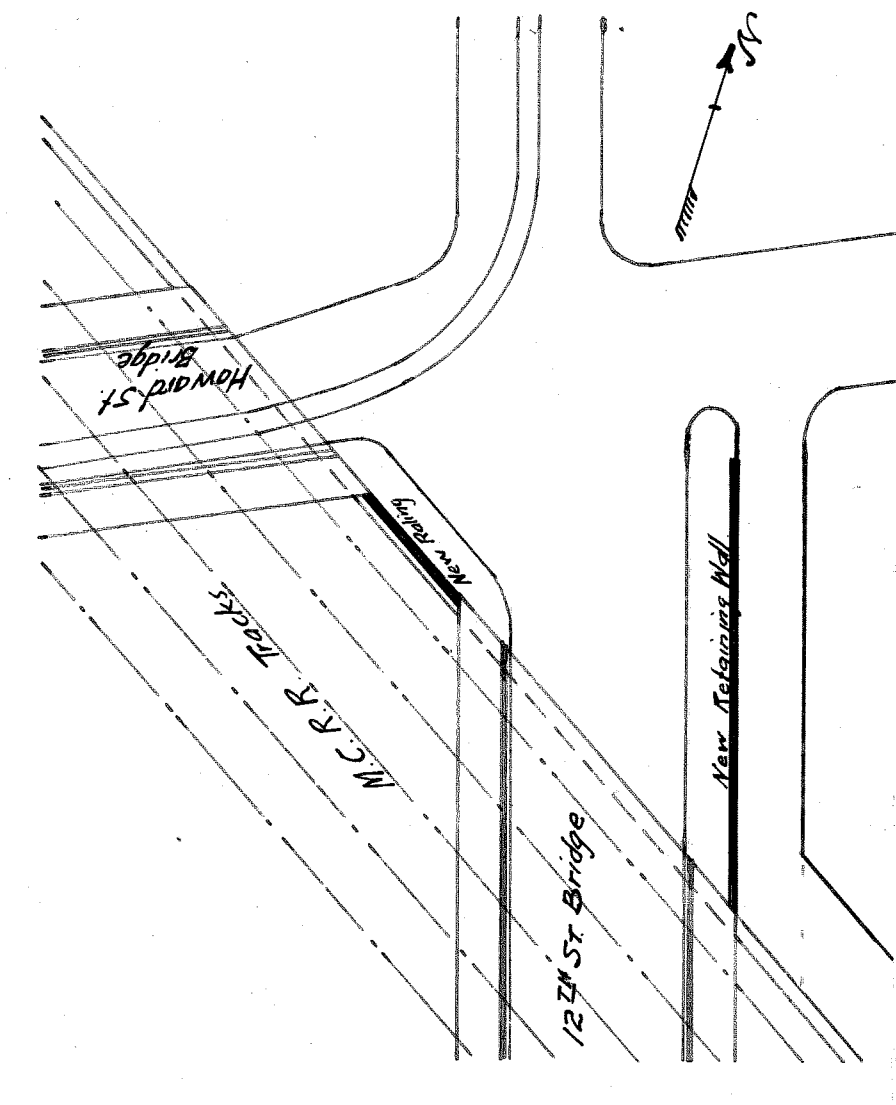
SECTION B



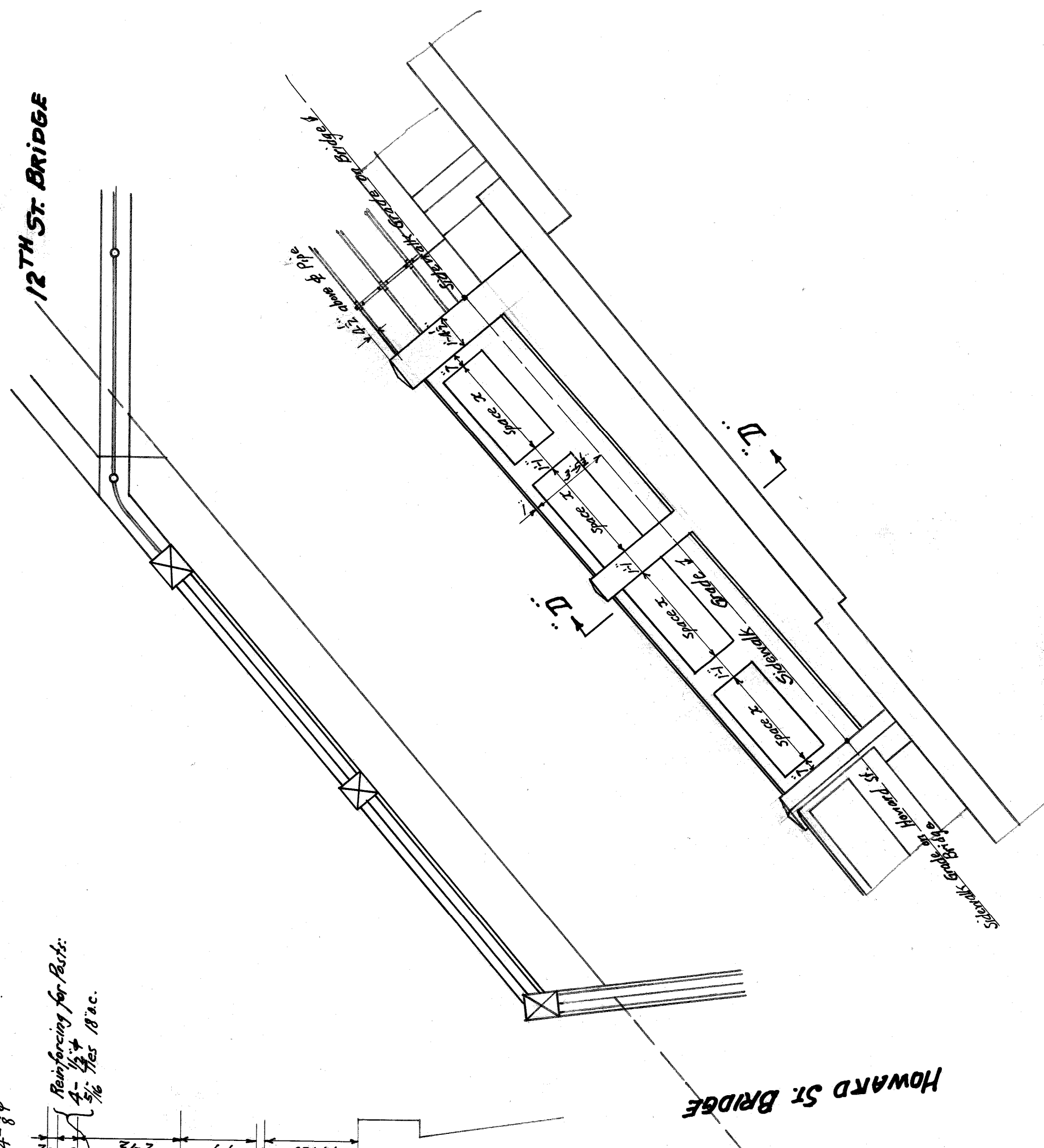
SECTION C



SECTION J-J

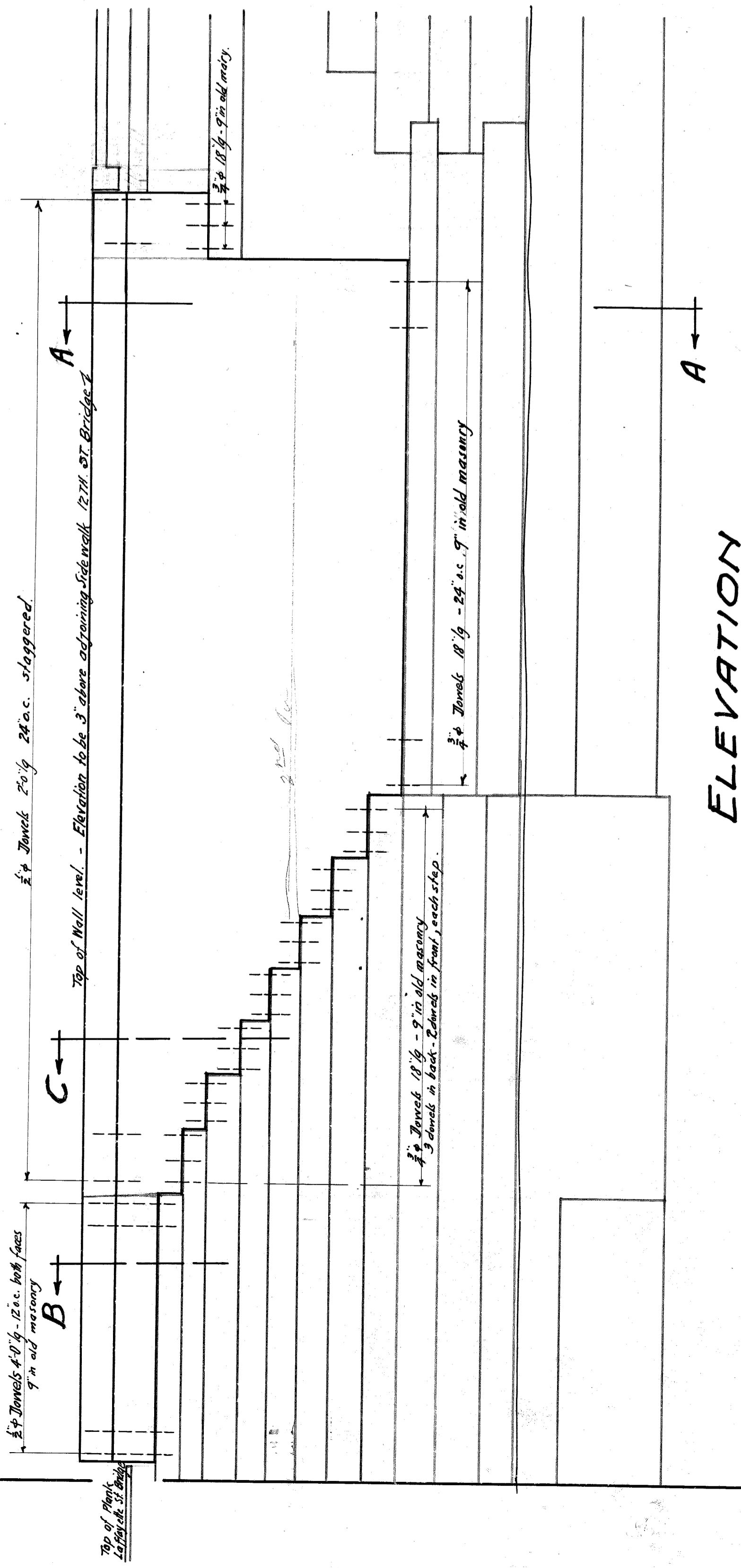


LOCATION PLAN

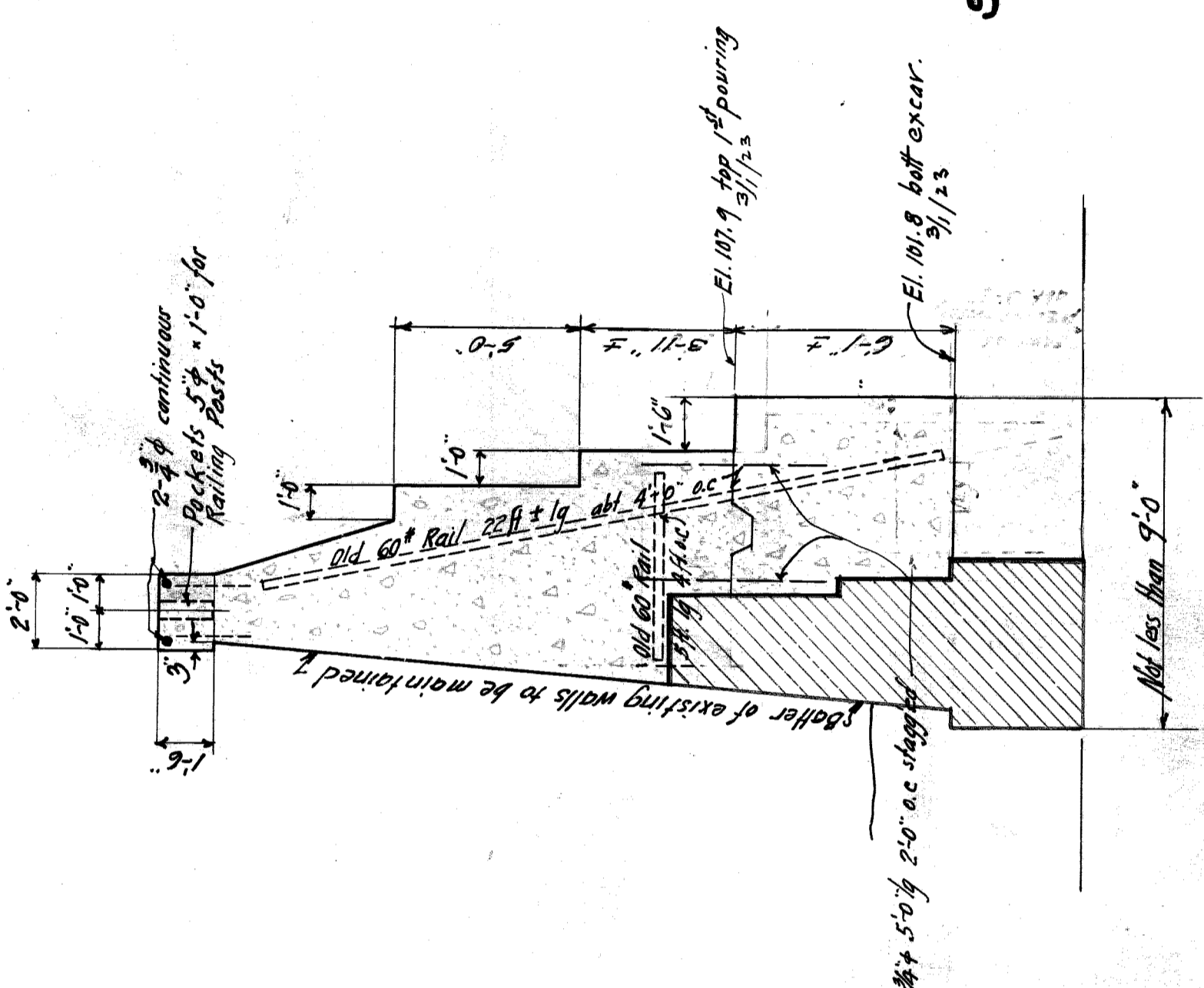


DETAIL OF RAILING OVER NORTH ABUTMENT.

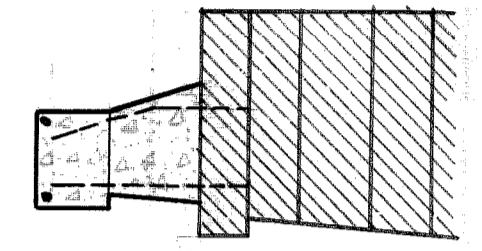
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
OFFICE OF CITY ENGINEER
DIVISION OF GRADE SEPARATION & BRIDGES.
TWELFTH STREET BRIDGE
OVER M.C.R. MAIN LINE.
DETAILS OF RETAINING WALLS AT
NORTH END OF BRIDGE
Made by: R.S. Nov. 27, 1932 Sheet # 12.



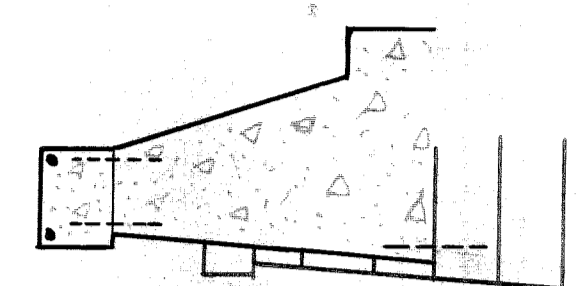
ELEVATION



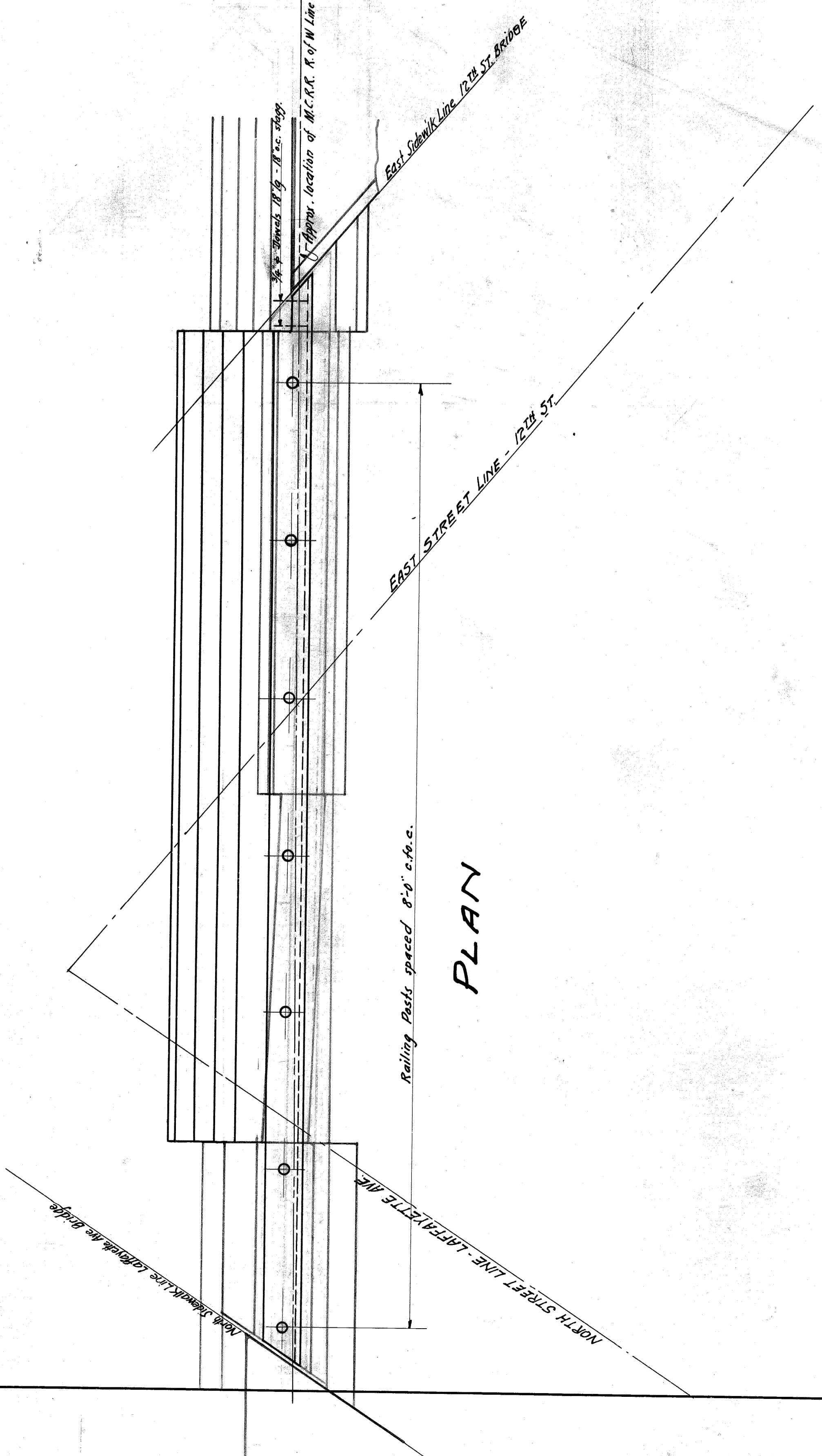
TYPICAL SECTION A-A.



SECT. B-B.

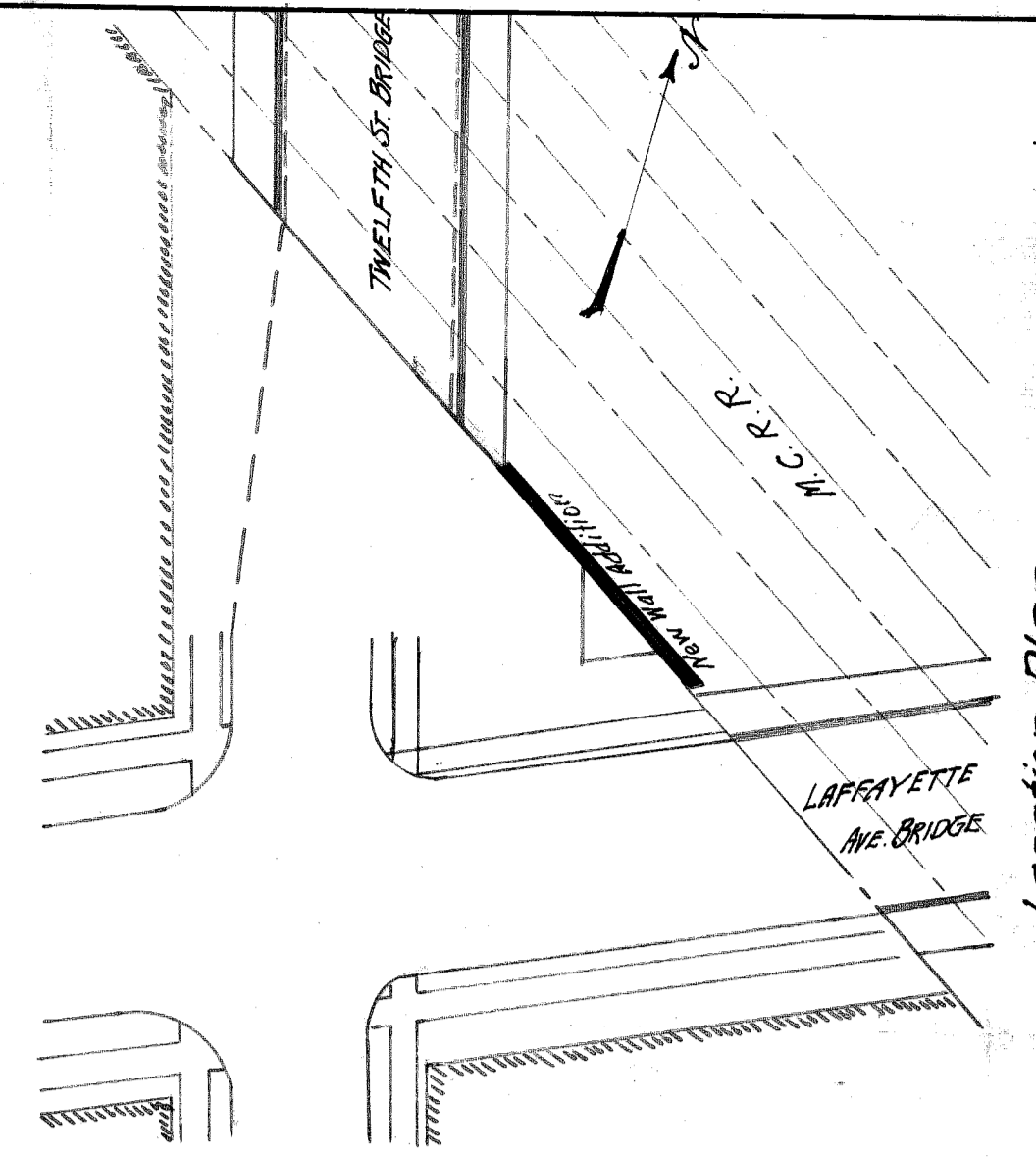


SECT. C-C.



PLAN

Mode of Procedure:
Excavate behind existing retaining wall from east end of 12th Street Bridge abutment to north end of Lafayette Avenue Bridge abutment in order to disclose the condition and dimensions of this wall as there is no data available from which to obtain this information. The section of the new wall shall be as shown on "Typical Section A-A" except where intercepted by existing masonry as indicated in section B-B and C-C.
After the actual conditions are disclosed the Engineer will give further information as to the details of construction, etc. The face of the new wall shall follow closely the existing wall both in batter and alignment.



Location Plan.

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
OFFICE OF CITY ENGINEER
DIVISION OF GRADE SEPARATION & BRIDGES.
TWELFTH STREET BRIDGE
OVER M. C. R. Main Line.
DETAILS OF RETAINING WALLS AT SOUTH END OF BRIDGE

GENERAL NOTES.

Take up curb circle on N.W. corner of Lafayette Ave. and 12th St., cut same to new length and reset to new grade. All other S curb circles are new.
 Set curbs: From point A to B (cut curb for drive way to Edgar Sugar House as shown.)
 C to D - E to F and G to H and around 4' rad. circle to retaining wall adjoining alley.
 Set new catchbasins (C.B.) where indicated on plan and connect to sewer.
 On the S.W. Approach the Side Walk Department will waterproof the wall of the Edgar Sugar House, and build a concrete curb provided with a watertight seal at the top, all as shown and called for on plan, "SECTION I-X".
 Manhole in sewer on South Approach to be extended up to top of new road.
 All catchbasins to be set and connected to sewer by Sewer Division of the D.P.W.
 All Elevation refer to top of curb unless stated otherwise.

Approximate length of straight curbing 219'.
 circles 159.4'

Note: see field book "3166 (p. 16-17) for final elevations.

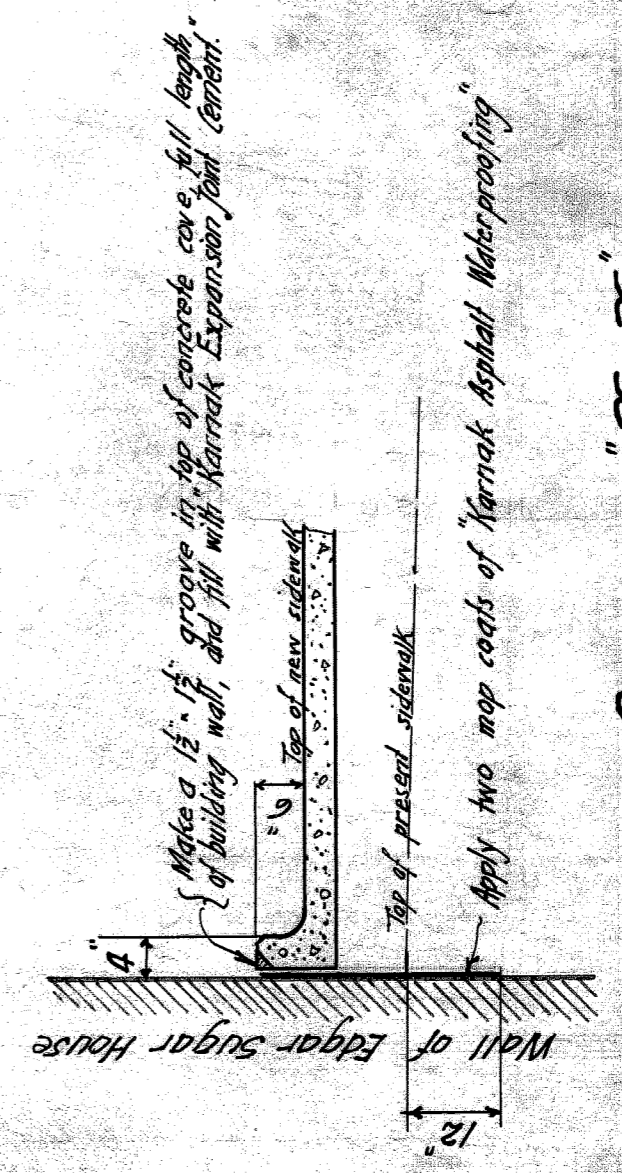
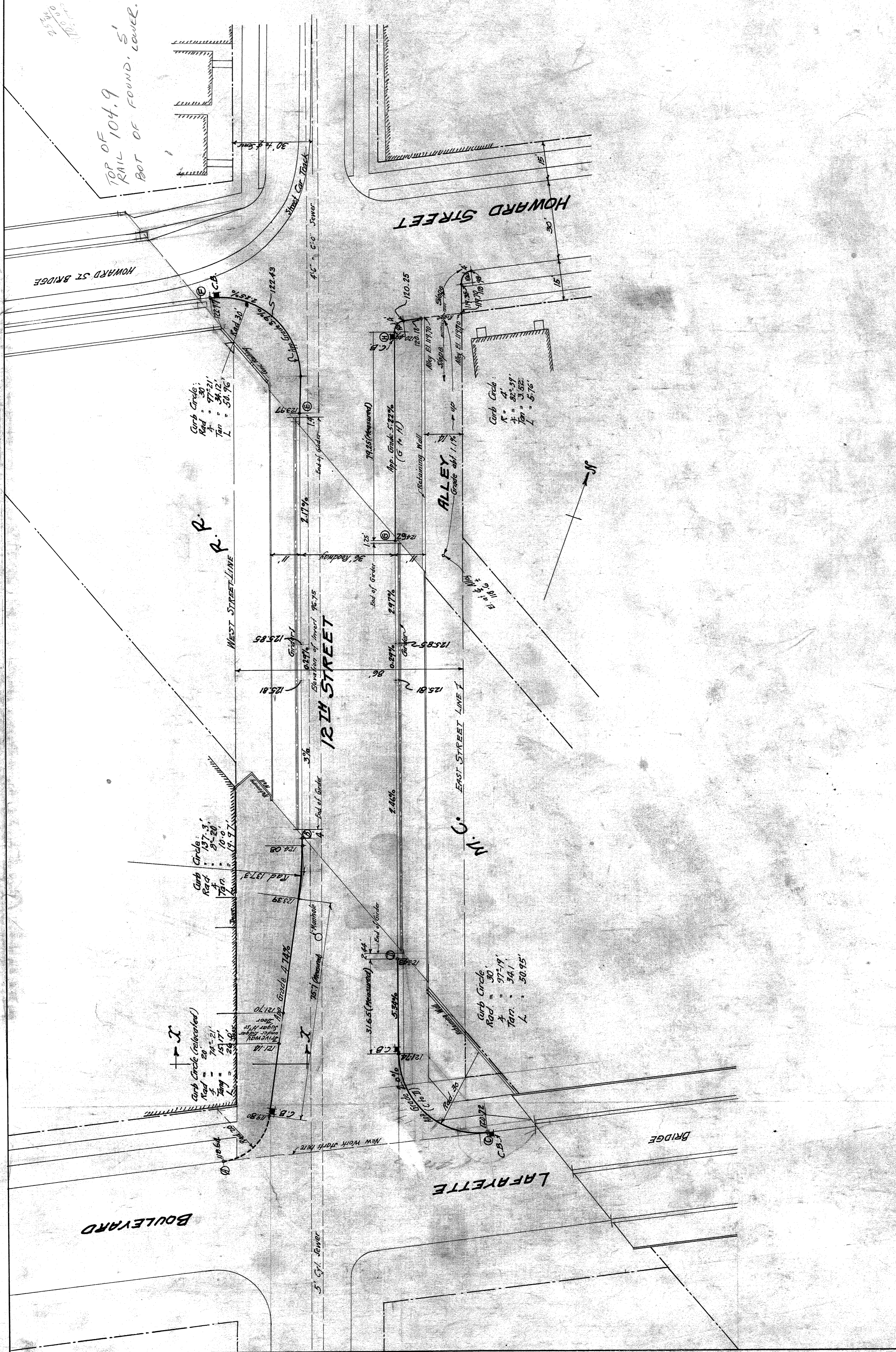
CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 OFFICE OF CITY ENGINEER
 DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH ST. BRIDGE
OVER M.C. MAIN LINE
STREET PLAN

Scale: 1" = 20' & 1" = 2'
 Made by: R.S.
 Checked: C.H.S.

February 14, 1923
 Sheet No. 14

File X 0 60-16

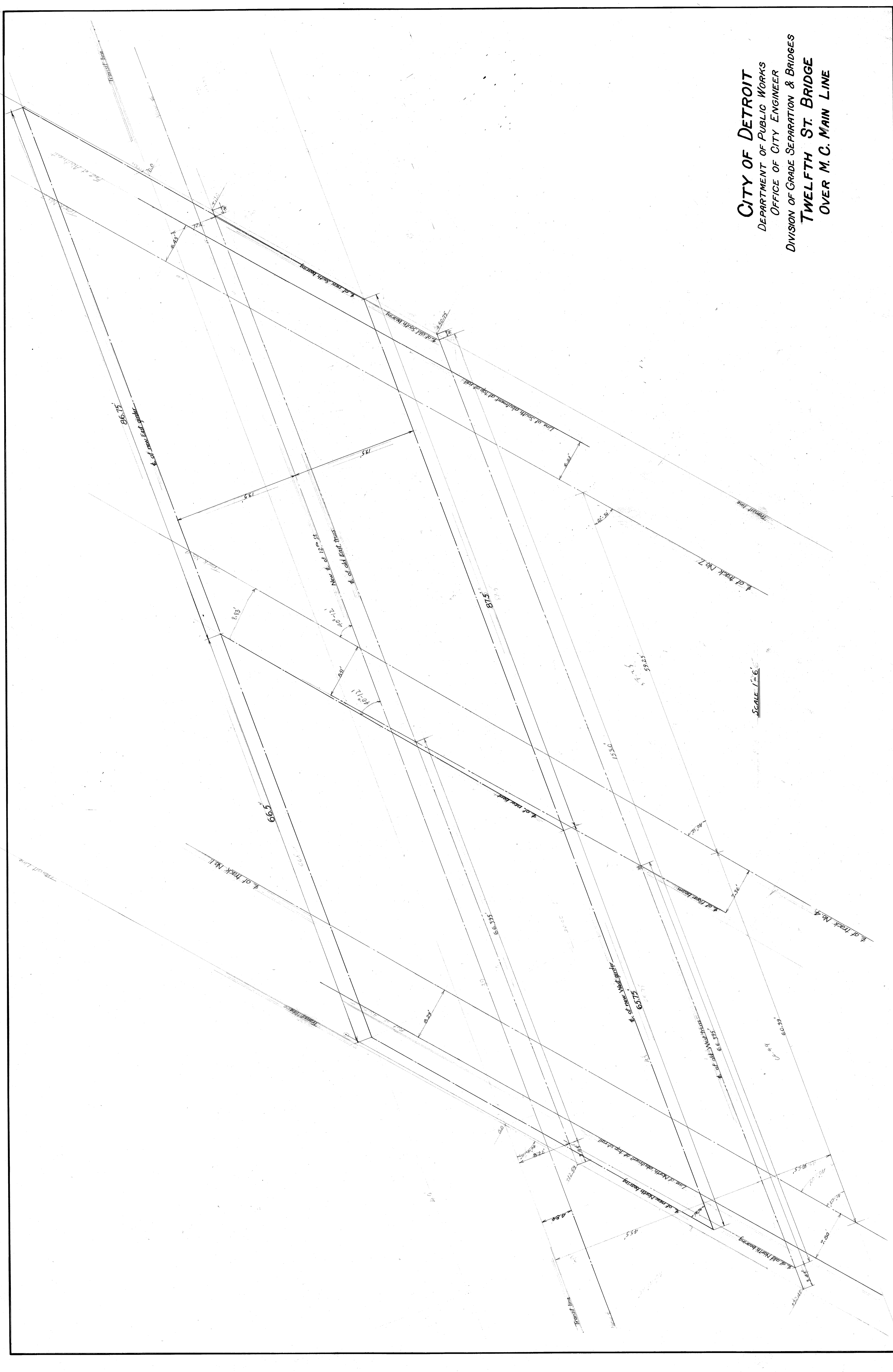
Approved by:
John W. Ford
 City Engineer



SECTION "I-X"

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 OFFICE OF CITY ENGINEER
 DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH ST. BRIDGE
 OVER M. C. MAIN LINE

File X060-18

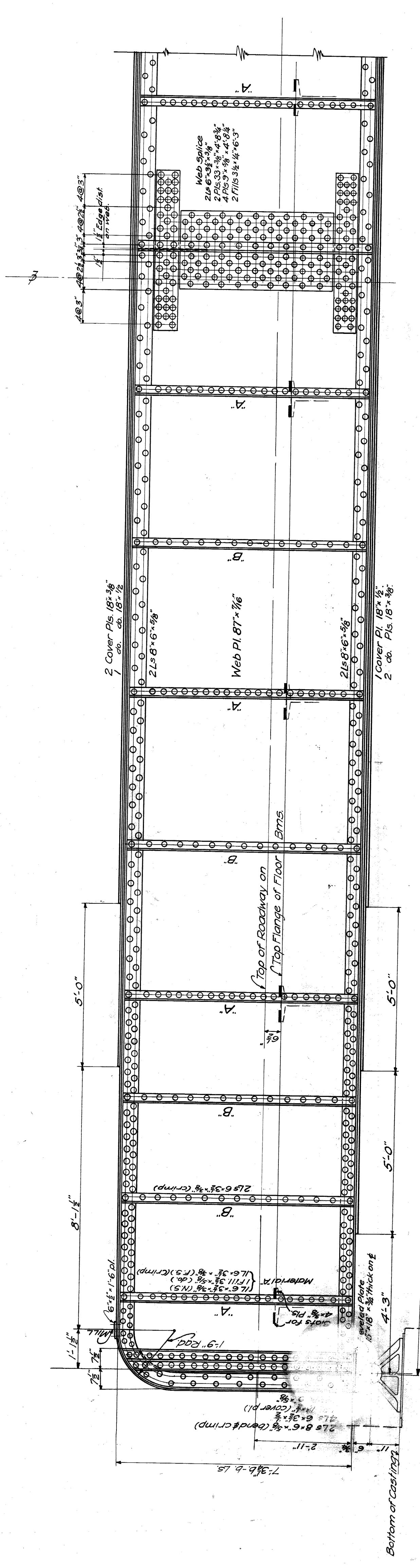
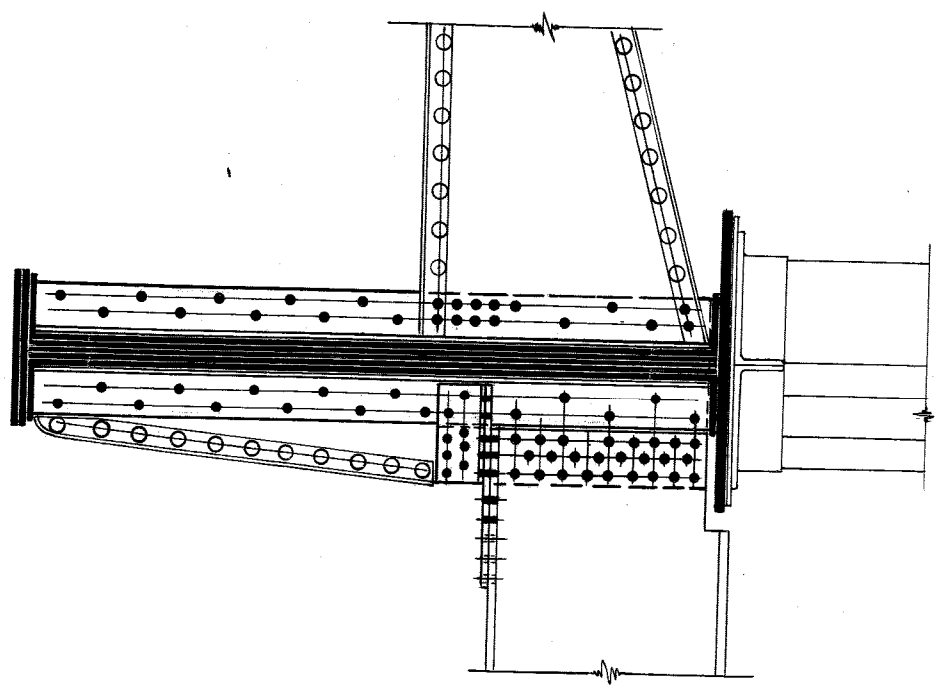


SCALE 1" = 60'

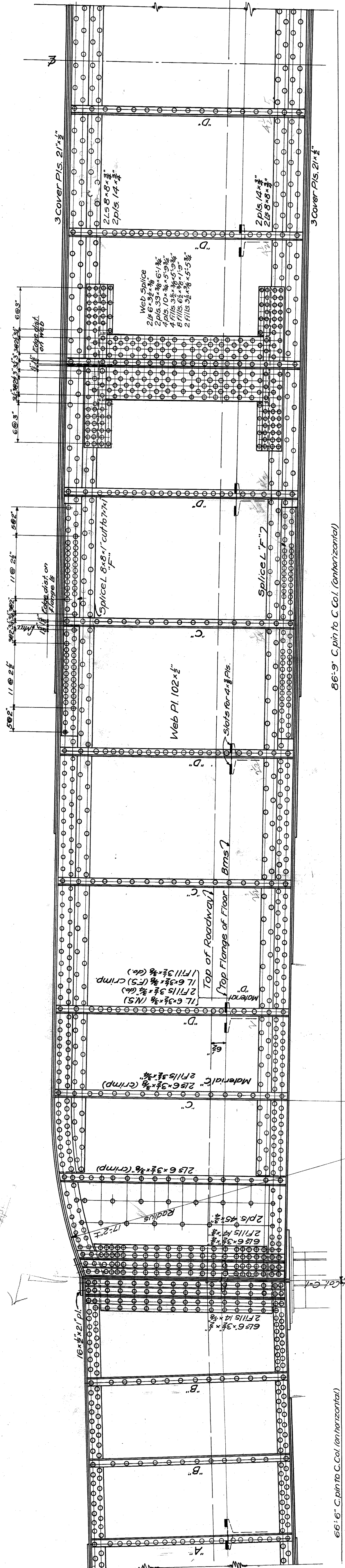
3/10/18

CITY OF DETROIT
 DEPARTMENT OF PUBLIC WORKS
 OFFICE OF CITY ENGINEER
 DIVISION OF GRADE SEPARATION & BRIDGES
TWELFTH ST. BRIDGE
 OVER M.C. MAIN LINE

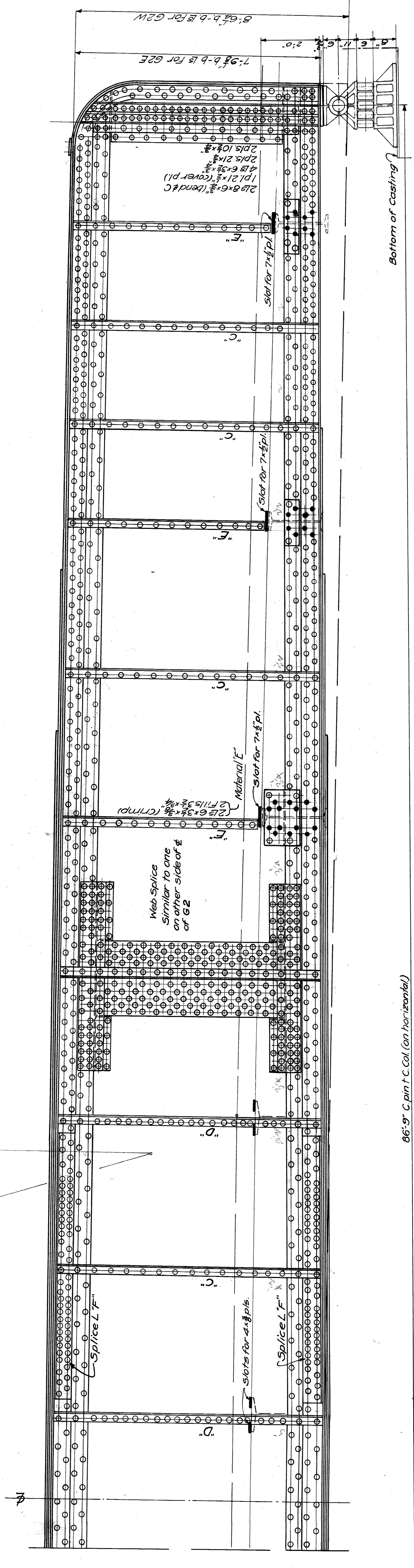
File X0.60-19



66'-6" C. pin to C. Col. (on horizontal)

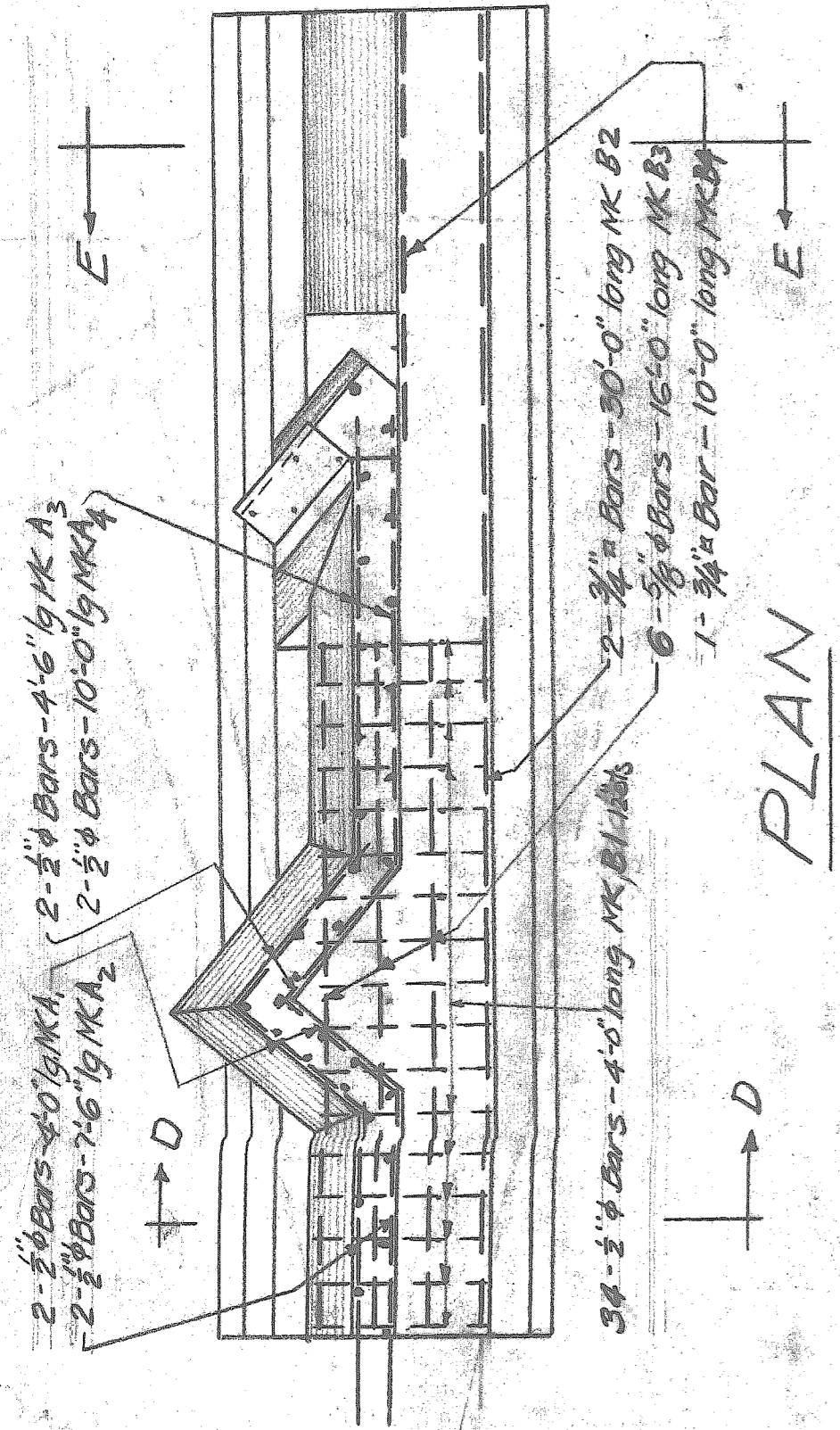


86'-9" C. pin to C. Col. (on horizontal)

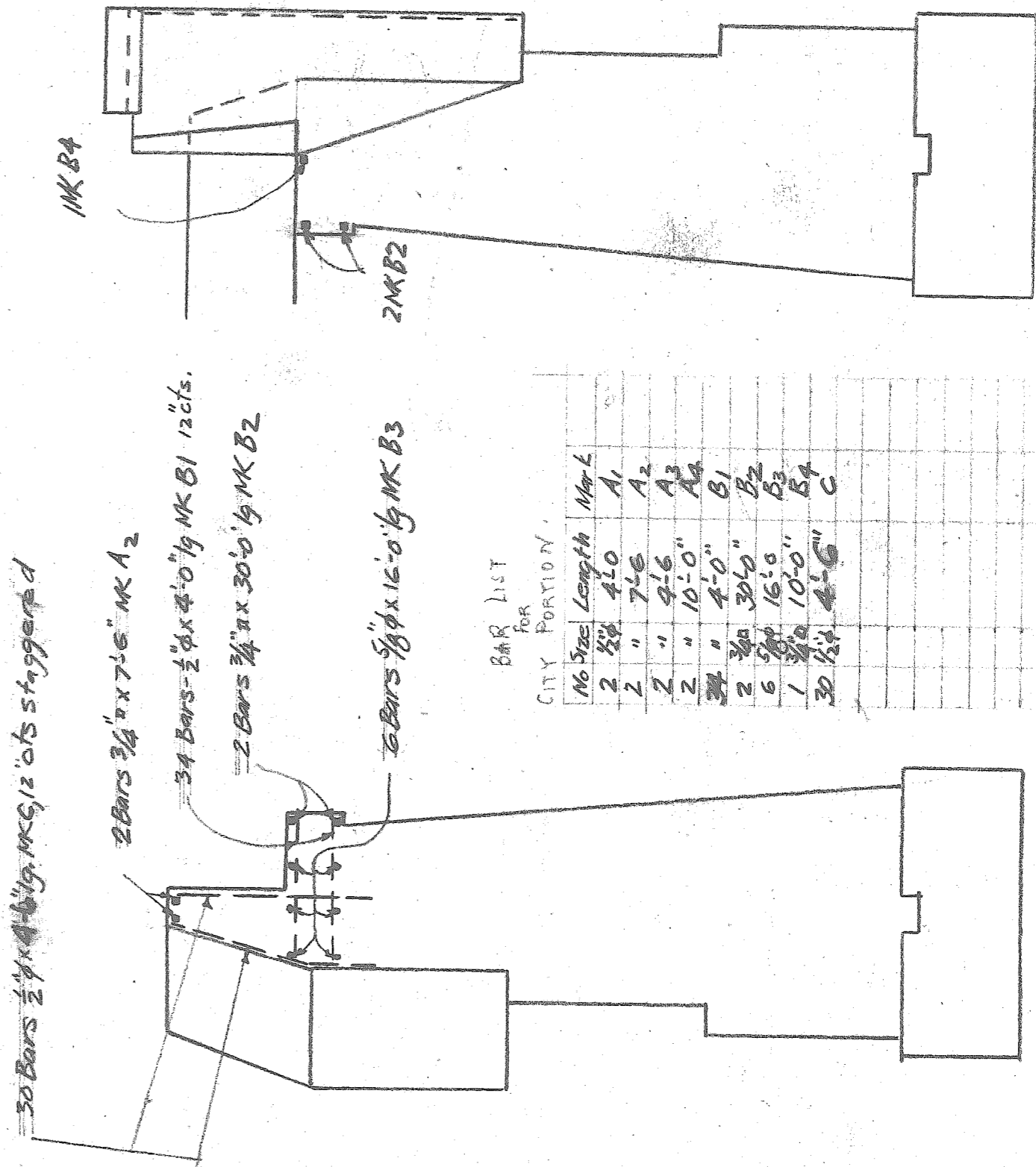
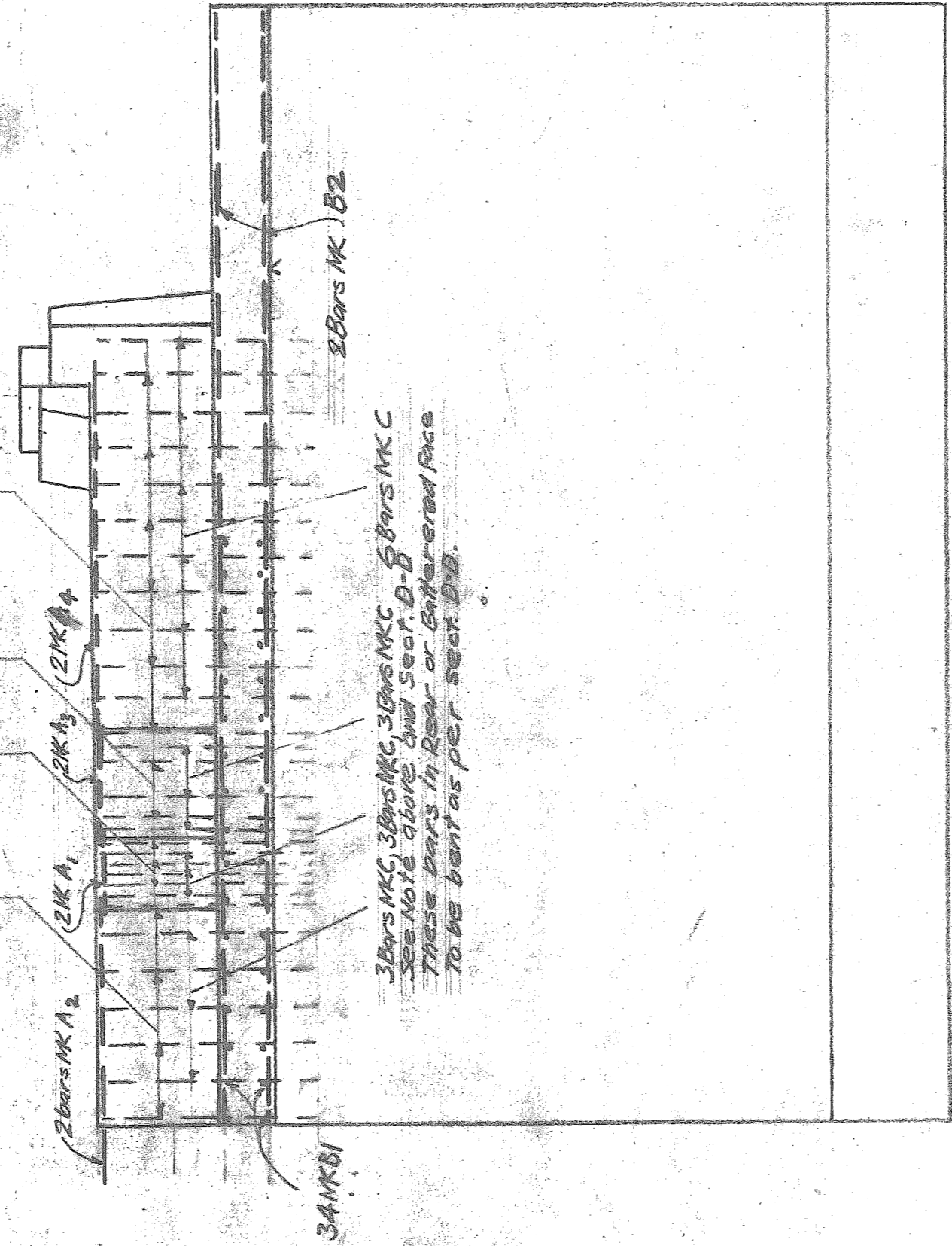


86'-9" C. pin to C. Col. (on horizontal)

Bottom of casting

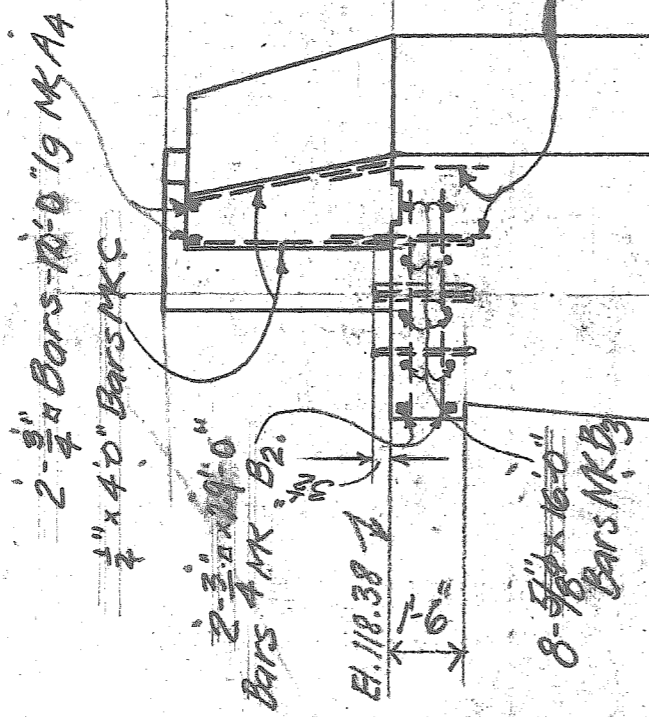


Note: Vertical Bars $\frac{1}{2} \phi \times 4'-6"$ long MK spaced 12" staggered cts or 2'-0" cts in each face of that wall. See section D-D Bars near front or vertical face as follows:



CITY OF DETROIT
 12TH ST. BRIDGE
 CITY PORTION OF N. ABUTMENT
 Scale: $\frac{1}{4}'' = 1'-0''$
 File X060-22

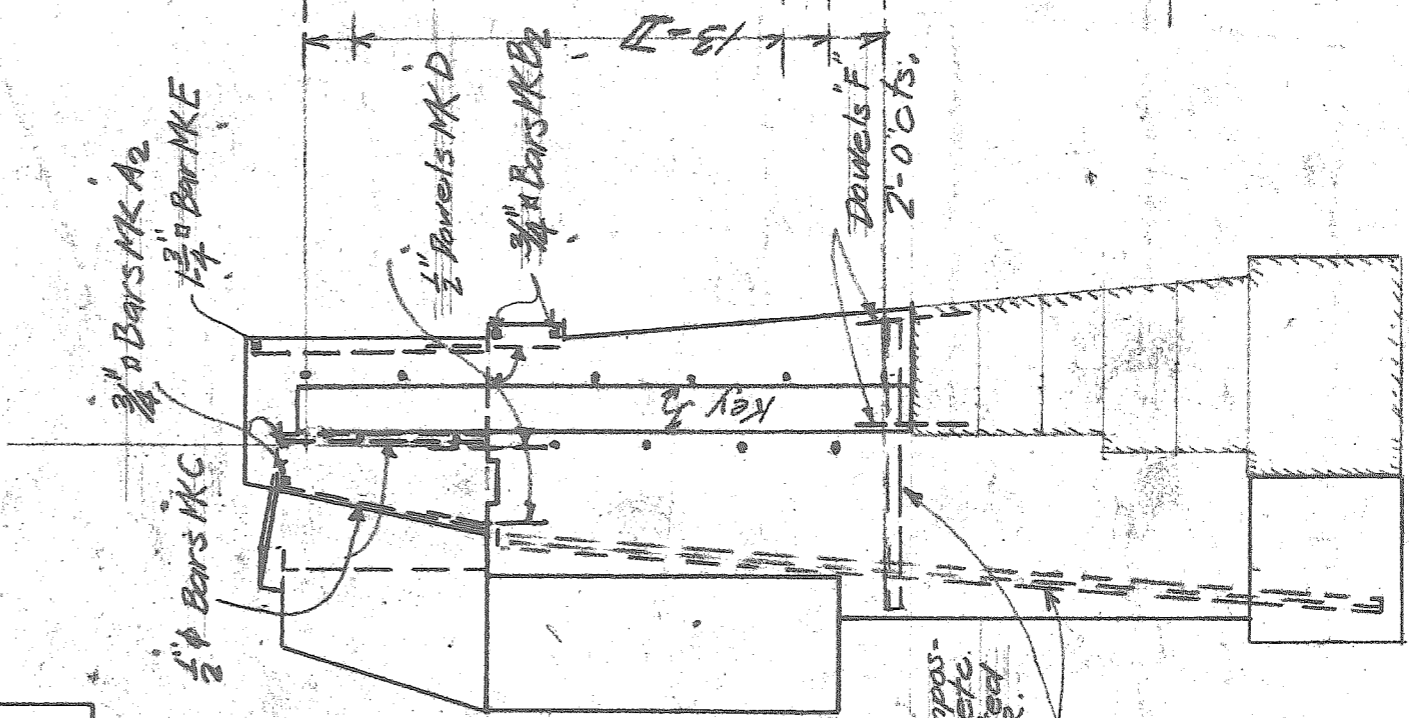
This part of backwall to be built after erection of steel



BARS REQ'D.

No.	Length	Mk
2	4'-0"	A1
2	14'-3"	A2
2	3'-6"	A3
2	12'-0"	A4
34	3'-0"	B1
2	29'-0"	B2
8	16'-0"	B3
38	4'-0"	C
1	3'-0"	D
1	2'-6"	E
20	2'-0"	F

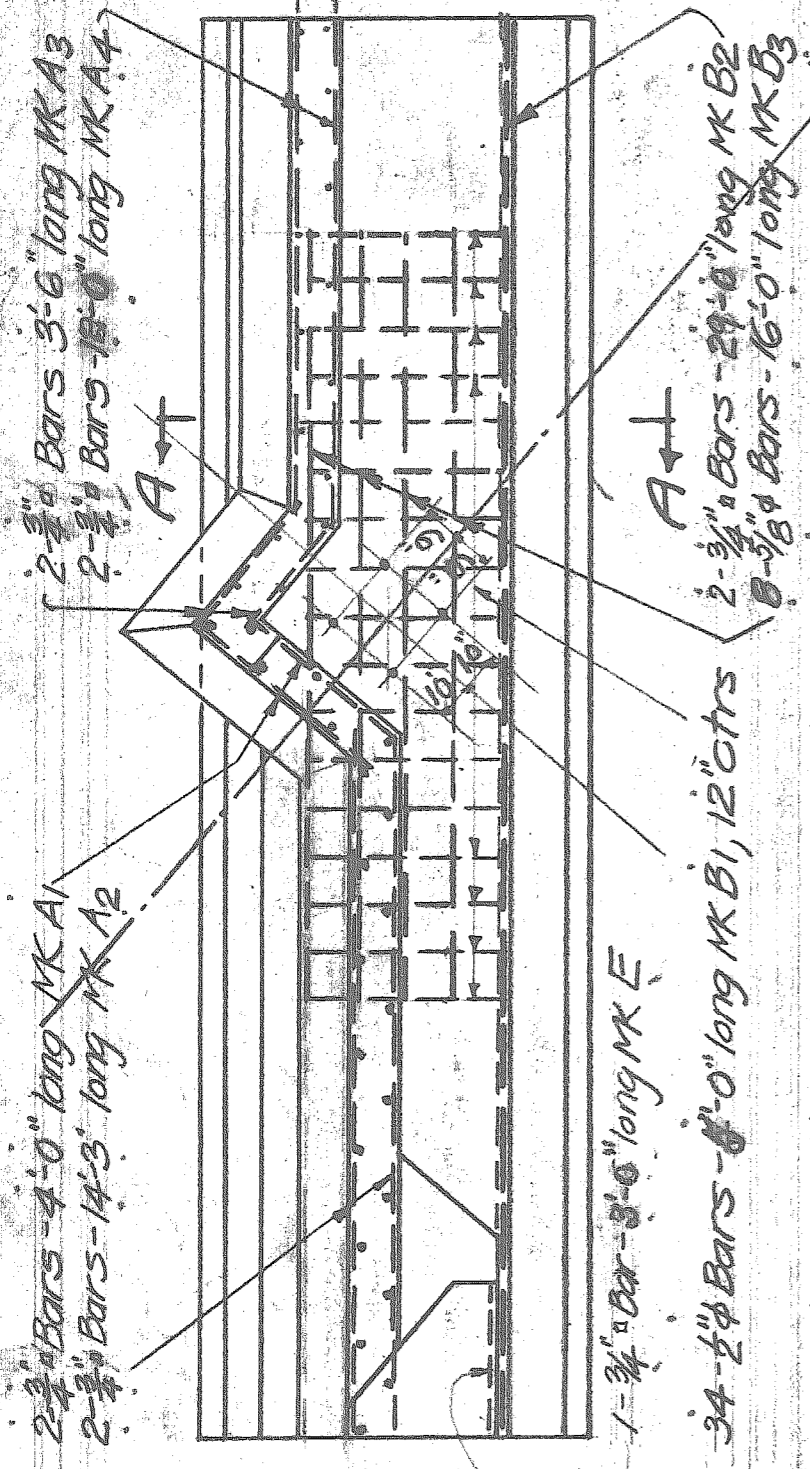
1/2" x 3'-0" Dowels MK D



NOTE: - Reinforcement composed of light rail sections, etc. to be placed as directed by Engineer for M.C.R.R.

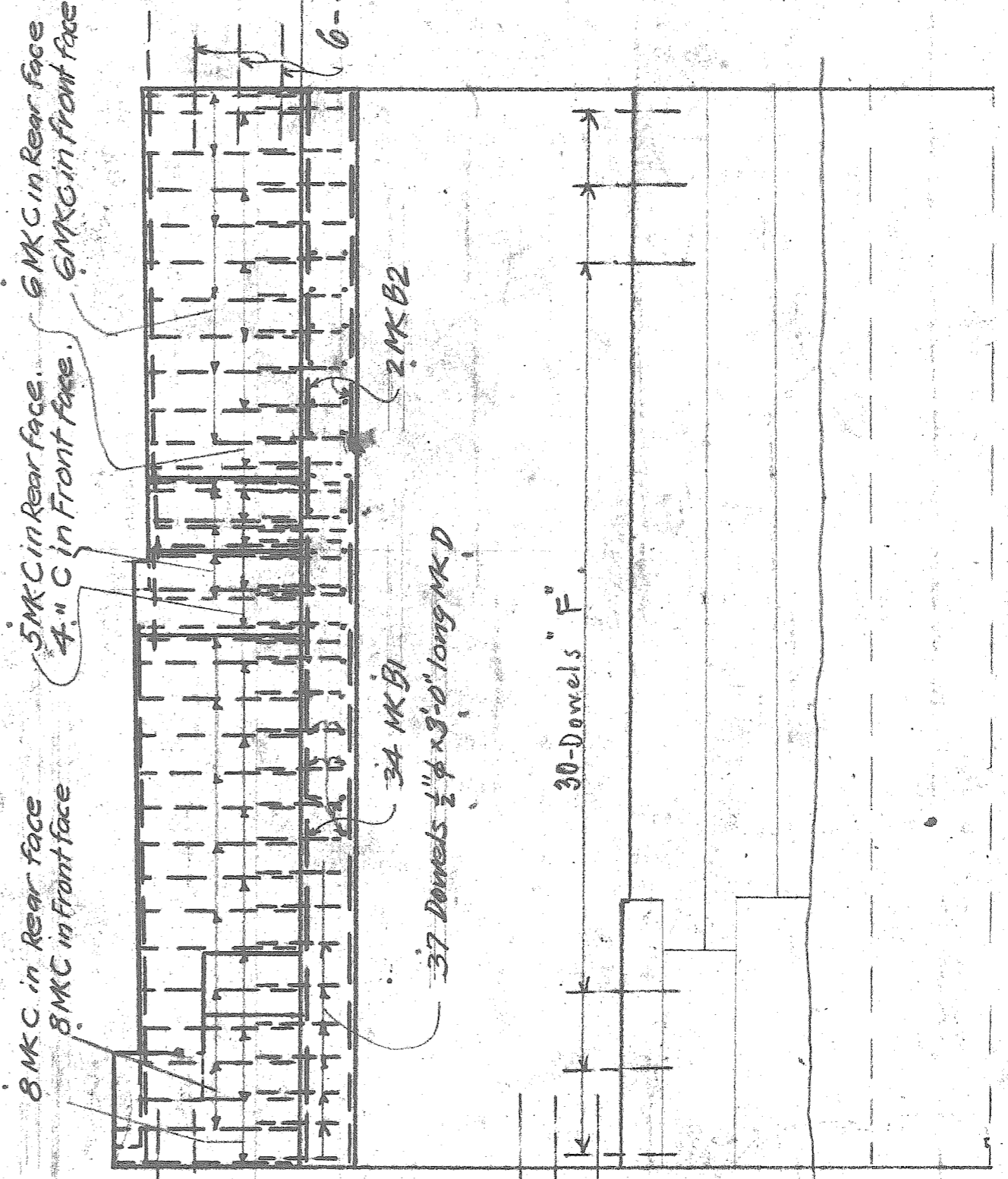
SECTION-A-A

END VIEW



PLAN

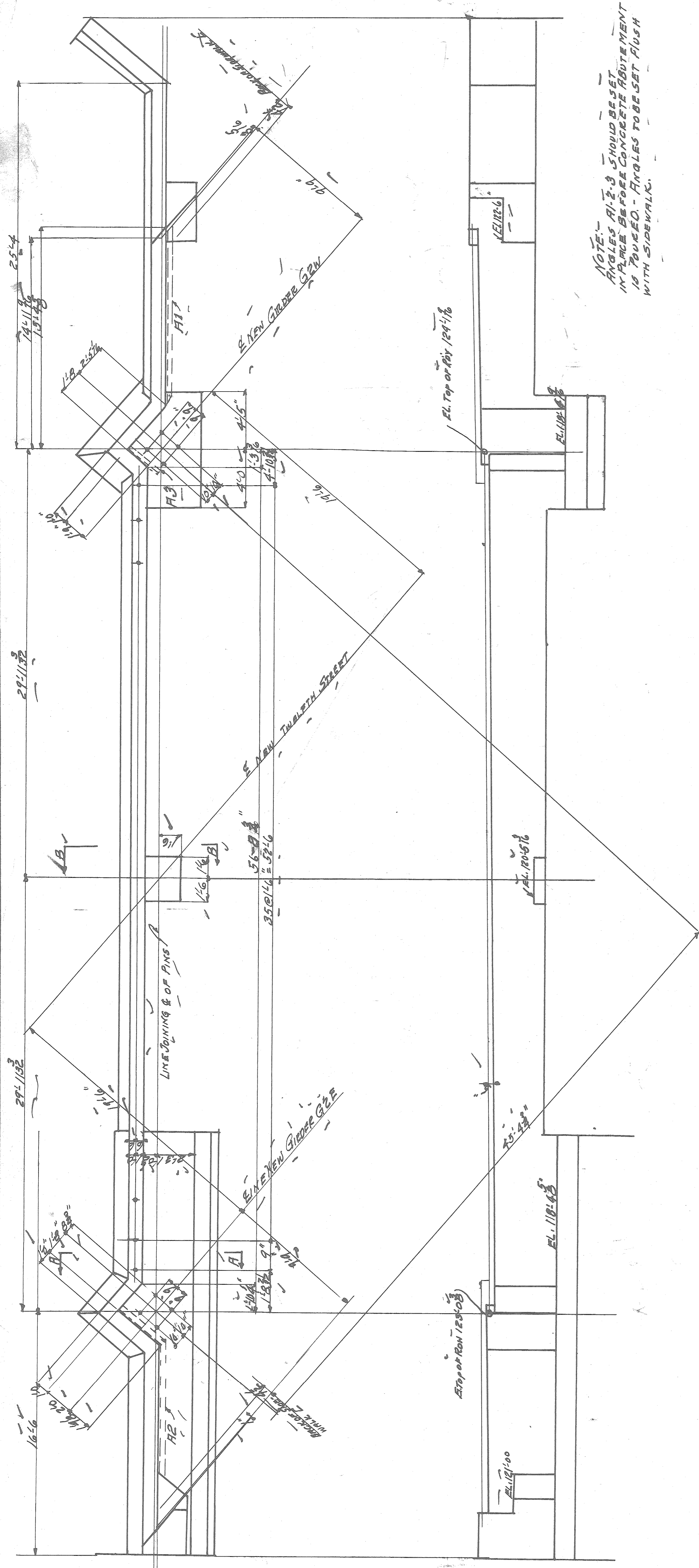
Backwalls above this line to be built after erection of steel



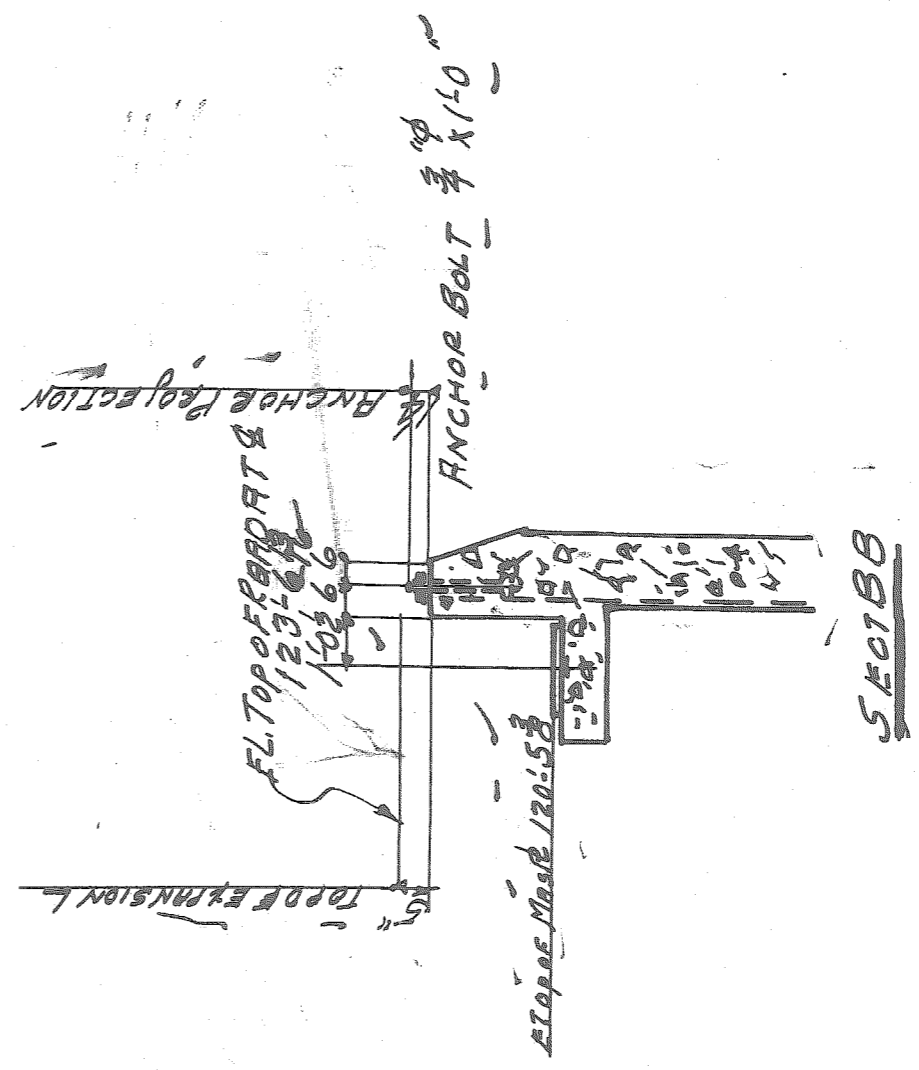
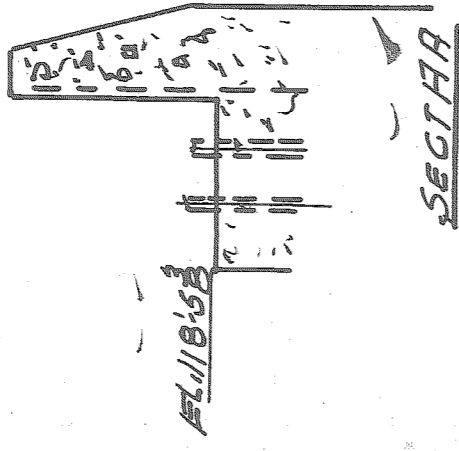
ELEVATION

SKETCH SHOWING REINFORCEMENT OF CITY PORTION

SOUTH ABUTMENT
12TH ST. BRIDGE OVER M.C.R.R.



NOTE: ANGLES A1-2-3 SHOULD BE SET IN PLACE BEFORE CONCRETE ABUTMENT IS POURED - ANGLES TO BE SET FLUSH WITH SIDEWALK.



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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

WISCONSIN BRIDGE & IRON CO.
NORTH MILWAUKEE, WIS.

FOR: *C. H. & F. DETROIT*
LOCATION: *DETROIT MICH*
DESCRIPTION: *TWELFTH ST BRIDGE*
DETAILS OF: *WILSONS BRIDGE*
SPECIFICATIONS: *REMAINING*
INSPECTED BY: *REACTED BY*

FIELD PAINT: *MADE BY F. P. F. DATE 7/19/22 RIVETS OPEN HOLES*
TRACED BY: *DATE 1-1-11* UNLESS NOTED
CHECKED BY: *DATE 1-1-11*
SCALE: *AS SHOWN*
SECTION: *AS SHOWN*

COUNT: *10* SHEET No. *E2*
9617

FILE NO 60-26

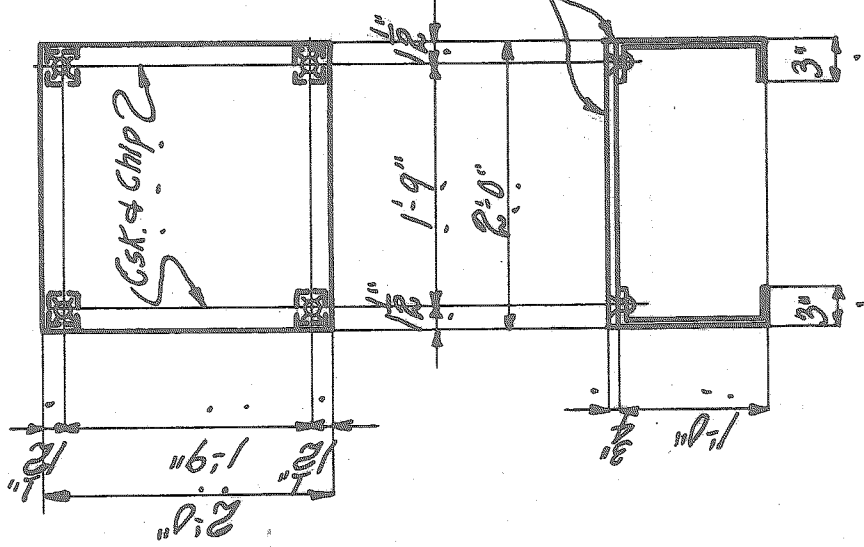
WISCONSIN BRIDGE & IRON CO.
NORTH MILWAUKEE, WIS.

FOR City of Detroit
LOCATION Detroit, Mich.
DESCRIPTION Twelfth St. Bridge.
ERECTED BY W. B. & I. Co.
SPECIFICATIONS Customers.

RIVETS 3"
OPEN HOLES 1/6" UNLESS NOTED
REAMING None
SHOP PAINT as noted.
FIELD PAINT None.

CONT. No. 9617A
BILL NO. 302A

INSPECTION BY See Specifications.
MADE BY HFX DATE 6/16/22
TRACED BY — DATE —
CHECKED BY — DATE —



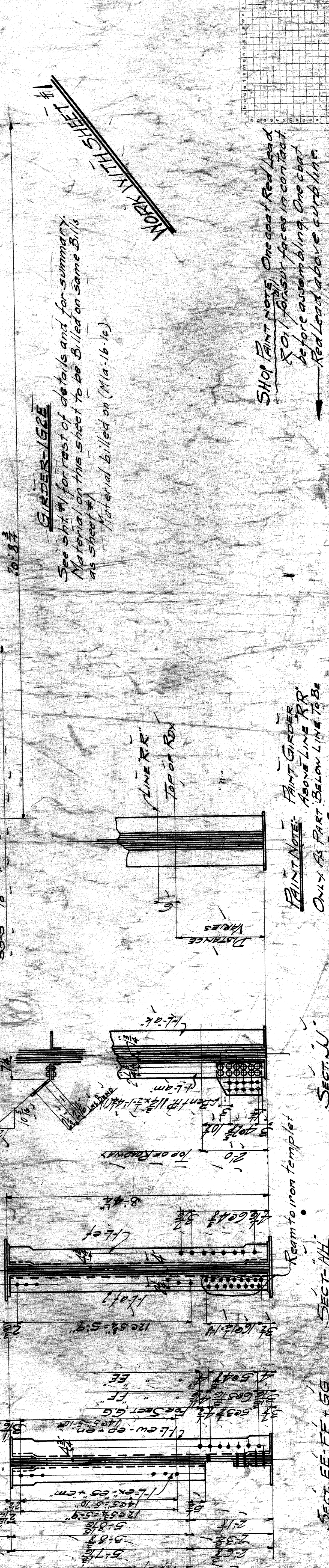
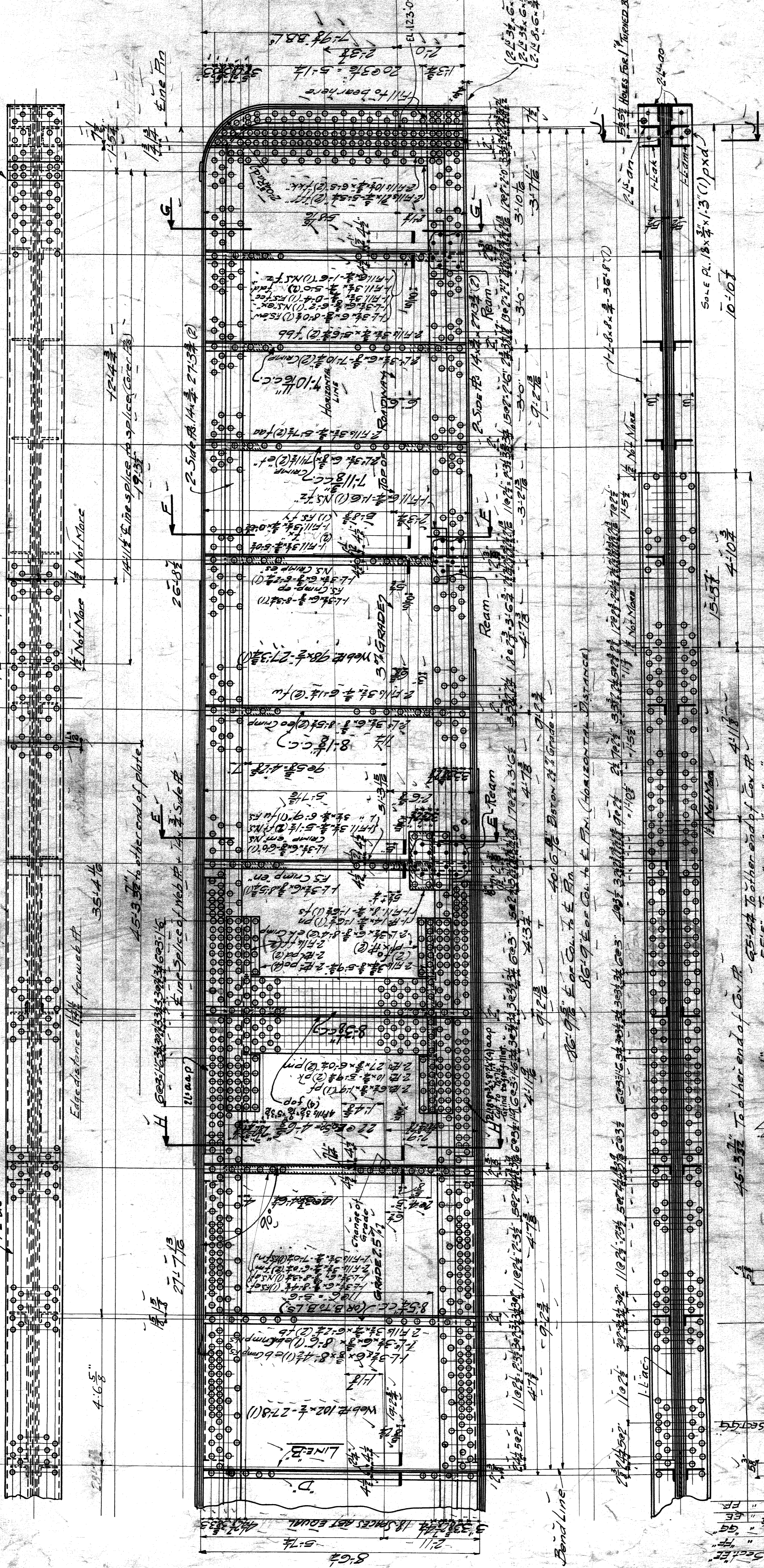
*1 Plate 24x4x2'-0" (1)
4 Bars. 2x4x1'-6" (4) Bent*

Paint: 1 Coat. Red lead on outside surfaces of 24x4 Plate, and surfaces in contact with each other.

1 ~ Bearing Plate ~ 302A

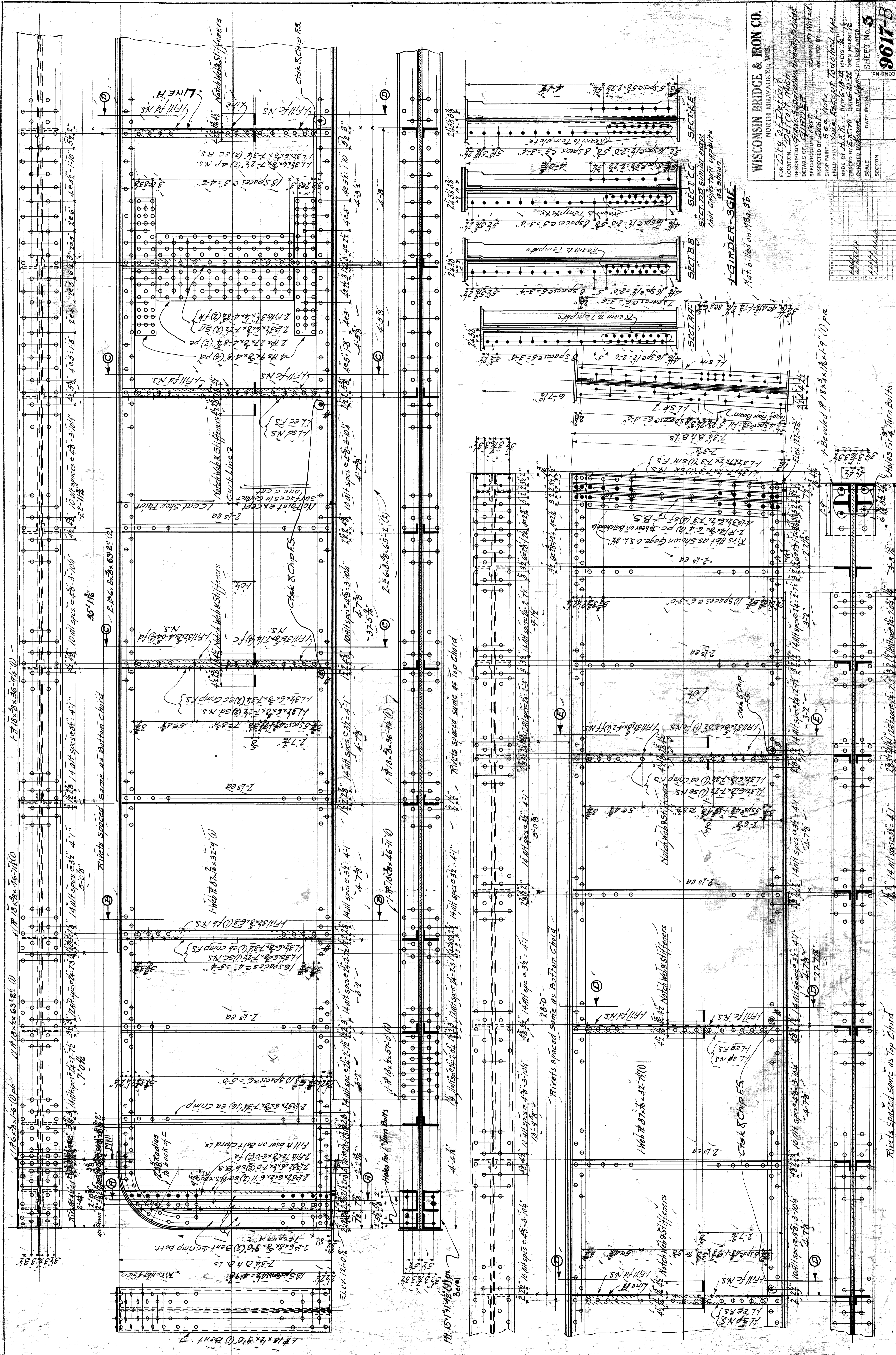
*File XO 60-29
Billed on M302a*

Rivet Spacing same as in bottom flg
 Mill Cov. Pl. 14.8 x 8.2 x 36.5" (1)
 Cov. Pl. 21 x 21 x 14.11" (1)
 Rivet Spacing 1-9" (1) ps

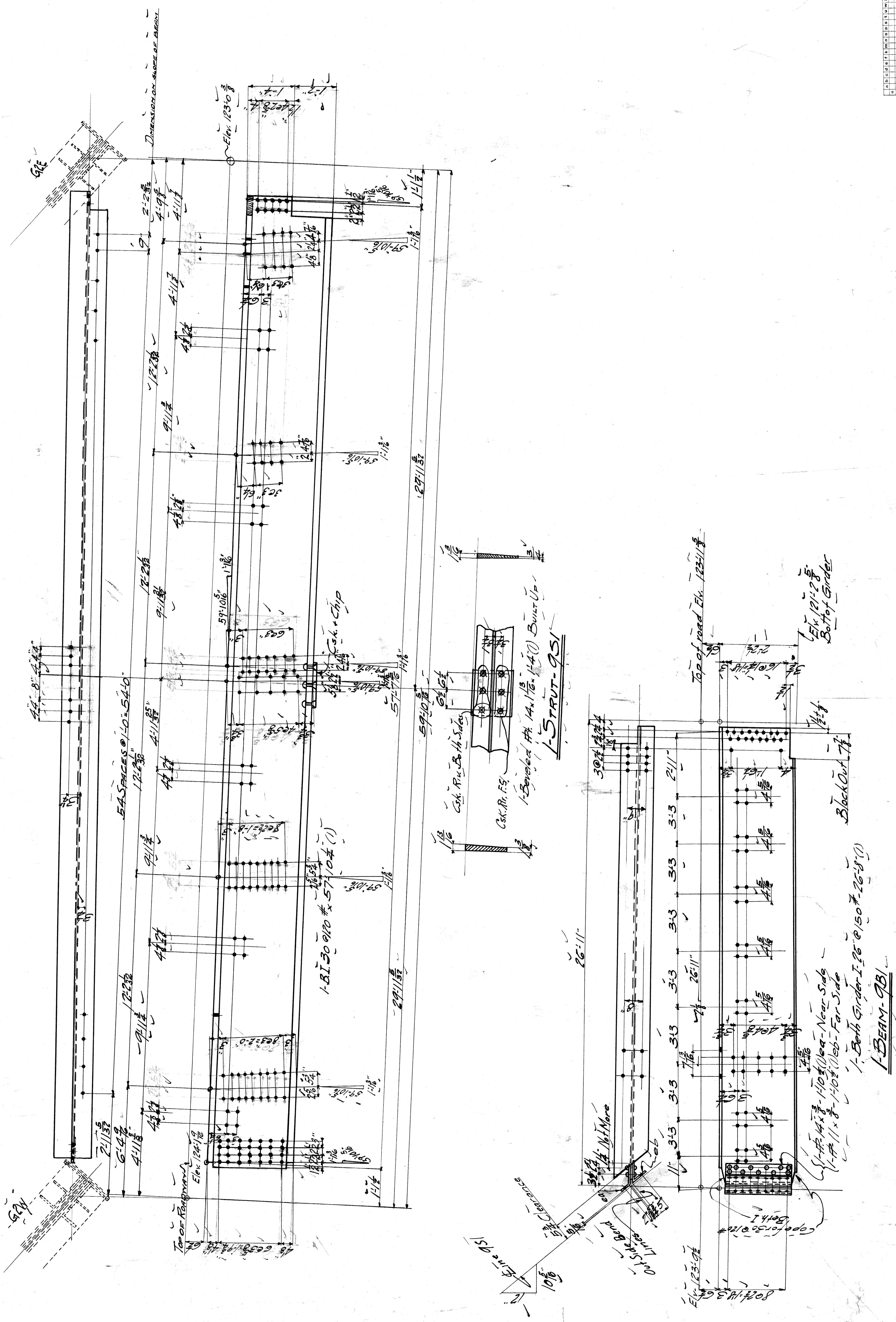


WISCONSIN BRIDGE & IRON CO.
 NORTH MILWAUKEE, WIS.
 FOR CITY OF DETROIT
 LOCATION: DETROIT, MICH
 DESCRIPTION: GRABER ST. HIGHWAY BRIDGE
 DETAILS OF GIRDERS
 SPECIFICATIONS BY CUSTOMER. SEE NOTE
 INSPECTED BY
 SHOP PAINT: None
 FIELD PAINT: None
 MADE BY: WISCONSIN BRIDGE & IRON CO.
 TRACED BY: W.B. C.R.
 DATE: 1922
 SCALE: 1/4" = 1'-0"
 SHEET NO. 2
 SECTION B
 FILE NO. 60-32

FILE NO. 60-32



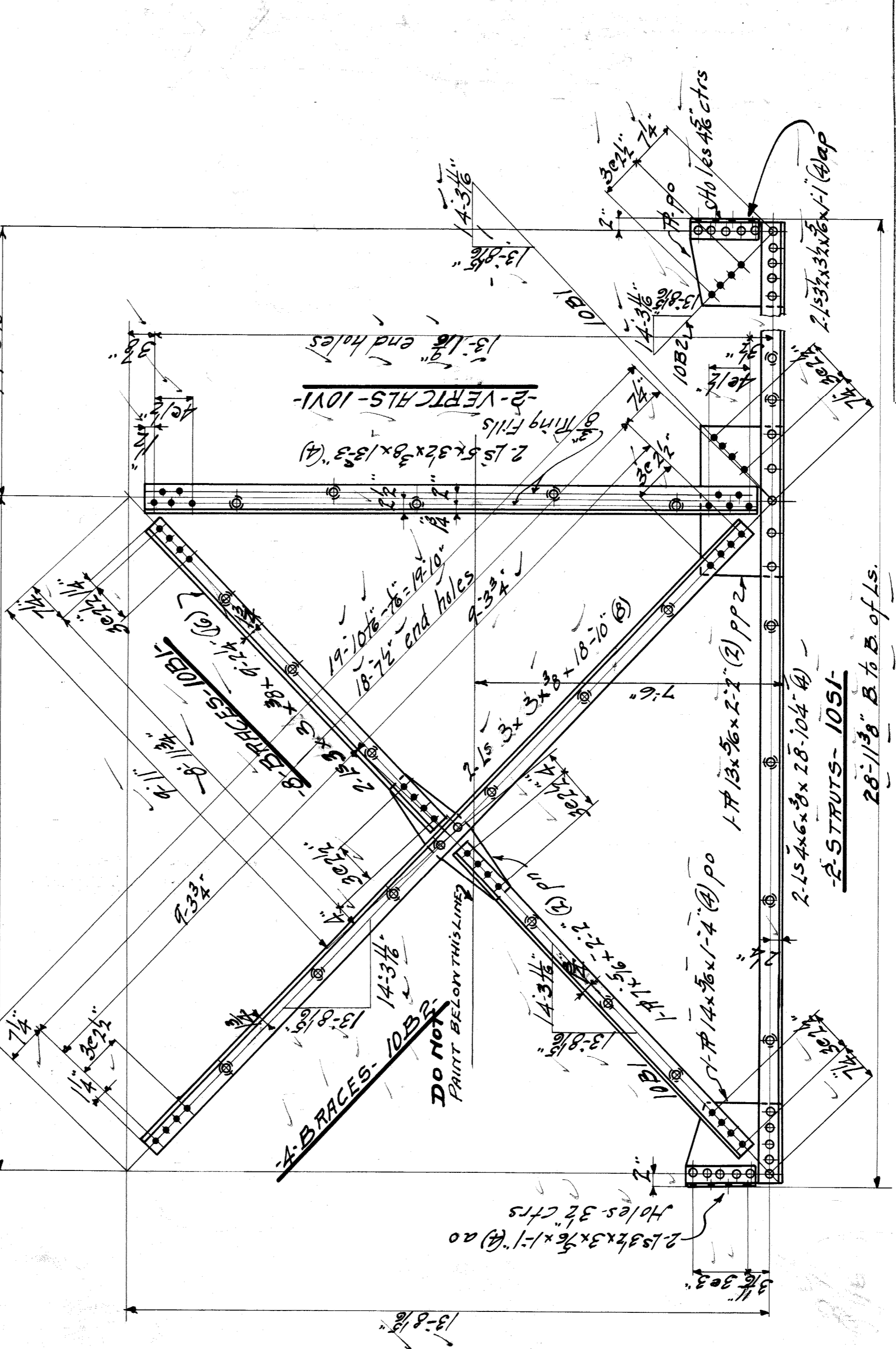
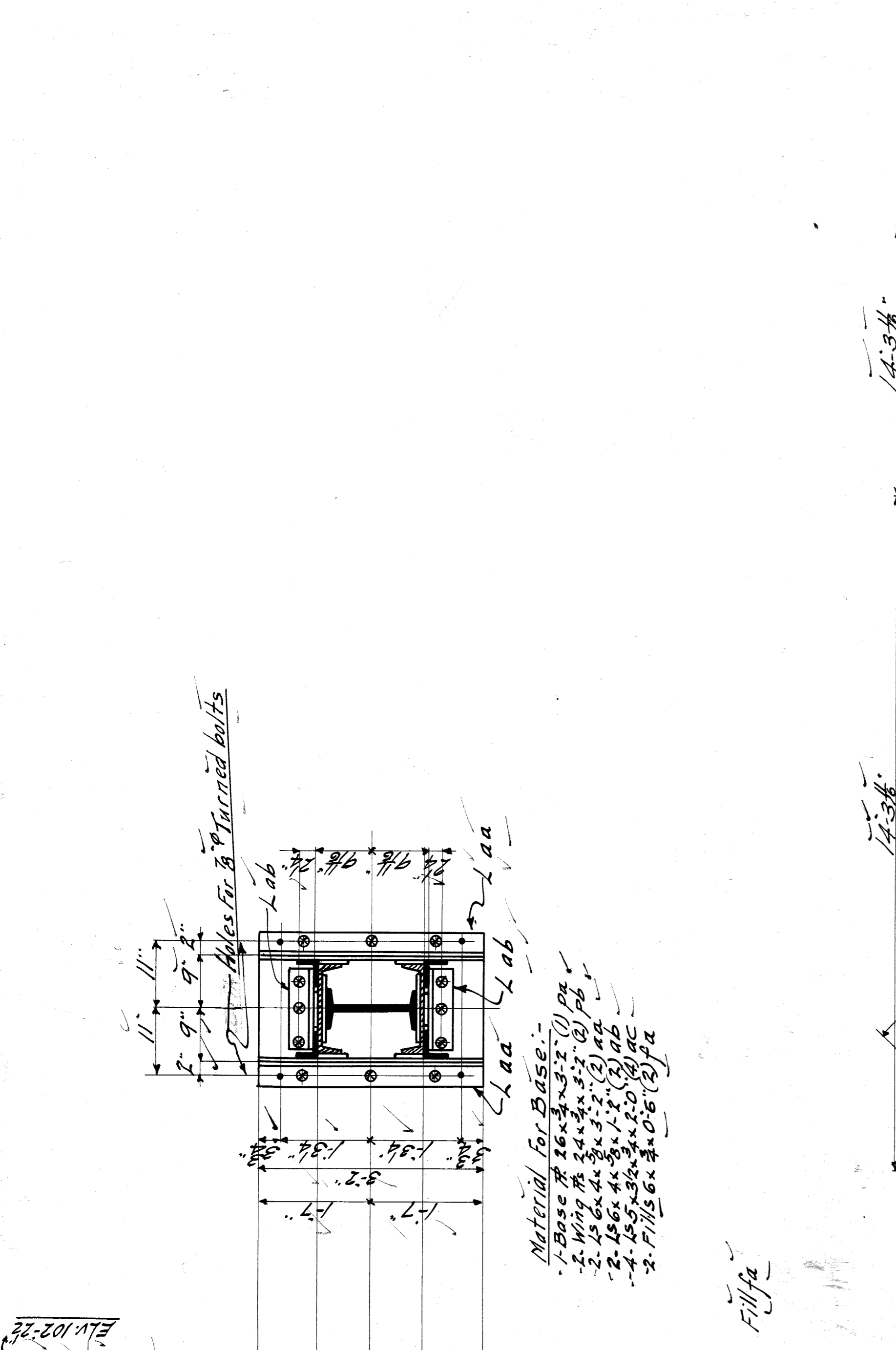
WISCONSIN BRIDGE & IRON CO.
 NORTH MILWAUKEE, WIS.
 FOR City of Detroit
 LOCATION: Detroit, Mich.
 DESCRIPTION: Grand Separation Highway Bridge
 DETAILS OF GIRDER
 SPECIFICATIONS: See Note
 REMAINING AS NOTED
 ERECTED BY
 SHOP PAINT: See Note
 FIELD PAINT: None Except Touch-up
 MADE BY: J.F.H. DATE: 6-10-22 RIVETS: 3"
 CHECKED BY: J.F.H. DATE: 6-20-22 OPEN HOLES: 1/2"
 SCALE: 1/4" = 1'-0" UNLESS NOTED
 SHEET No. 3



No	DESCRIPTION	MARK	QTY	UNIT
1	STRUT	951	4	"
1	BEAM	981	1	"

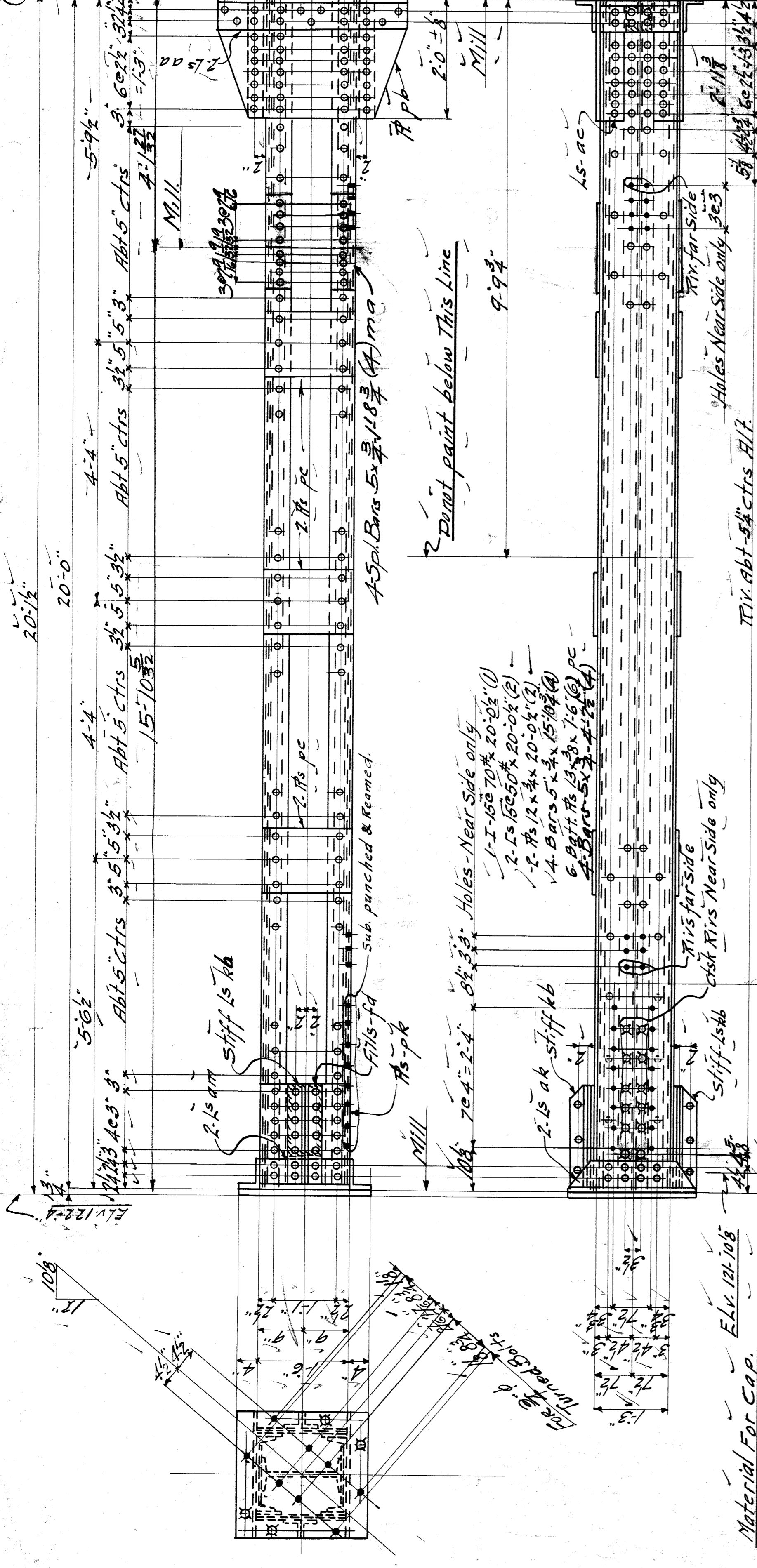
WISCONSIN BRIDGE & IRON CO.
 NORTH MILWAUKEE, WIS.
 FOR CITY OF DETROIT
 LOCATION DETROIT, MICH.
 DESCRIPTION GRAND SEPARATION HIGHWAY BRIDGE
 DETAILS OF STRUT & BEAM
 SPECIFICATIONS CANTONER REMAINING None
 INSPECTED BY West Red Land & Co.
 SHOP PAINT None
 FIELD PAINT None
 MADE BY A. D. KATE RIVETS None
 TRACED BY A. R. DATE 7/11/14 OPEN HOLES None
 CHECKED BY W. J. W. DATE 7/11/14 UNLESS NOTED
 SCALE 1/4" = 1'-0" SHEET No. **9**
 SECTION **B**

NO.	DESCRIPTION	MARK	QTY	UNIT
1	STRUT	951	4	"
1	BEAM	981	1	"



Summary of Parts

No	Description	Marks	Bill
1	Column	10C1E	10a
2	Braces	10B1	10b
3	Struts	10S1	10c
4	Verticals	10V1	10d



REMARKING NOTE:
 Holes noted to be sub punched & reamed to 1/8" to a steel template not less than 1/16" thick.

PAINT NOTE:
 1. Coat red lead except as noted before assembling.

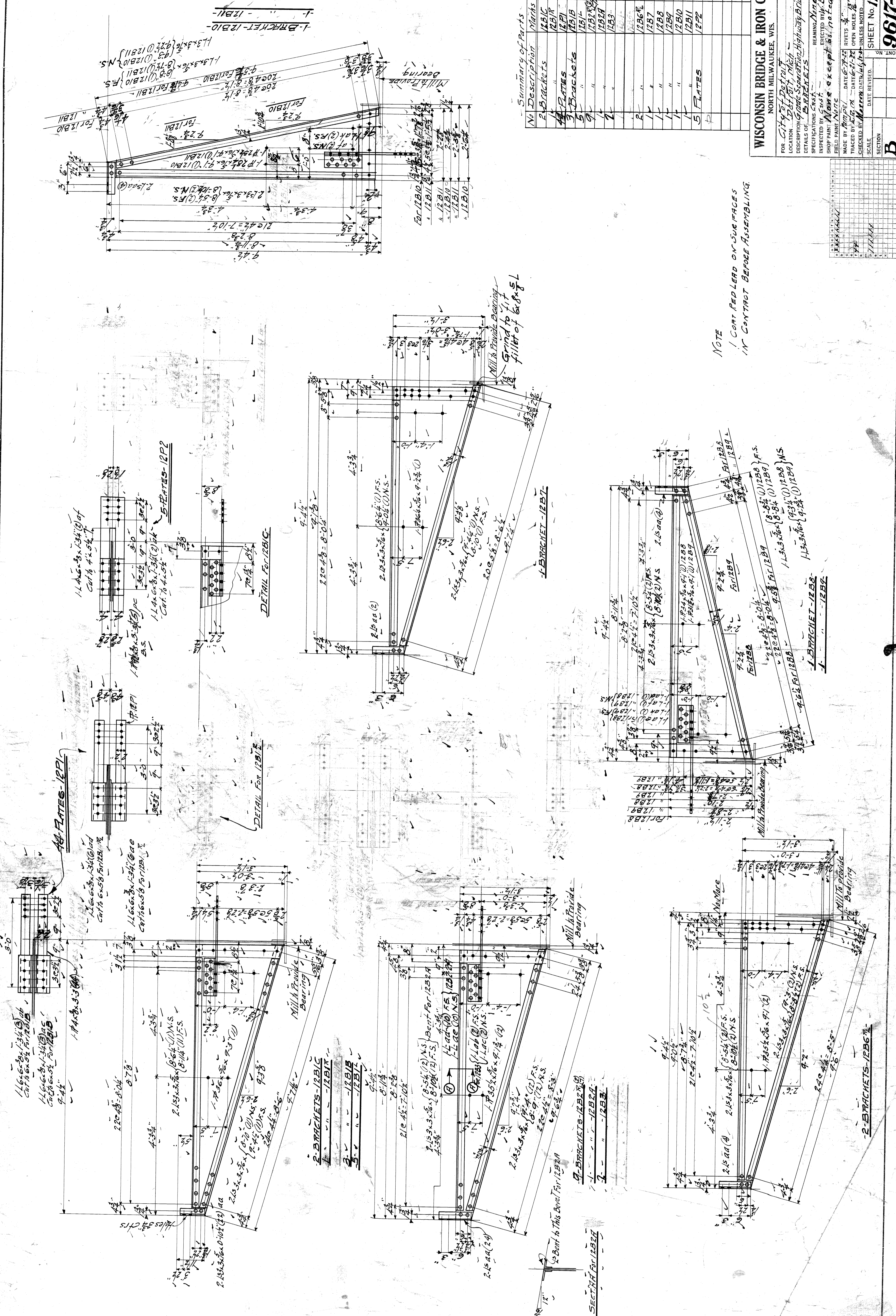
1-COLUMN-10C1E
 Mark This Column with Column - 10C1E

1-COLUMN-10C2
 Mark This Column with Column - 10C2

1-COLUMN-10B1
 Mark This Column with Column - 10B1

1-COLUMN-10S1
 Mark This Column with Column - 10S1

1-COLUMN-10V1
 Mark This Column with Column - 10V1



Summary of Parts

No	Description	Marks	Bill
1	2 Brackets	12B10	122
2	4 Plates	12P1	"
3	3 Brackets	12B11	"
4	5 "	12B12	"
5	1 "	12B13	"
6	1 "	12B14	"
7	1 "	12B15	"
8	1 "	12B16	"
9	1 "	12B17	"
10	1 "	12B18	120
11	1 "	12B19	"
12	1 "	12B20	"
13	5 Plates	12P2	"

WISCONSIN BRIDGE & IRON CO.
NORTH MILWAUKEE, WIS.

FOR: City of Detroit
LOCATION: 9th Street, Detroit
DESCRIPTION: Gate Separation Highway Bridge
DETAILS OF: BRACKETS

INSPECTED BY: [Name]
SPECIFICATIONS: [Name]
FIELD PAINT: [Name]

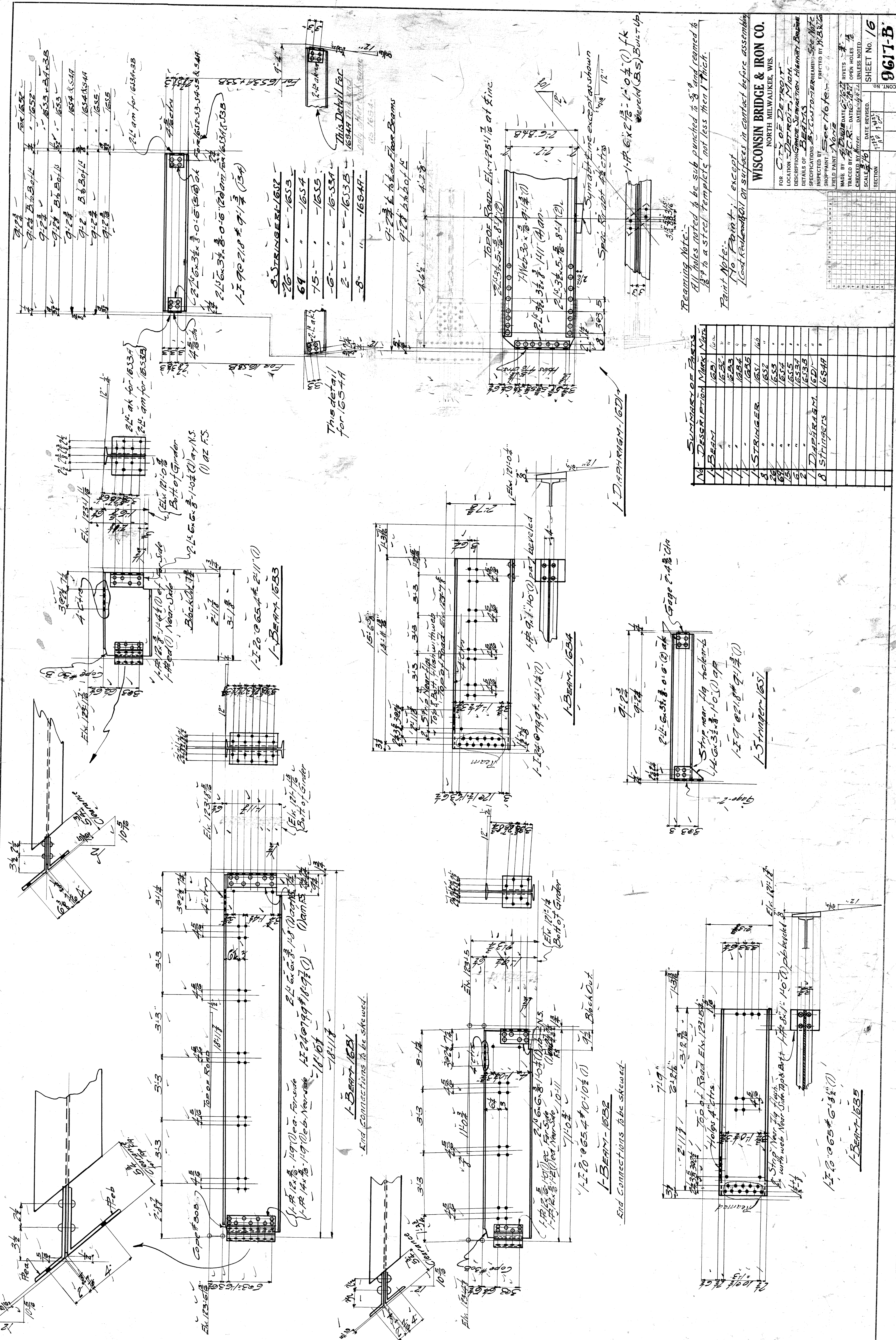
MADE BY: [Name]
DATE: 6-7-22
RIVETS: OPEN HOLES

CHECKED BY: [Name]
DATE: 6-21-22
SCALE: UNLESS NOTED

DATE REVISION: [Name]
SHEET NO. 12
SECTION: B

9617-B
File XO 60-42

NOTE
1. COAT RED LEAD ON SURFACES
IN CONTACT BEFORE ASSEMBLING.



FOR 1652

FOR 1653

FOR 1654

FOR 1655

FOR 1656

FOR 1657

FOR 1658

FOR 1659

FOR 1660

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FOR 1990

FOR 1991

FOR 1992

FOR 1993

FOR 1994

FOR 1995

FOR 1996

FOR 1997

FOR 1998

FOR 1999

FOR 2000

REMAINING NOTE:
All holes noted to be sub punched to 9/16" and reamed to 13/16" to a steel template not less than 1/16" thick.

PAINT NOTE:
No Paint, except
1 Coat Red Oxide on surfaces in contact before assembling

WISCONSIN BRIDGE & IRON CO.
NORTH MILWAUKEE, WIS.

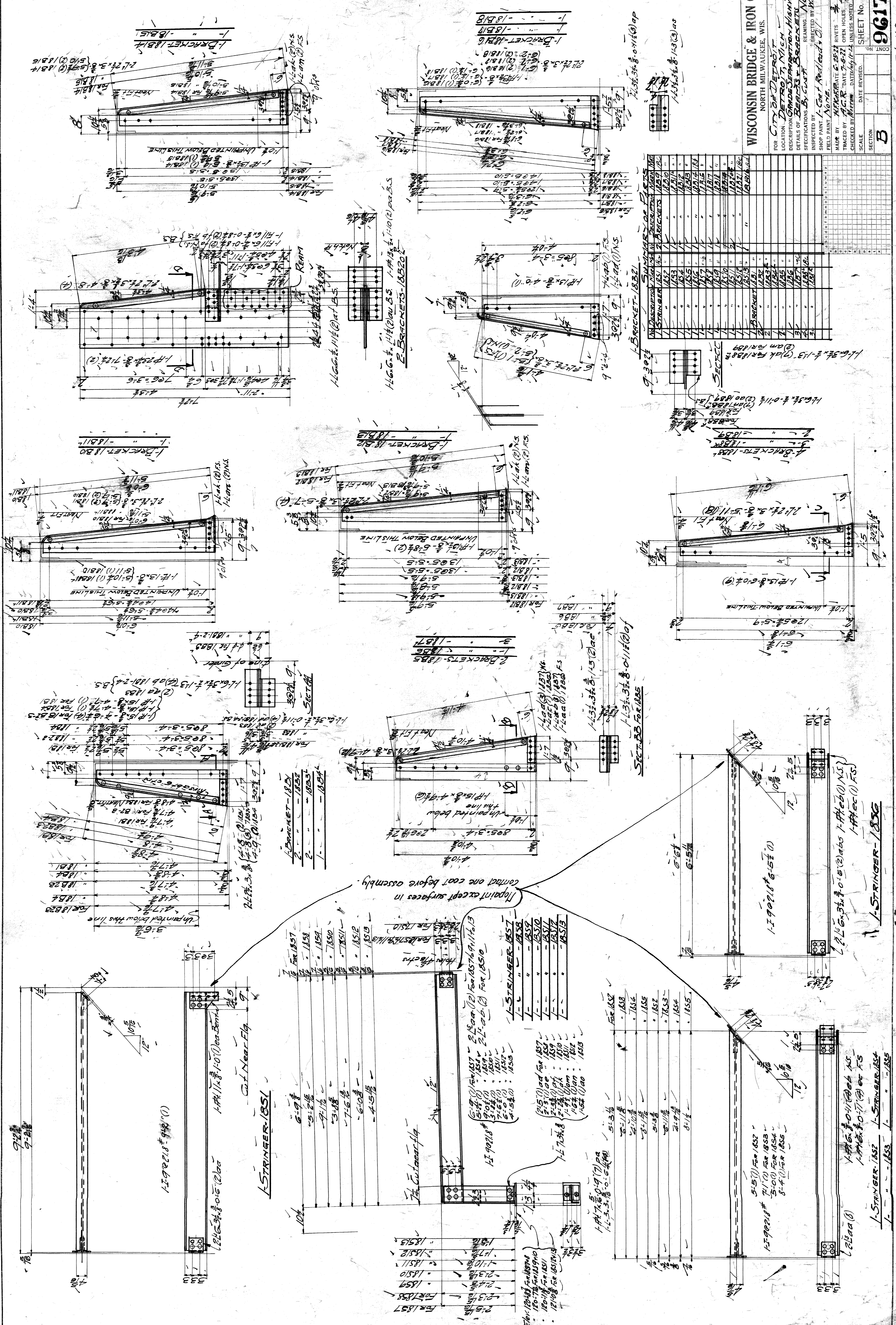
FOR CITY OF DETROIT
LOCATION: DETROIT, MICH.
DESCRIPTION: GRACE SEPARATION HIGHWAY BRIDGE
DETAILS OF: BEAMS
SPECIFICATIONS BY CASTO-TEMPERING. See Note
INSPECTED BY: [Signature]
SHOP PAINT: [Signature]
FIELD PAINT: [Signature]

MADE BY: [Signature] RIVETS: [Signature]
TRACED BY: [Signature] DATE: 10/17/17 OPEN HOLES: [Signature]
CHECKED BY: [Signature] DATE: 10/17/17 UNLESS NOTED
SCALE: 1/8" = 1'-0"

SHEET No. 16
9617-B

SUMMARY OF PARTS

No.	DESCRIPTION	MARK	QTY
1	BEAM	1653	1
2	"	1654	1
3	"	1655	1
4	"	1656	1
5	"	1657	1
6	"	1658	1
7	"	1659	1
8	"	1660	1
9	"	1661	1
10	"	1662	1
11	"	1663	1
12	"	1664	1
13	"	1665	1
14	"	1666	1
15	"	1667	1
16	"	1668	1
17	"	1669	1
18	"	1670	1
19	"	1671	1
20	"	1672	1
21	"	1673	1
22	"	1674	1
23	"	1675	1
24	"	1676	1
25	"	1677	1
26	"	1678	1
27	"	1679	1
28	"	1680	1
29	"	1681	1
30	"	1682	1
31	"	1683	1
32	"	1684	1
33	"	1685	1
34	"	1686	1
35	"	1687	1
36	"	1688	1
37	"	1689	1
38	"	1690	1
39	"	1691	1
40	"	1692	1
41	"	1693	1
42	"	1694	1
43	"	1695	1
44	"	1696	1
45	"	1697	1
46	"	1698	1
47	"	1699	1
48	"	1700	1
49	"	1701	1
50	"	1702	1
51	"	1703	1
52	"	1704	1
53	"	1705	1
54	"	1706	1
55	"	1707	1
56	"	1708	1
57	"	1709	1
58	"	1710	1
59	"	1711	1
60	"	1712	1
61	"	1713	1
62	"	1714	1
63	"	1715	1
64	"	1716	1
65	"	1717	1
66	"	1718	1
67	"	1719	1
68	"	1720	1
69	"	1721	1
70	"	1722	1
71	"	1723	1
72	"	1724	1
73	"	1725	1
74	"	1726	1
75	"	1727	1
76	"	1728	1
77	"	1729	1
78	"	1730	1
79	"	1731	1
80	"	1732	1
81	"	1733	1
82	"	1734	1
83	"	1735	1
84	"	1736	1
85	"	1737	1
86	"	1738	1
87	"	1739	1
88	"	1740	1
89	"	1741	1
90	"	1742	1
91	"	1743	1
92	"	1744	1
93	"	1745	1
94	"	1746	1
95	"	1747	1
96	"	1748	1
97	"	1749	1
98	"	1750	1
99	"	1751	1
100	"	1752	1



NO.	DESCRIPTION	QUANTITY	UNIT	REMARKS
1	BRACKET-1814	1	EA	
2	BRACKET-1816	1	EA	
3	BRACKET-1817	1	EA	
4	BRACKET-1818	1	EA	
5	BRACKET-1819	1	EA	
6	BRACKET-1820	1	EA	
7	BRACKET-1821	1	EA	
8	BRACKET-1822	1	EA	
9	BRACKET-1823	1	EA	
10	BRACKET-1824	1	EA	
11	BRACKET-1825	1	EA	
12	BRACKET-1826	1	EA	
13	BRACKET-1827	1	EA	
14	BRACKET-1828	1	EA	
15	BRACKET-1829	1	EA	
16	BRACKET-1830	1	EA	
17	BRACKET-1831	1	EA	
18	BRACKET-1832	1	EA	
19	BRACKET-1833	1	EA	
20	BRACKET-1834	1	EA	
21	BRACKET-1835	1	EA	
22	BRACKET-1836	1	EA	
23	BRACKET-1837	1	EA	
24	BRACKET-1838	1	EA	
25	BRACKET-1839	1	EA	
26	BRACKET-1840	1	EA	
27	BRACKET-1841	1	EA	
28	BRACKET-1842	1	EA	
29	BRACKET-1843	1	EA	
30	BRACKET-1844	1	EA	
31	BRACKET-1845	1	EA	
32	BRACKET-1846	1	EA	
33	BRACKET-1847	1	EA	
34	BRACKET-1848	1	EA	
35	BRACKET-1849	1	EA	
36	BRACKET-1850	1	EA	
37	BRACKET-1851	1	EA	
38	BRACKET-1852	1	EA	
39	BRACKET-1853	1	EA	
40	BRACKET-1854	1	EA	
41	BRACKET-1855	1	EA	
42	BRACKET-1856	1	EA	
43	BRACKET-1857	1	EA	
44	BRACKET-1858	1	EA	
45	BRACKET-1859	1	EA	
46	BRACKET-1860	1	EA	
47	BRACKET-1861	1	EA	
48	BRACKET-1862	1	EA	
49	BRACKET-1863	1	EA	
50	BRACKET-1864	1	EA	
51	BRACKET-1865	1	EA	
52	BRACKET-1866	1	EA	
53	BRACKET-1867	1	EA	
54	BRACKET-1868	1	EA	
55	BRACKET-1869	1	EA	
56	BRACKET-1870	1	EA	
57	BRACKET-1871	1	EA	
58	BRACKET-1872	1	EA	
59	BRACKET-1873	1	EA	
60	BRACKET-1874	1	EA	
61	BRACKET-1875	1	EA	
62	BRACKET-1876	1	EA	
63	BRACKET-1877	1	EA	
64	BRACKET-1878	1	EA	
65	BRACKET-1879	1	EA	
66	BRACKET-1880	1	EA	
67	BRACKET-1881	1	EA	
68	BRACKET-1882	1	EA	
69	BRACKET-1883	1	EA	
70	BRACKET-1884	1	EA	
71	BRACKET-1885	1	EA	
72	BRACKET-1886	1	EA	
73	BRACKET-1887	1	EA	
74	BRACKET-1888	1	EA	
75	BRACKET-1889	1	EA	
76	BRACKET-1890	1	EA	
77	BRACKET-1891	1	EA	
78	BRACKET-1892	1	EA	
79	BRACKET-1893	1	EA	
80	BRACKET-1894	1	EA	
81	BRACKET-1895	1	EA	
82	BRACKET-1896	1	EA	
83	BRACKET-1897	1	EA	
84	BRACKET-1898	1	EA	
85	BRACKET-1899	1	EA	
86	BRACKET-1900	1	EA	

Repaint except surfaces in contact one coat before assembly.

- 1-1857
- 1-1858
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- 1-1862
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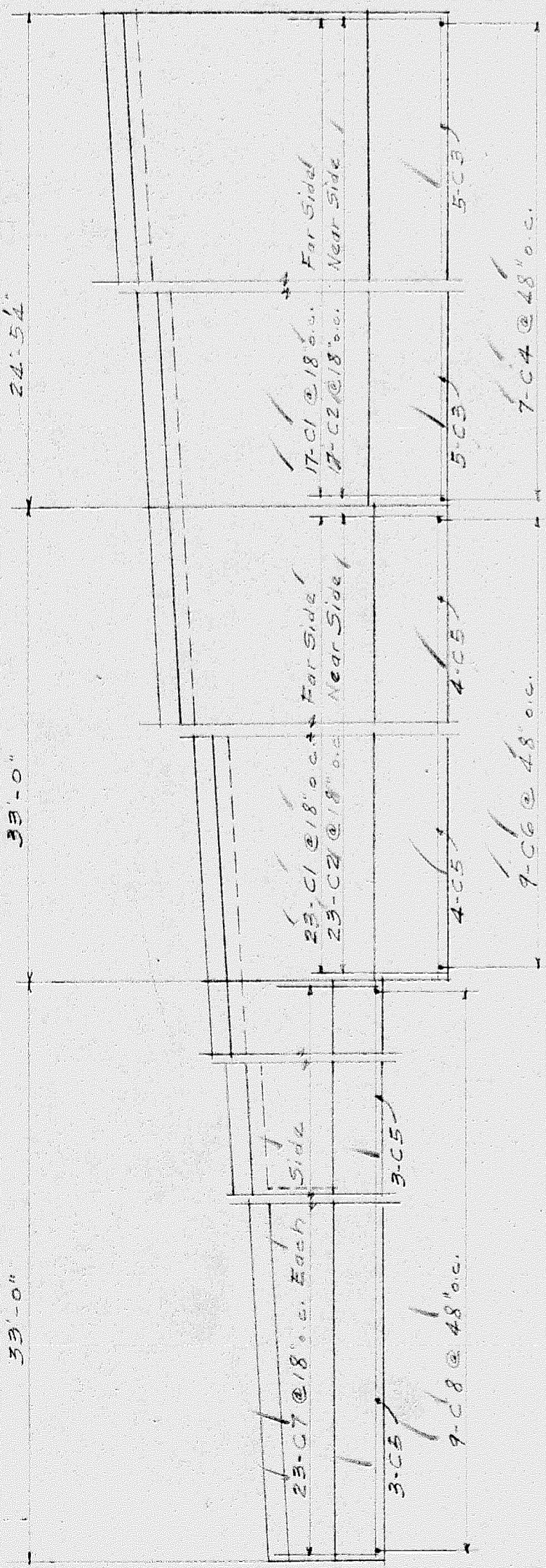
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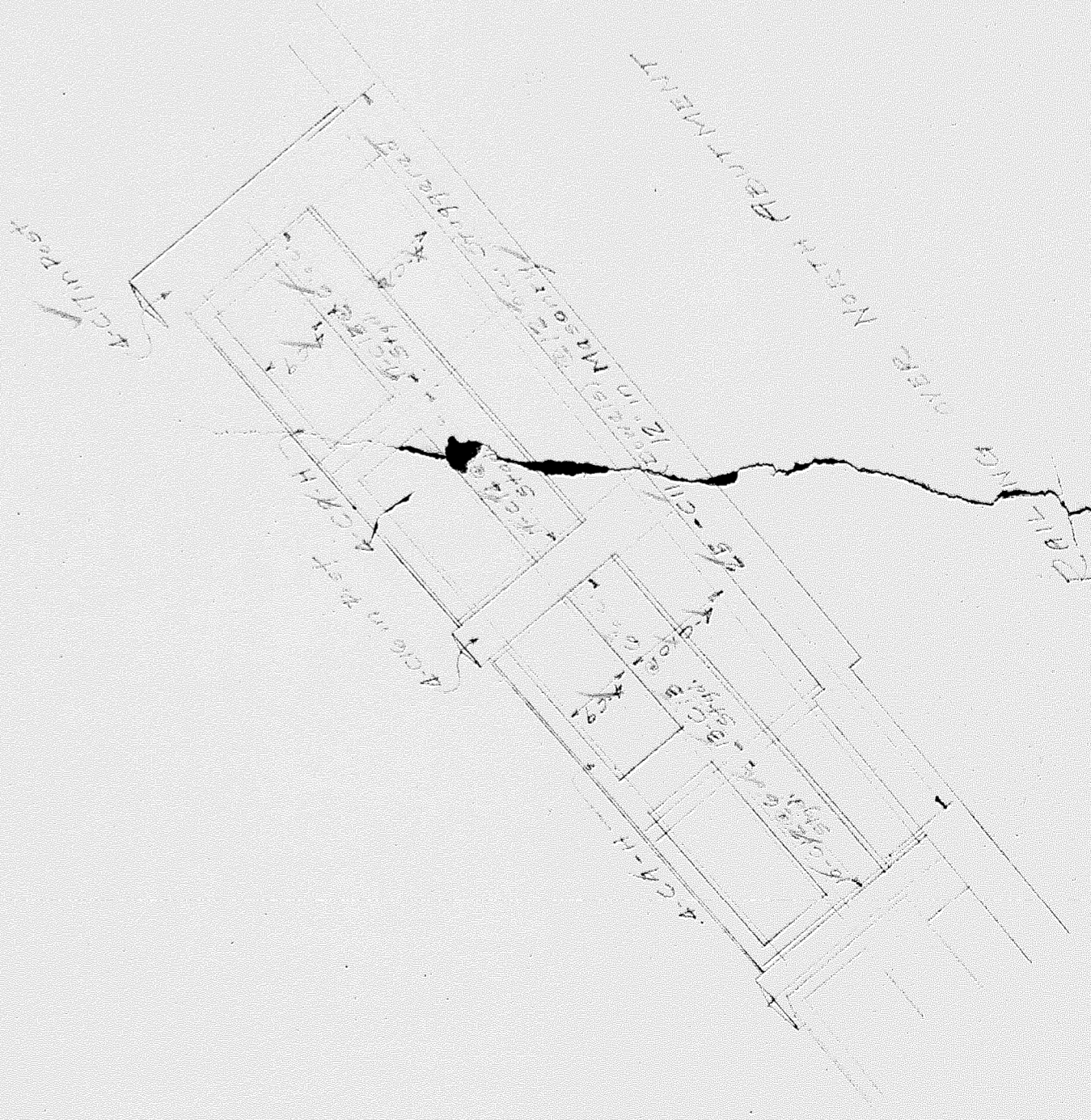
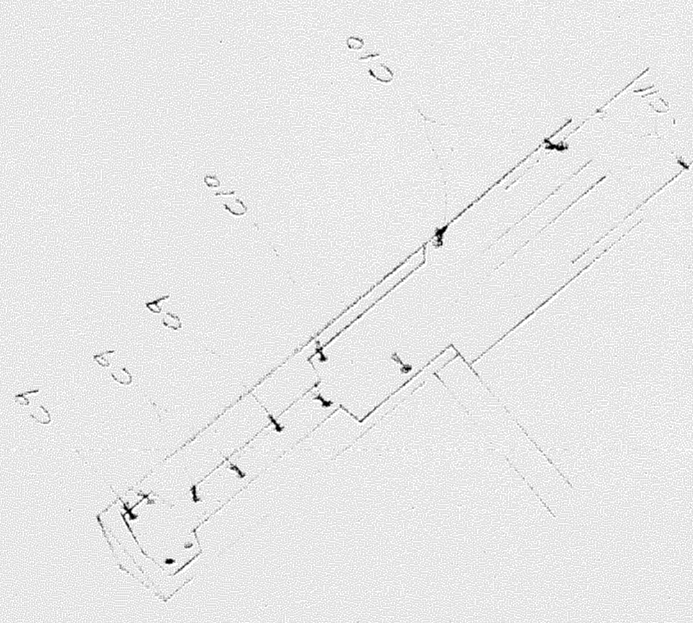
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RETAINING WALL - EAST SIDEWALK



BAR LIST

PCS	SIZE	LGTH	MC.
140	5/8"	4'-0"	C1
40	5/8"	4'-8"	2
10	1"	13'-6"	3
7	2"	4'-6"	4
14	1"	17'-9"	5
9	1/2"	5'-6"	6
46	2"	3'-0"	7
1	2"	2'-6"	8
16	3/8"	12'-6"	9
18	2"	12'-6"	10
25	1"	2'-0"	11
10	3/8"	5'-4"	12
13	3/8"	5'-10"	13
11	3/8"	6'-0"	14
11	3/8"	6'-5"	15
4	2"	3'-5"	16
4	2"	3'-5"	17



Note: Contractor to supply 5/8" x 1/2" in. galvanized steel with Engineers Plans

REVISIONS	
DATE	LOCATION CHARACTER BY

GABRIEL STEEL CO.
DETROIT, MICHIGAN

STRUCTURE TWELFTH STREET BRIDGE
 LOCATION OVER M.C.R.R. MAIN LINE
 TITLE RETAINING WALL & RAILING
 CONTRACTOR COOPER-WIDENMANN
 ARCHITECT CITY ENGINEERS
 DRAWN BY CLB
 CHECKED BY M
 DATE 12-1-22

JOB NO. 9679
SHEET NO. (2)

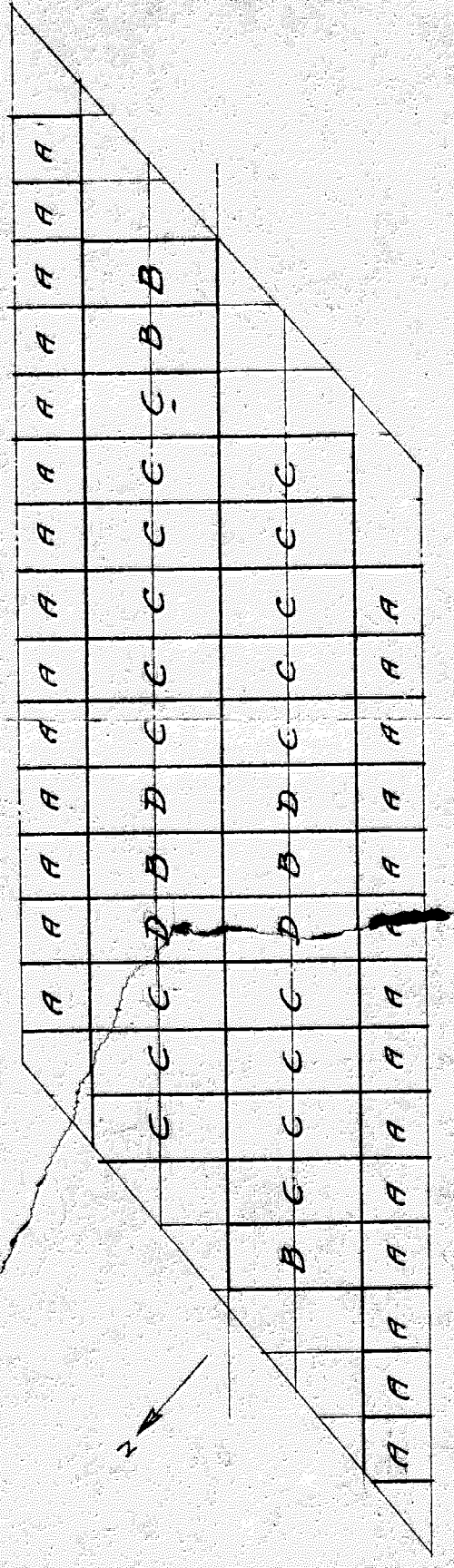
Handwritten notes:
OK
12/6/22

BAR LIST

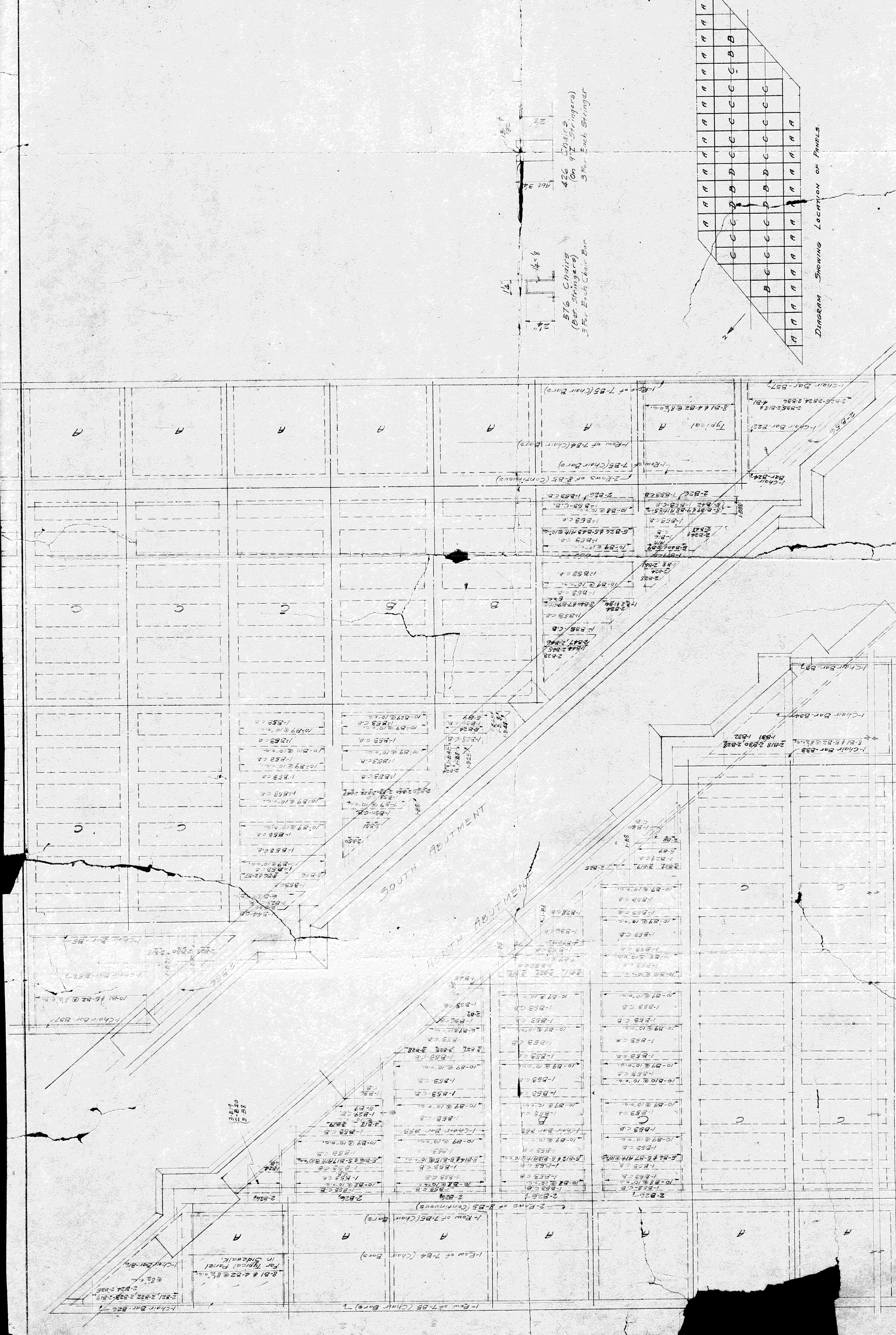
NO.	SIZE	SHAPE	QTY
1	1/2"	9-0	1
2	1/2"	11-5	1
3	1/2"	9-3	1
4	1/2"	20-0	1
5	1/2"	9-6	1
6	1/2"	11-0	1
7	1/2"	11-0	1
8	1/2"	11-0	1
9	1/2"	11-0	1
10	1/2"	11-0	1
11	1/2"	11-0	1
12	1/2"	11-0	1
13	1/2"	11-0	1
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27	1/2"	11-0	1
28	1/2"	11-0	1
29	1/2"	11-0	1
30	1/2"	11-0	1
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33	1/2"	11-0	1
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44	1/2"	11-0	1
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47	1/2"	11-0	1
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49	1/2"	11-0	1
50	1/2"	11-0	1
51	1/2"	11-0	1
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53	1/2"	11-0	1
54	1/2"	11-0	1
55	1/2"	11-0	1
56	1/2"	11-0	1
57	1/2"	11-0	1

0.15
11/6/22
R.S.

Diagram Showing Location of Panels



7000 Sq Ft. 0.49 Mesh. 1.5 d. x 1.5
5600 .032



SOUTH ABUTMENT
NORTH ABUTMENT

426 Chairs
(On 9\"/>

576 Chairs
(On 9\"/>

1-Row of 7-B5 (Chair Bars)
1-Row of 7-B4 (Chair Bars)
2-Rows of 8-B5 (Continuous)
8-B1 & 4-B2 @ 8\"/>

