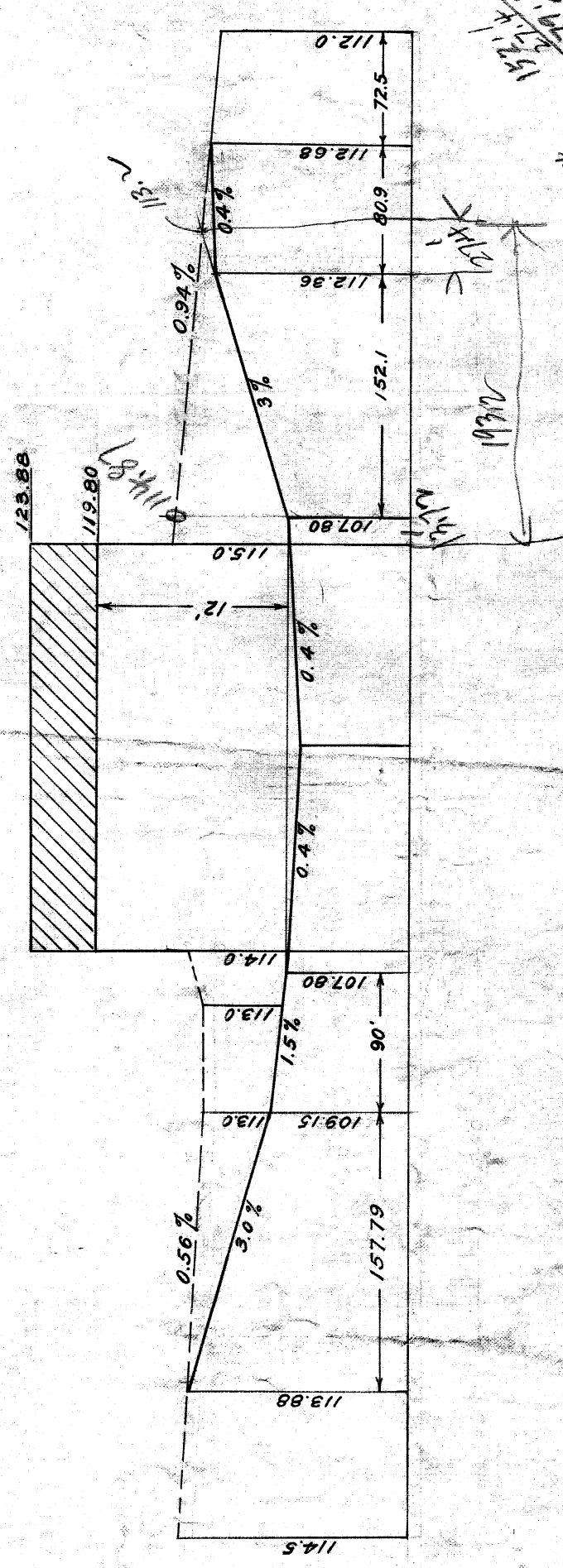
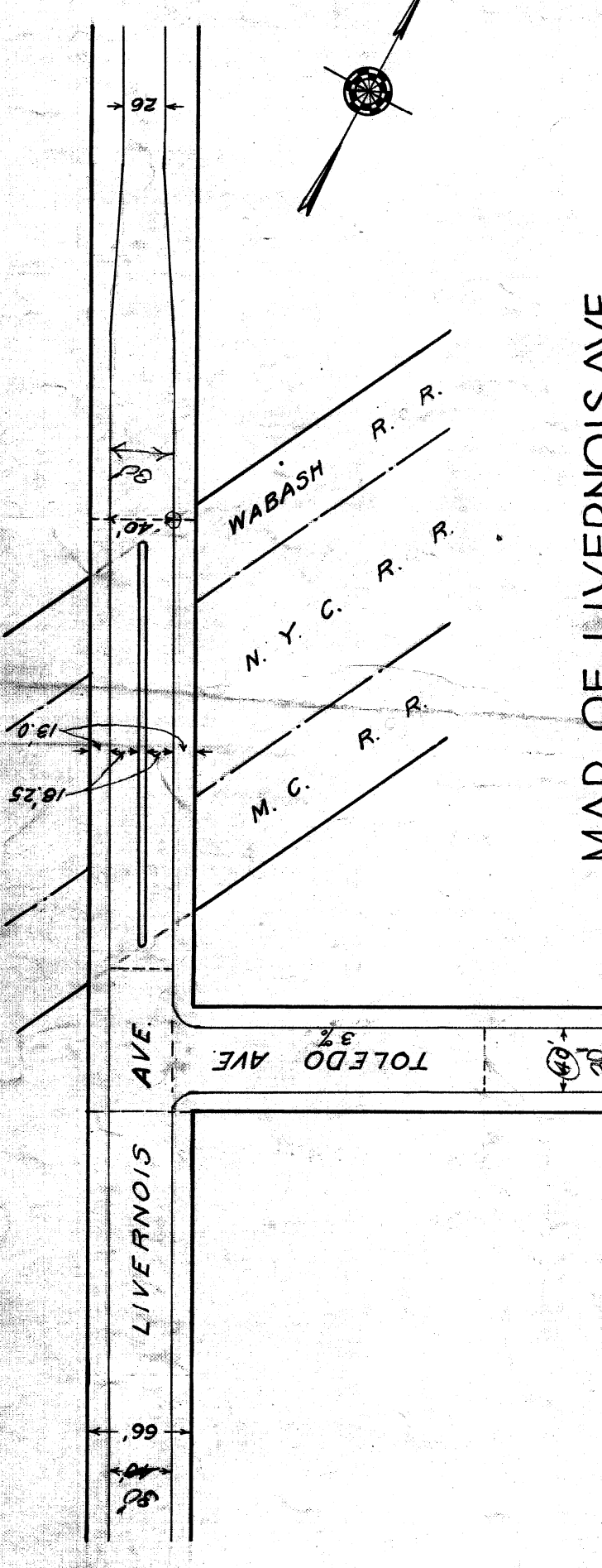
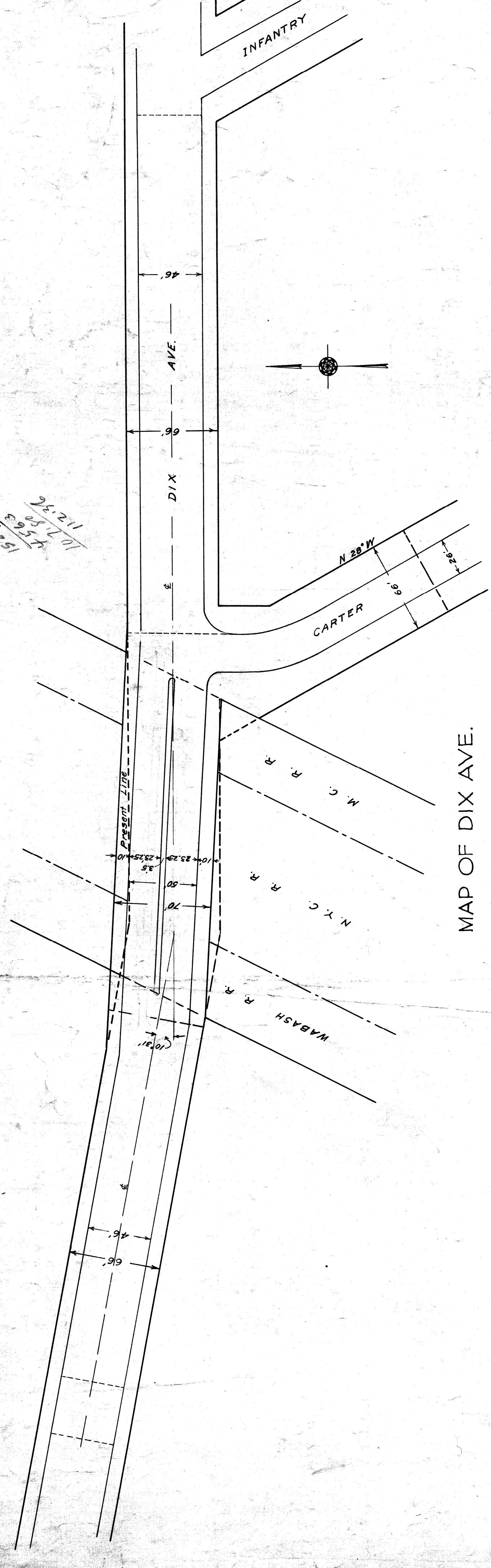


REVISED SCHEDULE OF DIMENSIONS  
 FOR GRADE SEPARATION JUNCTION AVE TO RIVER ROUGE  
 SUBSTITUTED FOR SCHEDULE IN AGREEMENT SIGNED MAY 29, 1916

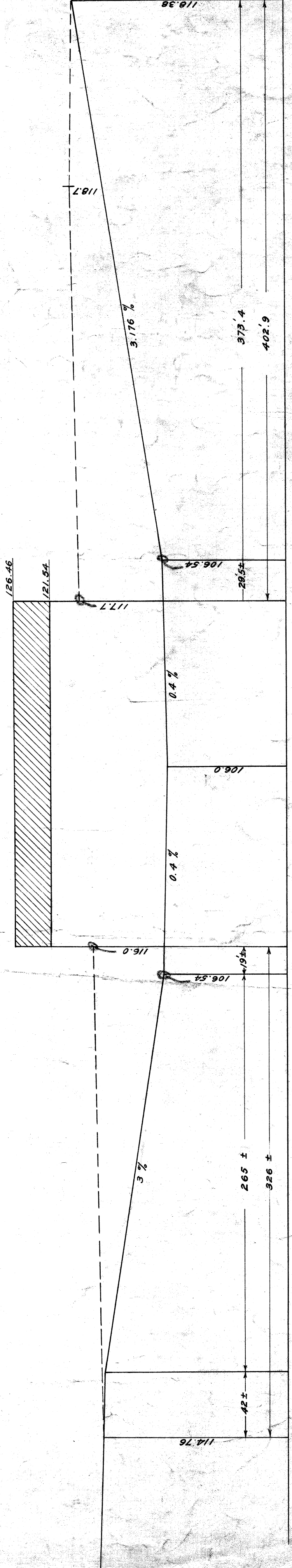
NAME OF STREET	PAVED WIDTH		DRIVEWAY NO.	WIDTH	CLEARANCE		APPROACHES R. OF W. TO END OF R.R. WORK	INTERSECTING STREETS		
	OLD	NEW			HEIGHT	ELEVATION			NAME	LENGTH OF R.R. CO'S WORK
LIVERNOIS	66'	30'	40'	2	18.25'	12'	119.80'	255'	TOLEDO	190'
DIX	70'	46'	50'	2	23.25'	15'	121.54'	373'	CARTER	200'
WATERMAN	66'	26'	30'	1	30'	13'	120.42'	262'	DESMOND	120'
GREEN	60'	30'	40'	2	18.25'	13'	120.81'	90'		
CENTRAL	60'	30'	30'	1	30'	13'	119.38'	70'		
SPRINGWELLS	66'	26'	40'	2	21.25'	15'	120.35'	160'	CHAMBERLAIN	123'
LAFAYETTE	60'	30'	40'	2	18.25'	13'	118.77'	175'		
LAWNDALE	66'	30'	40'	2	18.25'	13'	119.17'	60'	LAWNDALE	200'
FORT	100'	60'	70'	3	23.20'	15'	118.00'	190'	HARBAUGH	150'
DEARBORN	66'	30'	40'	2	21.25'	15'	115.98'	270'	WOODMERE	140'
									LEIGH	217'
									CARBON	176'
									SIRE	55'



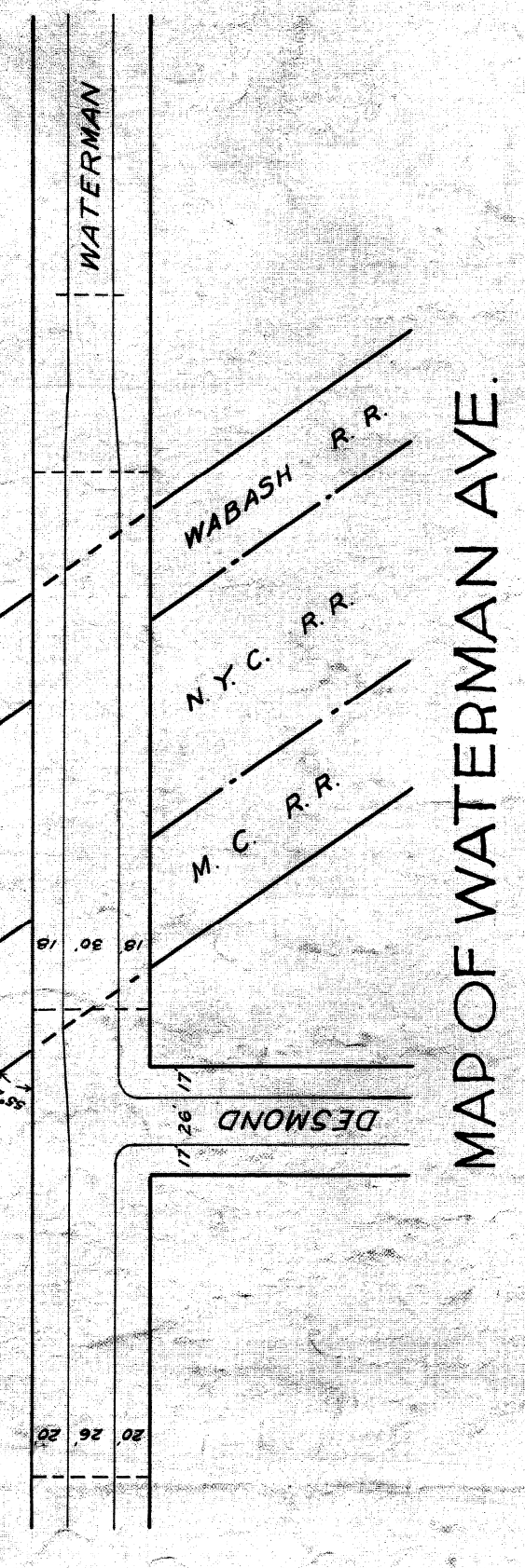
PROFILE ALONG C  
 SCALES: HOR. 1"=100'  
 VER. 1"=10'



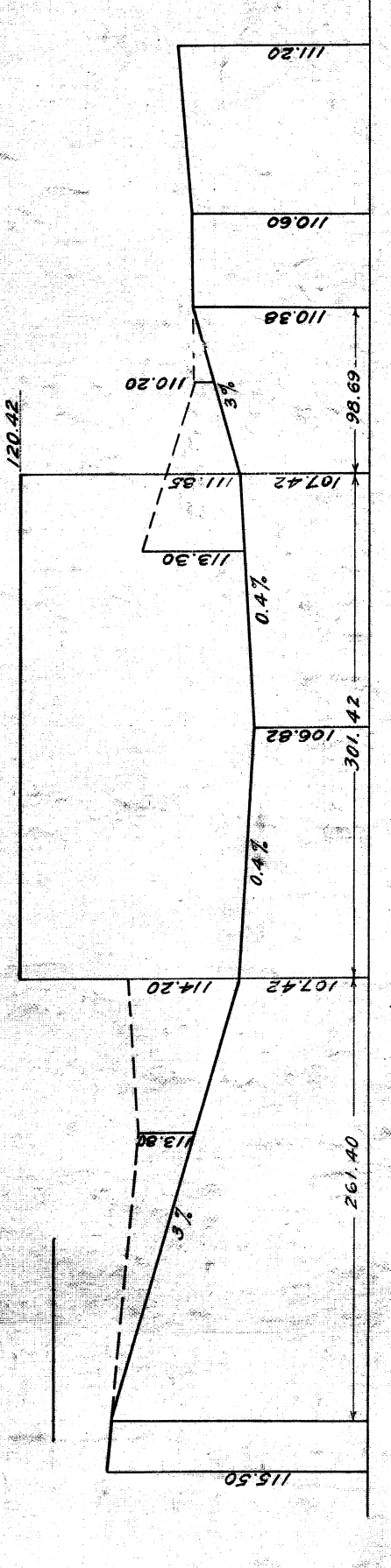
MAP OF DIX AVE.



PROFILE ALONG C  
 SCALES: HOR. 1"=50'  
 VER. 1"=10'



MAP OF WATERMAN AVE.



PROFILE ALONG C  
 SCALES: HOR. 1"=100'  
 VER. 1"=10'

NOTE: ELEVATIONS AT UNDERSIDE OF BRIDGES ARE AS PER AGREEMENT.  
 APPROVED  
 CITY ENGINEER  
 CHIEF ENGINEER, M.C.R.R.

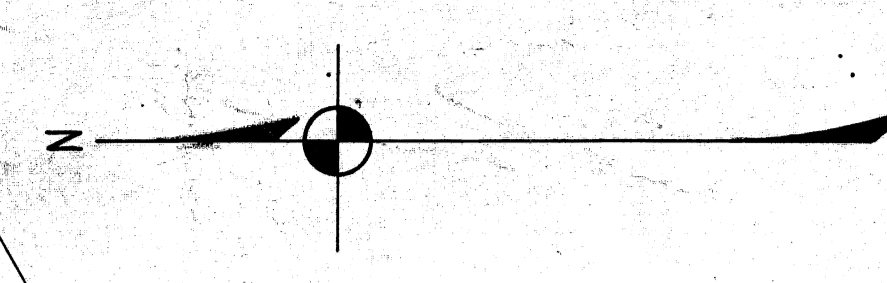
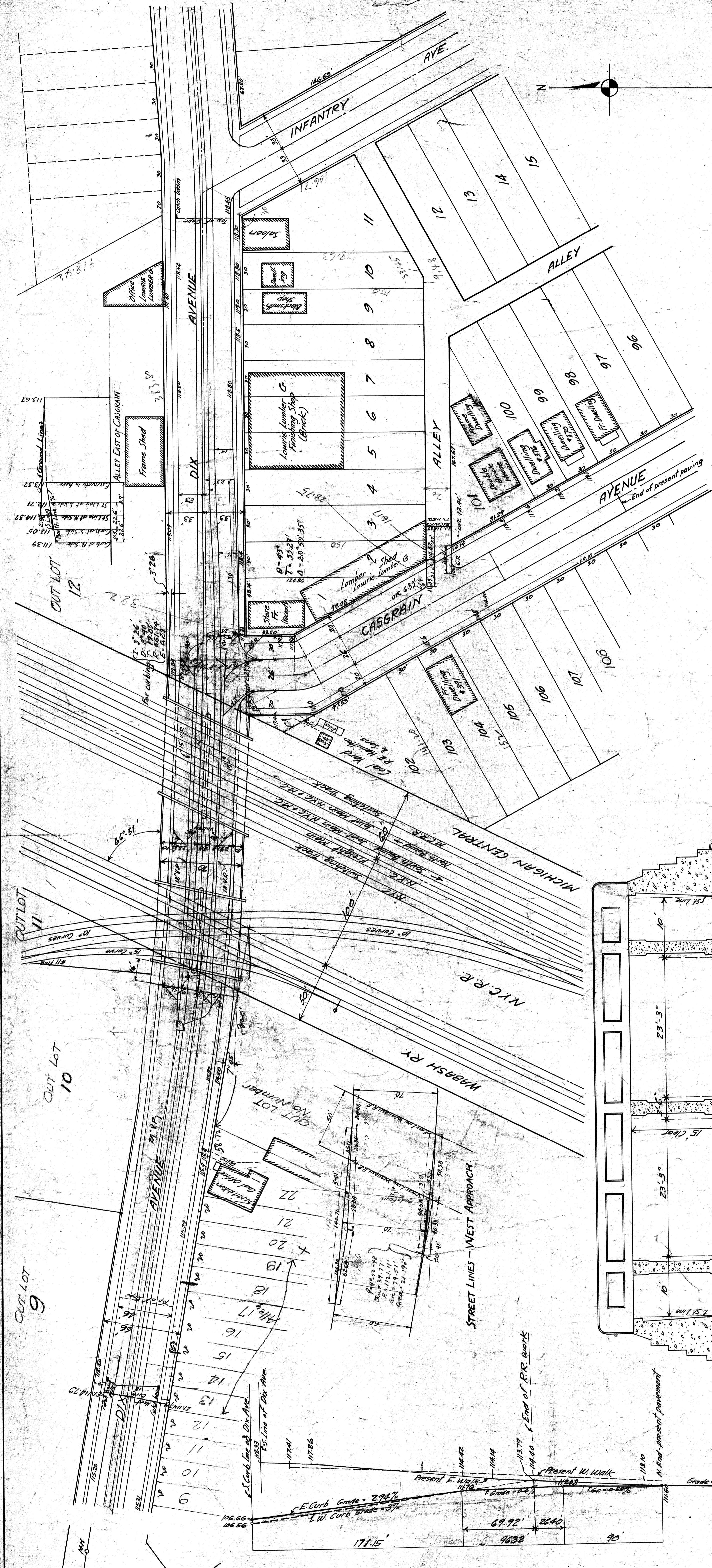
EXHIBIT "B"

PROFILES REFERRED TO IN SUPPLEMENTARY AGREEMENT OF AUG. 6, 1917 BETWEEN M.C.R.R., N.Y.C. R.R., WABASH R.R., P.M. R.R., D.U.R., AND THE CITY OF DETROIT.

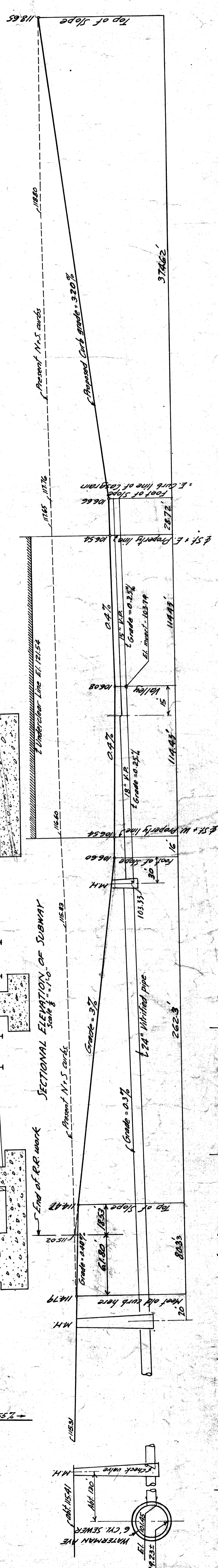
CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 OFFICE OF CITY ENGINEER DIVISION OF GRADE SEPARATION  
 MAPS & PROFILES OF STREETS  
 LIVERNOIS & DIX  
 SCALES AS INDICATED

DRAWN BY: FIELD BOOK  
 GEORGE FENKEL, CHIEF PUBLIC WORKS  
 JOHN W. REED, ENGR. GRADE SEPARATION

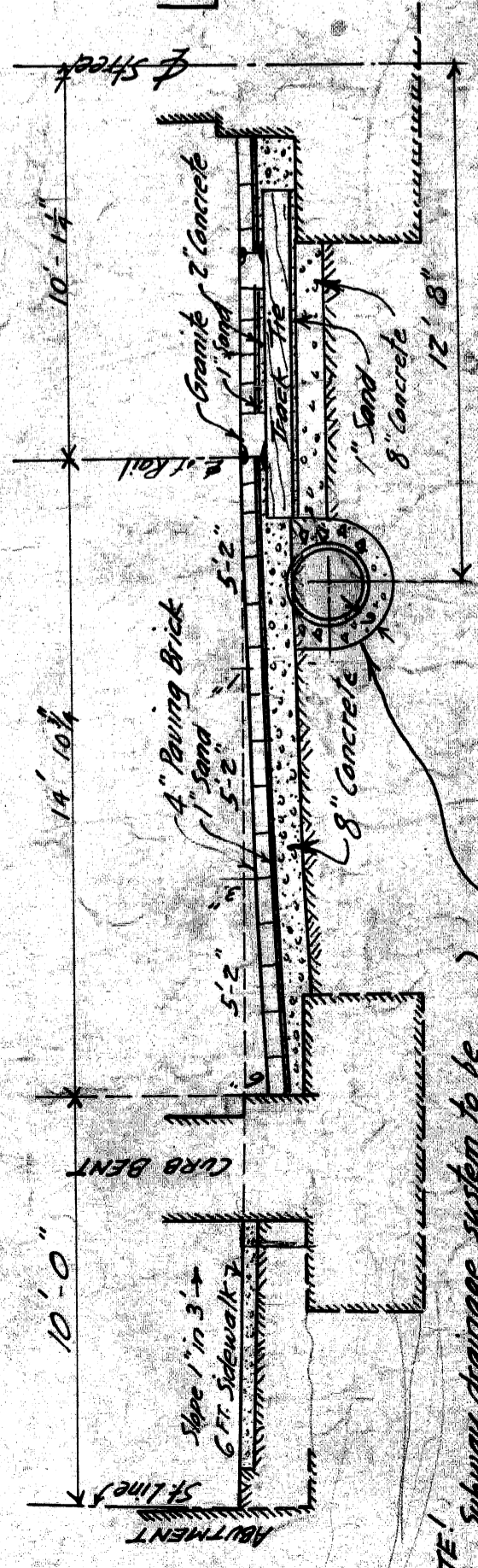
Z.P.P. 6-5-15



PROFILE ON CASGRAIN AVE.  
 Hor. Scale 1 inch = 40 ft.  
 Ver. " " " 10 "



PROFILE ON DIX AVE.  
 Hor. Scale 1 inch = 40 feet.  
 Ver. " " " 10 "



NOTE: Sawing drainage openings to be completed prior to paving to prevent drainage by street traffic loads.

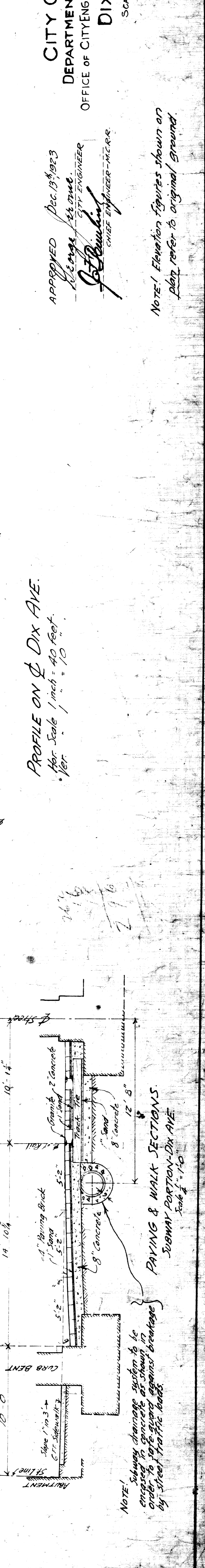
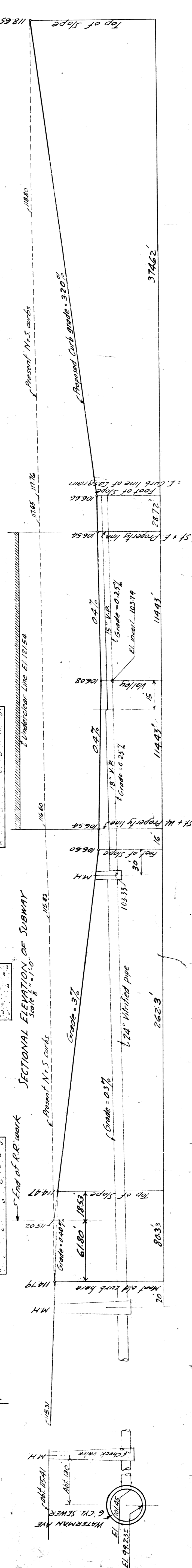
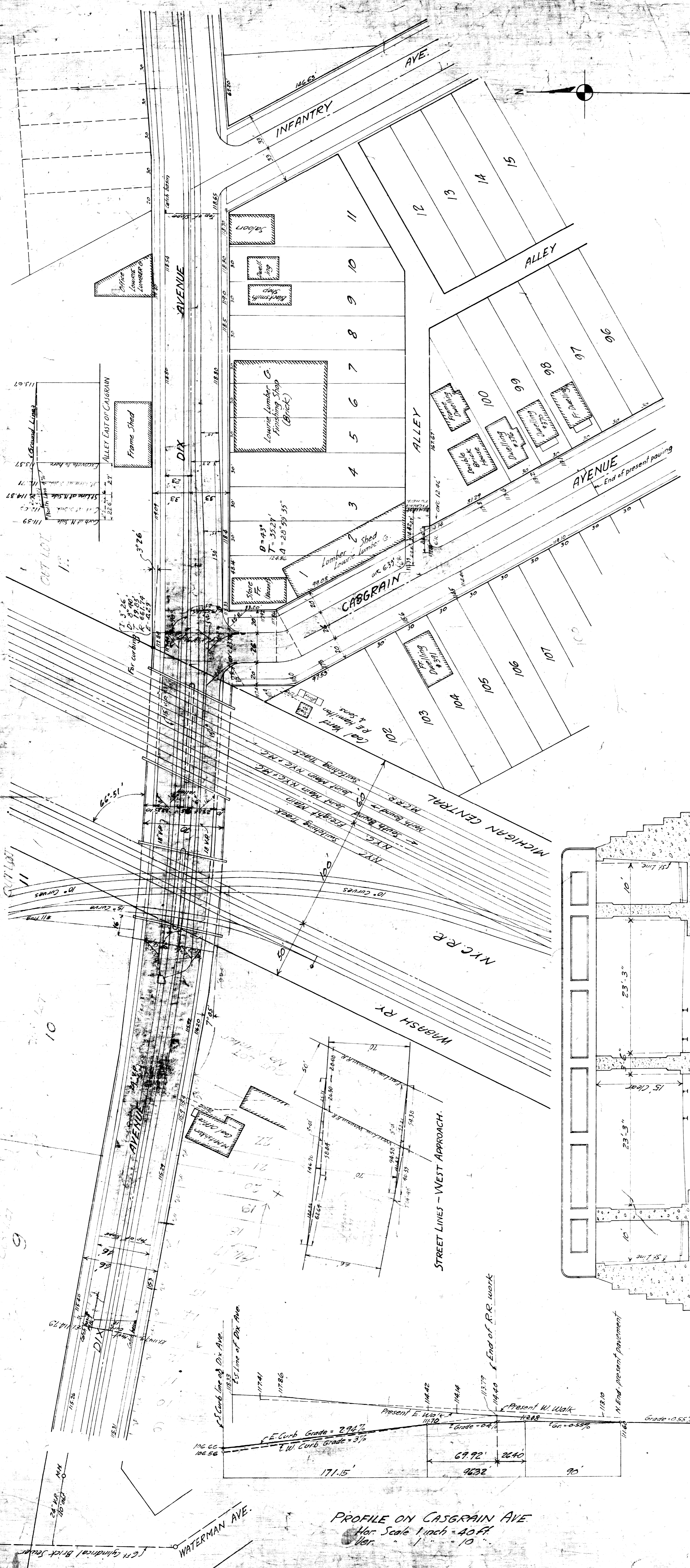
APPROVED Dec. 13, 1923  
 J. B. Hays, City Engineer  
 J. B. Hays, Chief Engineer

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 OFFICE OF CITY ENGINEER - DIVISION OF GRADE SEPARATION  
 DIX AVENUE

SCALES AS INDICATED

NOTE: Elevation figures shown on plan refer to original ground.

JOHN W. RITZ, CHIEF PUBLIC WORKS  
 GEORGE W. BIRNEY, CITY ENGINEER  
 J. B. HAYS, CHIEF ENGINEER  
 Dec. 13, 1923  
 File KU33-2



PROFILE ON DIX AVE.  
 Hor. Scale 1 inch = 40 feet.  
 Ver. Scale 1 inch = 10 feet.

PROFILE ON CASGRAIN AVE.  
 Hor. Scale 1 inch = 40 feet.  
 Ver. Scale 1 inch = 10 feet.

PAVING & WALK SECTIONS  
 SUBWAY PORTION-DIX AVE.  
 Scale 1/2" = 1'-0"

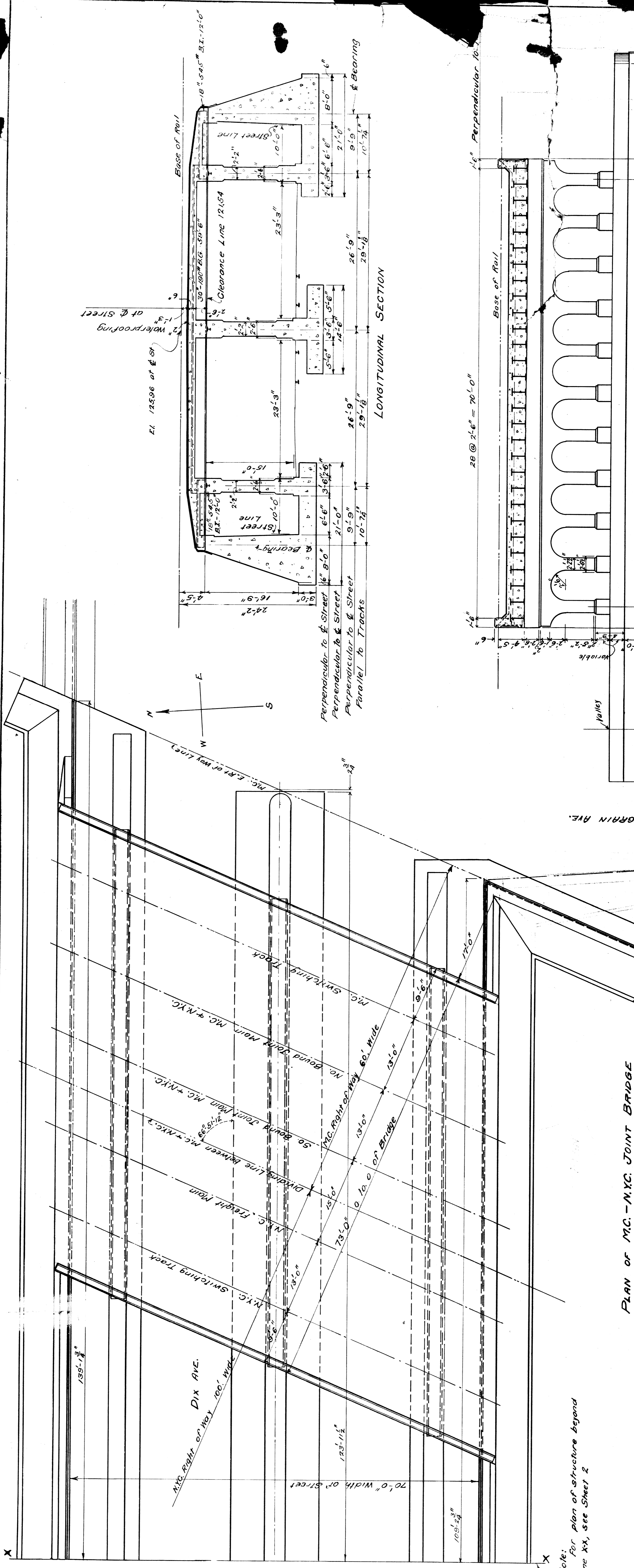
NOTE: Subway drainage system to be engaged in concrete at shown in order to give against drainage by street traffic beds.

NOTE: Elevation figures shown on plan refer to original ground.

APPROVED Dec. 13, 1923  
 George H. Dineen  
 CITY ENGINEER  
 J. J. Binkley  
 CHIEF ENGINEER-IN-CHARGE

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 OFFICE OF CITY ENGINEER-DIVISION OF GRADE SEPARATION  
 DIX AVENUE  
 SCALES AS INDICATED

JOHN W. REID, CHIEF PUBLIC WORKS  
 GEORGE J. BINKLEY, CITY ENGINEER  
 J. J. BINKLEY, CHIEF ENGINEER-IN-CHARGE  
 1923



El. 125.96 at  $\phi$  St  
 2" Waterproofing  
 1-3" at  $\phi$  Street

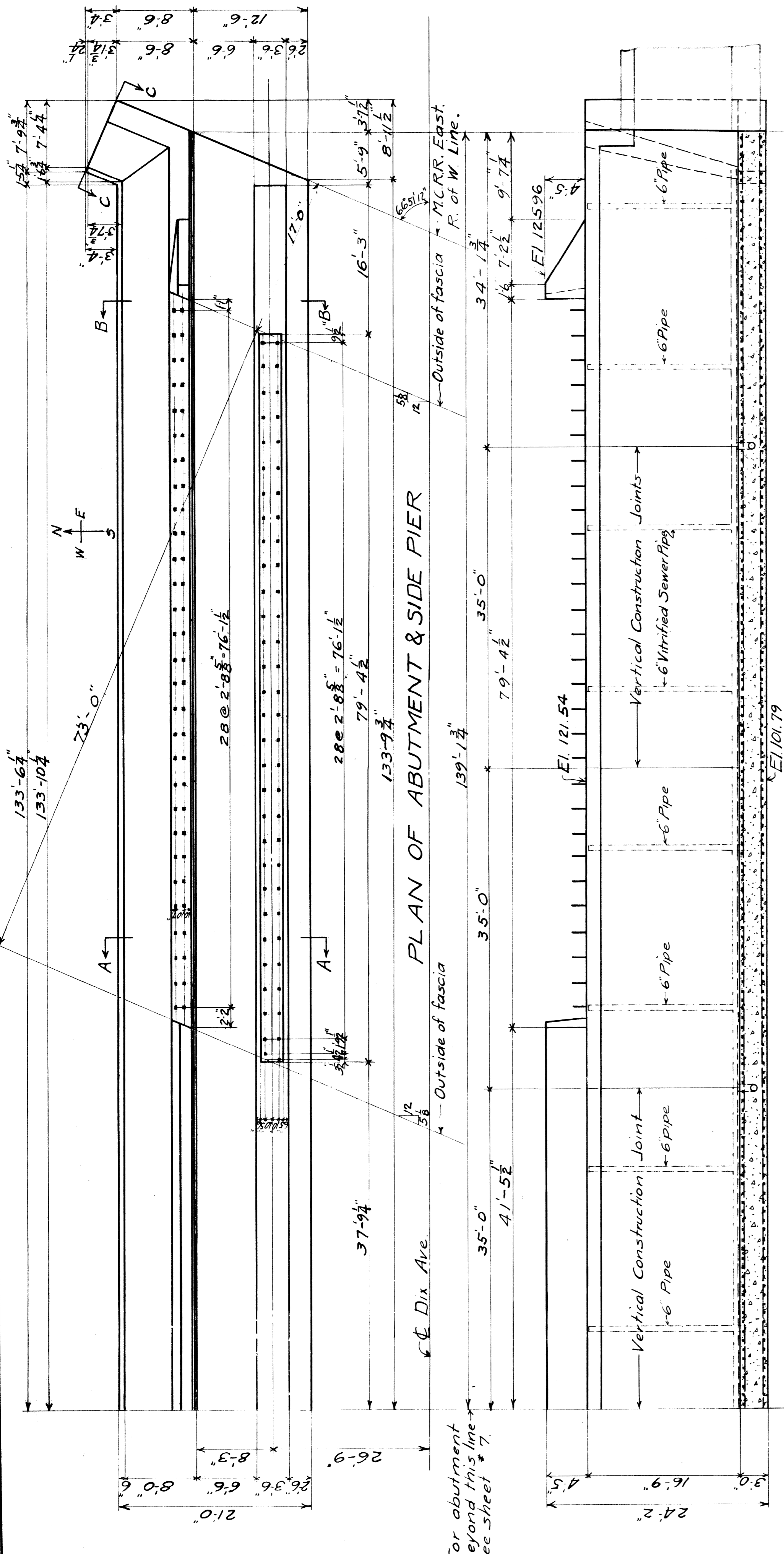
N  
 S  
 W  
 E

LONGITUDINAL SECTION

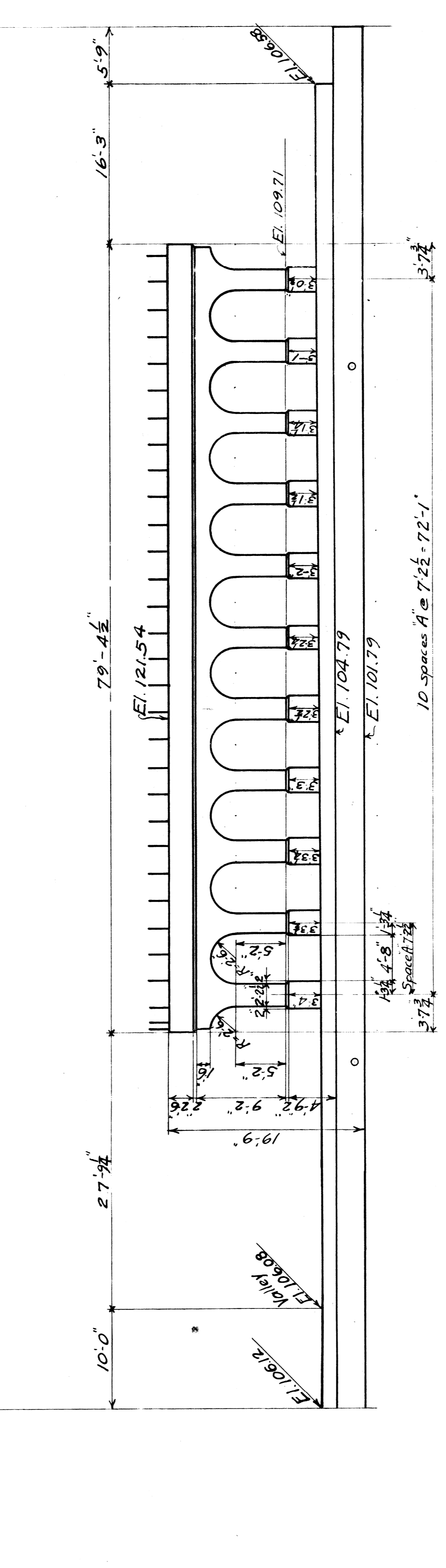
Note:  
 For plan of structure beyond  
 Line XX, see Sheet 2

PLAN OF M.C. - N.Y.C. JOINT BRIDGE

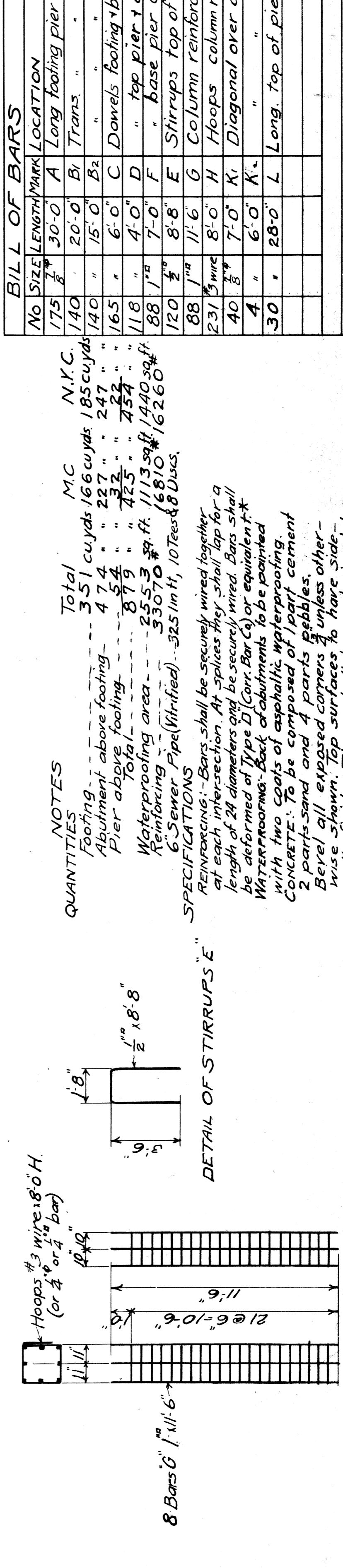




ELEVATION OF ABUTMENT



ELEVATION OF SIDE PIER



DETAIL OF COLUMN REINFORCING



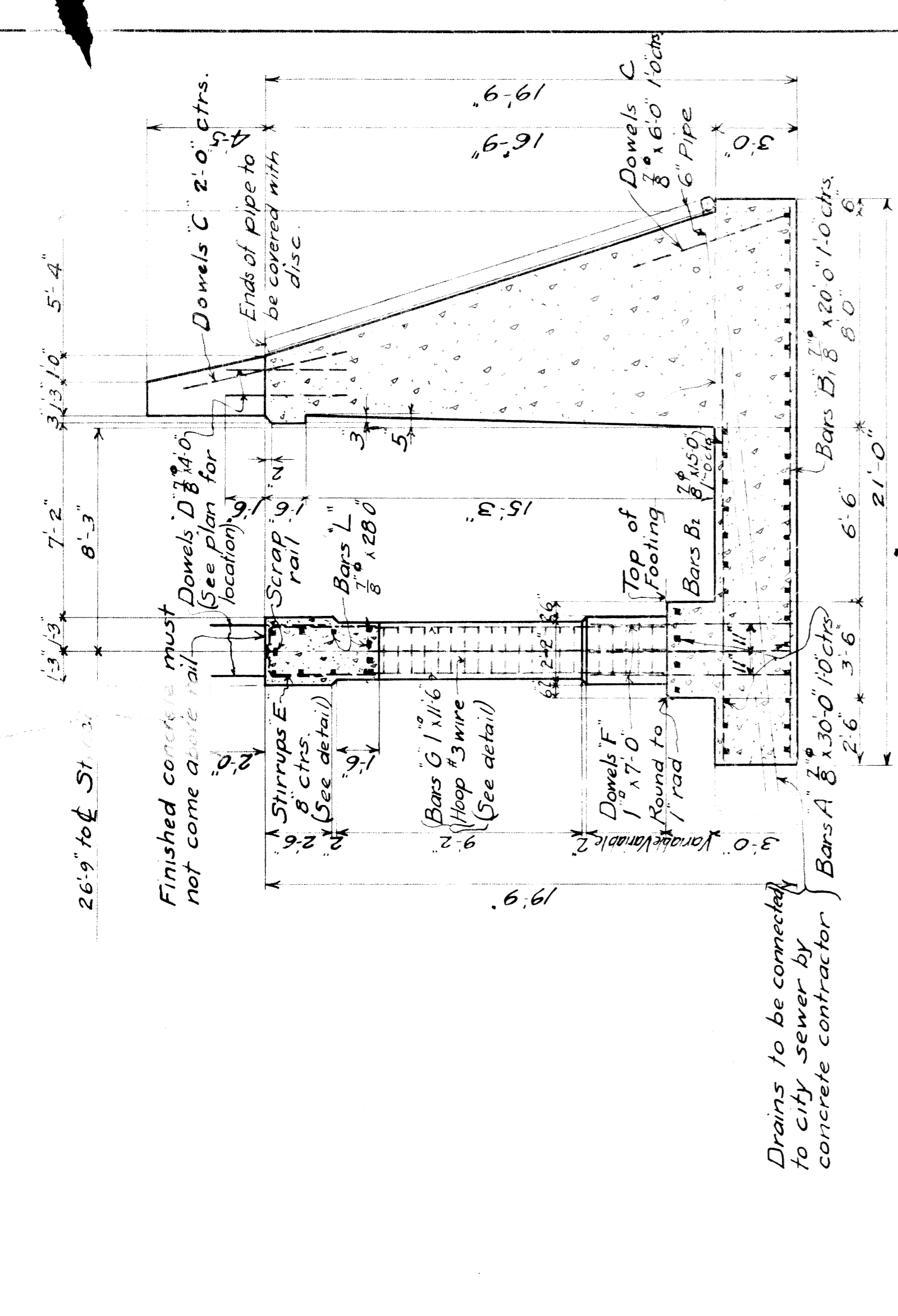
DETAIL OF STIRRUPS



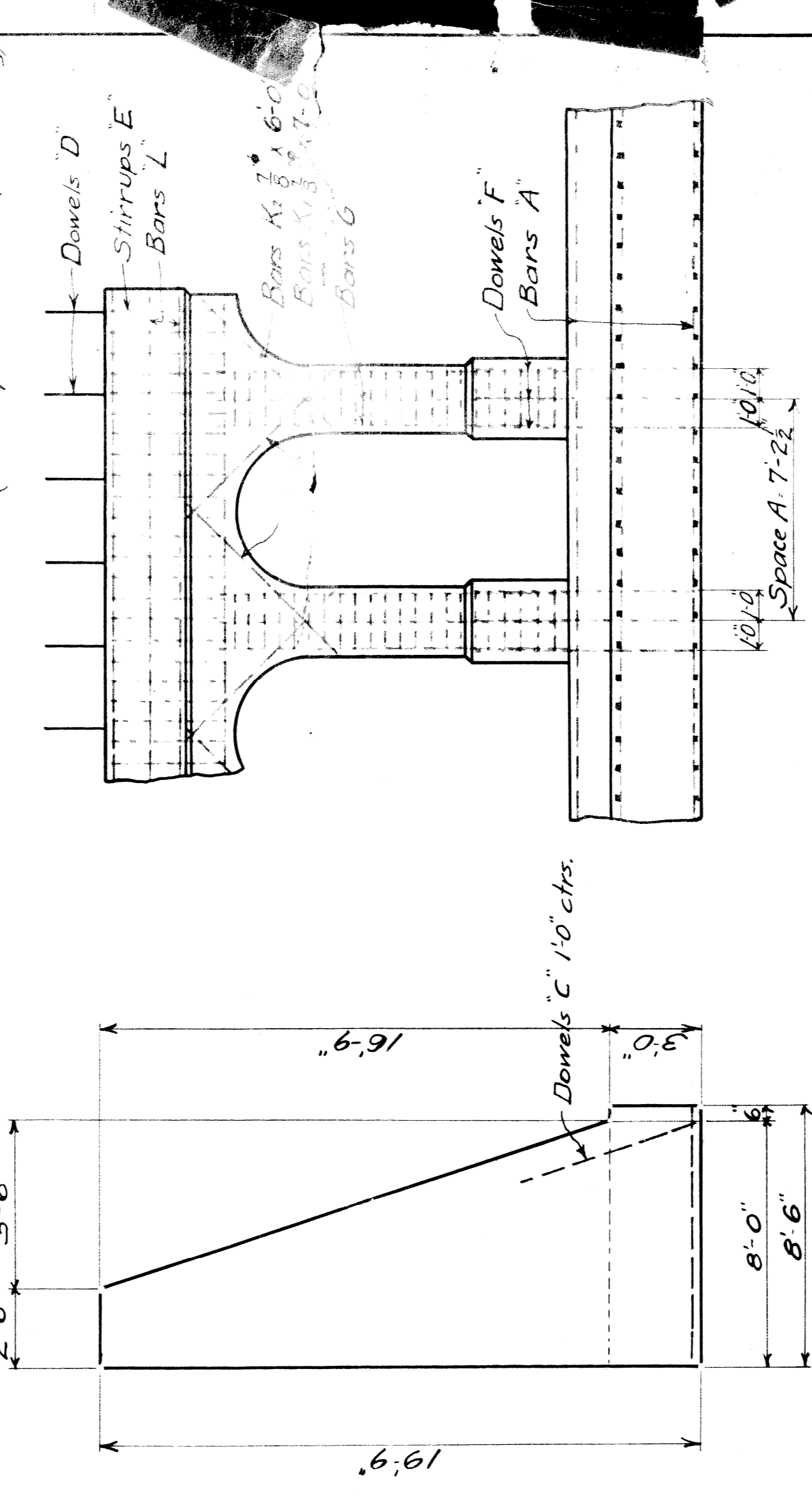
BILL OF BARS		
No.	SIZE	LENGTH
175	#7	30'-0"
176	#7	20'-0"
177	#7	15'-0"
178	#7	6'-0"
179	#7	4'-0"
180	#7	7'-0"
181	#7	8'-8"
182	#7	11'-6"
183	#7	8'-0"
184	#7	7'-0"
185	#7	6'-0"
186	#7	28'-0"

NOTES  
 Footing: Total MC N.K.C. 351 cu yds 166 cu yds 185 cu yds  
 Abutment above footing: 4 1/2 " 237 " 247 "  
 Pier above footing: 8 3/4 " 475 " 454 "  
 Waterproofing area: 330.70 sq ft 1173 sq ft 1440 sq ft  
 Reinforcing: 330.70 sq ft 16810 # 16260 #  
 6.5 Sewer Pipe (Vitrified) - 325 in ft, 10 Tees & 8 Buses.

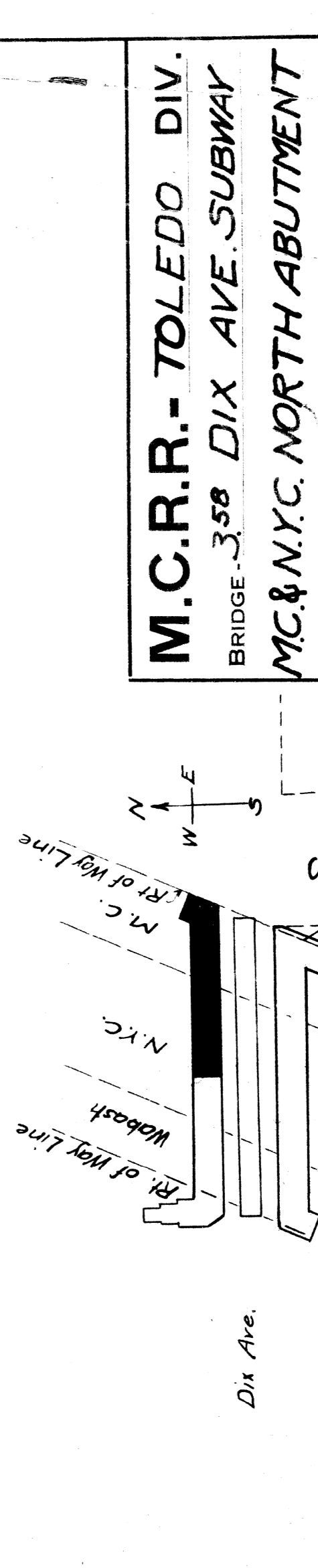
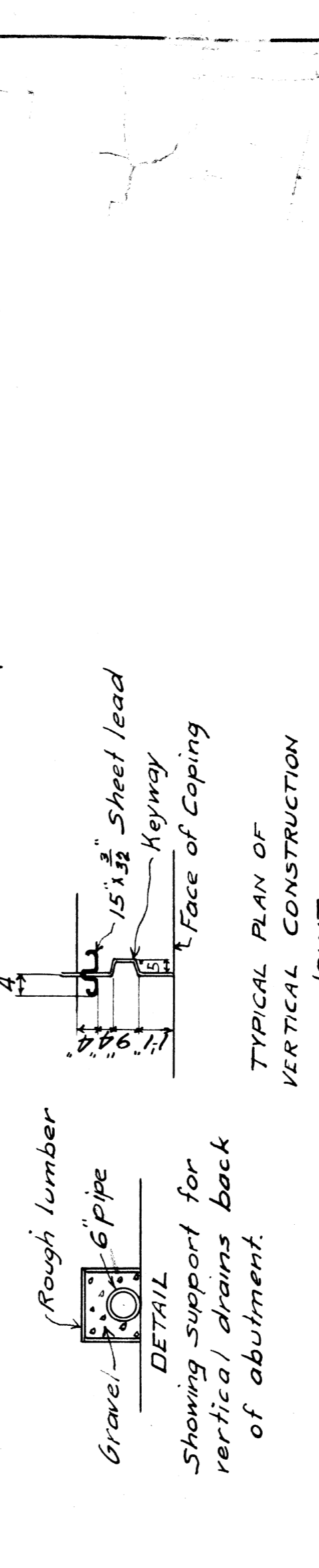
SPECIFICATIONS  
 Reinforcing: Bars shall be securely wired together at each intersection. At splices they shall lap for a length of 24 diameters and be securely wired. Bars shall be determined at Types D (Corr. Bar C) or equivalent. Waterproofing: Back of abutments to be painted with two coats of asphaltic waterproofing. CONCRETE: To be composed of 1 part cement 2 parts sand and 4 parts gabbles. Every exposed corner & surface shall be finished with a walk finish. There shall be no horizontal joints except at top of footings and underside of copings. \* Round bars in floors are plain.



SECTION B-B (Omit pier above top of footing)

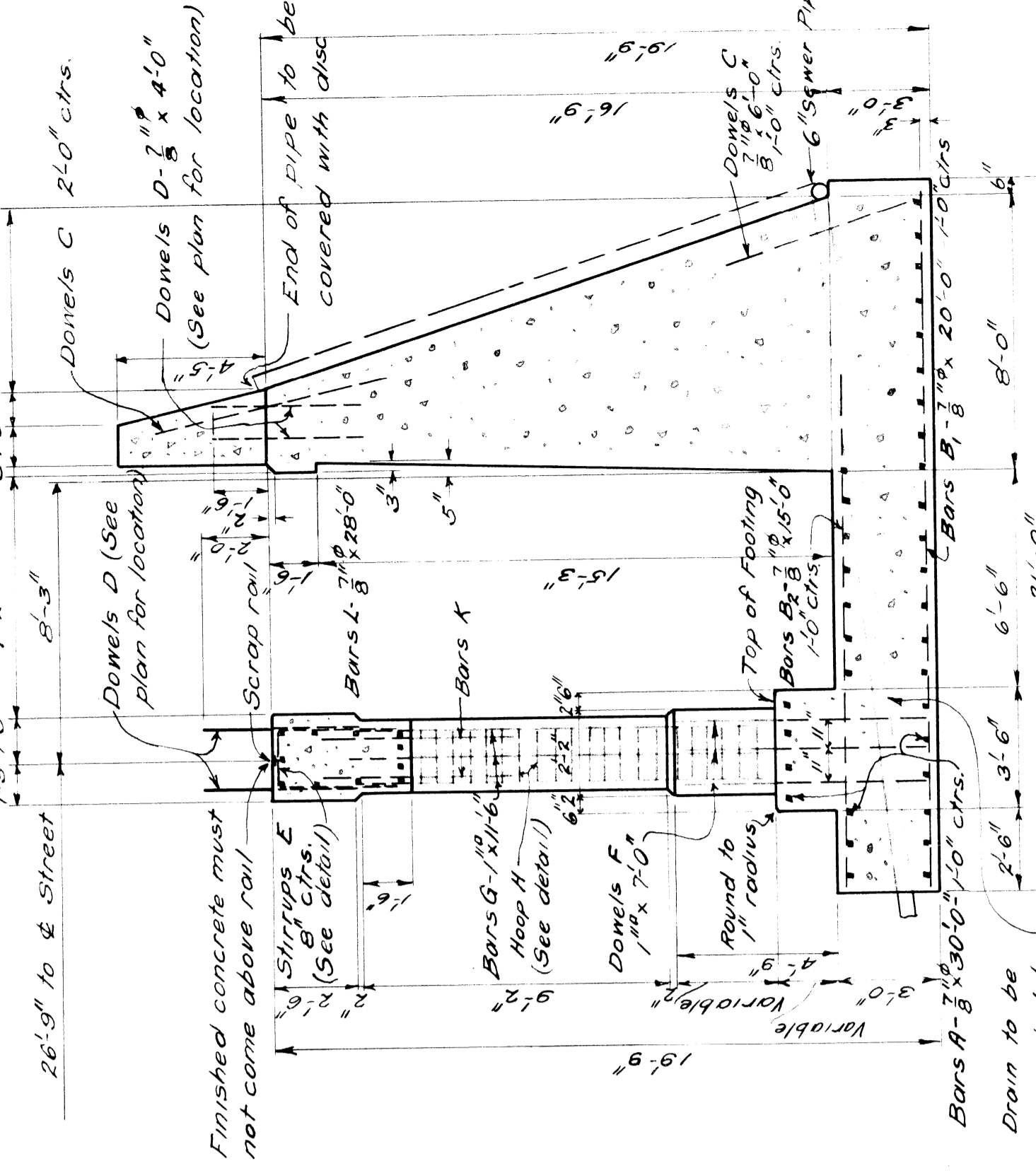


TYPICAL DETAIL OF SIDE PIER (SHOWING REINFORCING)

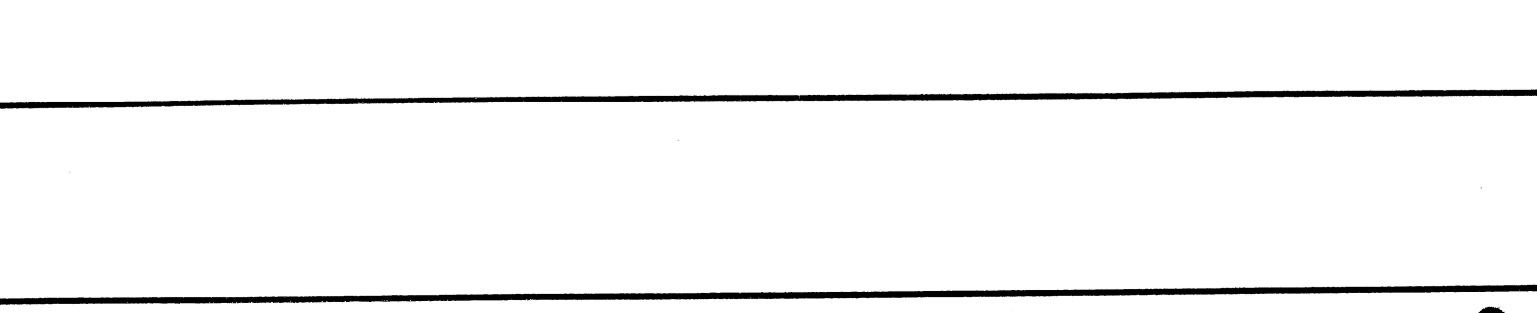
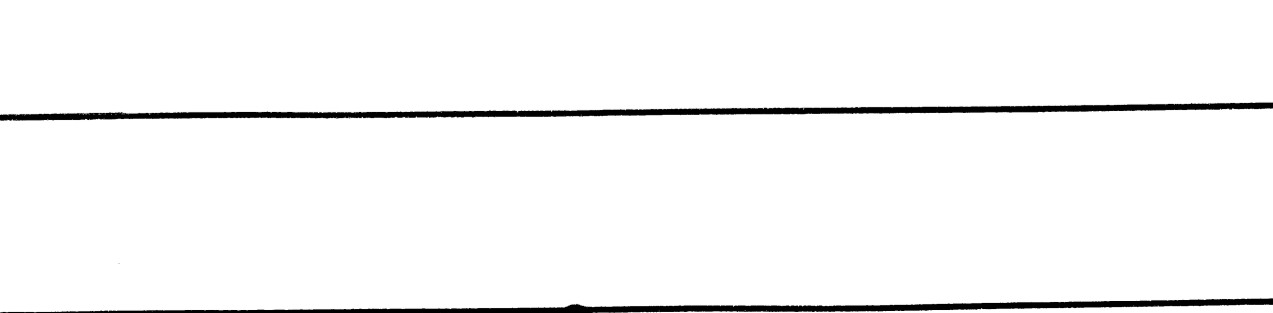
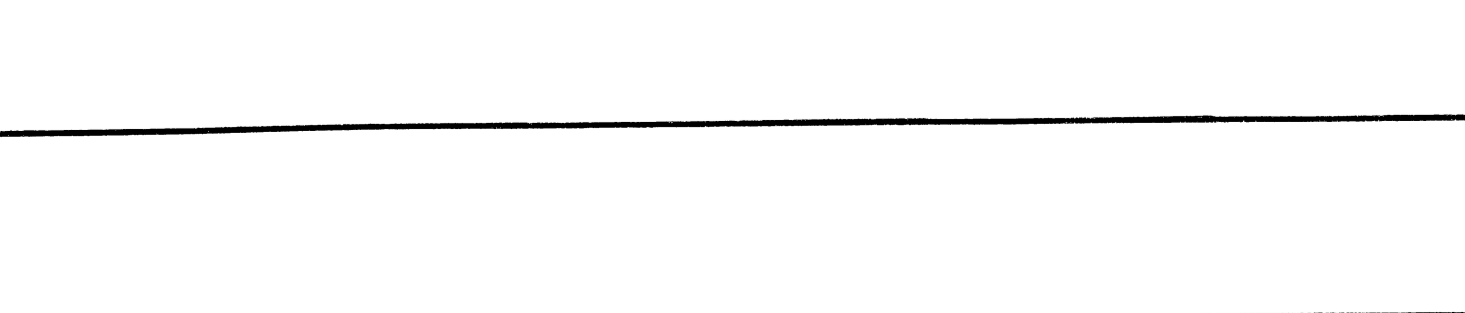
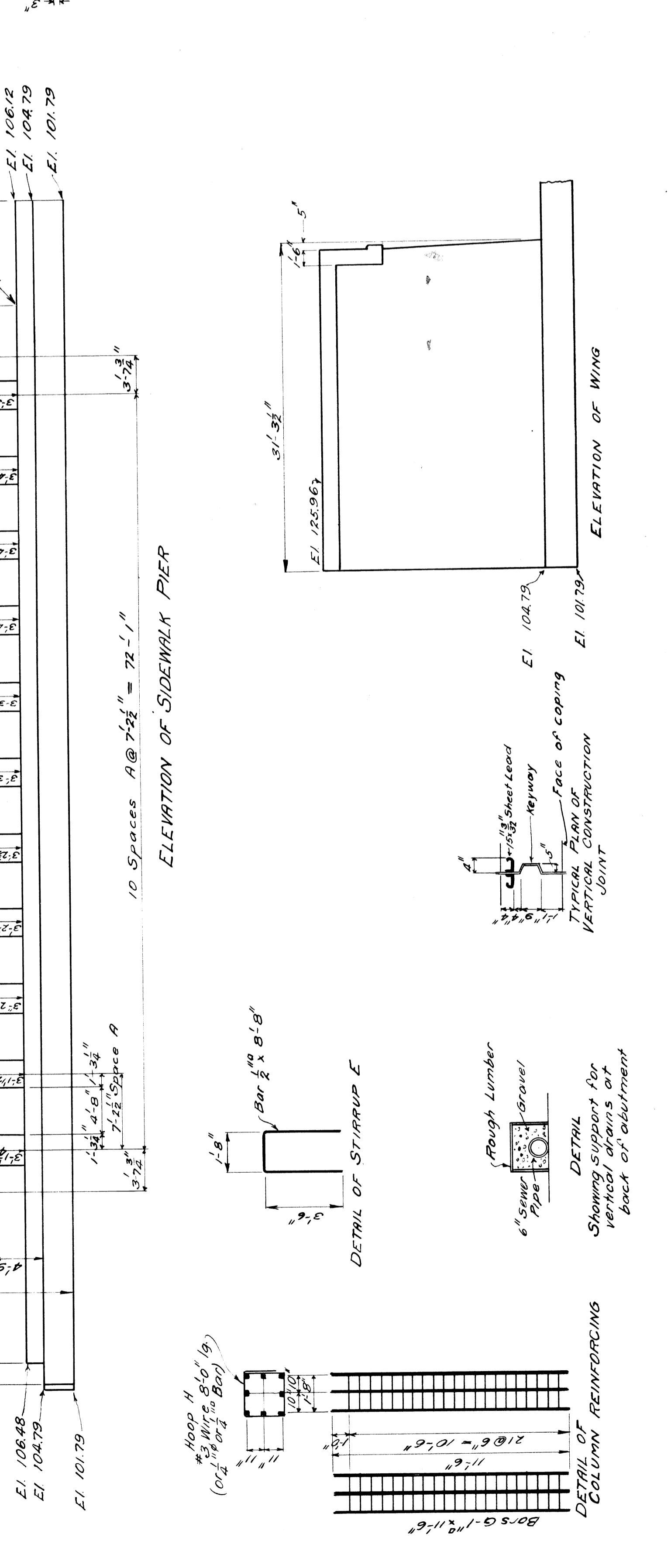
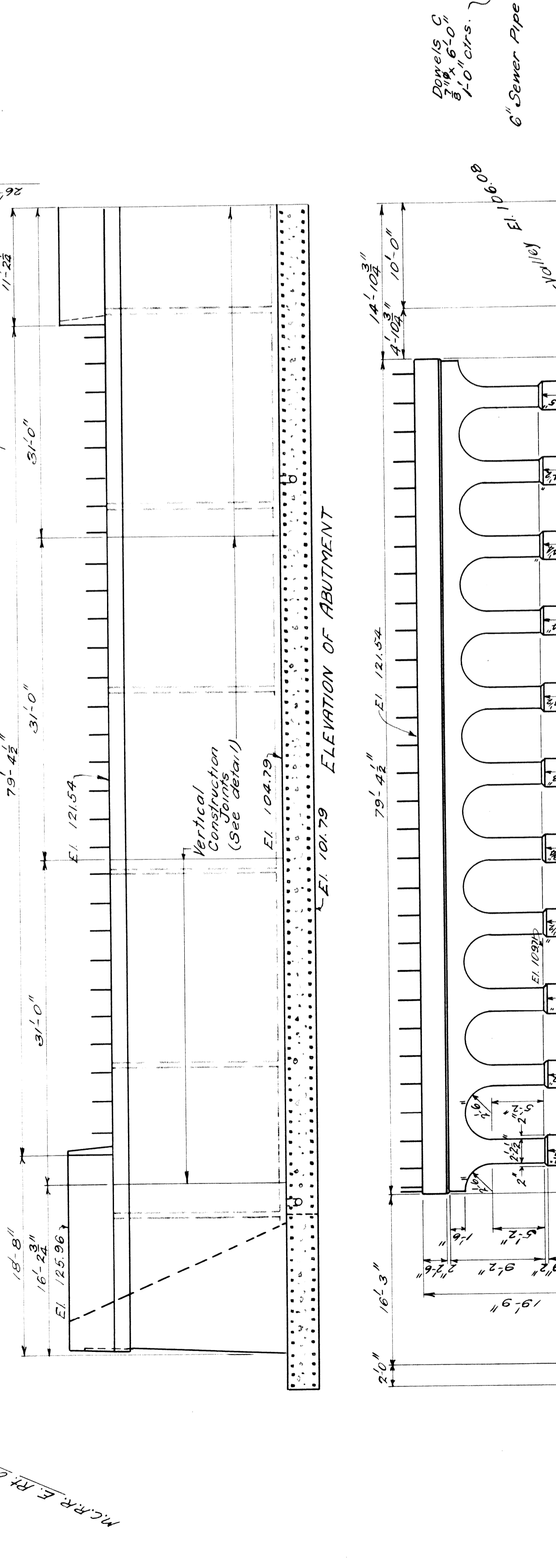
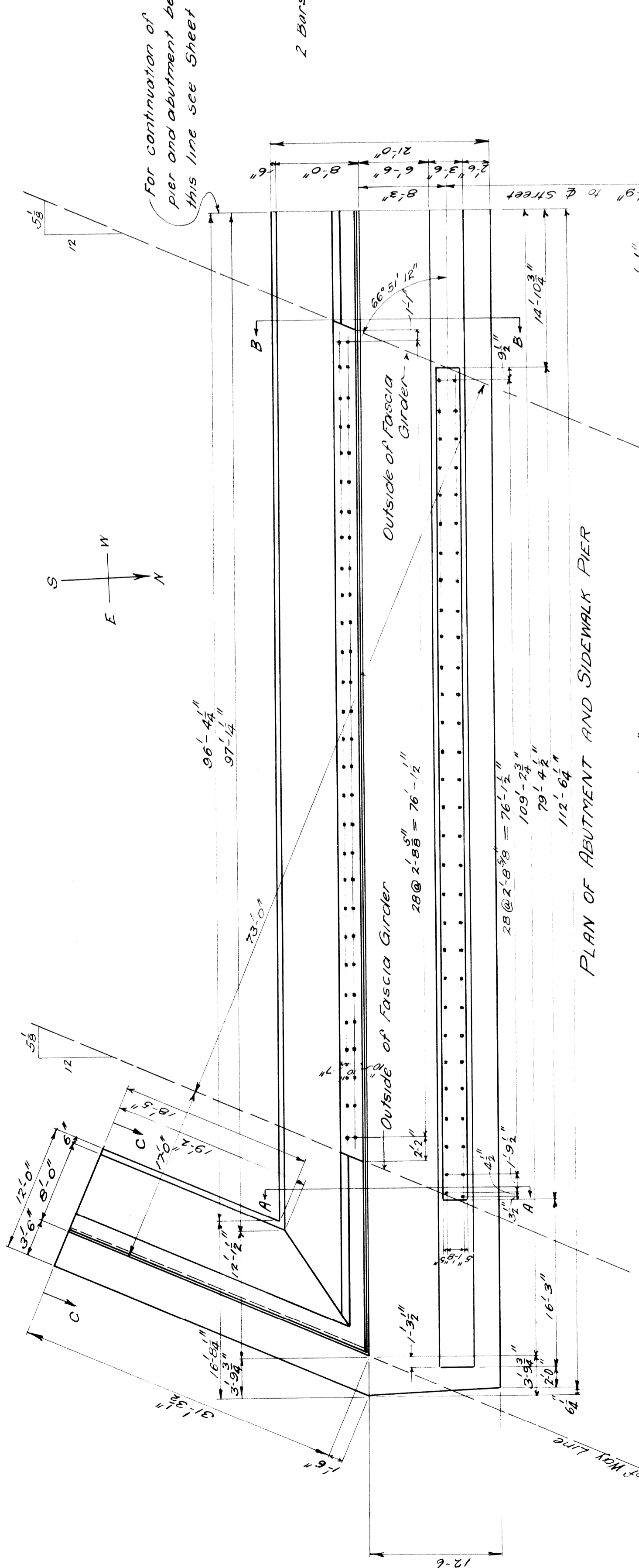
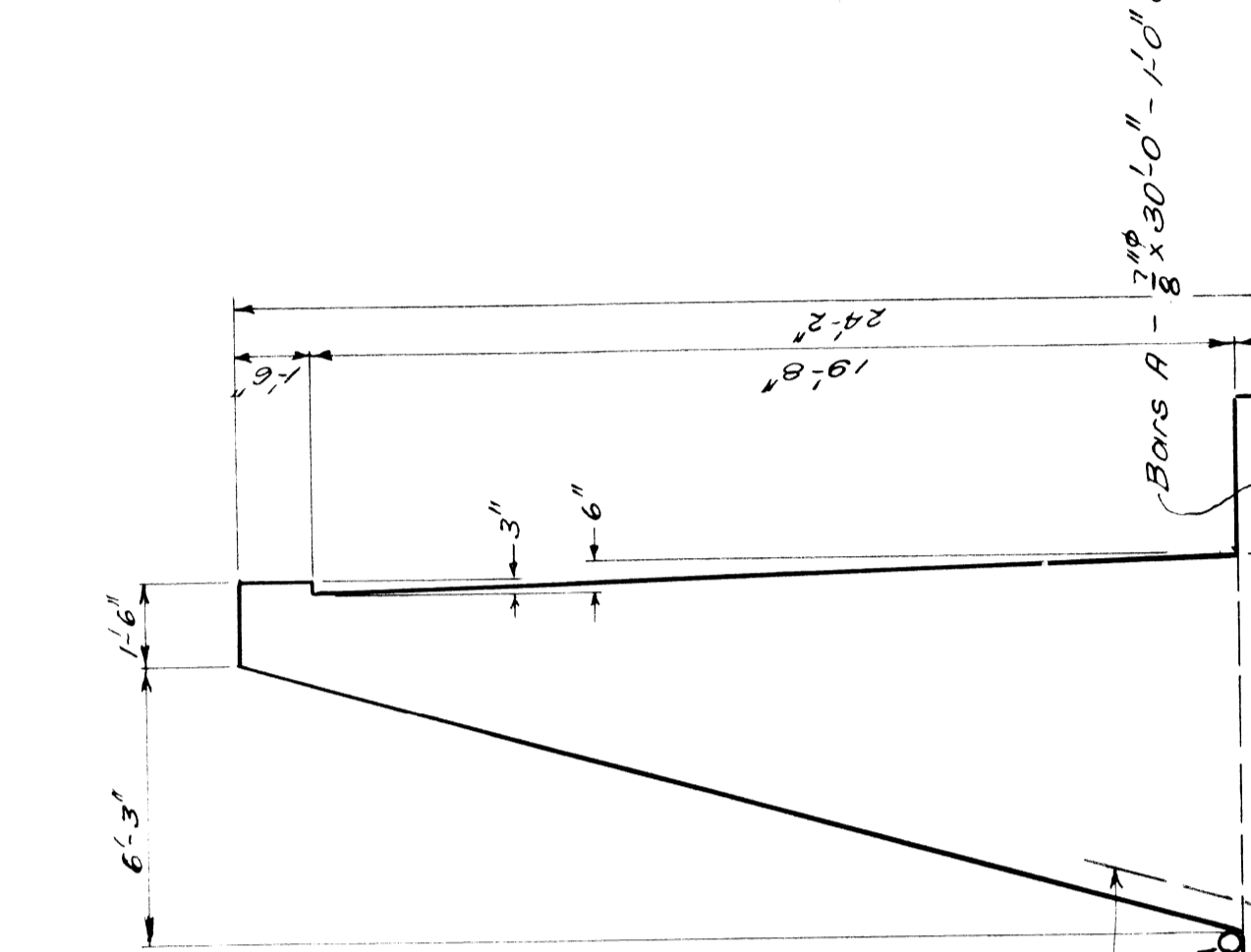
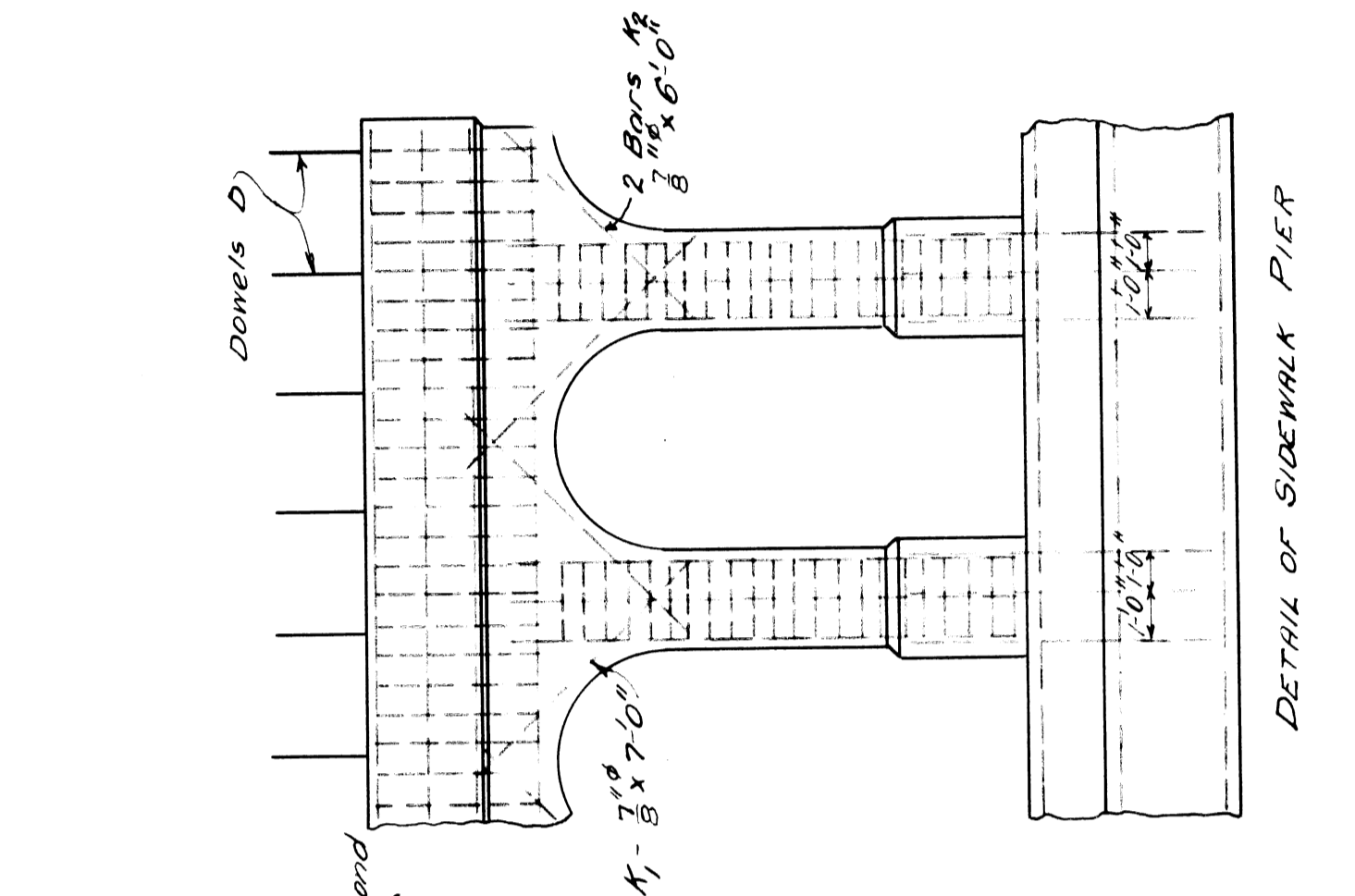


M.C.R.R.- TOLEDO DIV.  
 BRIDGE 358 DIX AVE. SUBWAY  
 M.C. & N.Y.C. NORTH ABUTMENT  
 SCALE: 8 1/4" = 1 FOOT  
 DRAWN BY: C.C.C. 10-27-1923  
 CHECKED BY: C.C.C. 11-27-1923  
 TRACED BY: C.C.C. 10-27-1923  
 REVISED BY: C.C.C. 10-27-1923  
 SHEET 3 OF 3  
 BRIDGE ENGINEER

File XU 33-5



BILL OF BARS	
No. Size	Location
152	3/8\"/>
14	1/4\"/>
114	1/4\"/>
30	3/8\"/>
158	1/4\"/>
118	1/4\"/>
88	1/4\"/>
231	3/8\"/>
40	3/8\"/>
30	3/8\"/>
350	1/4\" x 6\" vit. sewer pipe, 10 feet, 7\" e.d.
79	1/4\" x 2\" x 3\" sheet lead - 1/2\" x 2\" holes spaced 8\" in
4	p.c.s. 1/2\" x 3/4\" sheet lead - 1/2\" x 2\" (9\" percent joints)



**GENERAL NOTES:**

- For General Specifications, see Sheet 3.
- Concrete Yardage: Pier - 116, Wing Wall - 34, Pier - 32, Wing Wall - 143, Total - 325.
- Reinforcing: Pier - 522, Wing Wall - 276, Total - 798.
- Waterproofing: 18650 - 11250 - 30100 - 1650 - 2450.

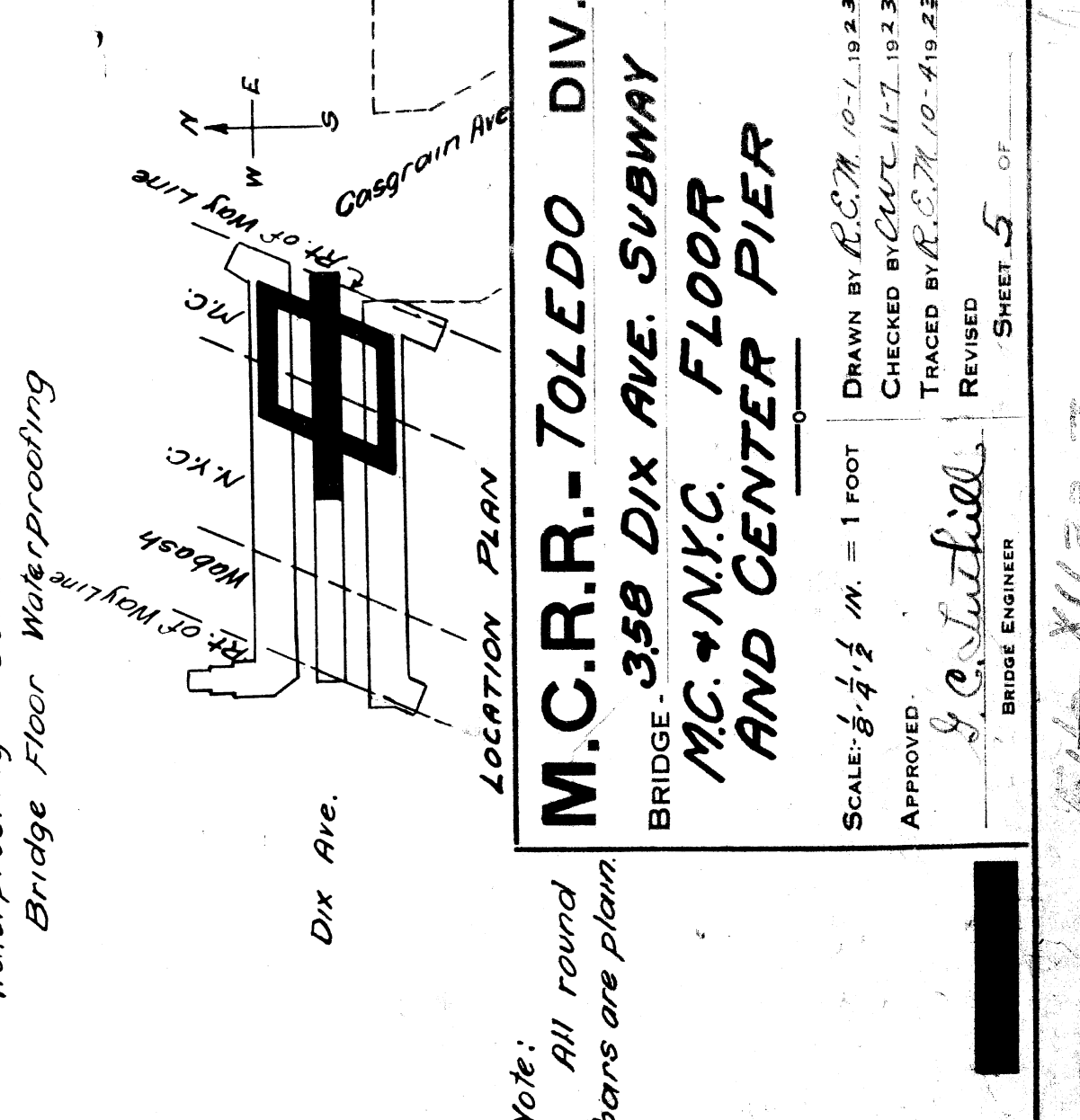
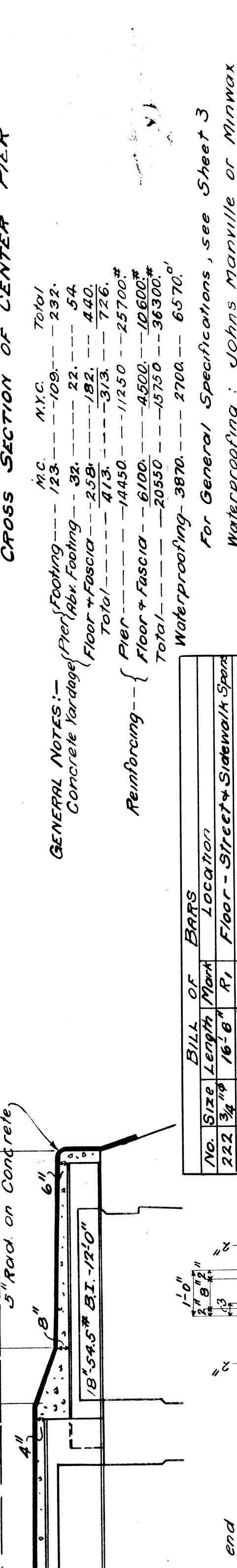
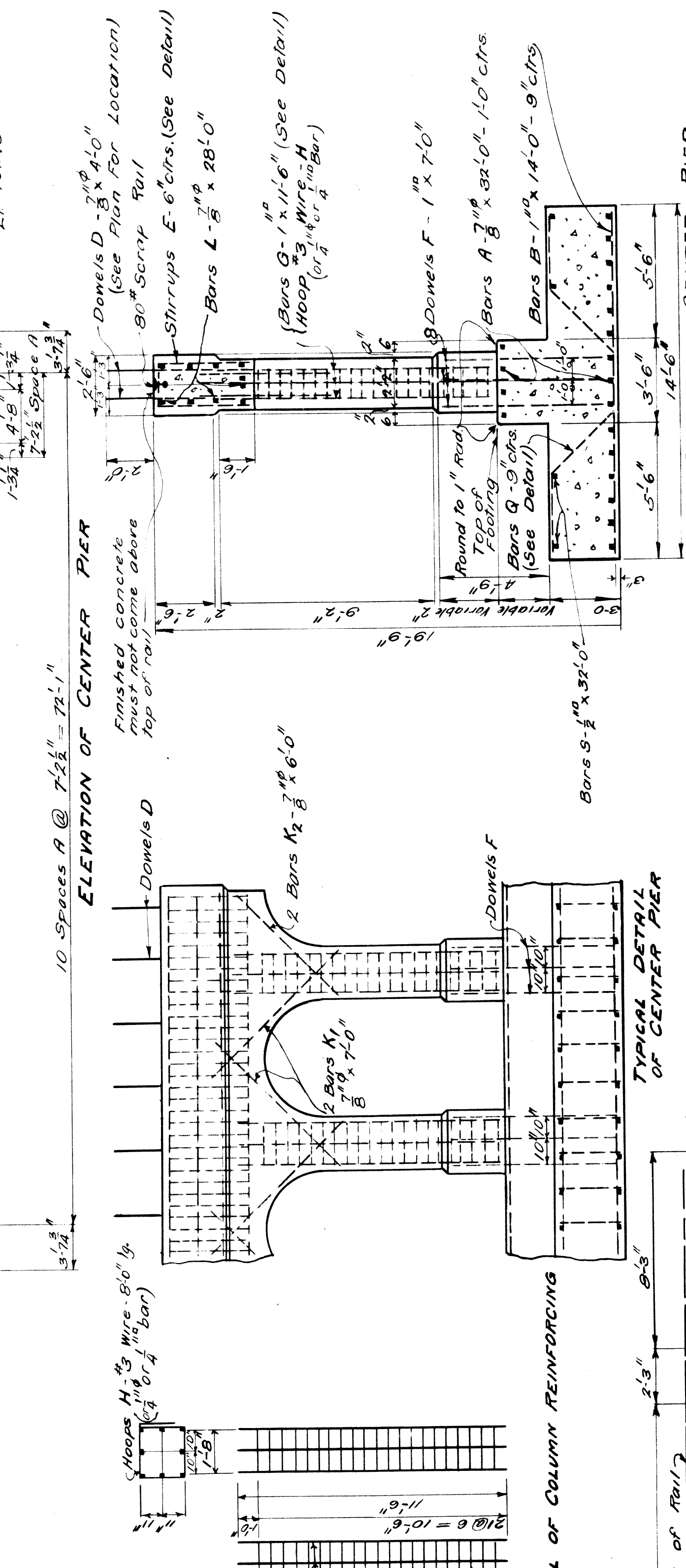
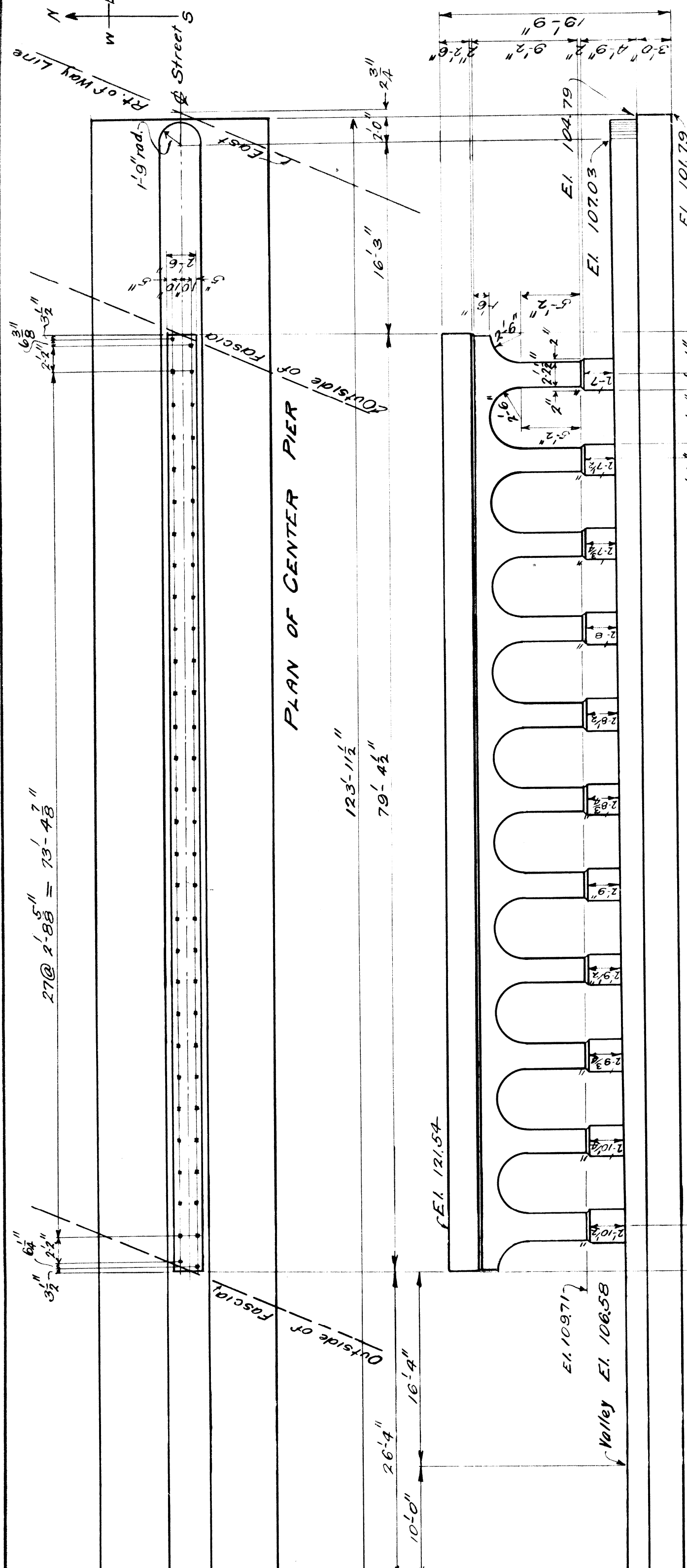
**LOCATION PLAN**

M.C.R.R. - TOLEDO DIV.  
 BRIDGE - 358 DIX AVE. SUBWAY  
 M.C. & N.Y.C. SOUTH ABUTMENT AND WING WALL

SCALE: 1/4" = 1' - 0"  
 DRAWN BY: C.C.M. 8-7-1923  
 CHECKED BY: C.C.M. 11-7-1923  
 TRACED BY: C.C.M. 8-7-1923  
 REVISED BY: C.C.M. 1-7-1924  
 APPROVED: [Signature]  
 BRIDGE ENGINEER

FILE XU33-6

SHEET 4 OF 4



GENERAL NOTES:

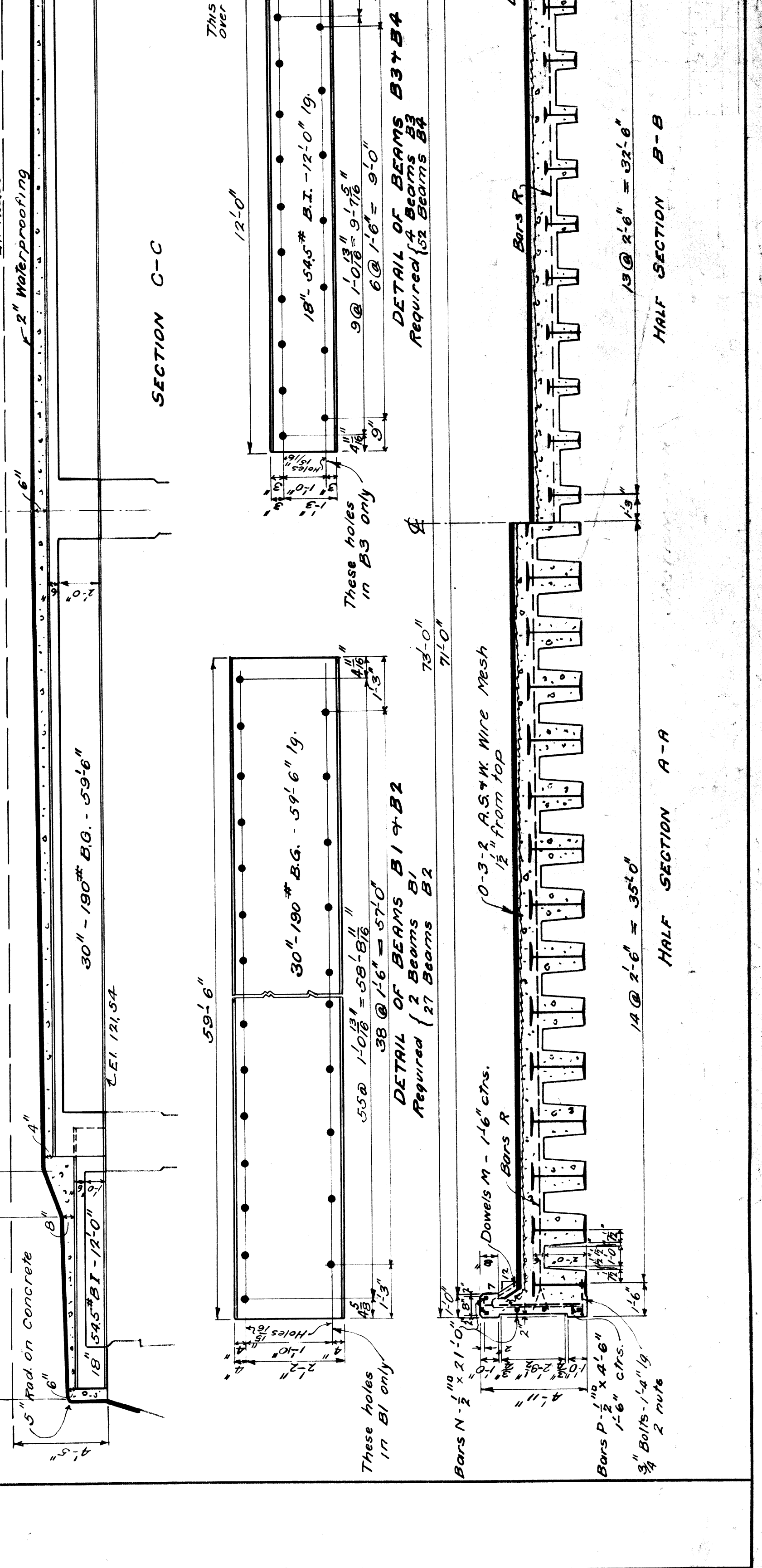
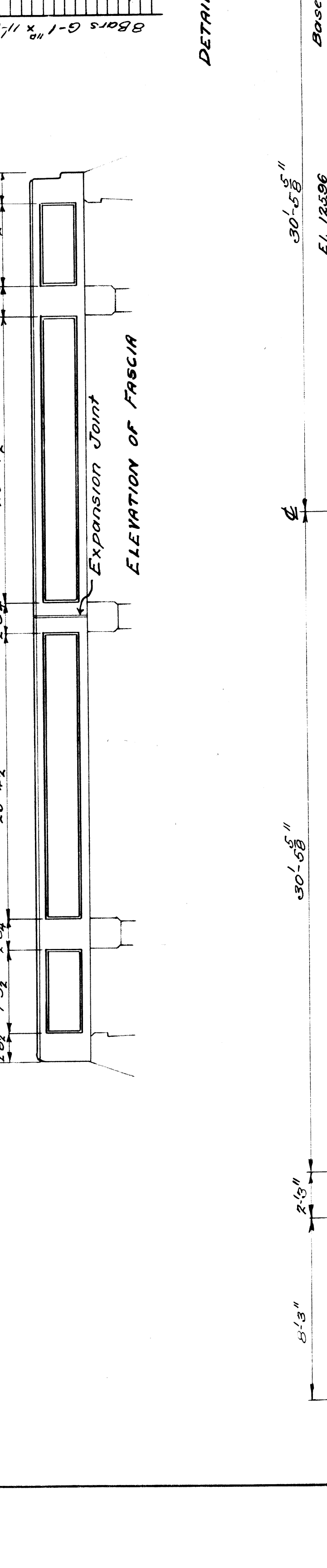
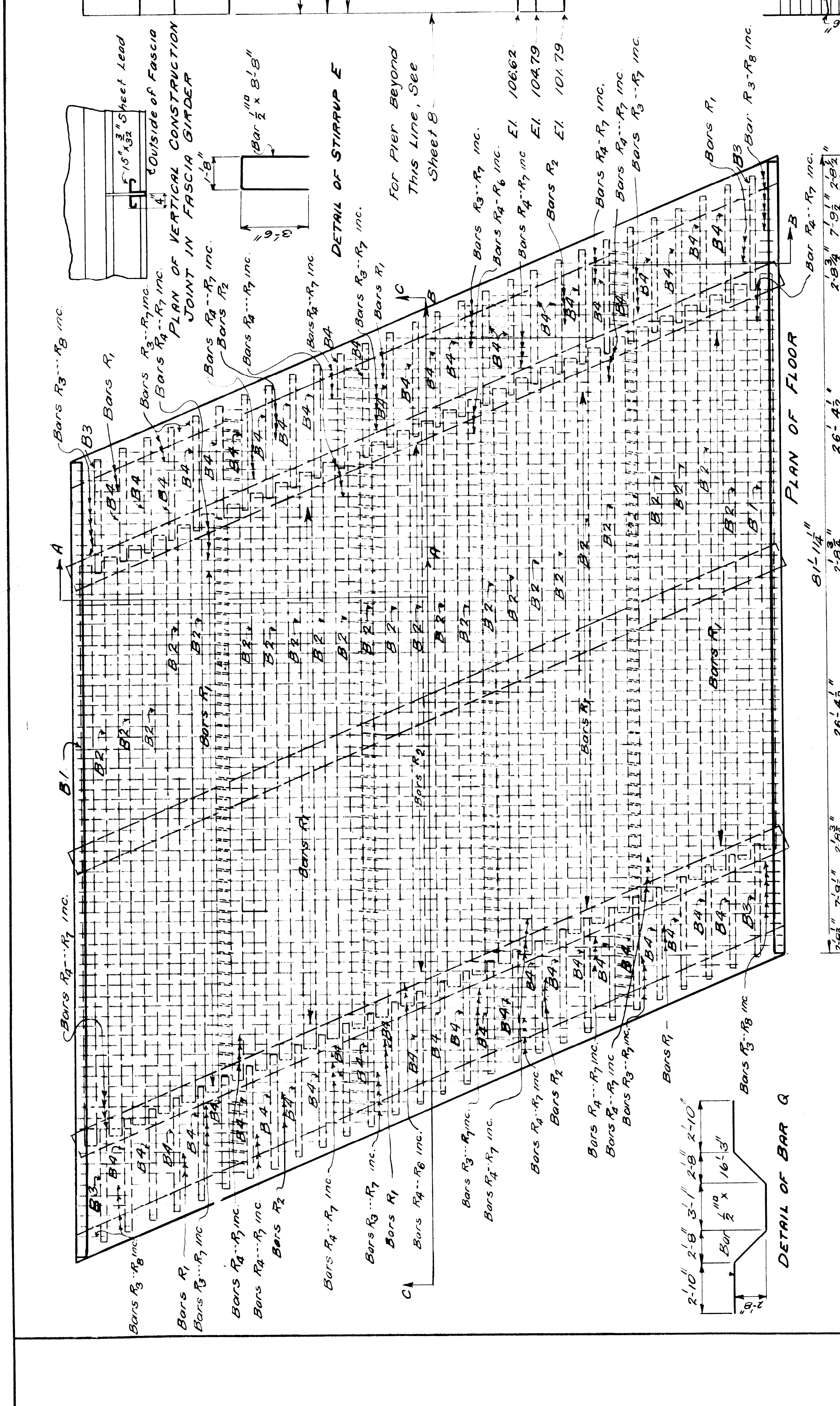
Concrete for (Pier, Fascia, Floor, Sidewalk Spans)  
Total - 1450 - 11250 - 4500 - 10600 = 27300

Reinforcing - (Pier + Fascia - 6100 - 4500 - 10600 = 21200)  
Total - 20550 - 15750 - 36300 = 65700

Waterproofing - 3870 - 2700 = 6570

For General Specifications, see Sheet 3  
Waterproofing: Johns Manville or Minmax  
Bridge Floor Waterproofing

No.	Size	Length	Material	Location
222	3/4"	16'-0"	R1	Floor - Street & Sidewalk Spans
69	1/2"	14'-0"	R2	"
12	1/2"	12'-0"	R3	"
30	1/2"	10'-0"	R4	"
30	1/2"	7'-6"	R5	"
28	1/2"	5'-0"	R7	"
4	1/2"	3'-0"	R8	"
9	1/2"	14'-0"	D	Long in Fascias, Sidewalk Spans
16	1/2"	13'-0"	D	Long in Pier Fascia
166	1/2"	14'-0"	D	Trans. " " " (See detail)
18	1/2"	7'-0"	D	Domels in Fascia
80	1/2"	28'-0"	L	Long in Top of Pier
100	1/2"	8'-0"	L	Stirrups in Top of Pier (See detail)
88	1/2"	11'-6"	D	Column Reinforcing (See detail)
60	1/2"	4'-0"	D	Domels in Top of Piers
40	1/2"	7'-0"	K1	Diag. over Arches
76	1/2"	32'-0"	A	Long in Pier Fascia
90	1/2"	21'-0"	A	Long in Fascia
110	1/2"	4'-6"	D	Domels in Fascias
281	1/2"	30'	H	Hoops - Column Reinforcing
7	1/2"	500'	S	3/8" x 3/4" Wire Mesh - Splice 0-3-2
2	1/2"	100'	S	1/2" x 1/2" Scarf - 1" notes in web. 6" cts.
78	1/2"	2'-0"	S	2 nubs
28	1/2"	2'-6"	S	2 nubs



SCALE: 1/4" = 1'-0"

APPROVED: [Signature]

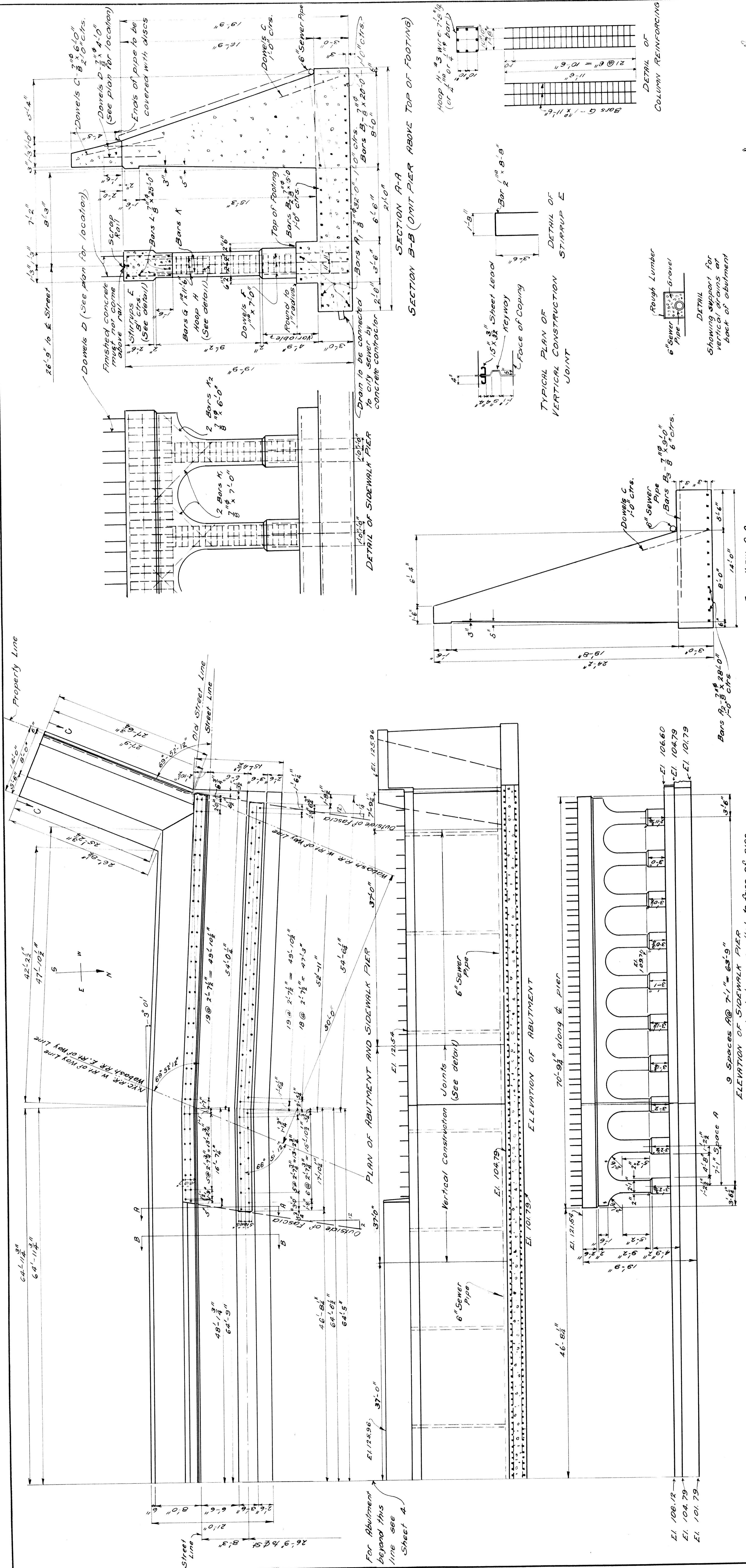
BRIDGE ENGINEER

REVISIONS: [Table]

NO. 10-1-1923  
CHECKED BY: [Signature]  
DATE: 11-7-1923

NO. 10-1-1923  
CHECKED BY: [Signature]  
DATE: 11-7-1923

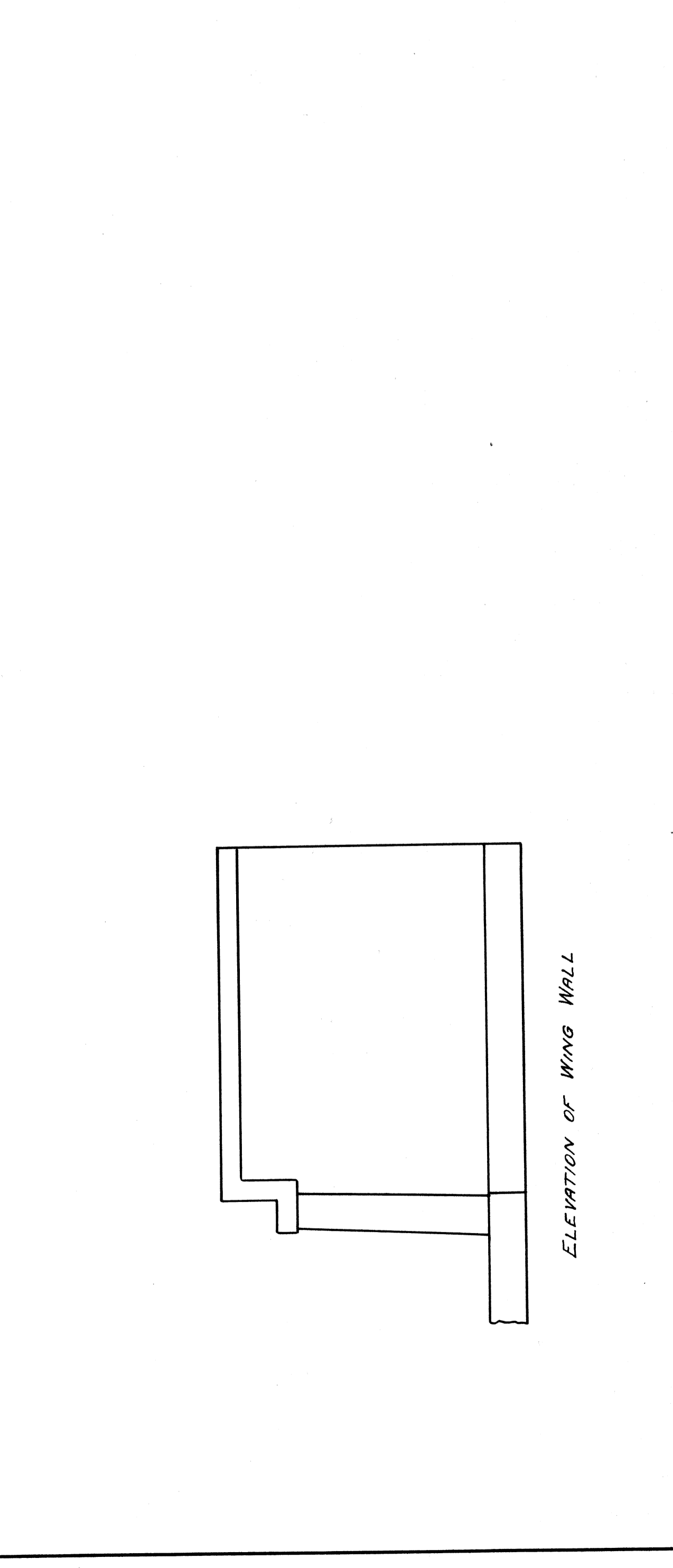




**BILL OF BARS**

No.	Size	Length	Max	Location
140	3/8"	32'-0"	A	Long in Roofing - abutment
141	"	28'-0"	A <sub>2</sub>	" " " " - wing wall
142	"	20'-0"	B	Trans. " " - abutment
143	"	15'-0"	B <sub>2</sub>	" " " " " "
144	"	9'-0"	B <sub>3</sub>	" " " " " "
145	"	6'-0"	C	Dowels in footing and abutment
146	"	4'-0"	D	Dowels for floor
147	1/2"	8'-0"	E	Strips in top of pier
148	1/4"	7'-0"	F	Dowels in bases of pier cols.
149	1/4"	11'-6"	G	Column reinforcing
150	3/8"	7'-0"	H	Hoops for column reinforcing
151	1/8"	7'-0"	I	Diag. over arches
152	"	6'-0"	J	" " " "
153	"	25'-0"	L	Long in top of pier

17 1/2" x 3" scrap rail - 1" holes spaced 8" in web  
 52 1/2" x 3" scrap rail - 1" holes spaced 8" in web  
 250 1/2" x 6" 1/2" sewer pipe, 10 tees, and 7 discs.  
 Specs. 15' x 32' Sheet lead - 16'-0" W.  
 V.P.C. " " " " " " 4'-5" W.

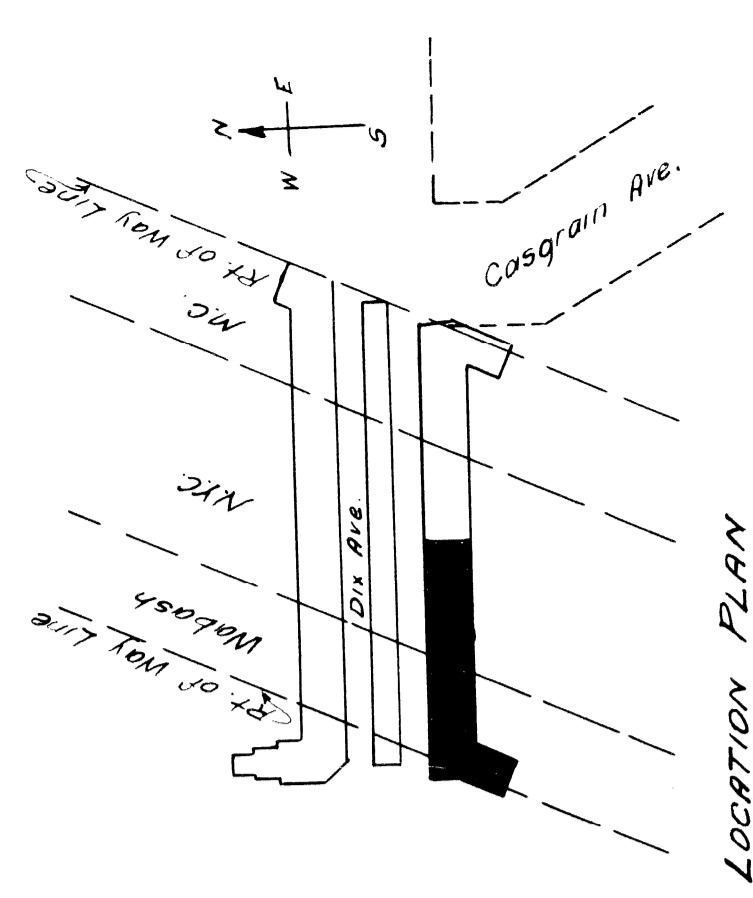


**GENERAL NOTES:-**

Concrete Yardage	M.C. Web	M.V.C.	Total
Footings (Wing Wall)	160	120	280
Abutment	48	0	48
Wing Wall	224	168	392
Total	592	288	880

Reinforcing ----- 23000 ----- 1700 ----- 1080 ----- 2150.  
 Waterproofing -----

For General Specifications see Sheet 3

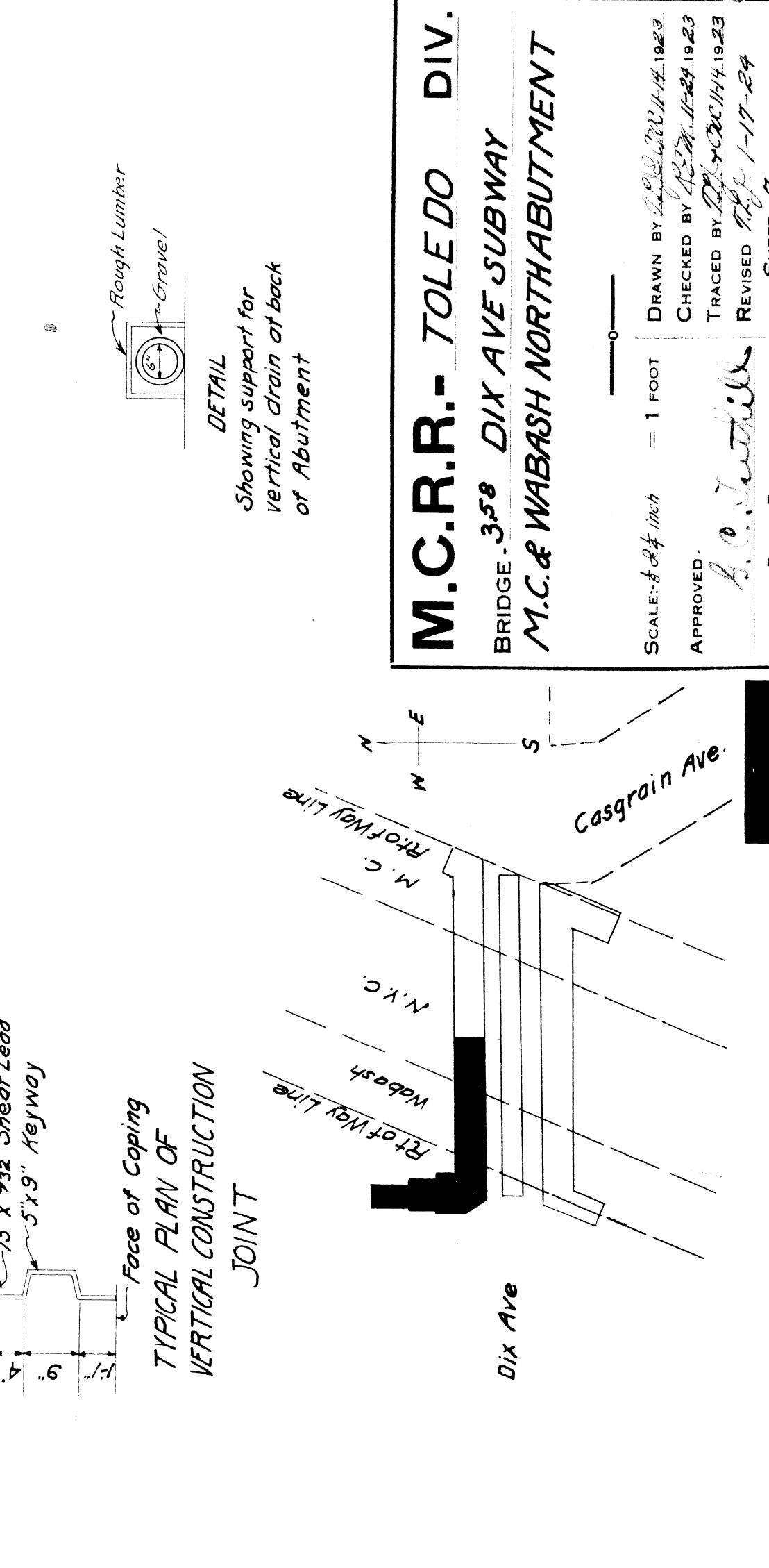
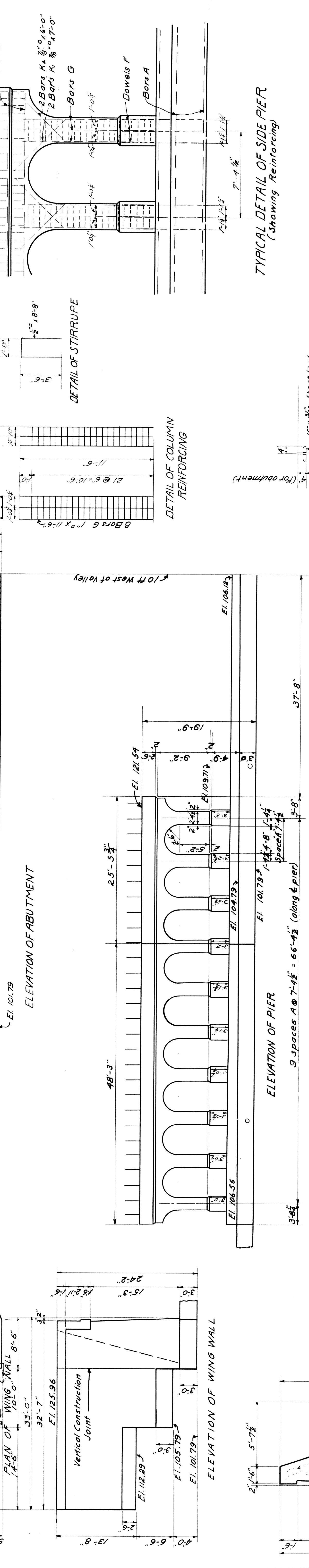
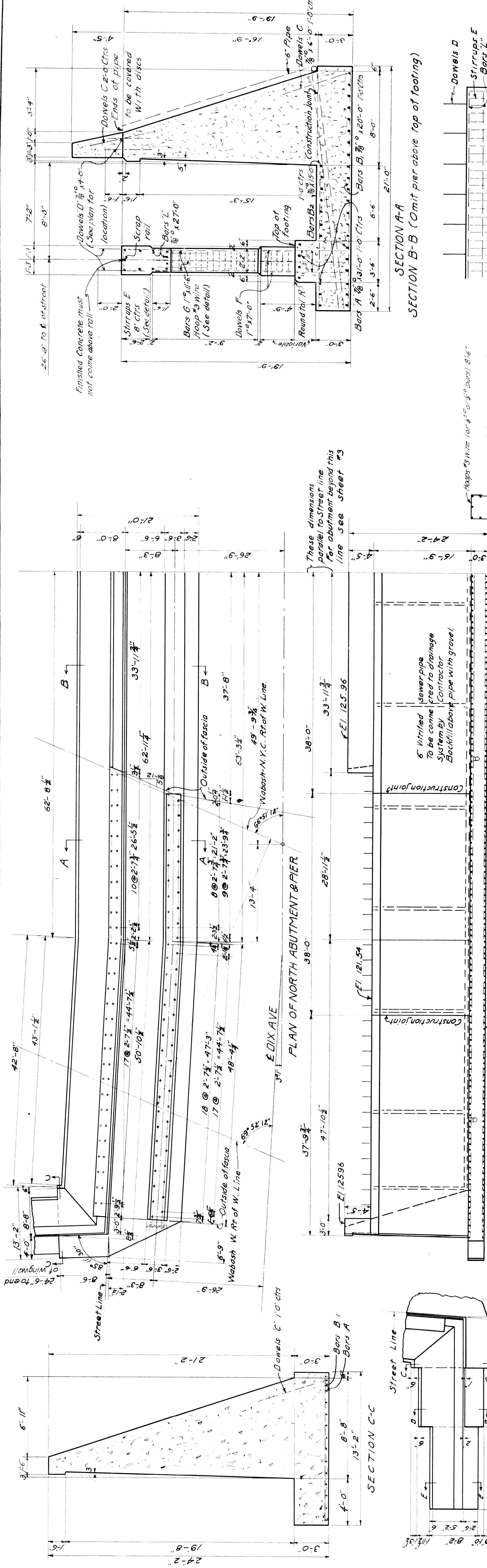


**M.C.R.R. - TOLEDO DIV.**  
**BRIDGE 3.98 DIX AVE. SUBWAY**  
**M.C. AND WABASH**  
**SOUTH ABUTMENT**

SCALE: 1/8" = 1 FOOT  
 DRAWN BY: J.C.M. 11-19-23  
 CHECKED BY: C.C.M. 11-26-23  
 TRACED BY: J.C.M. 11-19-23  
 REVISED BY: J.C.M. 1-12-1924  
 APPROVED: [Signature]  
 BRIDGE ENGINEER

SHEET 6 OF 6

File X235-8



**QUANTITIES**

Item	Quantity	Unit
Footings	317	cuyds
Abutment	421	cuyds
Pier	52	cuyds
Waterproofing area	2,403	sq. ft.
Acbiting	23,497	sq. ft.
6" Sewer pipe (Milled)	327	lin. ft.

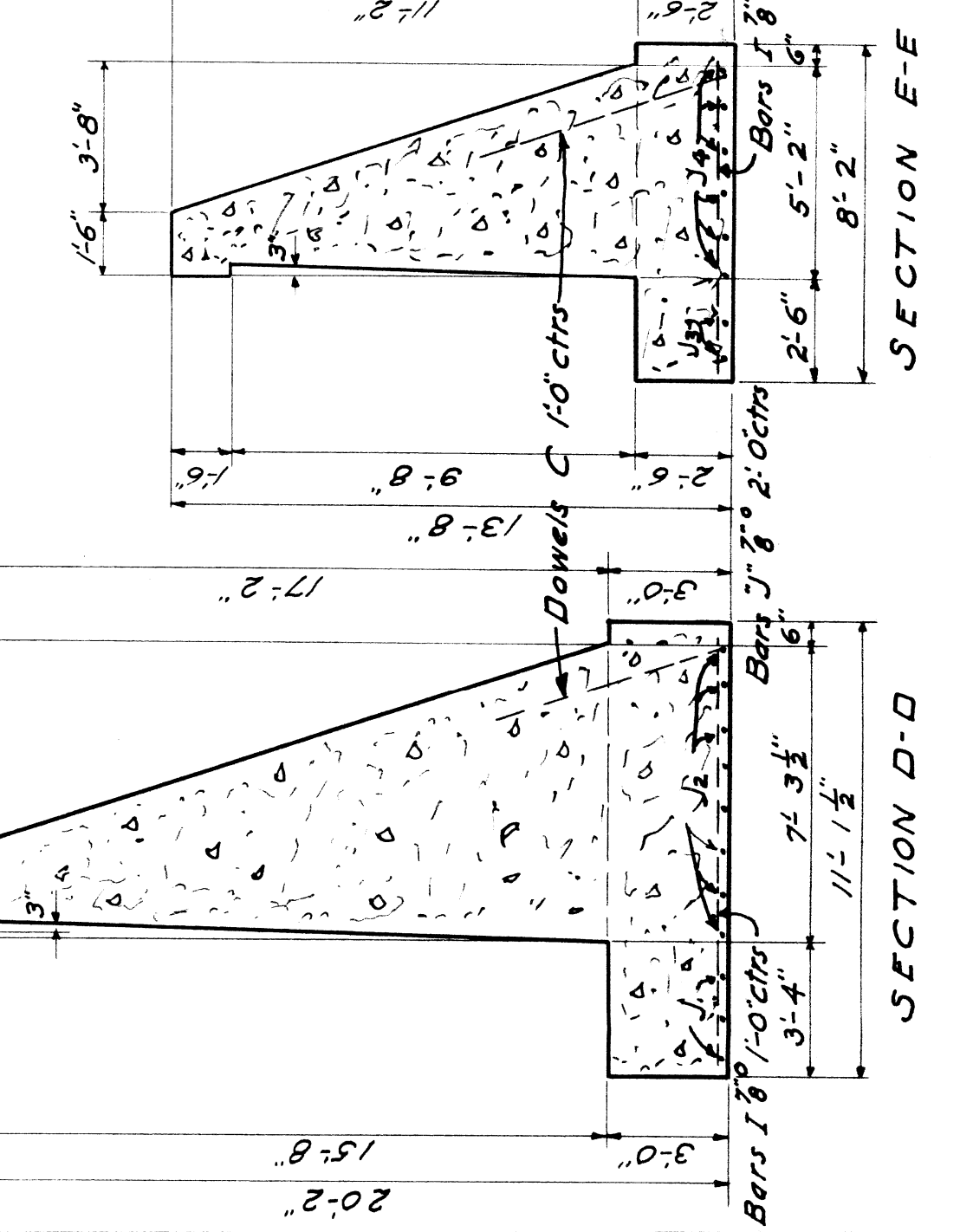
**NOTES:**

- Reinforcing Bars shall be securely wired together at each intersection.
- Splices shall be made in accordance with specifications.
- Bars shall be of a standard type.
- Waterproofing: Back of abutments to be painted with two coats of asphaltic waterproofing.
- Concrete to be composed of 1 part cement, 2 parts sand and 4 parts pebbles.
- Reveal all exposed corners unless otherwise shown.
- Top surface to have sidewalk finish.
- There shall be no horizontal joints except at top of footings and under side of copings.

**BILL OF BARS**

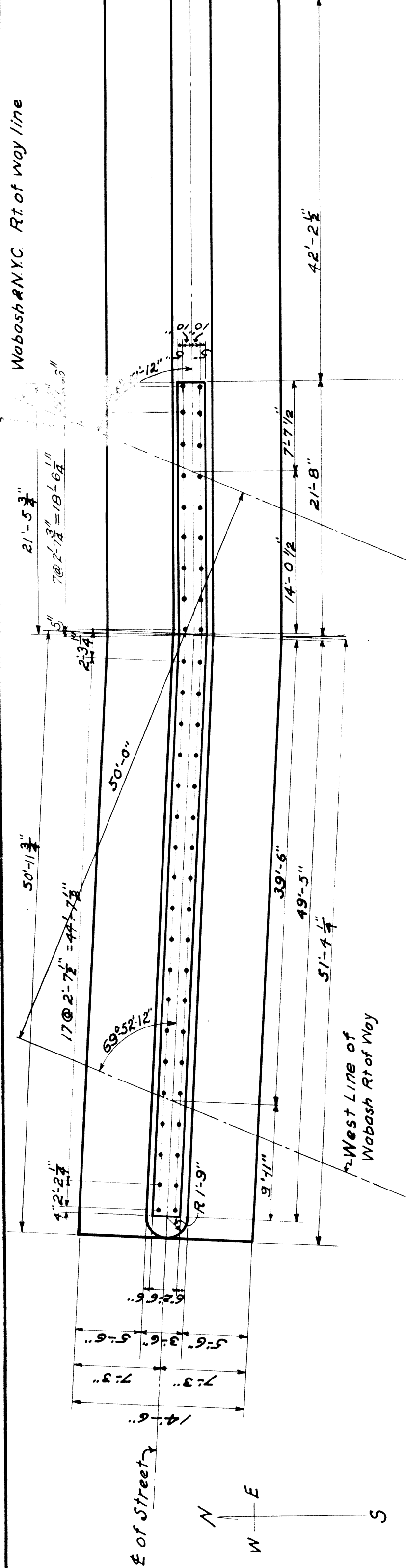
No.	Size	Length	Mark	Location
140	8"	31'-0"	A	Long in footing
120	"	20'-0"	B	Trans "
150	"	15'-0"	B <sub>2</sub>	Dowels footing & back wall
106	"	4'-0"	D	Top of pier & abut.
113	"	8'-8"	E	Stirrups top of pier
80	1"	7'-0"	F	Dowels base pier columns
80	3/16"	8'-6"	G	Column reinforcing
210	3/16"	10'-0"	I	Trans. footing wing wall
15	"	7'-0"	J	hoops
4	"	9'-6"	J	Long
7	"	13'-0"	J	"
3	"	14'-0"	J	"
5	"	17'-0"	J	"
36	"	2'-0"	K	Diagonal over arches
4	"	6'-0"	K	"
30	"	27'-0"	L	Long top of pier

1 pc scrap rail 48'-0" x 1/2" holes 8 cts in web  
3 pcs 15' x 1/2" x 1/2" sheet lead.

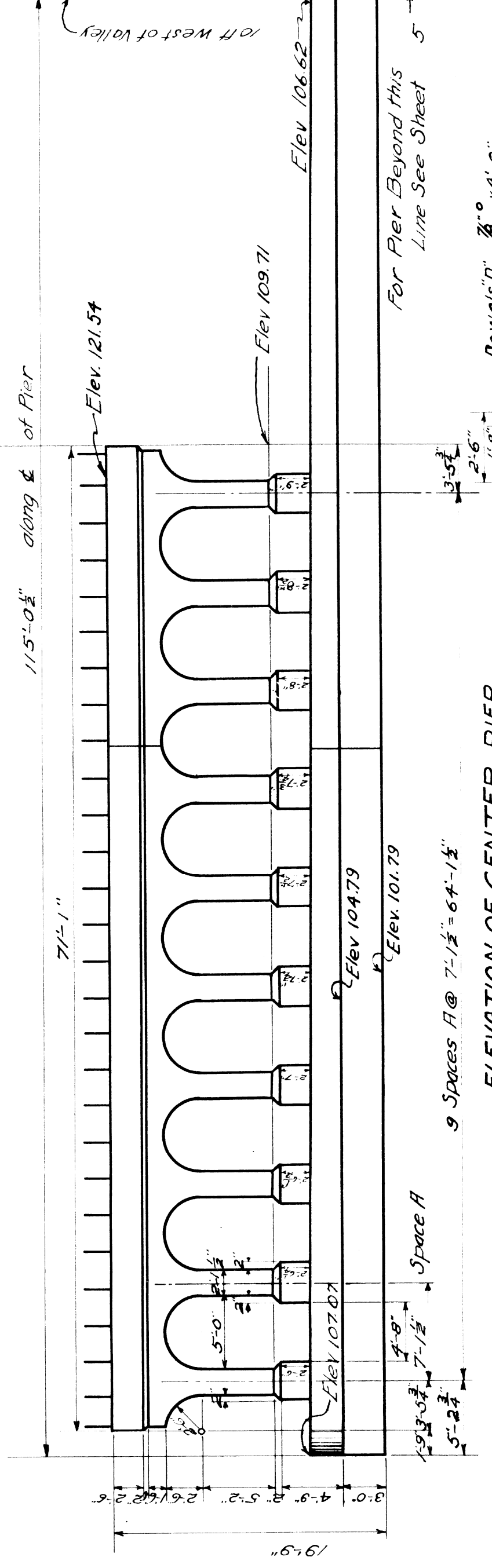


**M.C.R.R. - TOLEDO DIV.**  
 BRIDGE 358 DIX AVE SUBWAY  
 M.C. & WABASH NORTH ABUTMENT

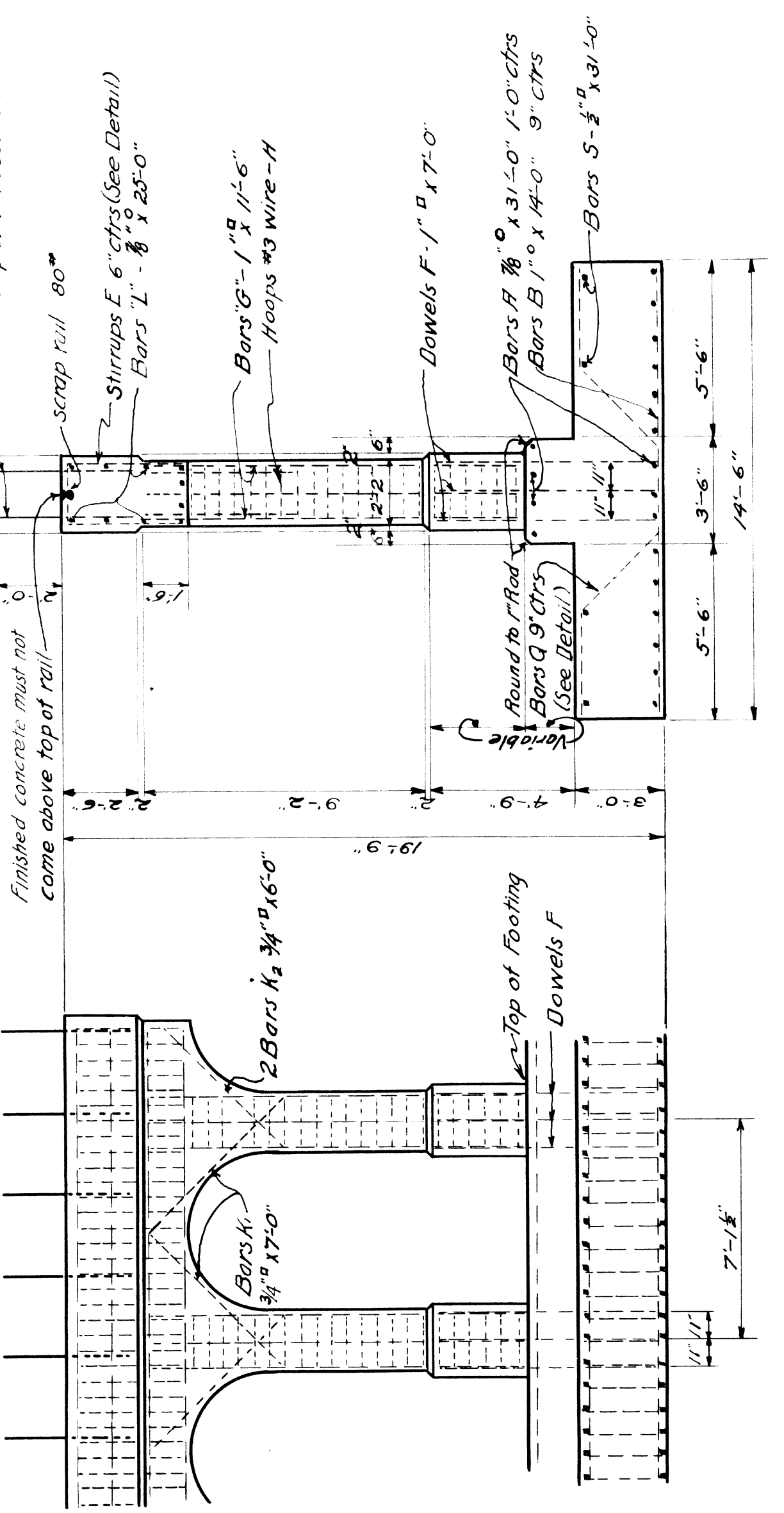
SCALE: 1/4" = 1'-0"  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 TRACED BY: [Signature]  
 REVISED BY: [Signature]  
 APPROVED: [Signature]  
 BRIDGE ENGINEER



PLAN



ELEVATION OF CENTER PIER



CROSS SECTION OF CENTER PIER

General Notes

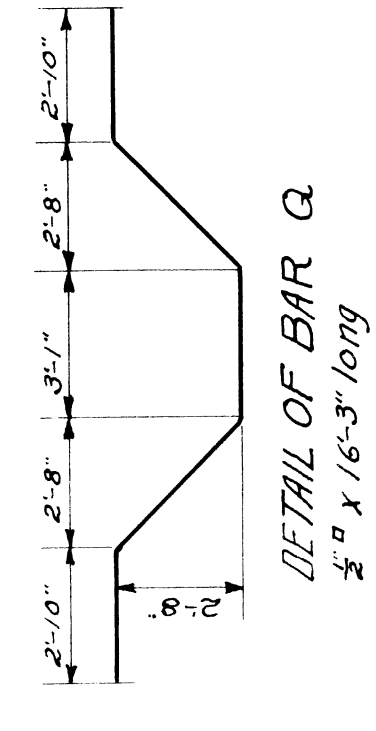
Concrete yardage (including forms) 185

Reinforcing 18,535

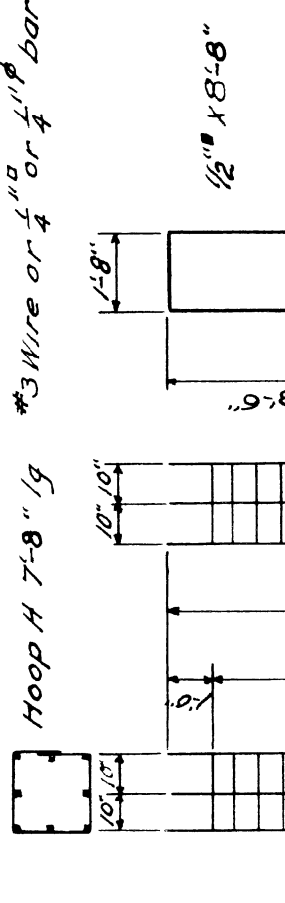
Total 19,720

For General Specifications see sheet 3

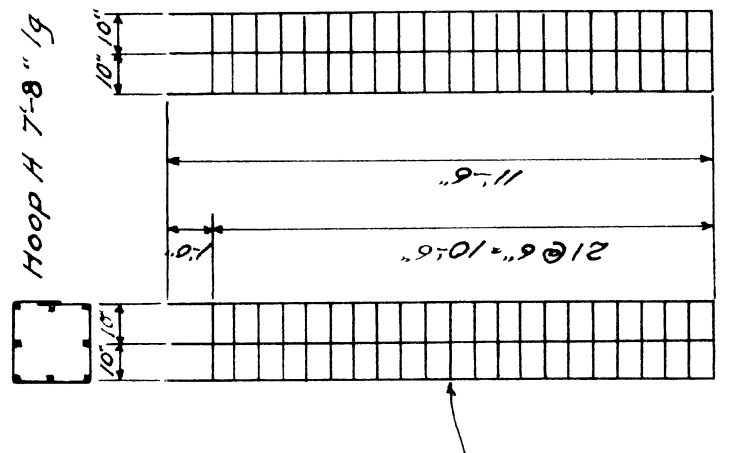
TYPICAL DETAIL OF CENTER PIER



DETAIL OF BAR Q  
3/4" x 16'-3" long



DETAIL OF STIRRUP



DETAIL OF COLUMN REINFORCING

Bill of		Bars		Location	
No.	Size	Length	mark	mark	Location
76	3/8"	31'-0"	A	Q	Trans. in footing
155	1/2"	14'-0"	B		
56	3/8"	4'-0"	D		
191	1/2"	8'-8"	F		
80	1/2"	71'-0"	G		
80	1/2"	11'-6"	H		
210	3/8"	7'-8"	I		
4	3/8"	6'-0"	K2		
30	3/8"	25'-0"	L		
16	1/2"	31'-0"	S		

**M.C.R.R. - TOLEDO DIV.**  
**BRIDGE 358 DIX AVENUE SUBWAY**  
**M.C. AND WABASH**  
**CENTER PIER**

SCALE: 1/4" = 1 FOOT

APPROVED: [Signature]

BRIDGE ENGINEER: [Signature]

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

TRACED BY: [Signature]

REVISED BY: [Signature]

SHEET 8 OF 10

BILL OF BARS		LOCATION
104	M	Dowel in fascia.
16	N	Long lap 1 sides of fascia.
104	P	Vertical in fascia.
8	T1	Long in bottom fascia.
64	R1	Trans. floor (Plan Bars)
27	R2	"
27	R3	"
27	R4	"
27	R5	"
2	S1	S.F. section sidewalk upon
2	S2	"
3	S3	"
4	S4	"
4	S5	"
4	S6	"
4	S7	"
4	S8	"
4	S9	"
4	S10	"
4	S11	"
4	S12	"
3	S13	"
3	S14	"
3	S15	"
4	S16	"
1	S17	sidewalk
1	S18	"
1	S19	"
1	S20	"
2	S21	"
1	S22	"
1	S23	"
1	S24	"
4	S25	N.W. & S.W. sections sidewalk upon
6	S26	West sections street spans
8	S27	"
8	S28	"
8	S29	"
8	S30	"
2	S31	"
2	S32	"
2	S33	"
7	S34	300 R.O./is 36 A.S.W. Wire Mesh Style 03-2.

**GENERAL NOTES**

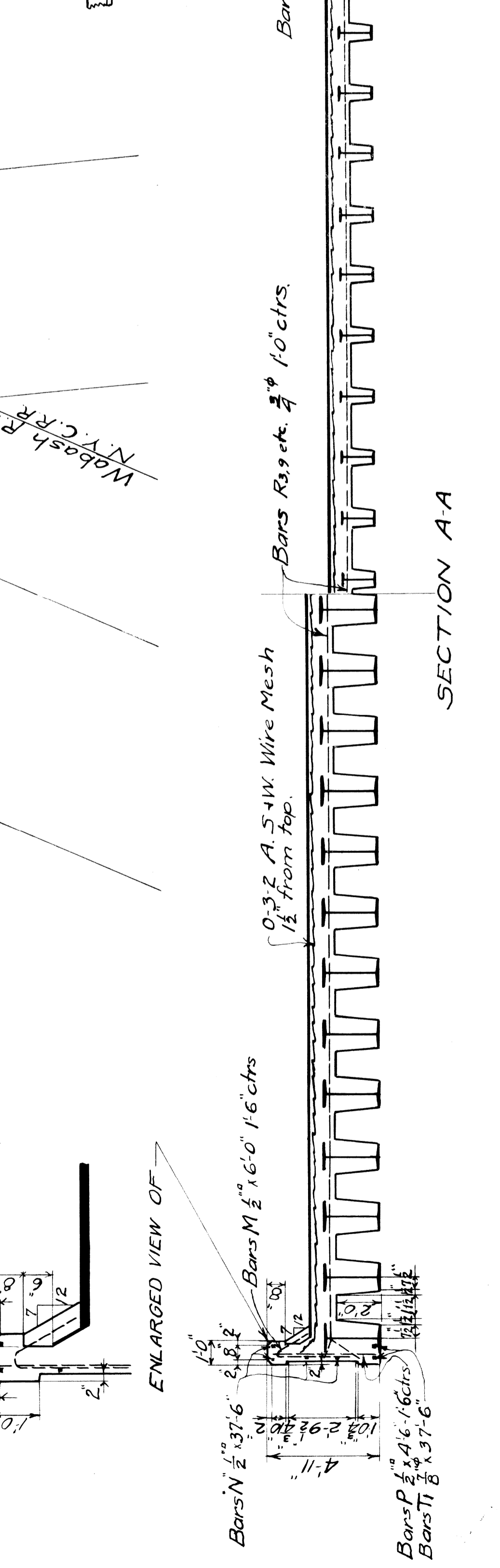
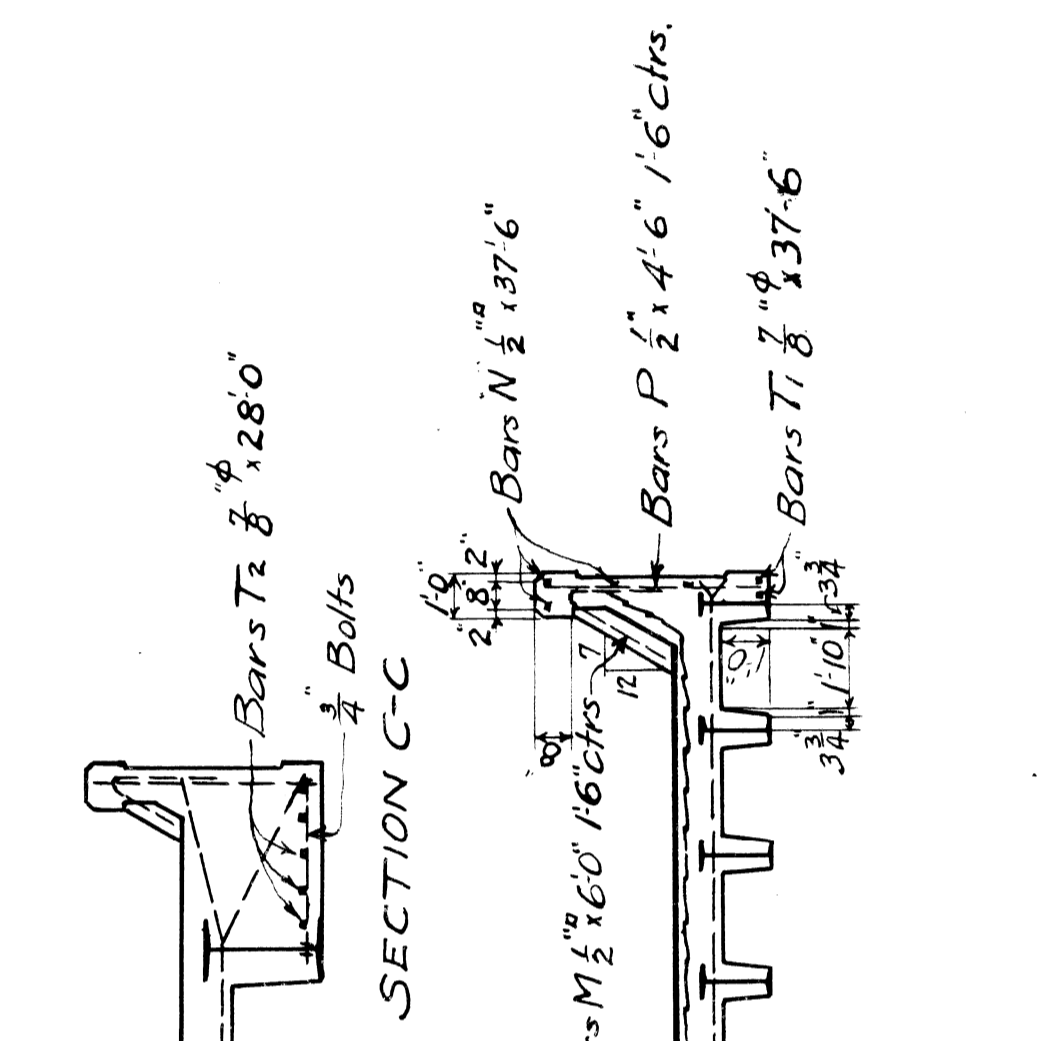
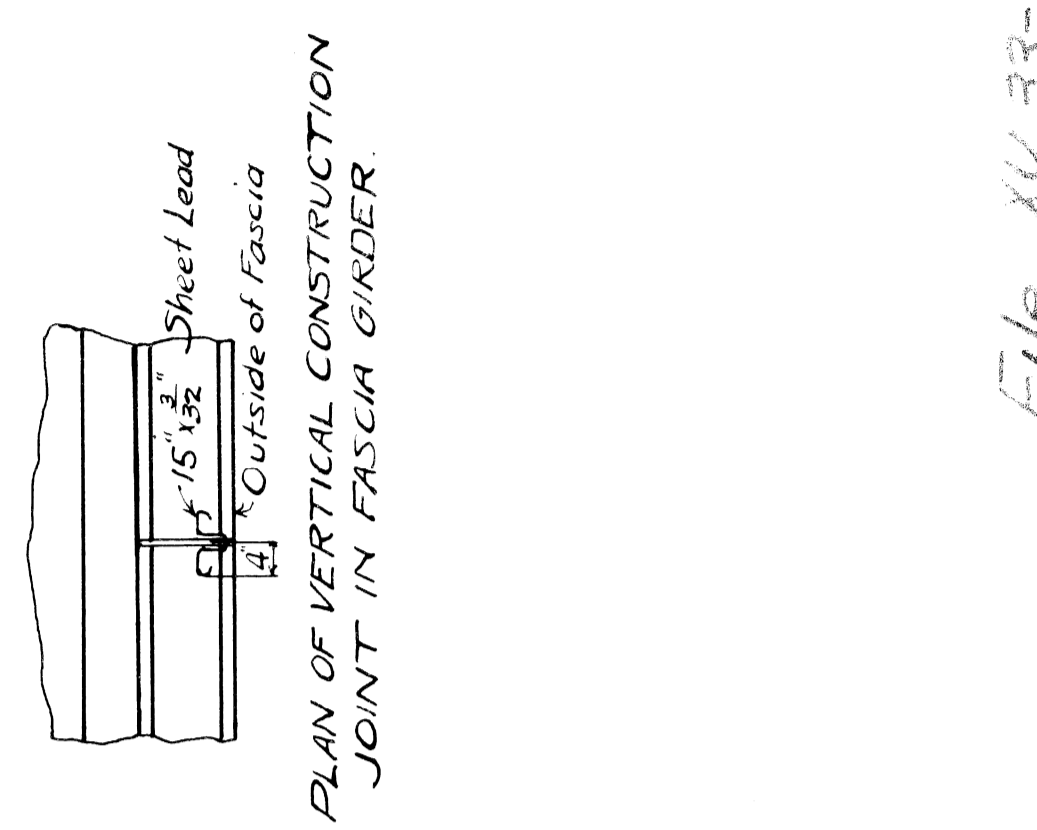
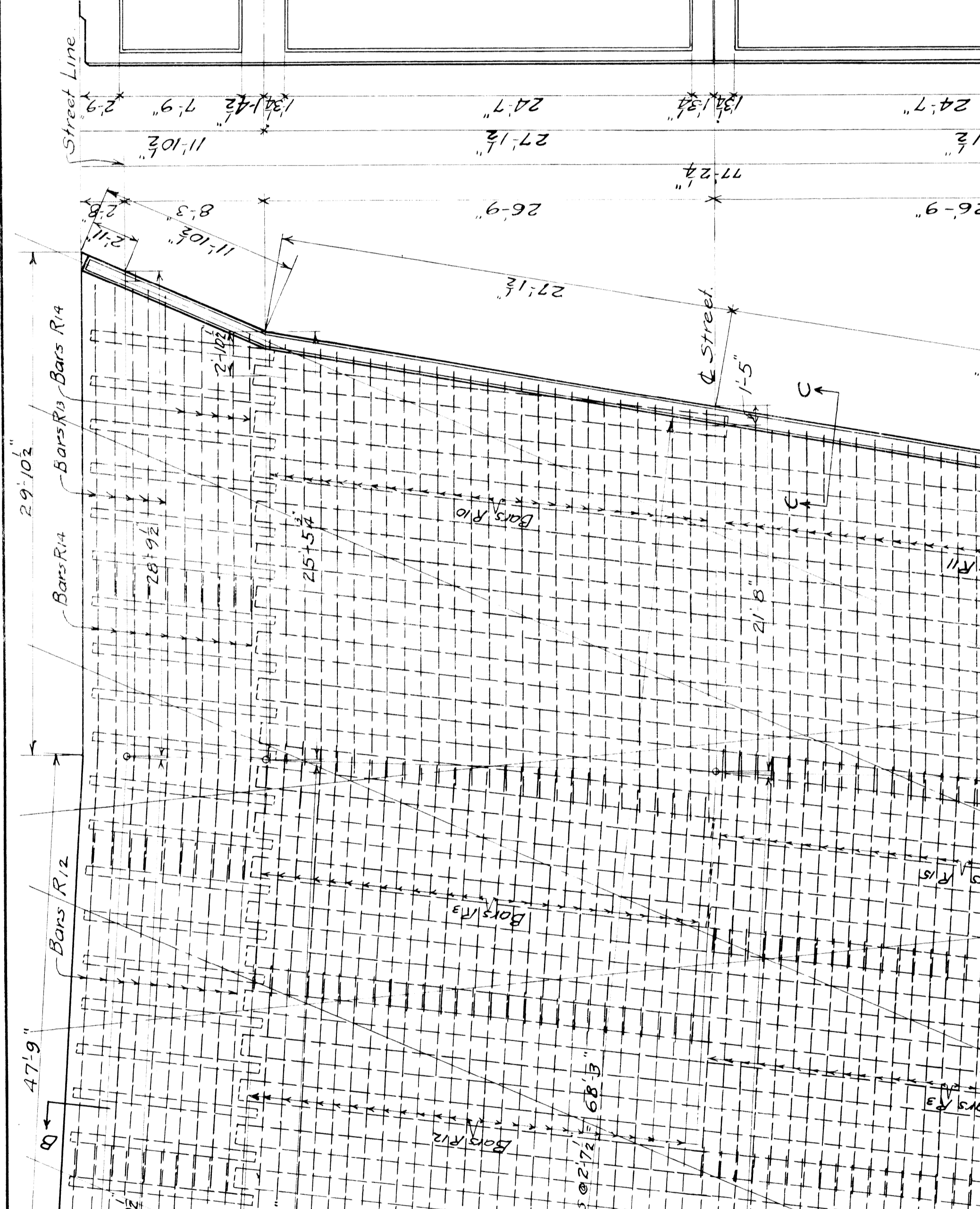
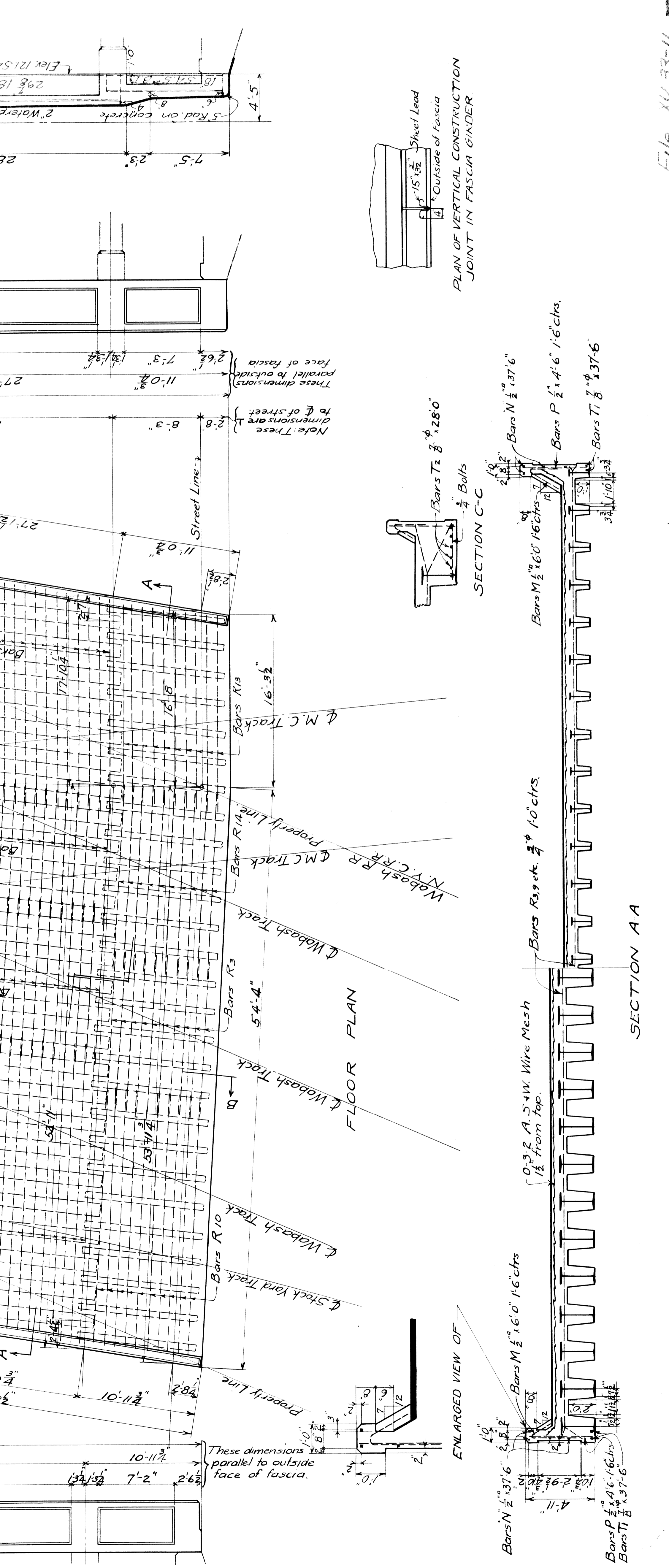
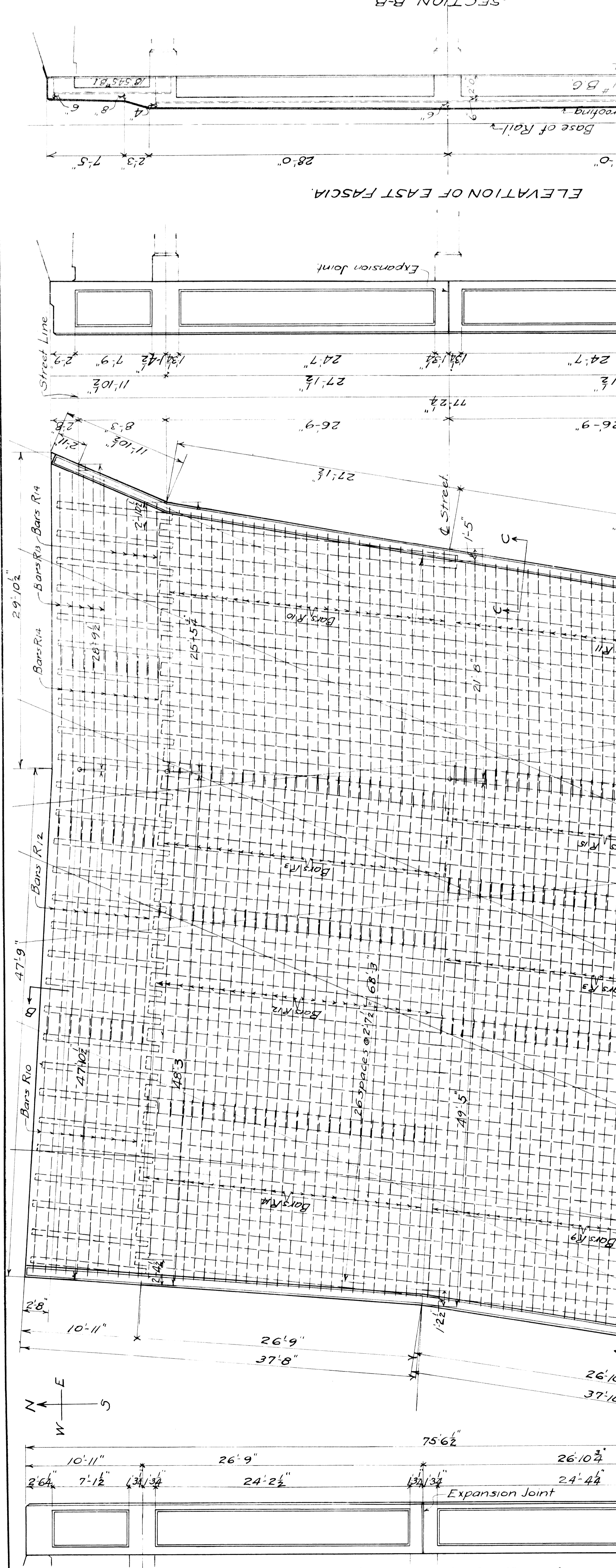
QUANTITIES  
 Concrete 426 cu yds  
 Reinforcing Steel 12970 #  
 Structural Steel 296830 #  
 Waterproofing 5880 sq. ft.

CONCRETE  
 To be composed of 1 part cement, 2 parts sand and 4 parts pebbles. Top surfaces to have sidewalk finish. Bevel all exposed corners  $\frac{1}{4}$  unless otherwise shown.

REINFORCING  
 Bars shall be securely wired together at each intersection. All splines they shall lap for a length of 24 diameters and be securely wired. Bars shall be deformed, except bars thru holes in beams are plain.

WATERPROOFING  
 Minox or Johns Manville bridge floor waterproofing.

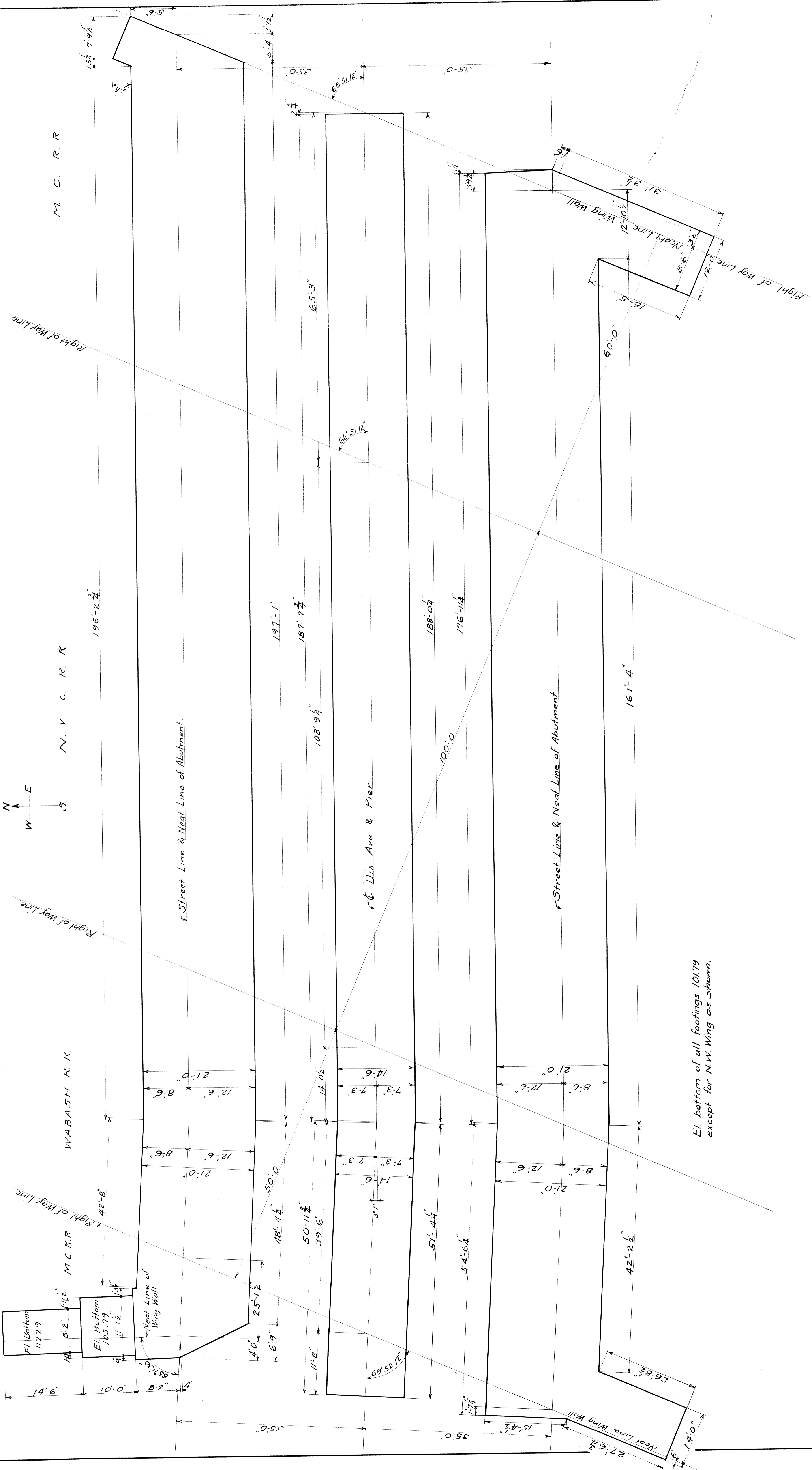
For details and erection diagram of beams see sheet #11.



M.C.R.R.- TOLEDO DIV.  
 BRIDGE - 358 DIX AVE. SUBWAY  
 M.C.- WABASH FLOOR

SCALE:  $\frac{1}{16}$ " = 1 FOOT  
 DRAWN BY T.L.J. 10-23-1923  
 CHECKED BY C.C.C. 11-21-1923  
 APPROVED BY C.C.C. 12-31-1923  
 REQUIRED FORM 9 of 1923  
 BRIDGE ENGINEER

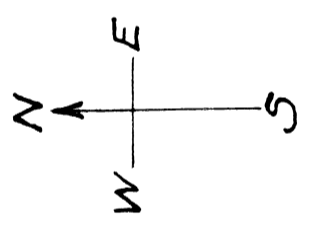
File XU 33-11



M. C. R. R.

N. Y. C. R. R.

WABASH R. R.

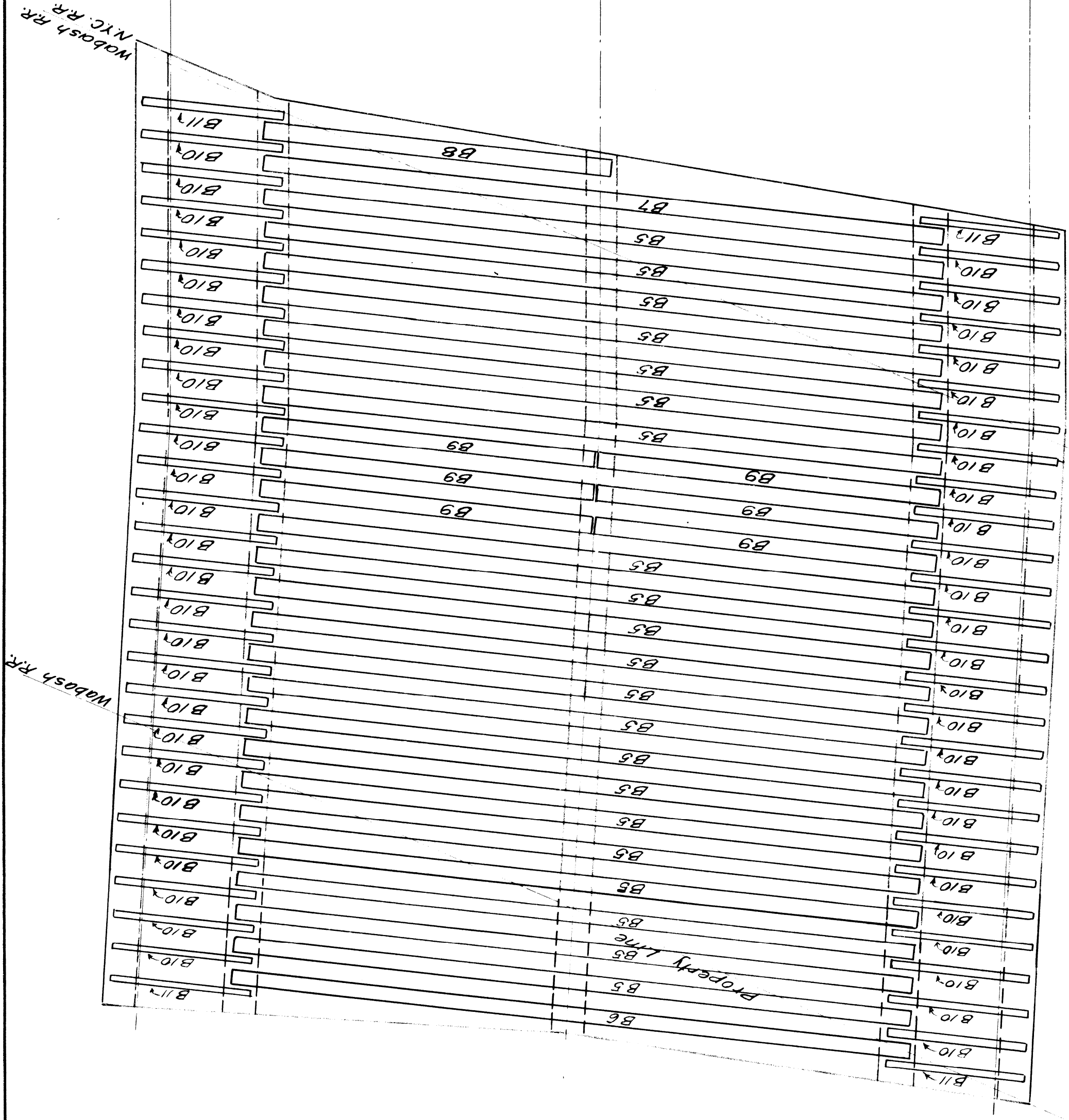


EI. bottom of all footings 101.79  
except for N.W. Wing as shown.

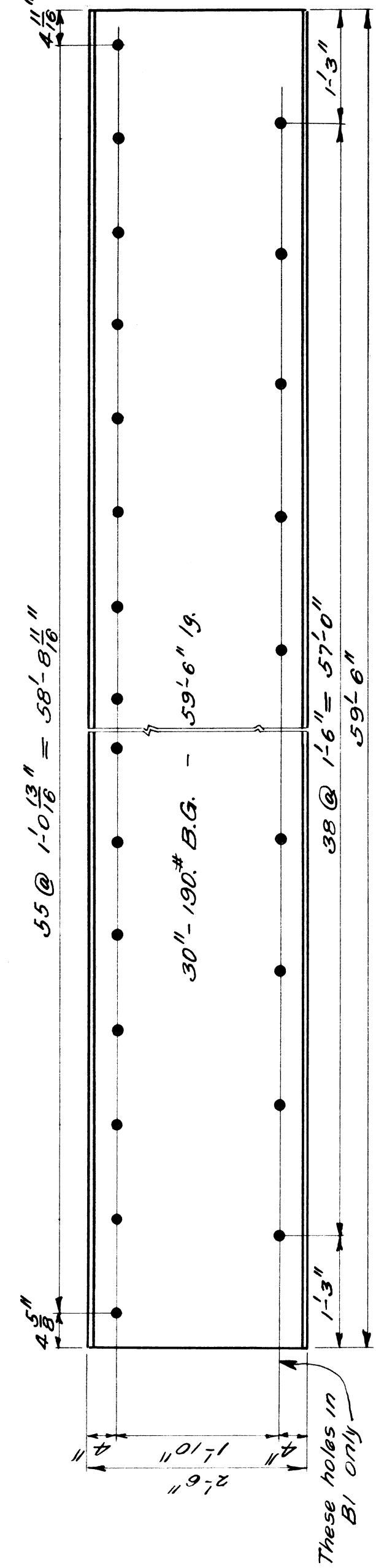
**M.C.R.R. - TOLEDO DIV.**  
 BRIDGE 3-58 DIX AVE SUBWAY  
**DIGGING PLAN**

SCALE: 1/8" INCH = 1 FOOT  
 DRAWN BY C.C.C. 12-8-1923  
 CHECKED BY C.C.M. 12-11-1923  
 TRACED BY C.C.C. 12-13-1923  
 REVISED 1-5-24  
 APPROVED: *R.S. Johnson*  
 BRIDGE ENGINEER

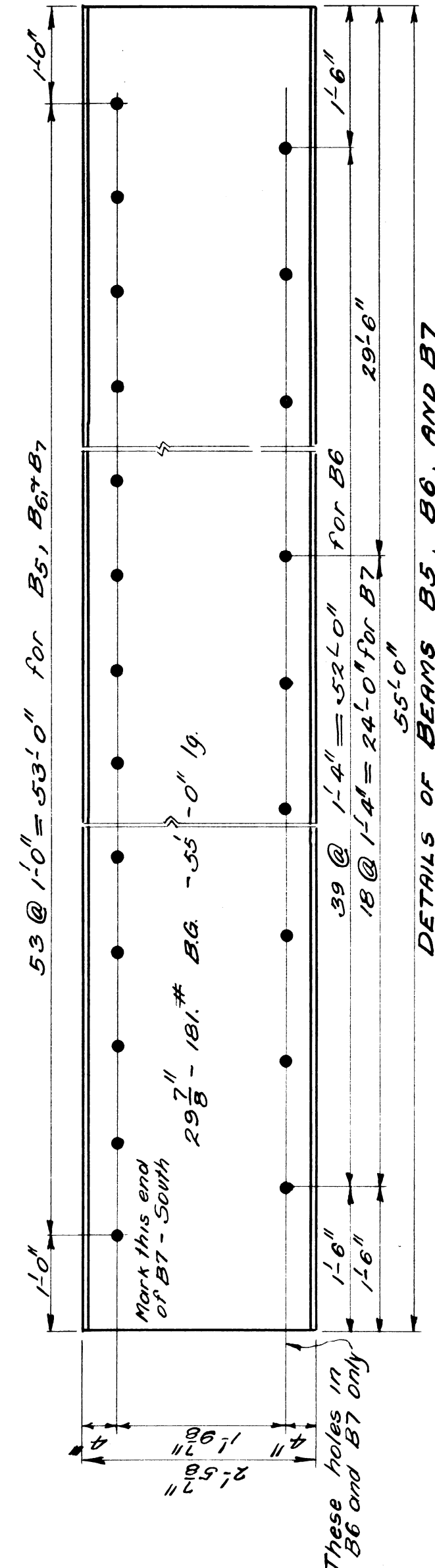
FILE XU33-12  
 SHEET 10 OF



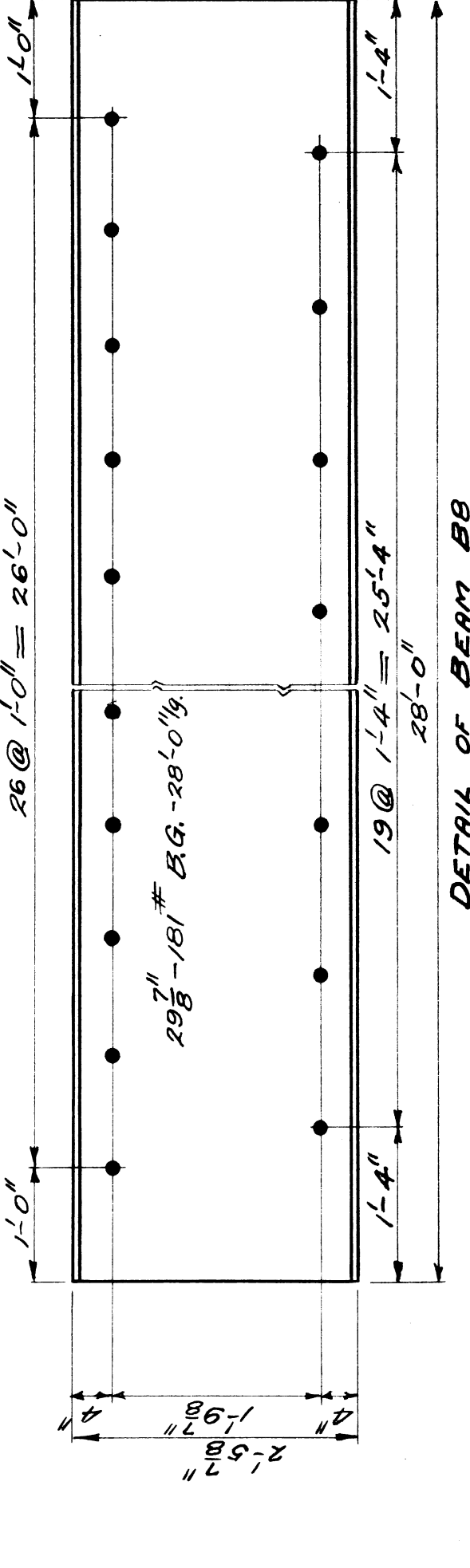
ERECTION DIAGRAM  
FOR WABASH - M.C. FLOOR



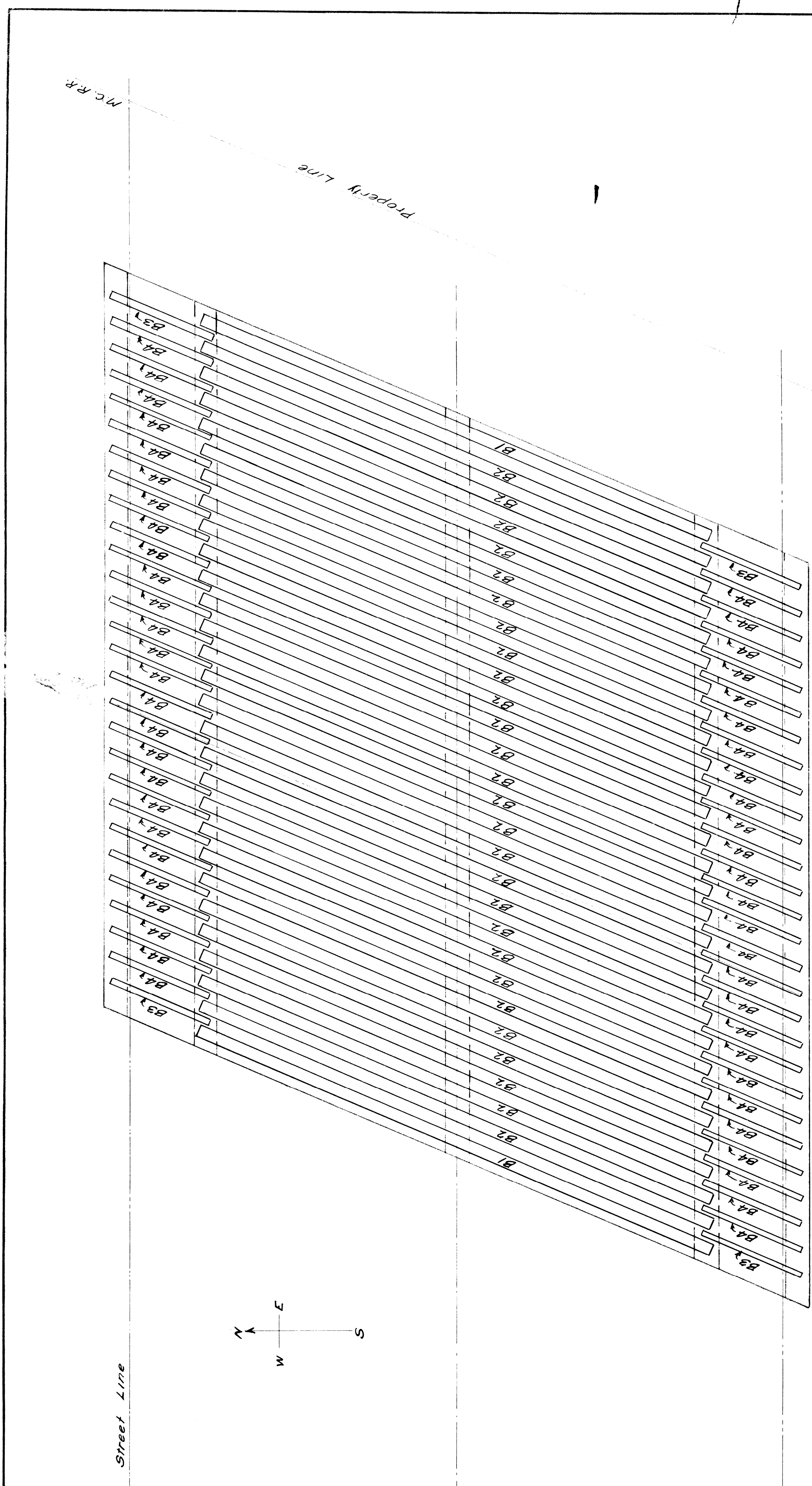
DETAILS OF BEAMS B1 AND B2



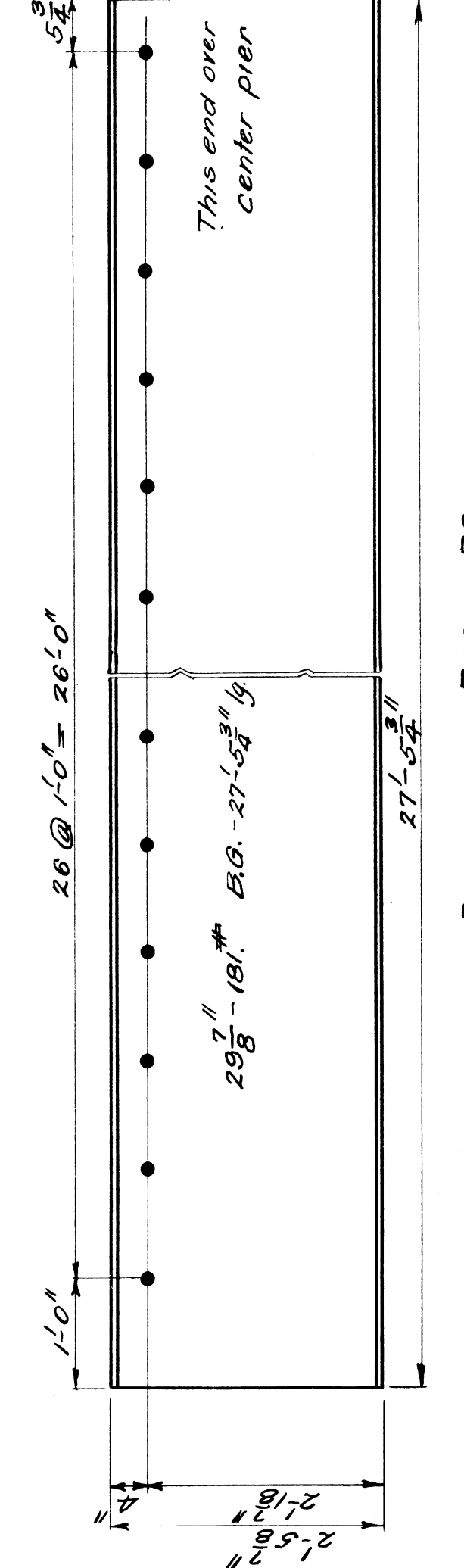
DETAILS OF BEAMS B5, B6, AND B7



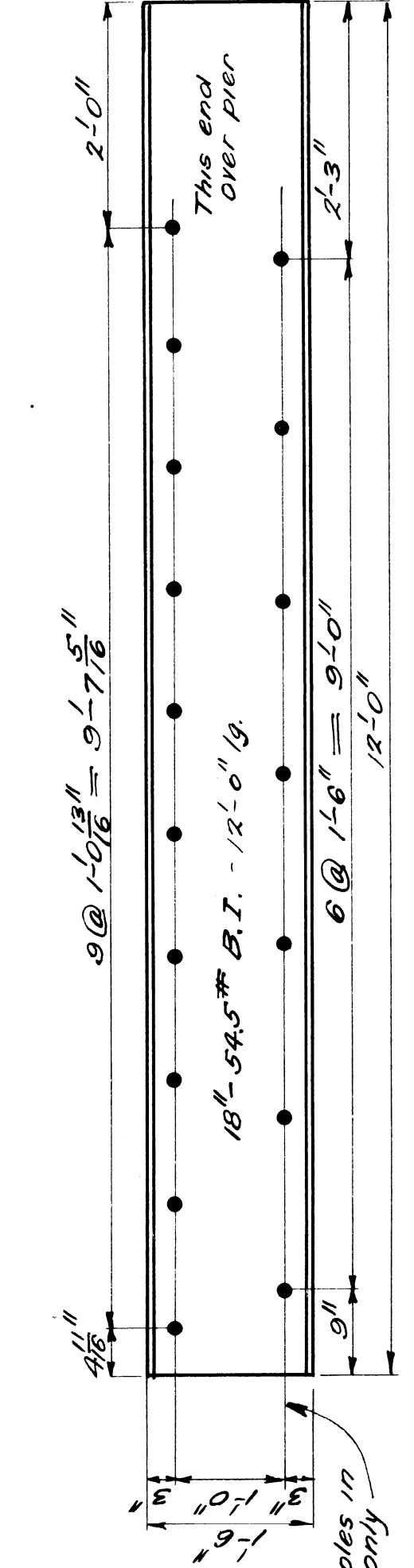
DETAIL OF BEAM B8



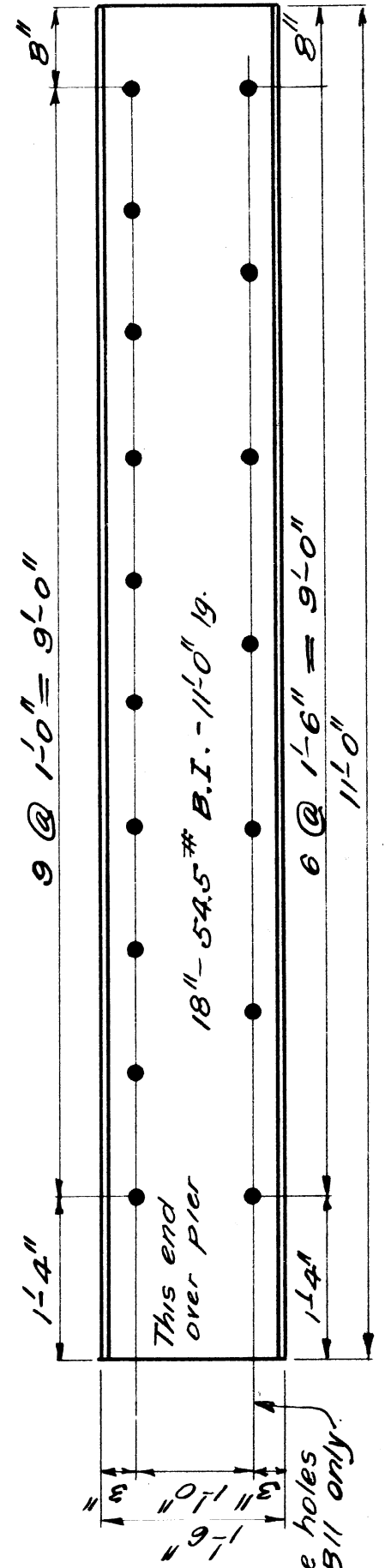
ERECTION DIAGRAM  
FOR M.C. - TOLEDO



DETAIL OF BEAM B9



DETAILS OF BEAMS B3 AND B4



DETAILS OF BEAMS B10 AND B11

Note:  
All holes 1"

REQUIRED BEAMS	
2	B1
27	B2
4	B3
52	B4
21	B5
1	B6
1	B7
6	B8
51	B10
4	B11

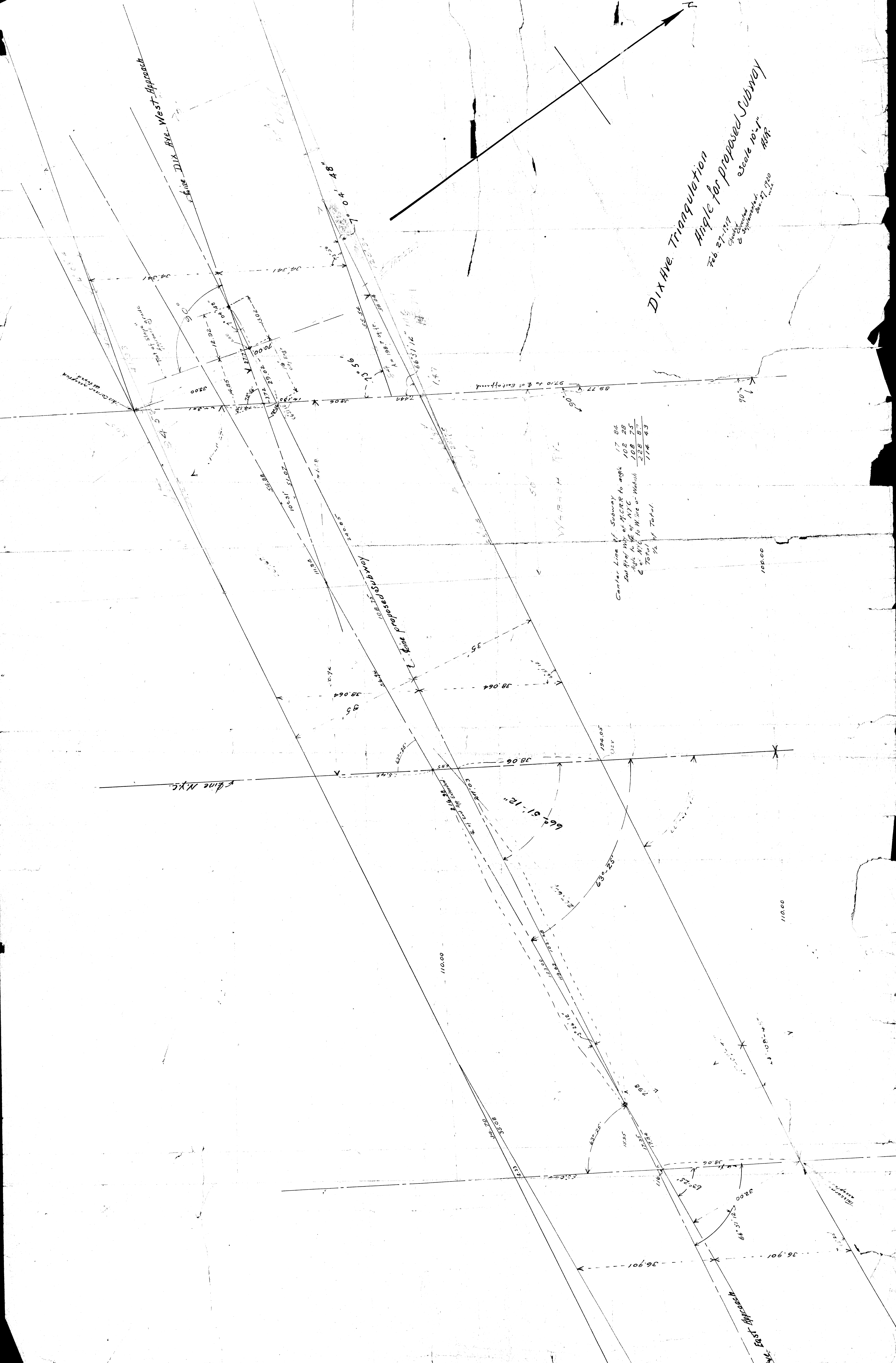
M.C.R.R. - TOLEDO DIV.  
BRIDGE - 358 DIX AVE. SUBWAY  
STEEL DETAILS

Scale: 1/4" = 1' - 0"  
N.B.R.C.M. 12-7-1823  
ED BY C.M.C. 12-10-1823  
APPROVED: 12-7-1923  
W.C.M. 1-6-1924  
E.C. Y. 1-6-1924  
FILE NO. 11

File XU33-13

DIX HVE. Triangulation  
 Angle for proposed Subway  
 Feb 27-1917  
 Checked & Supplemented  
 Dec 27 1920  
 RAR  
 Scale 10'-1"

Center Line of Subway  
 Low Pt of W. of M.C.R.R. to eqht 17 84  
 High Pt of W. of NYC 102 28  
 High Pt of W. of W. Line of W. 108 25  
 & of NYC to W. Line of W. 225 05  
 Total 714 43  
 1/2 of Total 357 21.5



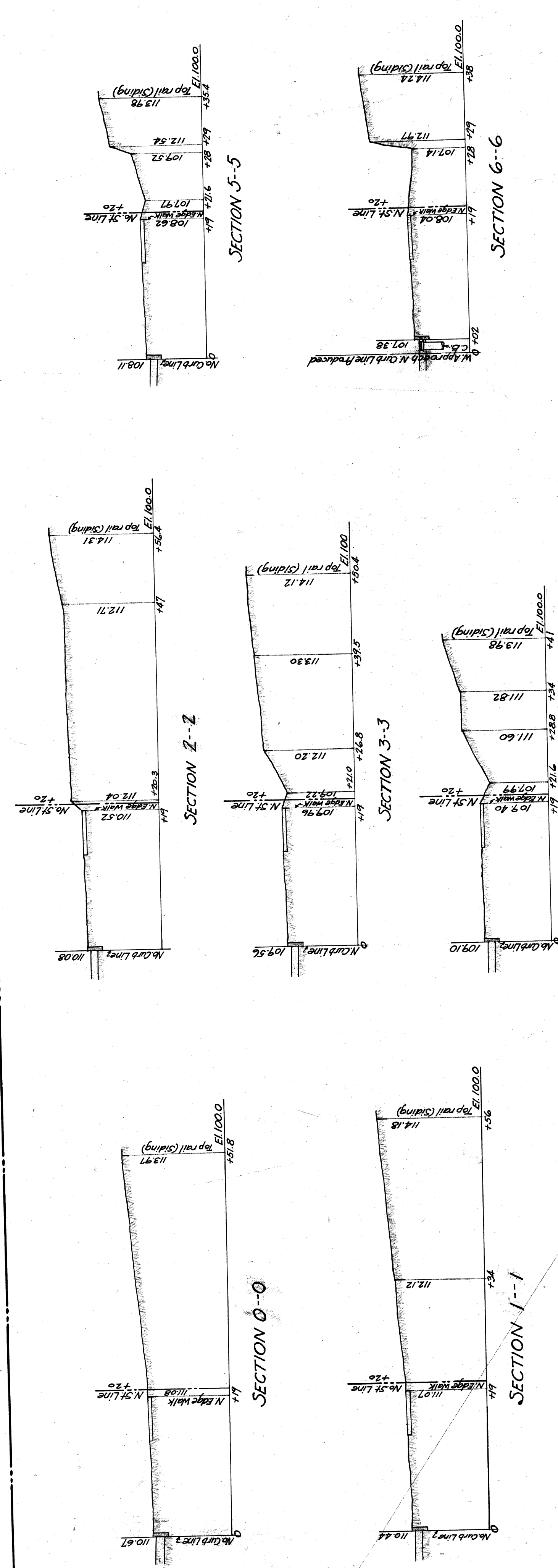
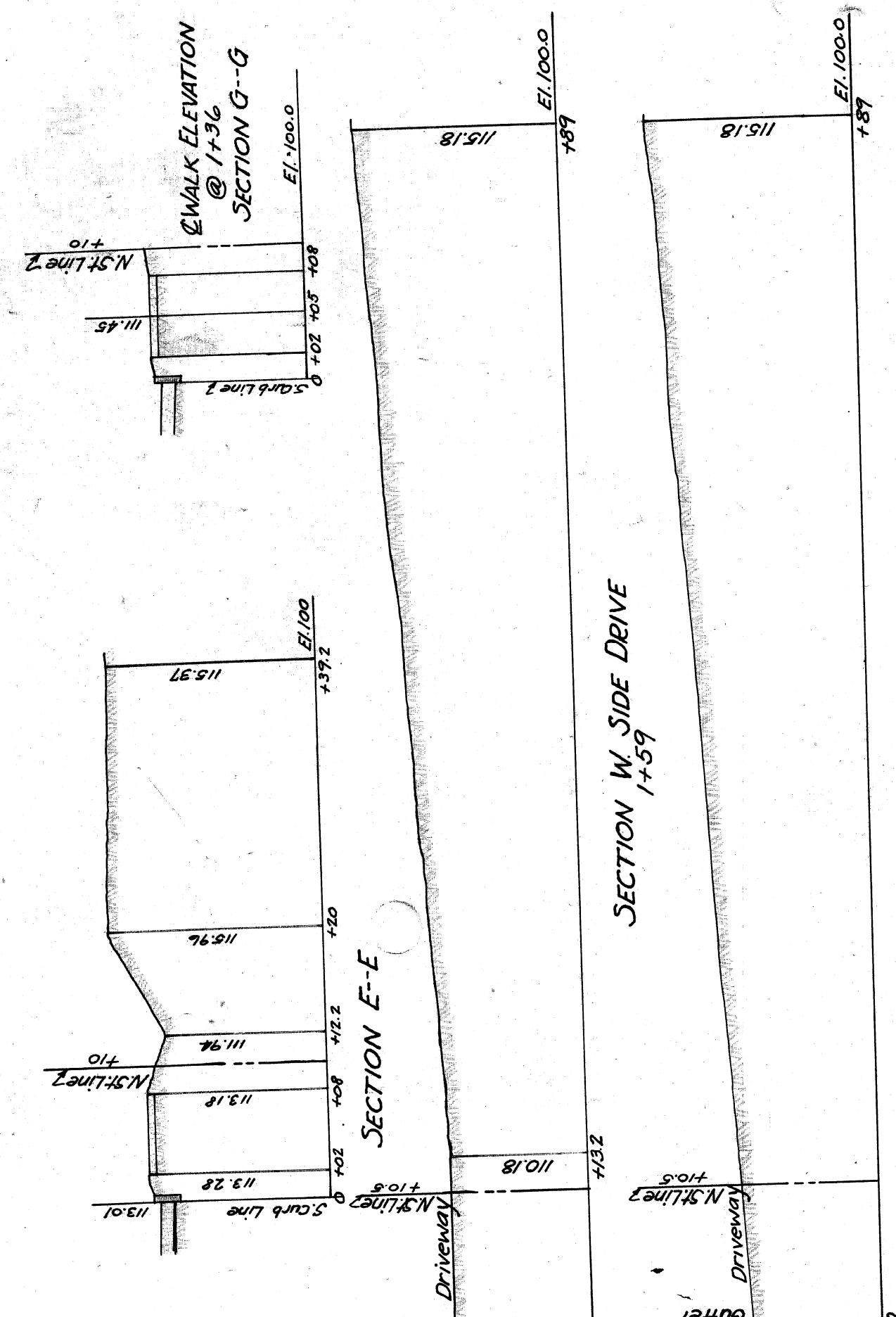
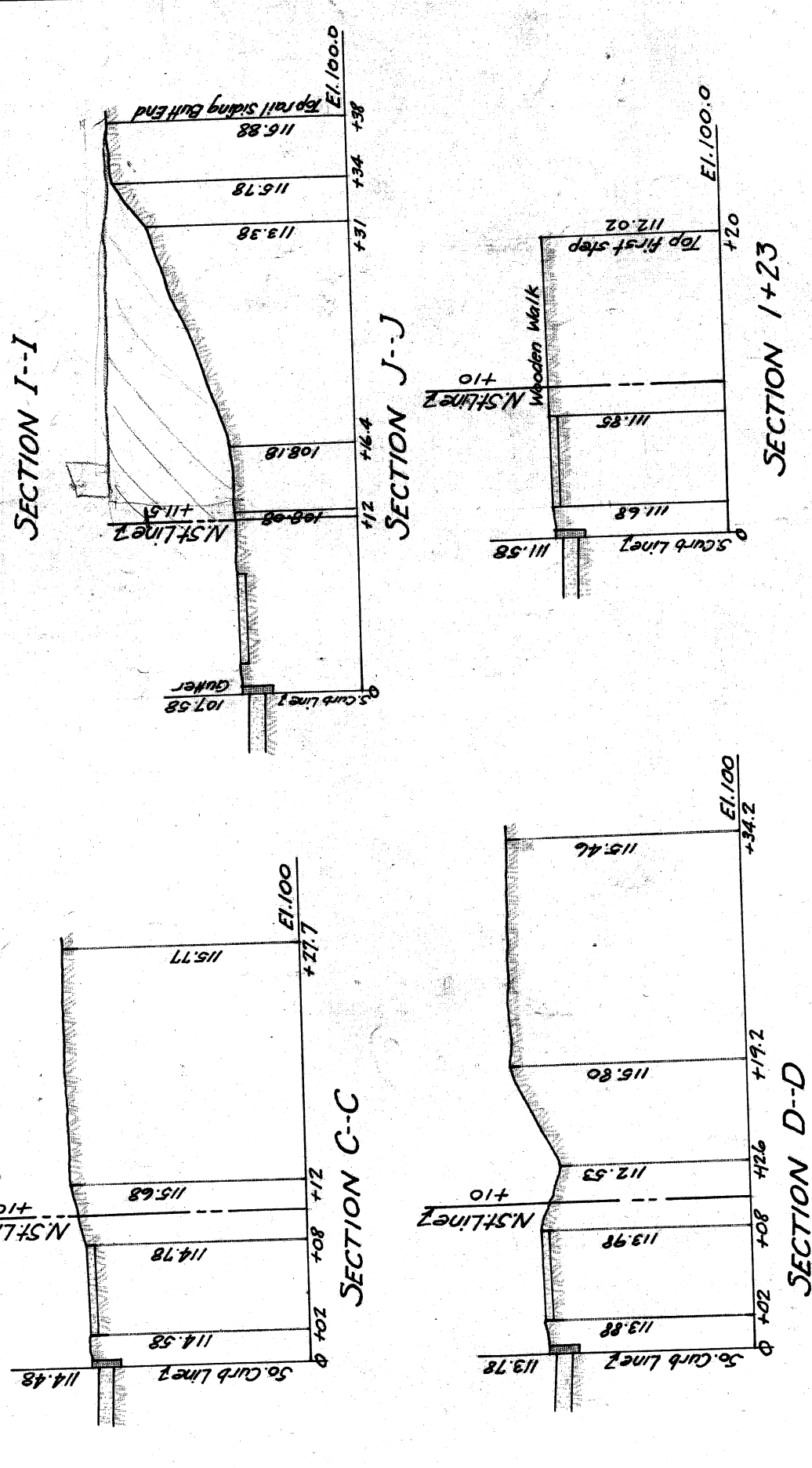
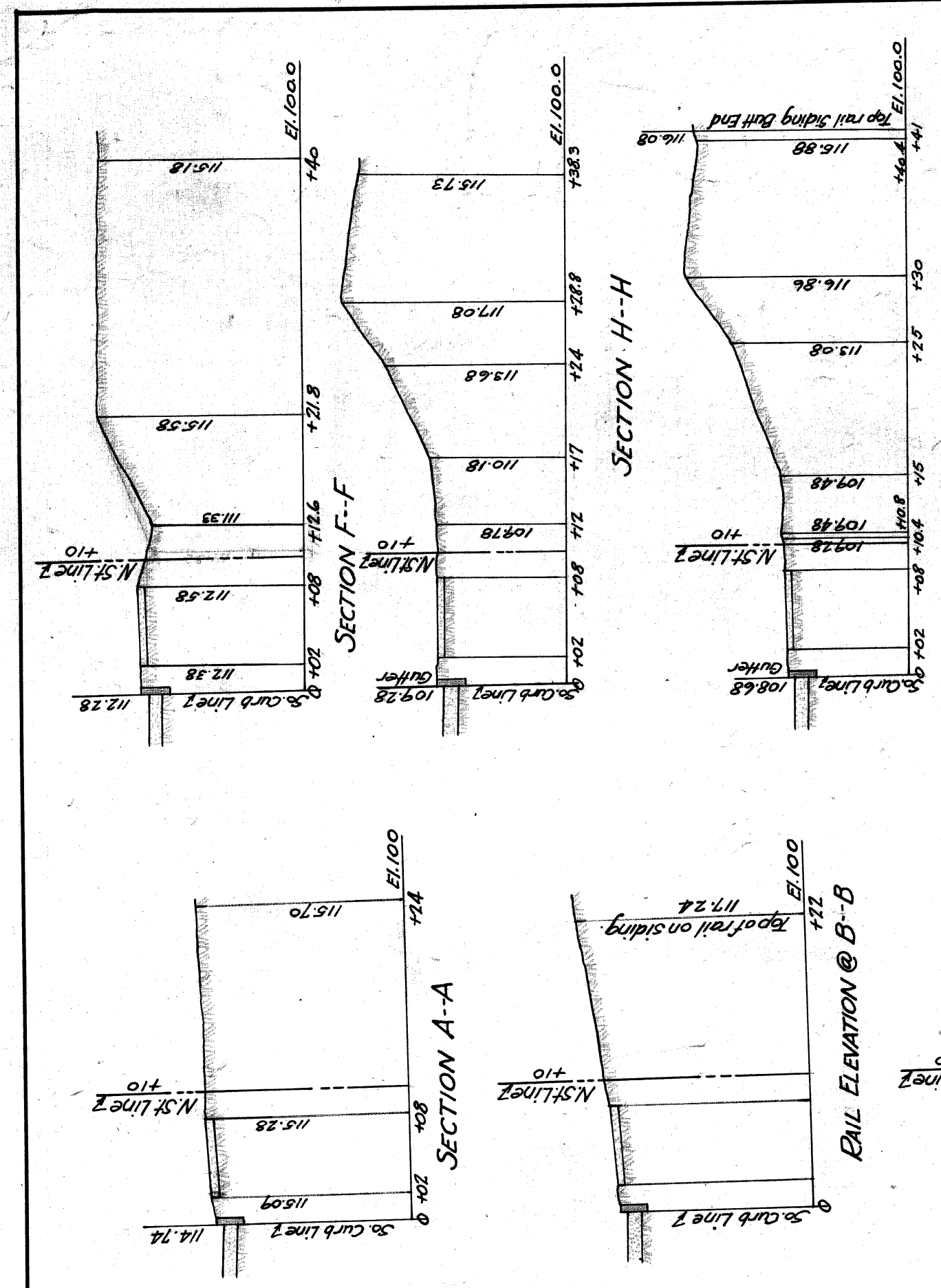
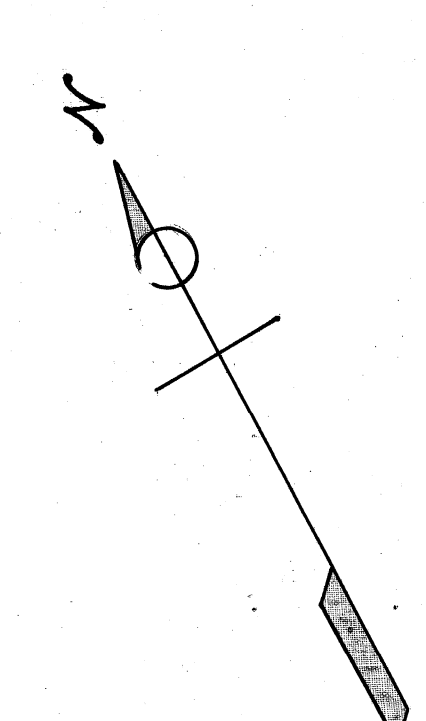
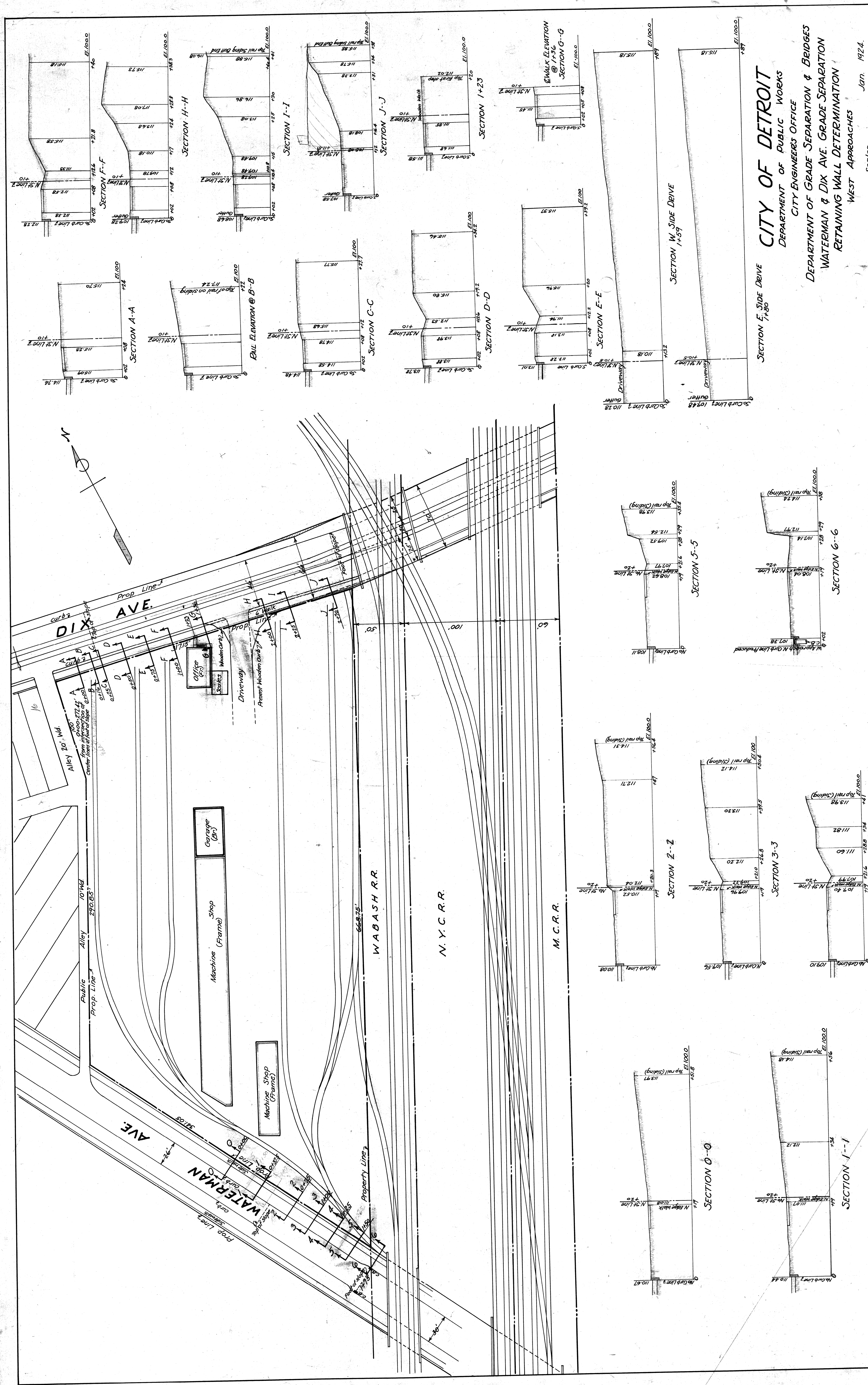
Dix Ave. Triangulation  
 Angle for proposed Subway  
 Feb. 27-1917  
 Scale 10'-1" H.P.



Barrett City  
 3/1/17

DIX AVE. NORTH APPROACH





**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEERS OFFICE  
 DEPARTMENT OF GRADE SEPARATION & BRIDGES  
 WATERMAN & DIX AVE. GRADE SEPARATION  
 RETAINING WALL DETERMINATION  
 WEST APPROACHES

Jan. 1924.  
 Scales  
 Plat 1"=40'-0"  
 Sections 1"=10'-0"

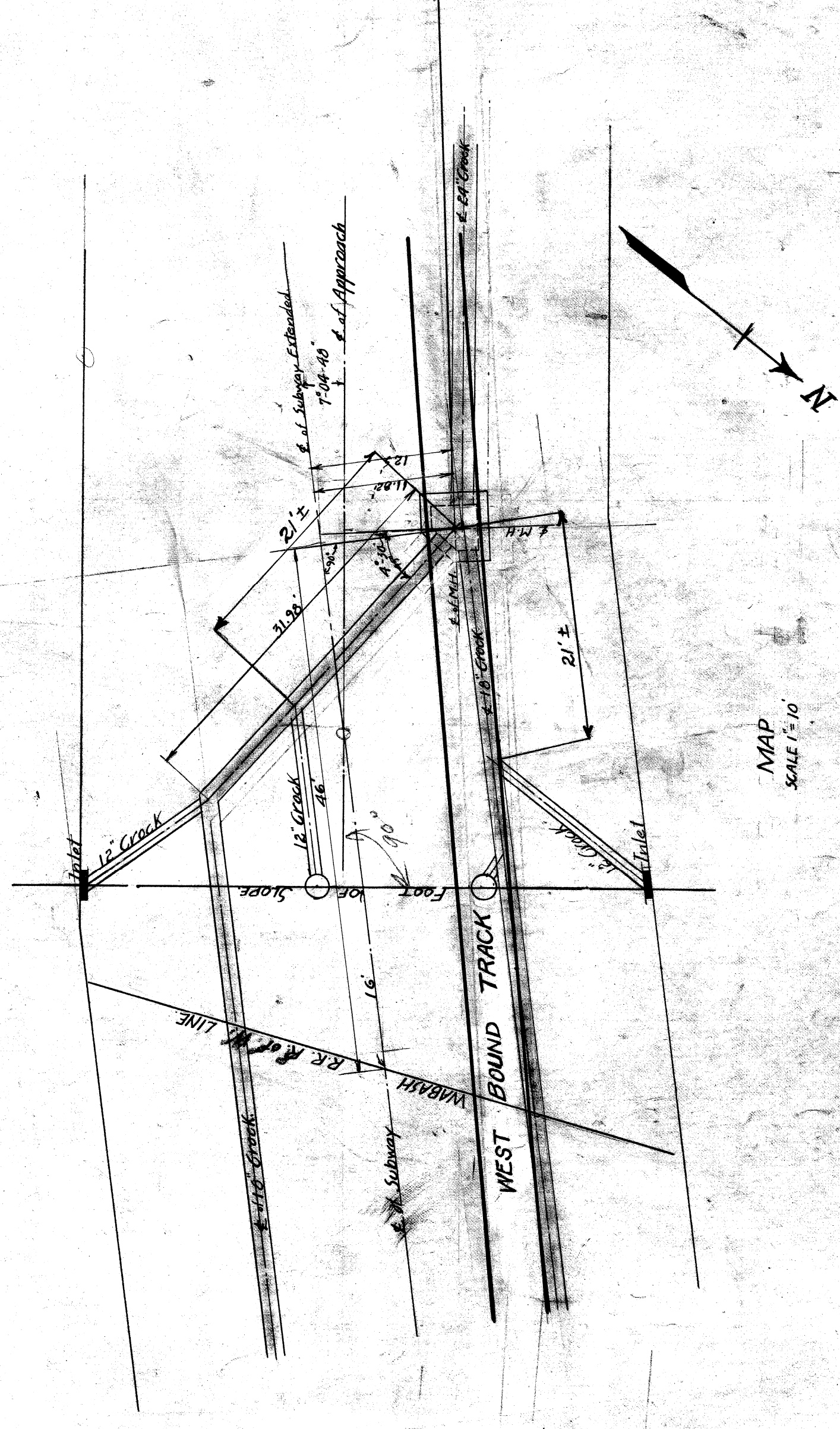
184-4-1  
 127855  
 100000  
 100000

File X033-15

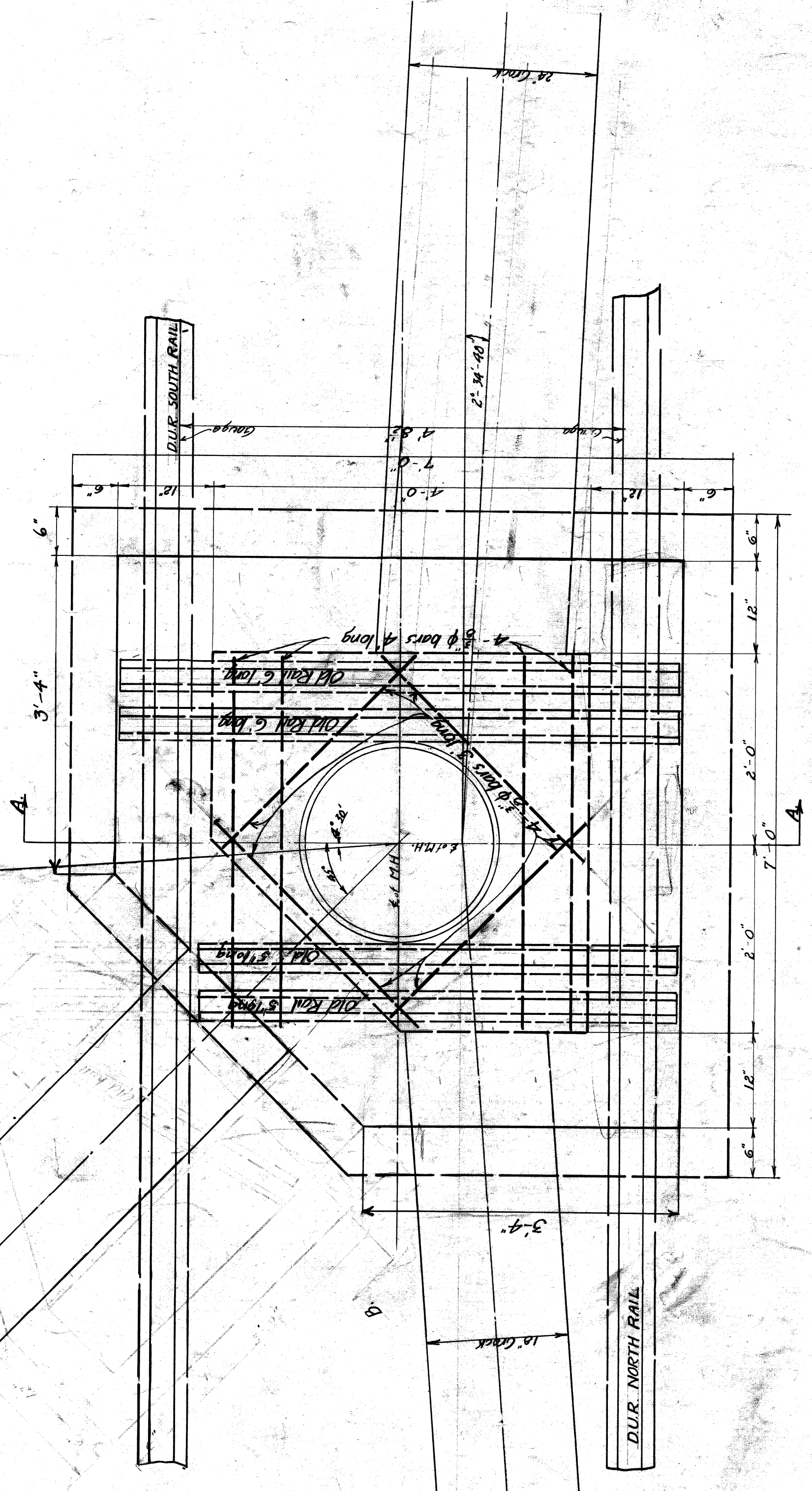
SHEET 1 OF 1 DATE 10-12-1924  
 SCALE AS SHOWN  
 CHECKED BY J. J. [unclear]  
 APPROVED

CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 OFFICE OF CITY ENGINEER  
 DIVISION OF GRADE SEPARATION AND BRIDGES  
**DRAINAGE SYSTEM  
 MANHOLE**  
 WEST END DIX AVE. SUBWAY

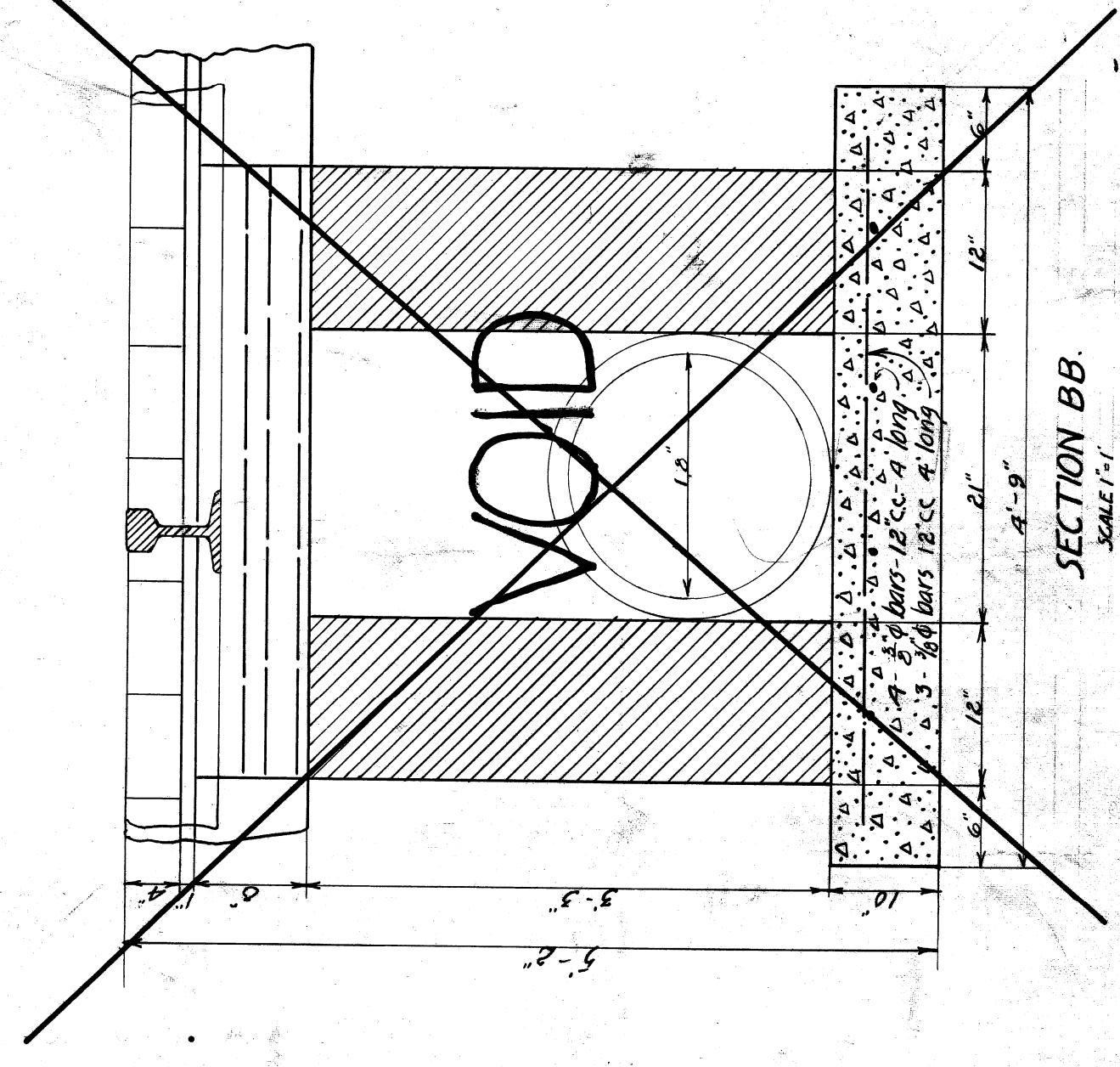
3 Prints to Mr. Walker 2-19-27  
 File XU33-16



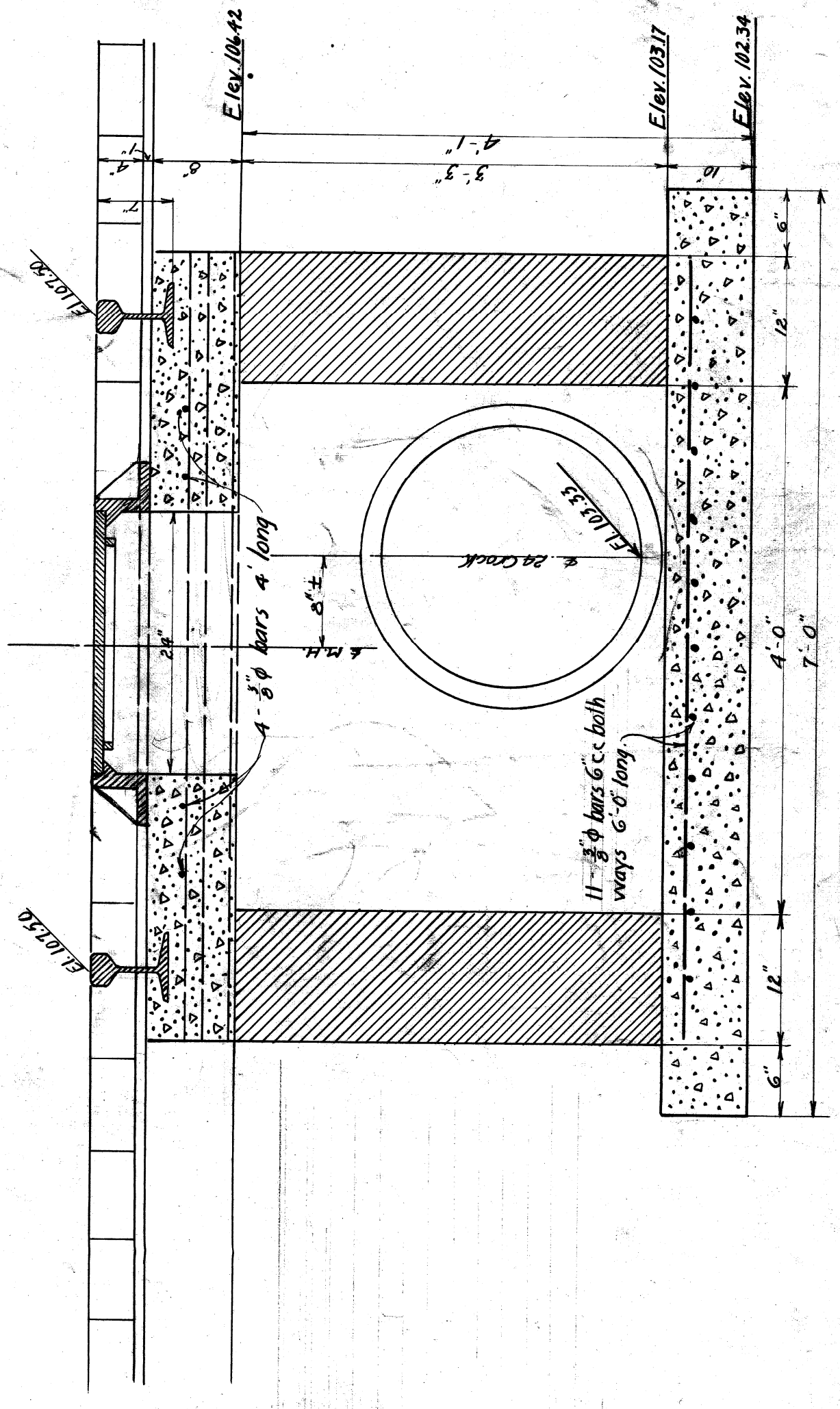
MAP  
 SCALE 1" = 10'



PLAN  
 SCALE 1" = 1'



SECTION BB  
 SCALE 1" = 1'



SECTION AA  
 SCALE 1" = 1'

BILL OF MATERIALS			
KIND	NUMBER	SIZE	LENGTH
BRICK	1200		
CEMENT	15	50#	
SAND	12	CU YD	
GRAVEL	2 1/2	CU YD	
1" x 2" MANHOLE FRAME AND COVER.			

DETROIT UNITED  
 COMPANY DURY  
 DIVISION CITY ENGINEERS  
 SUBJECT NEW CURVES TO  
 PIECES - DIX AVE & R.R. CO  
 SURVEYED BY F. B. NO. 1110  
 DRAWN BY RAY E. TRACCO BY 1110  
 SCALE 1" = 100' CHECKED BY - DATE  
 F. E. M-759 DRAWING

NOTE:-  
 All street widths and intersection data  
 taken from plans made by M.C.R.R.CO  
 dated Feb. 27, 1917 and Dec. 6, 1920, which  
 plans are filed in Maps-742



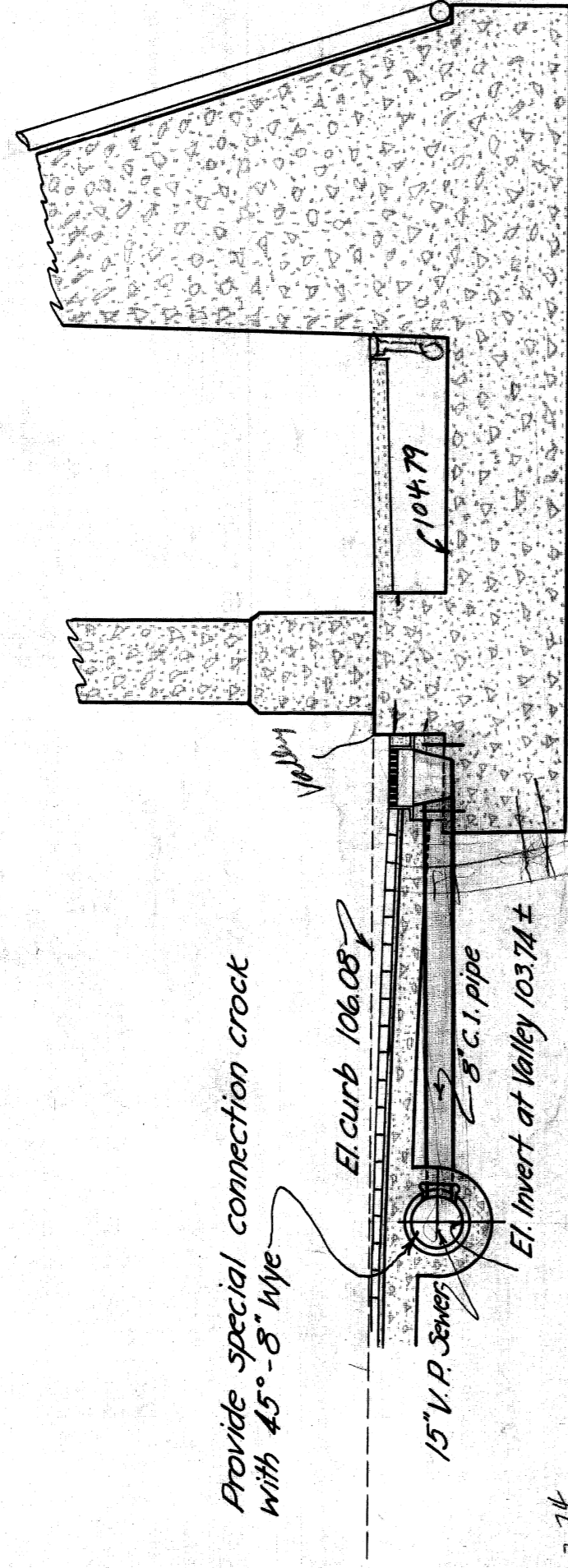
5:26'  
 1R-2350'  
 1A-1379 3/8  
 0A-138 1/4

5:08.17'  
 1R-2000.000  
 1A-179.44  
 0A-179.9 3/8  
 CHD-179.236

7:05'  
 1R-23000'  
 1A-284.46  
 0A-284 1/8

7:05'  
 1R-15250'  
 1A-188.84  
 0A-187 1/8

1342.17'  
 1R-2000.000  
 1A-59.77  
 0A-59.77  
 CHD-59.503

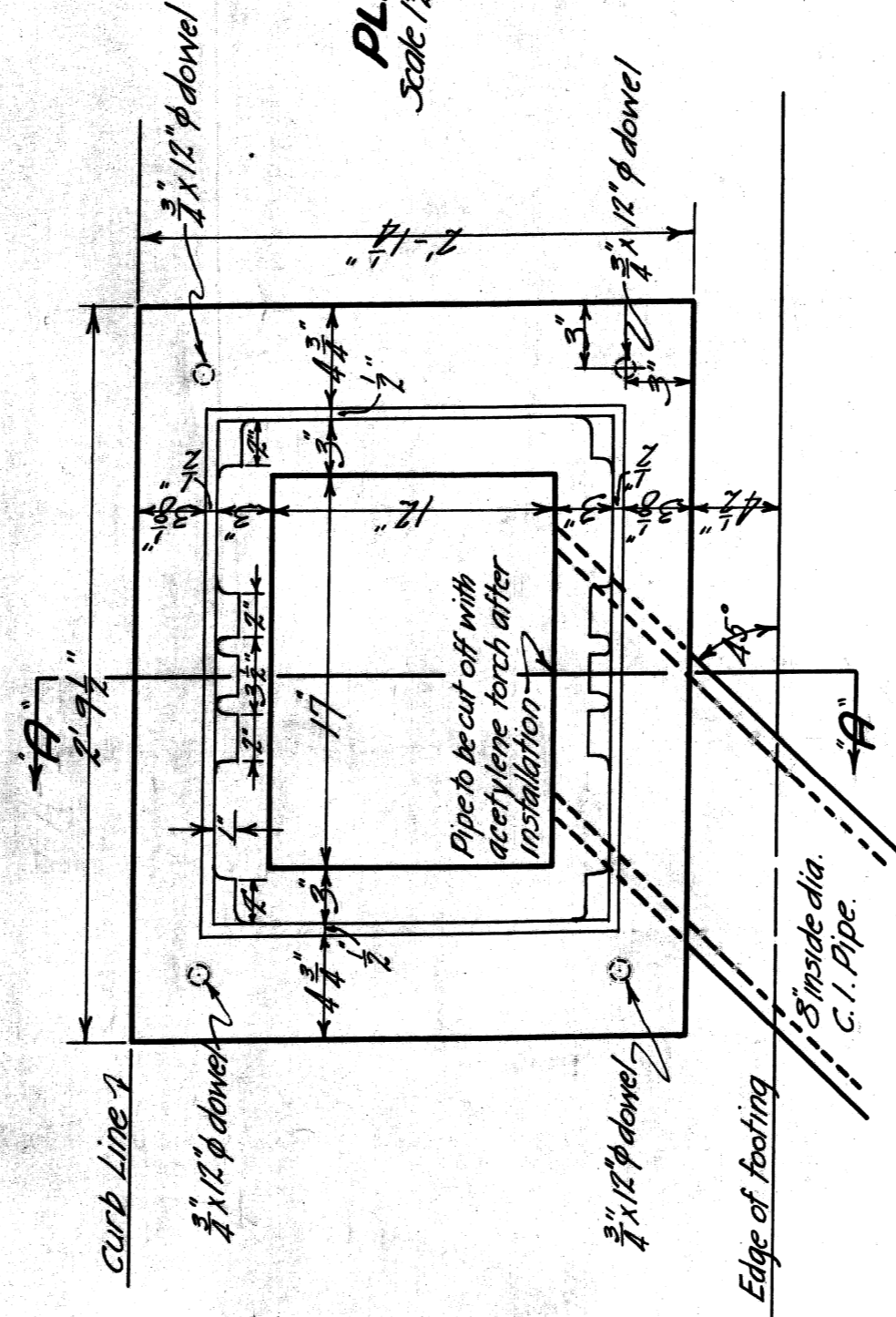


**SECTIONAL ELEVATION**  
Scale  $\frac{1}{4}'' = 1'-0''$

$$\begin{array}{r} 103.74 \\ 104.36 \\ \hline 104.23 \\ 104.85 \\ \hline 104.17 \end{array}$$

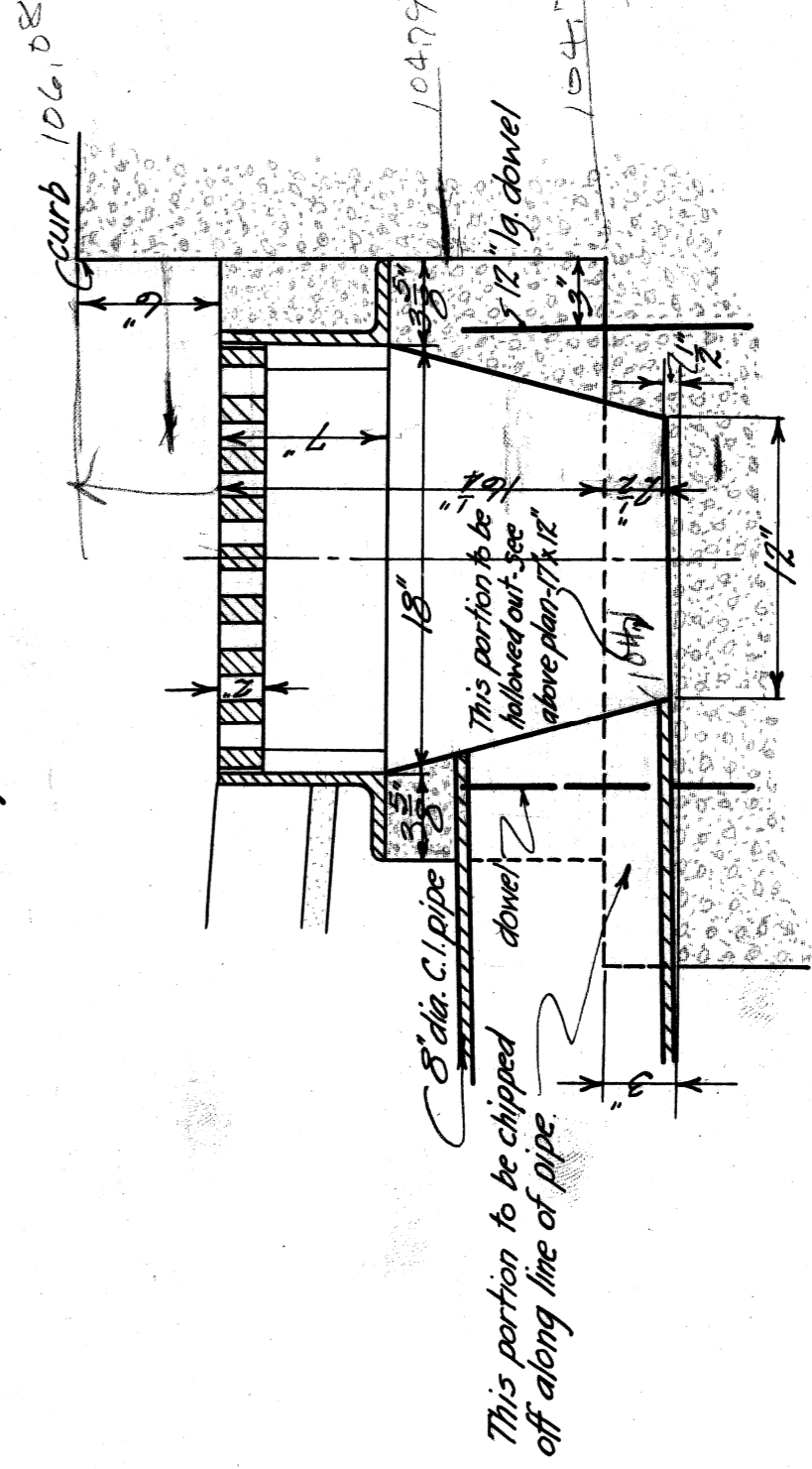
**NOTE:**

This plan in conjunction with regular  
Dix Ave. Grade Separation Plan.



**PLAN**  
Scale  $\frac{1}{2}'' = 1'-0''$

$$\begin{array}{r} 103.74 \\ 104.36 \\ \hline 104.23 \\ 104.85 \\ \hline 104.17 \end{array}$$



**SECTION 'A-A'**  
Scale  $\frac{1}{2}'' = 1'-0''$

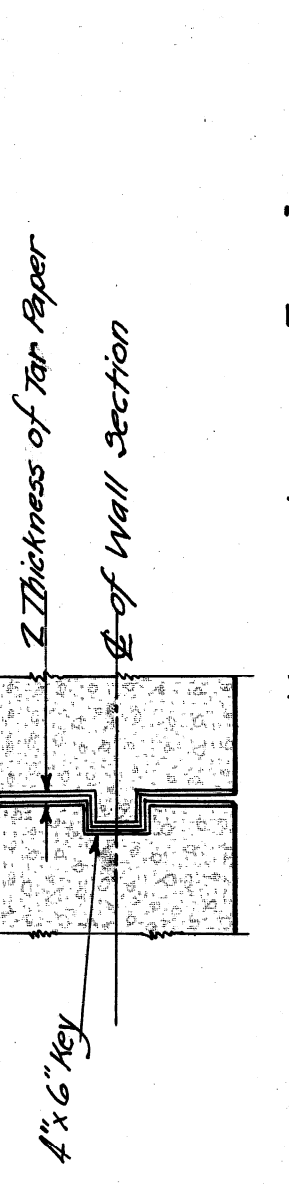
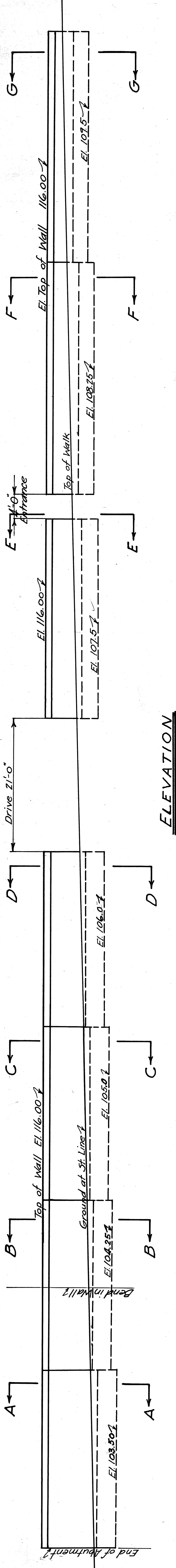
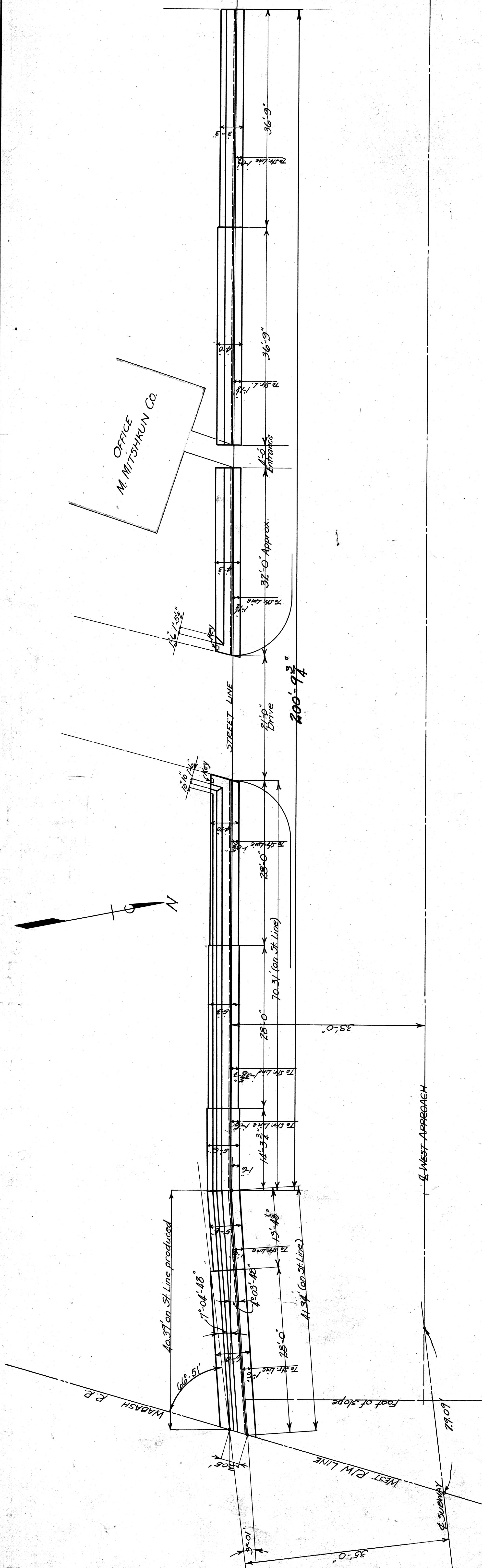
$$\begin{array}{r} 106.18 \\ 2.02 \\ \hline 104.02 \end{array}$$

$$\begin{array}{r} 1.64 \\ 1.85 \\ \hline 2.64 \end{array}$$

$$\begin{array}{r} 106.08 \\ 1.85 \\ \hline 104.17 \\ 104.06 \end{array}$$

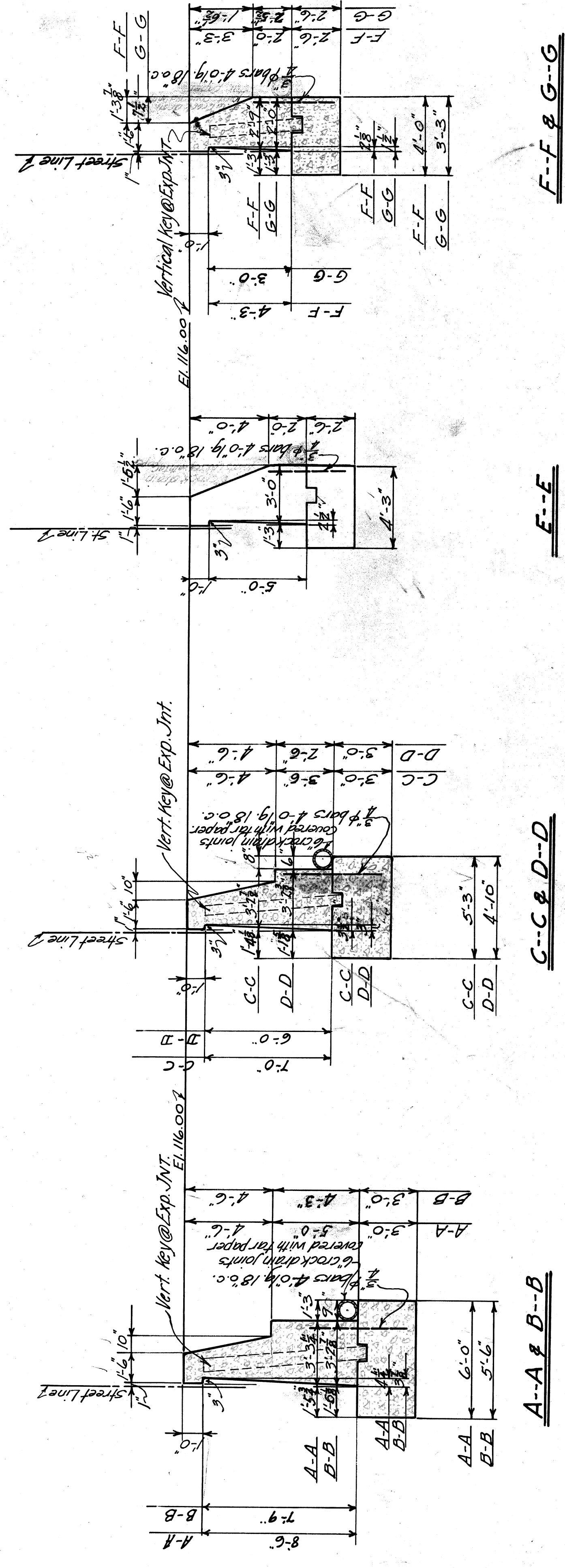
**CITY OF DETROIT**  
 DEPT. OF PUBLIC WORKS  
 CITY ENGINEER'S OFFICE  
 DIVISION OF GRADE SEPARATION & BRIDGES  
 DETAIL OF DRAINAGE INLET AT VALLEY  
 IN DIX AVE SUBWAY.

Scales as noted May 1924.

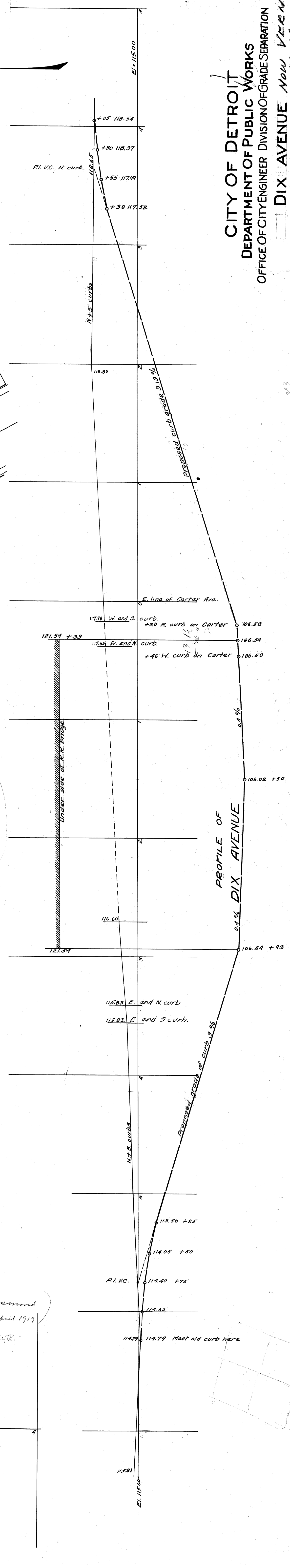
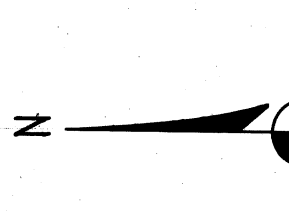
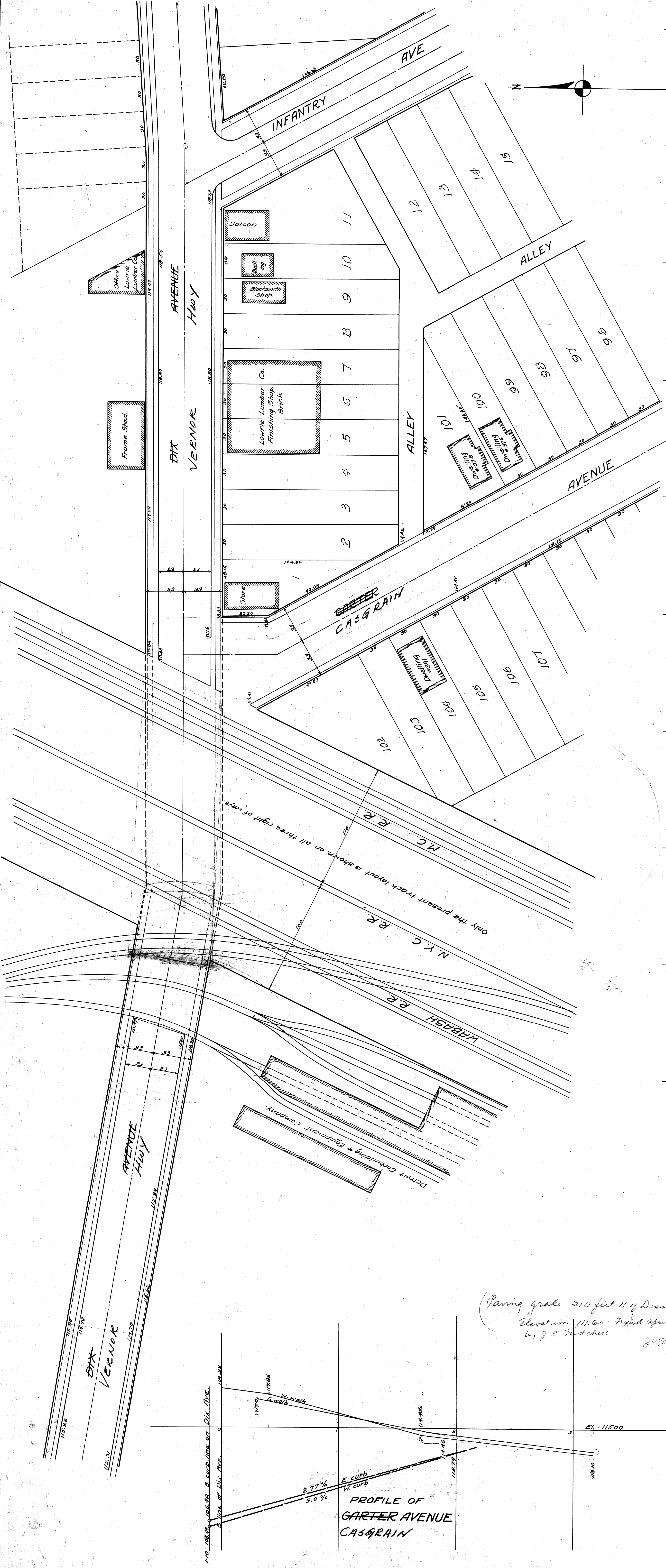


NOTE: Connect all crack drains to sewer.  
 All concrete Mix 1' 2" 4".  
 Backs of walls to receive two brush coats of asphalt waterproofing.

QUANTITIES  
 Concrete 230 cu. yds.  
 Reinf. Steel 880 lbs.  
 6" crack drain 112 lin. ft.



**CITY OF DETROIT**  
 DEPARTMENT OF PUBLIC WORKS  
 CITY ENGINEER'S OFFICE  
**DIX AVE WALL**  
 IN FRONT OF MITSUBISHI CO. YARD  
 June 1924



CITY OF DETROIT  
 DEPARTMENT OF PUBLIC WORKS  
 OFFICE OF CITY ENGINEER DIVISION OF GRADE SEPARATION  
 DIX AVENUE New VERNOR Hwy

SCALES  
 HOR. 1"=40', VERT. 1"=4'

GEO. H. FENKEL, COMM. PUBL. WORKS  
 CLARENCE W. HUBBELL, CITY ENGINEER  
 JOHN W. REID, ENGR. GRADE SEPARATION

File X133-20

(Paving grade 210 feet N of Diamond)  
 Elevation 111.60 - Top of April 1919  
 by J. R. Hutchell

PROFILE OF  
 GARTER AVENUE  
 CASGRAIN

CITY ENGINEER'S OFFICE  
 GRADE SEPARATION & BRIDGES  
 Case A Director 6-IV-20