

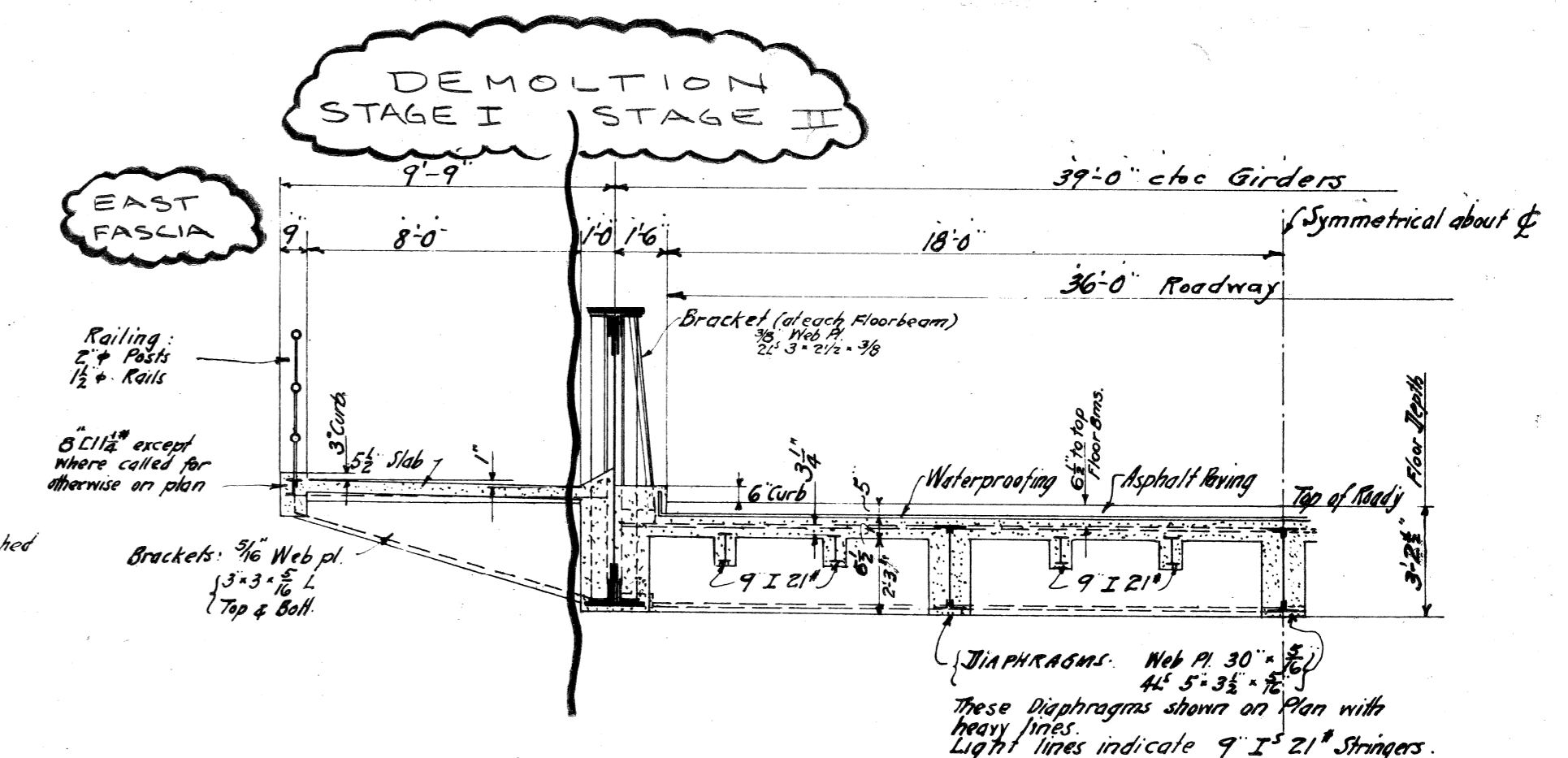
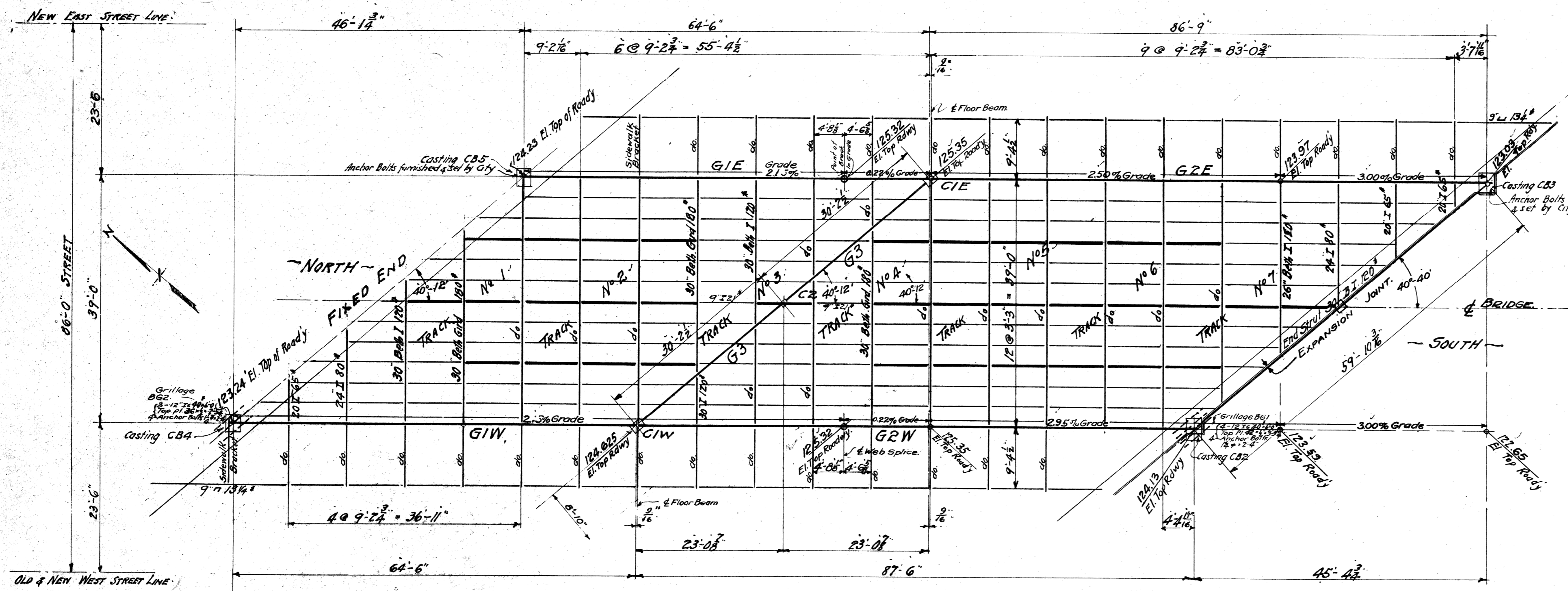
BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A301								#4	34-9"	12	779
A302								#5	35-0"	192	7009
A303								#5	35-3"	12	635
A304								#5	34-0"	2	71
A305								#5	33-4"	2	10
A306								#5	32-7"	2	68
A307								#5	31-11"	2	67
A308								#5	31-8"	338	11017
A309								#5	30-6"	2	64
A310								#5	27-11"	2	58
A311								#5	27-3"	2	57
A312								#5	26-6"	2	55
A313								#5	25-9"	2	54
A314								#5	25-1"	2	52
A315								#5	24-4"	2	51
A316								#5	23-0"	2	48
A317								#5	22-11"	2	48
A318								#5	22-2"	2	46
A319								#5	21-5"	2	45
A320								#6	34-4"	1	52
A321								#6	33-0"	1	50
A322								#6	31-9"	1	48
A323								#6	31-3"	31	1455
A324								#4	33-6"	2	45
A325								#4	32-0"	2	43
A326								#4	30-6"	340	6727
A327								#4	27-6"	2	37
A328								#4	26-0"	2	35
A329								#4	24-6"	4	65
A330								#4	23-0"	6	123
A331								#4	21-6"	4	57
A332								#4	20-3"	4	54
A333								#4	19-0"	2	25
A334								#4	17-9"	10	119
A335								#4	14-6"	1	10
A336								#4	20-3"	4	54
A337								#4	19-0"	2	25
A338								#4	17-9"	10	119
A339								#6	27-2"	1	10
A340								#4	9-0"	5	47
A341								#6	28-0"	286	12028
A342								#6	23-2"	132	4692
A343								#6	3-4"	41	205
A344								#6	3-11"	19	112
A345								#6	4-6"	20	135
A346								#6	5-1"	19	145
A347								#6	5-8"	19	162
A348								#6	6-3"	20	188
A349								#6	6-9"	19	193
A350								#6	7-4"	20	220
A351								#6	7-11"	19	226
A352								#6	8-5"	19	240
A353								#6	9-1"	26	355
A354								#6	9-8"	19	276
A355								#6	10-3"	20	308
A356								#6	10-9"	19	307
A357								#6	11-4"	20	340
A358								#6	11-11"	19	340
A359								#6	12-6"	19	357
A360								#6	13-1"	20	393
A361								#6	13-8"	205	4208
A362								#6	14-3"	16	342
A363								#6	14-10"	15	334
A364								#6	15-4"	16	368
A365								#6	15-11"	16	383
A366								#6	16-6"	16	397
A367								#6	17-1"	21	539
A368								#6	17-8"	16	425
A369								#6	18-3"	16	439
A370								#6	18-10"	16	453
A371								#6	19-4"	15	436
A372								#6	19-11"	16	479
A373								#6	20-6"	16	493
A374								#6	21-1"	16	507
A375								#6	21-8"	15	488
A376								#6	22-3"	16	535
A377								#6	22-9"	14	478
A378								#6	23-4"	14	491
A379								#6	23-11"	14	503
A380								#6	24-6"	15	522
A381								#6	25-1"	15	565
A382								#6	25-8"	14	478
A383								#6	26-3"	176	6939
A384								#6	26-10"	22	887
A385								#6	27-4"	6	246
A386								#6	33-9"	12	608

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
D301	3-0	6 1/2"						#6	6'-4 1/2"	214	2056
P301	1-4"	3-10 1/2"	5"	6"				#4	7'-5 1/2"	110	548
P302	1-4"	4'-4 1/2"	6"	5"				#4	7'-11 1/2"	4	21
P303	1-4"	4'-10 1/2"	6"	6"				#4	8'-5 1/2"	4	23
TOTAL = 6998.3 #											
A301								#4	34-9"	180	4178
A303								#6	35-3"	12	635
A320								#6	34-6"	1	52
A321								#6	33-0"	1	50
A322								#6	31-9"	1	48
A323								#6	31-3"	31	1455
A324								#4	33-6"	2	45
A325								#4	32-0"	2	43
A326								#4	30-6"	340	6727
A327								#4	27-6"	2	37
A328								#4	26-0"	2	35
A329								#4	24-6"	4	65
A330								#4	23-0"	6	123
A331								#4	21-6"	4	57
A332								#4	20-3"	4	54
A333								#4	19-0"	2	25
A337								#4	17-9"	10	119
A339								#6	27-2"	1	10
A341								#4	9-0"	3	18
A342								#6	28-0"	286	12028
A343								#6	23-2"	132	4692
A344								#6	3-4"	41	205
A345								#6	3-11"	19	112
A346								#6	4-6"	20	135
A347								#6	5-1"	19	145
A348								#6	5-8"	19	162
A349								#6	6-3"	20	188
A350								#6	6-9"	19	193
A351								#6	7-4"	20	220
A352								#6	7-11"	19	226
A353								#6	8-5"	19	240
A354								#6	9-1"	26	355
A355								#6	9-8"	19	276
A356								#6	10-3"	20	308
A357								#6	10-9"	19	307
A358								#6	11-4"	20	340
A359								#6	11-11"	19	340
A360								#6	12-6"	19	357
A361								#6	13-1"	20	393
A362								#6	13-8"	205	4208
A363								#6	14-3"	16	342
A364								#6	14-10"	15	334
A365								#6	15-4"	16	368
A366								#6	15-11"	16	383
A367								#6	16-6"	16	397
A368								#6	17-1"	21	539
A369								#6	17-8"	16	425
A370								#6	18-3"	16	439
A371								#6	18-10"	16	453
A372								#6	19-4"	15	436
A373								#6	19-11"	16	479
A374								#6	20-6"	16	493
A375								#6	21-1"	16	507
A376								#6	21-8"	15	488
A377								#6	22-3"	16	535
A378								#6	22-9"	14	478
A379								#6	23-4"	14	491
A380								#6	23-11"	14	503
A381								#6	24-6"	15	522
A382								#6	25-1"	15	565
A383								#6	25-8"	14	478
A384								#6	26-3"	158	6230
A385								#6	26-10"	22	887

BAR	DIMENSIONS							SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g				
A386								#6	37-4"	6	248
A387								#4	7-5"	5	5
A388								#4	2'-6"	6	10
A389								#4	3-7"	5	14
A390								#4	4-2"	5	16
A391								#4	5-7"	4	15
A392								#4	6-10"	3	14
A393								#4	7-11"	7	37
A394								#4	9-0"	3	18
A395								#6	33-7"	12	61
A396								#4	5-6"	3	21
TOTAL = 62211 #											
H301	10-4"	6 1/2"						#4	10-10"	19	1855
H302	15-6"	6 1/2"						#4	16-3"	4	43
H303	14-7"	6 1/2"	</								

QUANTITY SHEET - E

BRIDGE ITEMS	AS PER PLANS														AS CONSTRUCTED														
	SHEET NO'S.		S-106	S-117	S-118	S-122	S-123	S-136	S-138	S-139	S-142	S-143	S-144	S-145	SHEET NO'S.														
	TOTALS	UNITS	General Plan of Structure	Abutment Details	Piling Plan	Pier Details	Structural Steel Framing Plan and Details	Superstructure Details	NAME PLATE DETAILS	EXPANSION JOINT DEVICE	Steel Reinforcement Details	"	"	"	TOTALS	UNITS													
STRUCTURE EMBANKMENT (CIP)	1125	CY	1125																										
UNCLASSIFIED FOUNDATION EXCAVATION	7465	CY		6600		865																							
STRUCTURE BACKFILL (CIP)	8000	CY	8000																										
ROCK DRILLING	27	L.F.			27																								
TEMPORARY STEEL SHEET PILING	1840	SF	1840																										
STEEL PILES, FURNISHED & DRIVEN (12")	7449	L.F.			7449																								
SPLICES, STEEL PILES (12")	187	EA			187																								
STRUCTURAL LIGHTWEIGHT CONCRETE	51	CY					51																						
SUBSTRUCTURE CONCRETE	2863	CY		1989		874																							
SUPERSTRUCTURE CONCRETE	1237	CY					1237																						
STEEL REINFORCEMENT	329,745	LBS								134419	81678	38520	75128																
STEEL REINFORCEMENT, EPOXY COATED	93430	LBS											30462	62968															
LOW TEMPERATURE PROTECTION, SUBSTR. CONC.	2863	CY		1989		874																							
LOW TEMPERATURE PROTECTION, SUPERSTR. CONC.	1288	CY					1288																						
PROTECTIVE TREATMENT FOR BRIDGE DECKS	26985	SF					26985																						
2" PREFORMED NEOPRENE JOINT SEAL	160	LF					160																						
EXPANSION JOINT DEVICE, 2" MIN. TRAVEL	27	LF							27																				
EXPANSION JOINT DEVICE, 3" MIN. TRAVEL	266	LF							266																				
EPOXY BONDING AGENT	40	SF					40																						
10" PIPE SLEEVE, PLACED	2	EA					2																						
EXPANSION JOINT DRAIN	9	EA		9																									
3" CONDUIT	188	LF					188																						
4" CONDUIT	4144	LF					4144																						
NAME PLATES	4	EA						4																					
FIELD PAINTING	1	L.S.					1																						
STRUCTURAL STEEL FURN. & FAB. (AST2 ROLLED)	755500	LBS					754500																						
STRUCTURAL STEEL ERECTION (AST2 ROLLED)	755500	LBS					754500																						
BUSHINGS	100	EA					100																						
JOINT WATERPROOFING	1250	SF		1229			21																						
BRIDGE RAILING - SOLID PARAPET TYPE	140	LF		140																									
BRIDGE RAILING - SOLID PARAPET TYPE (MOD.)	497	LF					497																						
24" CLASS A CULVERT	462	LF	462																										
8" CLASS A SEWER (TRENCH DETAIL B)	340	LF	340																										
SLOPE PAVING, CONCRETE	1230	SF	1230																										
SLOPE PROTECTION HEADERS	504	LF	504																										
FOUNDATION DRAINS 6"	655	LF		655																									
PEDESTRIAN FENCING, STRUCTURES	3977	SF					3977																						
REMOVAL OF PORTIONS OF STRUCTURES	1	L.S.	1																										
FORM, FINISH & CURE SUPERSTRUCTURE CONCRETE	1	L.S.					1																						
SHEAR DEVELOPERS	1	LS					1																						

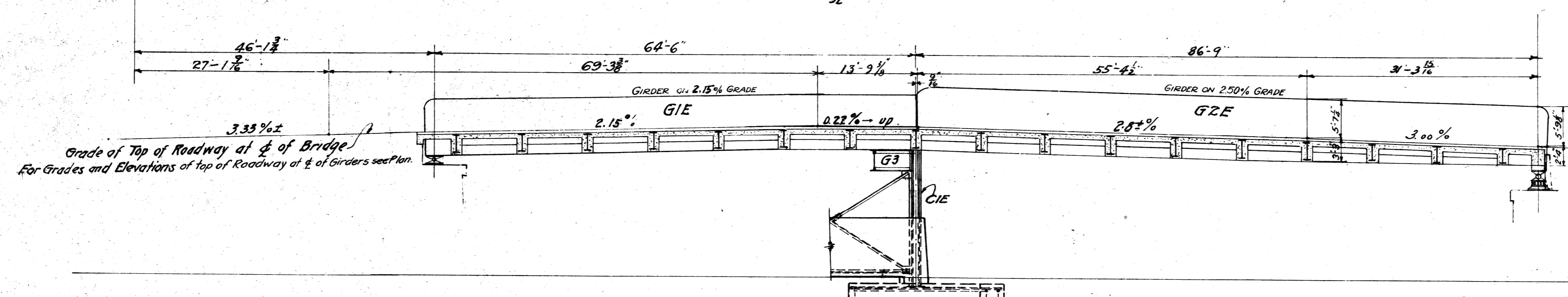


HALF CROSS SECTION, DECK
Scale: 1/2" = 1'-0"

TABLE OF OVERHEAD TRACK CLEARANCES.

TRACK NO	ELEVATION TOP OF GIRDER		ELEVATION TOP OF PAUL		CLEARANCE	
	WEST	EAST	WEST	EAST	Under West End	Under East End
1	120.37	121.08	104.64	104.37	15.73 (15.35)	16.71 (15.65)
2	120.79	121.49	104.24	104.17	16.55 (16.50)	17.32 (16.50)
3	121.23	121.94	104.12	103.94	17.11 (17.10)	18.00 (17.10)
4	121.66	121.76	104.22	104.04	17.44 (17.12)	17.72 (17.25)
5	122.06	121.23	104.21	104.00	17.85 (17.08)	17.83 (17.17)
6	121.55	120.93	104.04	104.04	17.51 (16.85)	16.89 (16.92)
7	121.06	120.81	104.13	104.01	16.93 (16.50)	16.80 (16.75)

NOTE: Figures in parenthesis () denote clearance under existing Trusses.



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

GIRDER SCHEDULE

MARK	SPAN	END SHEAR	MAX. MOM.	EFF. DEPTH	MATERIAL IN EACH FLANGE	COVER PLS.	LENGTH	WEB PL.	GROSS AREA	NET AREA
G1E	64'-6"	376000	4,52000	7.22'	2-8-6-3/8"	18-1/2"	36'-9 1/2"	87-7/16"	45.55'	39.60'
G1W					18-1/8"	36'-9 1/2"				
G2E	86'-9"	433000	1,180000	8.13'	2-8-8-3/8"	1-21-3/8" G2E 2-21-3/8" G2W	30'-0 1/2"	102-1/2"	83.88'	73.86'
G2W	87'-6"				2-8-8-3/8"	1-21-3/8" G2E 2-21-3/8" G2W	30'-0 1/2"			
G3	30'-2 1/2"	84000	71600	2.82'	2-6-4-3/8"	1-10-3/8"	20'-0 1/2"	36-3/8"	20.62'	16.64'
G4	44'-5 1/2"	469000	1,210000	4.15'	4-13-5/8"	4-13-5/8"	30'-9 3/4"	126-5/16"	126.5'	111.30'
G5	20'-0"	474000	530000	4.45'	4-13-5/8"	4-13-5/8"	10'-0"	2-54-7/8"	85.65'	78.48'

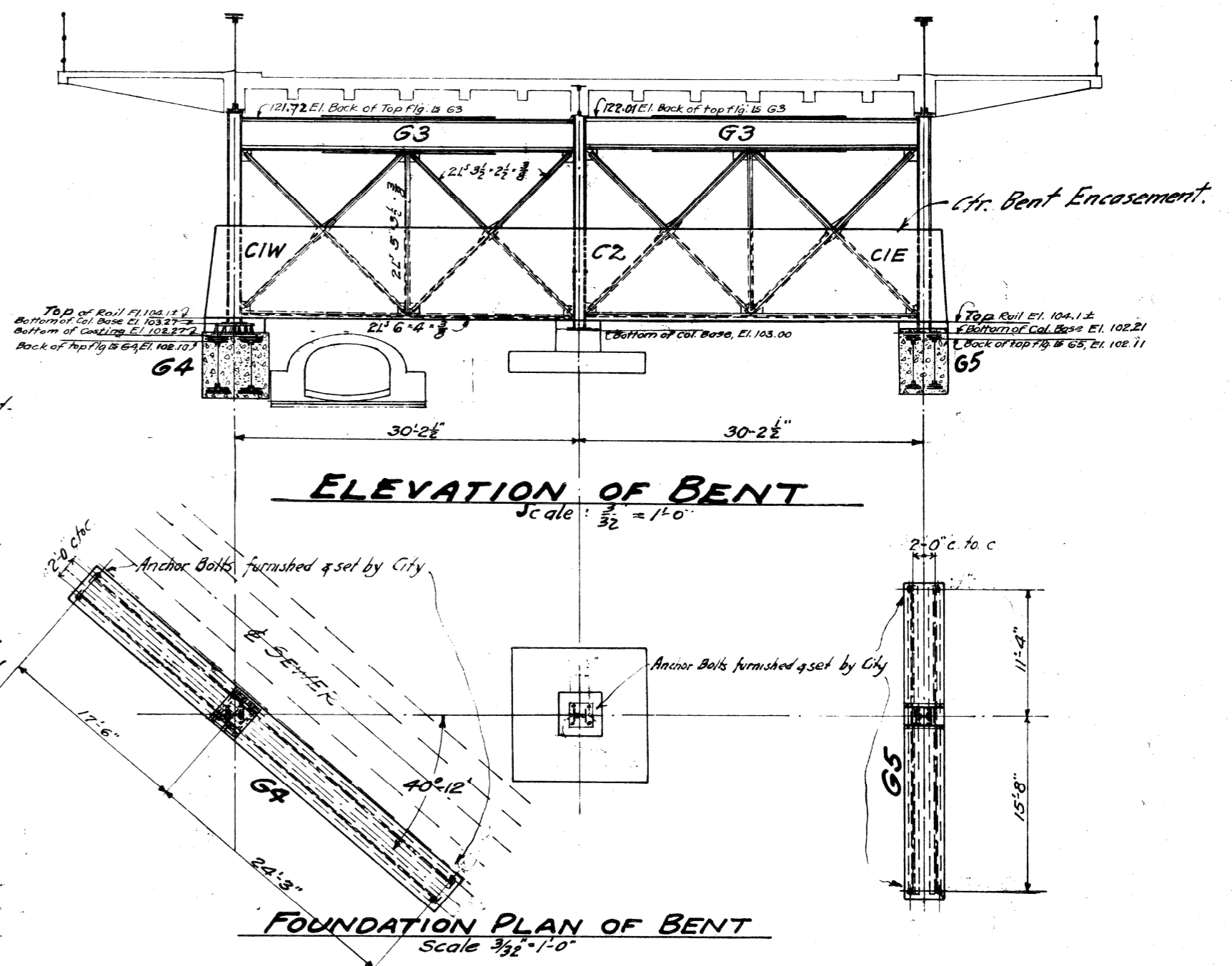
COLUMN SCHEDULE

MARK	Max. Group Depth	Max. Wind Load	Loading for Max. Eccentricity			COLUMN SECTION	SKETCH	AREA
			G1	G2	G3			
C1	15'-3"	865000	200000	478000	34000	712000	1-15" I 70 2-15" L 50 2-12" x 3/4 PL 4-5" x 3/4"	83.01
C2	15'-3"	170000					1-12" x 1/2 PL 4-5" x 3/4 x 1/2 L ^s	22.00

GENERAL NOTES

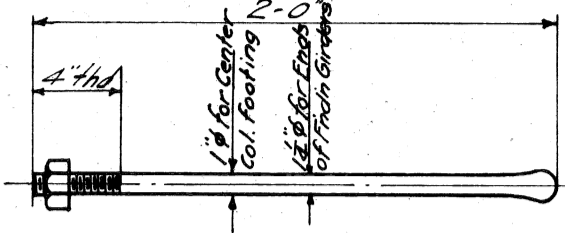
LIVE LOAD AND IMPACT.
As per Michigan State Highway Department Specifications for Highway Bridges, 1920 Edition, except Floorbeams and Girders.
Four Lines of 18 Ton Trucks on roadway. The diaphragms were assumed to distribute the floorbeam loads by considering them continuous over two spans on either side of the floorbeam in question. An impact allowance of 15 1/2% was added to the moment and shear on the floorbeams. 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.
Sidewalk: 100 #/ft² - No Impact.
Columns: Four Lines of Trucks on roadway and 100 #/ft² on sidewalks.
Impact - 25% on roadway only.
Foundations under Bent.
Same as for Columns except no impact.
MATERIALS, WORKMANSHIP AND DETAILS.
As per Specifications and Design Drawings, Sheets 170-5.
UNIT STRESSES. Tension 16000 #/ft² net sect.
Compr. 16000-70 #/ft² gross
Shear 10000 #/ft² gross
Shop Rivets: 12000 #/ft² shear 24000 #/ft² bearing
Field Rivets: 10000 #/ft² shear 20000 #/ft² bearing
Beer in Masonry: 500 #/ft²

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

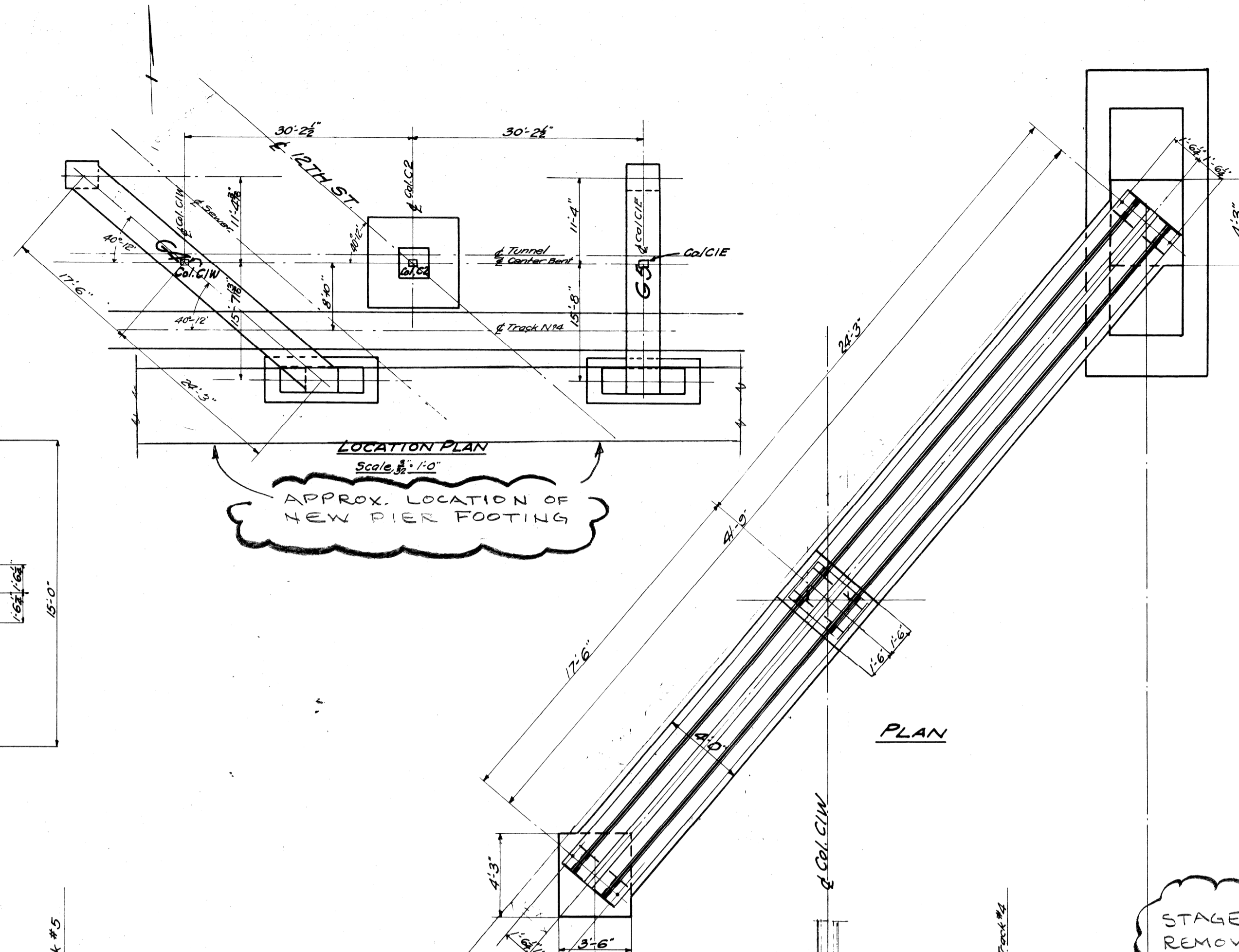


FOUNDATION PLAN OF BENT
Scale: 1/2" = 1'-0"

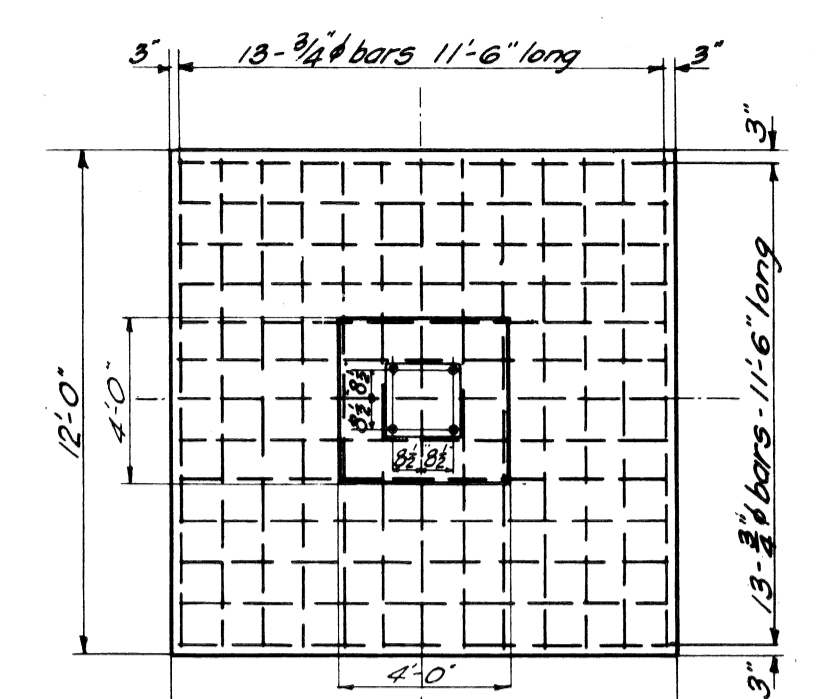
REFERENCE DRAWINGS		DESIGNED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD		12TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL		SHEET OF SHEETS
		DRAWN BY				REFERENCE DRAWING OLD TWELFTH ST. BRIDGE GENERAL PLAN - SUPERSTRUCTURE		CONTRACT NO. 07110 A
		TRACED BY						NO. SR-1
		CHECKED BY						DATE NOV 1970
COORD	DESCRIPTION	DRN	CKD	APVD	DATE	REVISIONS LOCATED BY COORDINATES ON SHEET		



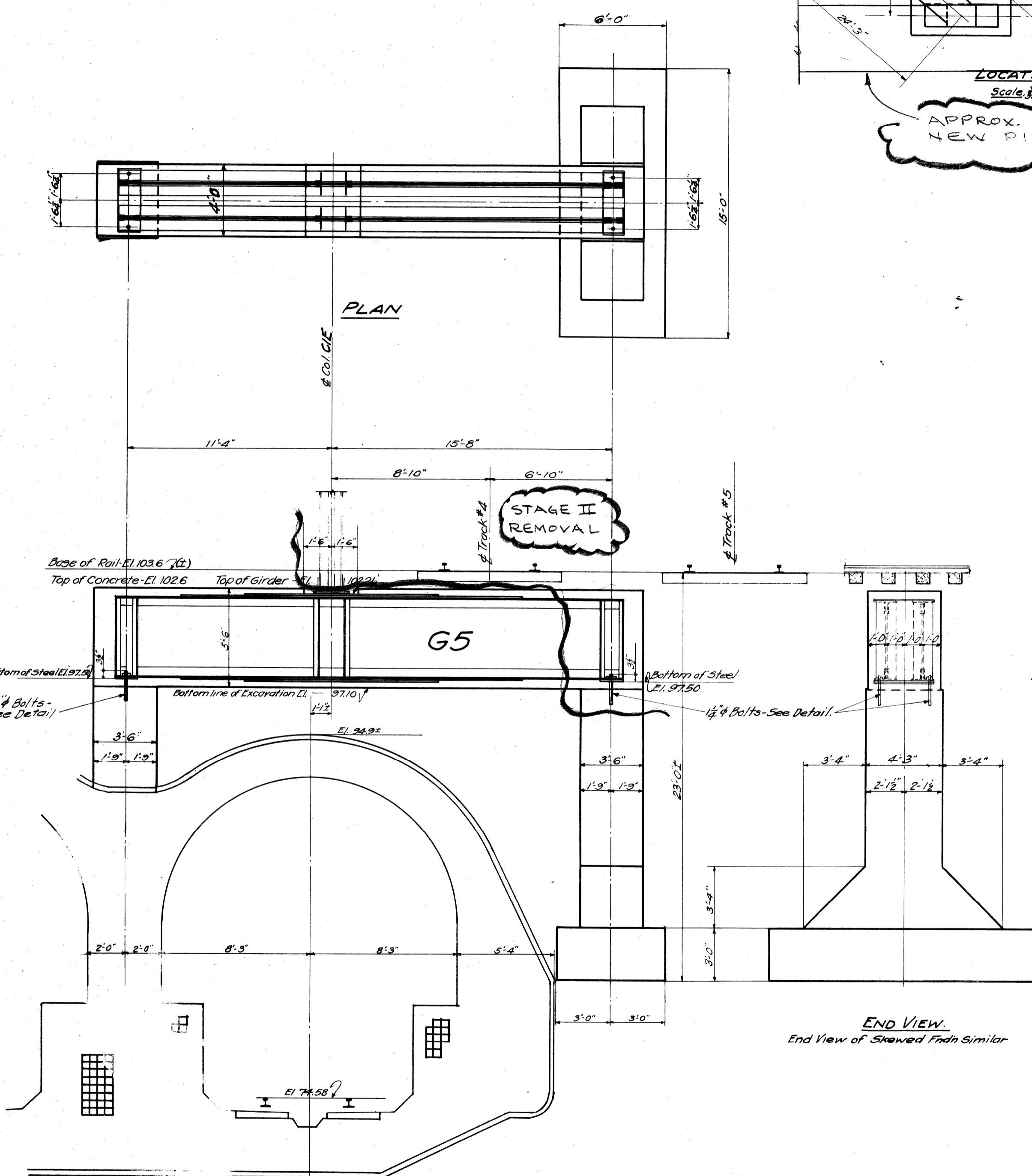
DETAIL OF ANCHOR BOLTS



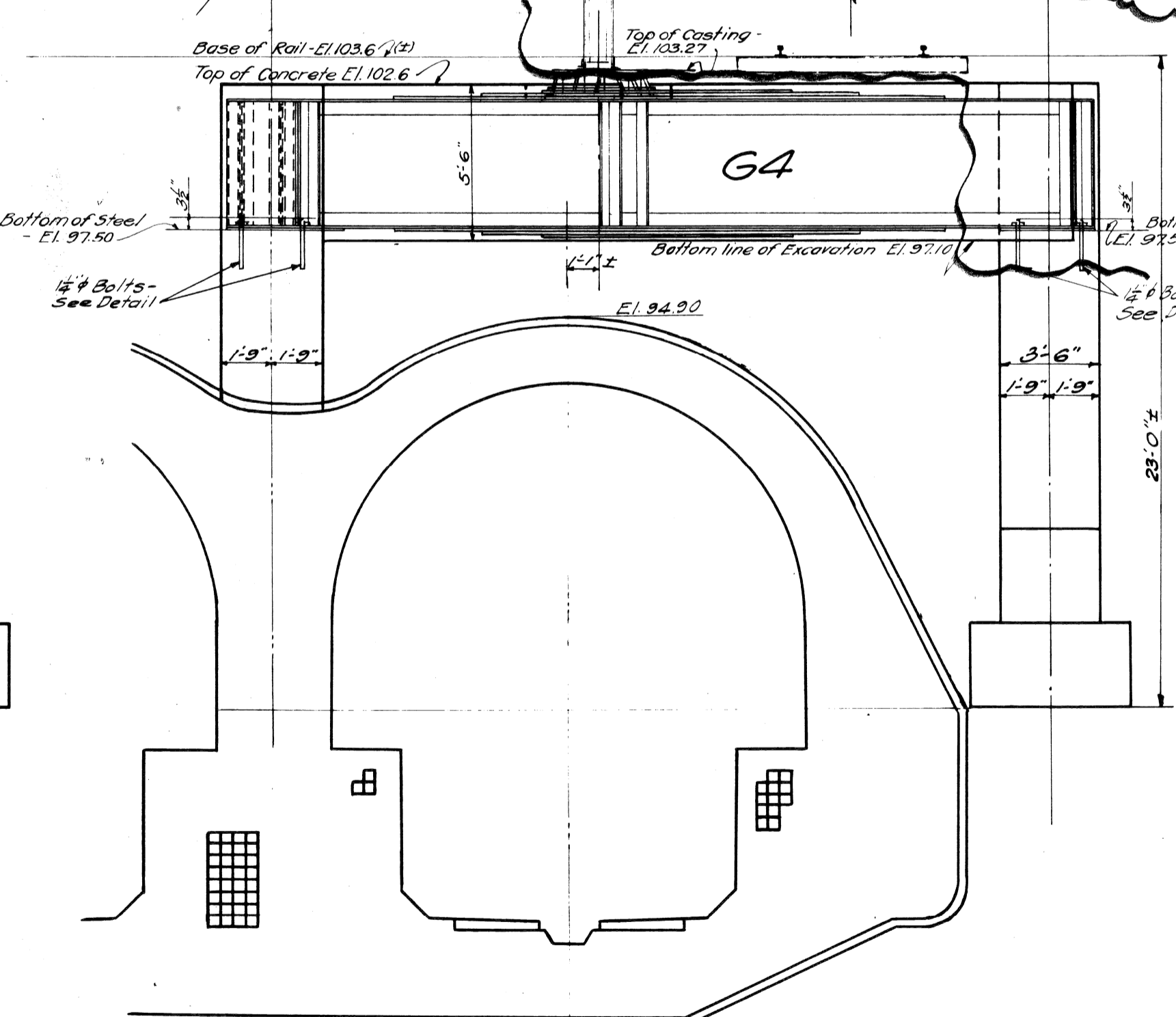
APPROX. LOCATION OF NEW PIER FOOTING



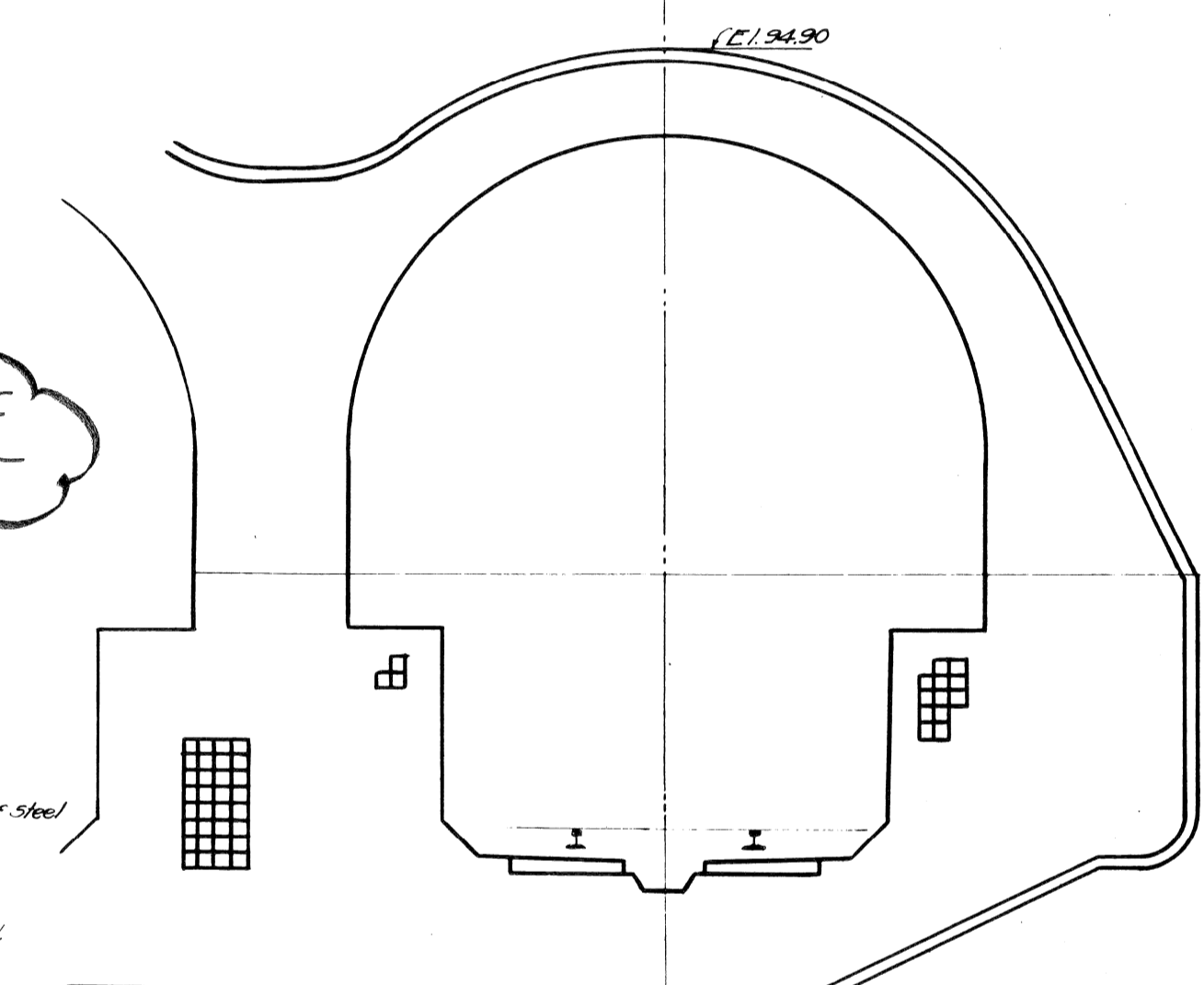
STAGE II REMOVAL



FOUNDATION FOR COLUMN C1E



FOUNDATION FOR COLUMN C1W



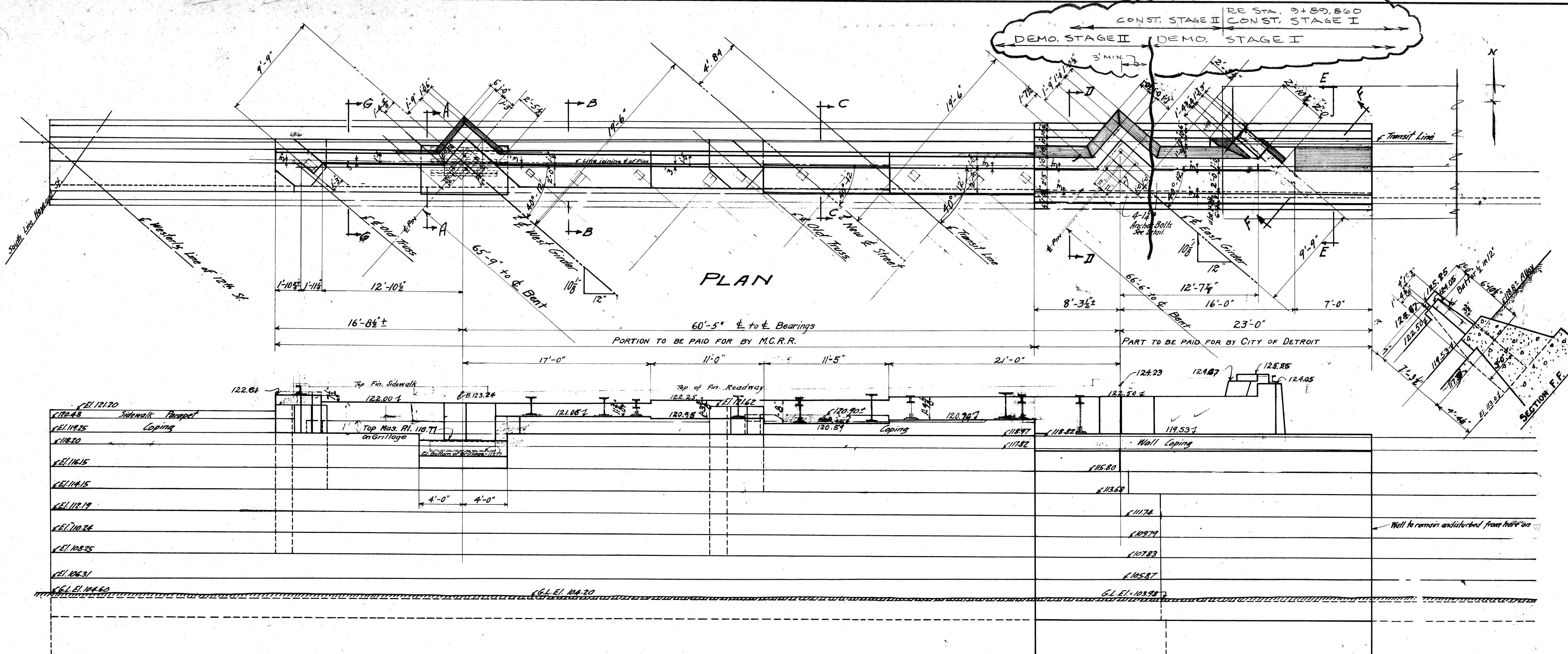
FOUNDATION FOR COLUMN C2

General Notes:
Piers under ends of Girders G4 and G5 to be poured to El. 97.50, as shown, 1 1/2\"/>

Material Required:
110 Cu. Yds. (Net) 1-2-4 Concrete
450# Steel - 26-3/4\"/>

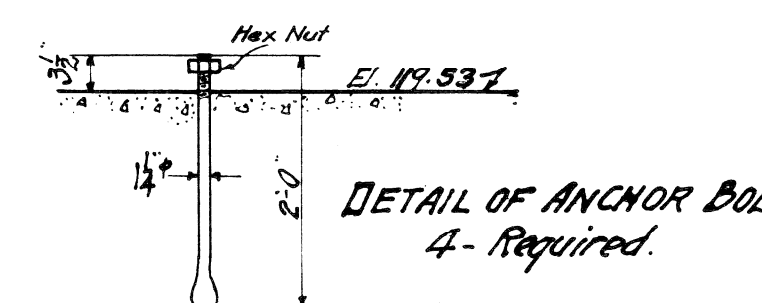
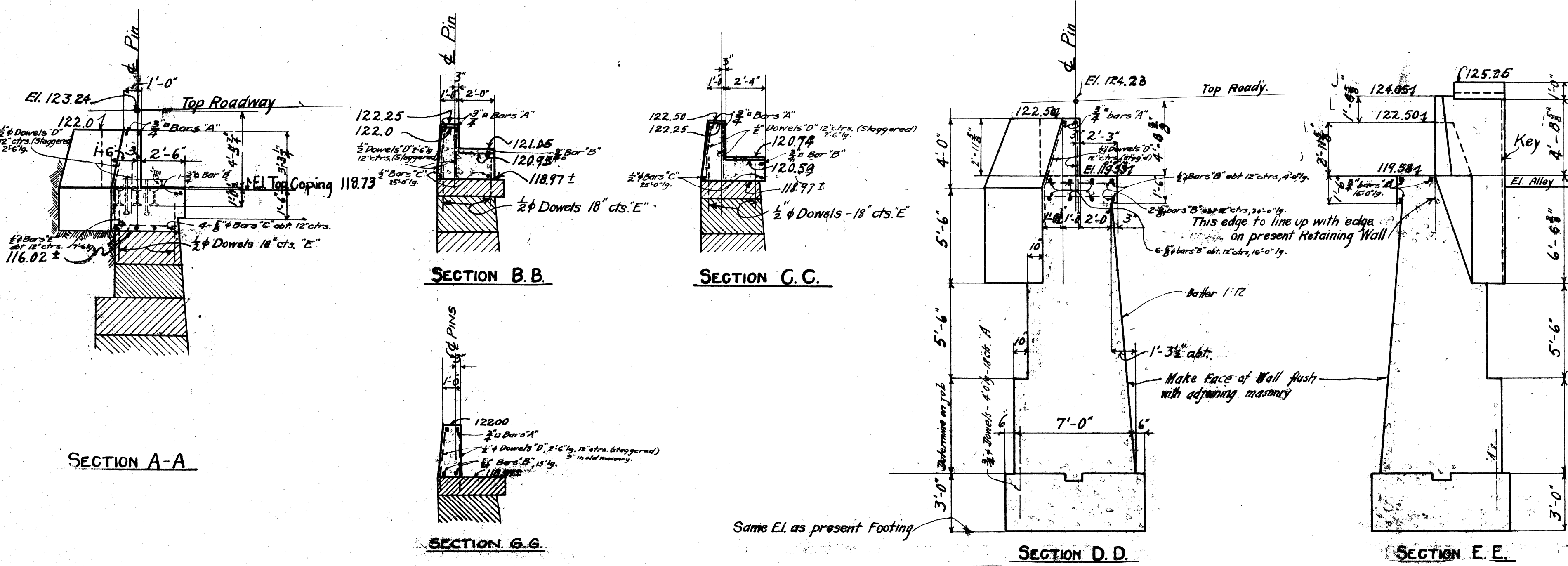
REVISIONS LOCATED BY COORDINATES ON SHEET COORD DESCRIPTION DRN CKD AP'VD DATE		REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY	APPROVED: CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD	12 TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL REFERENCE DRAWING OLD TWELFTH ST. BRIDGE CONCRETE DETAILS-FOUNDATION CENTER BENT	SHEET _____ OF _____ SHEETS CONTRACT NO. 07110A NO. SR-2 DATE NOV 1979
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XO 60



PLAN

ELEVATION



GENERAL NOTES
 Concrete Mix: 1 part cement: 2 parts Sand: 4 parts crushed stone
 Top corners of backwalls to have a continuous reinforcing of 3/8" bars as shown. Provide 3/8" dowels, 18 cts., 3/8" bars each face for bonding old and new masonry together. Dowels to set 3" in old masonry.
 Red or light lines indicate old masonry now in place. Black or heavy lines indicate construction work under this contract.
 Anchor Bolts under East Girder to be furnished and accurately set as shown, by M.C.R.R.
 Grillage and Anchor Bolts under West Girder to be furnished by City and are to be set into masonry as shown, by M.C.R.R.
 The location of the center line of bearings will be furnished by City Forces.

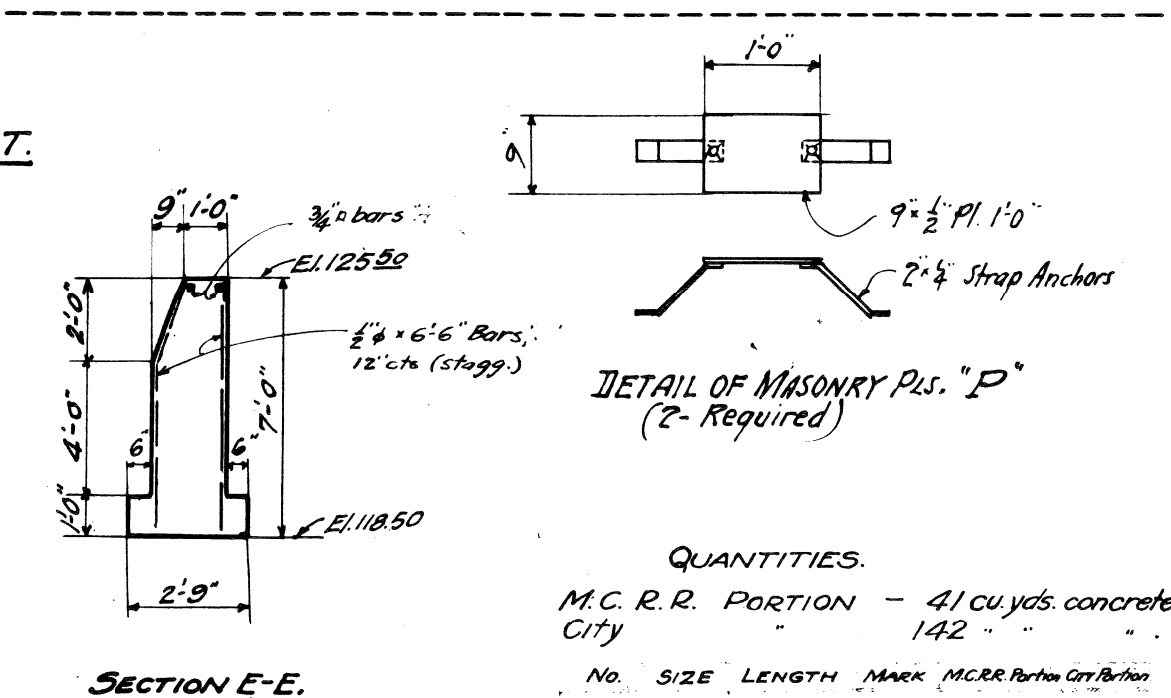
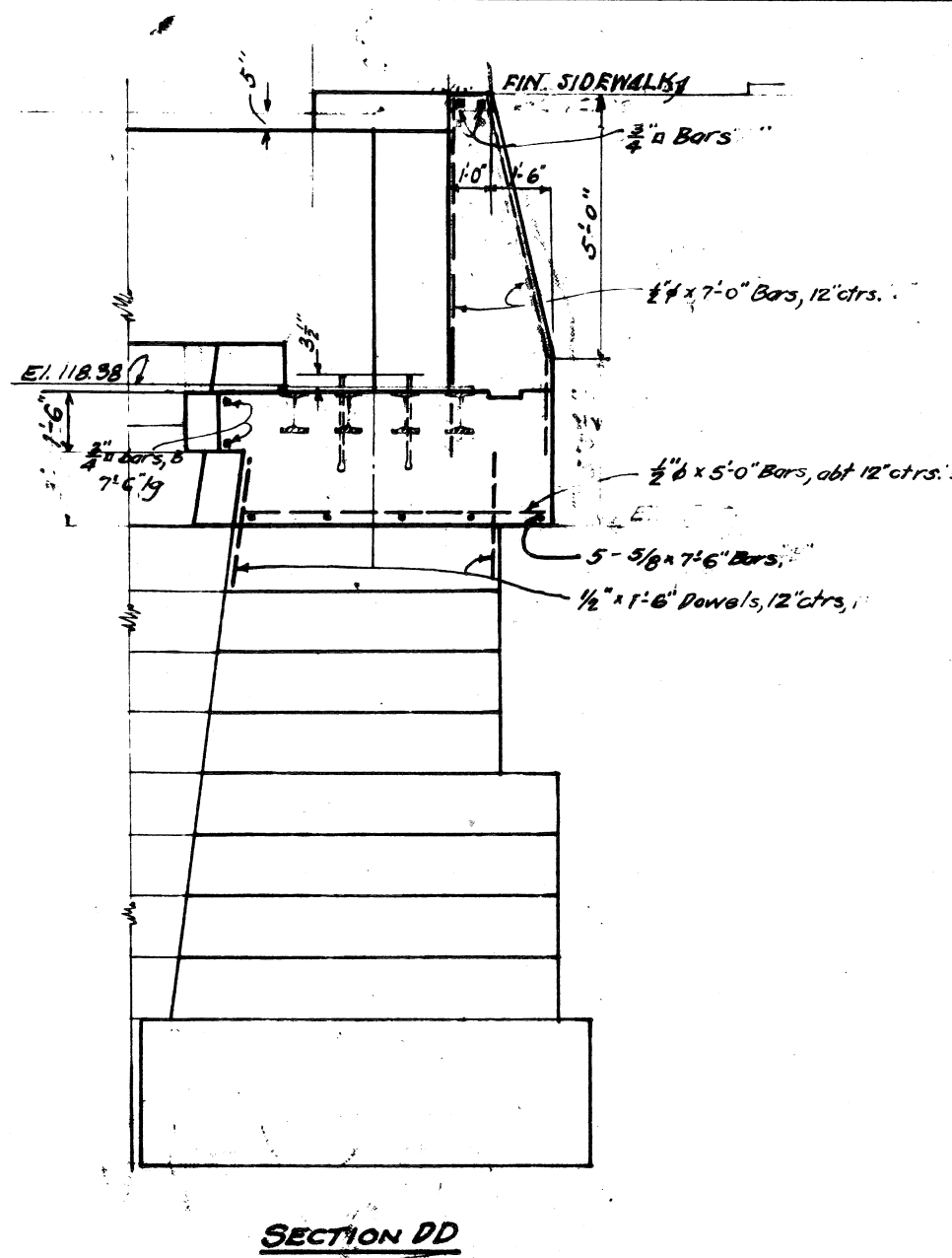
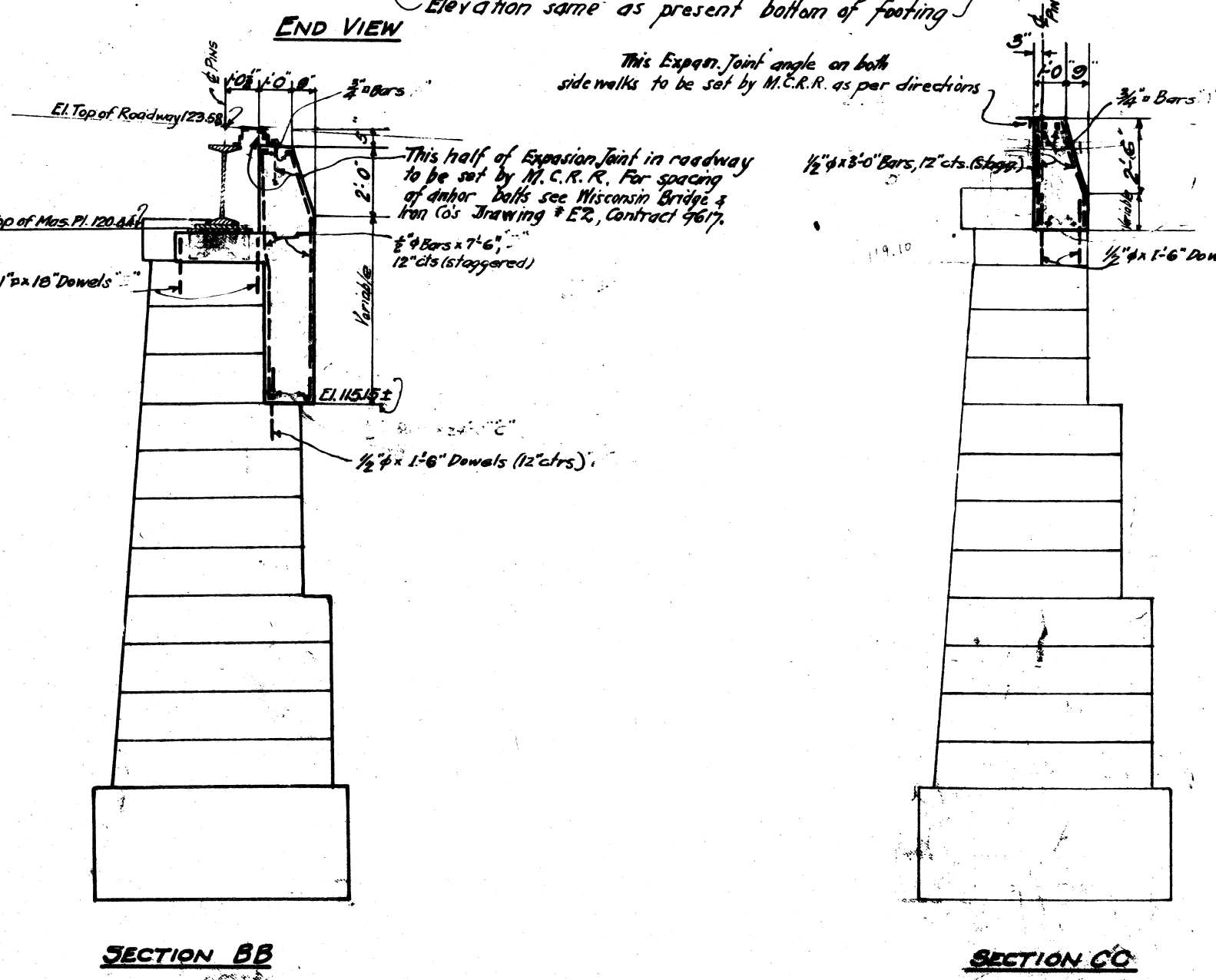
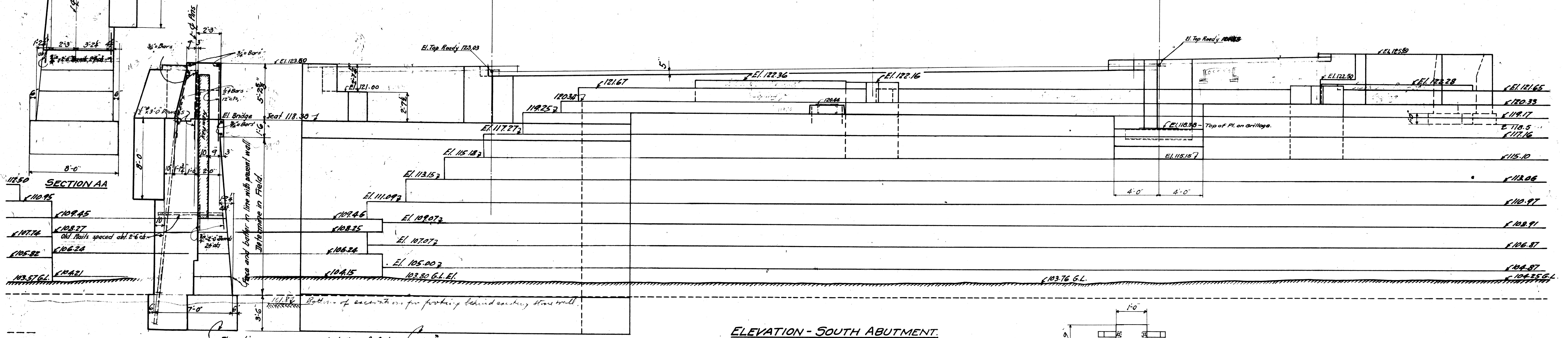
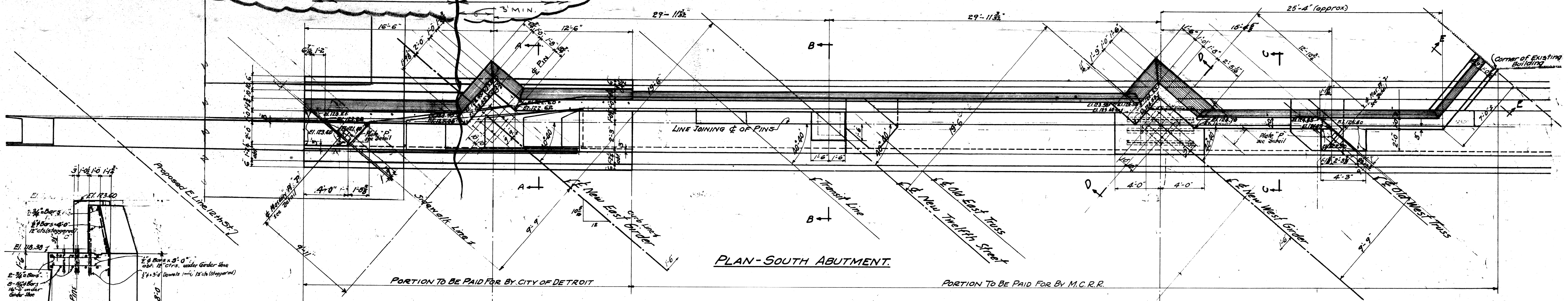
QUANTITIES

M.C.R.R. Portion: 22 cu. yds. concrete.
 CITY: 145

NO.	SIZE	LENGTH	MARK	M.C.R.R. Portion	CITY Portion
77	3/8"	1'-6"	E	77 bars	
78	3/8"	0	D	75 do.	
8	3/8"	1'-5"	F	8 do.	
32	3/8"	1'-0"	B		32 bars
30	3/8"	6'-0"	D		30 do.
2	3/8"	14'-0"	B	2 do.	
9	3/8"	25'-0"	C	4 do.	
4	3/8"	7'-6"	C	4 do.	
6	3/8"	16'-0"	B		6 do.
2	3/8"	30'-0"	B		2 do.
20	3/8"	4'-0"	A	4 do.	16 do.
2	3/8"	8'-6"	A		2 do.
1	3/8"	7'-0"	A		1 do.
2	3/8"	17'-0"	A	1 do.	1 do.
2	3/8"	17'-0"	B	2 do.	
2	3/8"	1'-0"	A		2 do.
2	3/8"	1'-0"	A		2 do.

CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD		12TH ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL		SHEET ___ OF ___ SHEETS
DESIGNED BY: _____ DRAWN BY: _____ TRACED BY: _____ CHECKED BY: <i>RJK</i>		APPROVED: _____		CONTRACT NO. 07110 A NO. SR-3 DATE NOV 1979
REVISIONS LOCATED BY COORDINATES ON SHEET		REFERENCE DRAWINGS		DATE NOV 1979

RR STA. 8+71.774 STAGE I CONST. STAGE II CONST.
STAGE I DEMO STAGE II DEMO

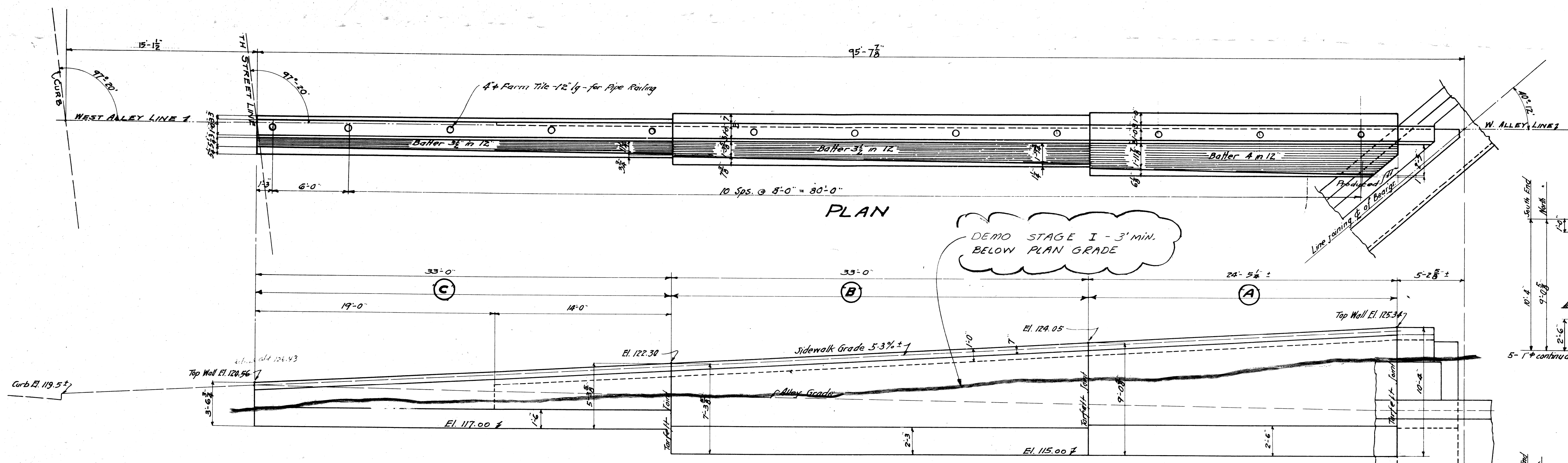


QUANTITIES:
M.C.R.R. PORTION - 41 cu yds. concrete.
City 142

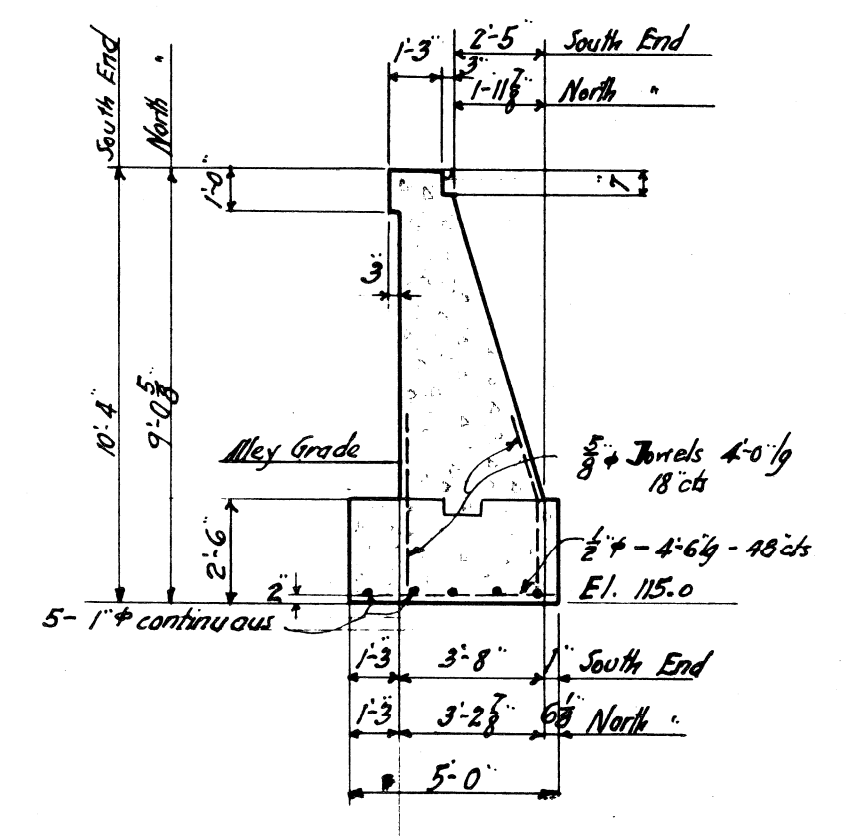
GENERAL NOTES
Concrete Mix, 1 part cement, 2 parts sand, 4 parts crushed stone.
Top corners of Backwalls to have a continuous reinforcing of #4 bars as shown. Provide #4 Bars, 18\"/>

COORD DESCRIPTION DRW CKD APPV DATE REVISIONS LOCATED BY COORDINATES ON SHEET		REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY RAK	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD	12TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL REFERENCE DRAWING OLD TWELFTH ST. BRIDGE CONCRETE DETAILS FOR SOUTH ABUTMENT	SHEET <u> </u> OF <u> </u> SHEETS CONTRACT NO. <u>07110 A</u> NO. <u>SR 4</u> DATE <u>Nov 1979</u>
--	--	---	-----------	---	---	---

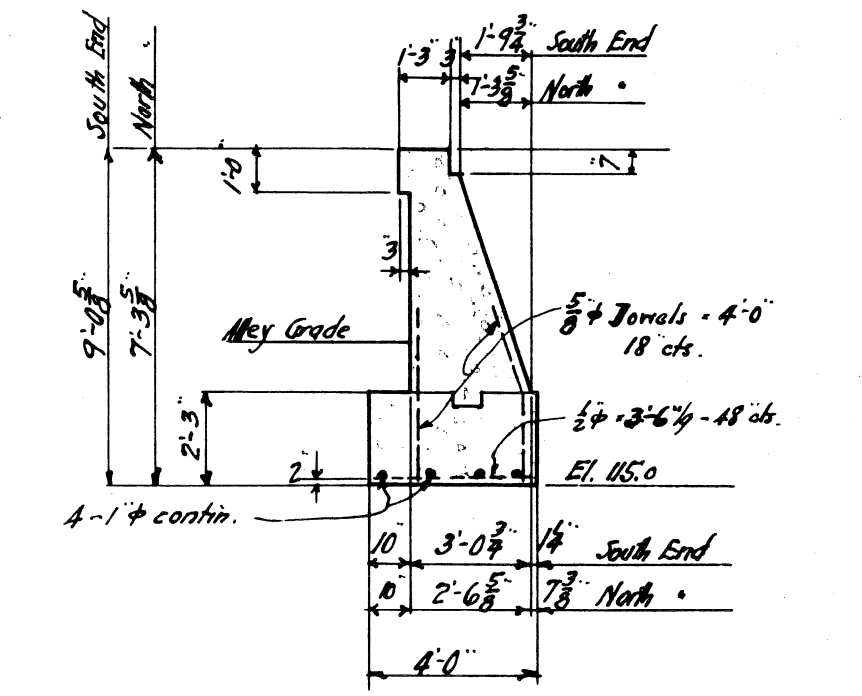
XO 60



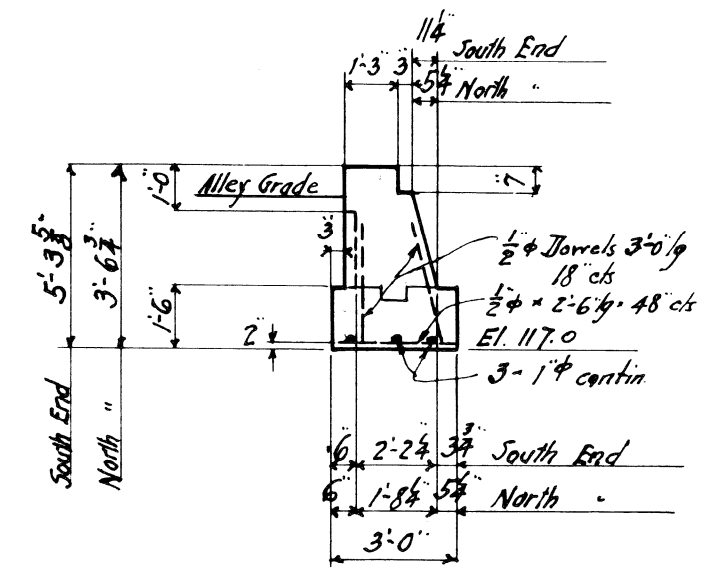
**REAR ELEVATION
RETAINING WALL - EAST SIDEWALK**



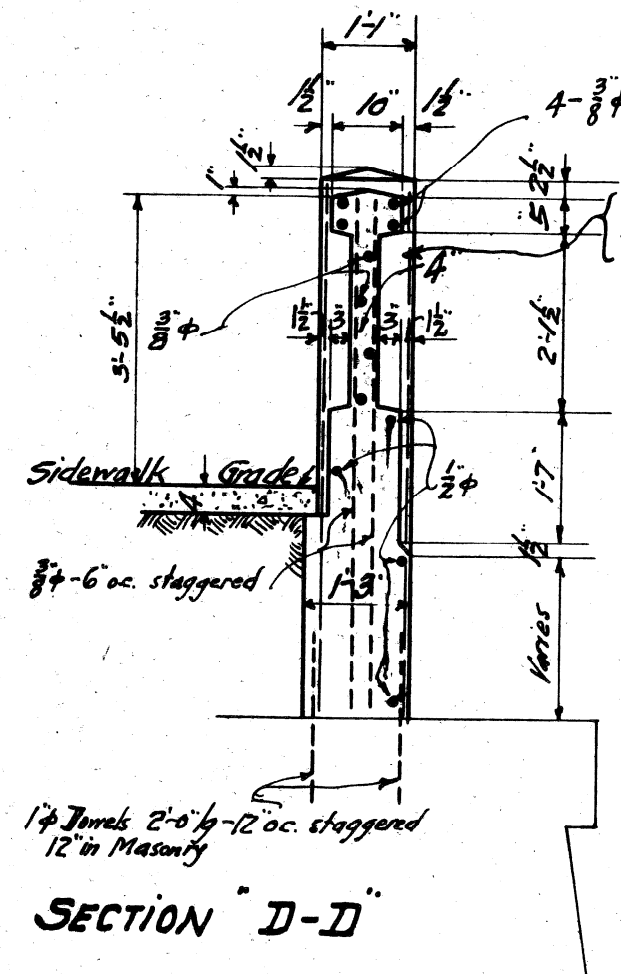
SECTION A



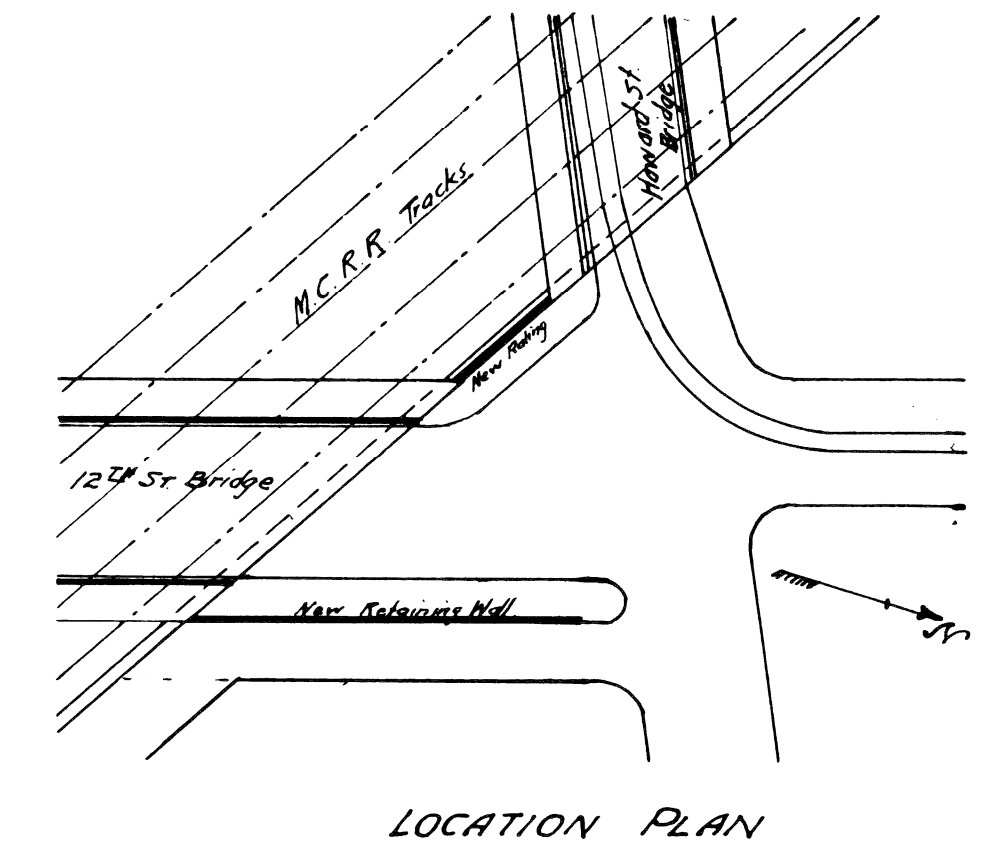
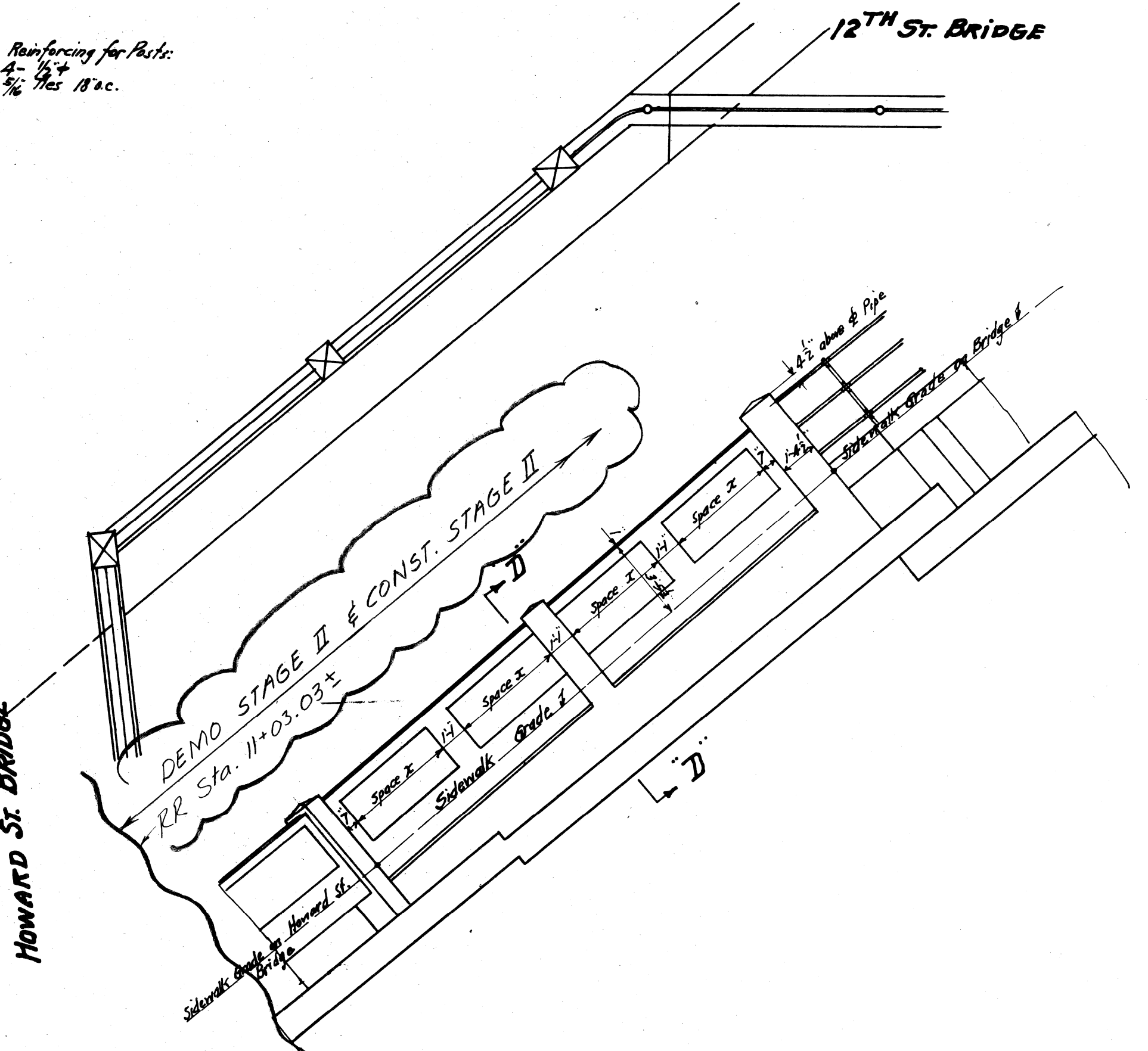
SECTION B



SECTION C



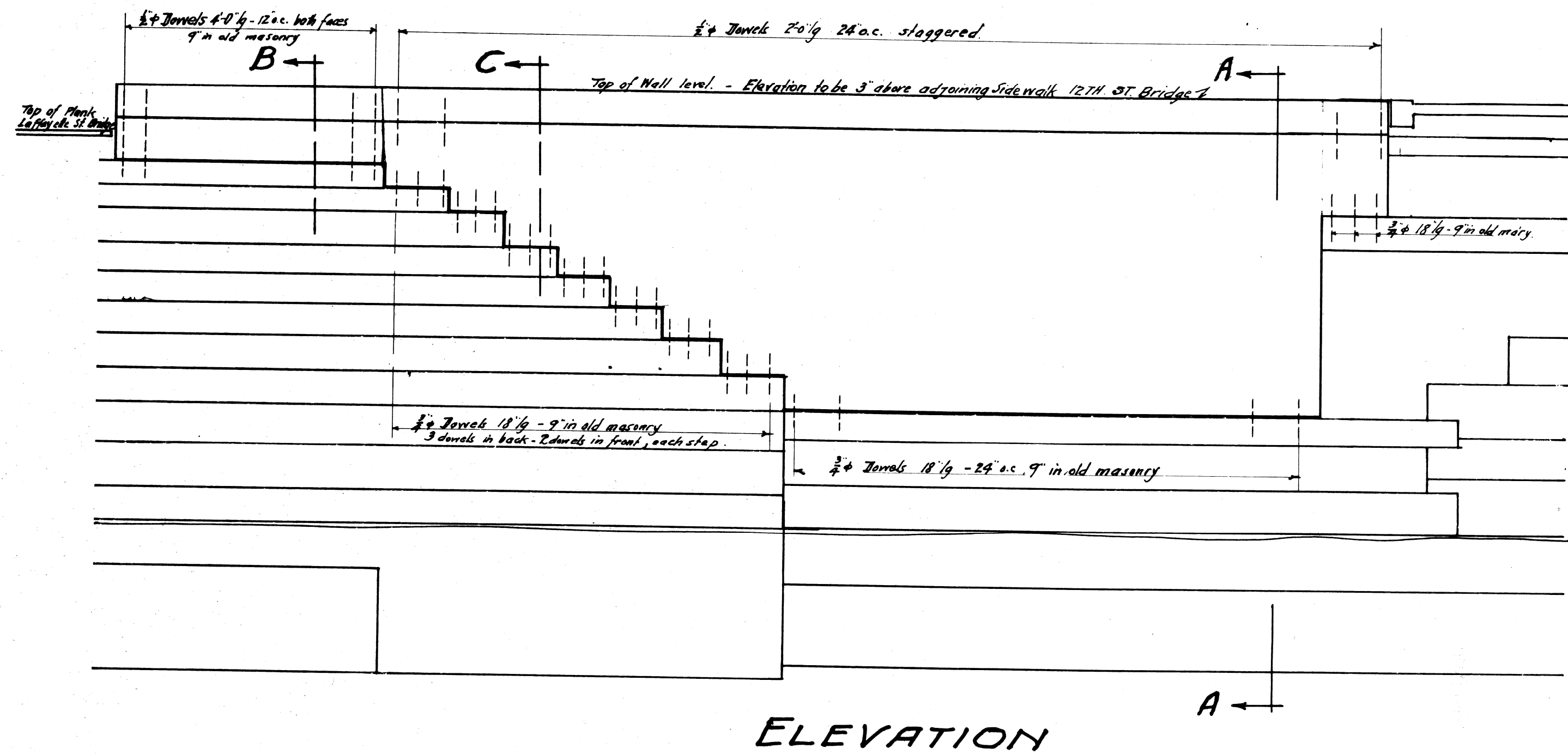
SECTION D-D



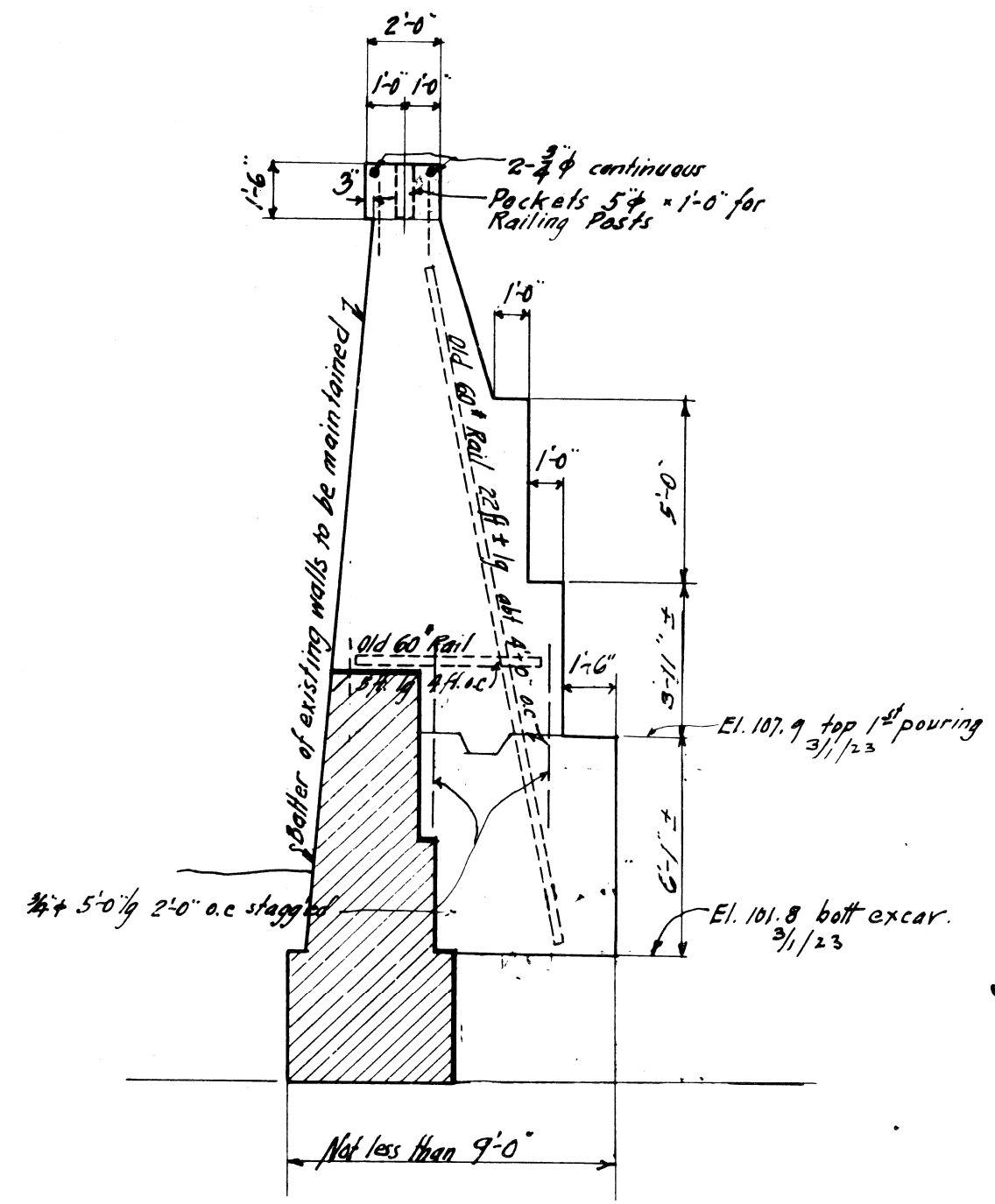
LOCATION PLAN

DETAIL OF RAILING OVER NORTH ABUTMENT.

<table border="1"> <tr> <td>REFERENCE DRAWINGS</td> <td>DESIGNED BY</td> <td colspan="2">APPROVED:</td> </tr> <tr> <td></td> <td></td> <td colspan="2"></td> </tr> <tr> <td></td> <td>DRAWN BY</td> <td colspan="2"></td> </tr> <tr> <td></td> <td>TRACED BY</td> <td colspan="2"></td> </tr> <tr> <td></td> <td>CHECKED BY</td> <td colspan="2">RAK</td> </tr> </table>				REFERENCE DRAWINGS	DESIGNED BY	APPROVED:							DRAWN BY				TRACED BY				CHECKED BY	RAK		<p align="center">CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD</p>			<p align="center">12TH ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL</p> <p align="center">REFERENCE DRAWING OLD TWELFTH ST. BRIDGE DETAILS OF RETAINING WALLS AT NORTH END OF BRIDGE</p>			<p align="right">XO60</p> <p align="right">SHEET ____ OF ____ SHEETS</p> <p align="right">CONTRACT NO. 07110 A</p> <p align="right">DATE NOV 1970</p>	
REFERENCE DRAWINGS	DESIGNED BY	APPROVED:																													
	DRAWN BY																														
	TRACED BY																														
	CHECKED BY	RAK																													
<table border="1"> <tr> <th>COORD</th> <th>DESCRIPTION</th> <th>DRN</th> <th>CK'D</th> <th>AP'D</th> <th>DATE</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				COORD	DESCRIPTION	DRN	CK'D	AP'D	DATE																						
COORD	DESCRIPTION	DRN	CK'D	AP'D	DATE																										
<p>REVISIONS LOCATED BY COORDINATES ON SHEET</p>																															



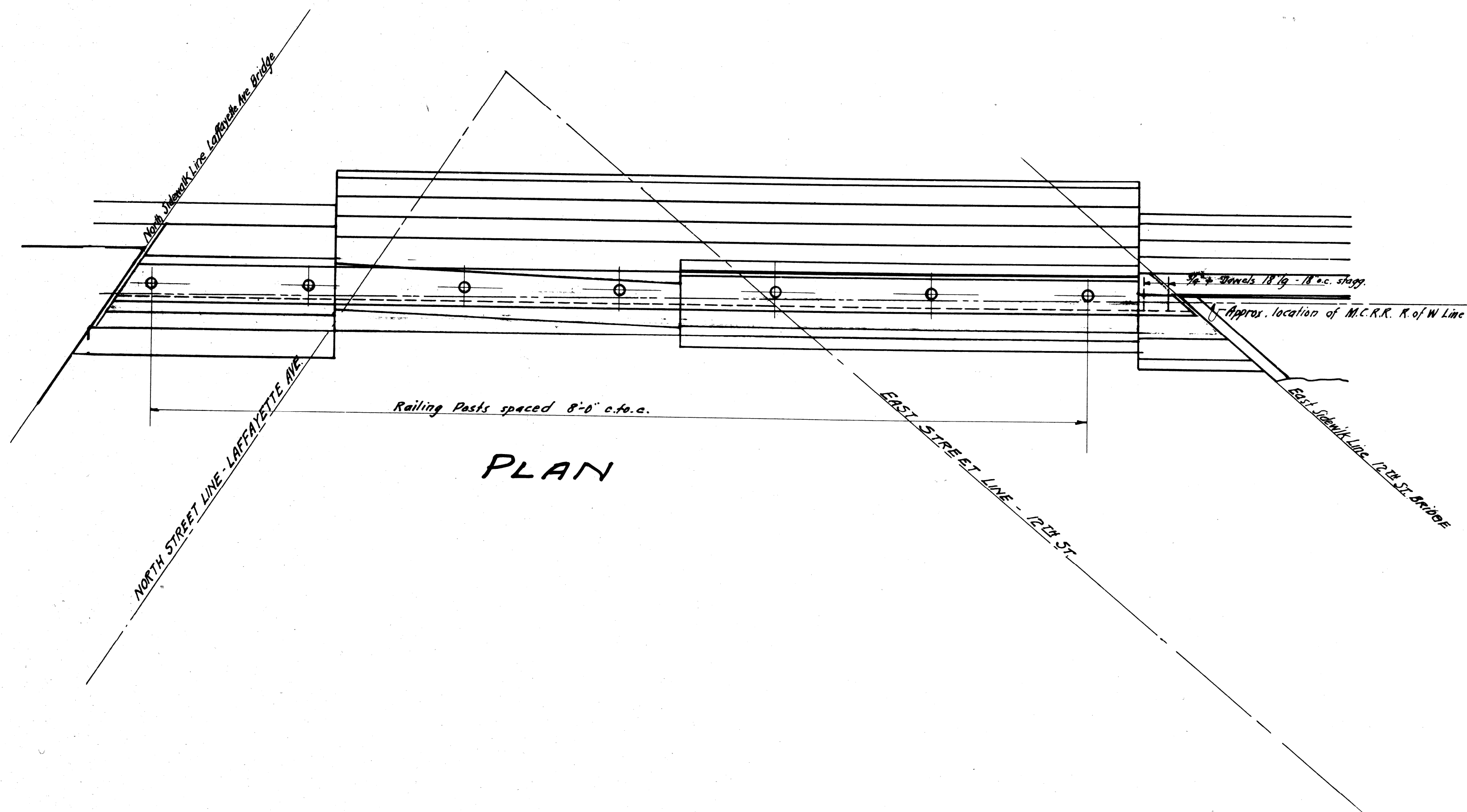
ELEVATION



TYPICAL SECTION A-A.

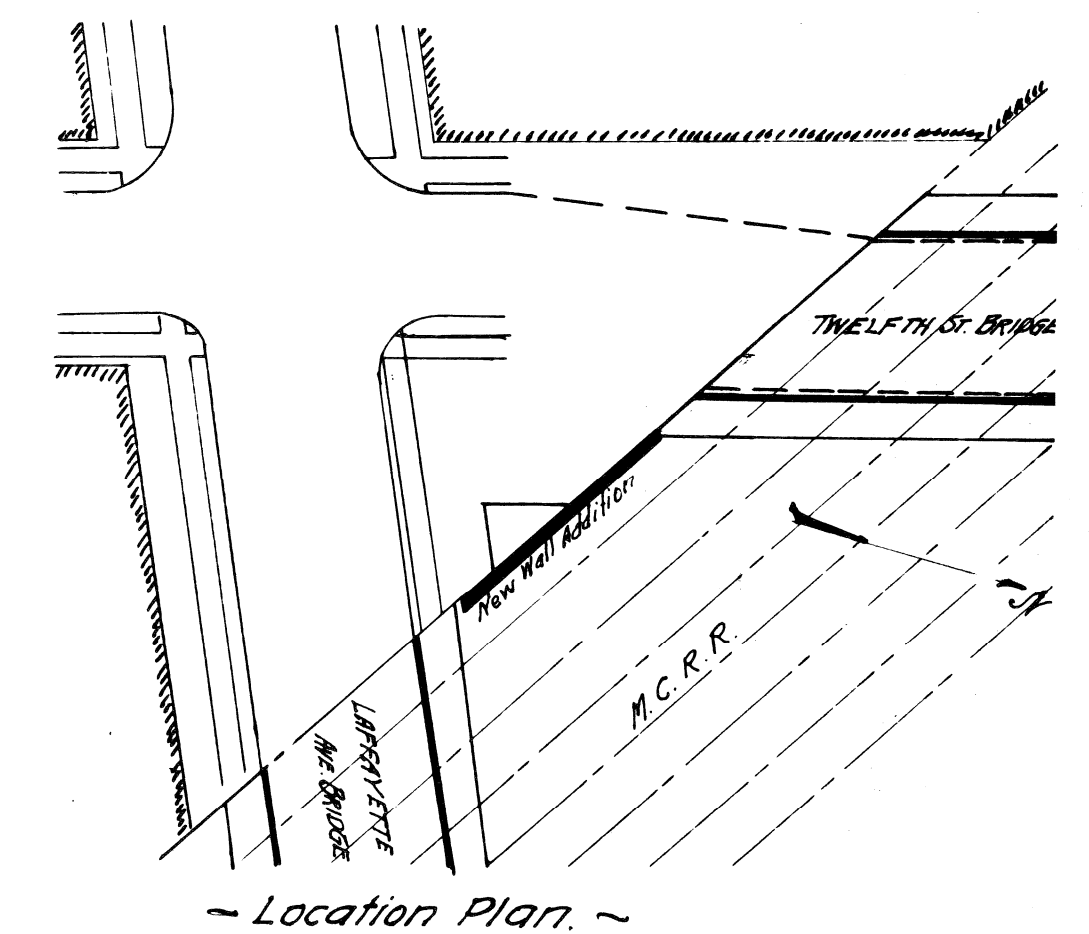
SECT. B-B.

SECT. C-C.



PLAN

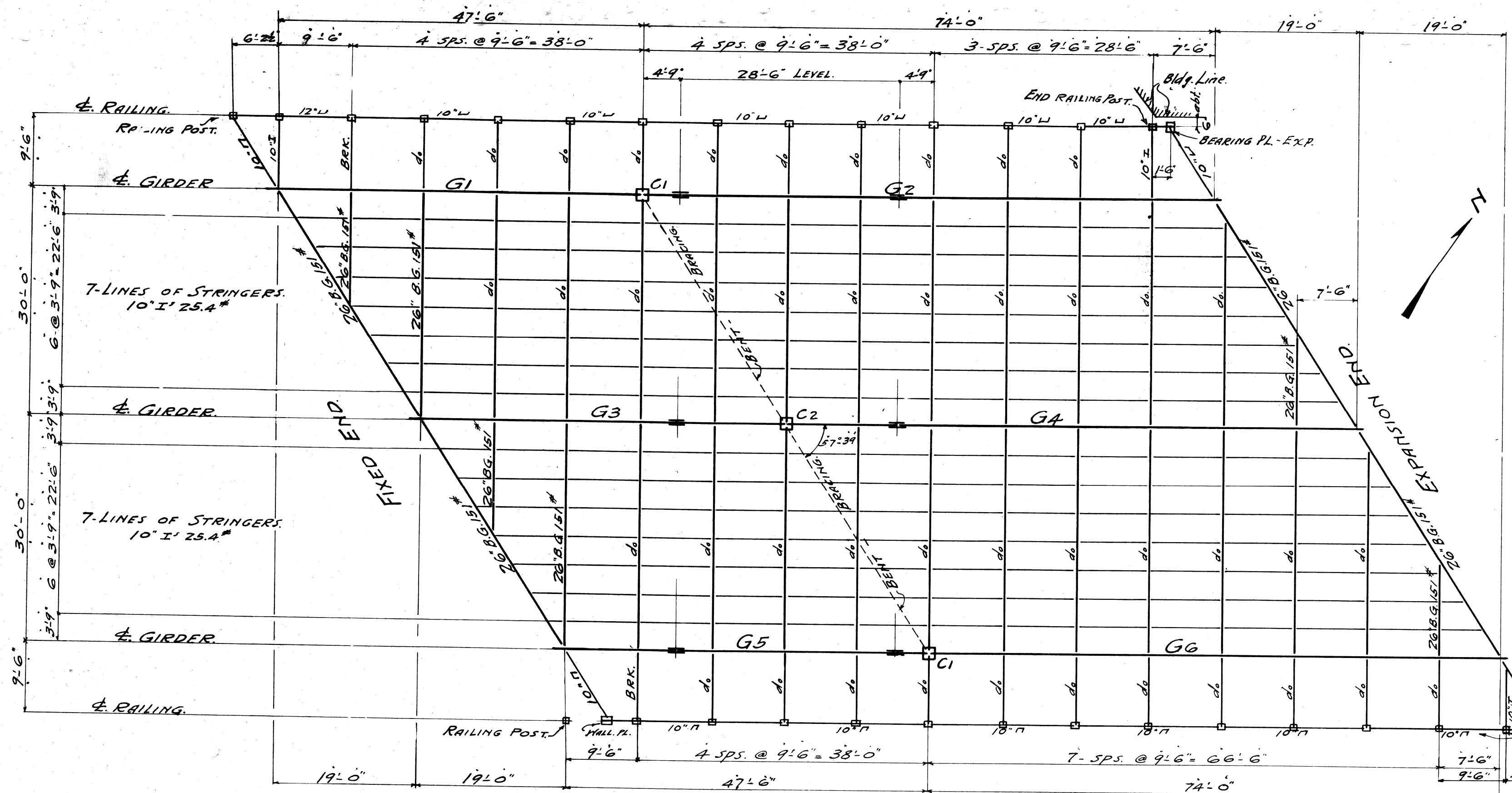
Mode of Procedure:
 Excavate behind existing retaining wall from east end of 12th Street Bridge abutment to north end of Lafayette Avenue Bridge abutment in order to disclose the condition and dimensions of this wall as there is no data available from which to obtain this information.
 The section of 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. ~

DEMO STAGE I

<table border="1"> <tr> <td>REFERENCE DRAWINGS</td> <td>DESIGNED BY</td> <td>APPROVED:</td> </tr> <tr> <td></td> <td>DRAWN BY</td> <td></td> </tr> <tr> <td></td> <td>TRACED BY</td> <td></td> </tr> <tr> <td></td> <td>CHECKED BY</td> <td><i>RJK</i></td> </tr> </table>				REFERENCE DRAWINGS	DESIGNED BY	APPROVED:		DRAWN BY			TRACED BY			CHECKED BY	<i>RJK</i>	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD			12TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL REFERENCE DRAWING OLD TWELFTH ST. BRIDGE DETAILS OF RETAINING WALLS AT SOUTH END OF BRIDGE		XO 60 SHEET ____ OF ____ SHEETS CONTRACT NO. 07110 A DRAWING NO. SR-6 DATE NOV 1970						
REFERENCE DRAWINGS	DESIGNED BY	APPROVED:																									
	DRAWN BY																										
	TRACED BY																										
	CHECKED BY	<i>RJK</i>																									
<table border="1"> <thead> <tr> <th>COORD</th> <th>DESCRIPTION</th> <th>DRN</th> <th>CHK'D</th> <th>APVD</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				COORD	DESCRIPTION	DRN	CHK'D	APVD	DATE	1						2											
COORD	DESCRIPTION	DRN	CHK'D	APVD	DATE																						
1																											
2																											



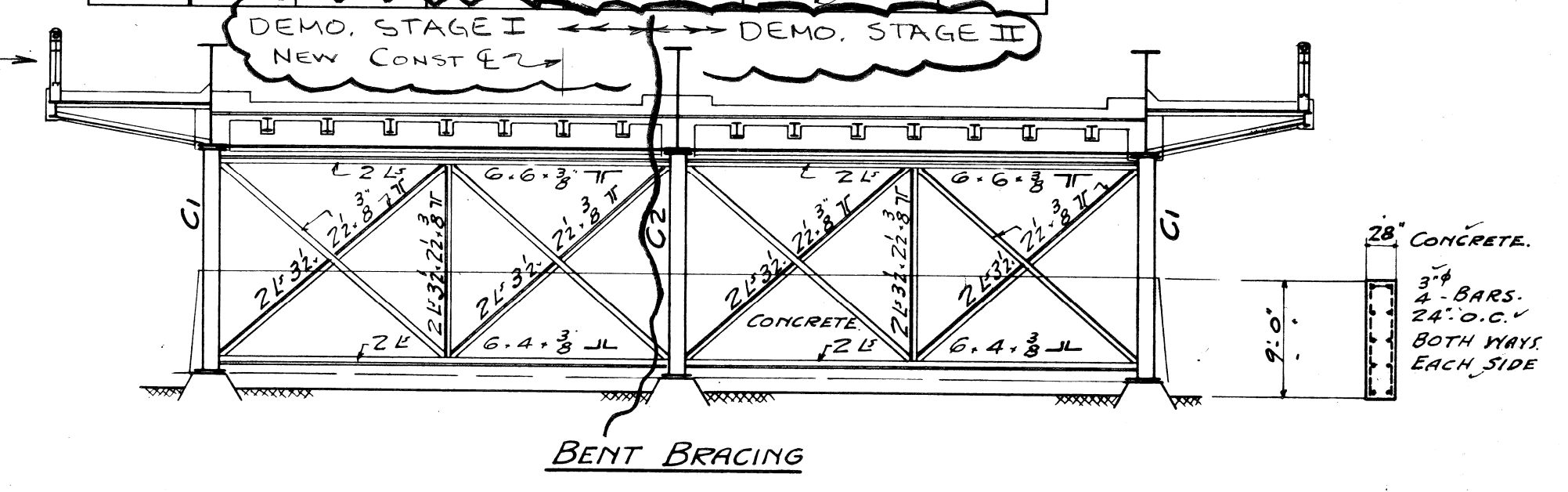
FLOOR PLAN.

MARK	SPAN	END SHEAR	MAX. MOM.	MATERIAL EACH FLANGE	WEB PL.	GROSS AREA EACH FLG.	NET AREA.
G1	47'-6"	260,000	3,160,000	2-8.8.1	1-21.1/2-FL. 1-21.1/2-33'	90.1/2	31.60
G5	47'-6"	260,000	3,160,000	2-8.8.1	1-21.1/2-FL. 1-21.1/2-33'	90.1/2	31.60
G2	74'-0"	400,000	7,500,000	2-8.8.3	2-1A.3	90.1/2	77.50
G6	74'-0"	400,000	7,500,000	2-8.8.3	2-1A.3	90.1/2	77.50
G3	47'-6"	310,000	3,800,000	2-8.8.3	1-21.1/2-FL. 1-21.1/2-32'	90.1/2	38.98
G4	74'-0"	500,000	7,350,000	2-8.8.3	2-1A.3	90.1/2	95.88

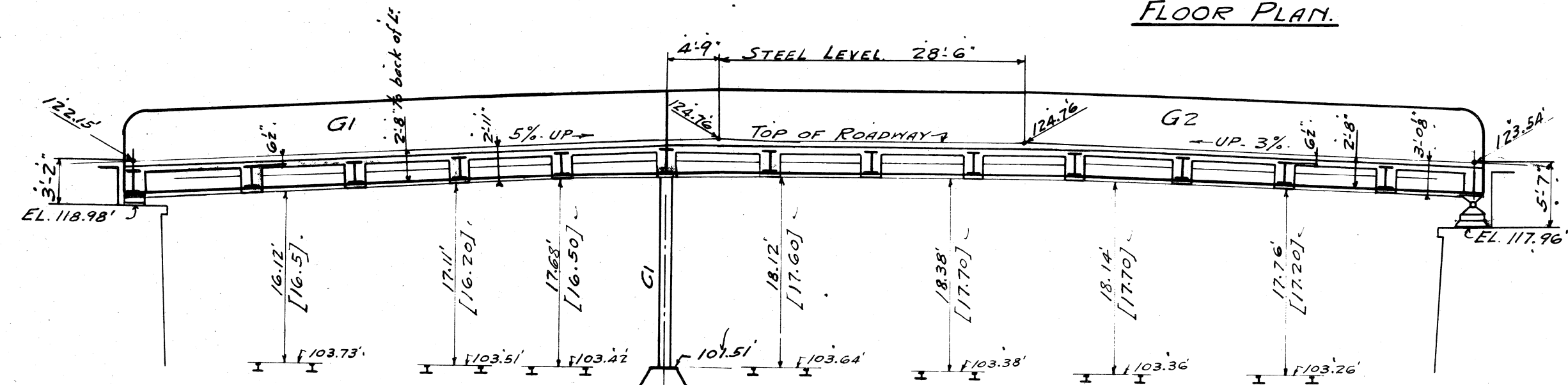
NOTE:
 ALL INT. STIFFENERS
 G. 3/2" CRIMPED
 OVER FLG. ANGLES
 EXCEPT AT FLOOR BR.
 AND BRACKET CORN.
 END STIFFENERS
 SPECIAL SEE OTHER
 PLANS.
 COVER PLATES
 SYMMETRICAL ABOUT
 GEN. LINE OF GIRDER

MARK	UNSUP. LENGTH	MAX. TOTAL LOAD	BENDING	SECTION	SKETCH	AREA.
C1	17'-6"	665,000	1,150,000	2-15.1/2-50' 1-15.1/2-70' 2-12.1/2-PLS		62.00
C2	17'-6"	815,000	1,620,000	2-15.1/2-50' 1-15.1/2-70' 2-12.1/2-PLS 4-5.1/2-PLS		78.00

COLUMNS

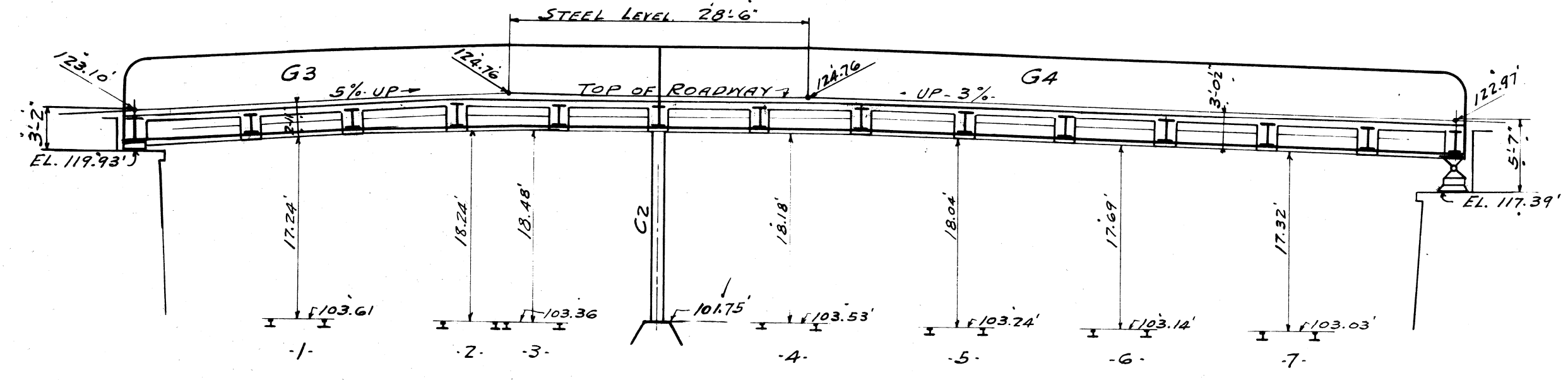


BENT BRACING

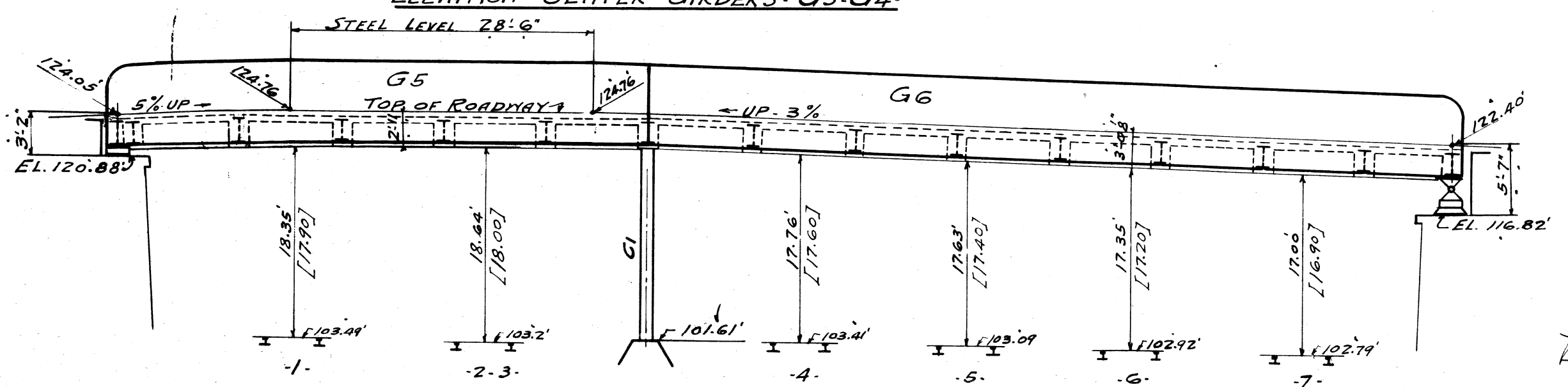


ELEVATION - NORTH GIRDERS - G1-G2

NOTE:
 RED FIGURES IN BRACKETS DENOTE
 CLEARANCES UNDER OLD TRUSS BRIDGE.



ELEVATION - CENTER GIRDERS - G3-G4



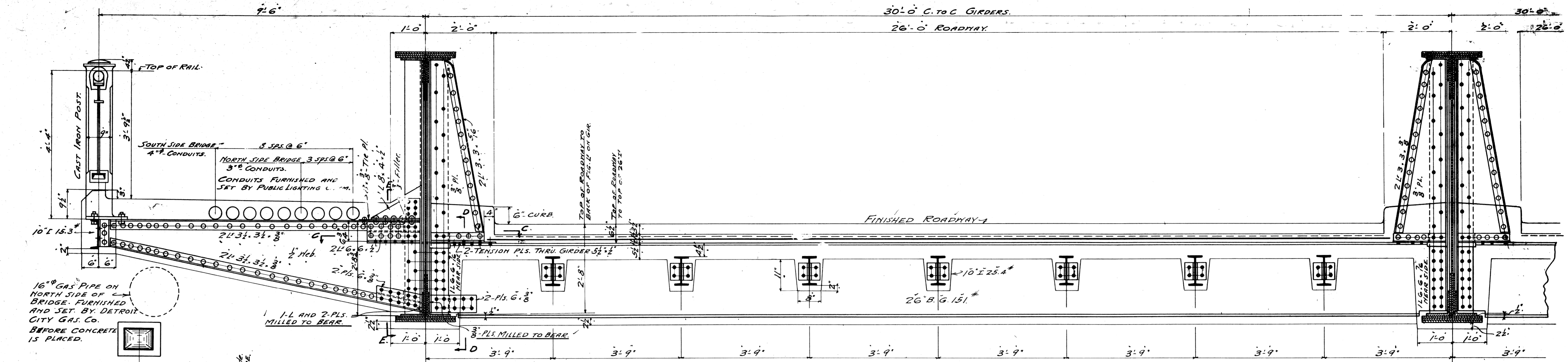
ELEVATION - SOUTH GIRDERS - G5-G6

GENERAL NOTES:

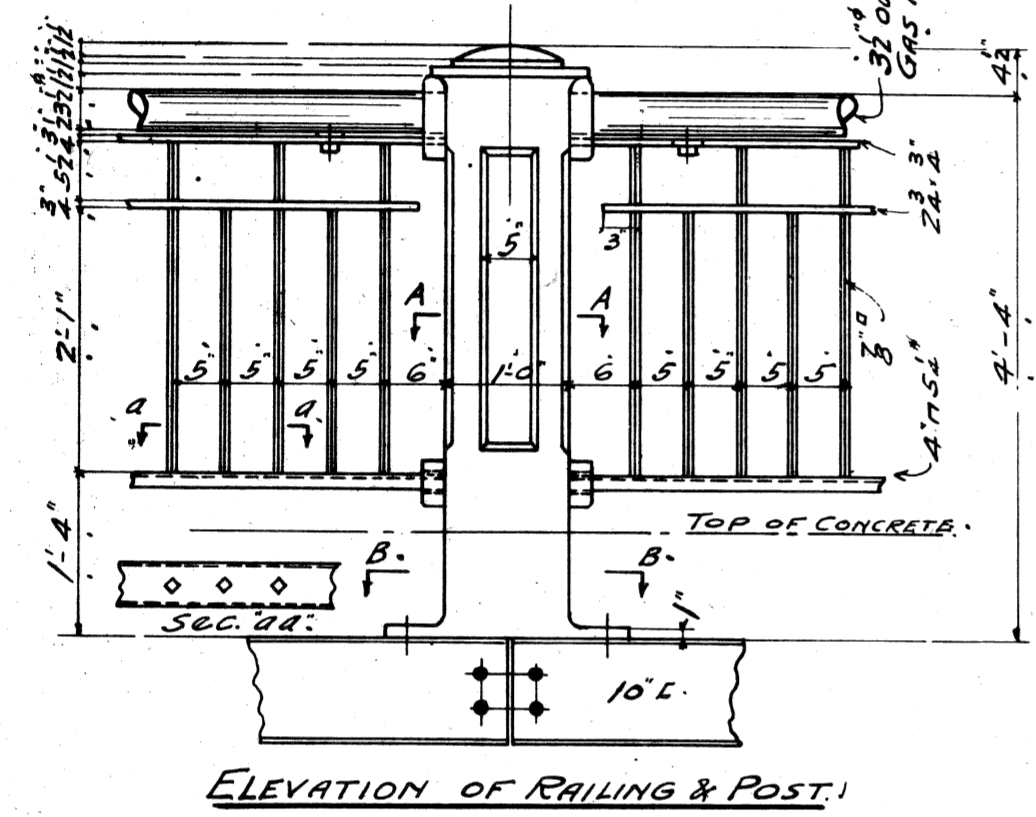
- LIVE LOAD AND IMPACT - AS PER MICHIGAN STATE HIGHWAY DEPARTMENT SPECIFICATIONS FOR HIGHWAY BRIDGES-1920 EDITION.
- TWO LINES OF 15-TON TRUCKS AND ONE OF AUTOS - EACH ROADWAY.
- EQUIVALENT UNIFORM LOAD - ROADWAY-150# L. - 250# D.L. - TOTAL = 400#
- SIDEWALK - 100# L.L. - 100# D.L. + BRACKET CON. COVER, RAILING, CONCRETE FACIA GIRDER AND 18# GAS MAIN.
- IMPACT = 25% ADDED FOR FLOOR BEAMS AND STRINGERS. NO IMPACT FOR GIRDERS OR COLUMN LOADS.
- UNIT STRESSES - STEEL - TENSION - 16000# NET. SEC. COMP. - 16000-70% GROSS. SHEAR - 10000# GROSS.
- CONCRETE - f_c = 16000# f_c = 600#
- RIVETS - 8
- SHOP RIVETS - 12000# SHEAR - BEARING - 24000#
- FIELD RIVETS - 10000# SHEAR - BEARING - 20000#
- BEARING ON MASONRY = 500#
- BEARING ON SOIL = 5000#
- PAINT NOTE:
 THAT PORTION OF STEEL COVERED WITH CONCRETE "NOT TO BE PAINTED"
 SHOP PAINT - 1-COAT OF RED LEAD
 FIELD PAINT - 2-COATS WHITE LEAD IN OIL - COLOR TO BE DETERMINED BY ENGINEER
 STEEL DRAWINGS - 1-2-6-7
 CONCRETE DO - 3-4-5-

APPROVED *[Signature]* 1926
 CITY ENGINEER

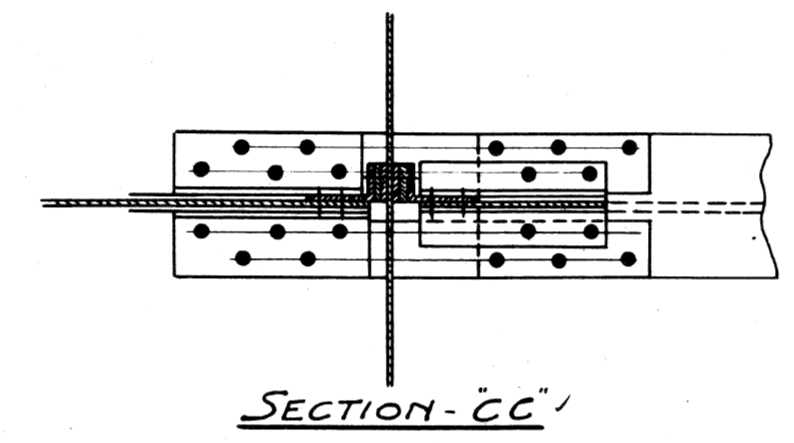
REFERENCE DRAWINGS DESIGNED BY DRAWN BY TRACED BY CHECKED BY <i>[Signature]</i>		APPROVED: CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD	12TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL REFERENCE DRAWING OLD LAFAYETTE BRIDGE GENERAL PLAN - STRUCTURAL STEEL	X061 SHEET ___ OF ___ SHEETS CONTRACT NO. 07110A NO. SR-7 DATE Nov 1929
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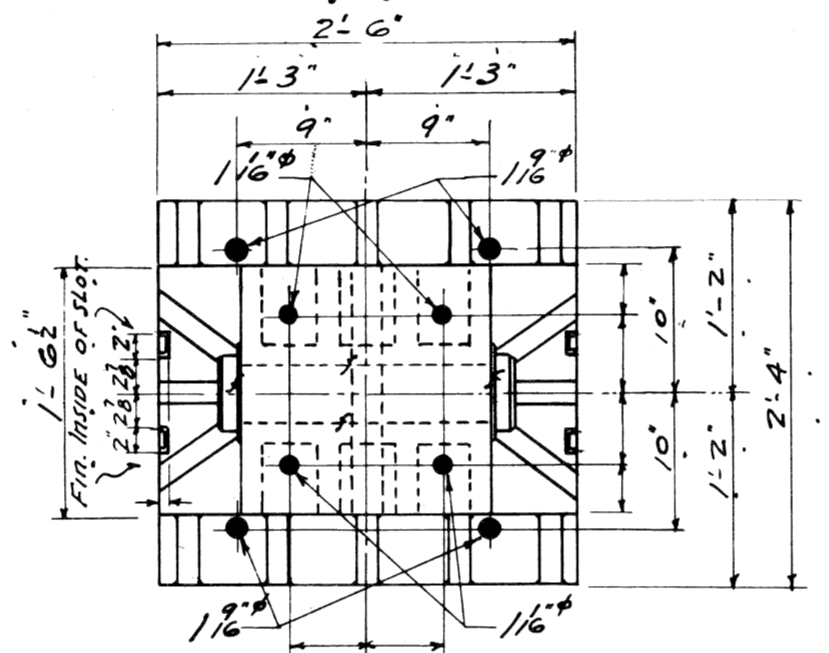
TYPICAL CROSS SECTION OF FLOOR



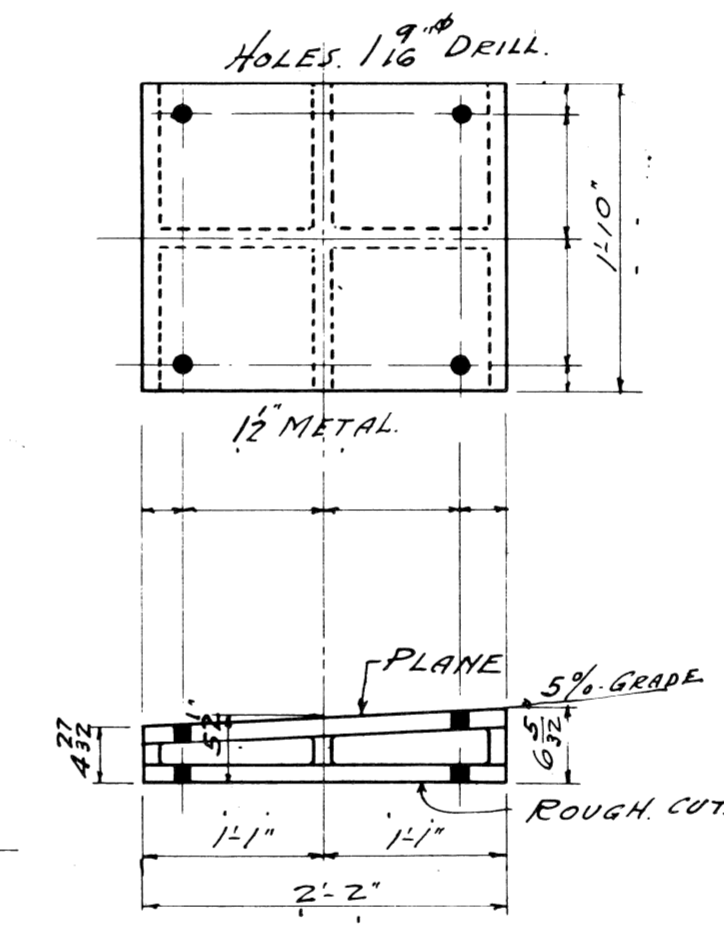
ELEVATION OF RAILING & POST



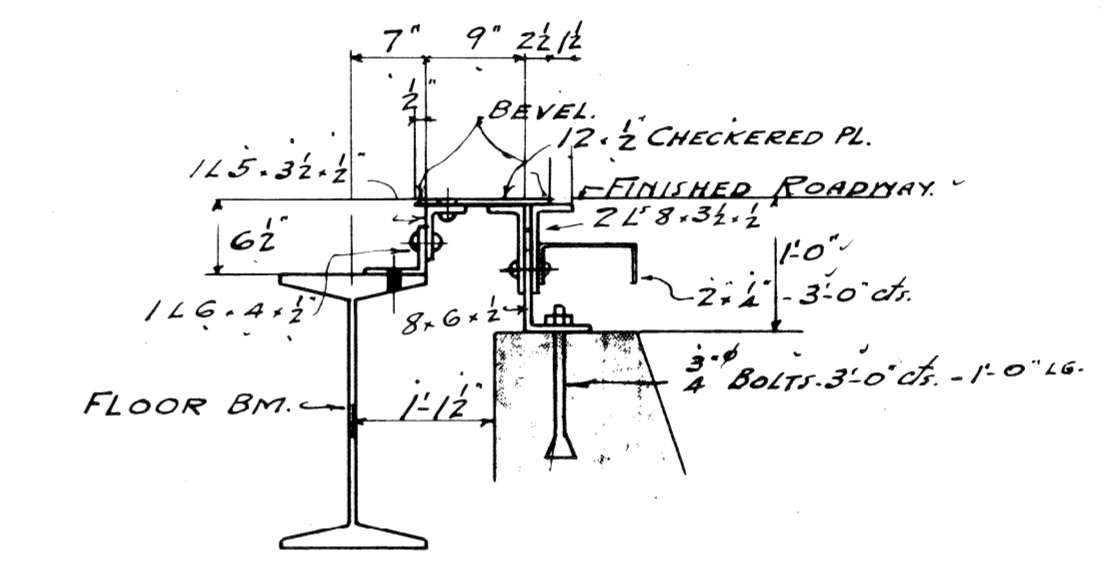
SECTION CC'



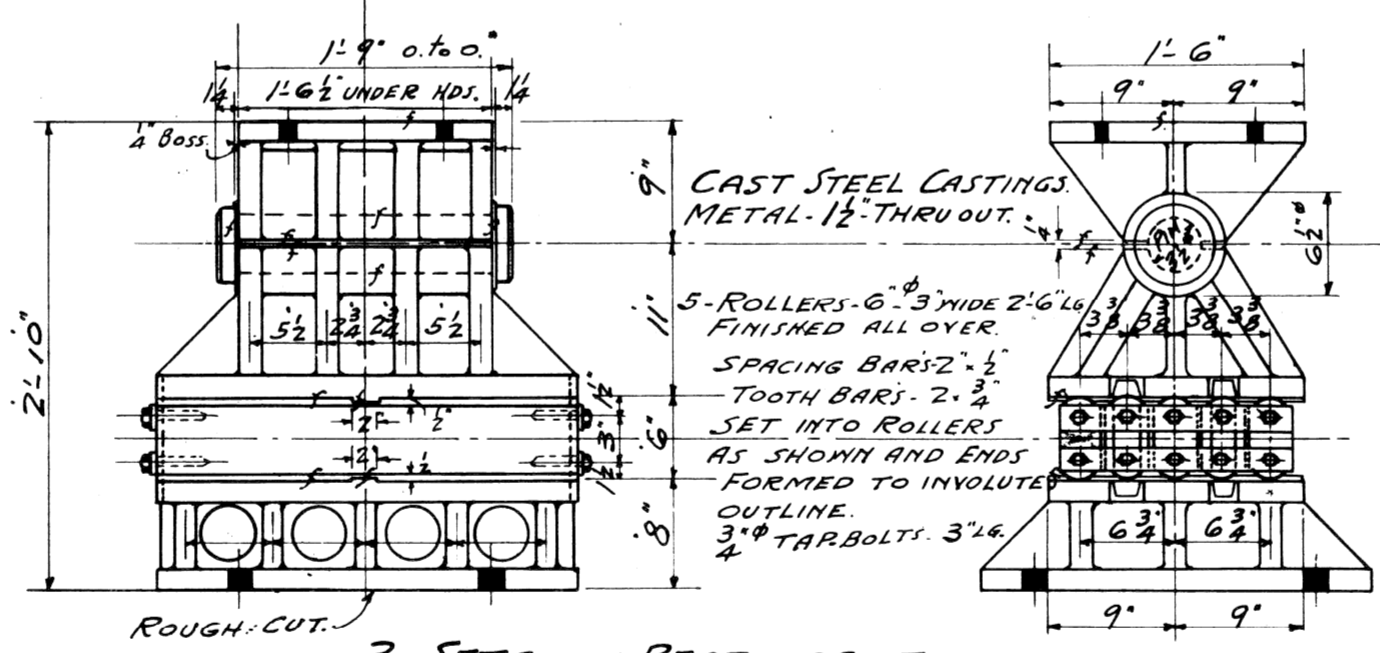
SECTION DD'



ROADWAY EXPANSION JOINT

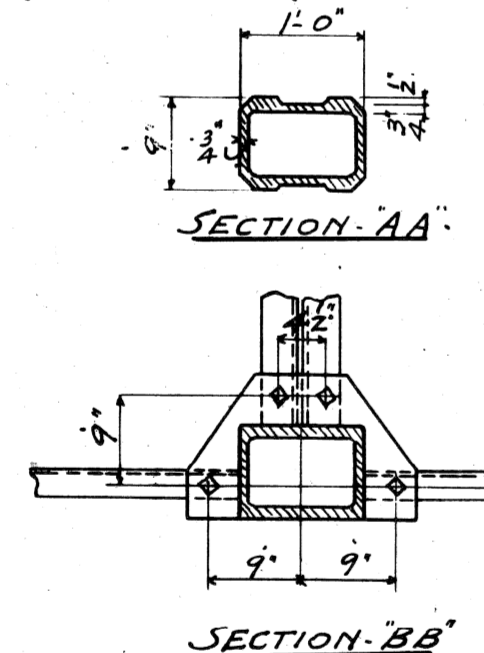


SIDEWALK EXPANSION JOINT



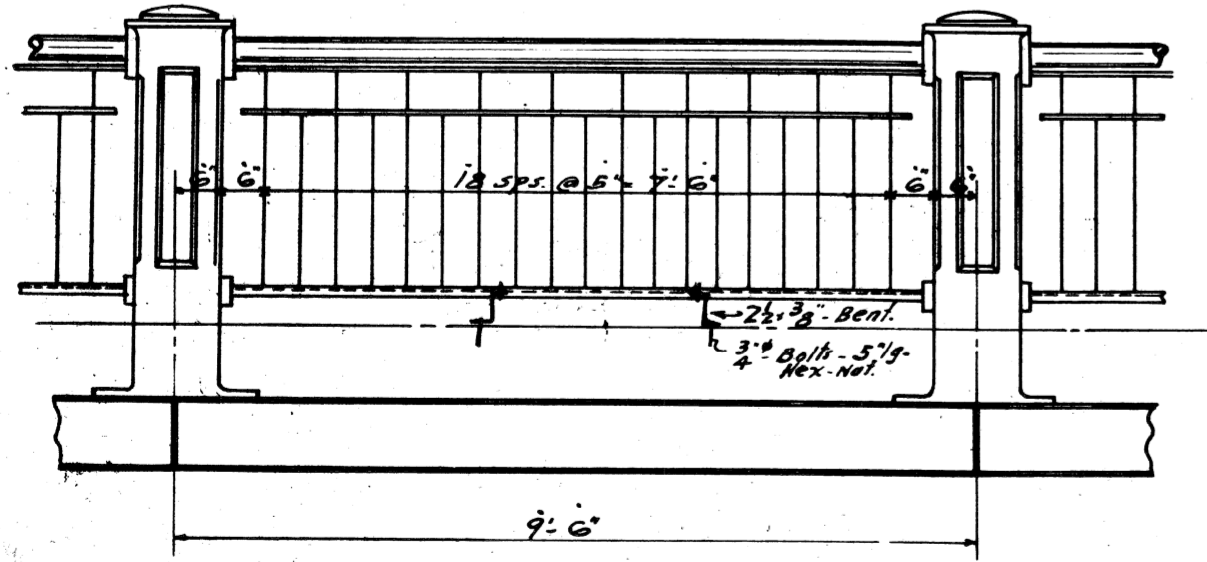
3-CAST STEEL CASTINGS FOR FIXED END OF BRIDGE

3-SETS OF BEARINGS FOR EXPANSION END OF BRIDGE

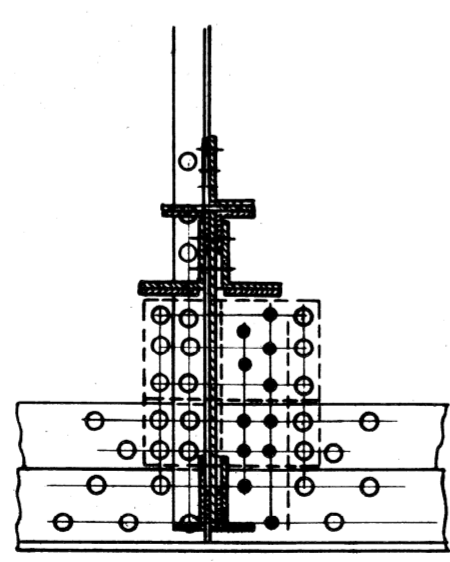


SECTION AA'

SECTION BB'



TYPICAL RAILING PANEL



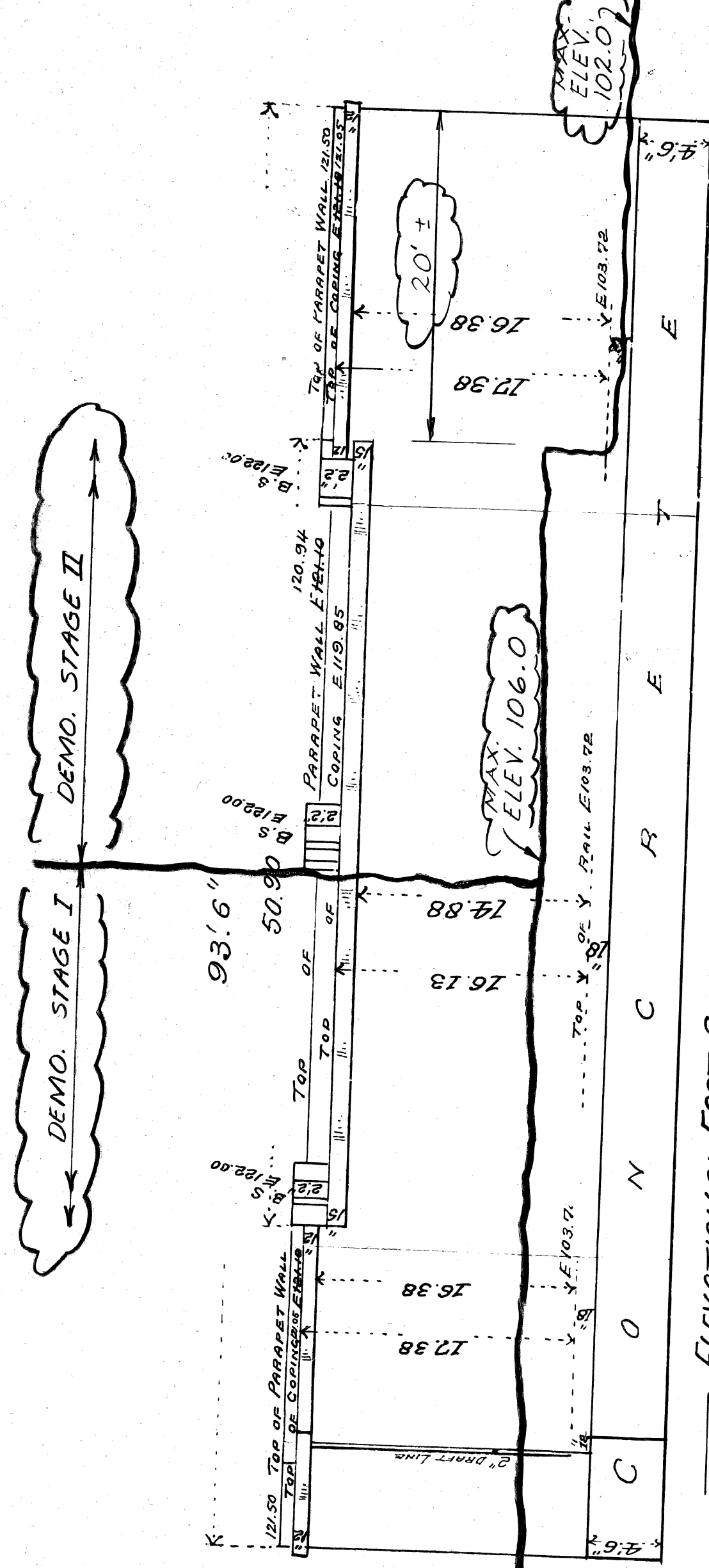
SECTION EE'

NOTE: FOR GENERAL NOTES SEE SHEET #1.

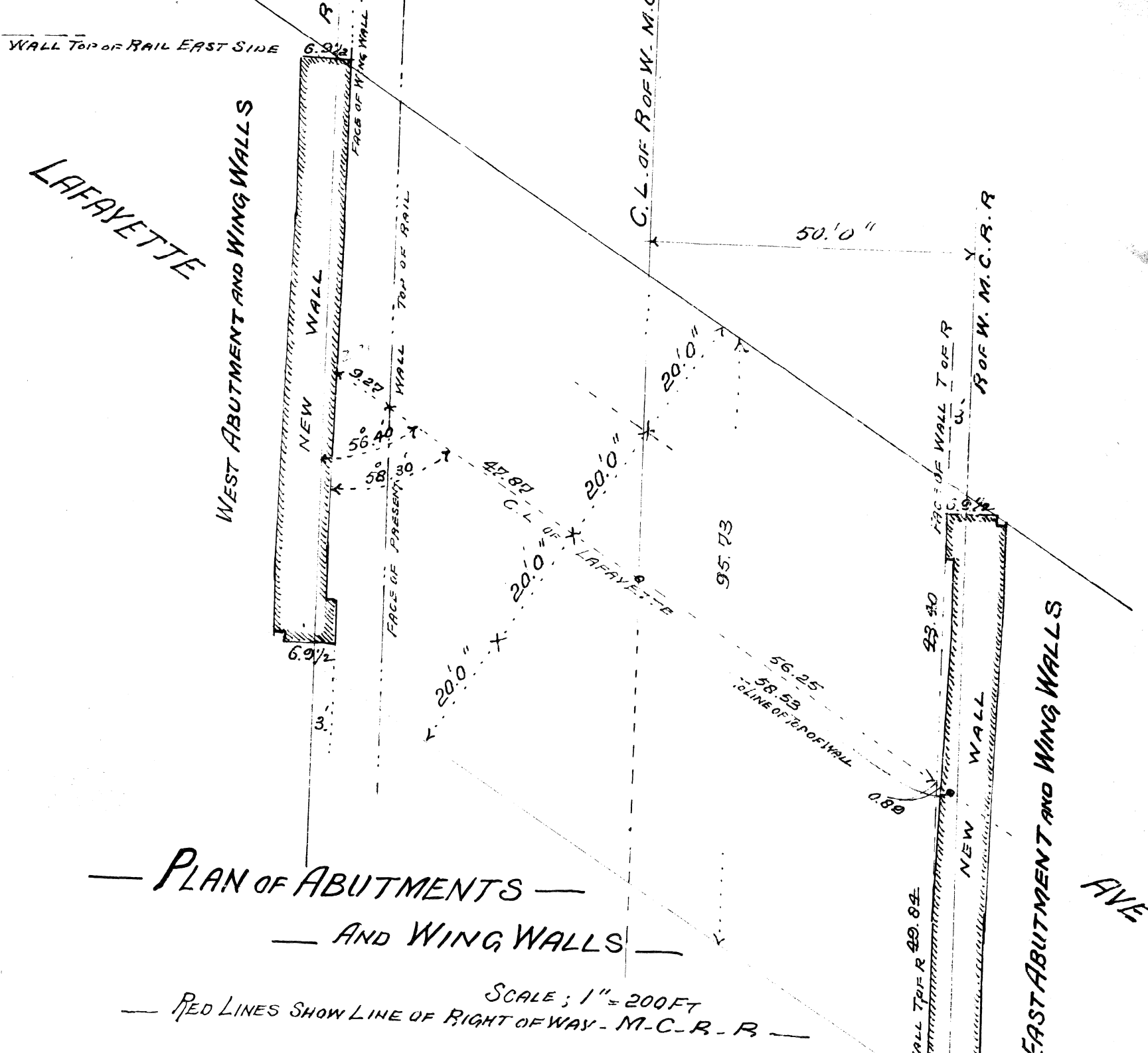
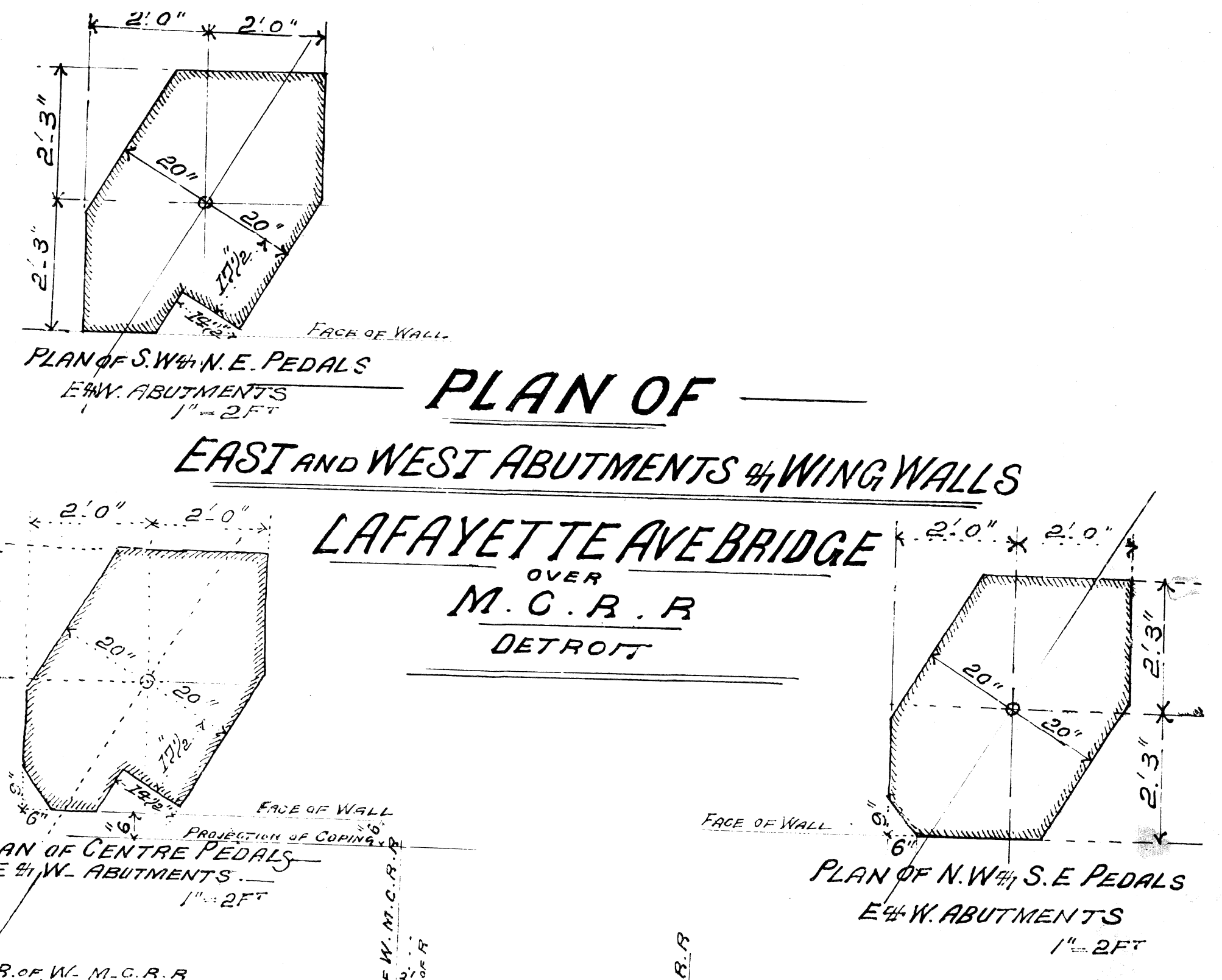
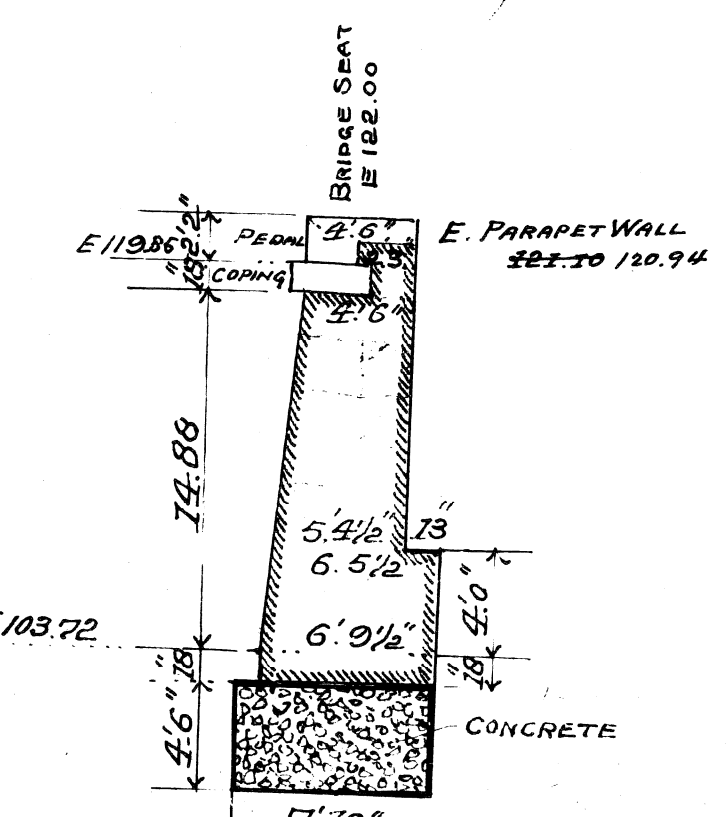
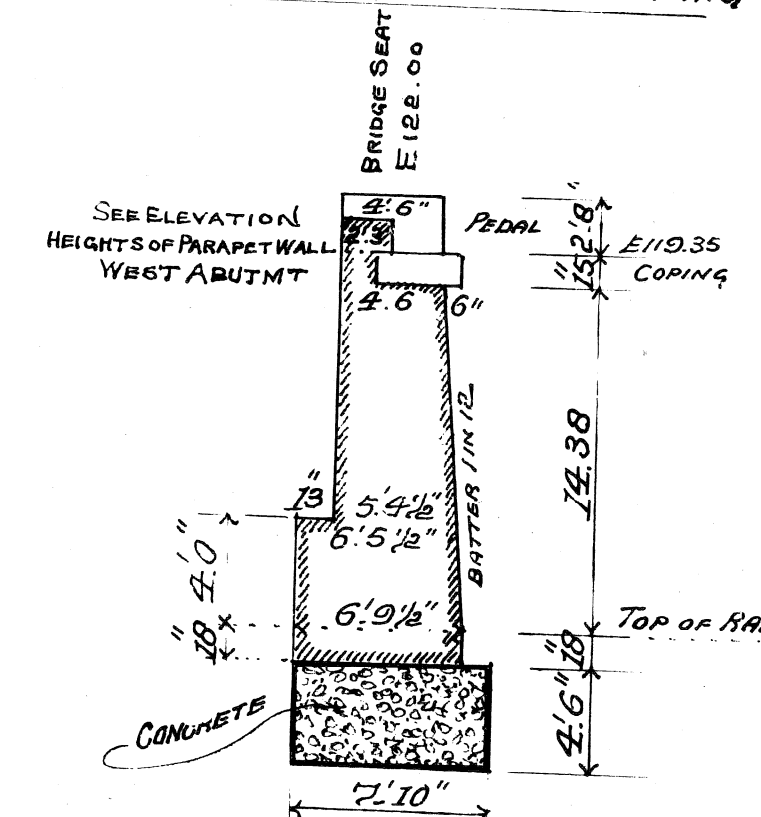
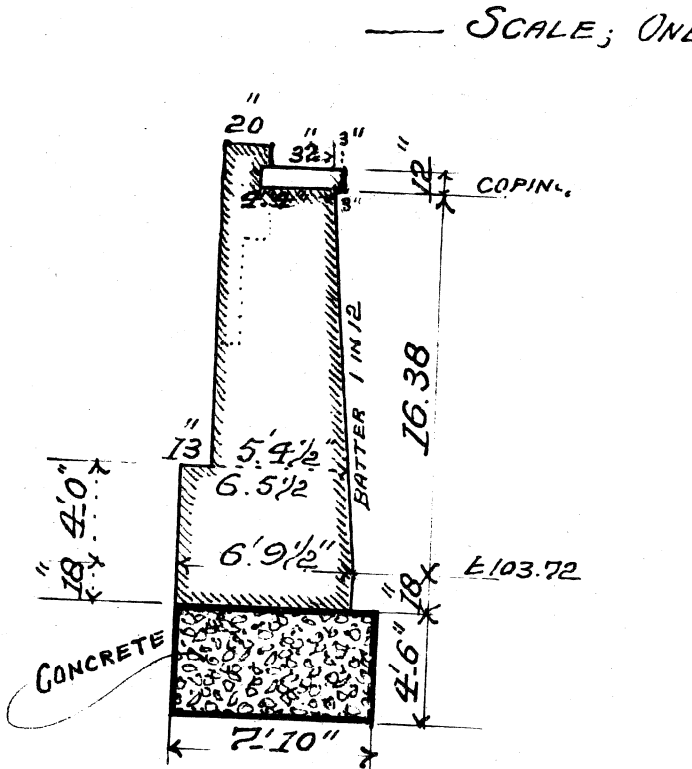
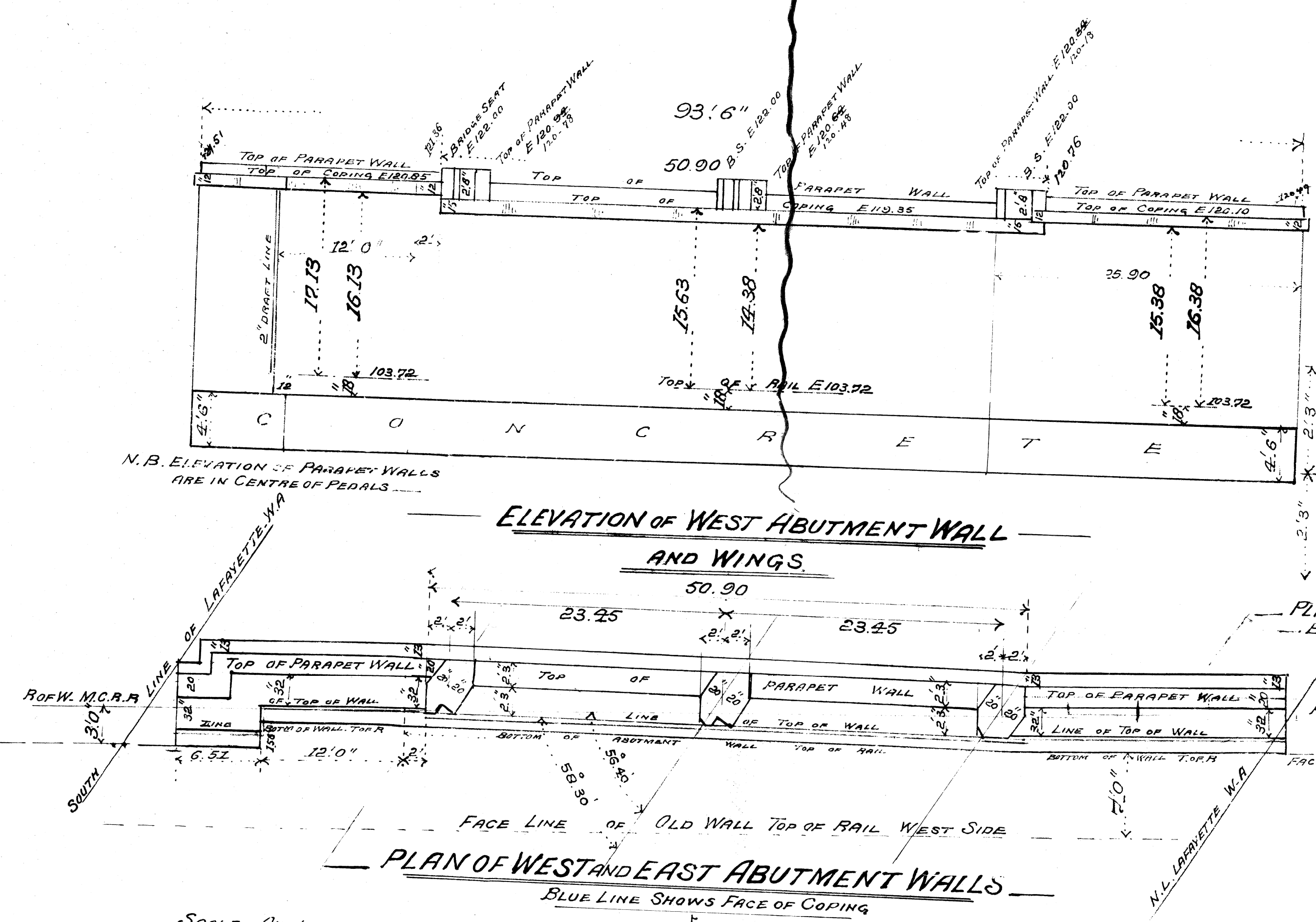
APPROVED COPY 21 1926.
 Percy R. Jellens CITY ENGINEER

REFERENCE DRAWINGS		DESIGNED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD	12TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL REFERENCE DRAWING OLD LAFAYETTE BRIDGE STRUCTURAL STEEL DETAILS	SHEET _____ OF _____ SHEETS
DRAWN BY		TRACED BY				CONTRACT NO. 07110 A
CHECKED BY						NO. SR-8
REVISIONS LOCATED BY COORDINATES ON SHEET						DATE NOV 1970

9 B.P. 11/27/45



N.B. - Red Figures - ARE CORRECT



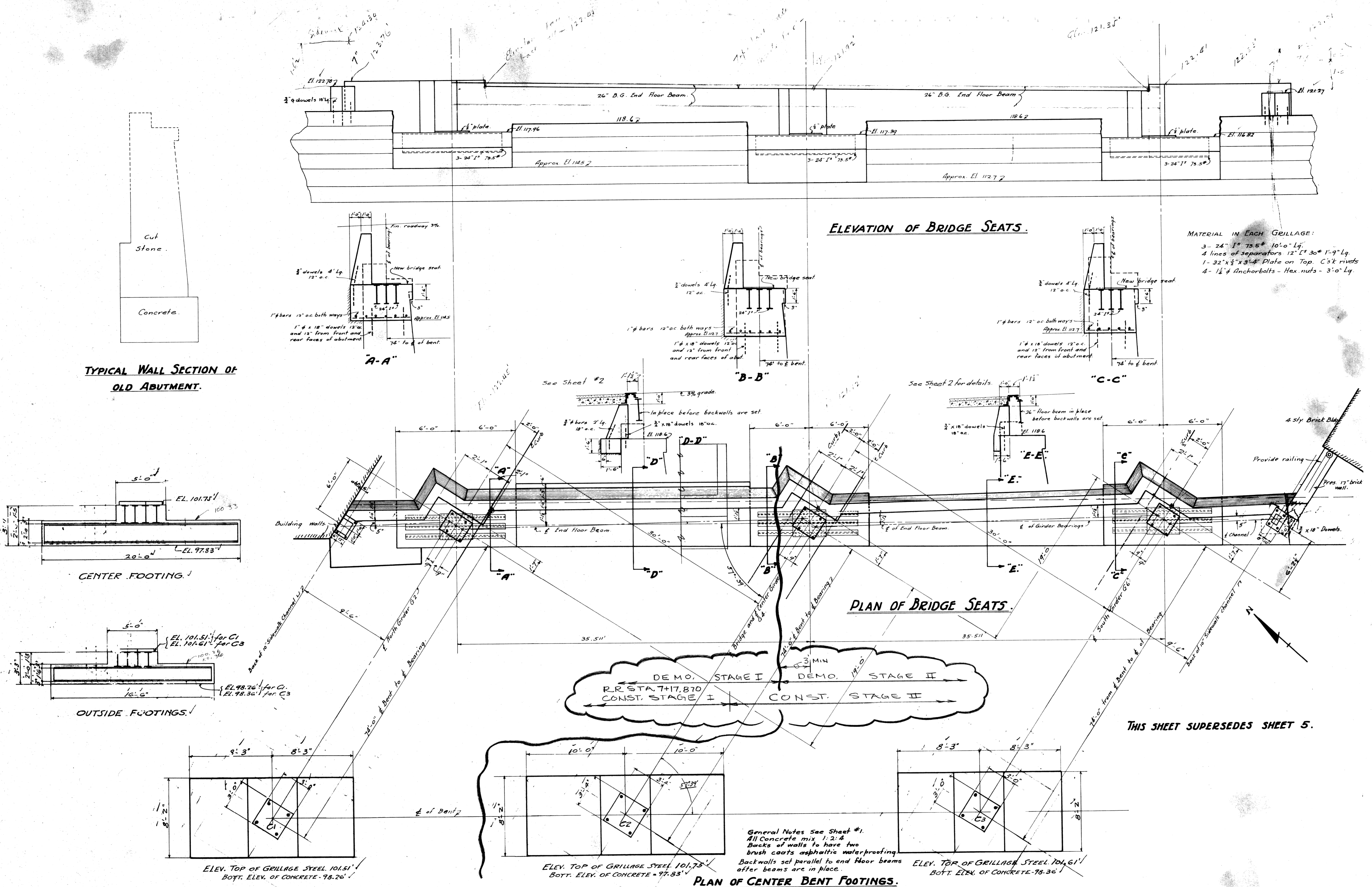
H.O. LUDDEN
CIV. ENGINEER - 1892

177.5' x 10' x 2.50
144.73' x 10' x 4.75
143.8' x 10' x 11.25
143.8' x 10' x 11.25

File X0 61-19

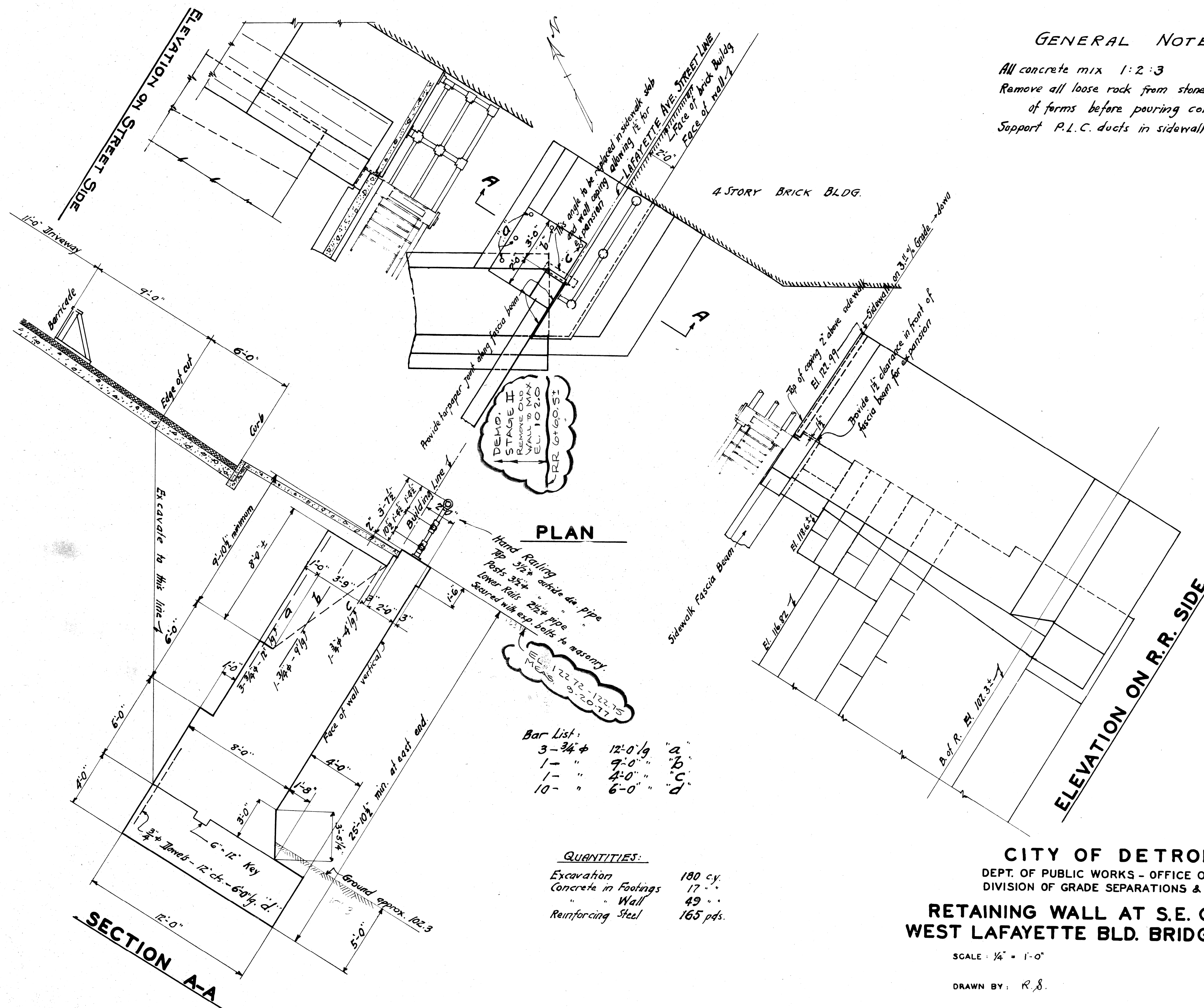
REVISIONS LOCATED BY COORDINATES ON SHEET			DESIGNED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD	12TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL	REFERENCE DRAWING OLD LAFAYETTE BRIDGE EAST & WEST ABUTMENTS AND WING WALLS	NO. OF SHEETS
COORD	DESCRIPTION	DRN CK'D AP'D DATE	DRAWN BY					SHEET 1 OF 1 SHEETS
CHECKED BY <i>RAK</i>								CONTRACT NO. 07110 A NO. SR-9 DATE NOV 1945

XO 61



REFERENCE DRAWINGS				DESIGNED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD	12 TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL		SHEET _____ OF _____ SHEETS	
				DRAWN BY			CONTRACT NO. 07110 A	REFERENCE DRAWING OLD LAFAYETTE BRIDGE CHANGES TO EAST ABUTMENT-CENTER BENT FOOTING		NO. SR-11
				TRACED BY						DATE Nov 1929
				CHECKED BY						
COORD	DESCRIPTION	DRN	CKD	APVD	DATE					
REVISIONS LOCATED BY COORDINATES ON SHEET										

X061



GENERAL NOTES

All concrete mix 1:2:3
 Remove all loose rock from stone abutment inside of forms before pouring concrete.
 Support P.I.C. ducts in sidewalk area.

CITY OF DETROIT
 DEPT. OF PUBLIC WORKS - OFFICE OF CITY ENGR.
 DIVISION OF GRADE SEPARATIONS & BRIDGES
RETAINING WALL AT S.E. CORNER
WEST LAFAYETTE BLD. BRIDGE - M.C.R.R.
 (MAIN LINE)
 FEB. 17, 1932.

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

DRAWN BY: R.S.

File X061-17

REFERENCE DRAWINGS		DESIGNED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - EPMD		12 TH. ST. (ROSA PARKS BLVD.) & LAFAYETTE ST. CROSSING CONRAIL		X061 SHEET ___ OF ___ SHEETS	
		DRAWN BY				REFERENCE DRAWING OLD LAFAYETTE BRIDGE RETAINING WALL AT S.E. CORNER		CONTRACT NO. 07110 A	
		TRACED BY						NO. SR-12	
		CHECKED BY	R.K.					DATE NOV 1939	
COORD.	DESCRIPTION	DRN	CKD	APVD	DATE				
REVISIONS LOCATED BY COORDINATES ON SHEET									