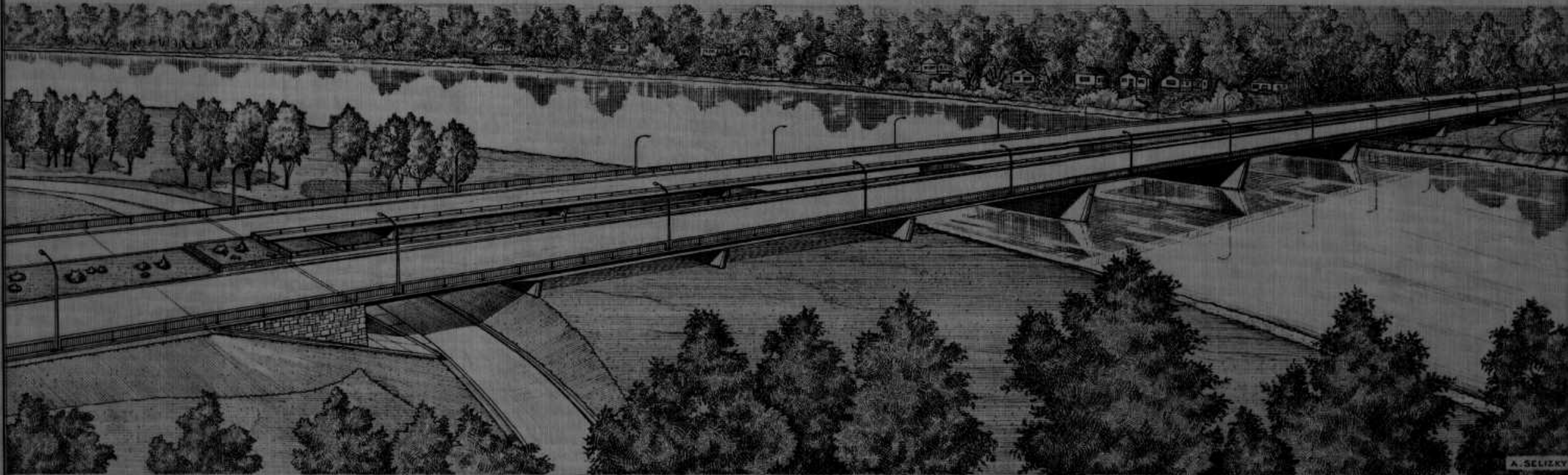




THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT



A. SELIZKY

LIST OF DRAWINGS - SUBSTRUCTURE

B-5015-7A

PLAN AND ELEVATION

- | | |
|--|---|
| -90 F-11 NORTH ABUTMENT | -100 F-21 PIER NO.4 AND 6 |
| -91 F-12 NORTH ABUTMENT REINFORCING DETAILS | -101 F-22 PIER NO.4 AND 6 REINFORCING DETAILS |
| -92 F-13 NORTH ABUTMENT REINFORCING DETAILS | -102 F-23 PIER NO.5 |
| -93 F-14 NORTH ABUTMENT REINFORCING SCHEDULE | -103 F-24 PIER NO.5 REINFORCING DETAILS |
| -94 F-15 PIER NO.1 | -104 F-25 PIER NO.7 |
| -95 F-16 PIER NO.1 REINFORCING DETAILS | -105 F-26 PIER NO.7 REINFORCING DETAILS |
| -96 F-17 PIER NO.2 | -106 F-27 PIER NO.8 |
| -97 F-18 PIER NO.2 REINFORCING DETAILS | -107 F-28 PIER NO.8 REINFORCING DETAILS |
| -98 F-19 PIER NO.3 | -108 F-29 MISCELLANEOUS IRON |
| -99 F-20 PIER NO.3 REINFORCING DETAILS | |

NOTE: FILE THIS WITH

B-5015-81

APPROVED BY

[Signature]
DEPUTY MINISTER OF PUBLIC WORKS
PROVINCE OF MANITOBA

[Signature]
DEPUTY DIRECTOR OF STREETS & TRANSIT

T. LAMB Mc MANUS & ASSOCIATES LTD.

CONSULTING ENGINEERS

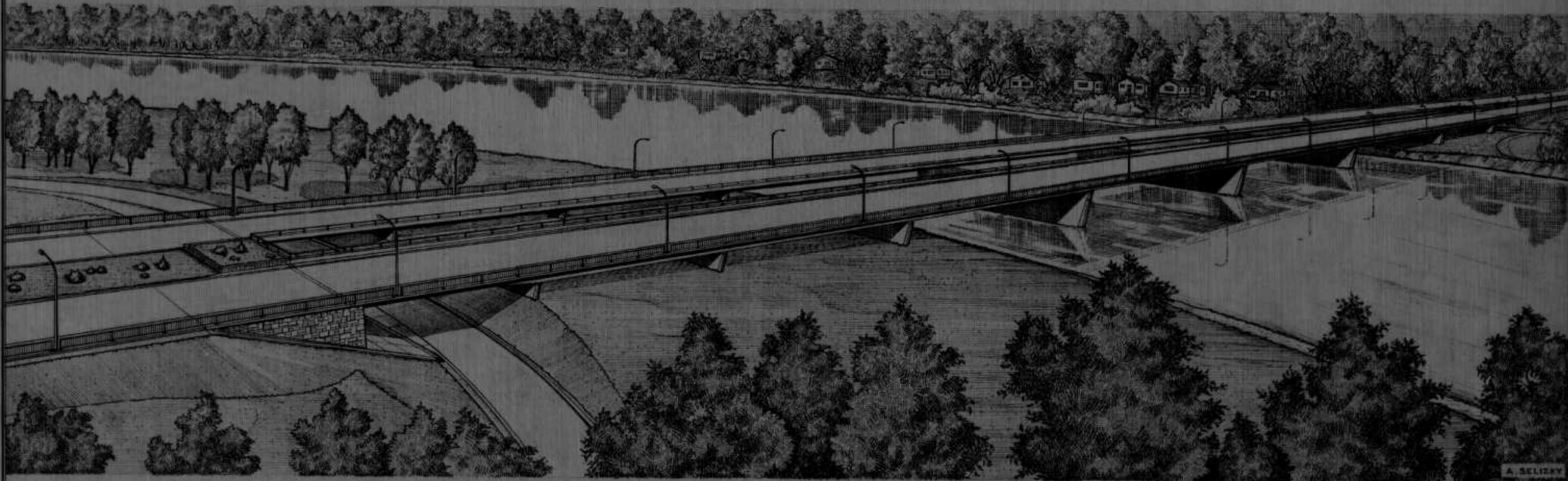
WINNIPEG

- 5015-81 F-2 CROSS SECTIONS GENERAL NOTES
- 82 F-3 SITE PLAN
- 83 F-4 SURVEY PLAN TEST HOLES
- 84 F-5 NORTH AND SOUTH BANKS
- 85 F-6 KINGSTON ROW DIVERSION
- 86 F-7 CHURCHILL DRIVE DIVERSION
- 87 F-8 SOUTH ABUTMENT
- 88 F-9 SOUTH ABUTMENT REINFORCING DETAILS
- 89 F-10 SOUTH ABUTMENT REINFORCING DETAILS



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT



A. SELISKY

LIST OF DRAWINGS — SUPERSTRUCTURE

<i>B-5015-7A</i> 81	PLAN AND ELEVATION	-114 87	GIRDER G-4 AND G-5
<i>B-5015-109</i> 82	GENERAL ARRANGEMENT AND NOTES	-115 88	GIRDER G-6
<i>-110A</i> 83	<i>BEARING POSITIONS FOLLOWING ADJUSTMENTS OF FILL 1967</i>	-116 89	TYPICAL DETAILS
<i>-110</i> 83	CROSS SECTIONS AND DECK GEOMETRY	-117 90	BEARING DETAILS
<i>-111</i> 84	DIAPHRAGMS, BRACING AND JACKING BEAMS	-118 91	BEARING DETAILS
<i>-112</i> 85	GIRDER G-1	-119 92	SITE PLAN
<i>-113</i> 86	GIRDER G-2 AND G-3		

NOTE: FILE WITH
B-5015-109

APPROVED BY

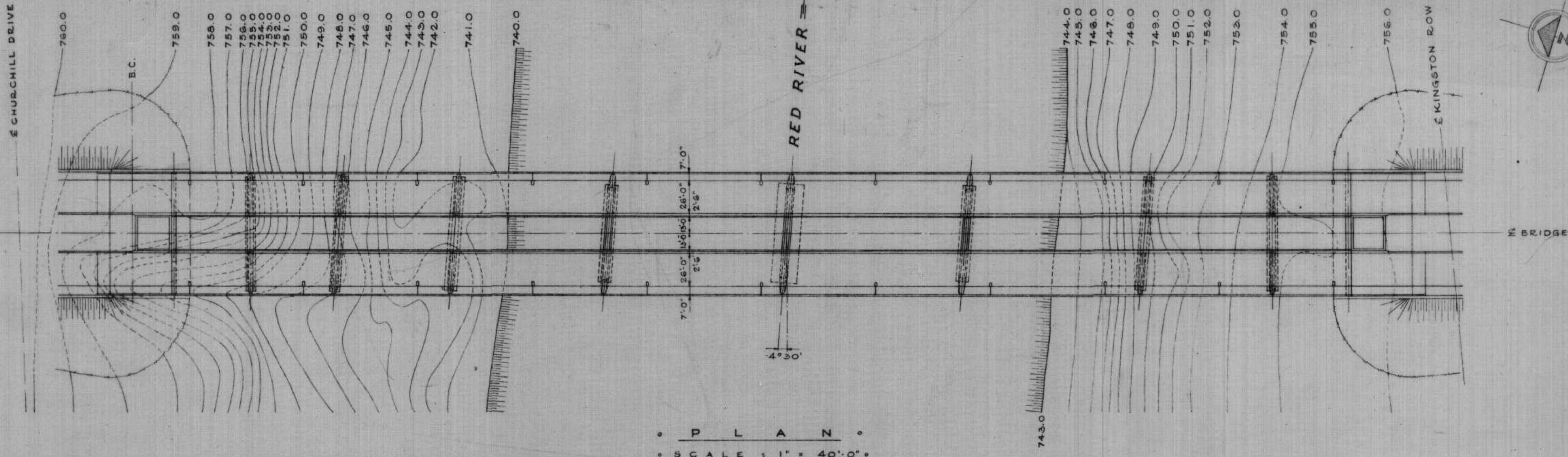
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PROVINCE OF MANITOBA

DEPUTY DIRECTOR OF STREETS & TRANSIT

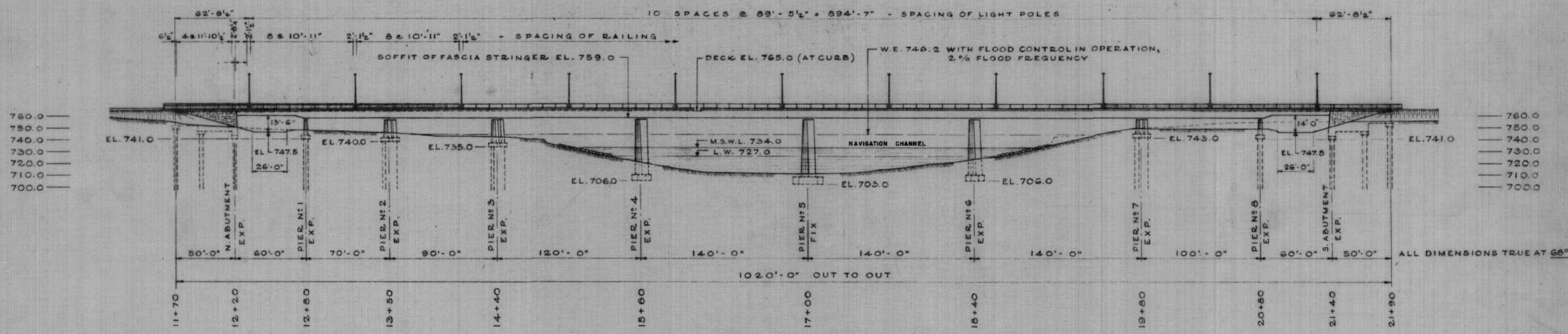
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CONSULTING ENGINEERS

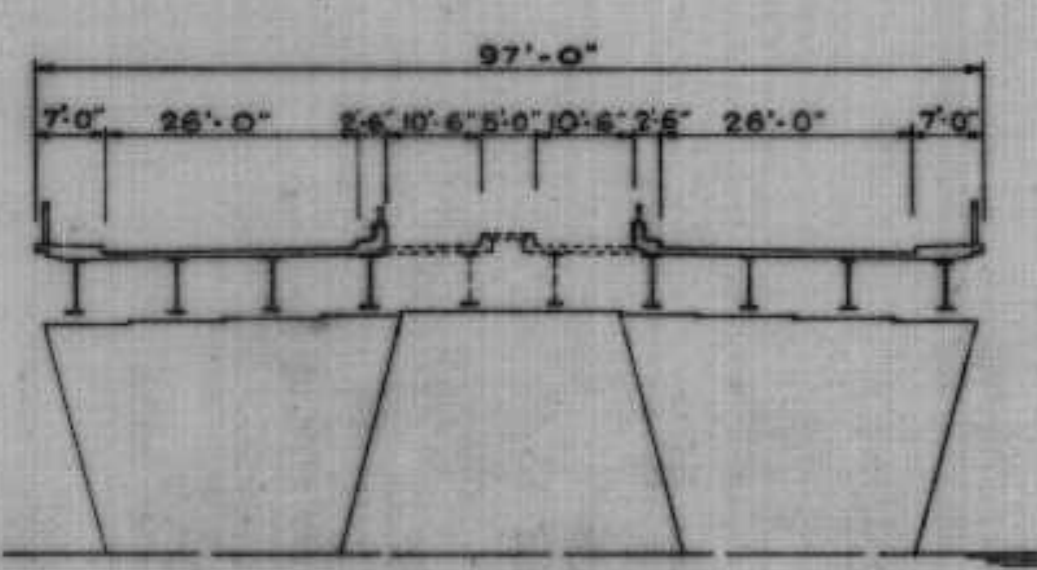
W I N N I P E G



• P L A N •
• SCALE : 1" = 40'-0" •



• E L E V A T I O N •
• SCALE : 1" = 40'-0" •



• C R O S S S E C T I O N •
• SCALE : 1" = 20'-0" •

NOTE: H.W.L. 762.0 WITHOUT FLOOD CONTROL, 2% FLOOD FREQUENCY.

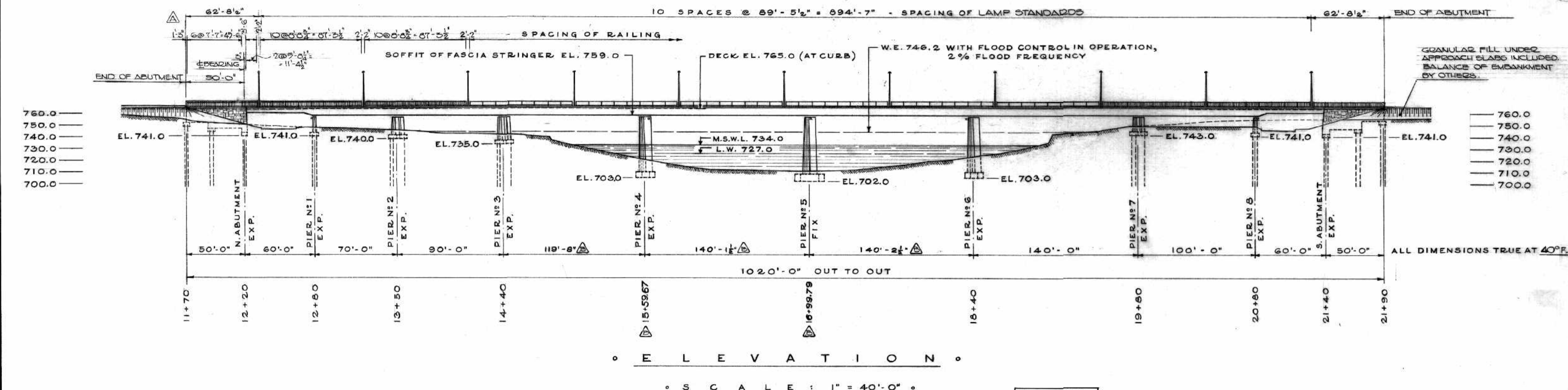
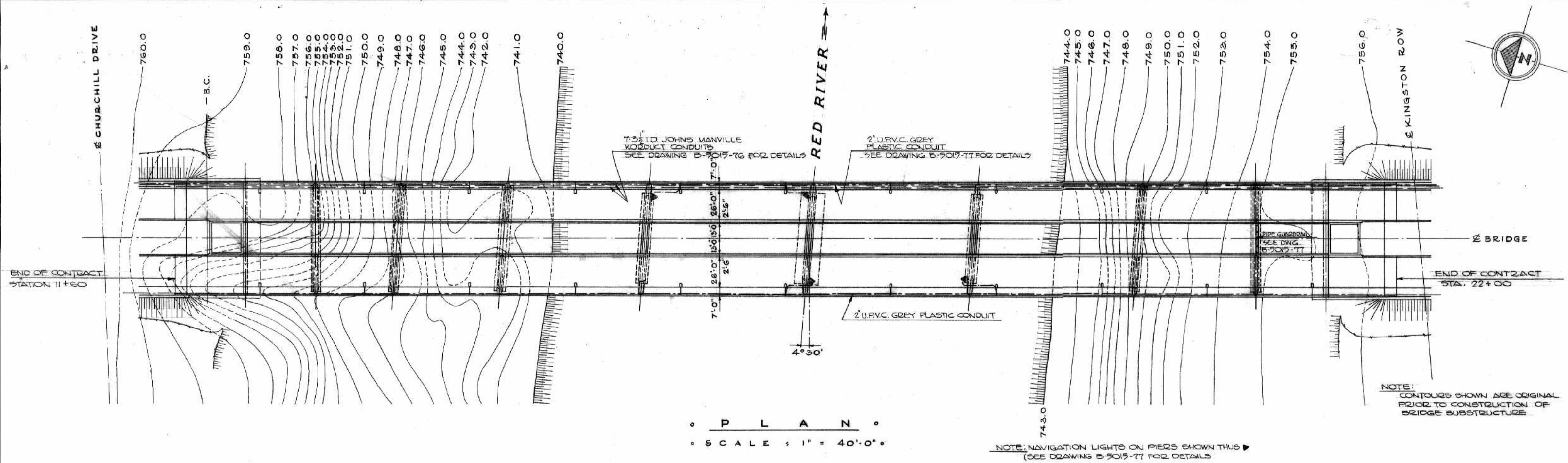
NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY:			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

• PLAN AND ELEVATION •	FILE No. 861
	DATE
	SCALE 1" = 40'-0"
	DWN. BY A.V.S.
	CHKD. BY
	DWG. No. B-5015-7

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG



NOTE:

1) FOR DETAILS OF LAMP STANDARDS SEE DWG. B-5015-77

2) FOR DETAILS OF GUARDRAILS SEE DWGS. B-5015-78 & B-5015-79



AS BUILT	
NO.	DATE BY DESCRIPTION
1	FEB. 60. S. CHANGES PIERS 4 & 5 REVISED
2	APR. 60. S. GUARD RAIL SPACING REVISED
REVISIONS	
APPROVED BY: <i>[Signature]</i>	
DEPUTY DIRECTOR OF STREETS & TRANSIT	

B-5015-7A

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

<p>PLAN AND ELEVATION</p> <p>T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG</p>	<p>FILE No. 861</p> <p>DATE SEPT. 1964</p> <p>SCALE 1" = 40'-0"</p> <p>DWN. BY A.V.S.</p> <p>CHKD. BY <i>[Signature]</i></p> <p>DWG. No. <i>[Signature]</i></p>
---	---

Dep 479

PLAN AND PROFILE
 SHOWING
PROPOSED BRIDGE CROSSING
 ACROSS
 RED RIVER
 BETWEEN
 RIVER LOTS 14 AND 109
 PARISH OF ST. BONIFACE
 IN
 CITY OF WINNIPEG
 AND
 CITY OF ST. VITAL
 MANITOBA
 SCALES AS SHOWN

Deposited in the Winnipeg Land Titles Office
 15th day of July 1966 at 2:31 P.M.
 as Railway Deposit No. 829.

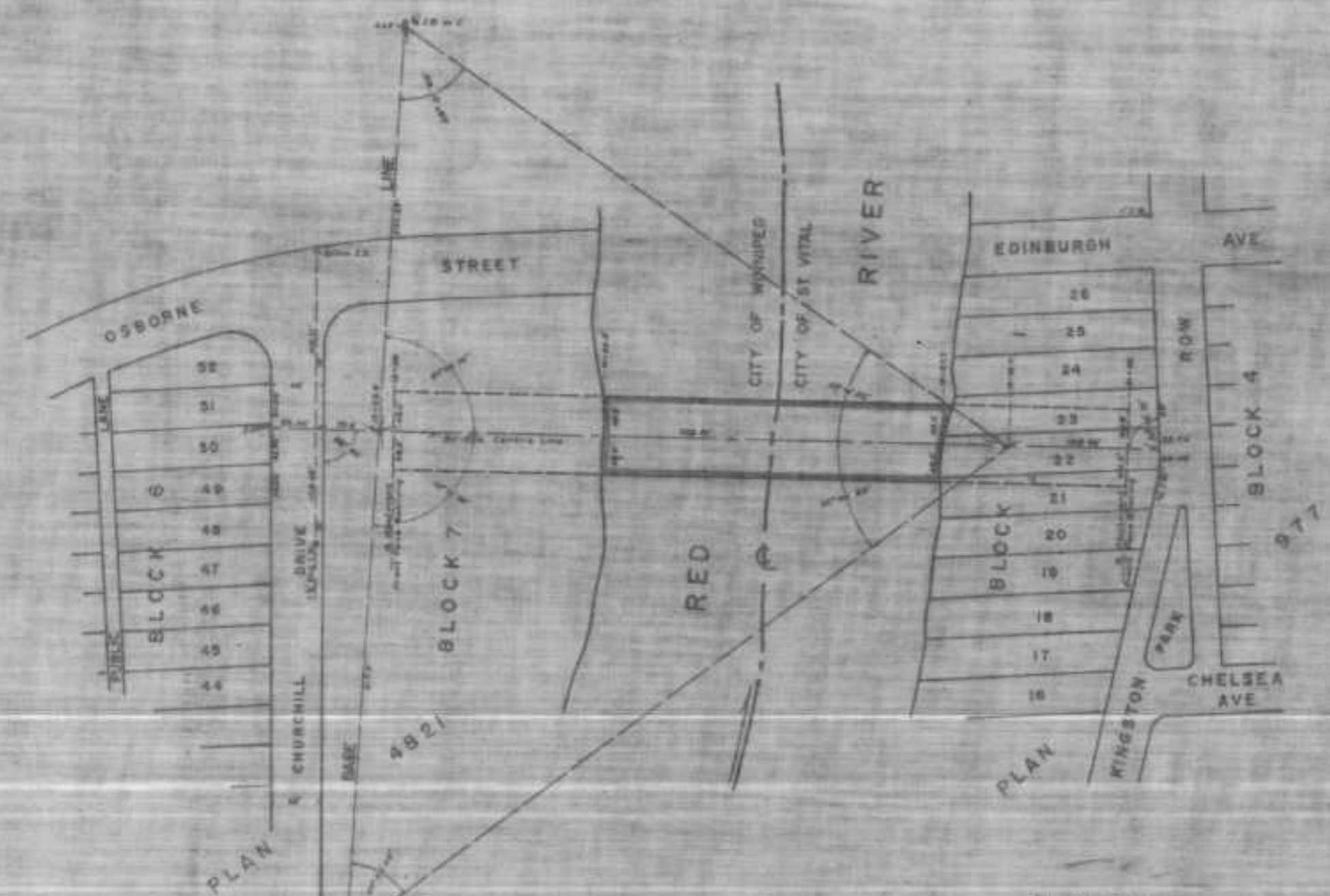
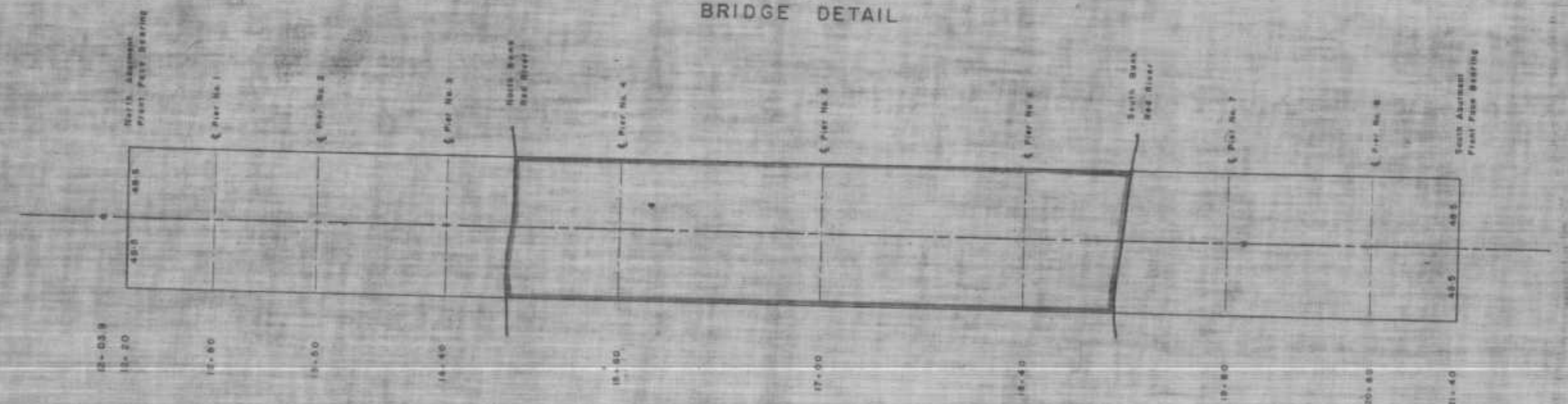
signed S.B. Ewan
 Dep. District Registrar
 I hereby certify that this is a true and
 correct copy of the plan as which is
 deposited in the Winnipeg Land Titles
 Office as Railway Deposit No. 829.
 Given under my hand and seal of office
 this 17th day of July 1966.

(North Annual Plans Abstract of the City of St. Boniface
 Manitoba Land Surveyor, make oath and say that I was
 present at said survey and certify the survey represented
 by this plan that the survey and plan are correct and that
 said survey was made between July 7 and July 13 1966.

Shown before me at St. Boniface
 this 17th day of July 1966
Robert J. Miltzschky
 A Commissioner for Oaths
 (My commission expires March 23, 1967)

John J. Hurlbut
 415

BRIDGE DETAIL

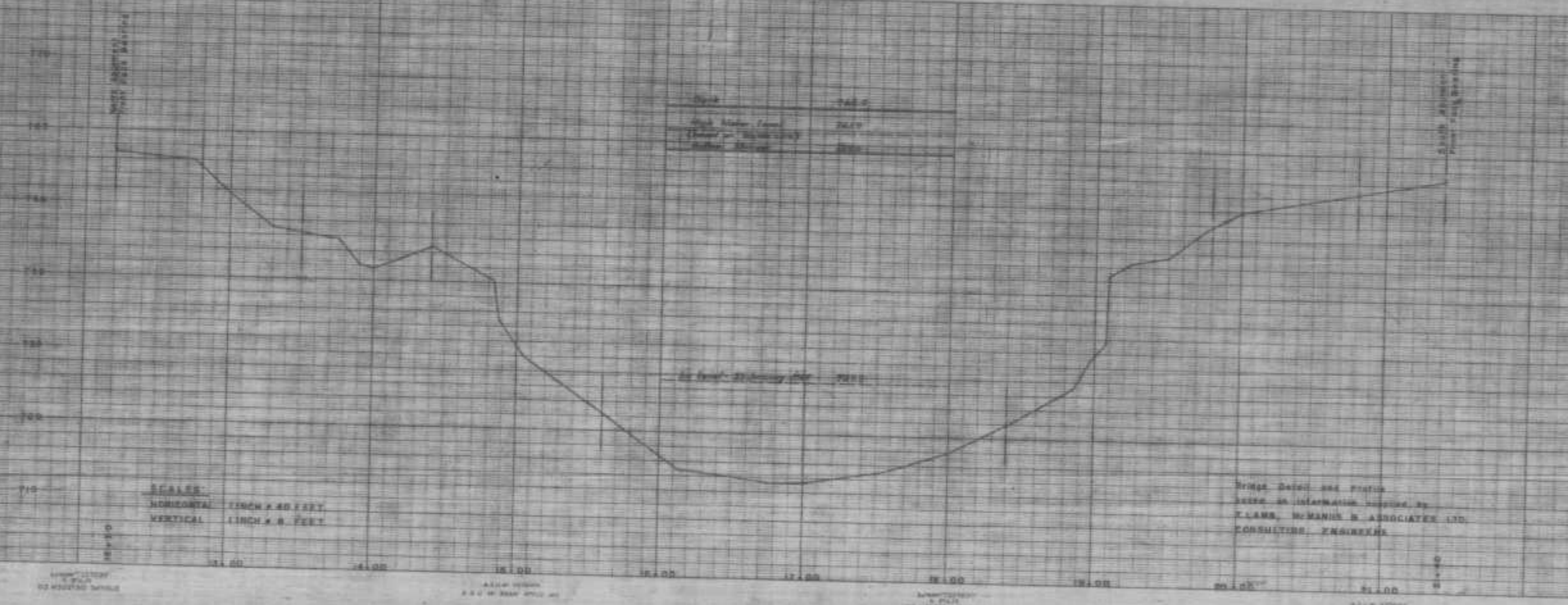


PLAN SCALE
 1 INCH = 100 FEET

Notes:
 1. Existing shown with a dashed line and dimensions of a feet.
 2. Proposed shown with a solid line and dimensions of a feet.
 3. River shown with a wavy line and depth of 10 feet.
 4. Particulars shown as per the plan.

DESCRIPTION OF SITE OF PROPOSED BRIDGE

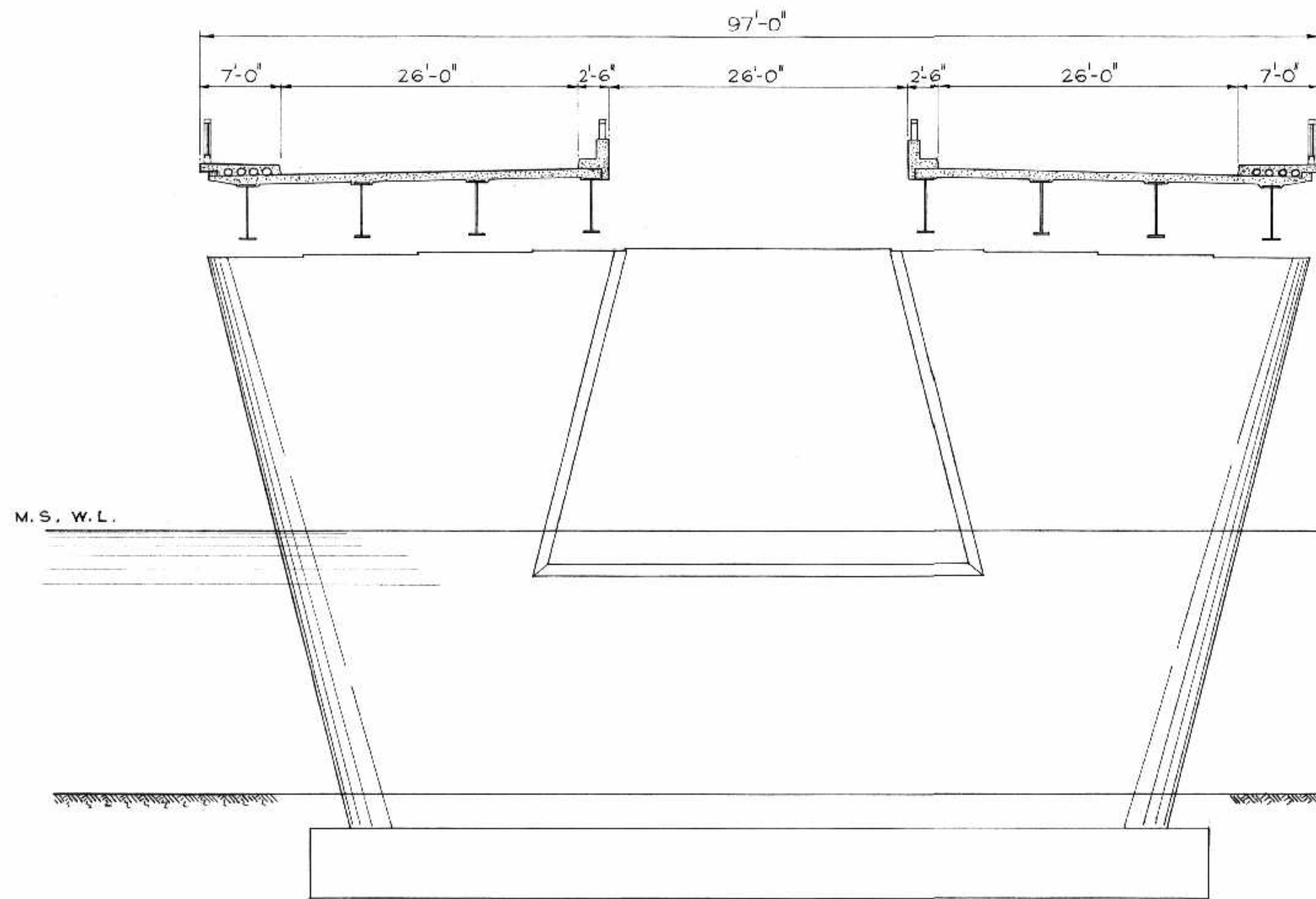
The City of St. Boniface, Manitoba, has acquired the land on which the proposed bridge is to be constructed. The bridge will be a steel truss bridge with a total length of 485 feet. The bridge will be supported by eight piers. The bridge will be located between River Lots 14 and 109. The bridge will be a public bridge and will be owned by the City of St. Boniface. The bridge will be a permanent structure and will be built to last. The bridge will be a steel truss bridge with a total length of 485 feet. The bridge will be supported by eight piers. The bridge will be located between River Lots 14 and 109. The bridge will be a public bridge and will be owned by the City of St. Boniface. The bridge will be a permanent structure and will be built to last.



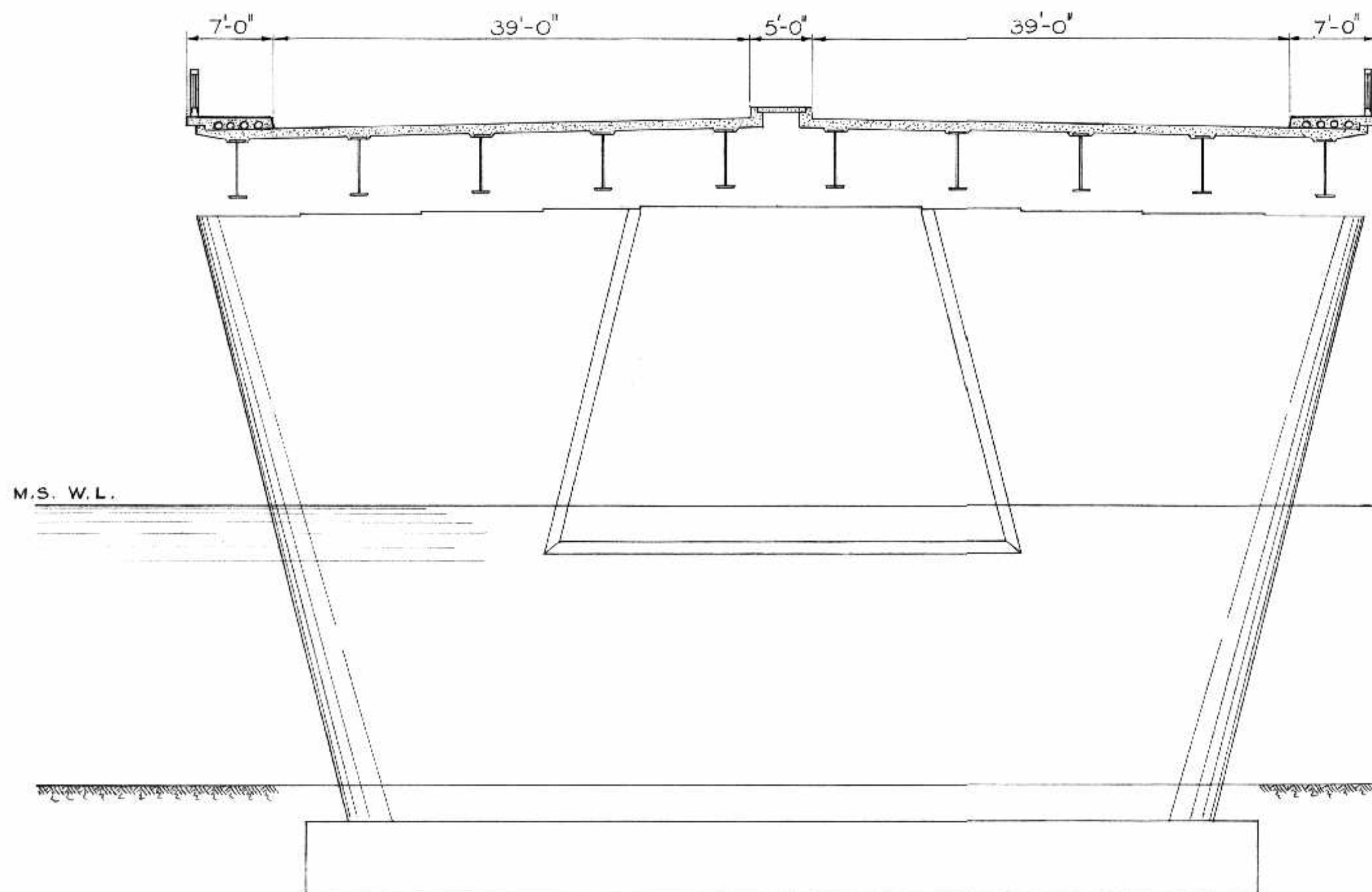
SCALE:
 HORIZONTAL 1 INCH = 40 FEET
 VERTICAL 1 INCH = 8 FEET

Plans, Data and Photos
 Made on Information supplied by
 CLARA, HURAN & ASSOCIATES LTD.
 CONSULTING ENGINEERS

PLAN OF SITE SURVEY	THE METROPOLITAN CORPORATION OF GREATER WINNIPEG STREETS AND TRAMWAY DIVISION	DRAWING NO. P-508-6
	ST. VITAL BRIDGE PROJECT	



• CROSS SECTION - PRESENT CONSTRUCTION •



• CROSS SECTION - FUTURE 6 LANE ROADWAY •

• DESIGN SPECIFICATIONS •

- DESIGN IS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE AASHO, 1961 AS AMENDED.
1. DESIGN LIVE LOAD, H20-S16-44, FUTURE 6 LANES.
 2. SOIL INFORMATION, ALLOWABLE PRESSURE ON HARD TILL 12 TONS PER SQ. FT. DESIGN PILE CAPACITY 75 TONS PER PILE.
 3. UNIT STRESS, REINFORCEMENT $f_s = 20,000$ p.s.i.
CONCRETE (CLASS "A") $f_c = 3,000$ p.s.i.

• GENERAL NOTES •

1. ELEVATIONS SHOWN ARE GEODETIC.
2. EXCAVATION FOR PIERS AND ABUTMENTS SHALL NOT EXTEND A HORIZONTAL DISTANCE GREATER THEN 2 FEET BEYOND THE LIMITS OF THE FOUNDATION WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.
3. DEPENDING ON THE CONDITION OF THE EXCAVATION, A WORKING BASE MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
4. ALL EXPOSED EDGES ON CONCRETE WORK SHALL BE CHAMFERED $1\frac{1}{2}$ " UNLESS OTHERWISE SPECIFIED.
5. CONCRETE SHALL BE FINISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.

NOTE : ALL PILES TO HAVE A 1:20 BATTER FROM VERTICAL. PILES ON THE NORTH SIDE OF THE FOOTING TO BE BATTERED NORTH AND SOUTH SIDE SOUTH. 10 BP 57, A-7 COPPER BEARING STEEL PILES HAVE BEEN ORDERED BY THE CORPORATION AS FOLLOWS:

26	PILES	32'-0"	LONG
24	"	35'-0"	"
68	"	38'-0"	"
14	"	40'-0"	"
36	"	41'-0"	"
12	"	44'-0"	"
12	"	46'-0"	"
26	"	50'-0"	"
218	"		



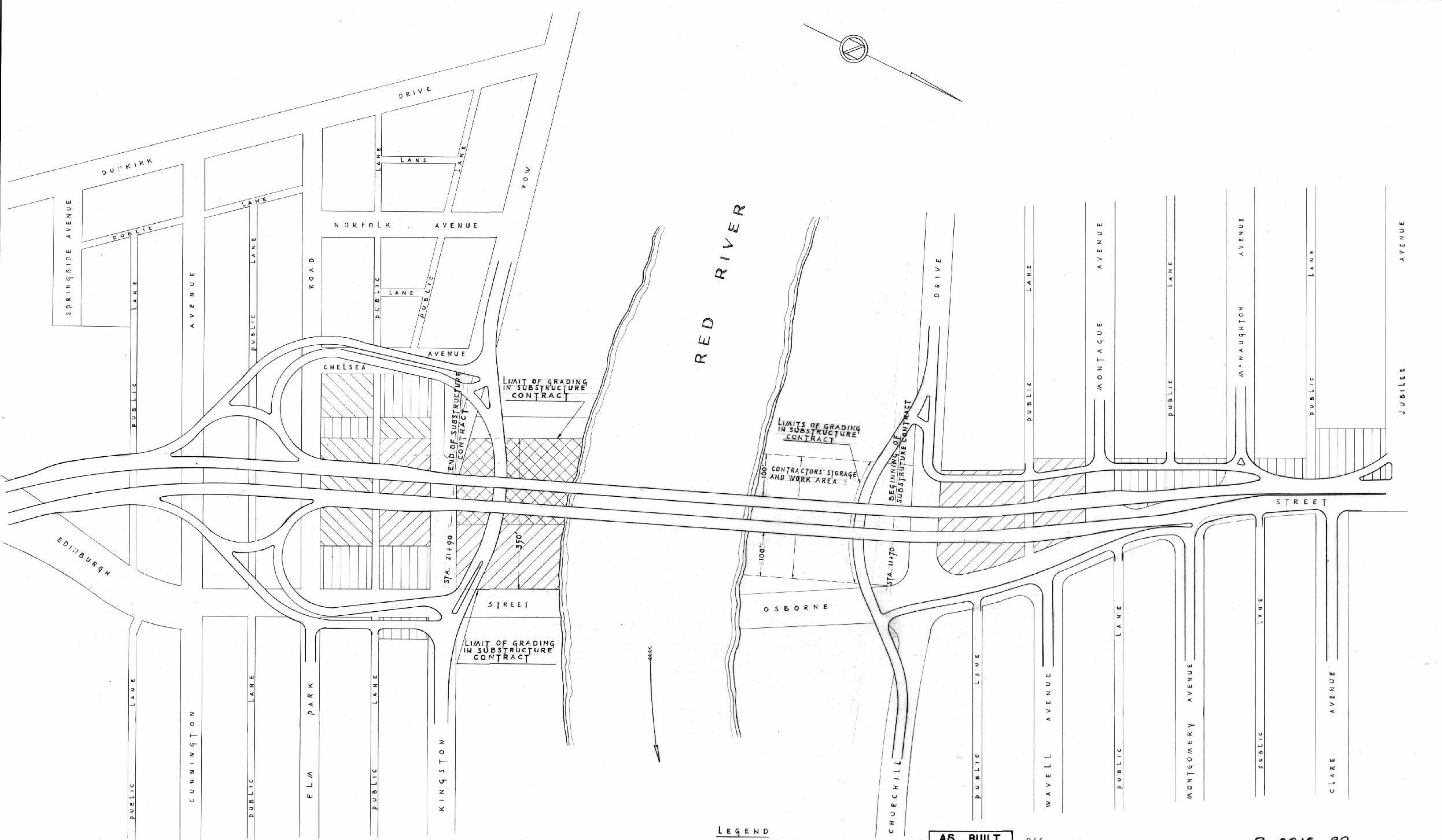
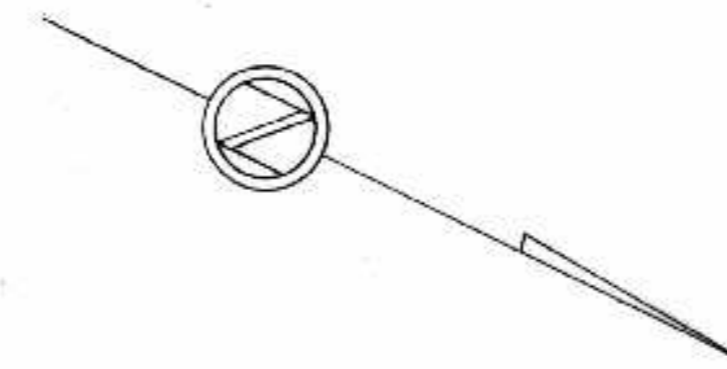
AS BUILT	
NO.	DATE BY DESCRIPTION
REVISIONS	
APPROVED BY: <i>[Signature]</i>	
DEPUTY DIRECTOR OF STREETS & TRANSIT	

B-5015-81


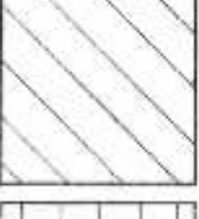
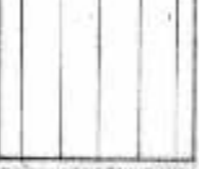
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

<p>CROSS SECTIONS</p> <p>GENERAL NOTES</p>	<p>FILE No. 861</p> <p>DATE SEPT. 1964</p> <p>SCALE $\frac{1}{8}" = 1'-0"$</p> <p>DWN. BY V. T.</p> <p>CHKD. BY <i>[Signature]</i></p> <p>DWG. No. F-2</p>
<p>T. LAMB, McMANUS & ASSOCIATES LTD.</p> <p>CONSULTING ENGINEERS</p> <p>EDMONTON CALGARY WINNIPEG</p>	



LEGEND

-  HOUSE POSSESSION DATE SEPTEMBER 15, 1964.
-  HOUSE POSSESSION DATE NOVEMBER 2, 1964.
-  HOUSE POSSESSION DATE APRIL 1, 1965.


AS BUILT *ALS MAR 68*

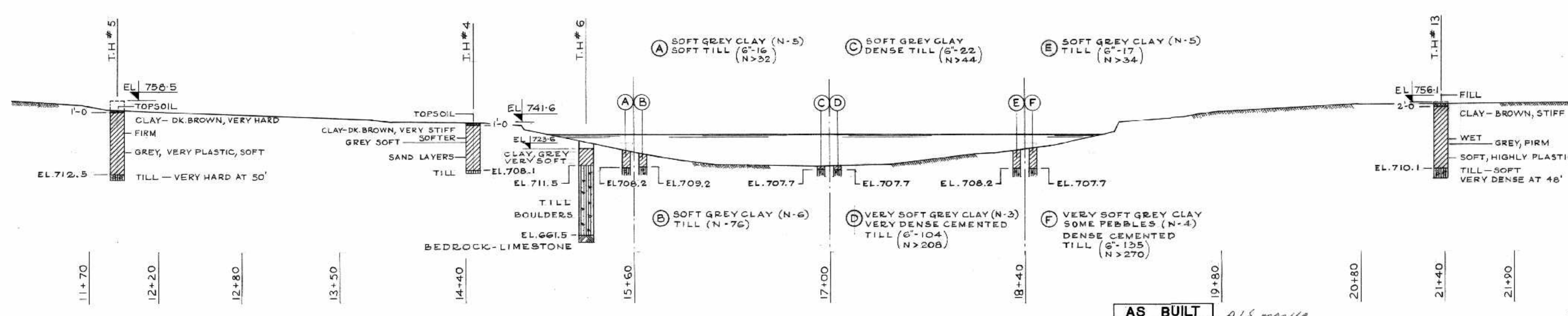
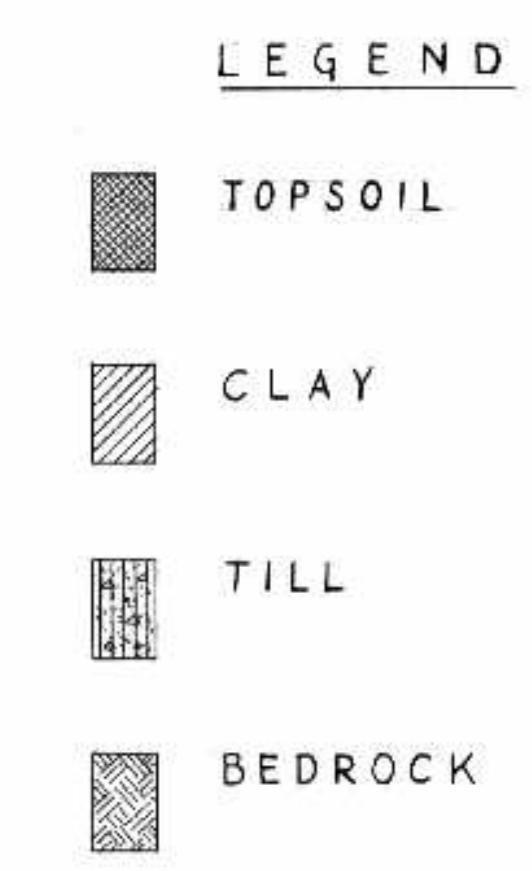
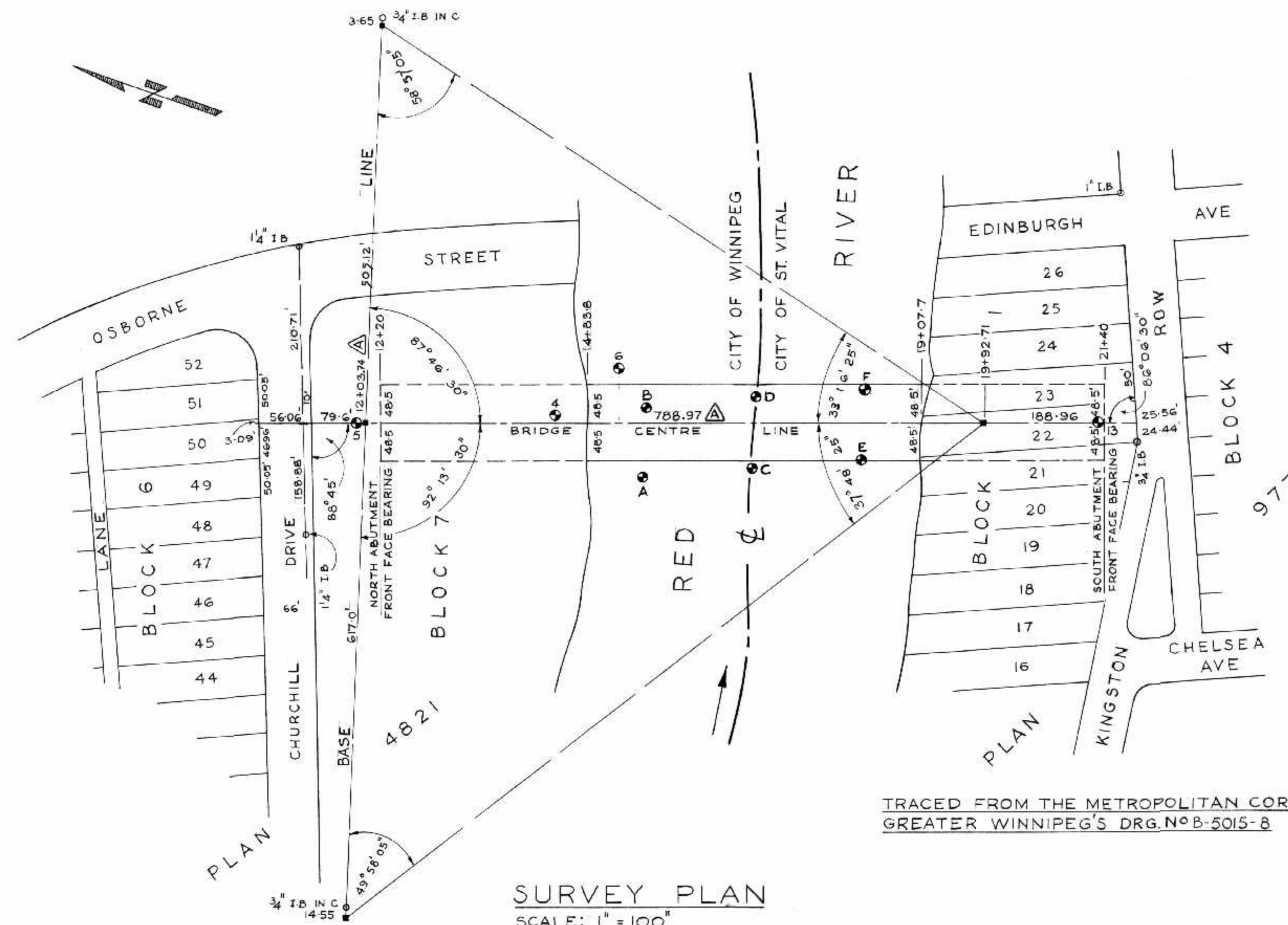
B-5015-82

NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

	SITE PLAN	FILE No. 861 DATE SEPT. 1964 SCALE 1" = 100' DWN. BY W.A.R. CHKD. BY
	T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG	DWG. No. F-3



TEST HOLE DATA
SCALE: 1" = 40'-0"

LEGEND:
 (6"-104) 104 BLOWS/SIX INCHES
 (N > 208) STD. PENETRATION GREATER THAN 208
 (N - 6) STD. PENETRATION EQUAL TO 6



AS BUILT ALS MAR 68

NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

B-5015-83

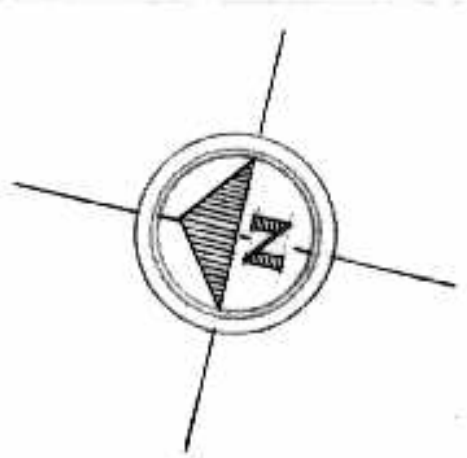
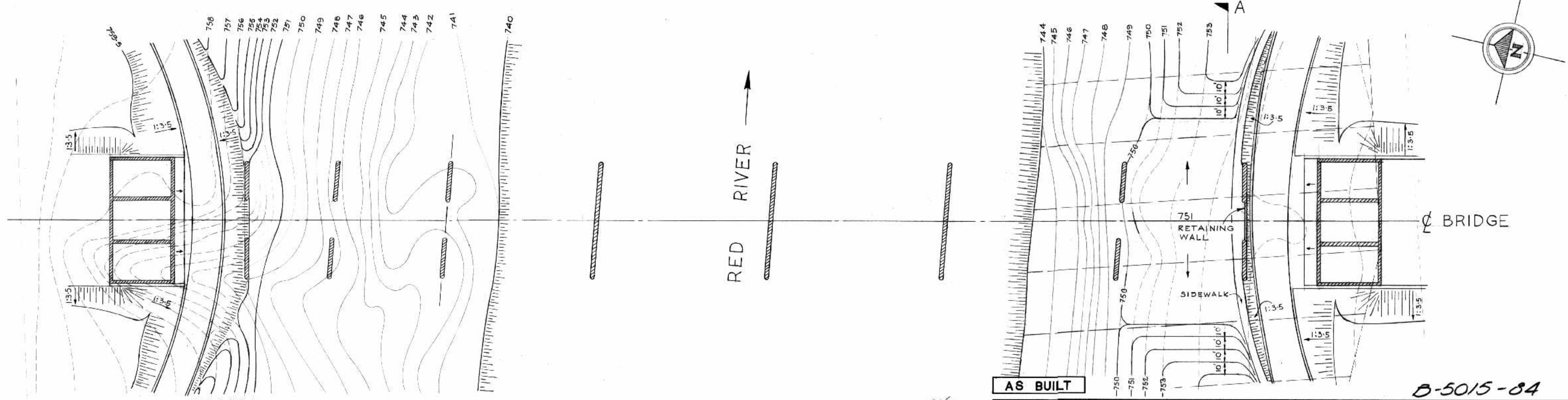
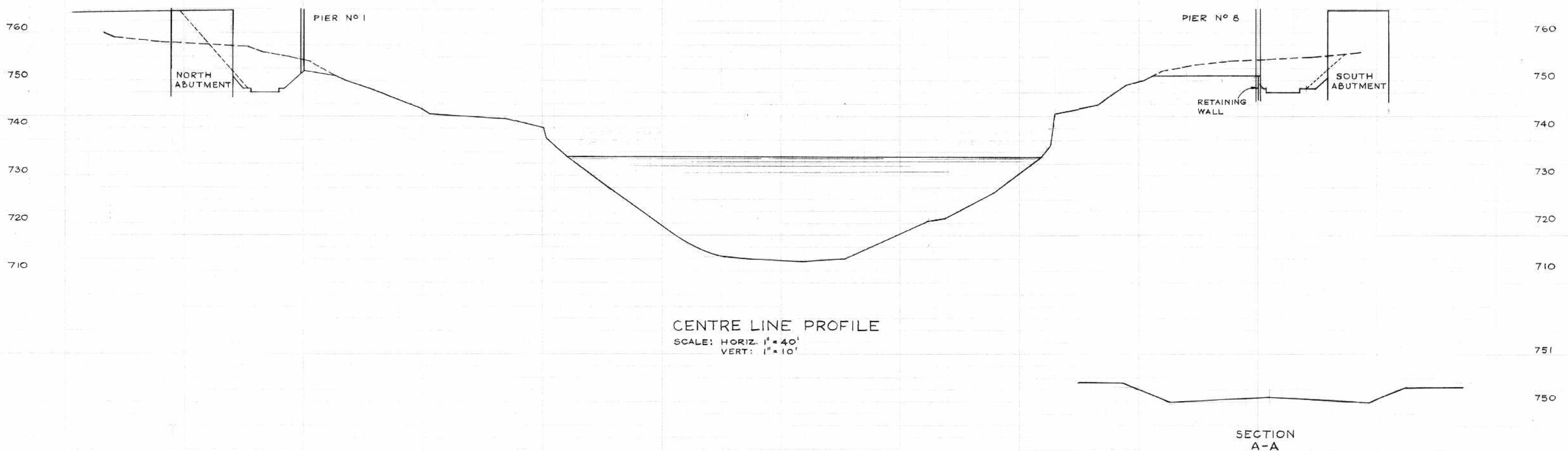
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

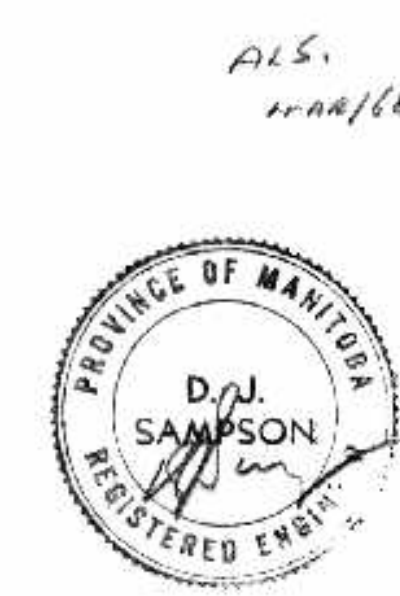
**SURVEY PLAN
TEST HOLES**

<p>APPROVED BY: <i>[Signature]</i></p> <p>DEPUTY DIRECTOR OF STREETS & TRANSIT</p>	<p>T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG</p>
--	--

FILE No. 861
DATE SEPT 1964
SCALE NOTED
DWN. BY V.T.
CHKD. BY <i>[Signature]</i>
DWG. No. F-4



PLAN OF NORTH & SOUTH BANKS
 SCALE: 1" = 40'



ALS.
11/11/68

NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

B-5015-84

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
 STREETS AND TRANSIT DIVISION

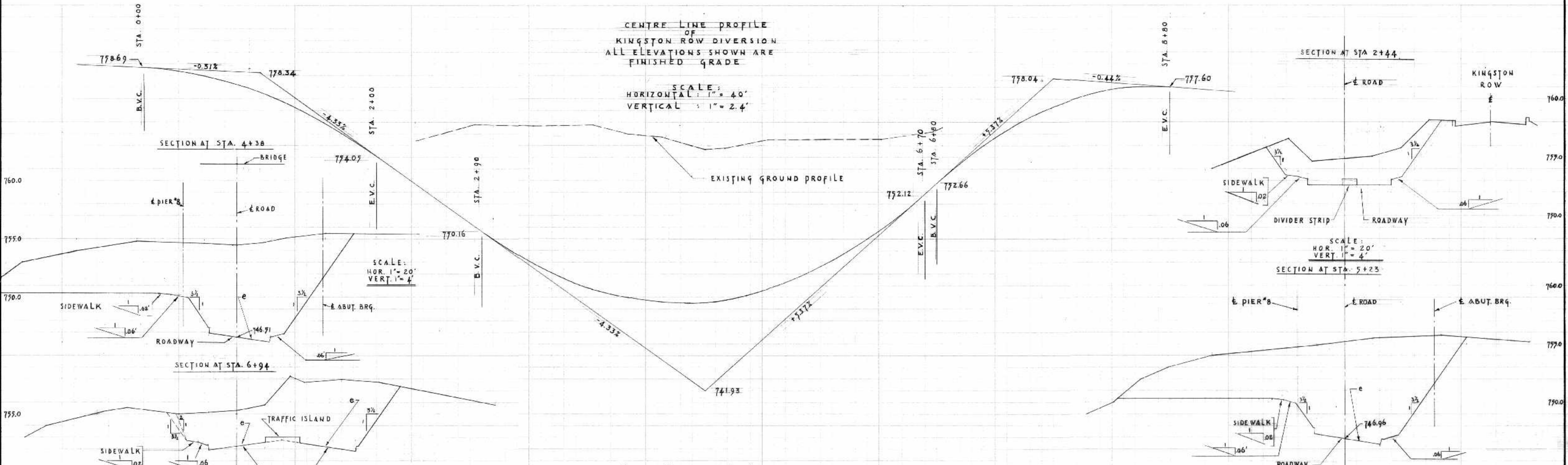
ST. VITAL BRIDGE PROJECT

 T. LAMB REGISTERED ENGINEER	NORTH AND SOUTH BANKS	FILE No. 861 DATE SEPT. 1964 SCALE NOTED DWN. BY V. T. CHKD. BY <i>[Signature]</i> DWG. No. F5
	T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG	

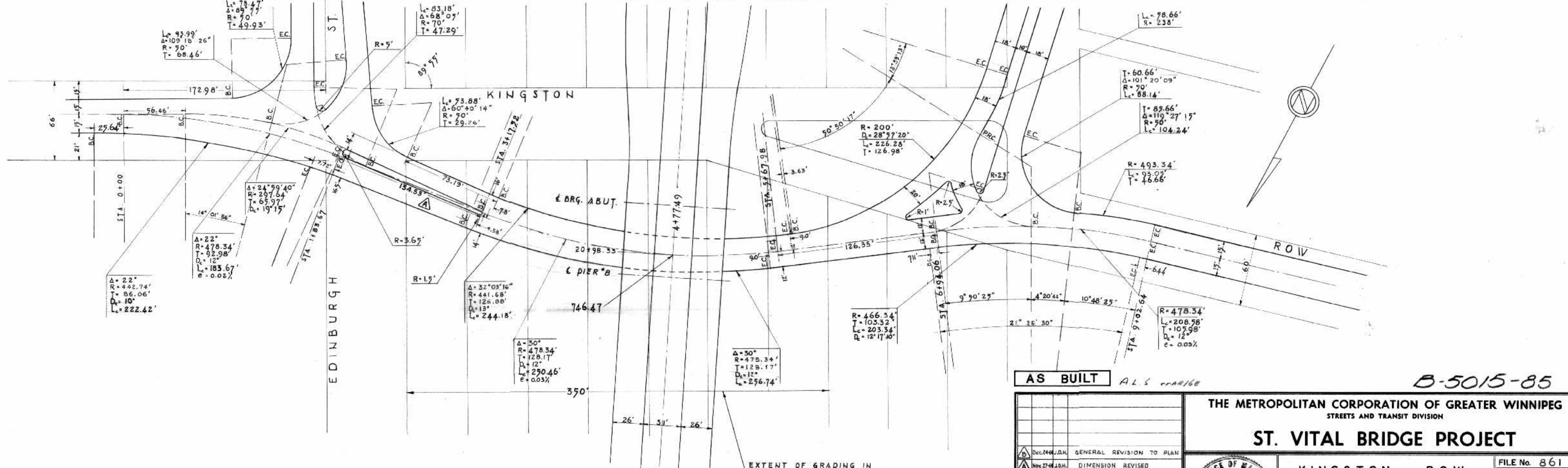
CENTRE LINE PROFILE
OF
KINGSTON ROW DIVERSION
ALL ELEVATIONS SHOWN ARE
FINISHED GRADE

SCALE:
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 2.4'

EXISTING GROUND PROFILE



NOTE: ALL SECTIONS TAKEN LOOKING EAST



EXTENT OF GRADING IN
SUBSTRUCTURE CONTRACT
AND EXTENT OF CONTRACTORS'
STORAGE AND WORK AREA

PLAN
SCALE: 1" = 40'

AS BUILT A.L.S. 11/16/68

B-5015-85

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

KINGSTON ROW
DIVERSION

FILE No. 861
DATE SEPT. 1964
SCALE SHOWN
DWN. BY W.A.R.
CHKD. BY
DWG. No. 6



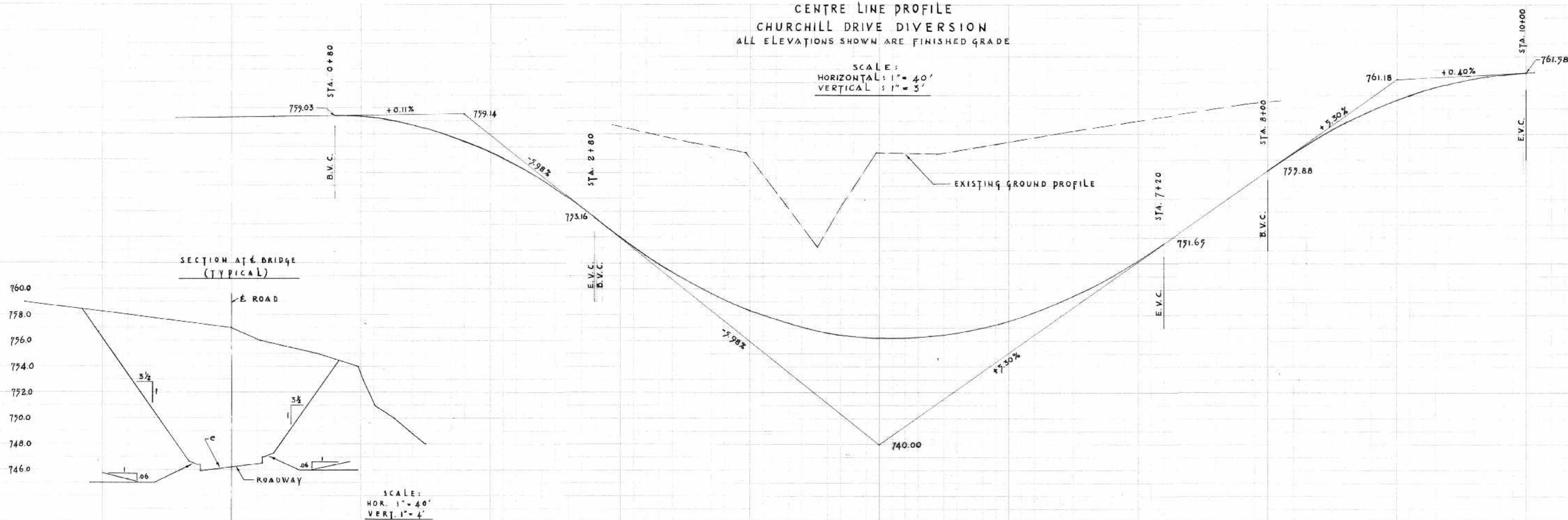
T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

REVISIONS	
NO.	DATE BY DESCRIPTION
1	DEC 24 1964 J.D.M. GENERAL REVISION TO PLAN
2	NOV 27 1964 J.D.M. DIMENSION REVISED

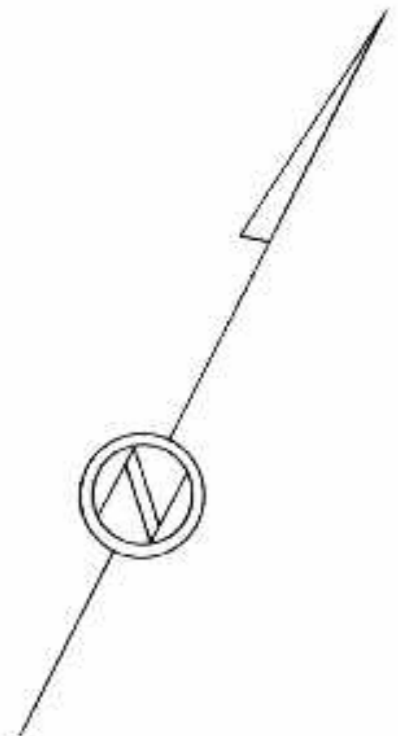
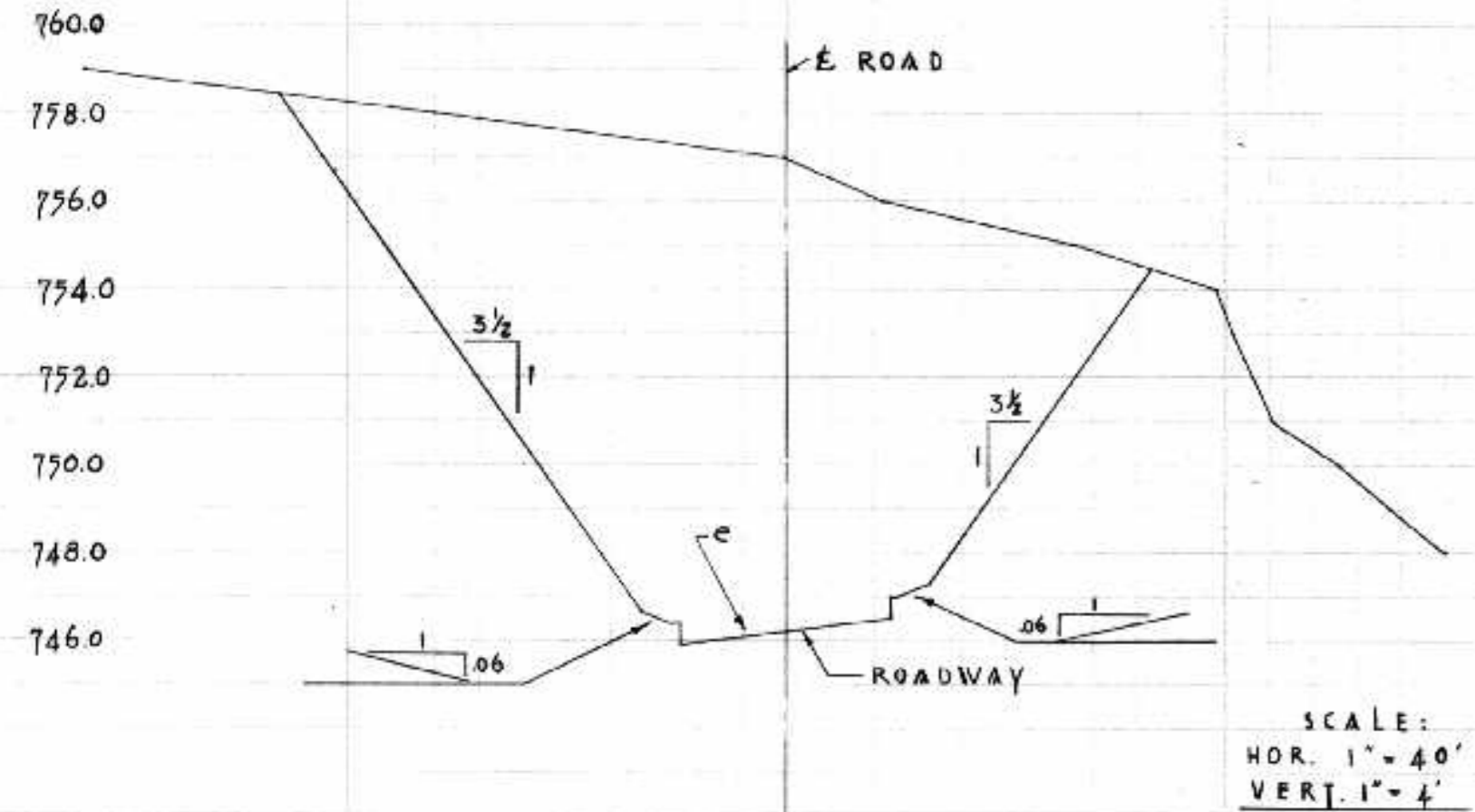
APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

**CENTRE LINE PROFILE
CHURCHILL DRIVE DIVERSION**
ALL ELEVATIONS SHOWN ARE FINISHED GRADE

SCALE:
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 3'



**SECTION AT BRIDGE
(TYPICAL)**



EXTENT OF CONTRACTORS' STORAGE & WORK AREA AND EXTENT OF GRADING IN SUBSTRUCTURE CONTRACT

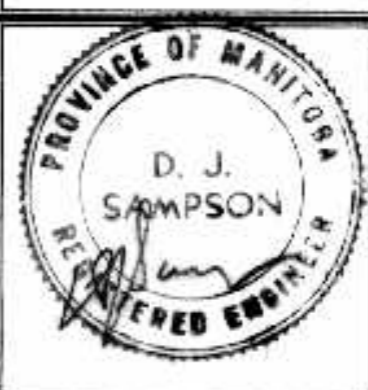
PLAN
SCALE 1" = 40'

AS BUILT *ALS MARKED*

NO.	DATE BY	DESCRIPTION

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

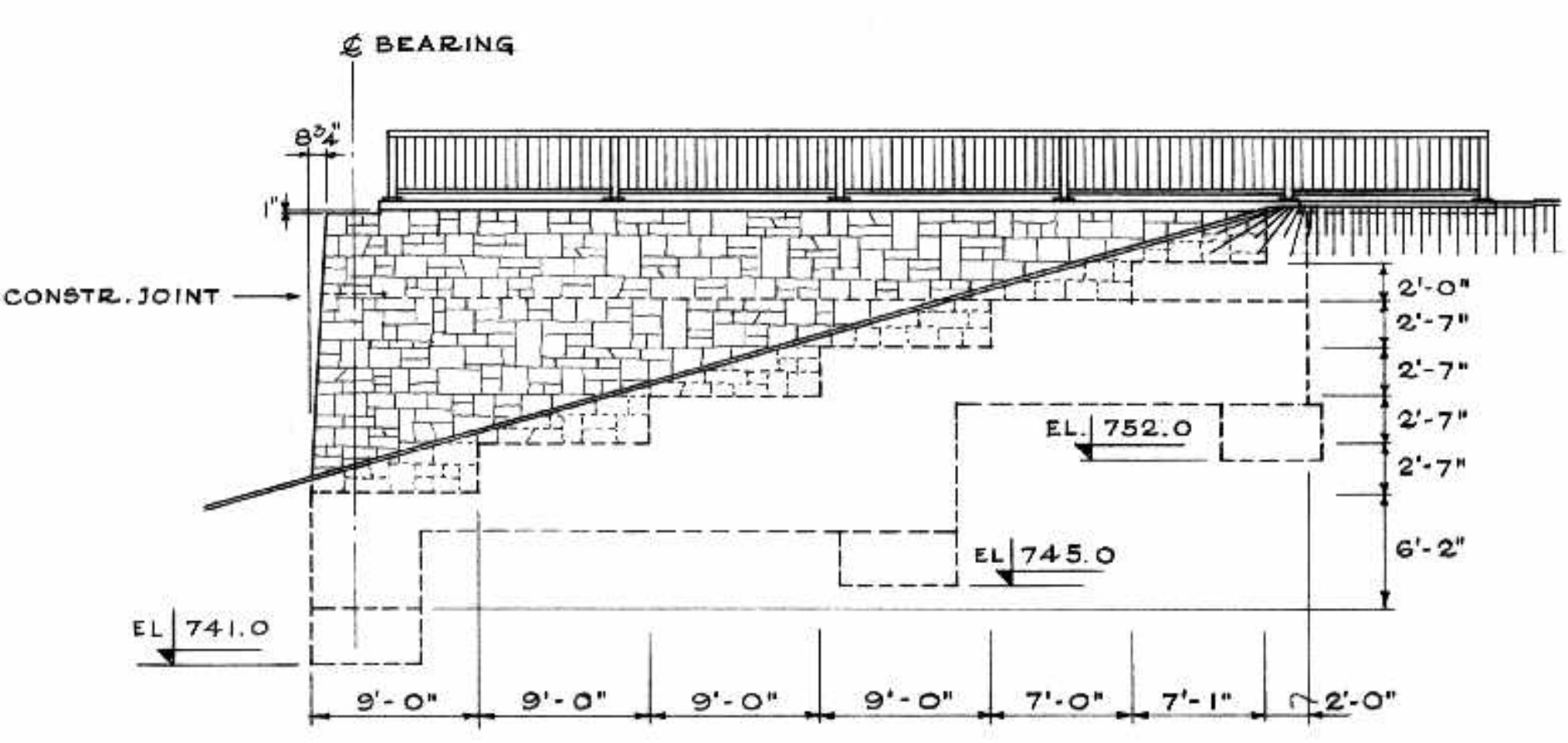
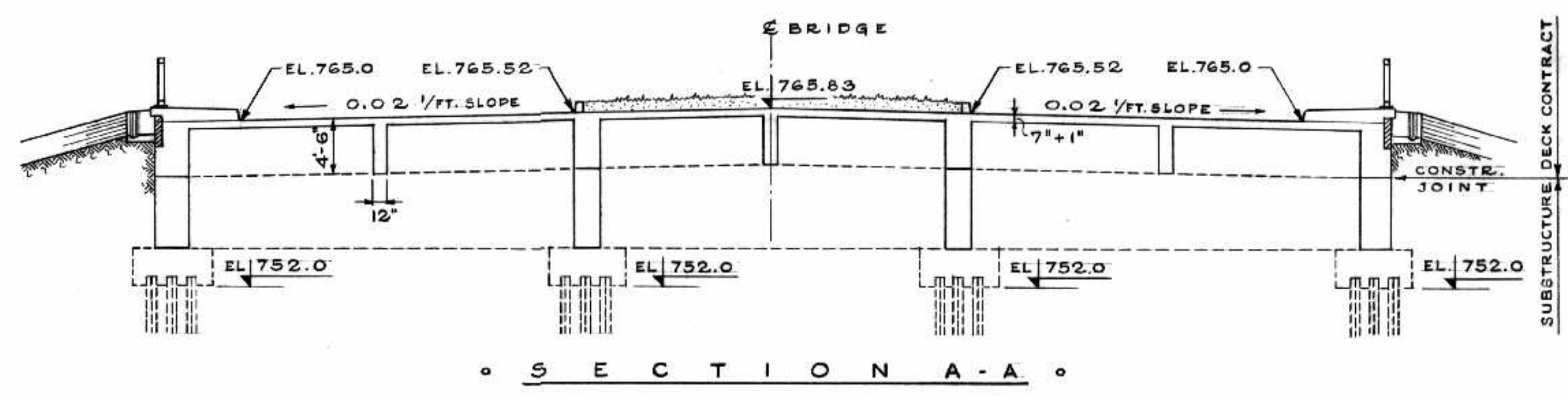
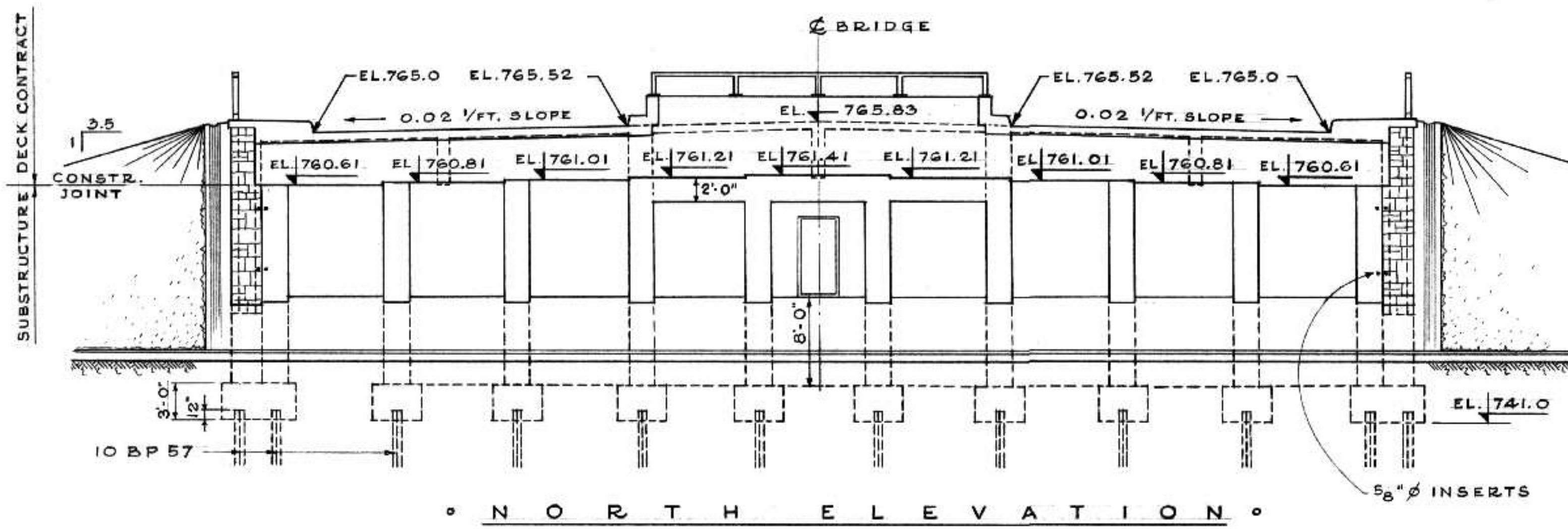
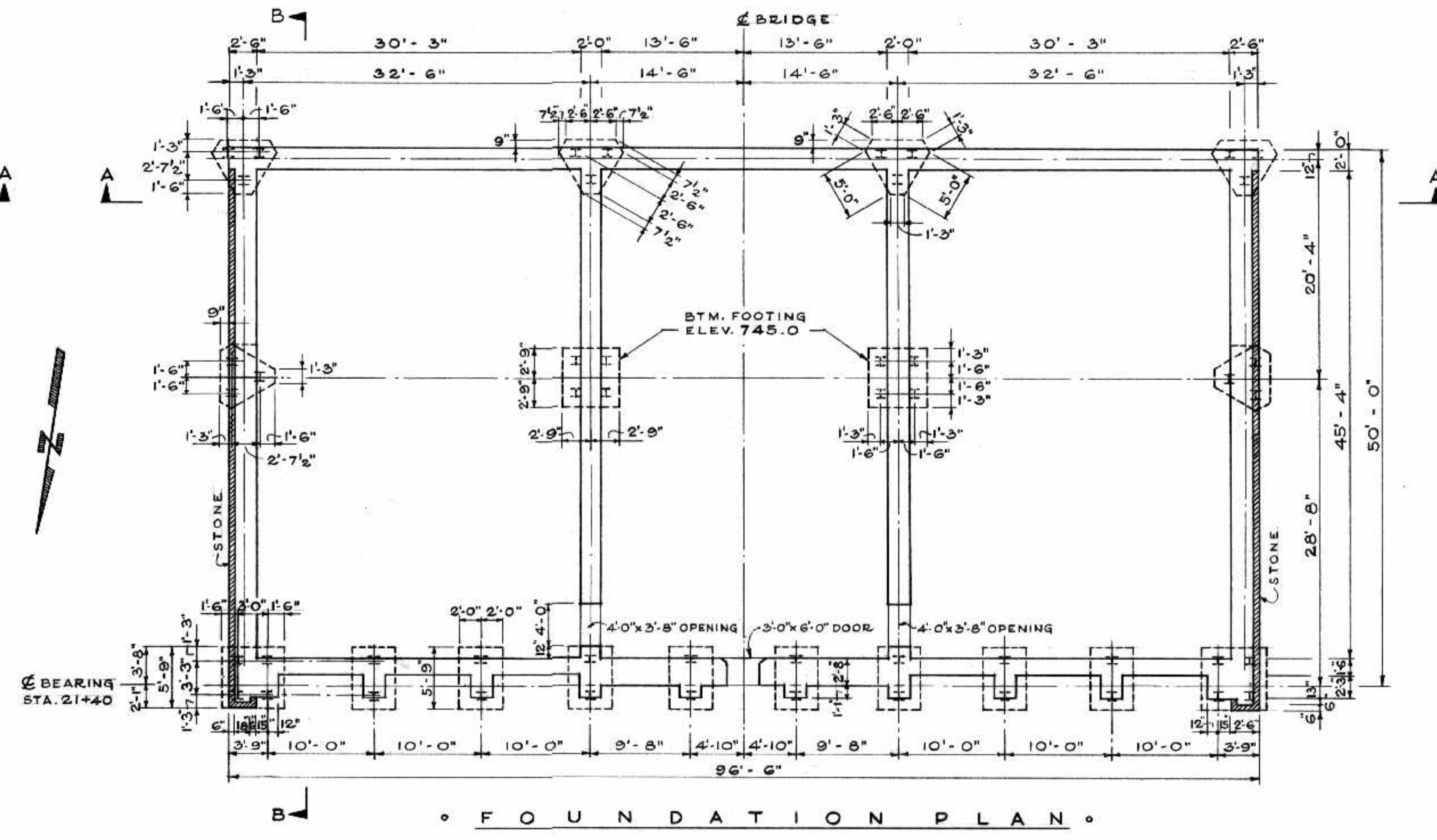
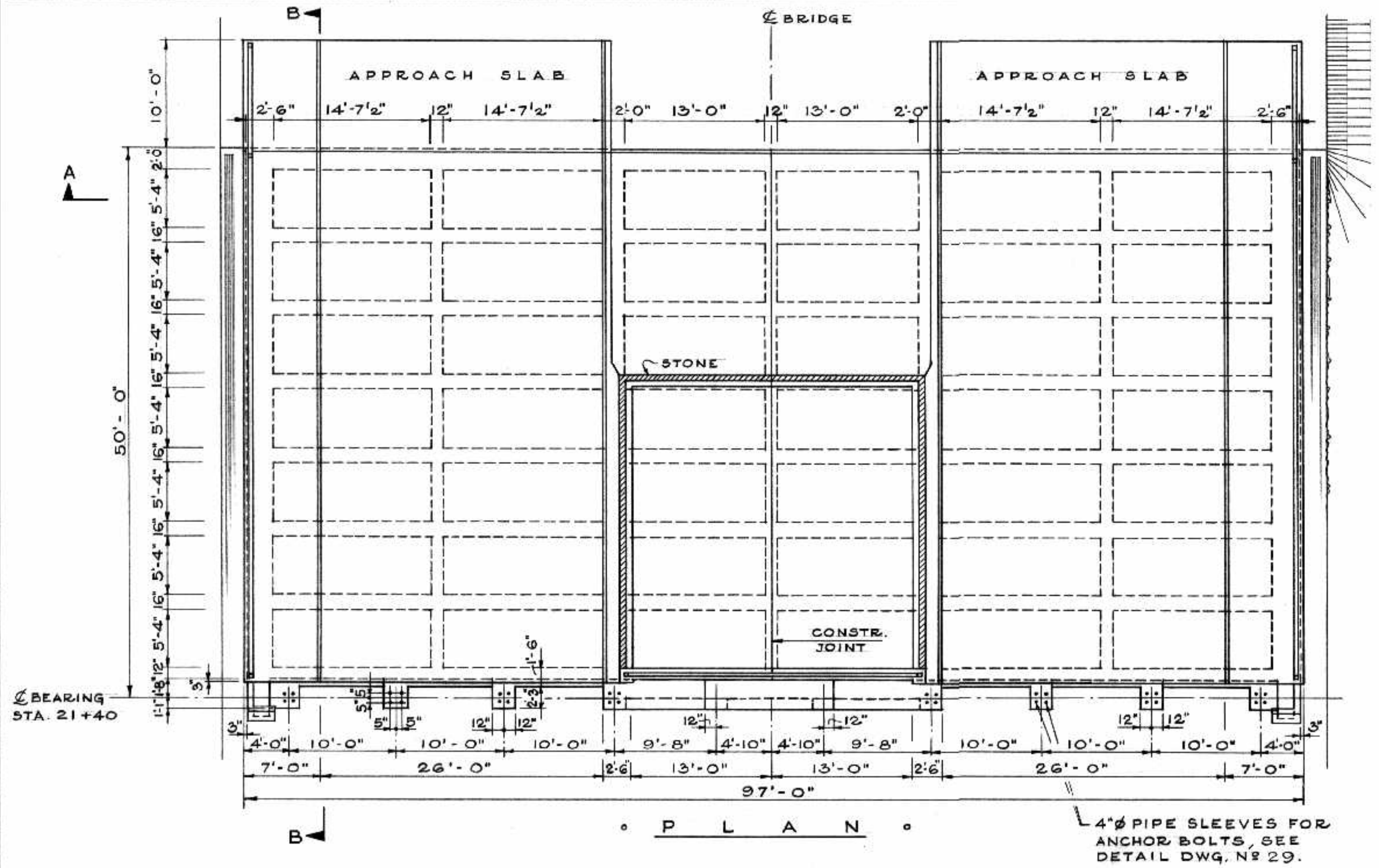


**CHURCHILL DRIVE
DIVERSION**

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

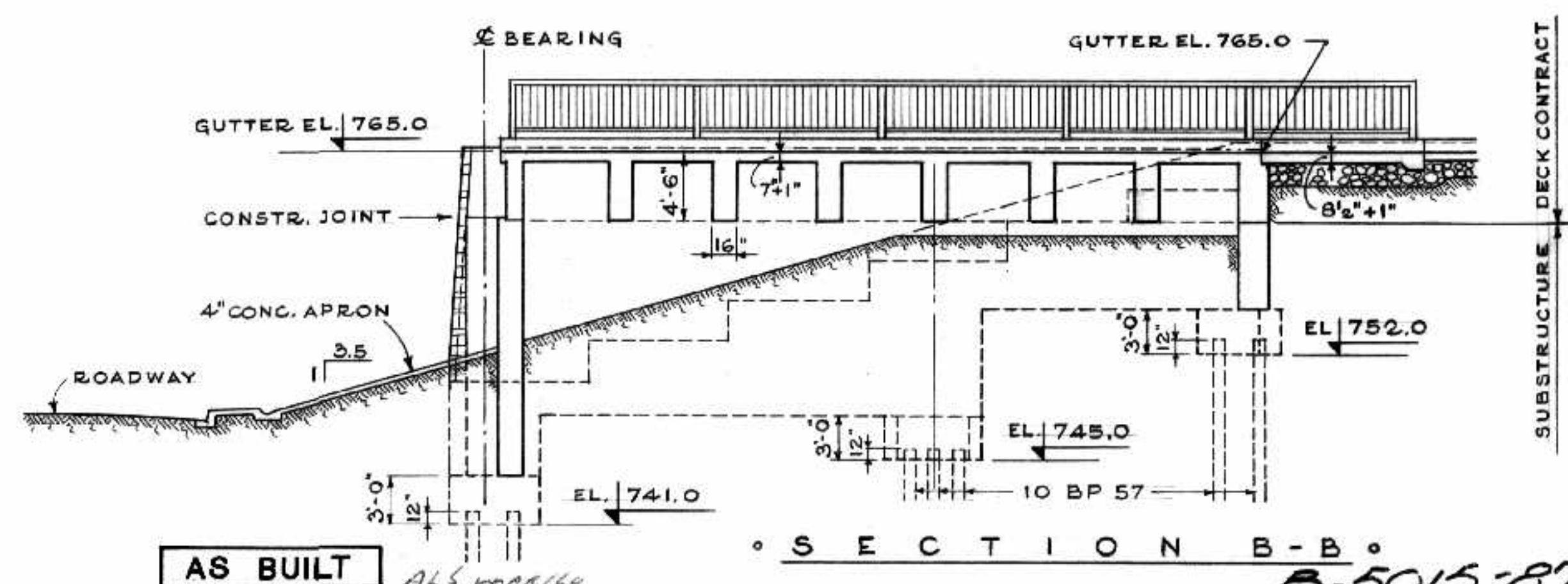
FILE No. 861
DATE SEPT. 1964
SCALE 1" = 30'
DWN. BY W.A.R. & D.B.
CHKD. BY
DWG. No. **F-7**

B-5015-86



- NOTES
1. THE SUBSTRUCTURE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION OF THE ABUTMENT TO THE ELEVATION OF THE BRIDGE BEARINGS AS SHOWN, EXCEPT AS FOLLOWS:
 - A) ALL STONEMASONRY SHALL BE SUPPLIED AND PLACED BY THE DECK CONTRACTOR.
 - B) ALL CONCRETE CURBS AND CONCRETE APRONS TO BE PROVIDED BY DECK CONTRACTOR.
 2. THE SUBSTRUCTURE CONTRACTOR SHALL SUPPLY AND PLACE BRICK TIES FOR THE STONEMASONRY AT 16" C.C. EACH WAY.

TOTAL VOLUME CONCRETE (SUBSTRUCTURE)
391 C.Y. SOUTH ABUTMENT.



AS BUILT

NO.	DATE	BY	DESCRIPTION

APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT



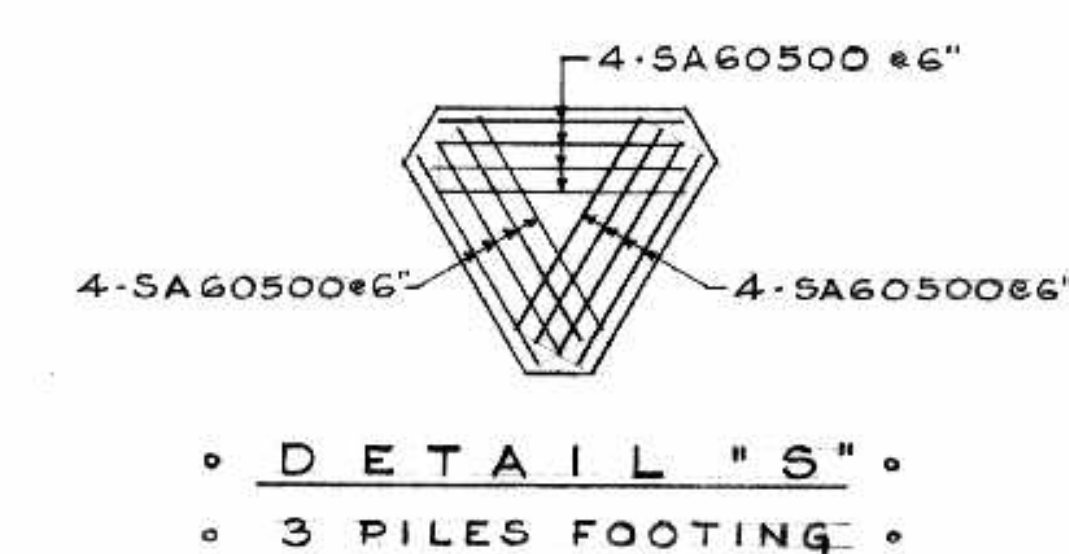
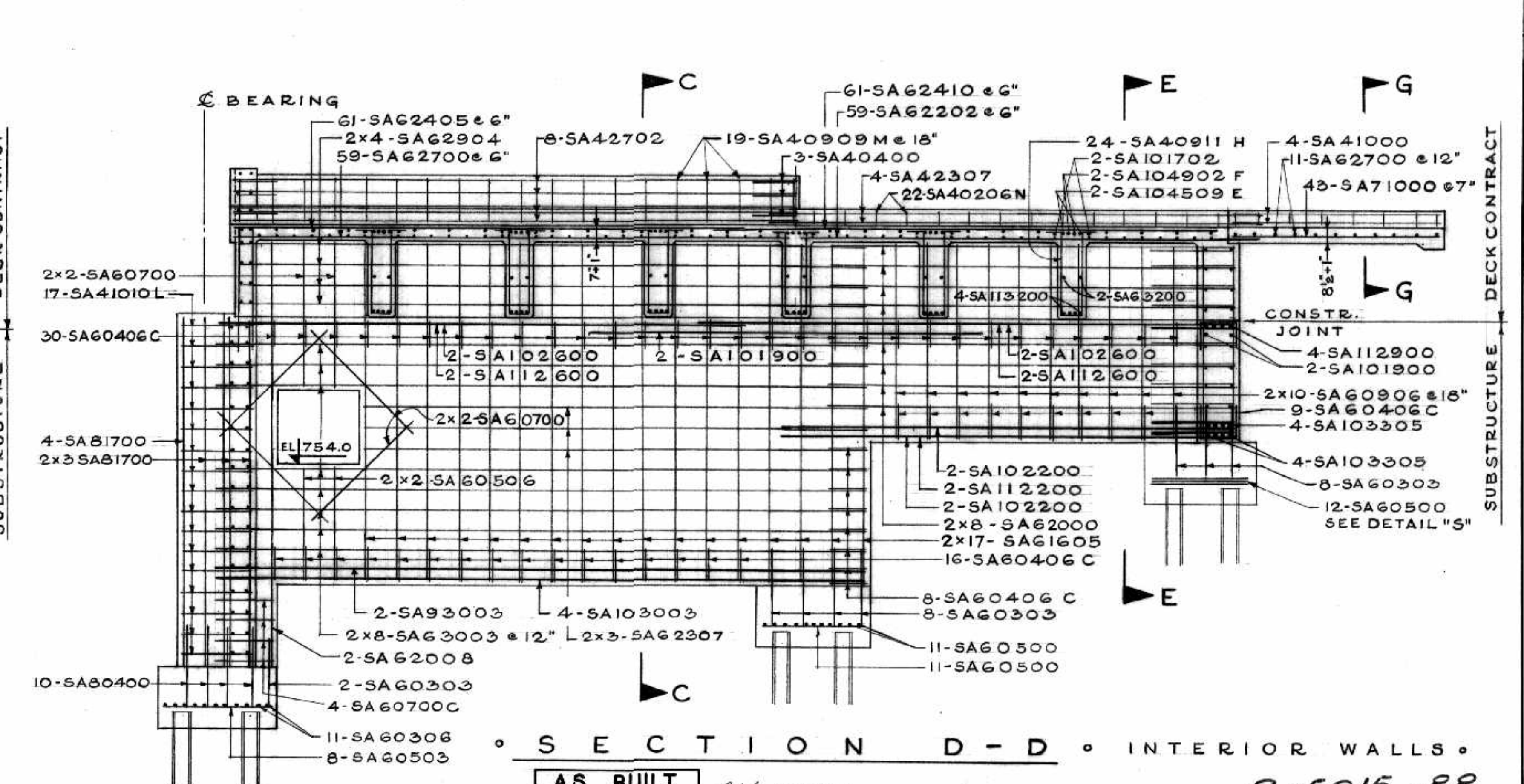
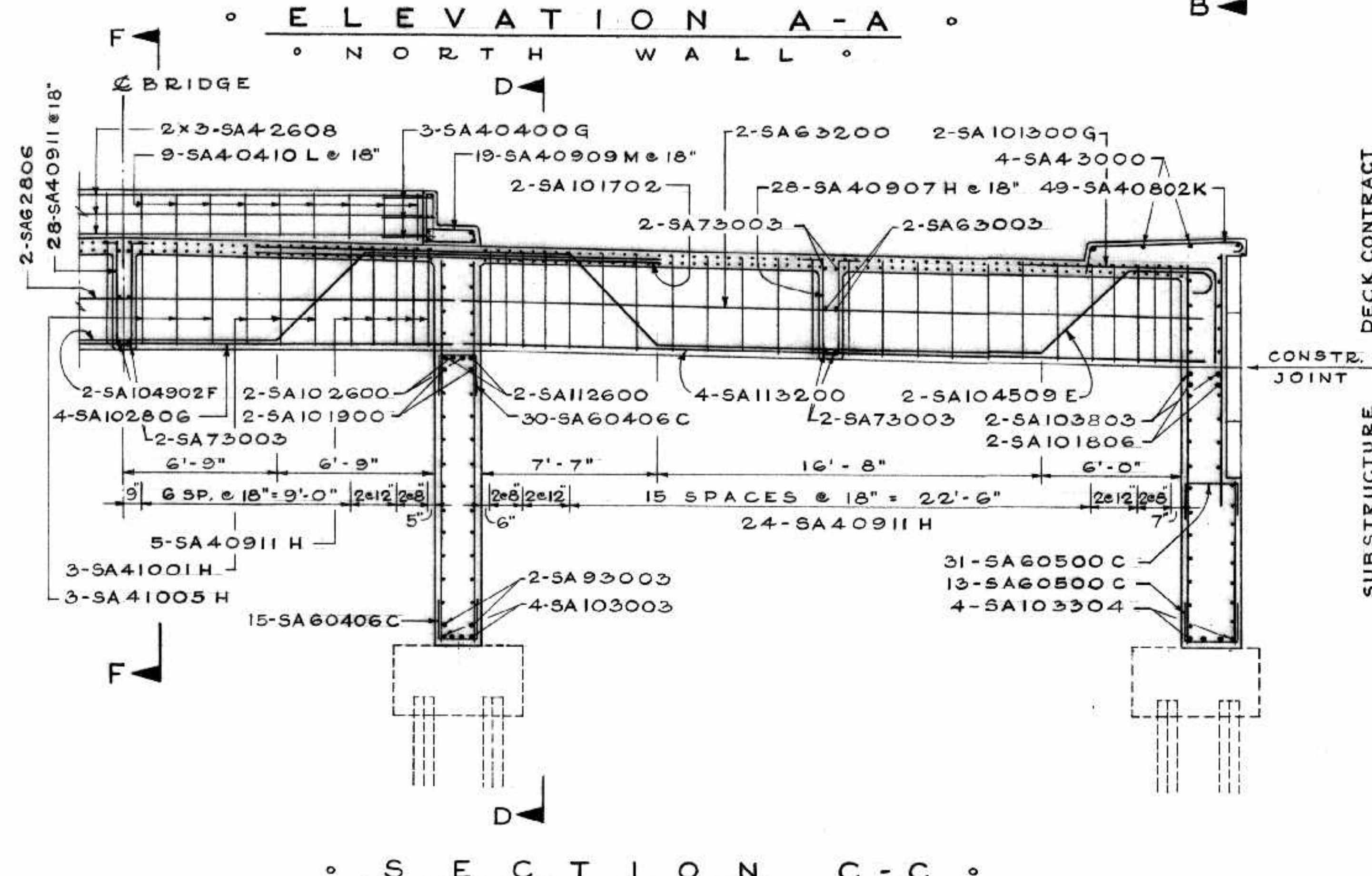
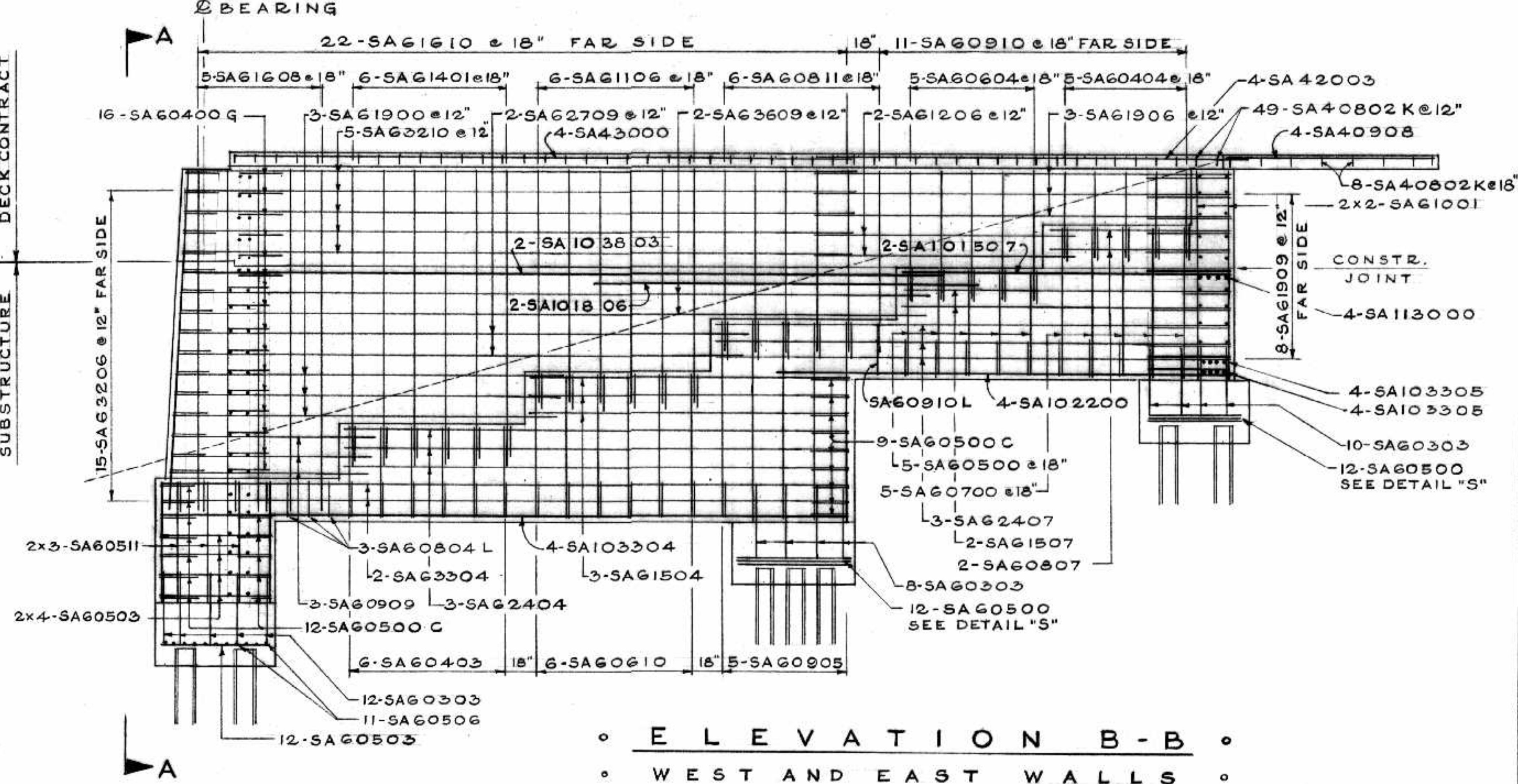
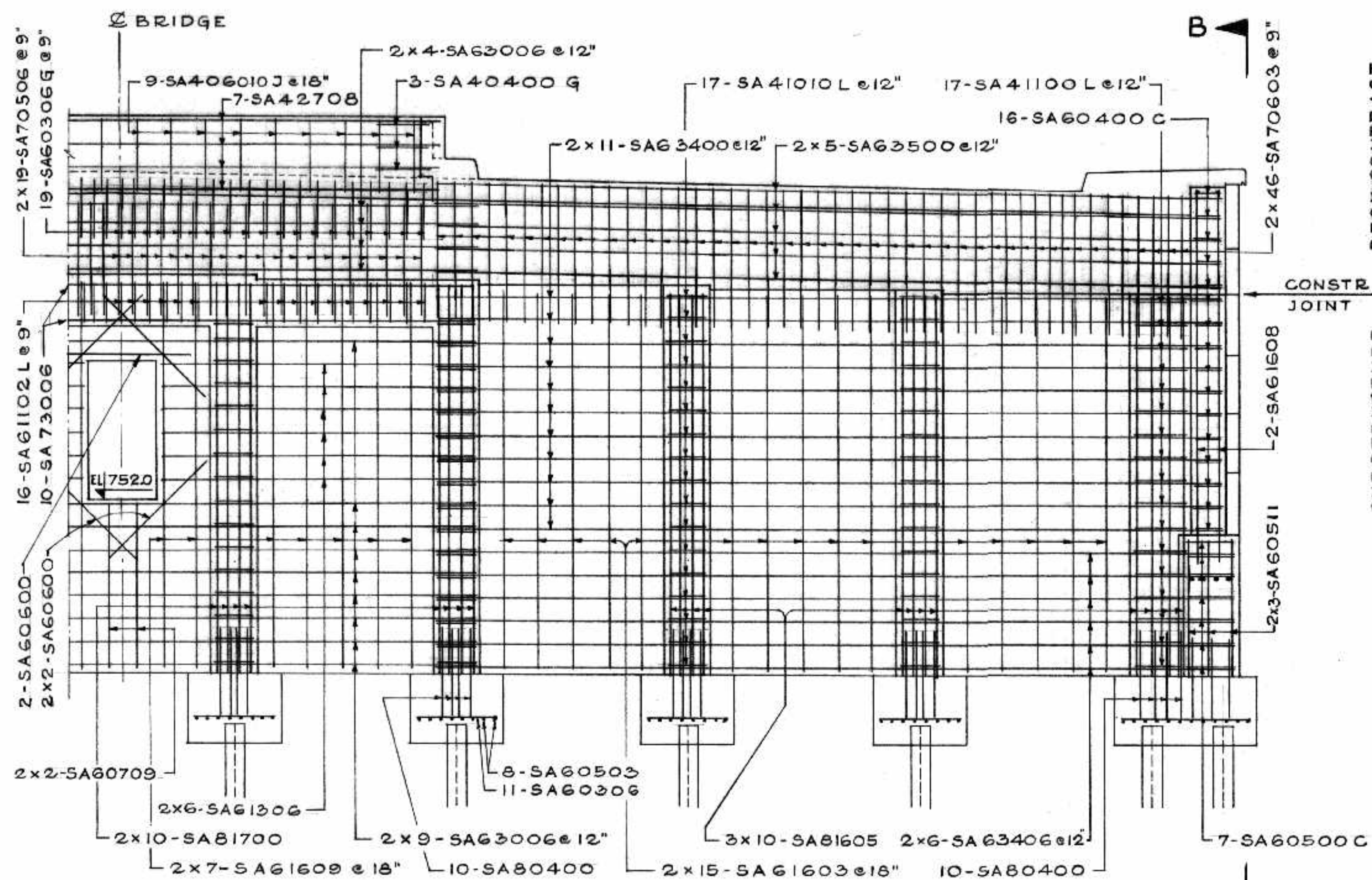
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

SOUTH ABUTMENT

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861
DATE SEPT. 1964
SCALE 1/8" = 1'-0"
DWN BY A.V.S.
CHKD BY *[Signature]*
DWG. No. **F-8**



AS BUILT *ALS MARKS*

NO.	DATE BY	DESCRIPTION

APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

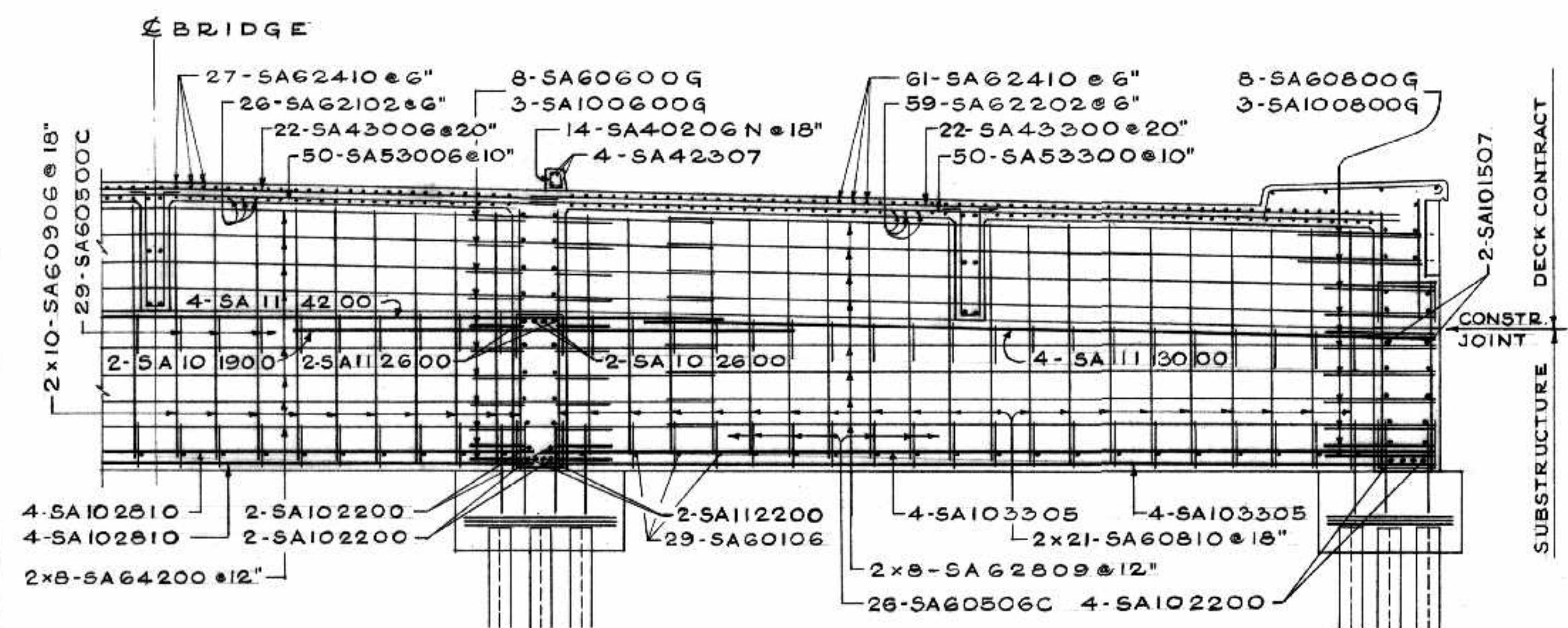
ST. VITAL BRIDGE PROJECT

SOUTH ABUTMENT REINFORCING DETAILS

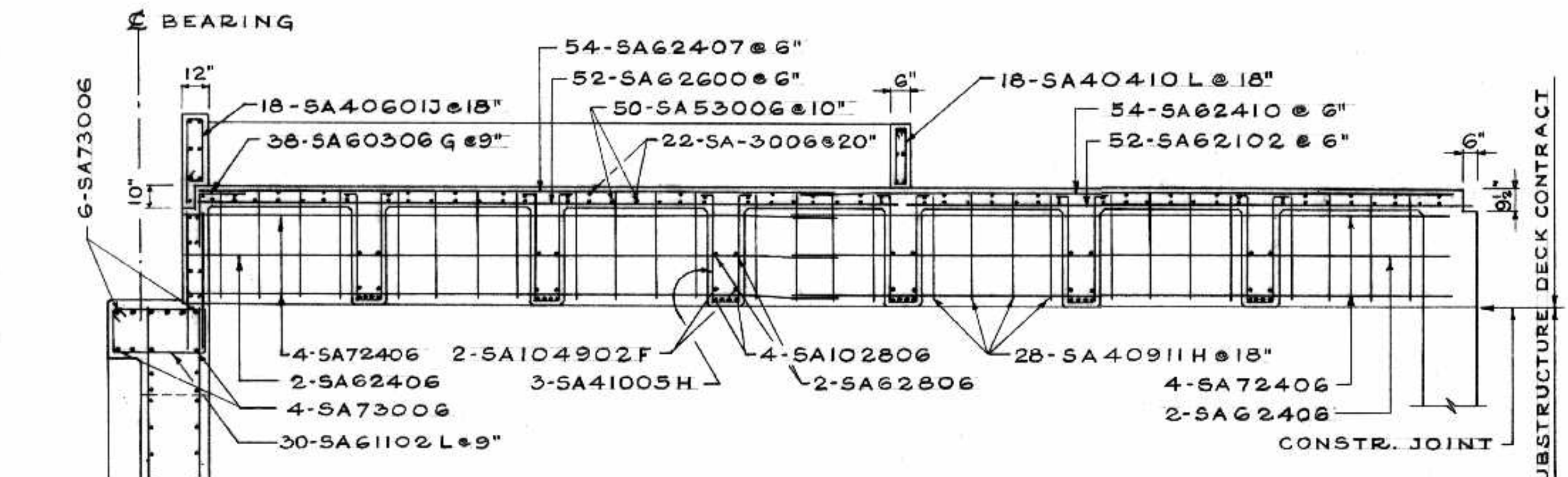
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CHKD. BY *[Signature]*
DWG. No. **F-9**

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

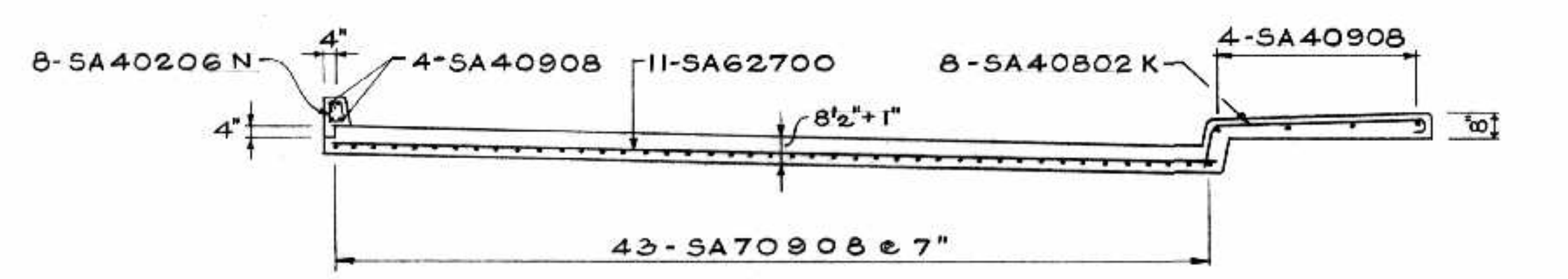
PROVINCE OF MANITOBA REGISTERED ENGINEER



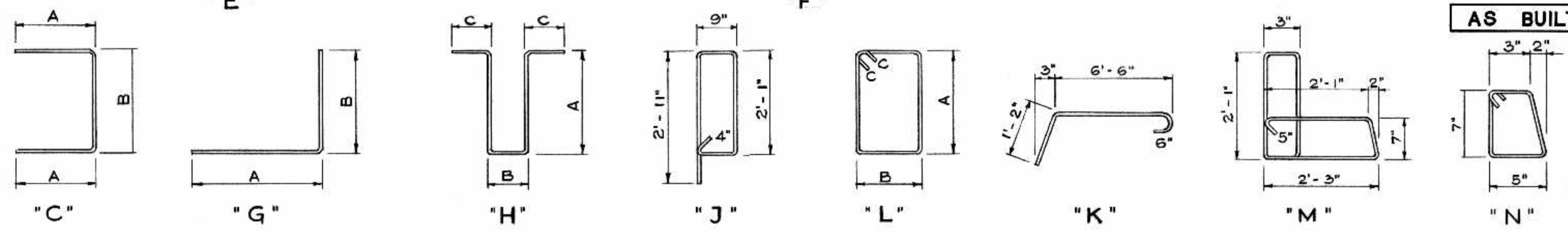
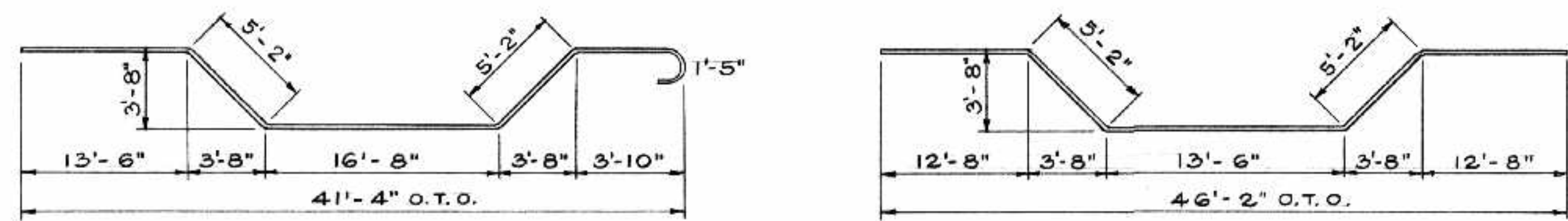
SECTION E-E
SOUTH WALL



SECTION F-F
BEARING



SECTION G-G
(DECK CONTRACT)



SOUTH ABUTMENT REINFORCING STEEL SCHEDULE

SUBSTRUCTURE												DECK CONTRACT																
MARK	Nº	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT	MARK	Nº	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT	MARK	Nº	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT		
FOOTINGS												NORTH WALL																
SA-80400	100	#8	4'-0"	STR.				1068.0	SA-60811	12	#6	8'-11"	STR.				160.8	SA-63500	20	#6	35'-0"	STR.						
SA-60506	22	#6	5'-6"	"				181.7	SA-60910L	2	#6	9'-10"	STR.	2'-5"	2'-0"	6"	29.5	SA-63006	8	#6	30'-6"	"						
SA-60503	88	#6	5'-3"	"				693.9	SA-60804L	6	#6	8'-4"	STR.	2'-0"	1'-8"	6"	75.1	SA-60306G	37	#6	3'-6"	"	2'-0"	1'-6"				
SA-60306	88	#6	3'-6"	"				462.6	SA-60400G	22	#6	4'-0"	STR.	2'-0"	2'-0"		132.2	SA-60400C	10	#6	4'-0"	"	1'-6"	1'-0"				
SA-60500	116	#6	5'-0"	"				871.2	SA-60500C	122	#6	5'-0"	STR.	1'-6"	2'-0"		916.2	EAST AND WEST WALLS										
SA-60303	98	#6	3'-3"	"				478.4	INTERIOR WALLS							SA-63210	10	#6	32'-10"	STR.								
NORTH WALL												SOUTH WALL																
SA-81605	60	#8	16'-5"	STR.				2630.5	SA-112600	8	#11	26'-0"	STR.				1105.1	SA-64200	8	#6	42'-0"	STR.						
SA-81700	40	#8	17'-0"	"				1815.6	SA-112200	4	#11	22'-0"	"				467.5	SA-62809	16	#6	28'-9"	"						
SA-70603	184	#7	6'-3"	"				2350.6	SA-101900	4	#10	19'-0"	"				327.0	SA-60600G	16	#6	6'-0"	"	4'-0"	2'-0"				
SA-70506	74	#7	5'-6"	"				831.9	SA-102600	8	#10	26'-0"	"				895.0	SA-60800G	8	#6	8'-0"	"	4'-0"	4'-0"				
SA-73006	10	#7	30'-6"	"				623.4	INTERIOR WALLS							BEAMS, BRIDGING, DECK, APPROACH SLAB												
SA-63400	44	#6	34'-0"	"				2246.9	SA-93003	4	#9	30'-3"	"				411.4	SA-113200	48	#11	32'-0"	STR.						
SA-63406	24	#6	34'-6"	"				1243.7	SA-63003	32	#6	30'-3"	"				1453.9	SA-102806	24	#10	28'-6"	"						
SA-63006	26	#6	30'-6"	"				1191.1	SA-62307	12	#6	23'-7"	"				425.0	SA-104509E	24	#10	45'-9"	STR.						
SA-61306	24	#6	13'-6"	"				486.6	SA-62000	16	#6	20'-0"	"				480.6	SA-104902F	12	#10	49'-2"	"						
SA-61608	4	#6	16'-8"	"				100.1	SA-61605	68	#6	16'-5"	"				1679.0	SA-101300G	24	#10	13'-0"	"	9'-0"	4'-0"				
SA-60511	12	#6	5'-11"	"				106.7	SA-60700	16	#6	7'-0"	"				66.1	SA-101702	24	#10	17'-2"	STR.						
SA-61602	60	#6	16'-2"	"				1456.8	SA-62008	4	#6	20'-8"	"				570.8	SA-72406	24	#7	24'-6"	"						
SA-61609	28	#6	16'-9"	"				704.7	SA-60906	40	#6	9'-6"	"				84.1	SA-71000	86	#7	10'-0"	"						
SA-60709	4	#6	7'-9"	"				46.6	SA-60700C	8	#6	7'-0"	"	2'-9"	1'-6"		851.6	SA-62700	140	#6	27'-0"	"						
SA-60600	10	#6	6'-0"	"				90.1	SA-60406C	126	#6	4'-6"	STR.	1'-6"	1'-6"			SA-62806	12	#6	28'-6"	"						
SA-60400C	32	#6	4'-0"	STR.	1'-6"	1'-0"		192.3	WEST AND EAST WALLS							SA-62405	122	#6	24'-5"	"								
SA-60500C	14	#6	5'-0"	STR.	1'-6"	2'-0"		105.1	SA-103803	4	#10	38'-3"	STR.				658.4	SA-62410	176	#6	24'-10"	"						
SA-61102L	30	#6	11'-2"	STR.	3'-5"	1'-8"	6"	503.1	SA-101806	4	#10	18'-6"	"				318.4	SA-62407	54	#6	24'-7"	"						
SA-41010L	132	#4	10'-10"	STR.	3'-5"	1'-8"	4"	955.4	SA-103304	8	#10	33'-4"	"				1147.5	SA-62102	52	#6	21'-2"	"						
SA-41204L	34	#4	12'-4"	STR.	3'-5"	2'-5"	4"	280.2	SA-102200	8	#10	22'-0"	"				757.3	SA-62202	118	#6	22'-2"	"						
WEST AND EAST WALLS												SOUTH WALL																
SA-103803	4	#10	38'-3"	STR.				658.4	SA-113000	8	#11	30'-0"	STR.				1275.1	SA-62600	52	#6	26'-0"	"						
SA-101806	4	#10	18'-6"	"				318.4	SA-114200	4	#11	42'-0"	"				892.8	SA-53300	100	#5	33'-0"	"						
SA-103304	8	#10	33'-4"	"				1147.5	SA-103305	16	#10	33'-5"	"				2301.0	SA-53006	50	#5	30'-6"	"						
SA-102200	8	#10	22'-0"	"				757.3	SA-102810	8	#10	28'-10"	"				992.6	SA-43300	44	#4	33'-0"	"						
SA-101507	4	#10	15'-7"	"				268.2	SA-101900	4	#10	19'-0"	"				327.0	SA-43006	22	#4	30'-6"	"						
SA-11610	44	#6	16'-10"	"				1112.6	SA-100600G	12	#10	6'-0"	STR.	4'-0"	2'-0"		309.8	SA-40911H	348	#4	9'-11"	STR.	4'-0"	1'-1"	5"			
SA-60910	22	#6	9'-10"	"				325.0	SA-100800G	6	#10	8'-0"	STR.	4'-0"	4'-0"		206.5	SA-41001H	36	#4	10'-1"	STR.	4'-1"	1'-1"	5"			
SA-63206	22	#6	32'-6"	"				1073.9	SA-60106	58	#6	1'-6"	STR.				130.7	SA-41005H	36	#4	10'-5"	STR.	4'-3"	1'-1"	5"			
SA-61909	8	#6	19'-9"	"				273.3	SA-64200	8	#6	42'-0"	"				504.7	SA-40907H	56	#4	9'-7"	STR.	4'-0"	9"	5"			
SA-63304	4	#6	33'-4"	"				200.3	SA-62809	16	#6	28'-9"	"				690.9	SA-40911H	28	#4	9'-11"	STR.	4'-2"	9"	5"			
SA-62404	6	#6	24'-4"	"				219.3	SA-60810	84	#6	8'-10"	"				1114.7	SIDEWALKS, CURBS, PLANTER										
SA-61504	6	#6	15'-4"	"				138.2	SA-60906	40	#6	9'-6"	"				570.8	SA-40802K	114	#4	8'-2"	STR.						
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SA-60909	6	#6	9'-9"	"				87.9	SA-60600G	16	#6	6'-0"	STR.	4'-0"	2'-0"		144.2	SA-40908	8	#4	9'-8"	"						
SA-61900	6	#6	19'-0"	"				171.2	SA-60800G	8	#6	8'-0"	STR.	4'-0"	4'-0"		96.1	SA-40909M	38	#4	9'-9"	STR.						
SA-62709	4	#6	27'-9"	"				166.7	AS BUILT							REVISIONS												
SA-63609	4	#6	36'-9"	"				220.8	NO DATE BY DESCRIPTION							REVISIONS												
SA-61001	8	#6	10'-1"	"				121.1	APPROVED BY <i>[Signature]</i>							DEPUTY DIRECTOR OF STREETS & TRANSIT												
SA-60503	16	#6	5'-3"	"				126.2	THE METROPOLITAN CORPORATION OF GREATER WINNIPEG							STREETS AND TRANSIT DIVISION B-5015-89												
SA-60511	12	#6	5'-11"	"				106.7	ST. VITAL BRIDGE PROJECT							SOUTH ABUTMENT REINFORCING DETAILS												
SA-60403	12	#6	4'-3"	"				76.6	FILE No. 861.							DATE SEPT. 1964												
SA-60610	12	#6	6'-10"	"				123.2	SCALE 1/4" = 1'-0"							DWN. BY A.V.S.												
SA-60905	10	#6	9'-5"	"				141.5	CHKD. BY <i>[Signature]</i>							DWG. No. F-10												
SA-60500	10	#6	5'-0"	"				75.1	T. LAMB, McMANUS & ASSOCIATES LTD.							CONSULTING ENGINEERS												
SA-60700	10	#6	7'-0"	"				105.1	EDMONTON CALGARY WINNIPEG																			
SA-61608	10	#6	16'-8"	"				250.3																				
SA-61401	12	#6	14'-1"	"				253.8																				
SA-61106	12	#6	11'-6"	"				207.3																				

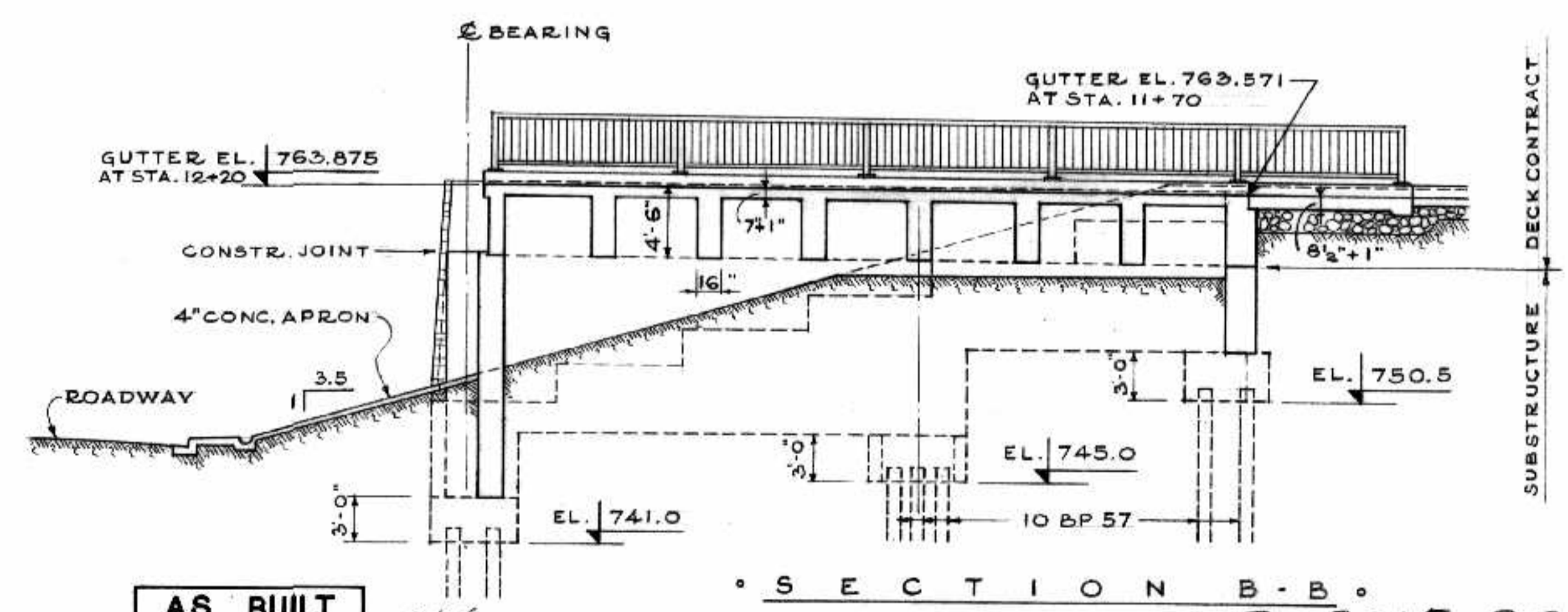
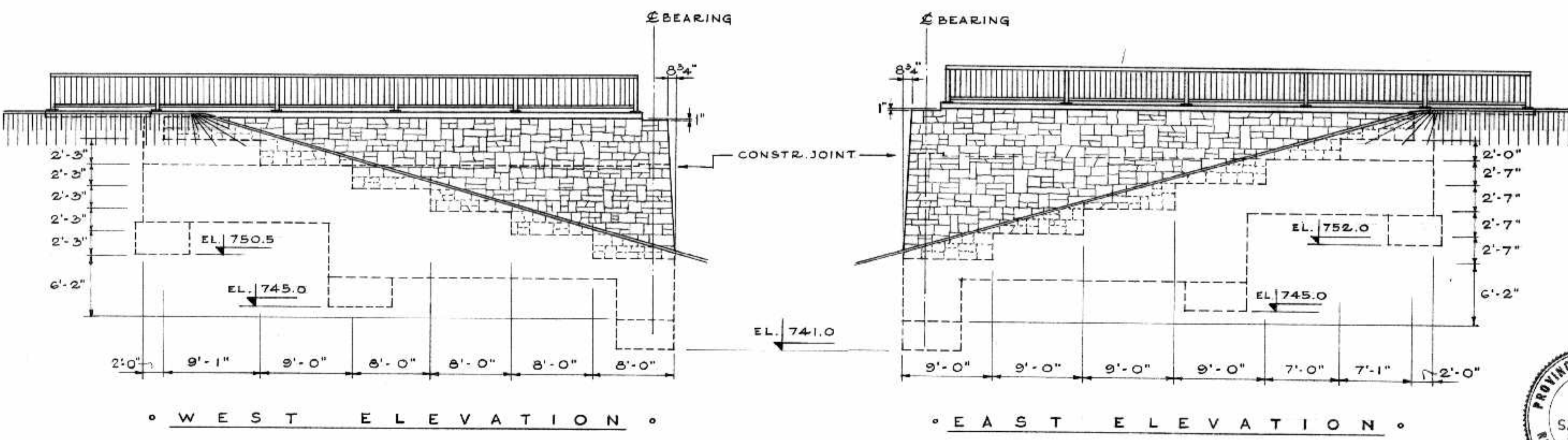
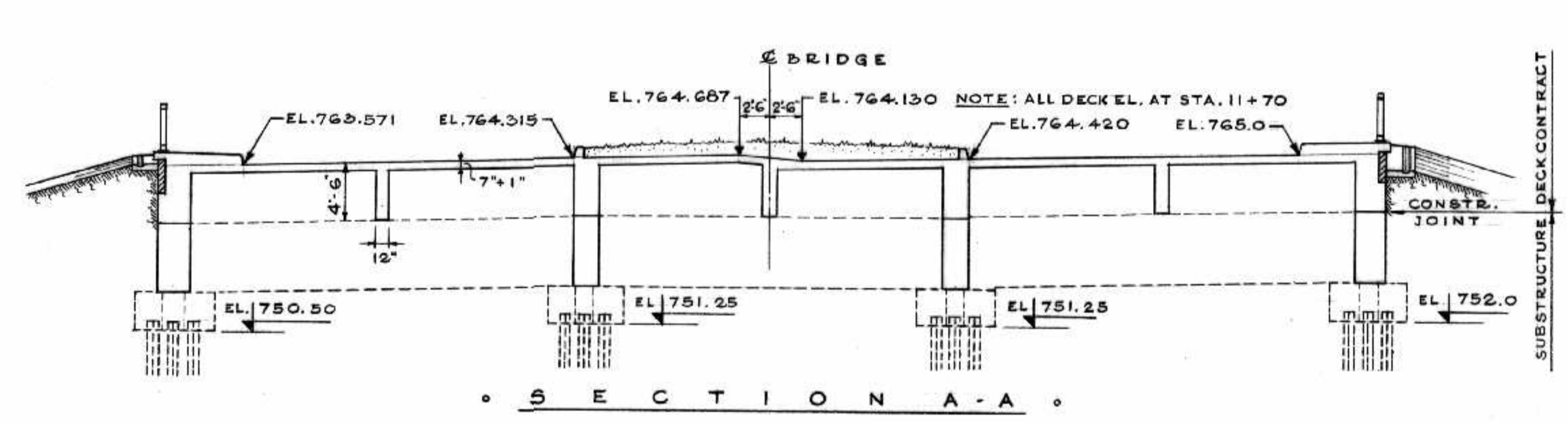
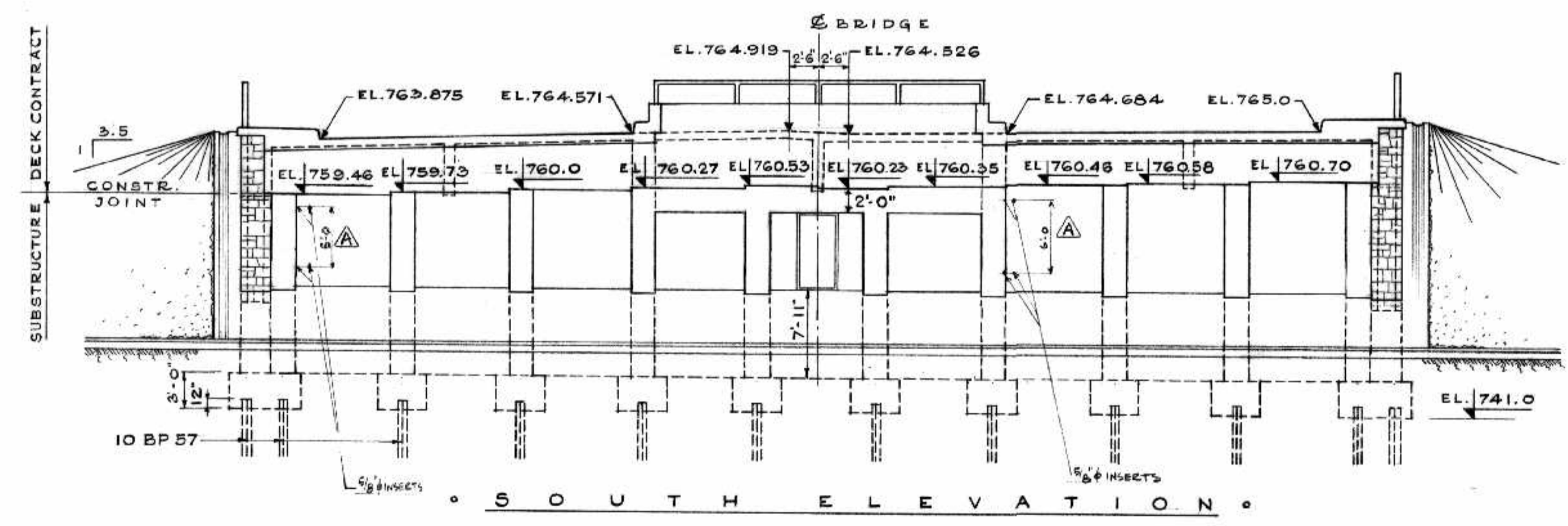
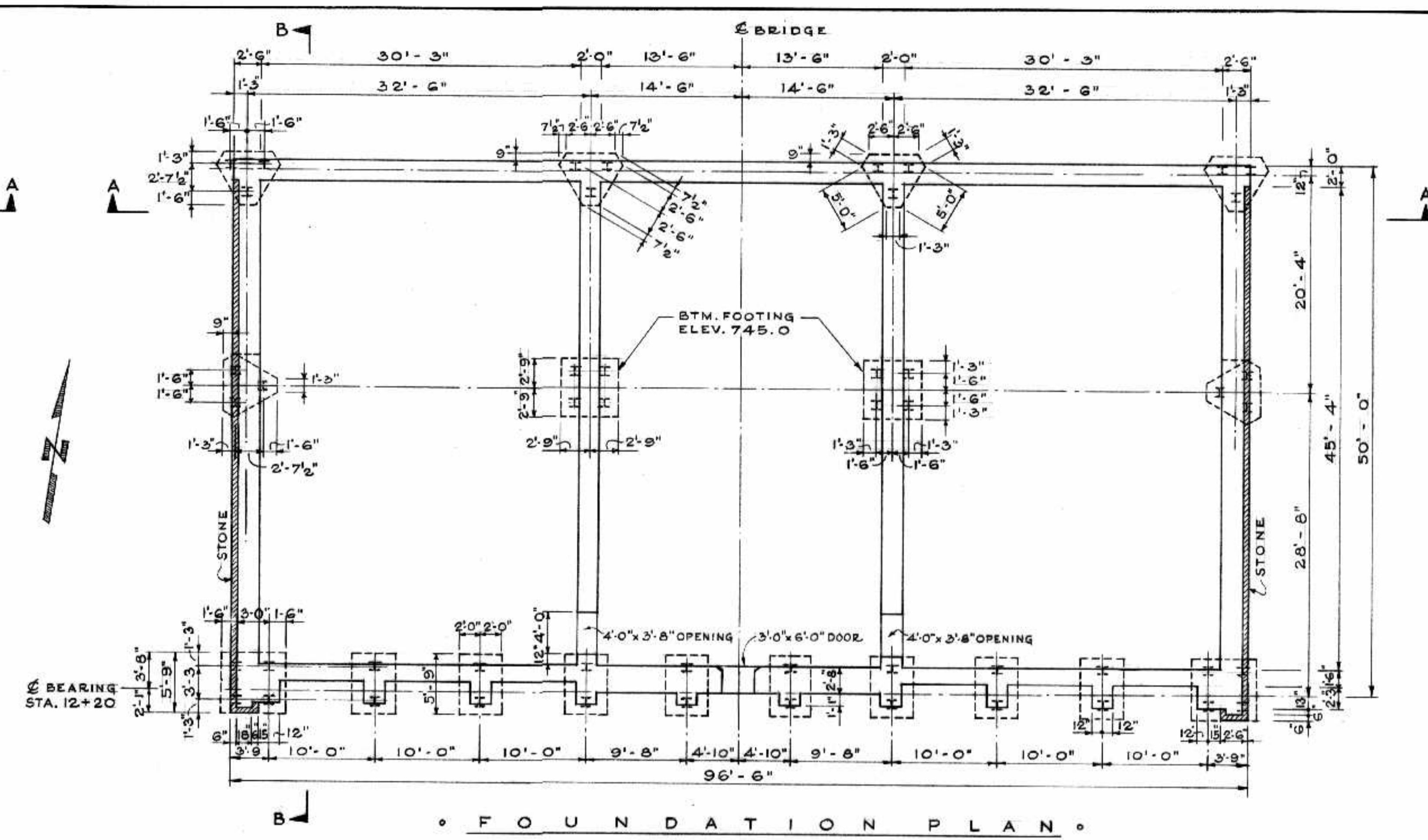
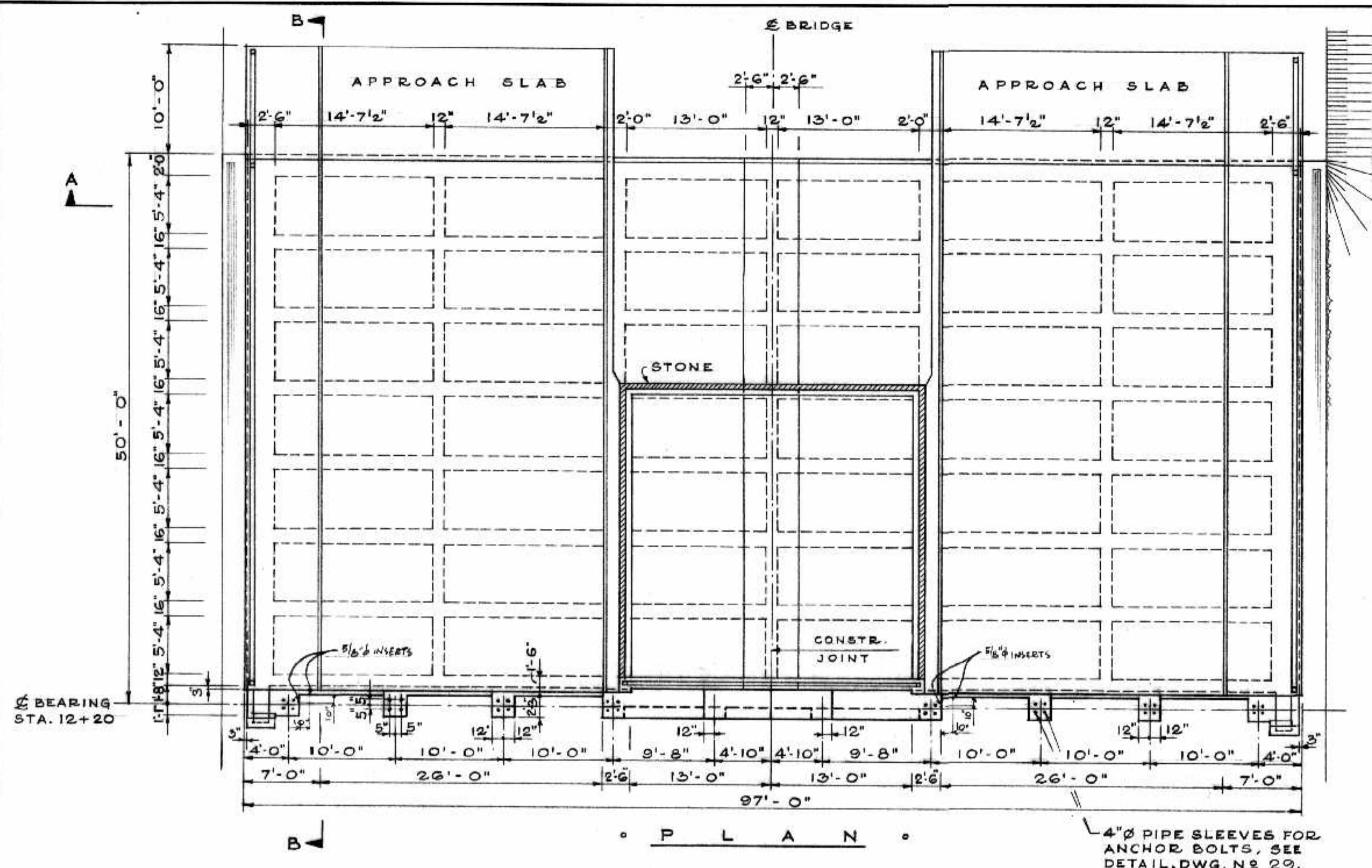
SUBSTRUCTURE TOTAL LBS. 53,495.2 DECK CONTRACT TOTAL LBS.

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION B-5015-89
ST. VITAL BRIDGE PROJECT

SOUTH ABUTMENT REINFORCING DETAILS

FILE No. 861.
DATE SEPT. 1964
SCALE 1/4" = 1'-0"
DWN. BY A.V.S.
CHKD. BY *[Signature]*
DWG. No. F-10

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG



TOTAL VOLUME CONCRETE (SUBSTRUCTURE) 367 C.Y. NORTH ABUTMENT.

AS BUILT A.L.S. MAR 16 1968

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

NORTH ABUTMENT

FILE No. 861
DATE SEPT. 1964
SCALE 1/8" = 1'-0"
DWN. BY A.V.S.
CHKD. BY D.A. [Signature]

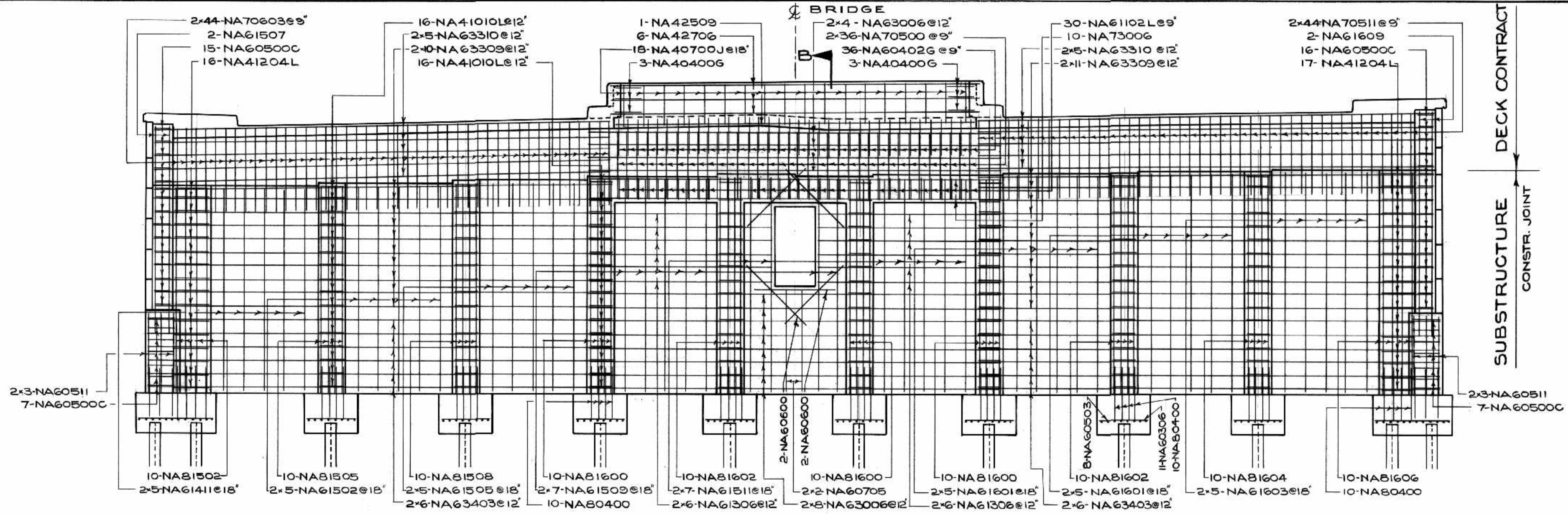
T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

D.W.G. No. F-11

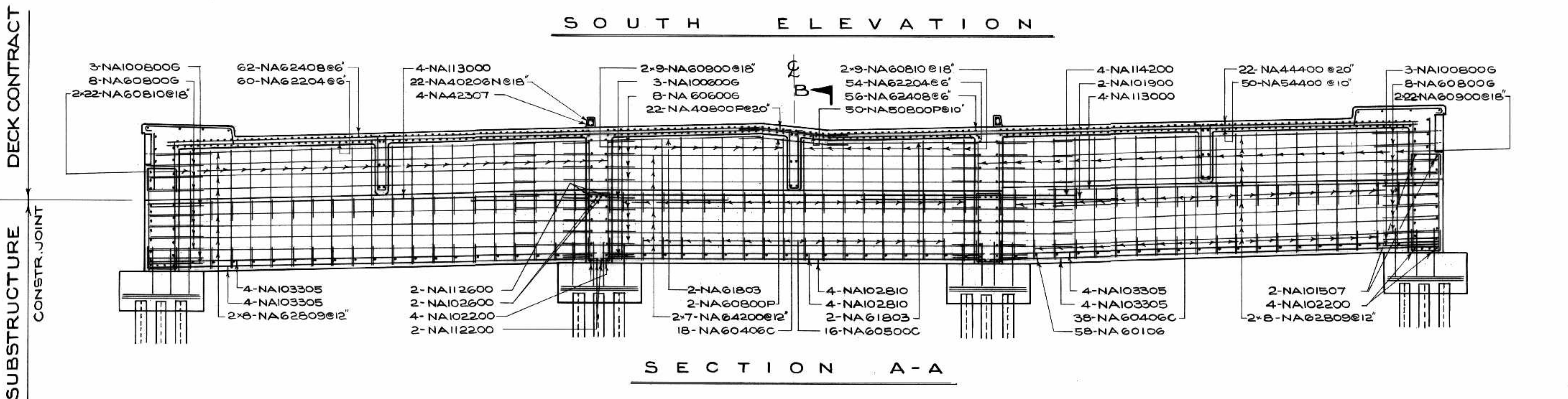
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1	AS BUILT	INSERT LOCATIONS CHANGED

APPROVED BY [Signature]
DEPUTY DIRECTOR OF STREETS & TRANSIT

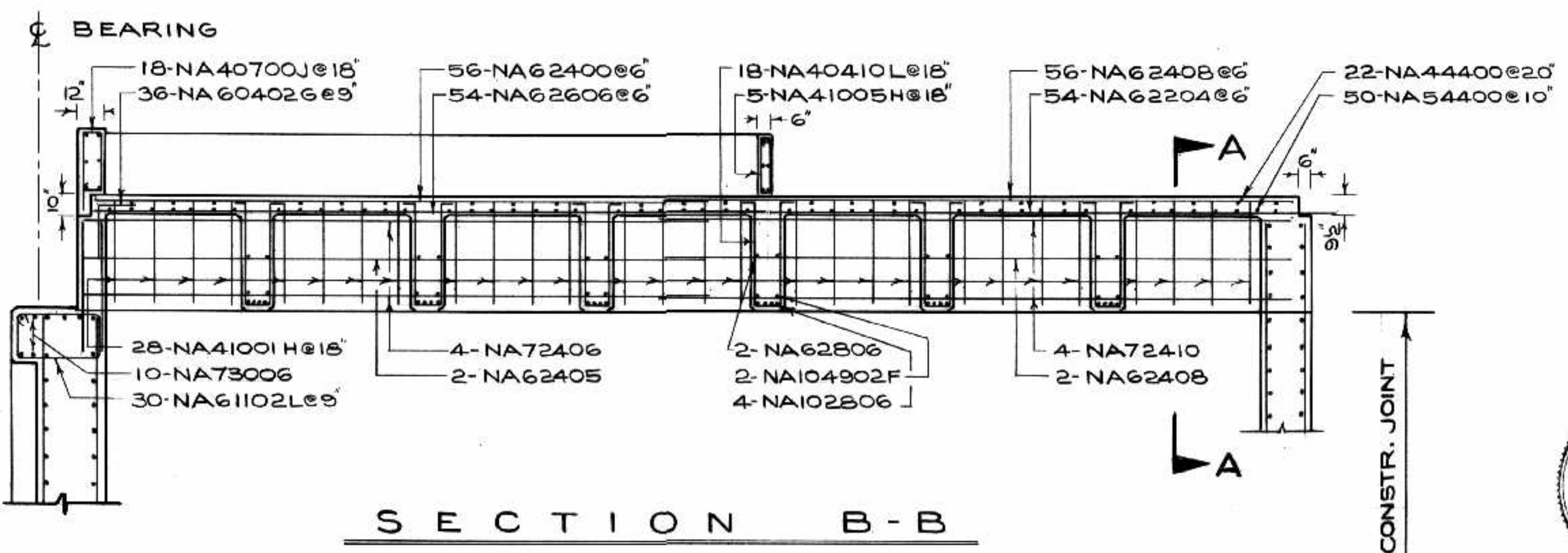
PROVINCE OF MANITOBA REGISTERED ENGINEER [Signature]



SOUTH ELEVATION



SECTION A-A



SECTION B-B

AS BUILT *A.L.S. rrr/18*

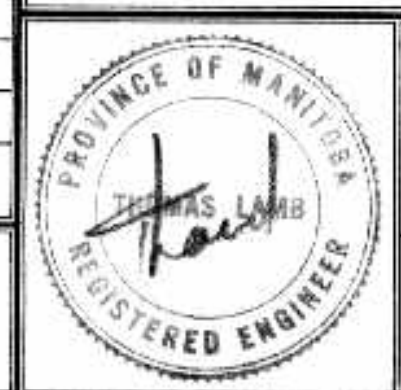
B-5015-91

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

NORTH ABUTMENT
REINFORCING DETAILS

FILE No. 861.
DATE SEPT. 1964
SCALE 1/4" = 1'-0"
DWN. BY 23.
CHKD. BY *SA dsk*
DWG. No. F-12

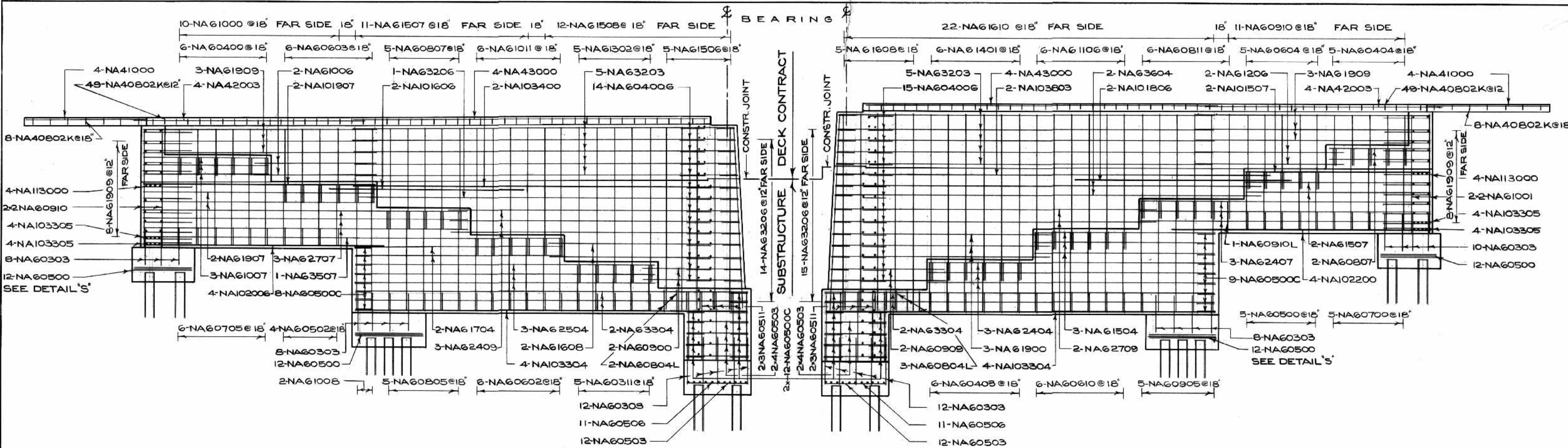


T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG



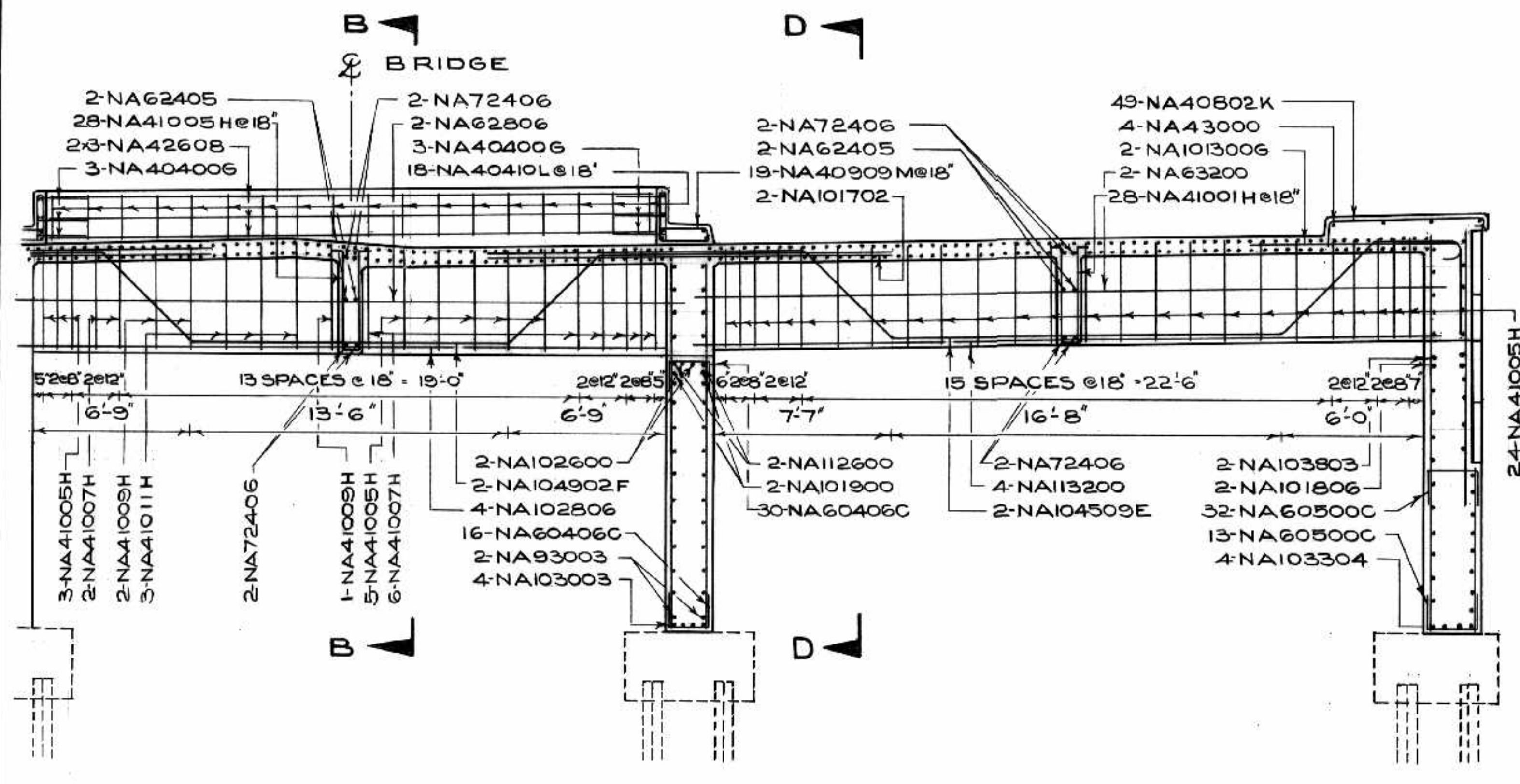
NO.	DATE BY	DESCRIPTION

APPROVED BY *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

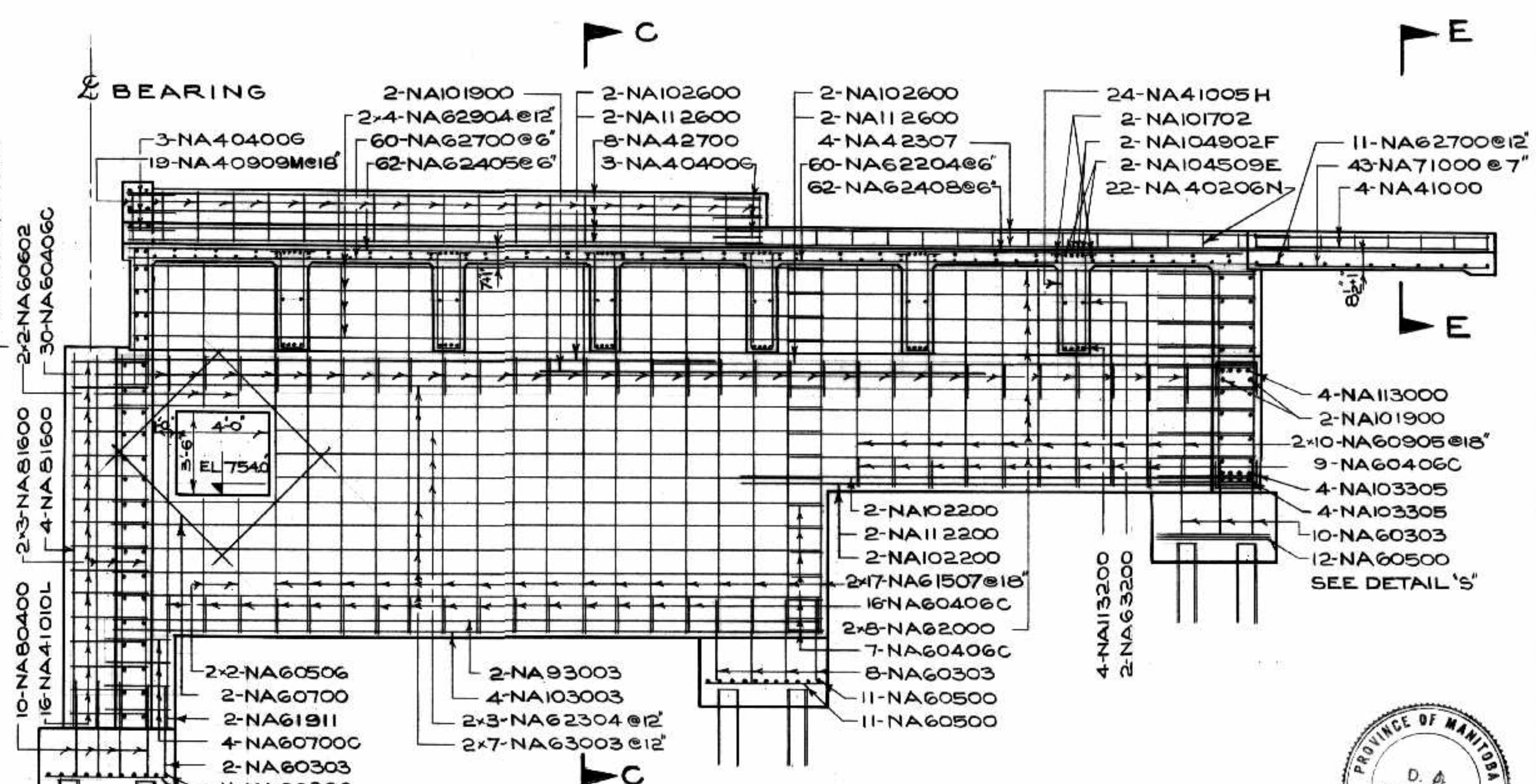


WEST ELEVATION

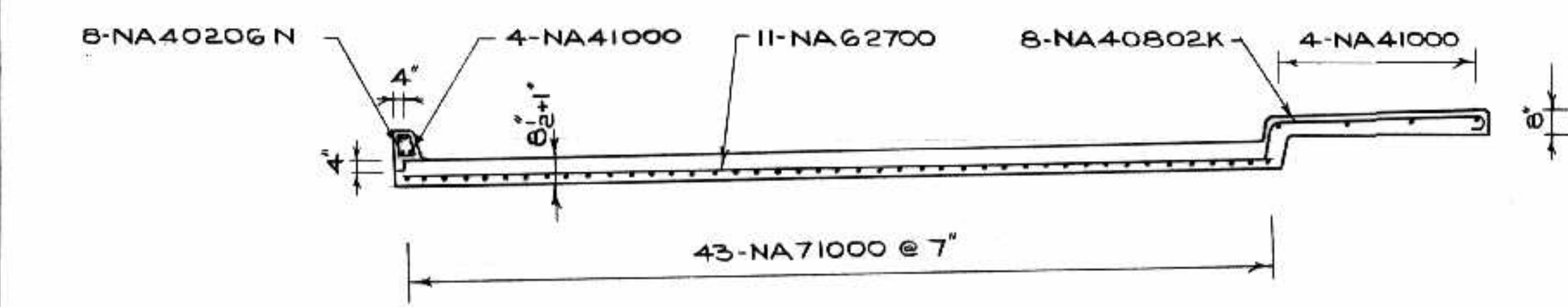
EAST ELEVATION



SECTION C-C

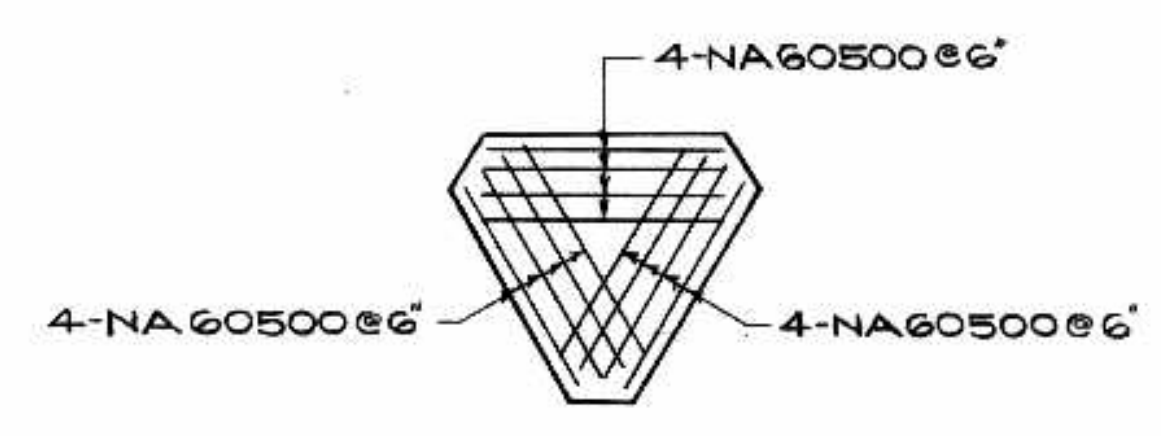


SECTION D-D



SECTION E-E

DECK CONTRACT



DETAILS S

3 PILE FOOTING

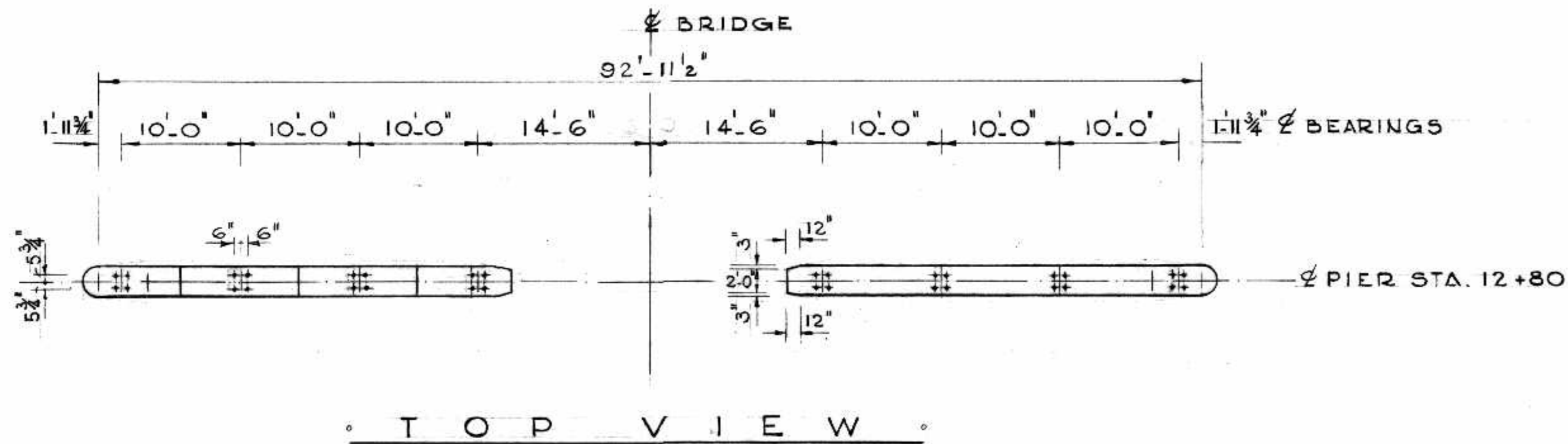
AS BUILT *A.L.S. road 148*

B-5015-92

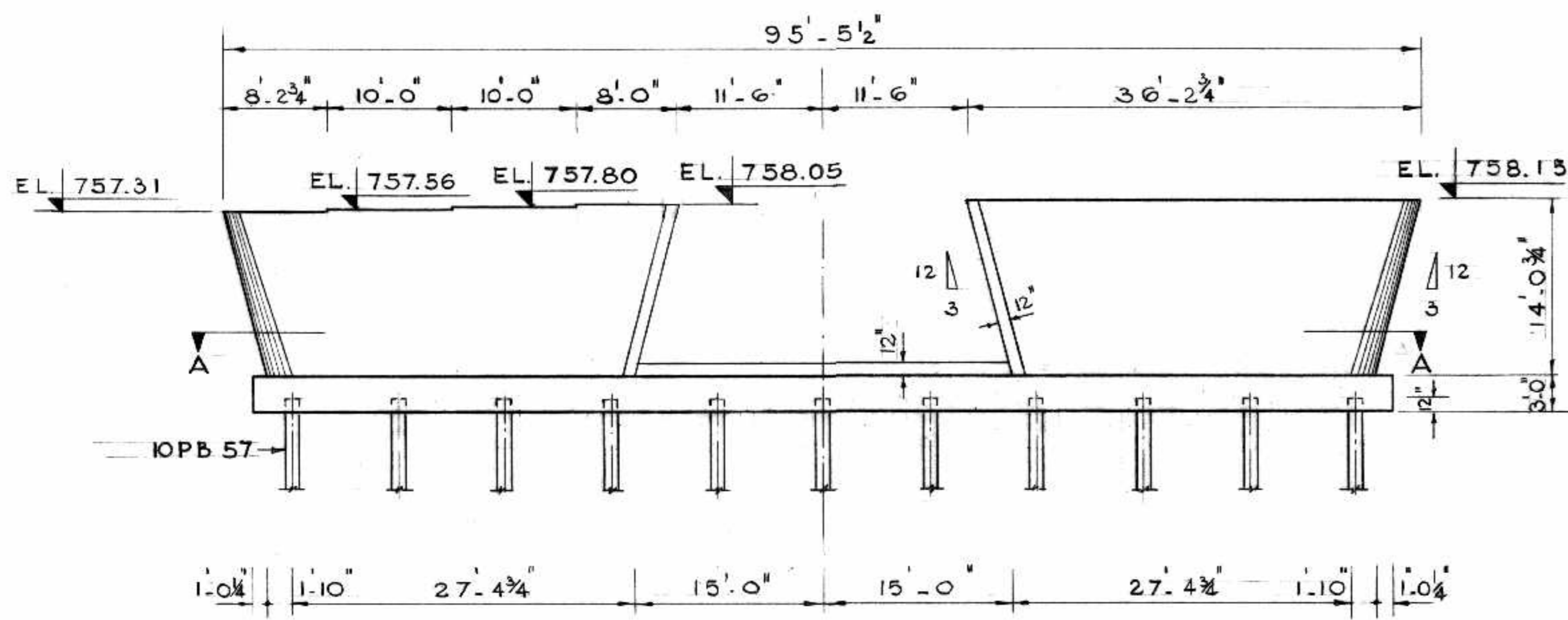
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

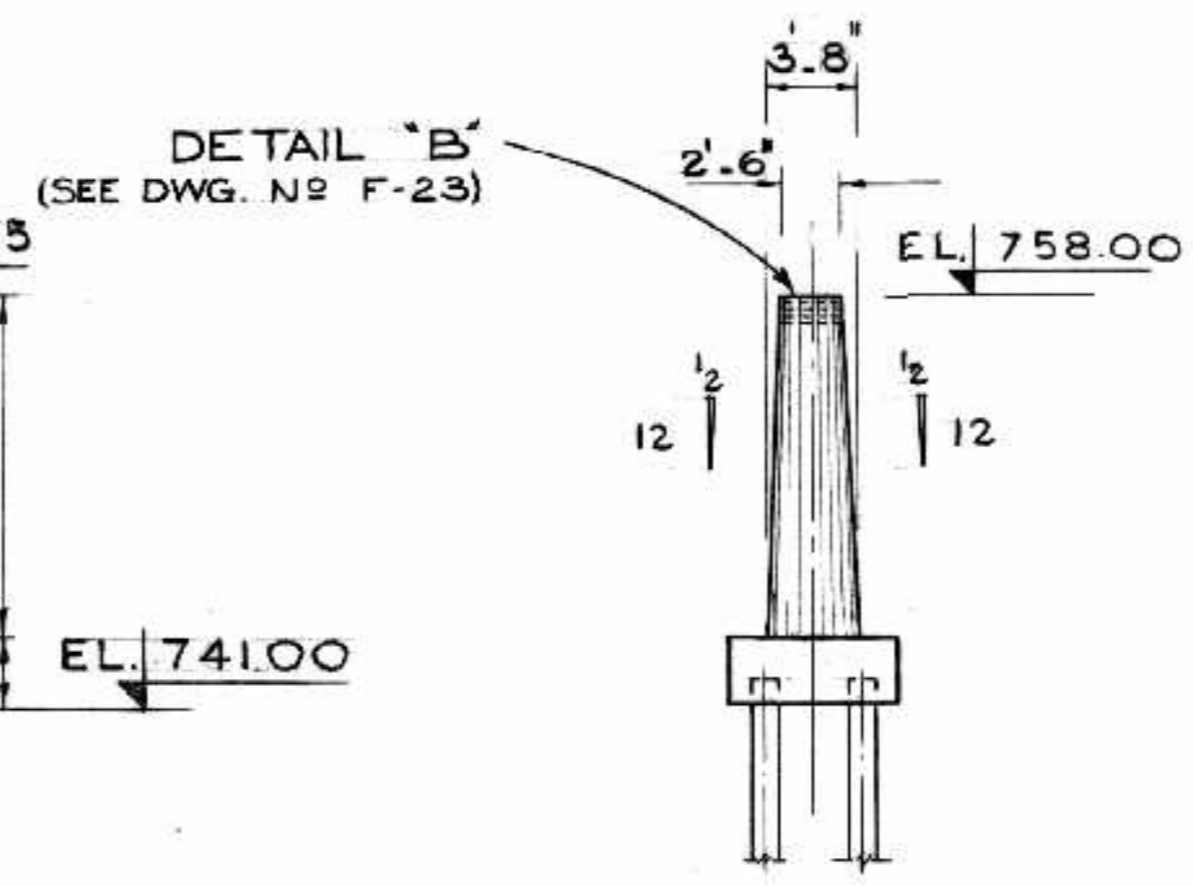
<p>NO. DATE BY DESCRIPTION</p> <p style="text-align: center;">REVISIONS</p> <p>APPROVED BY <i>[Signature]</i></p> <p>DEPUTY DIRECTOR OF STREETS & TRANSIT</p>	<p style="text-align: center;">PROVINCE OF MANITOBA REGISTERED ENGINEER <i>[Signature]</i></p> <p style="text-align: center;">T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG</p>	<p>FILE No. 861.</p> <p>DATE SEPT. 1964</p> <p>SCALE 1/4" = 1'-0"</p> <p>DWN. BY 23</p> <p>CHKD. BY <i>[Signature]</i></p> <p>DWG. No. F-13</p>
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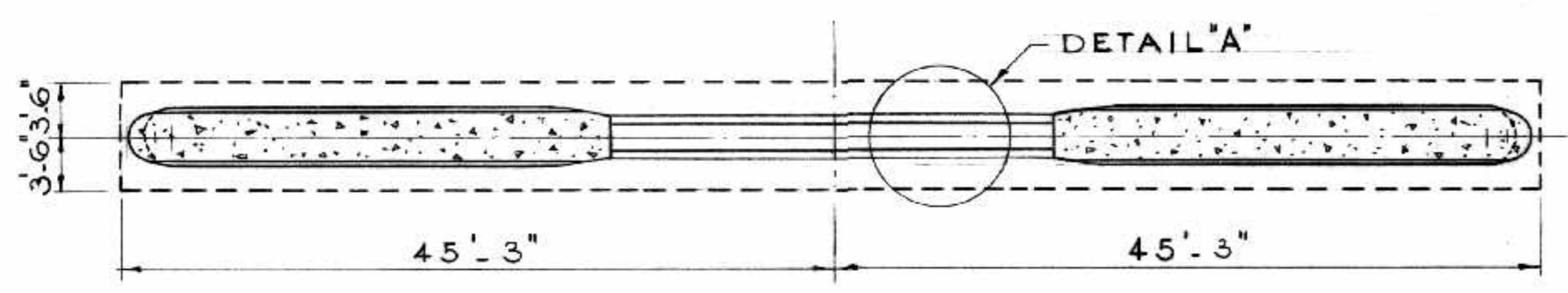
TOP VIEW



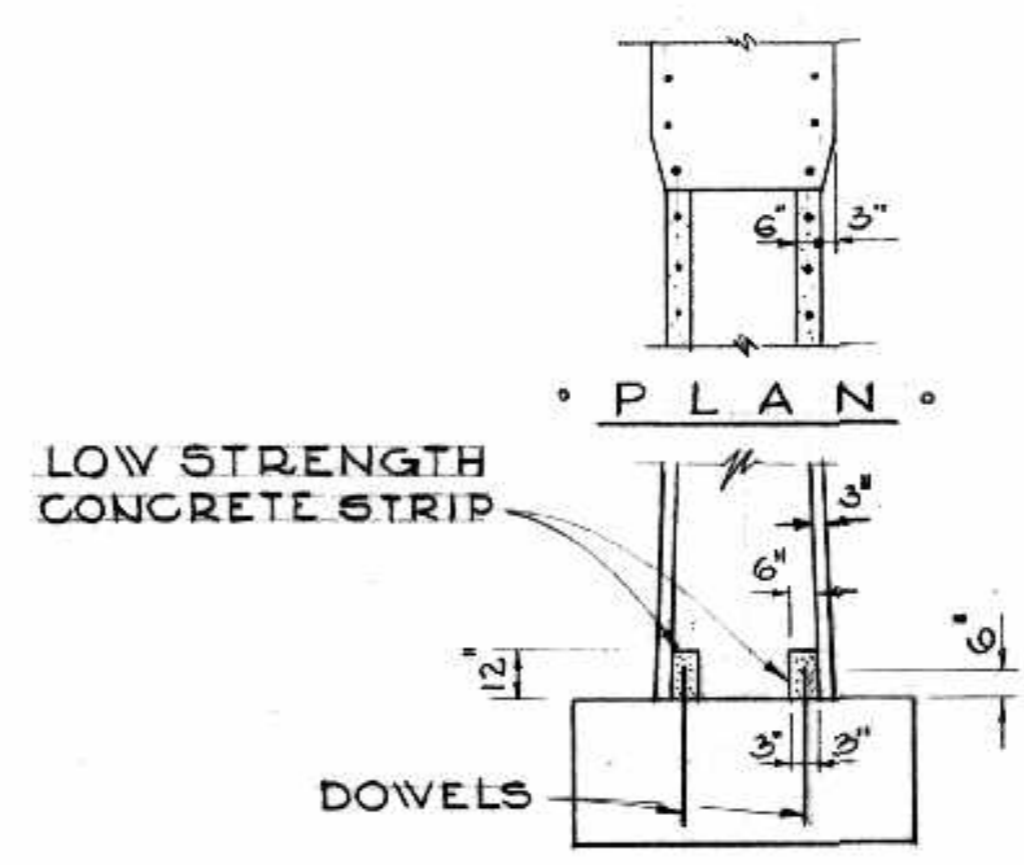
ELEVATION



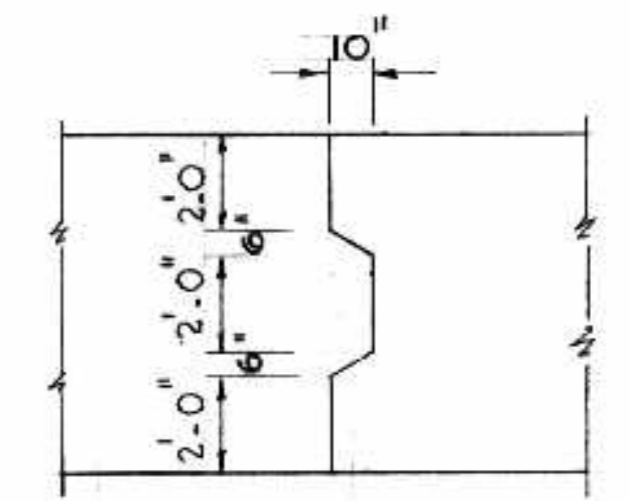
END VIEW



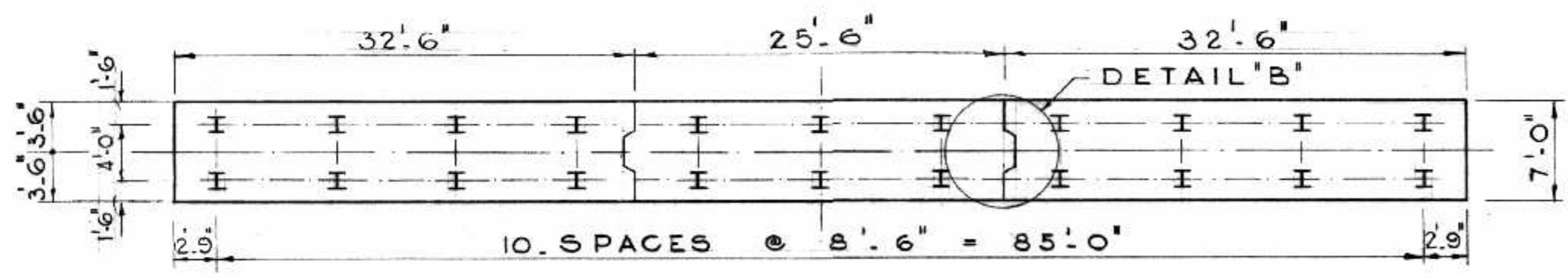
SECTION A-A



DETAIL "A"



DETAIL "B"



PLAN OF PILES

TOTAL VOLUME CONCRETE 174 C.Y. CLASS A
1.1 C.Y. CLASS C
B-5013-94

AS BUILT

NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

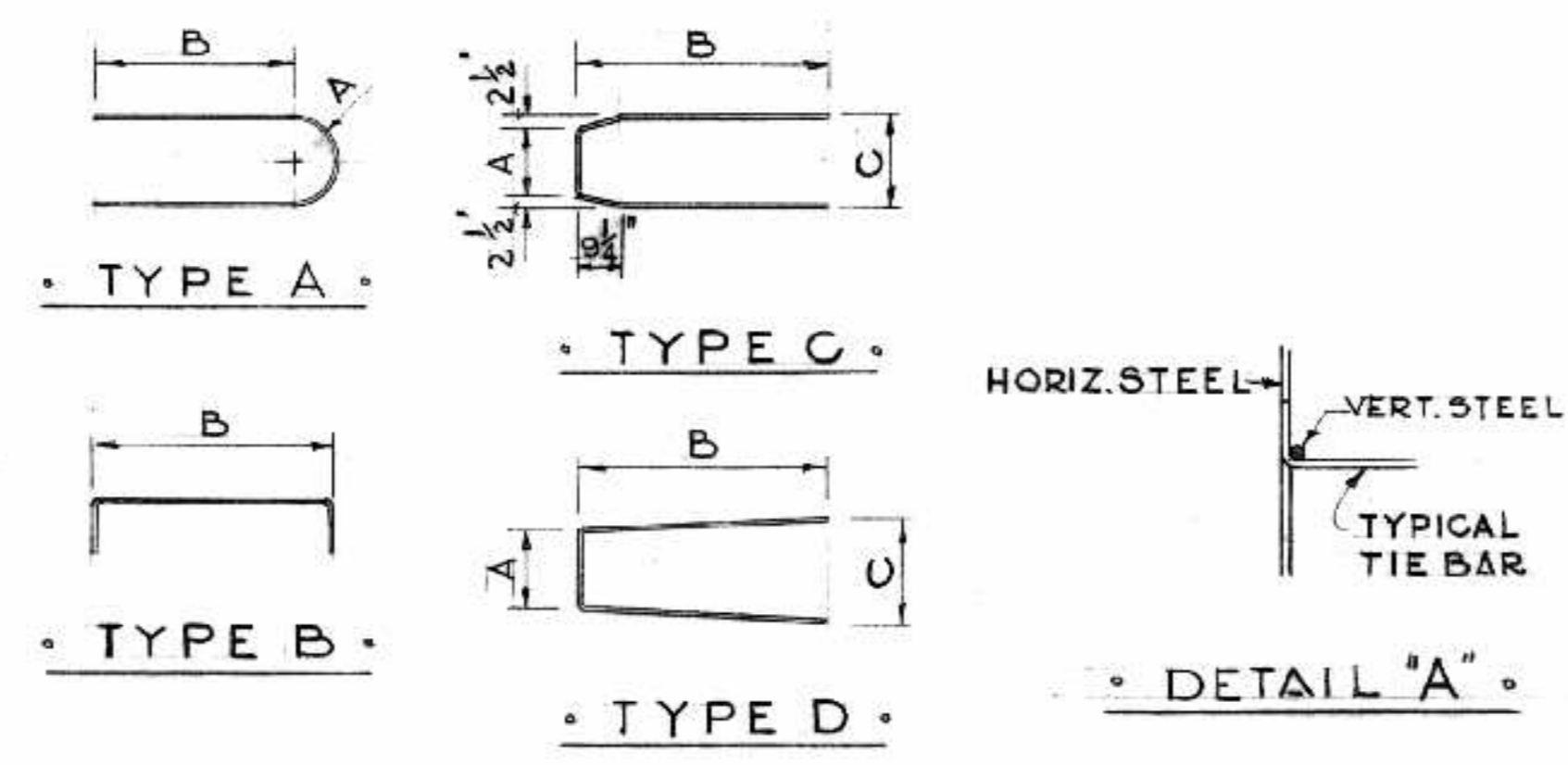
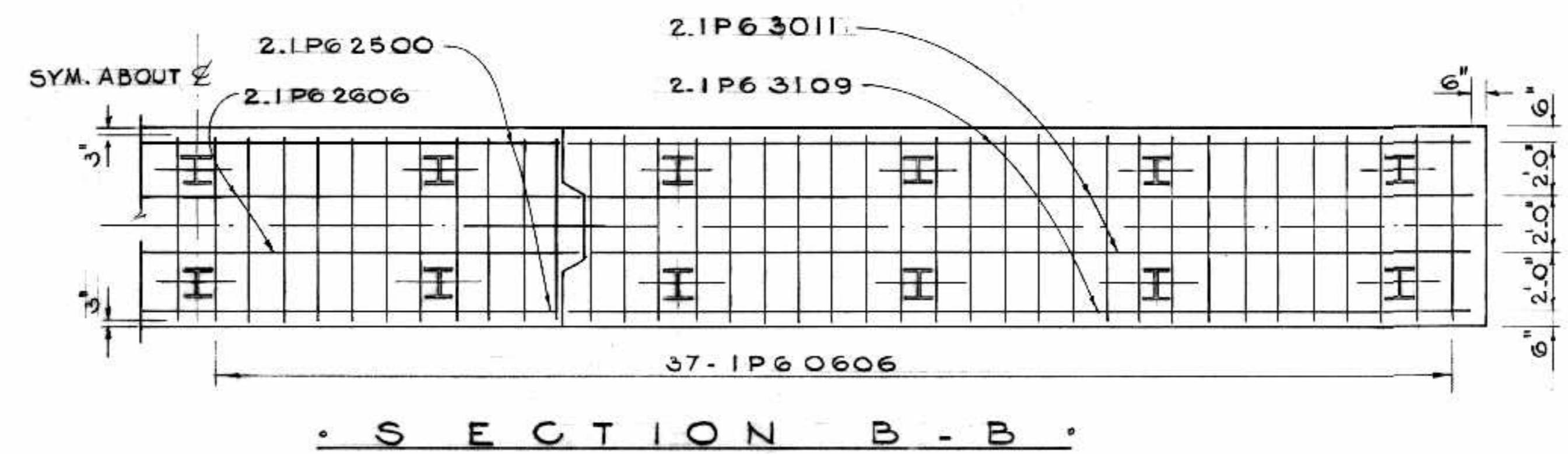
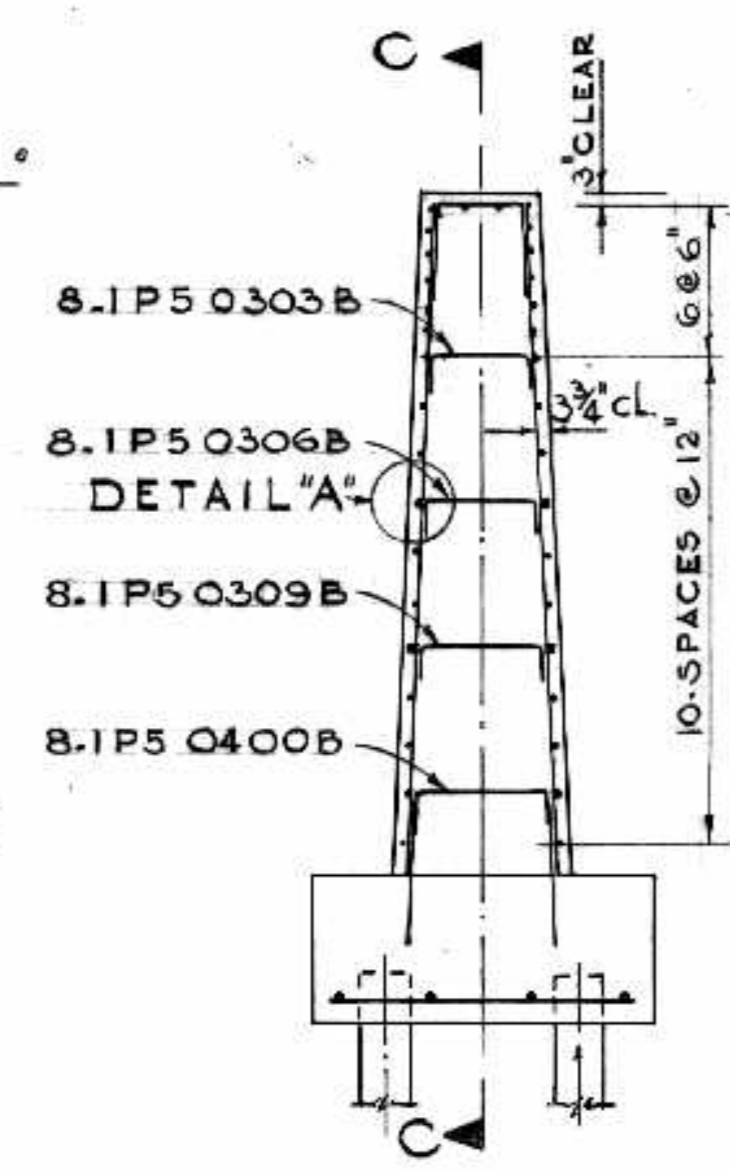
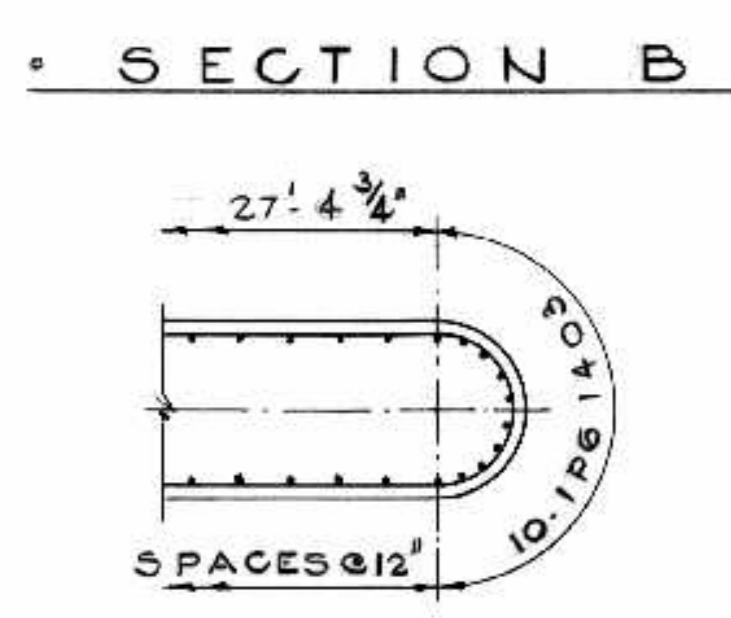
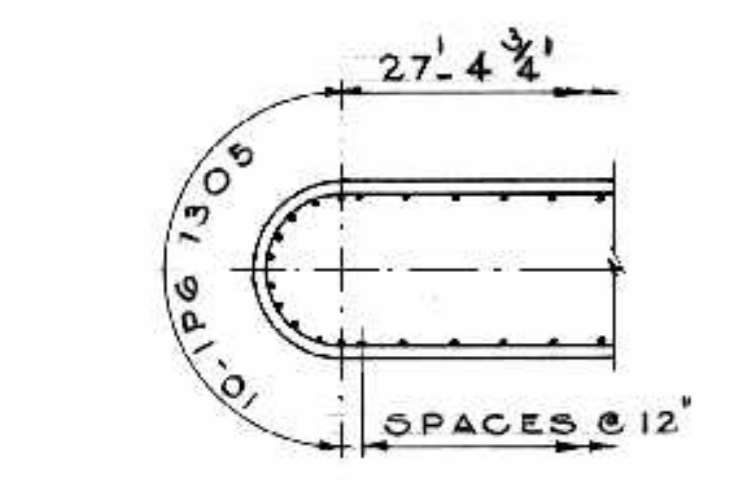
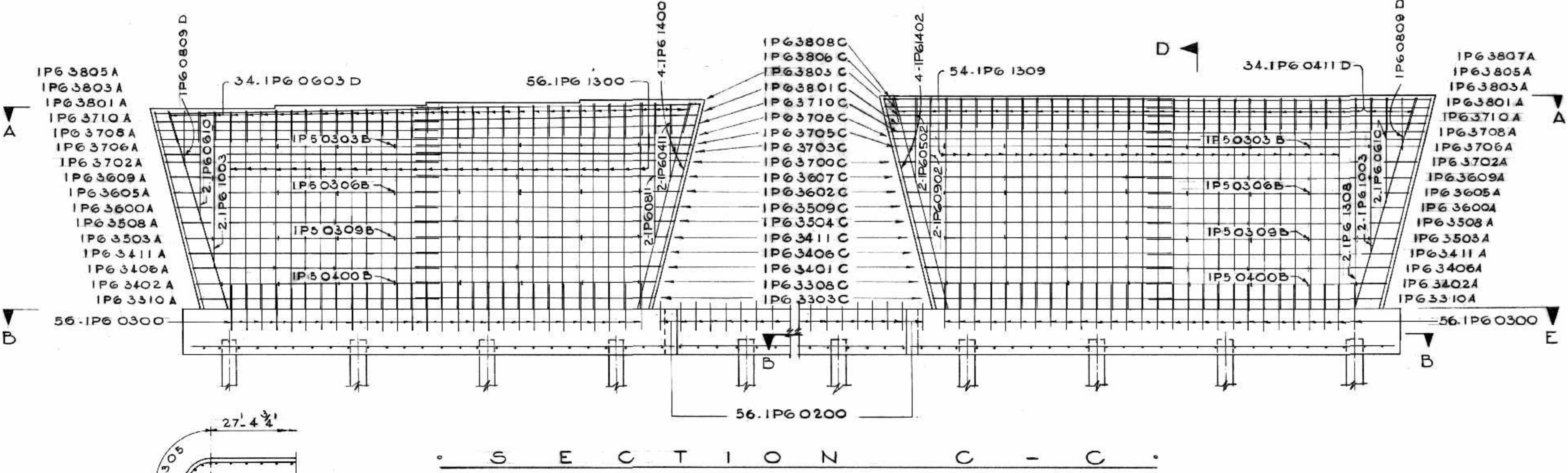
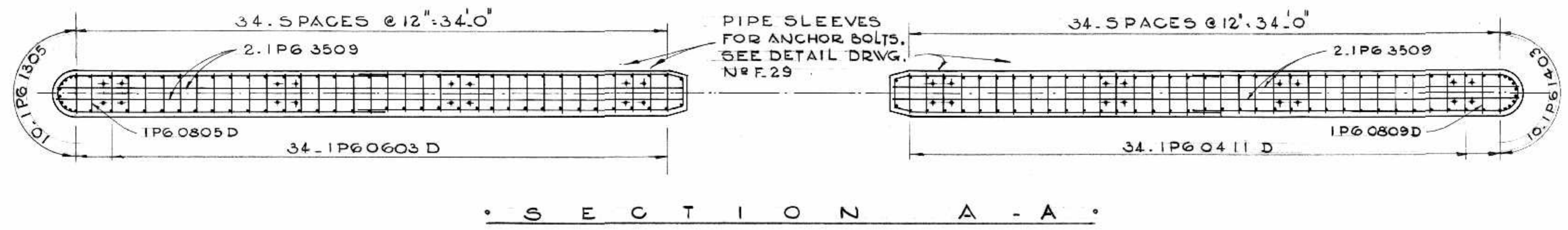
PIER NO. 1

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861.
DATE SEPT. 1964
SCALE 1/8" = 1'-0"
DWN. BY D. F.
CHKD. BY <i>[Signature]</i>
DWG. No. F15

REINFORCING STEEL SCHEDULE PIER NO. 1

MARK	Nº	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT
IP6 3109	4	#6	31.9'	STR.				1908
IP6 3011	4	#6	30.11'					1856
IP6 2606	2	#6	26.6'					781
IP6 2500	2	#6	25.0'					751
IP6 0606	74	#6	6.6'					7215
IP6 0300	112	#6	3.0'					2050
IP6 0200	56	#6	2.0'					1680
IP6 1403	10	#6	14.3'					2140
IP6 1402	4	#6	14.2'					852
IP6 1400	4	#6	14.0'					840
IP6 1309	54	#6	13.9'					1115.7
IP6 1308	2	#6	13.8'					410
IP6 1305	10	#6	13.5'					2016
IP6 1300	56	#6	13.0'					1093.4
IP6 0902	2	#6	9.2'					275
IP6 0811	2	#6	8.11'					26.7
IP6 1003	4	#6	10.3'					61.6
IP6 0502	2	#6	5.2'					15.5
IP6 0610	4	#6	6.10'					41.1
IP6 0411	2	#6	4.11'					14.8
IP6 3509	4	#6	35.9'					214.8
IP6 3807A	1	#6	38.7'		1.04'	17.84'		58.0
IP6 3805A	2	#6	38.5'		1.02'	17.62'		115.4
IP6 3803A	2	#6	38.3'		1.02'	17.54'		114.9
IP6 3801A	2	#6	38.1'		1.11'	17.33'		114.4
IP6 3710A	2	#6	37.10'		1.14'	17.24'		113.7
IP6 3708A	2	#6	37.8'		1.12'	17.02'		113.1
IP6 3706A	2	#6	37.6'		1.12'	16.11'		112.7
IP6 3702A	2	#6	37.2'		1.24'	16.84'		111.6
IP6 3609A	2	#6	36.9'		1.24'	16.54'		110.4
IP6 3605A	2	#6	36.5'		1.34'	16.24'		109.4
IP6 3600A	2	#6	36.0'		1.32'	15.11'		108.1
IP6 3508A	2	#6	35.8'		1.44'	15.84'		107.1
IP6 3503A	2	#6	35.3'		1.43'	15.54'		105.9
IP6 3411A	2	#6	34.11'		1.54'	15.24'		104.9
IP6 3406A	2	#6	34.6'		1.53'	14.11'		103.6
IP6 3402A	2	#6	34.2'		1.64'	14.84'		102.6
IP6 3310A	2	#6	33.10'		1.62'	14.54'		101.6
IP6 3808C	1	#6	38.8'		1.7'	18.62'	2.0'	58.0
IP6 3806C	1	#6	38.6'		1.72'	18.54'	2.02'	57.7
IP6 3803C	2	#6	38.3'		1.8'	18.32'	2.1'	114.9
IP6 3801C	2	#6	38.1'		1.82'	18.24'	2.12'	114.3
IP6 3710C	2	#6	37.10'		1.9'	18.02'	2.2'	113.7
IP6 3708C	2	#6	37.8'		1.92'	17.11'	2.22'	113.1
IP6 3705C	2	#6	37.5'		1.10'	17.92'	2.3'	112.4
IP6 3703C	1	#6	37.3'		1.102'	17.8'	2.32'	55.8
IP6 3700C	2	#6	37.0'		1.11'	17.62'	2.4'	111.1
IP6 3607C	2	#6	36.7'		2.0'	17.34'	2.5'	109.9
IP6 3602C	2	#6	36.2'		2.1'	17.02'	2.6'	108.6
IP6 3509C	2	#6	35.9'		2.2'	16.92'	2.7'	107.4
IP6 3504C	2	#6	35.4'		2.3'	16.62'	2.8'	106.1
IP6 3411C	2	#6	34.11'		2.4'	16.32'	2.9'	104.9
IP6 3406C	2	#6	34.6'		2.5'	16.02'	2.10'	103.6
IP6 3401C	2	#6	34.1'		2.6'	15.92'	2.11'	102.4
IP6 3308C	2	#6	33.8'		2.7'	15.62'	3.0'	101.1
IP6 3303C	2	#6	33.3'		2.8'	15.32'	3.1'	99.9
IP6 0809D	2	#6	8.9'		1.11'	3.5'	2.22'	26.2
IP6 0603D	34	#6	6.3'		1.11'	2.2'	2.1'	318.2
IP6 0411D	34	#6	4.11'		1.11'	1.6'	2.02'	250.5
IP5 0400B	16	#5	4.0'			3.0'		66.6
IP5 0309B	16	#5	3.9'			2.9'		62.6
IP5 0306B	16	#5	3.6'			2.6'		58.6
IP5 0303B	16	#5	3.3'			2.34'		54.6
IP6 0711	2	#6	7.11'	STR.				24.7
TOTAL								9600.6



AS BUILT

PROVINCE OF MANITOBA REGISTERED ENGINEER

D. J. SAMMON

NO. DATE BY DESCRIPTION

REVISIONS

APPROVED BY

DEPUTY DIRECTOR OF STREETS & TRANSIT

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG

STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

PIER NO. 1

REINFORCING DETAILS

FILE No. 861.

DATE SEPT. 1964

SCALE 1/4" = 1'-0"

DWN. BY D. F.

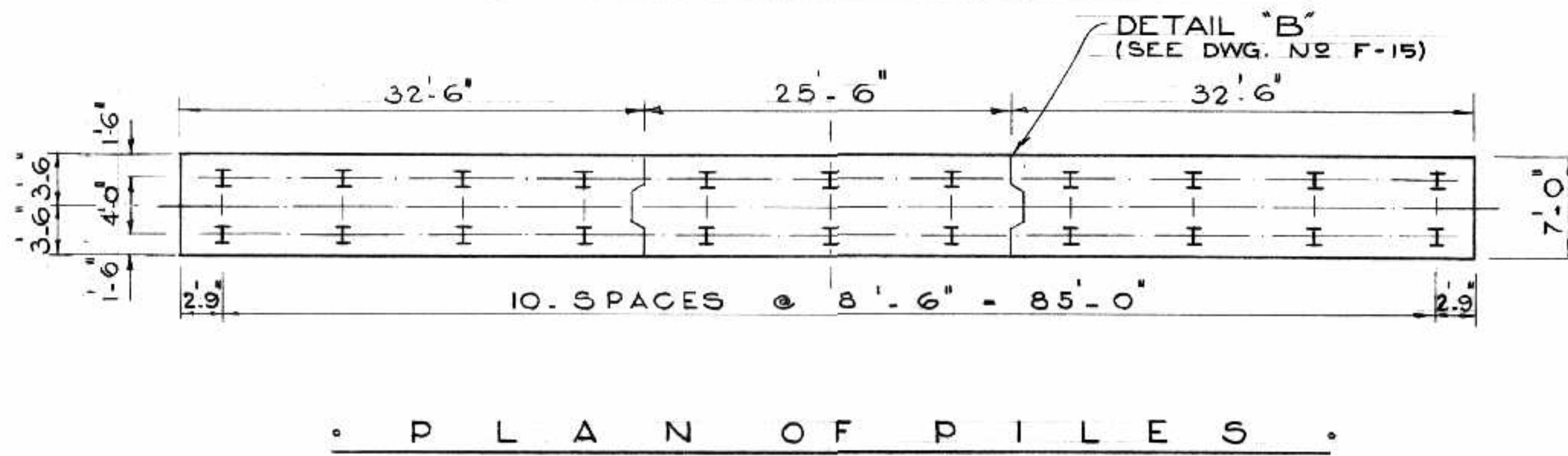
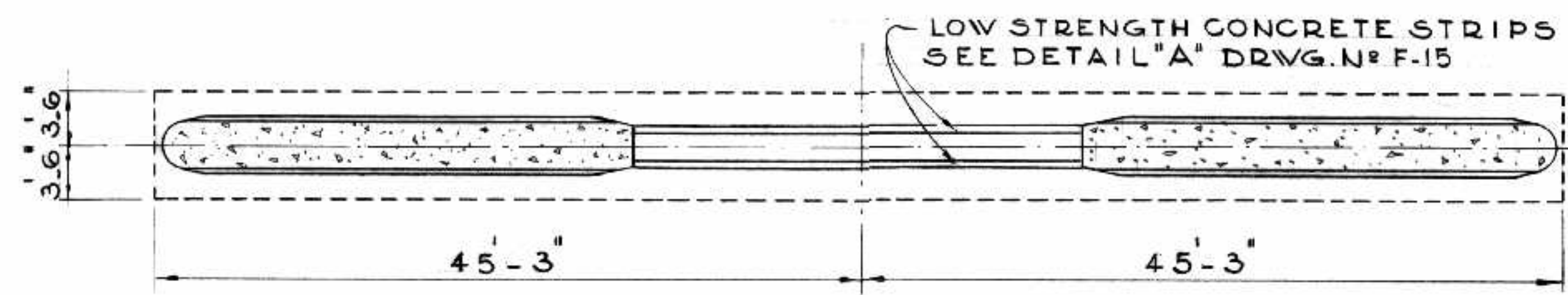
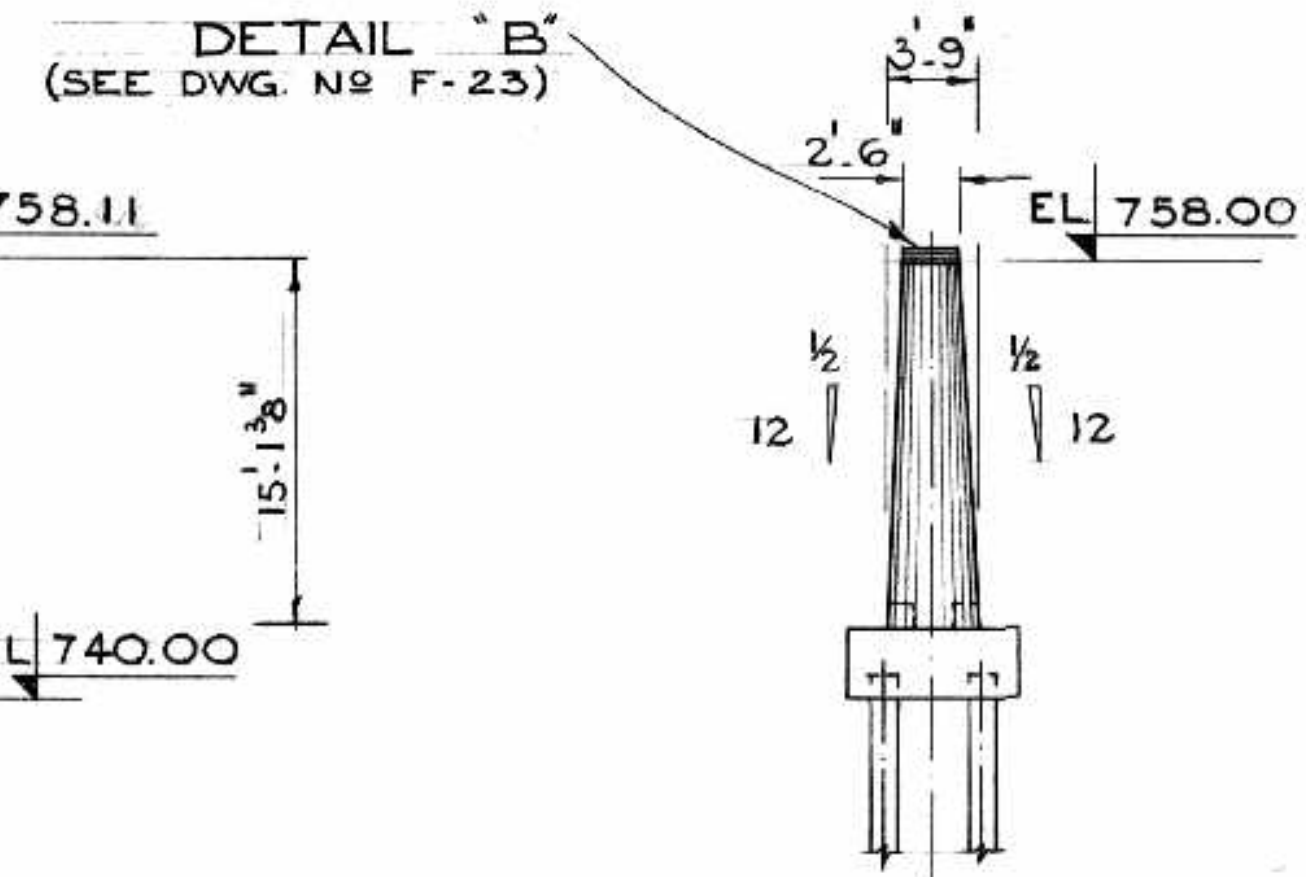
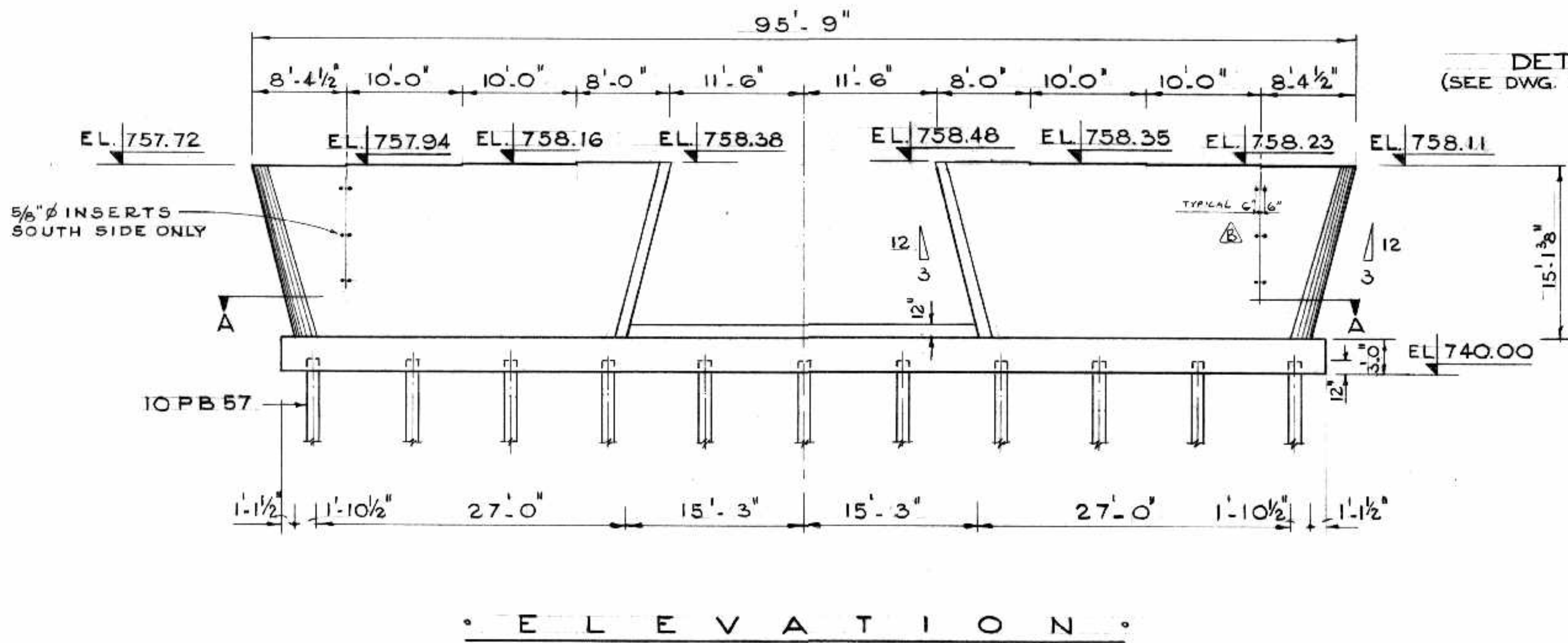
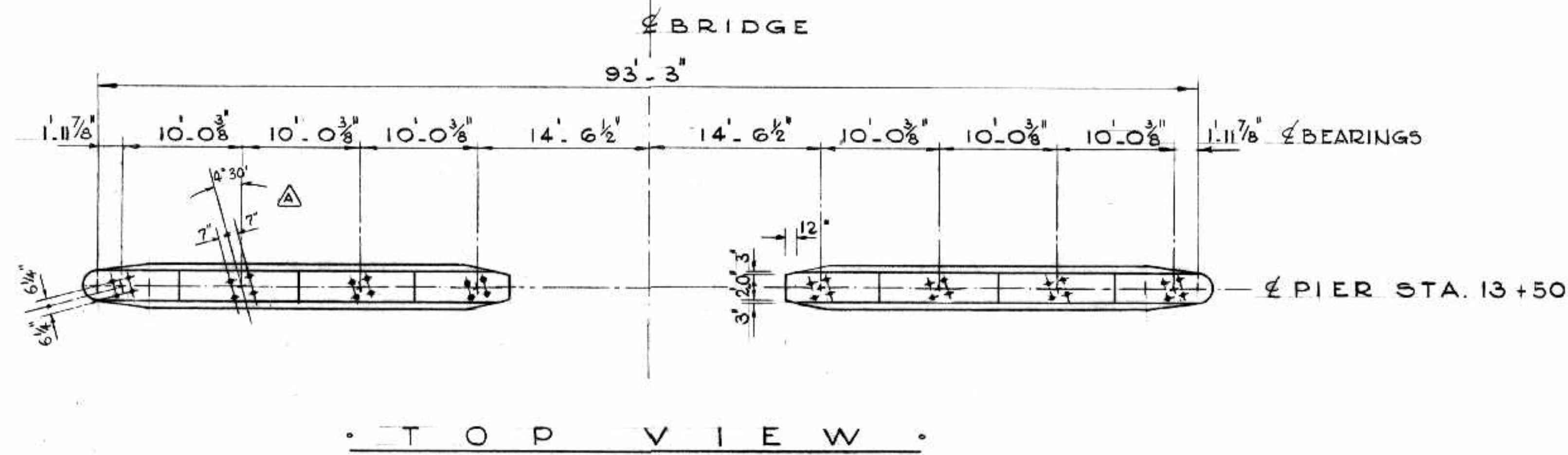
CHKD. BY SA de J

DWG. No. F-16

T. LAMB, McMANUS & ASSOCIATES LTD.

CONSULTING ENGINEERS

EDMONTON CALGARY WINNIPEG



TOTAL VOLUME CONCRETE 184 C.Y. CLASS A
1.1 C.Y. CLASS C
B-5015-96



AS BUILT

NO.	DATE BY	DESCRIPTION
1	12/14/65	INSERT LOCATIONS DIMENSIONED
2	10/23/64 J.D.H.	ANCHOR BOLT NLS SKEWED

APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

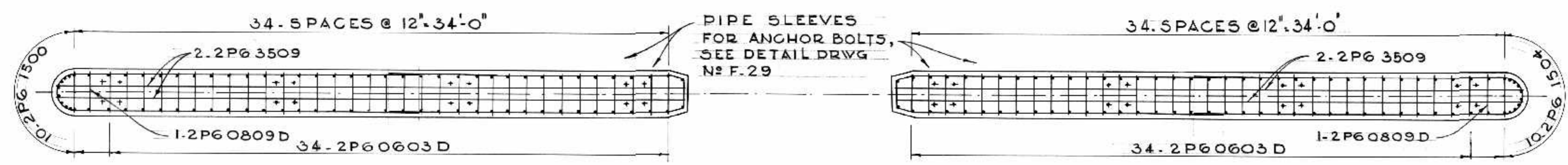
ST. VITAL BRIDGE PROJECT

PIER NO. 2

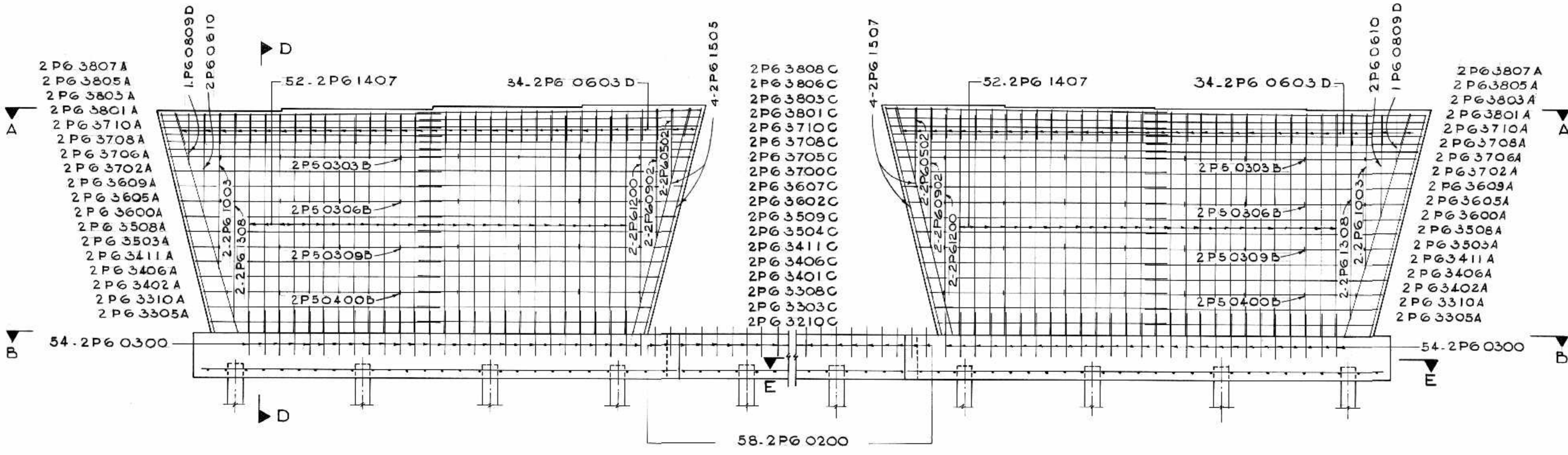
T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861
DATE SEPT. 1964
SCALE 1/8" = 1'-0"
OWN. BY D.F.
CHKD. BY *[Signature]*
DWG. No. F-17

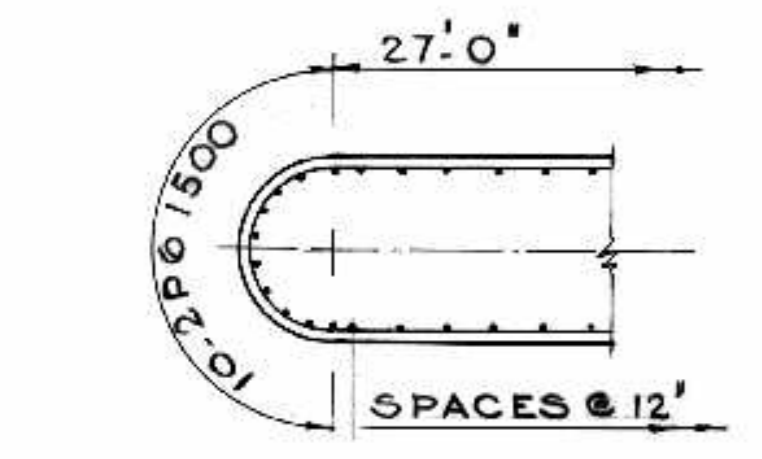
REINFORCING STEEL SCHEDULE PIERN#2									
MARK	Nº	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT	
2P6 3109	4	#6	31.9	STR.				192.3	
2P6 3011	4	#6	30.11	"				185.5	
2P6 2606	2	#6	26.6	"				79.5	
2P6 2500	2	#6	25.0	"				75.0	
2P6 0606	74	#6	6.6	"				722.5	
2P6 0300	108	#6	3.0	"				486.6	
2P6 0200	38	#6	2.0	"				174.2	
2P6 1507	4	#6	15.7	"				93.4	
2P6 1505	4	#6	15.5	"				92.6	
2P6 1504	10	#6	15.4	"				230.1	
2P6 1500	10	#6	15.0	"				222.8	
2P6 1407	104	#6	14.7	"				2277.5	
2P6 1308	4	#6	13.8	"				82.1	
2P6 0902	4	#6	9.2	"				55.0	
2P6 1003	4	#6	10.3	"				61.6	
2P6 0502	4	#6	5.2	"				31.0	
2P6 0610	4	#6	6.10	"				41.2	
2P6 1200	4	#6	12.0	"				72.1	
2P6 3509	4	#6	35.9	"				214.8	
2P6 3807A	2	#6	38.7	"	1.04	17.84		115.9	
2P6 3805A	2	#6	38.5	"	1.02	17.62		115.4	
2P6 3801A	2	#6	38.1	"	1.02	17.54		114.9	
2P6 3708A	2	#6	37.8	"	1.1	17.32		114.4	
2P6 3706A	2	#6	37.6	"	1.12	17.24		113.7	
2P6 3702A	2	#6	37.2	"	1.12	17.02		113.1	
2P6 3609A	2	#6	36.9	"	1.12	16.84		112.7	
2P6 3605A	2	#6	36.5	"	1.23	16.52		111.6	
2P6 3600A	2	#6	36.0	"	1.34	16.24		109.4	
2P6 3508A	2	#6	35.8	"	1.32	15.11		108.1	
2P6 3503A	2	#6	35.3	"	1.42	15.84		107.1	
2P6 3411A	2	#6	34.11	"	1.42	15.54		105.9	
2P6 3406A	2	#6	34.6	"	1.52	15.24		104.9	
2P6 3402A	2	#6	34.2	"	1.52	14.11		103.6	
2P6 3310A	2	#6	33.10	"	1.62	14.84		102.6	
2P6 3305A	2	#6	33.5	"	1.62	14.52		101.6	
2P6 3808C	2	#6	38.8	"	1.7	18.62	2.0	116.1	
2P6 3806C	2	#6	38.6	"	1.72	18.52	2.02	115.7	
2P6 3803C	2	#6	38.3	"	1.8	18.32	2.1	114.9	
2P6 3801C	2	#6	38.1	"	1.82	18.24	2.12	114.4	
2P6 3710C	2	#6	37.10	"	1.9	18.02	2.2	113.7	
2P6 3708C	2	#6	37.8	"	1.92	17.11	2.22	113.1	
2P6 3705C	2	#6	37.5	"	1.10	17.92	2.3	112.4	
2P6 3700C	2	#6	37.0	"	1.11	17.62	2.4	111.1	
2P6 3607C	2	#6	36.7	"	2.0	17.32	2.5	109.9	
2P6 3602C	2	#6	36.2	"	2.1	17.02	2.6	108.6	
2P6 3509C	2	#6	35.9	"	2.2	16.92	2.7	107.4	
2P6 3504C	2	#6	35.4	"	2.3	16.62	2.8	106.1	
2P6 3411C	2	#6	34.11	"	2.4	16.32	2.9	104.9	
2P6 3406C	2	#6	34.6	"	2.5	16.02	2.10	103.6	
2P6 3401C	2	#6	34.1	"	2.6	15.92	2.11	102.4	
2P6 3308C	2	#6	33.8	"	2.7	15.62	3.0	101.1	
2P6 3303C	2	#6	33.3	"	2.8	15.32	3.1	99.9	
2P6 3210C	2	#6	32.10	"	2.9	15.02	3.2	98.6	
2P6 0809D	2	#6	8.9	"	1.11	3.5	2.24	26.3	
2P6 0603D	68	#6	6.3	"	1.11	2.2	2.1	638.4	
2P5 0400B	16	#5	4.0	"		3.04		66.6	
2P5 0309B	16	#5	3.9	"		2.94		62.6	
2P5 0306B	16	#5	3.6	"		2.64		58.6	
2P5 0303B	16	#5	3.3	"		2.34		54.6	
								TOTAL	10,216.5



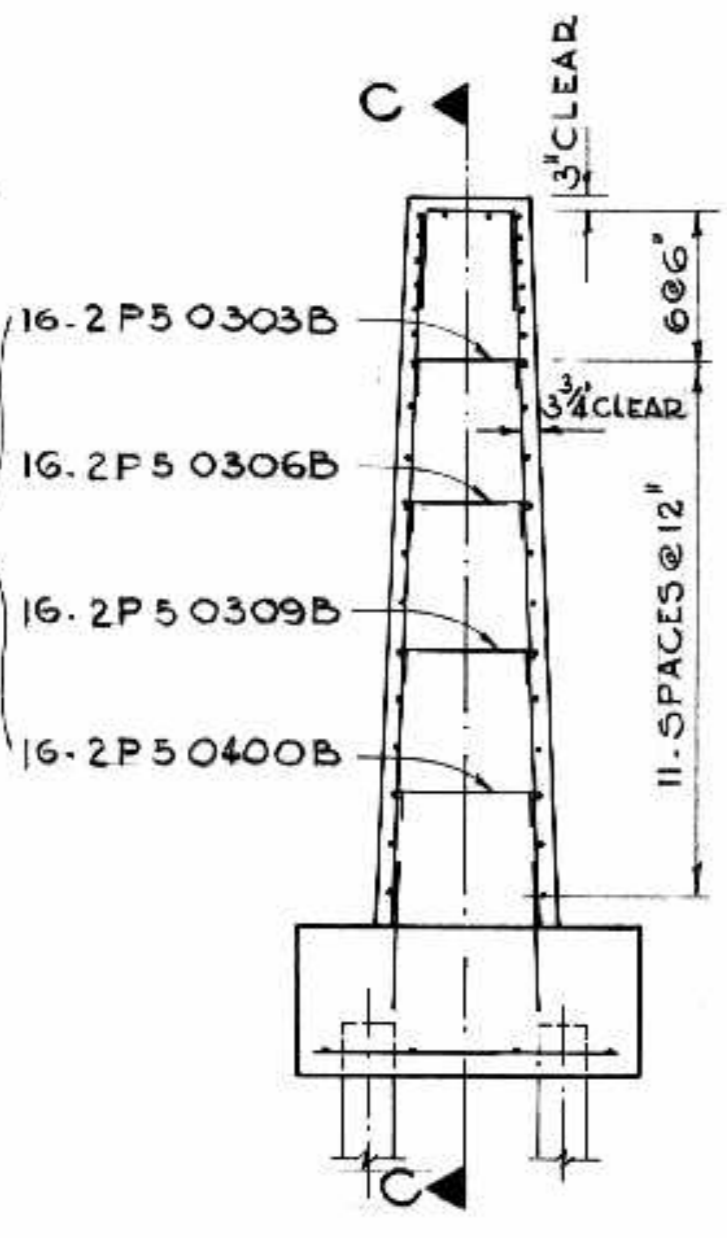
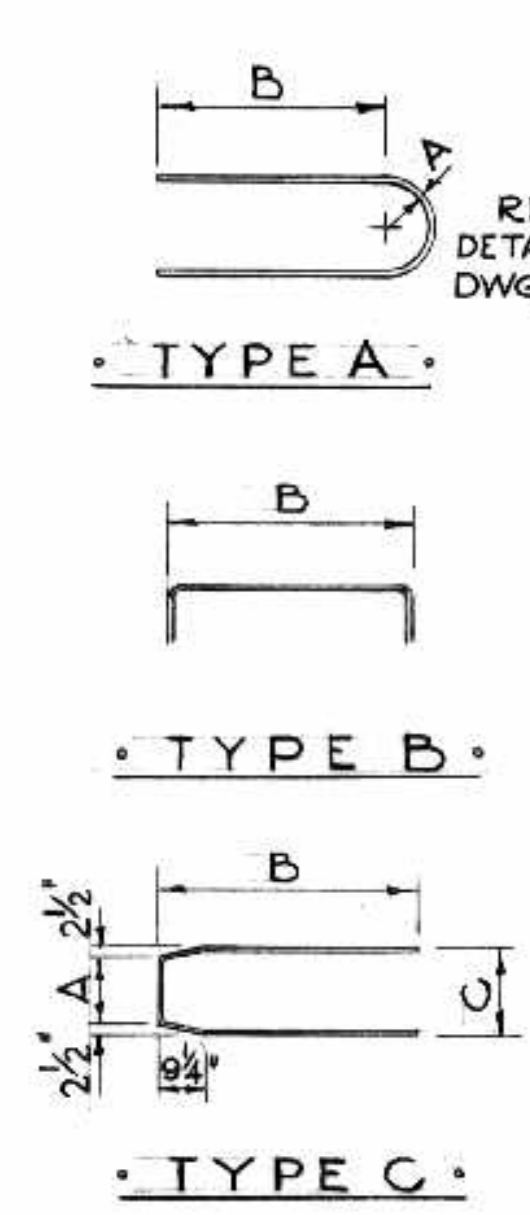
SECTION A - A



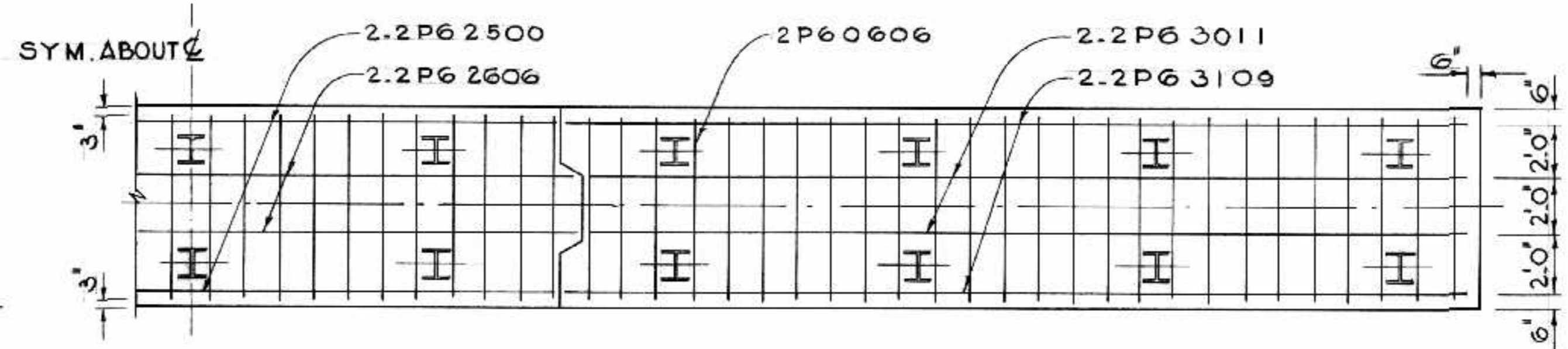
SECTION C - C



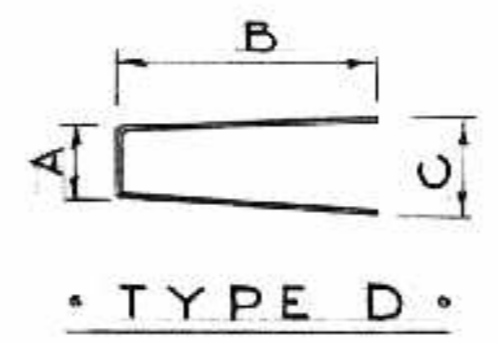
SECTION B



SECTION D - D



SECTION E - E



TYPE D

AS BUILT *ALS marked*

NO.	DATE BY	DESCRIPTION

APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

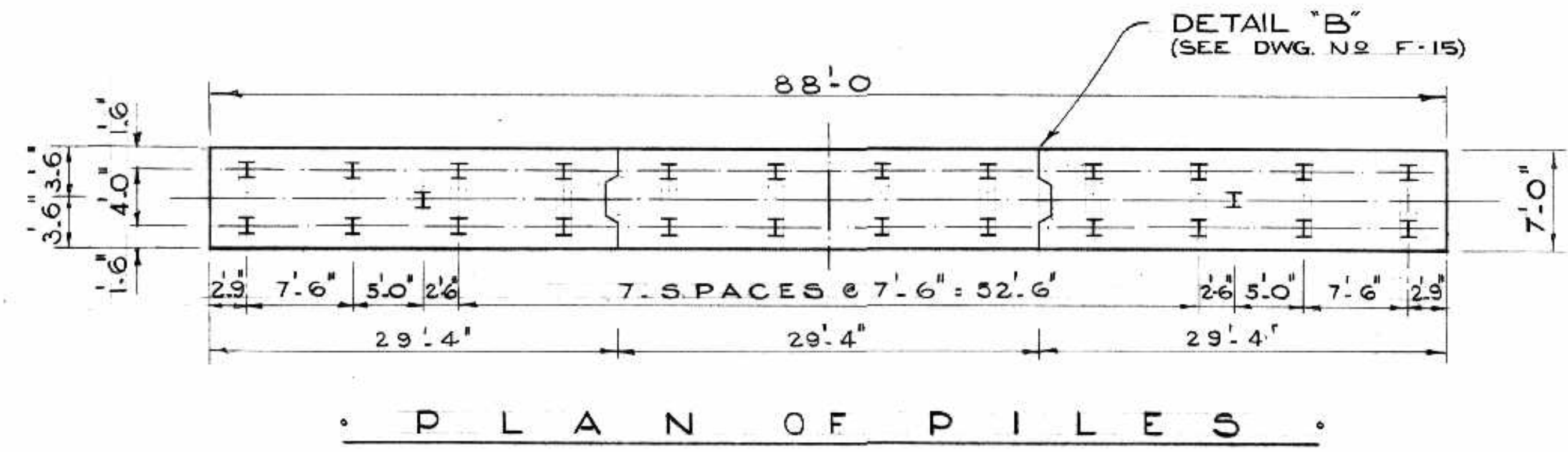
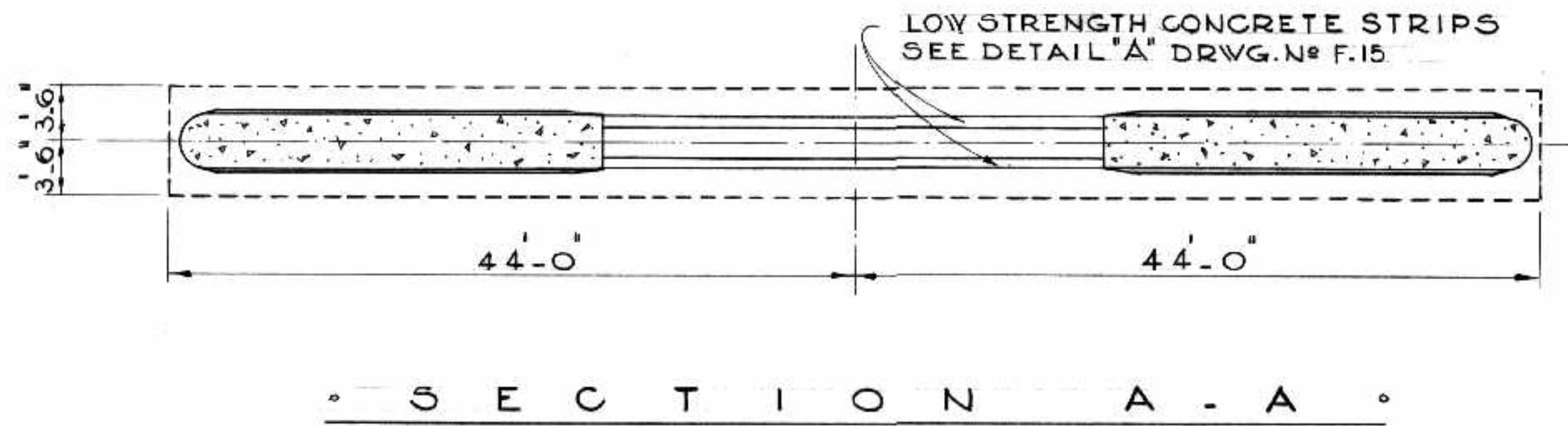
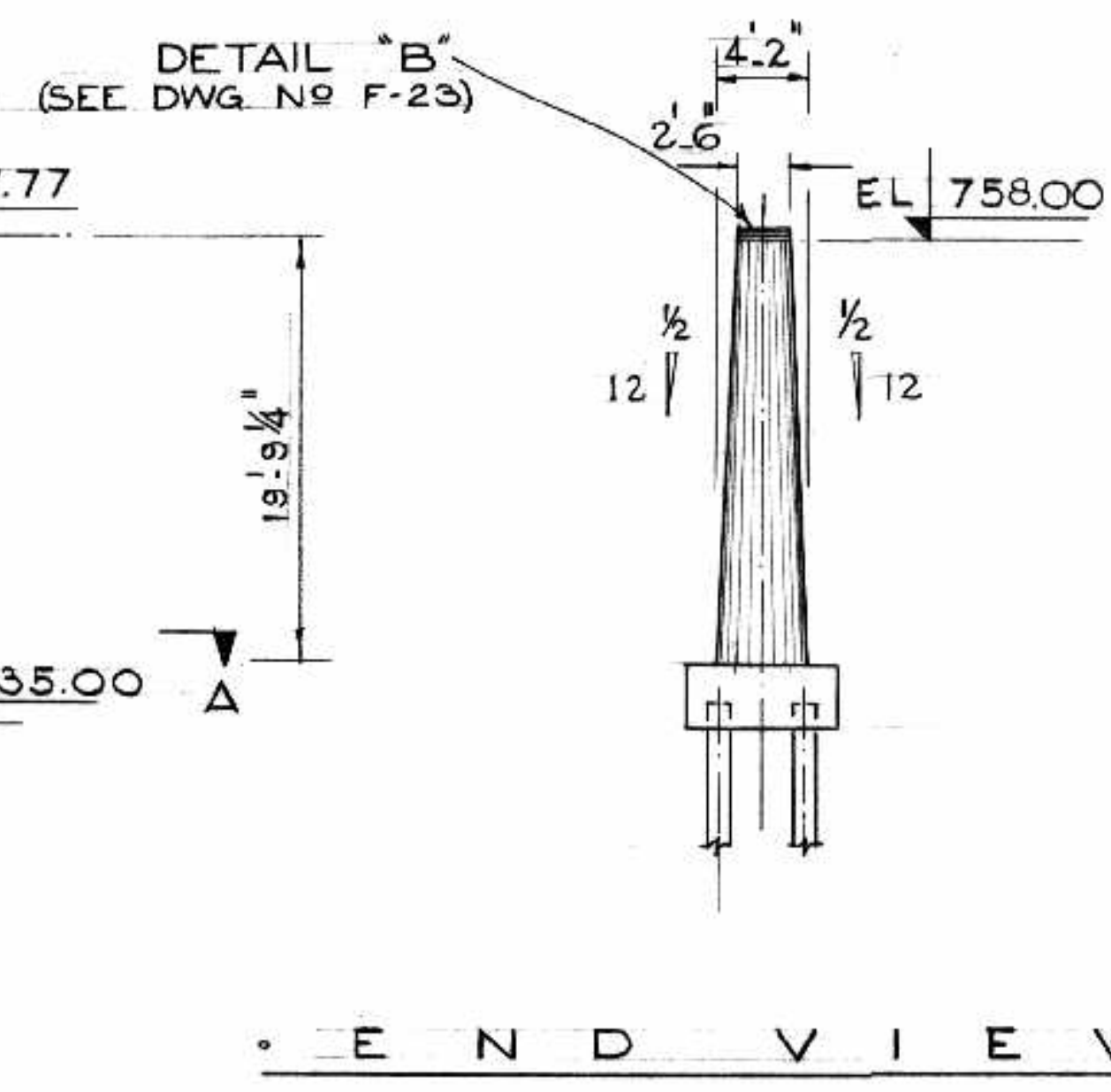
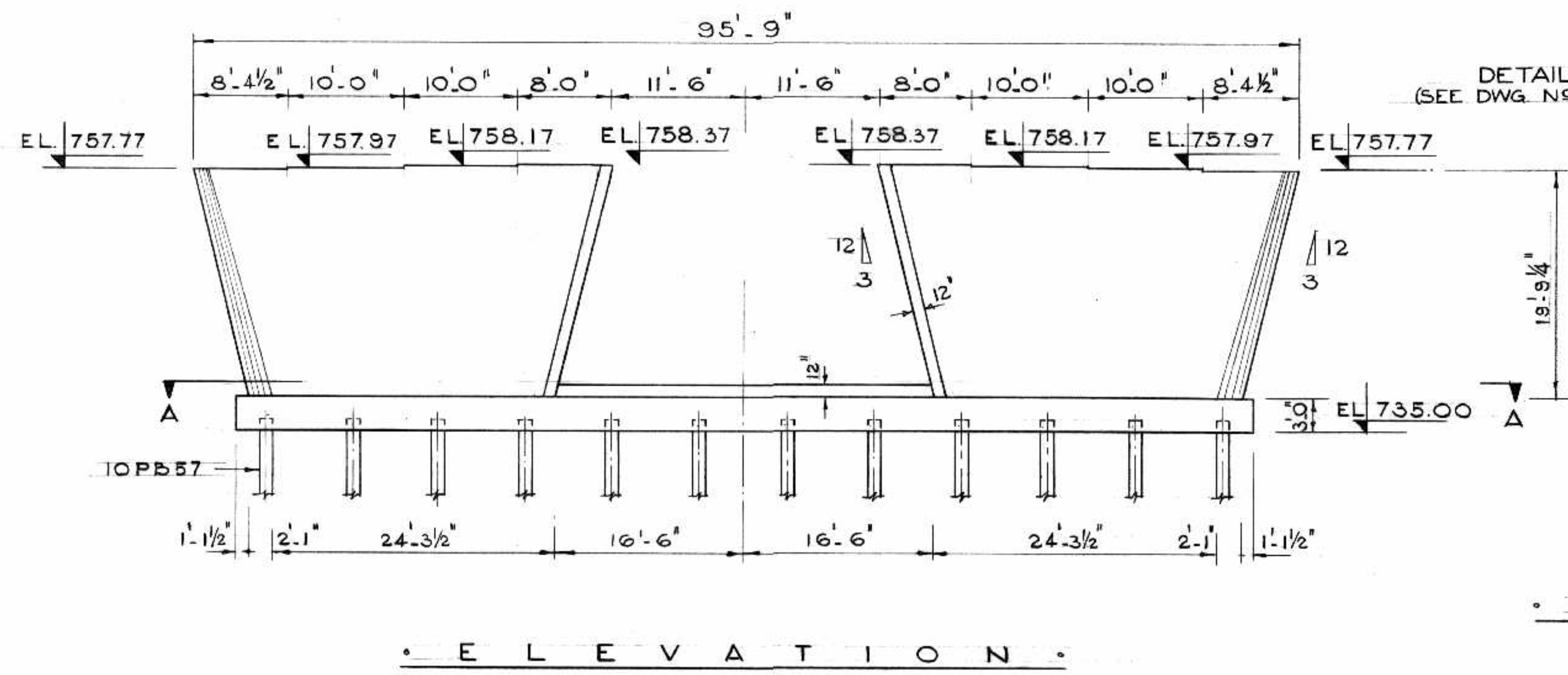
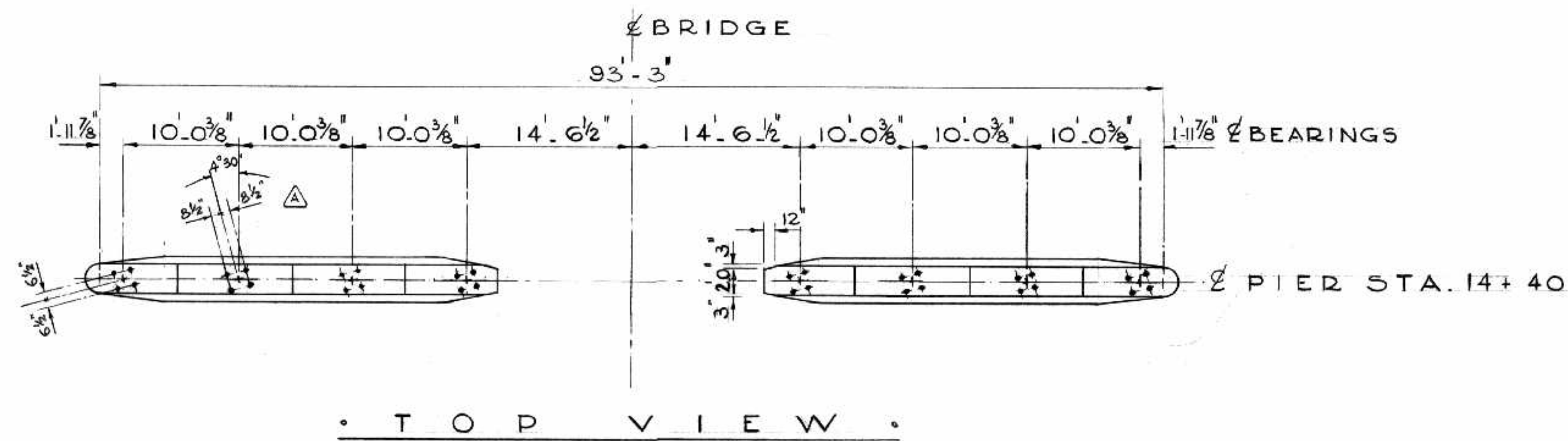
ST. VITAL BRIDGE PROJECT

PIER NO. 2
REINFORCING DETAILS

FILE No. 861
DATE SEPT. 1964
SCALE 1/4" = 1'-0"
DWN. BY D.F.
CHKD. BY *[Signature]*
DWG. No. F-18

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

B-5015-97



TOTAL VOLUME CONCRETE 214 C.Y. CLASS A
1.1 C.Y. CLASS C

B-5015-98

AS BUILT

NO	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

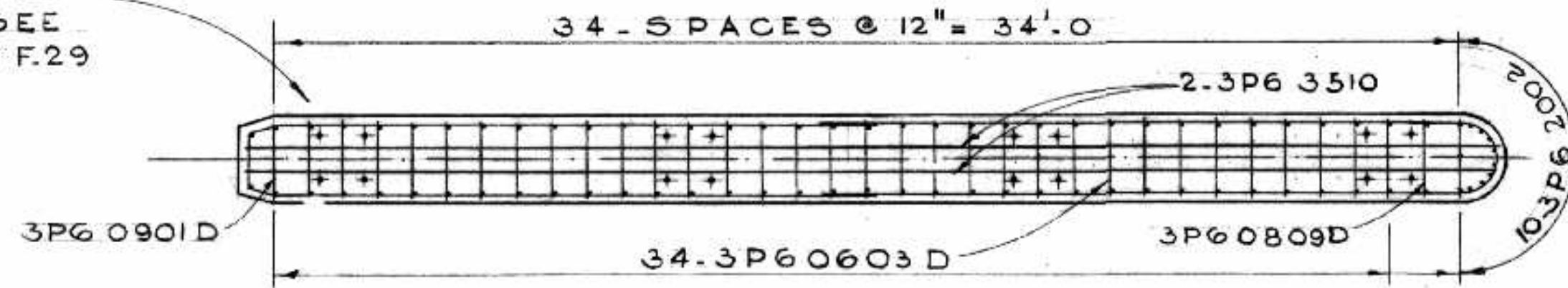
PIER NO. 3

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

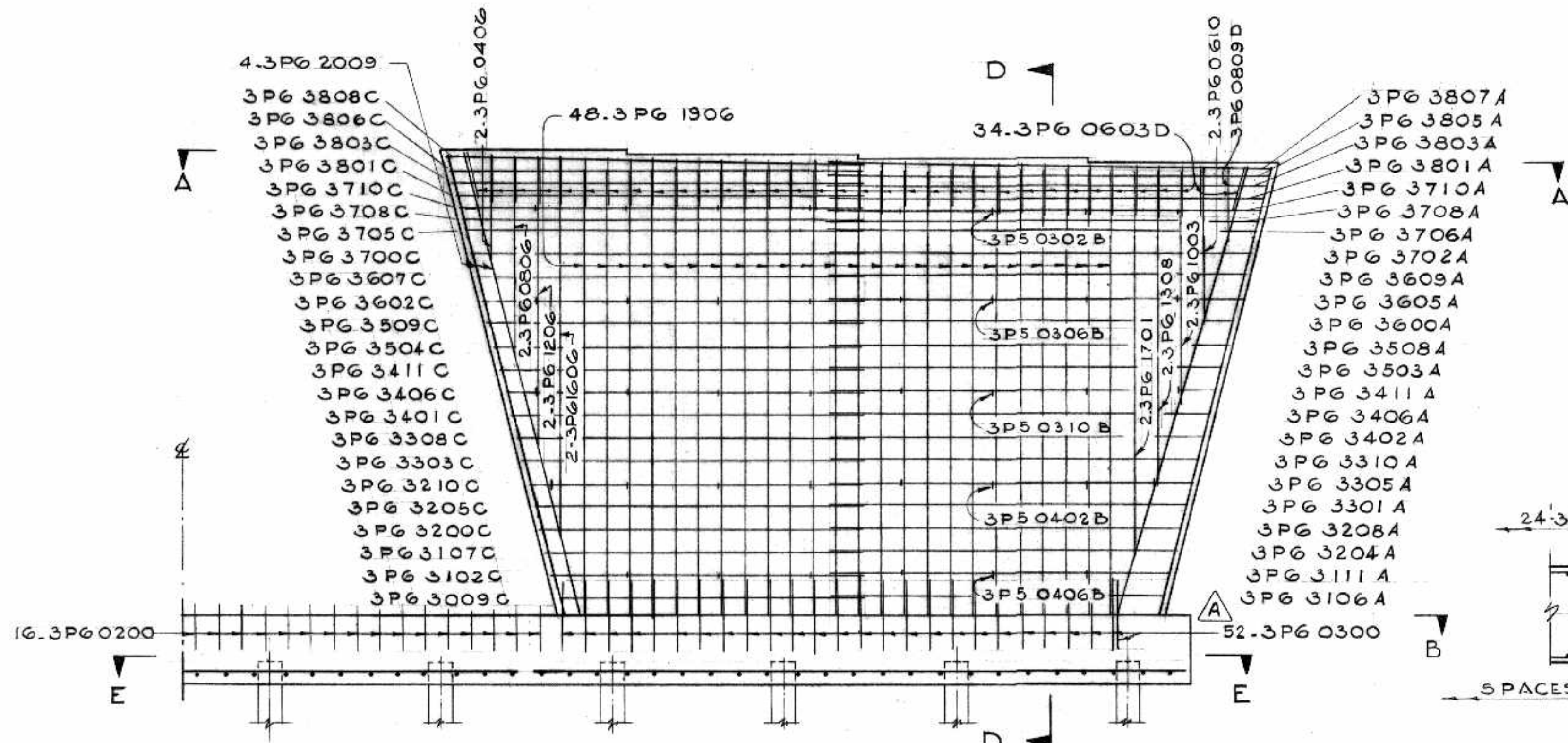
FILE No. 861.
DATE SEPT. 1964
SCALE 1/8" = 1'-0"
DWN. BY D. F.
CHKD. BY D. F.
DWG. No. F-19



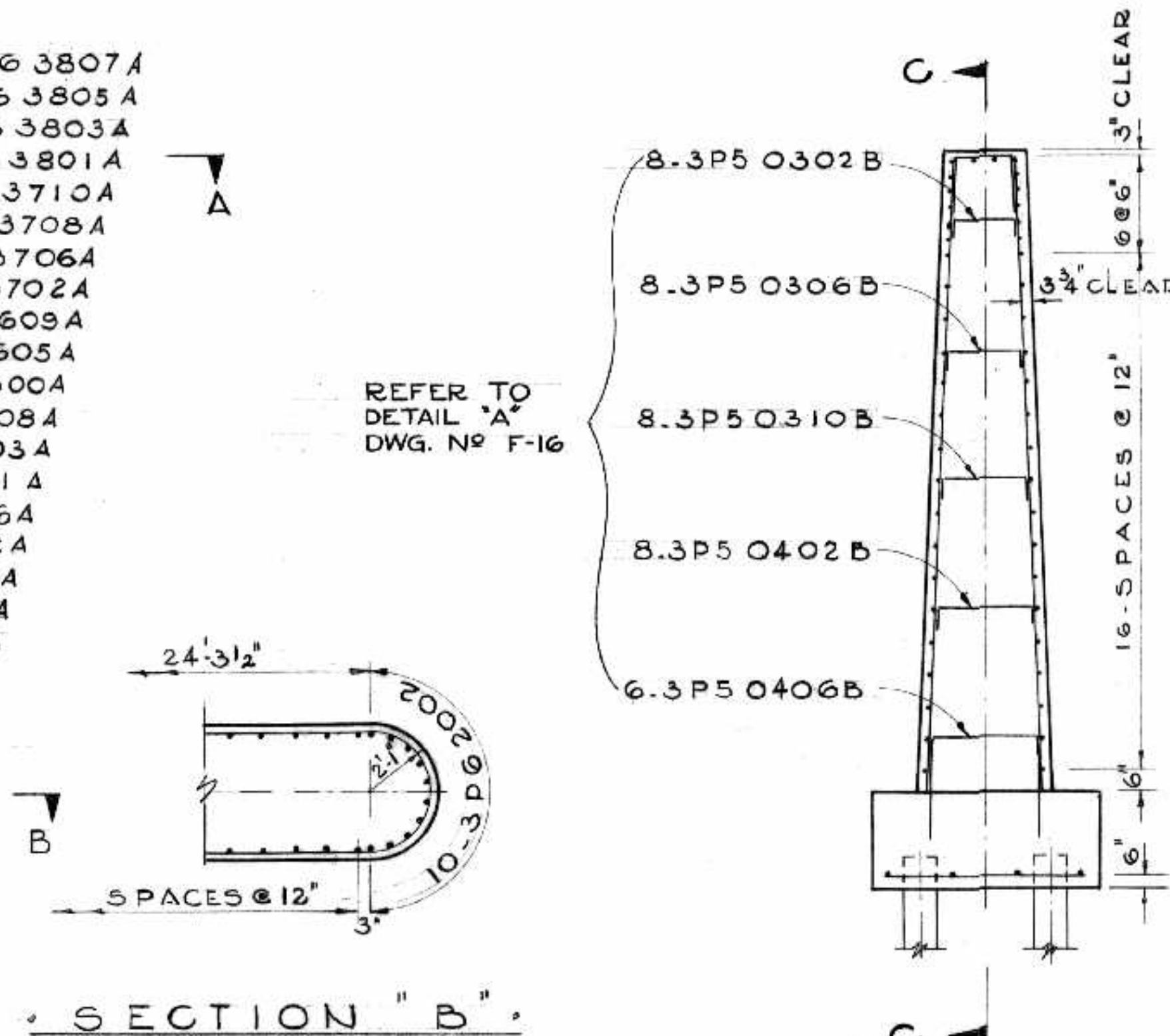
PIPE SLEEVES FOR ANCHOR BOLTS, SEE DETAIL DRWG. N° F.29



SECTION A-A

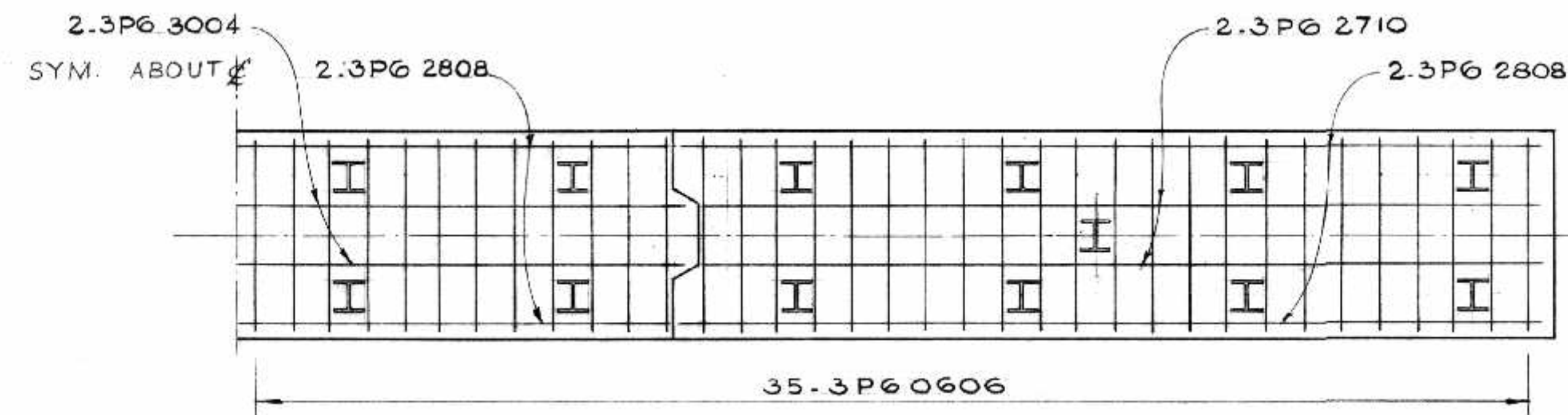


SECTION C-C

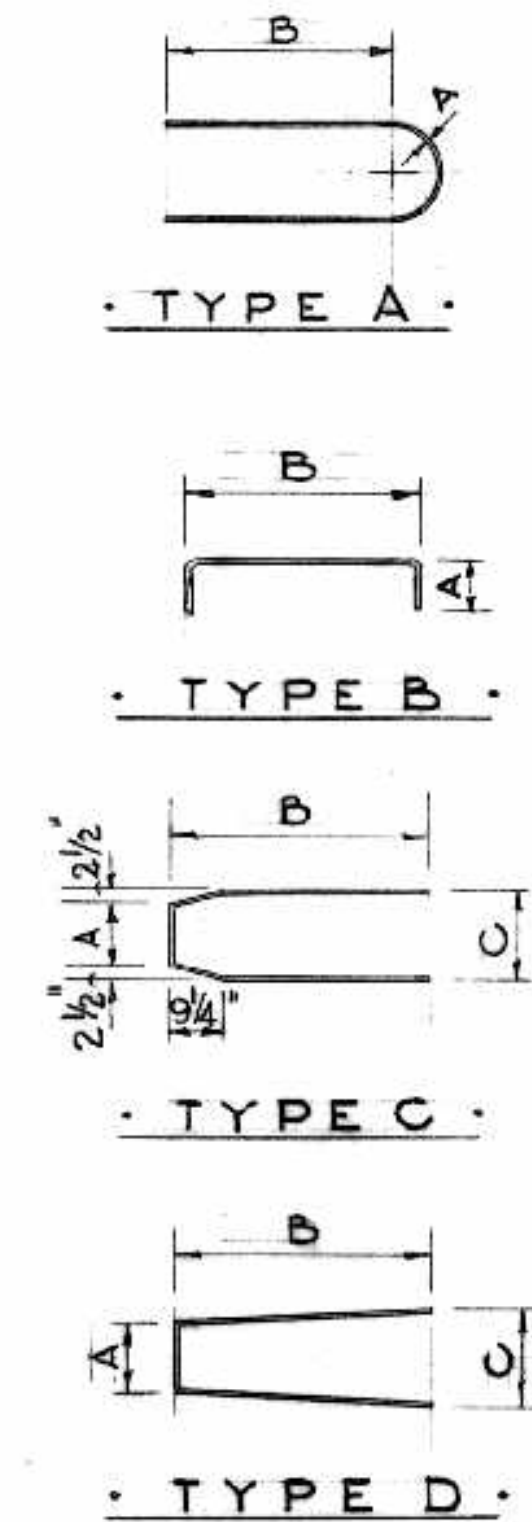


SECTION B-B

SECTION D-D



SECTION E-E



REINFORCING STEEL SCHEDULE PIER N°3																	
MARK	N°	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT	MARK	N°	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT
3P6 3004	2	#6	30.4"	STR.				91.1	3P6 1308	4	#6	13.8"	STR.				82.0
3P6 2808	6	#6	28.8"	"				258.3	3P6 0806	4	#6	8.6"	"				61.1
3P6 2710	4	#6	27.10"	"				167.2	3P6 1003	4	#6	10.3"	"				61.5
3P6 0606	70	#6	6.6"	"				683.4	3P6 0406	4	#6	4.6"	"				27.0
3P6 0300	104	#6	3.0"	"				468.6	3P6 0610	4	#6	6.10"	"				36.5
3P6 0200	32	#6	2.0"	"				96.1	3P6 3510	4	#6	35.10"	"				215.3
3P6 2009	8	#6	20.9"	"				249.0	3P6 3807A	2	#6	38.7"	□	1.04	17.84		115.9
3P6 1906	96	#6	19.6"	"				2811.7	3P6 3805A	2	#6	38.5"	□	1.02	17.64		115.4
3P6 1701	4	#6	17.1"	"				102.4	3P6 3803A	2	#6	38.3"	□	1.03	17.54		114.9
3P6 1606	4	#6	16.6"	"				99.1	3P6 3801A	2	#6	38.1"	□	1.1	17.34		114.4
3P6 0809D	2	#6	8.9"	□	1.11	3.5	2.22	263	3P6 3710A	2	#6	37.10"	□	1.14	17.24		113.7
3P6 0603D	68	#6	6.3"	□	1.11	2.2	2.1	638.4	3P6 3708A	2	#6	37.8"	□	1.12	17.03		113.1
3P6 1206	4	#6	12.6"	STR.				72.5	3P6 3706A	2	#6	37.6"	□	1.13	16.14		112.7
									3P6 3702A	2	#6	37.2"	□	1.24	16.84		111.6
									3P6 3609A	2	#6	36.8"	□	1.23	16.54		110.4
									3P6 3605A	2	#6	36.5"	□	1.34	16.24		109.4
									3P6 3600A	2	#6	36.0"	□	1.33	15.14		108.1
									3P6 3508A	2	#6	35.8"	□	1.44	15.84		107.1
									3P6 3503A	2	#6	35.3"	□	1.43	15.54		105.9
									3P6 3411A	2	#6	34.11"	□	1.54	15.24		104.9
									3P6 3406A	2	#6	34.6"	□	1.53	14.14		103.6
									3P6 3402A	2	#6	34.2"	□	1.64	14.84		102.6
									3P6 3310A	2	#6	33.10"	□	1.63	14.54		101.6
									3P6 3305A	2	#6	33.5"	□	1.74	14.24		100.4
									3P6 3301A	2	#6	33.1"	□	1.73	13.14		99.4
									3P6 3208A	2	#6	32.8"	□	1.84	13.84		98.1
									3P6 3204A	2	#6	32.4"	□	1.83	13.54		97.1
									3P6 3111A	2	#6	31.11"	□	1.94	13.24		95.9
									3P6 3106A	2	#6	31.6"	□	1.93	12.14		94.6
									3P6 3088C	2	#6	38.8"	□	1.7	16.62	2.0	116.1
									3P6 3806C	2	#6	38.6"	□	1.73	18.54	2.02	115.7
									3P6 3803C	2	#6	38.3"	□	1.8	18.34	2.1	114.9
									3P6 3801C	2	#6	38.1"	□	1.83	18.24	2.12	114.3
									3P6 3710C	2	#6	37.10"	□	1.9	18.04	2.2	113.7
									3P6 3708C	2	#6	37.8"	□	1.93	17.11	2.22	113.1
									3P6 3705C	2	#6	37.5"	□	1.10	17.92	2.3	112.4
									3P6 3700C	2	#6	37.0"	□	1.11	17.62	2.4	111.1
									3P6 3607C	2	#6	36.7"	□	2.0	17.32	2.5	109.9
									3P6 3602C	2	#6	36.2"	□	2.1	17.02	2.6	108.6
									3P6 3509C	2	#6	35.9"	□	2.2	16.92	2.7	107.4
									3P6 3504C	2	#6	35.4"	□	2.3	16.62	2.8	106.1
									3P6 3411C	2	#6	34.11"	□	2.4	16.32	2.9	104.9
									3P6 3406C	2	#6	34.6"	□	2.5	16.02	2.10	103.6
									3P6 3401C	2	#6	34.1"	□	2.6	15.92	2.11	102.4
									3P6 3308C	2	#6	33.8"	□	2.7	15.62	3.0	101.1
									3P6 3303C	2	#6	33.3"	□	2.8	15.32	3.1	99.9
									3P6 3210C	2	#6	32.10"	□	2.9	15.02	3.2	98.6
									3P6 3205C	2	#6	32.5"	□	2.10	14.92	3.3	97.4
									3P6 3200C	2	#6	32.0"	□	2.11	14.62	3.4	96.1
									3P6 3107C	2	#6	31.7"	□	3.0	14.32	3.5	94.9
									3P6 3102C	2	#6	31.2"	□	3.1	14.02	3.6	93.6
									3P6 3009C	2	#6	30.9"	□	3.2	13.92	3.7	92.4
									3P 50406B	12	#5	4.6"	□	6"	3.64		36.4
									3P 50402B	16	#5	4.2"	□	6"	3.24		69.4
									3P 50310B	16	#5	3.10"	□	6"	2.104		64.0
									3P 50306B	16	#5	3.6"	□	6"	2.60		58.5
									3P 50302B	16	#5	3.2"	□	6"	2.24		52.8
									3P6 2002	20	#6	20.2"	STR.				605.8
																	TOTAL 12,135.0
																	605.8

AS BUILT *ALS maa/166*

NO.	DATE BY	DESCRIPTION
1		52-3P60200 CHANGED TO 104-3P60300

APPROVED BY *H. Burns*
DEPUTY DIRECTOR OF STREETS & TRANSIT

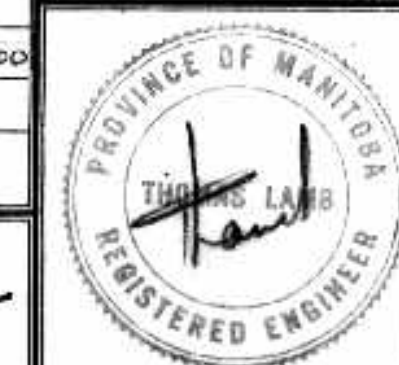
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

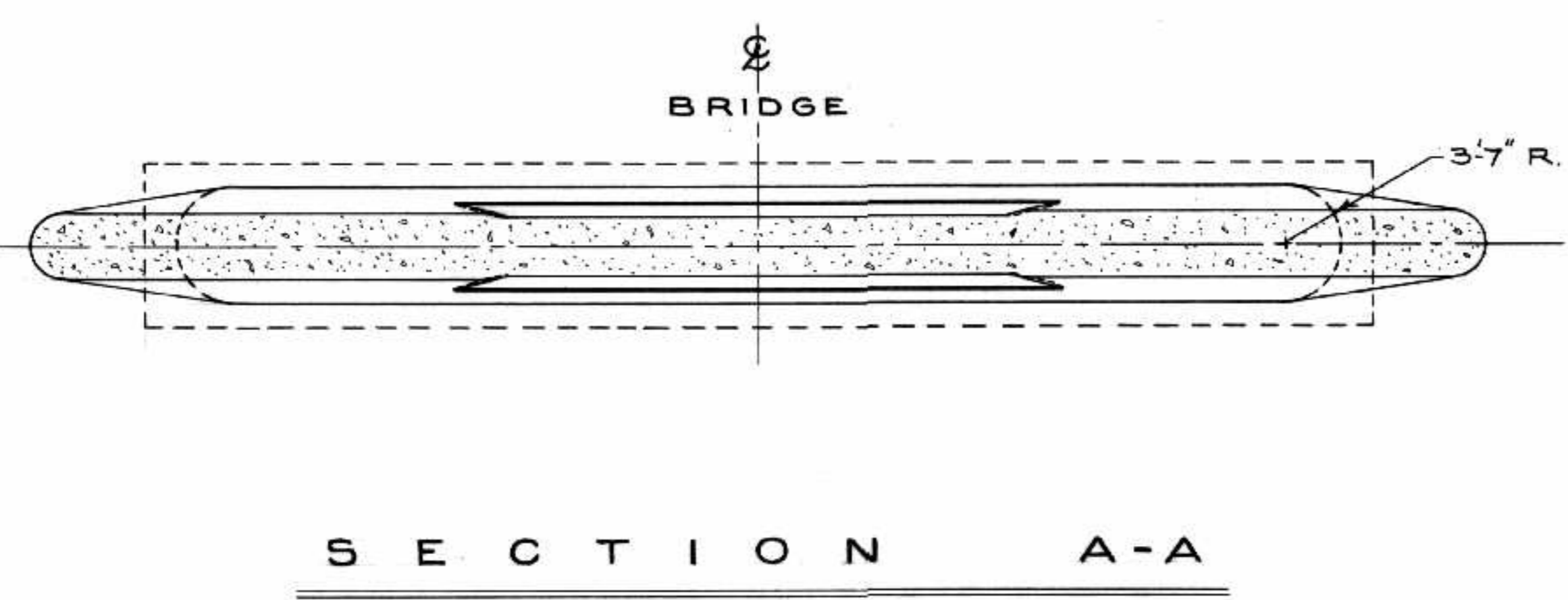
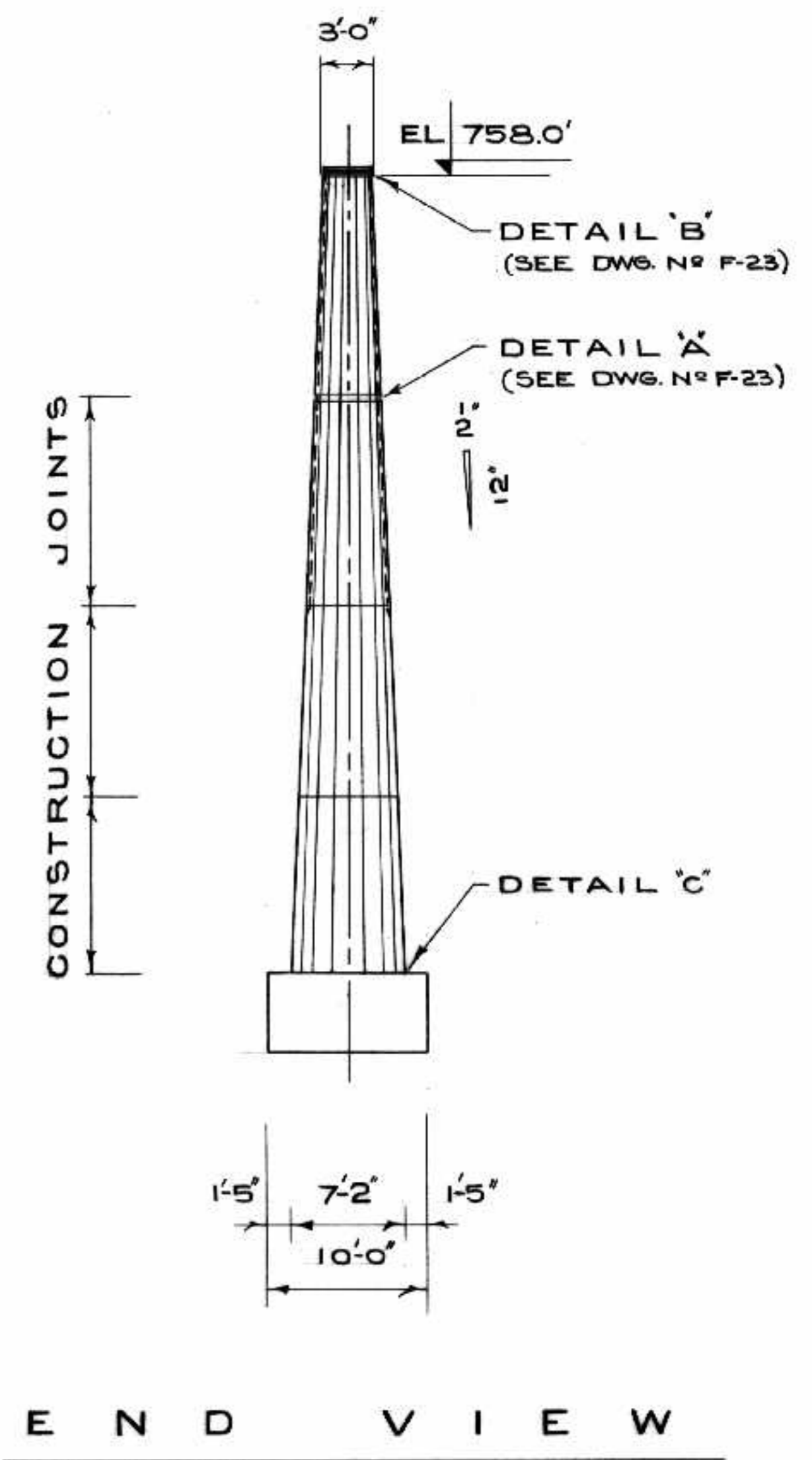
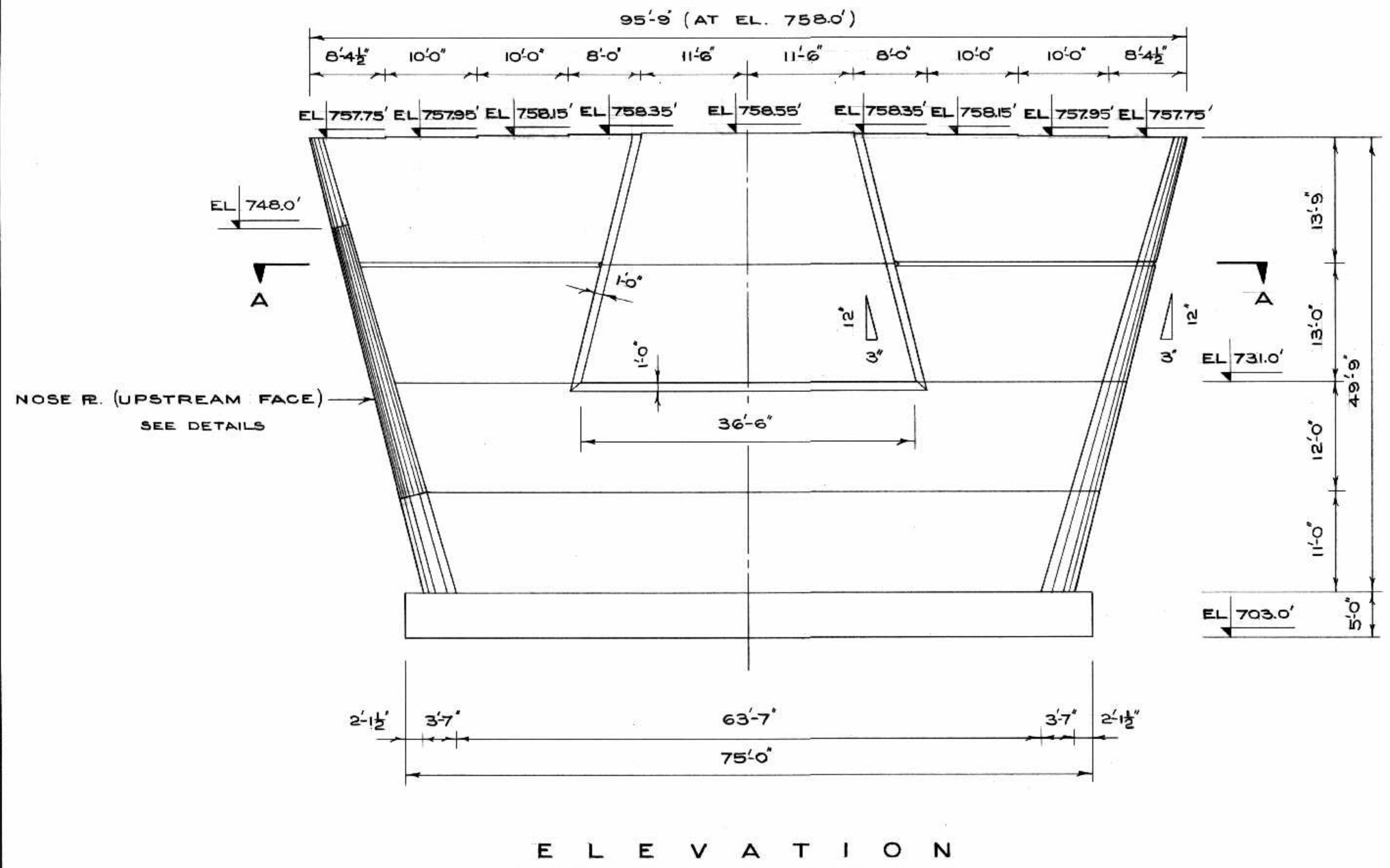
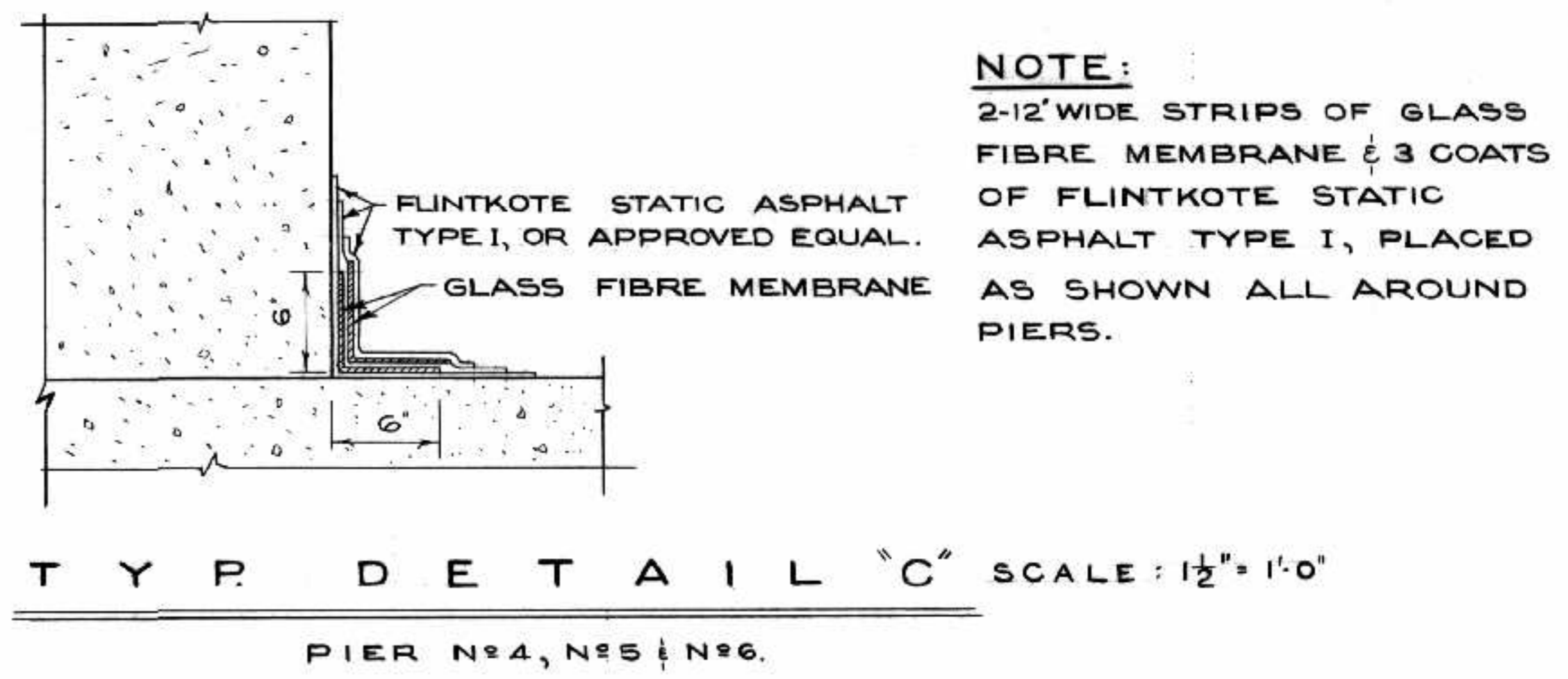
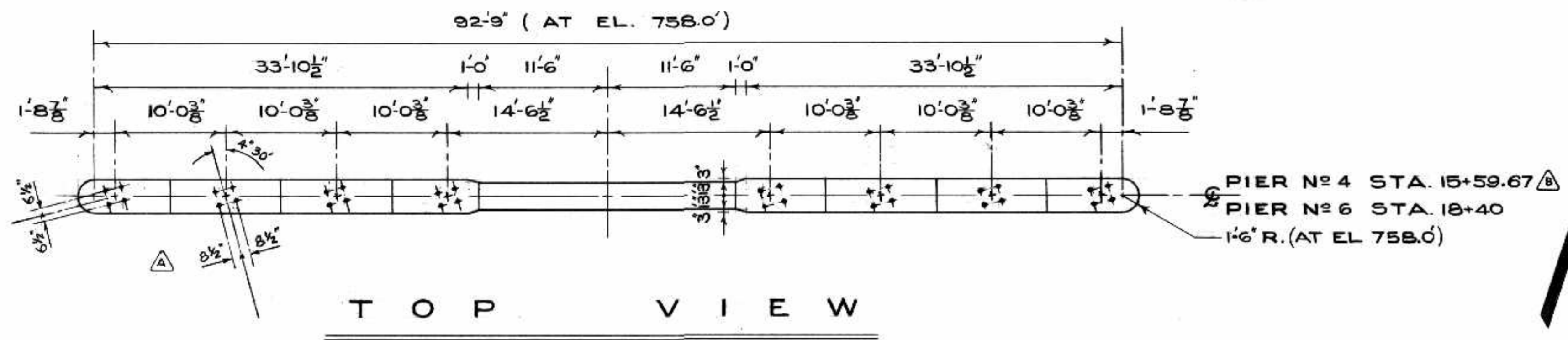
ST. VITAL BRIDGE PROJECT

PIER NO. 3
REINFORCING DETAILS

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861
DATE SEPT. 1964
SCALE 1/4" = 1'-0"
DWN. BY D. F.
CHKD. BY *SA*
DWG. No. F-20

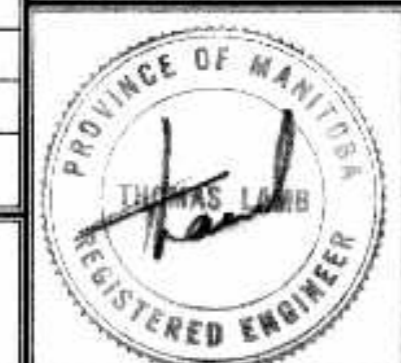


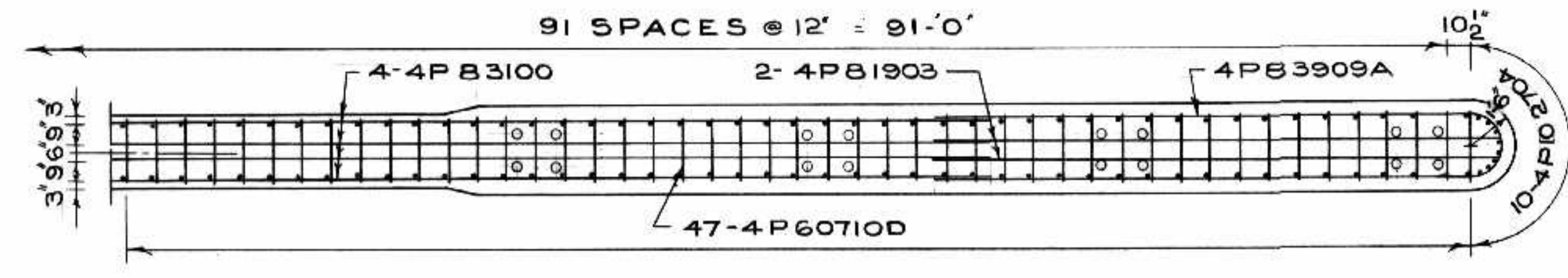


TOTAL VOLUME CONCRETE 876 CY. PER PIER

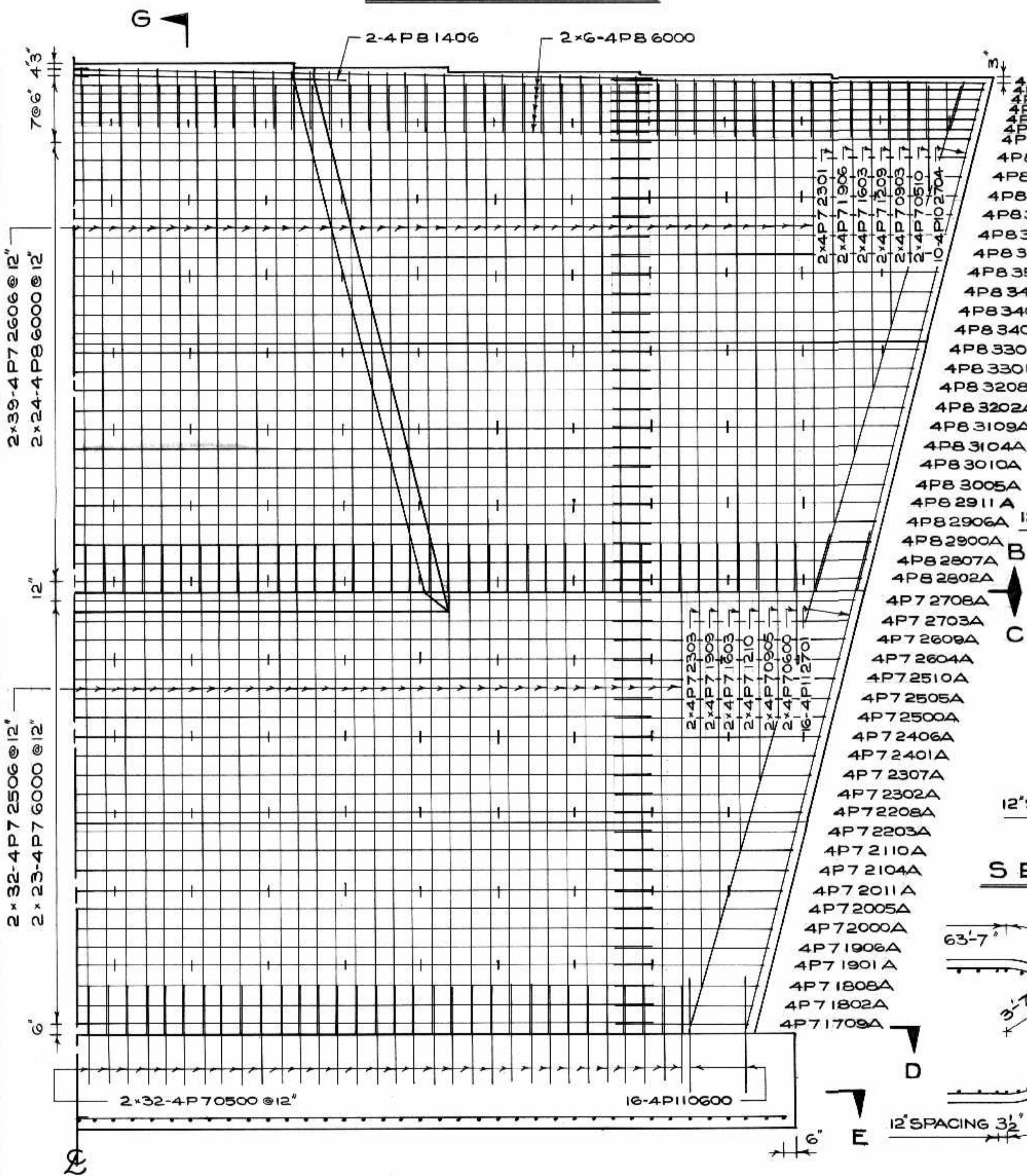
AS BUILT ALS mpr/66 B-5015-100

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG STREETS AND TRANSIT DIVISION ST. VITAL BRIDGE PROJECT		FILE No. 861. DATE SEPT. 1964 SCALE 1/8" = 1'-0" DWN. BY R.B. CHKD. BY Dade DWG. No. F-21
REVISIONS APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF STREETS & TRANSIT	T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG	PIER NO. 4 AND 6

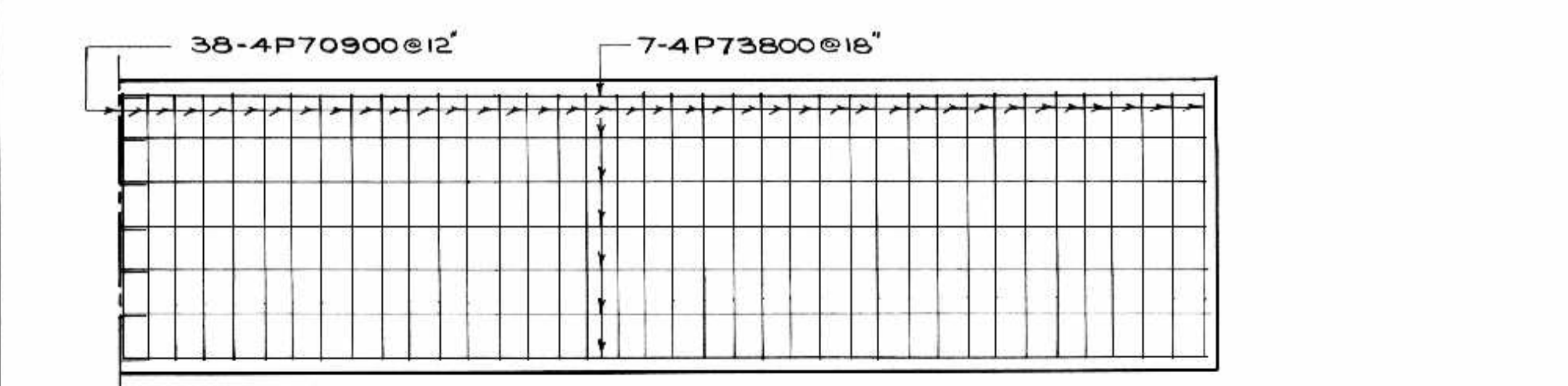




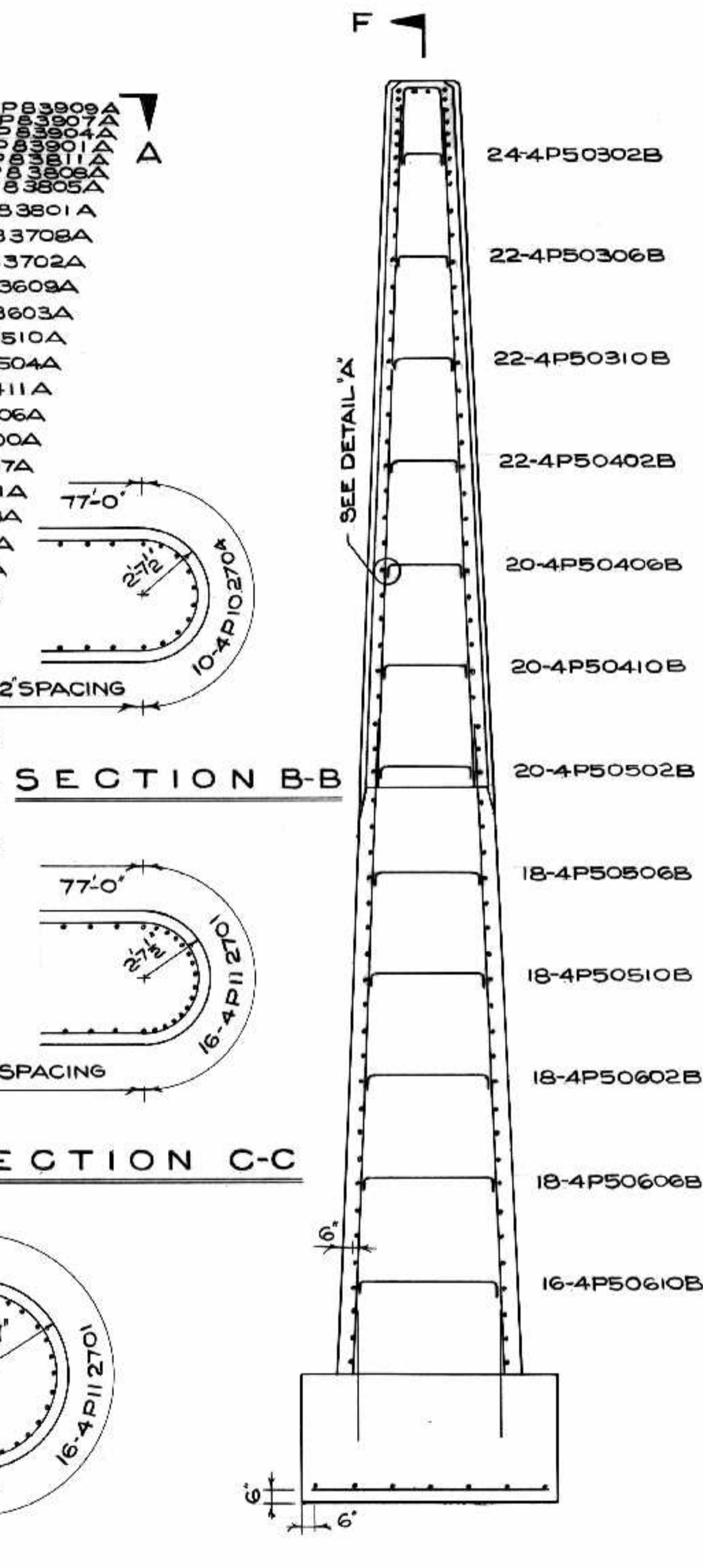
SECTION A-A



SECTION F-F

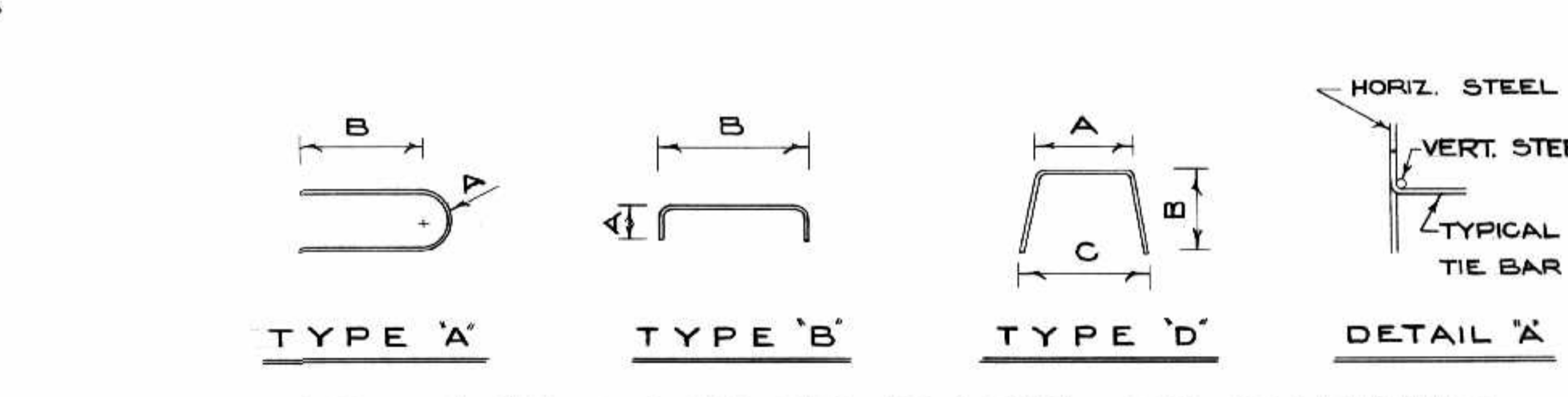


SECTION E-E



SECTION B-B, SECTION C-C, SECTION D-D, SECTION G-G

REINFORCING STEEL SCHEDULE PIER NO. 4																
MARK	NO	SIZE	LENGTH	SKETCH	A	B	WEIGHT	MARK	NO	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT
4P70900	75	#7	9'-0"	STR			1379.7	4P83109A	2	#8	31'-9"	U	1'-9"	13'-1/2"		169.5
4P73800	14	#7	38'-0"	*			1087.4	4P83104A	2	#8	31'-4"		1'-9"	12'-10"		167.3
4P70500	128	#7	5'-0"	*			1308.1	4P83010A	2	#8	30'-10"		1'-10"	12'-6"		164.6
4P110600	32	#11	6'-0"	*			1020.0	4P83005A	2	#8	30'-5"		1'-10"	12'-3"		162.4
4P72506	128	#7	25'-6"	*			6671.6	4P82911A	2	#8	29'-11"		1'-11"	11'-1/2"		159.7
4P72303	4	#7	23'-3"	*			190.1	4P82906A	2	#8	29'-6"		1'-11"	11'-8"		157.5
4P71909	4	#7	19'-9"	*			161.5	4P82900A	2	#8	29'-0"		2'-0"	11'-4"		154.8
4P71603	4	#7	16'-3"	*			132.8	4P82807A	2	#8	28'-7"		2'-0"	11'-1"		152.6
4P71210	4	#7	12'-10"	*			104.9	4P82802A	2	#8	28'-2"		2'-1"	10'-9"		150.4
4P70905	4	#7	9'-5"	*			76.9	4P72708A	2	#7	27'-8"	*	2'-1"	10'-6"		113.1
4P70800	4	#7	6'-0"	*			49.1	4P72703A	2	#7	27'-3"	*	2'-2"	10'-2"		111.4
4P112701	32	#11	27'-1"	*			4605.0	4P72609A	2	#7	26'-9"	*	2'-2"	9'-11"		109.4
4P72606	156	#7	26'-6"	*			8449.8	4P72604A	2	#7	26'-4"	*	2'-3"	9'-7"		107.6
4P72301	4	#7	23'-1"	*			188.7	4P72510A	2	#7	25'-10"	*	2'-3"	9'-4"		105.6
4P71906	4	#7	19'-6"	*			159.4	4P72505A	2	#7	25'-5"	*	2'-4"	9'-0"		103.9
4P71603	4	#7	16'-3"	*			132.8	4P72500A	2	#7	25'-0"	*	2'-4"	8'-9"		102.2
4P71209	4	#7	12'-9"	*			104.2	4P72406A	2	#7	24'-6"	*	2'-5"	8'-5"		100.2
4P70903	4	#7	9'-3"	*			75.6	4P72401A	2	#7	24'-1"	*	2'-5"	8'-2"		98.4
4P70510	4	#7	5'-10"	*			47.7	4P72307A	2	#7	23'-7"	*	2'-6"	7'-10"		96.4
4P102704	20	#10	27'-4"	*			2352.3	4P72302A	2	#7	23'-2"	*	2'-6"	7'-7"		94.7
4P76000	46	#7	60'-0"	*			5641.4	4P72208A	2	#7	22'-8"	*	2'-7"	7'-3"		92.6
4P86000	60	#8	60'-0"	*			9612.0	4P72203A	2	#7	22'-3"	*	2'-7"	7'-0"		90.9
4P81406	4	#8	14'-6"	*			154.8	4P72110A	2	#7	21'-10"	*	2'-8"	6'-8"		89.2
4P83100	8	#8	31'-0"	*			662.1	4P72104A	2	#7	21'-4"	*	2'-8"	6'-5"		87.2
4P81903	4	#8	19'-3"	*			205.6	4P72011A	2	#7	20'-11"	*	2'-9"	6'-1/2"		85.5
4P83909A	2	#8	39'-9"	U	1'-0"	18'-3/2"	212.3	4P72005A	2	#7	20'-5"	*	2'-9"	5'-10"		83.5
4P83907A	2	#8	39'-7"	*	1'-0"	18'-2"	211.4	4P72000A	2	#7	20'-0"	*	2'-10"	5'-6"		81.7
4P83904A	2	#8	39'-4"	*	1'-0"	18'-0"	210.0	4P71906A	2	#7	19'-6"	*	2'-10"	5'-3"		79.7
4P83901A	2	#8	39'-1"	*	1'-0"	17'-10"	208.7	4P71901A	2	#7	19'-1"	*	2'-11"	4'-11"		78.0
4P83811A	2	#8	38'-11"	*	1'-1"	17'-8 1/2"	207.8	4P71808A	2	#7	18'-8"	*	2'-11"	4'-8"		76.3
4P83808A	2	#8	38'-8"	*	1'-1"	17'-7"	206.5	4P71802A	2	#7	18'-2"	*	3'-0"	4'-4"		74.3
4P83805A	2	#8	38'-5"	*	1'-1"	17'-5"	205.1	4P71709A	2	#7	17'-9"	*	3'-0"	4'-1"		72.5
4P83801A	2	#8	38'-1"	*	1'-2"	17'-2 1/2"	203.4	4P50302B	24	#5	3'-2"	U	6"	2'-2"		79.2
4P83708A	2	#8	37'-8"	*	1'-2"	16'-11"	201.1	4P50306B	22	#5	3'-6"		6"	2'-6"		80.3
4P83702A	2	#8	37'-2"	*	1'-3"	16'-7 1/2"	198.5	4P50310B	22	#5	3'-10"		6"	2'-10"		87.9
4P83609A	2	#8	36'-9"	*	1'-3"	16'-4"	196.2	4P50402B	22	#5	4'-2"		6"	3'-2"		95.6
4P83603A	2	#8	36'-3"	*	1'-4"	16'-0 1/2"	193.6	4P50406B	20	#5	4'-6"		6"	3'-6"		93.8
4P83510A	2	#8	35'-10"	*	1'-4"	15'-9"	191.3	4P50410B	20	#5	4'-10"		6"	3'-10"		100.8
4P83504A	2	#8	35'-4"	*	1'-5"	15'-5 1/2"	188.6	4P50502B	20	#5	5'-2"		6"	4'-2"		107.7
4P83411A	2	#8	34'-11"	*	1'-5"	15'-2"	186.4	4P50506B	18	#5	5'-6"		6"	4'-6"		103.3
4P83406A	2	#8	34'-6"	*	1'-6"	14'-10"	184.2	4P50510B	18	#5	5'-10"		6"	4'-10"		109.5
4P83400A	2	#8	34'-0"	*	1'-6"	14'-7"	181.5	4P50602B	18	#5	6'-2"		6"	5'-2"		115.7
4P83307A	2	#8	33'-7"	*	1'-7"	14'-3 1/2"	179.3	4P50606B	18	#5	6'-6"		6"	5'-6"		122.0
4P83301A	2	#8	33'-1"	*	1'-7"	14'-0"	176.6	4P50610B	16	#5	6'-10"		6"	5'-10"		114.0
4P83208A	2	#8	32'-8"	*	1'-8"	13'-8 1/2"	174.4	4P60710D94	#6	7'-10"	U	1'-10"	3'-0"	2'-1"	1106.0	
4P83202A	2	#8	32'-2"	*	1'-8"	13'-5"	171.7									



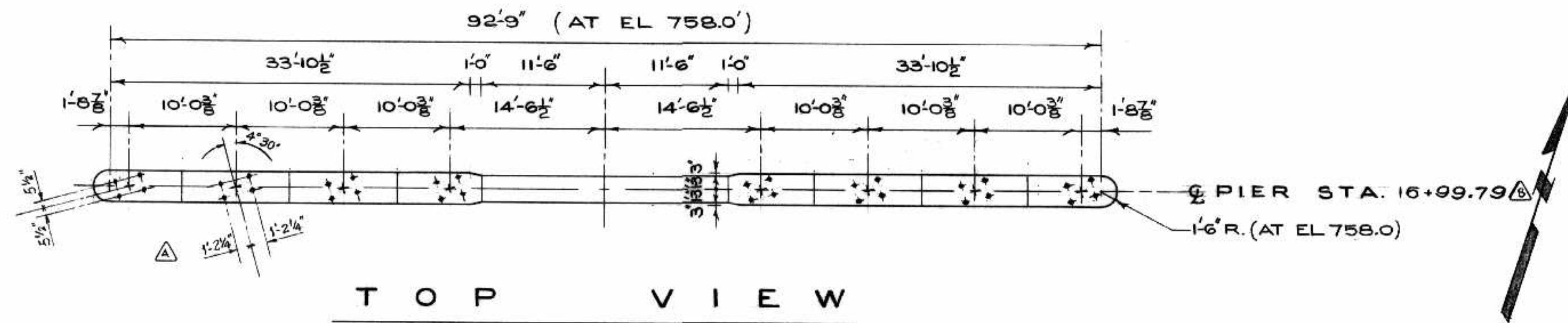
REINFORCEMENT SHOWN IS FOR PIER NO. 4 ONLY PIER NO. 4 54551 LBS
 REINFORCEMENT FOR PIER NO. 6 IS IDENTICAL PIER NO. 6 54551 LBS
 TOTAL 109102 LBS

AS BUILT
 ALS 11/16/60
 PROVINCE OF MANITOBA
 D. J. SAMMON
 REGISTERED ENGINEER

NO	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

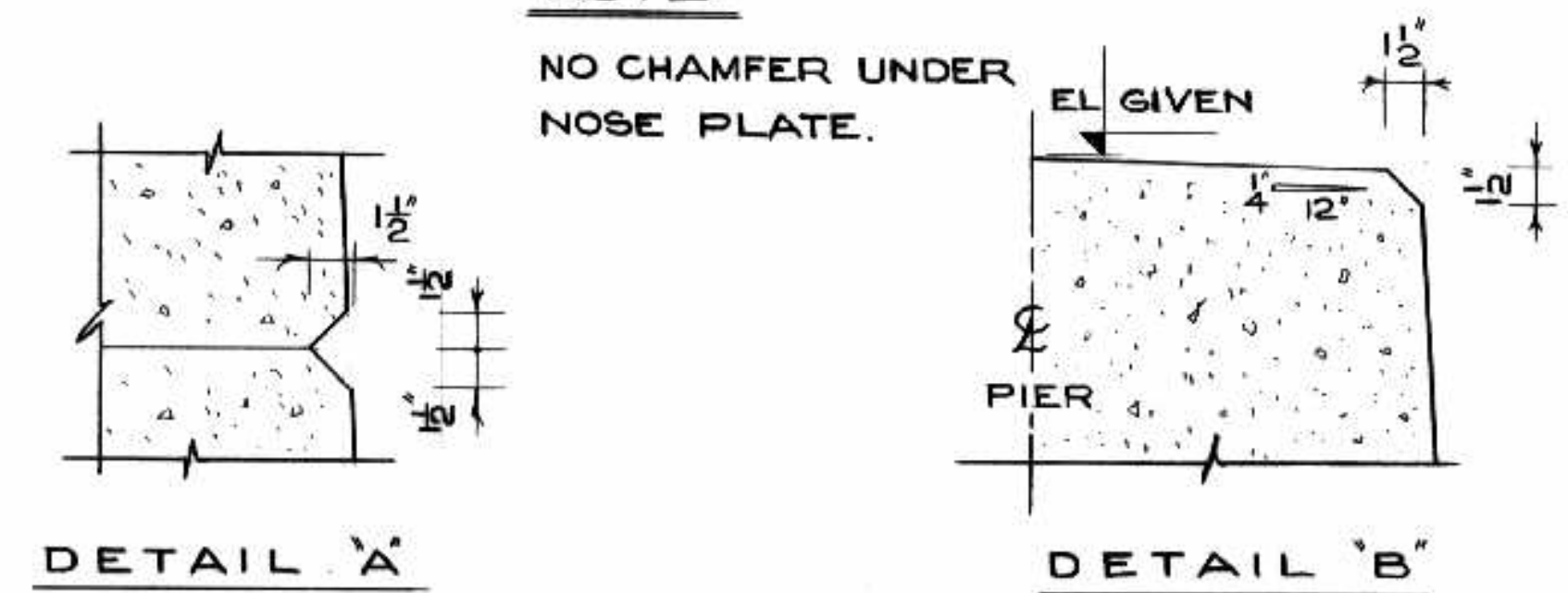
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
 STREETS AND TRANSIT DIVISION
ST. VITAL BRIDGE PROJECT
 B-5015-101
PIER NO. 4 AND 6 REINFORCING DETAILS
 T. LAMB, McMANUS & ASSOCIATES LTD.
 CONSULTING ENGINEERS
 EDMONTON CALGARY WINNIPEG

FILE No. 861.
 DATE SEPT. 1964
 SCALE 1/4" = 1'-0"
 DWN. BY 23.
 CHKD. BY *[Signature]*
 DWG. No. F-22



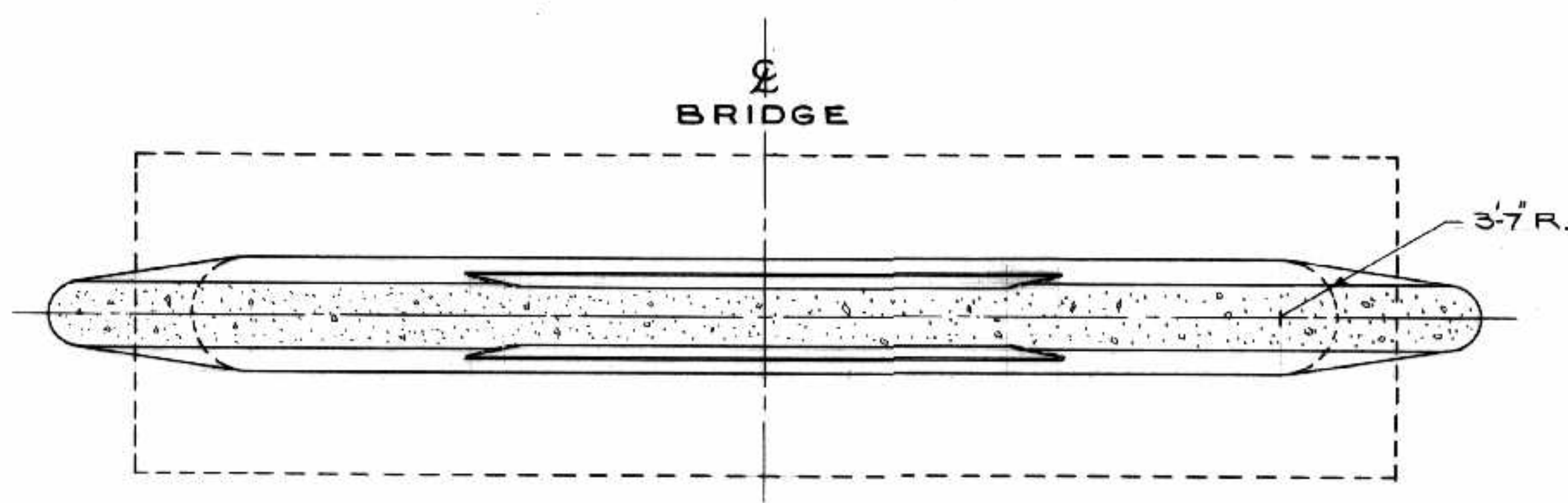
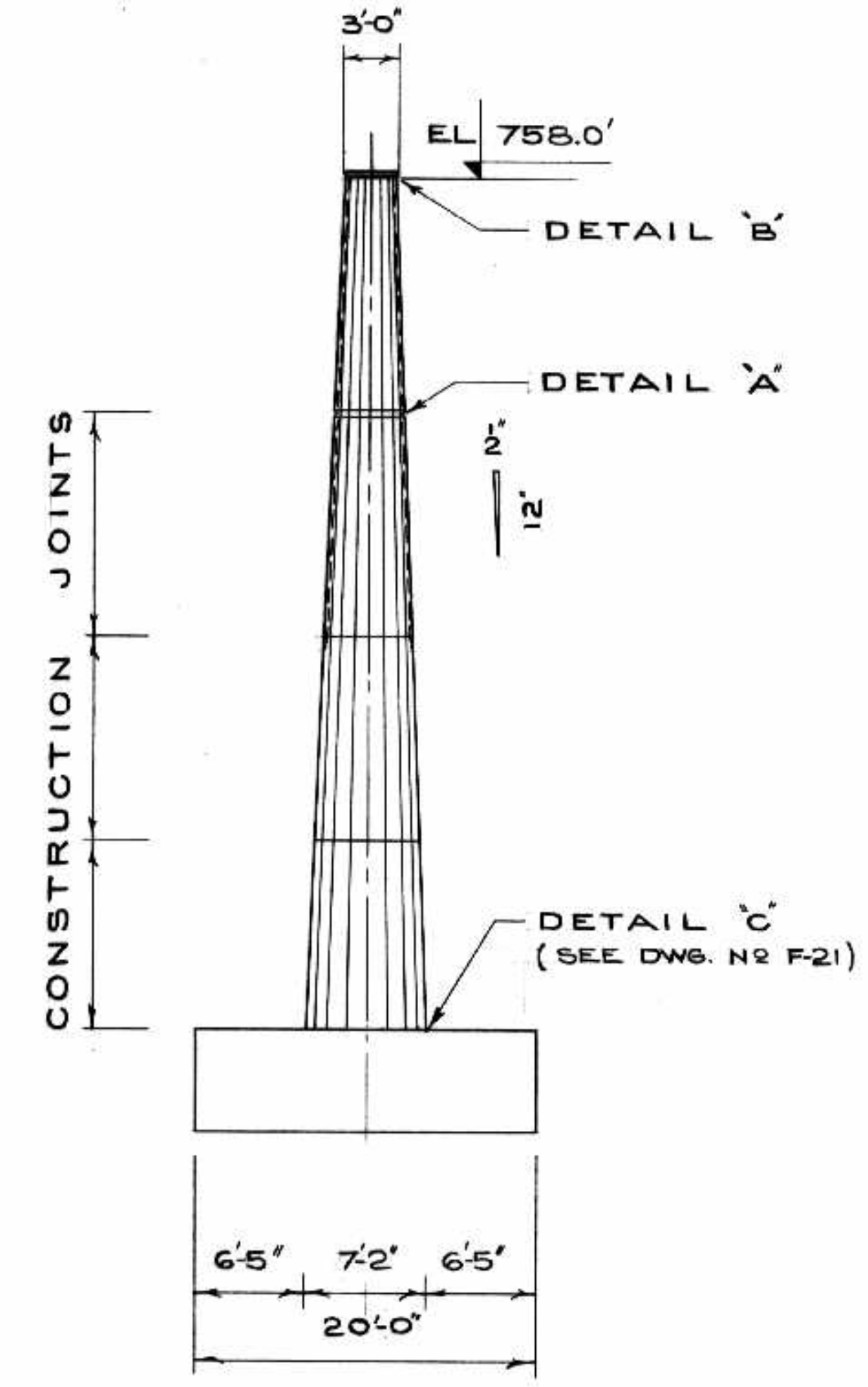
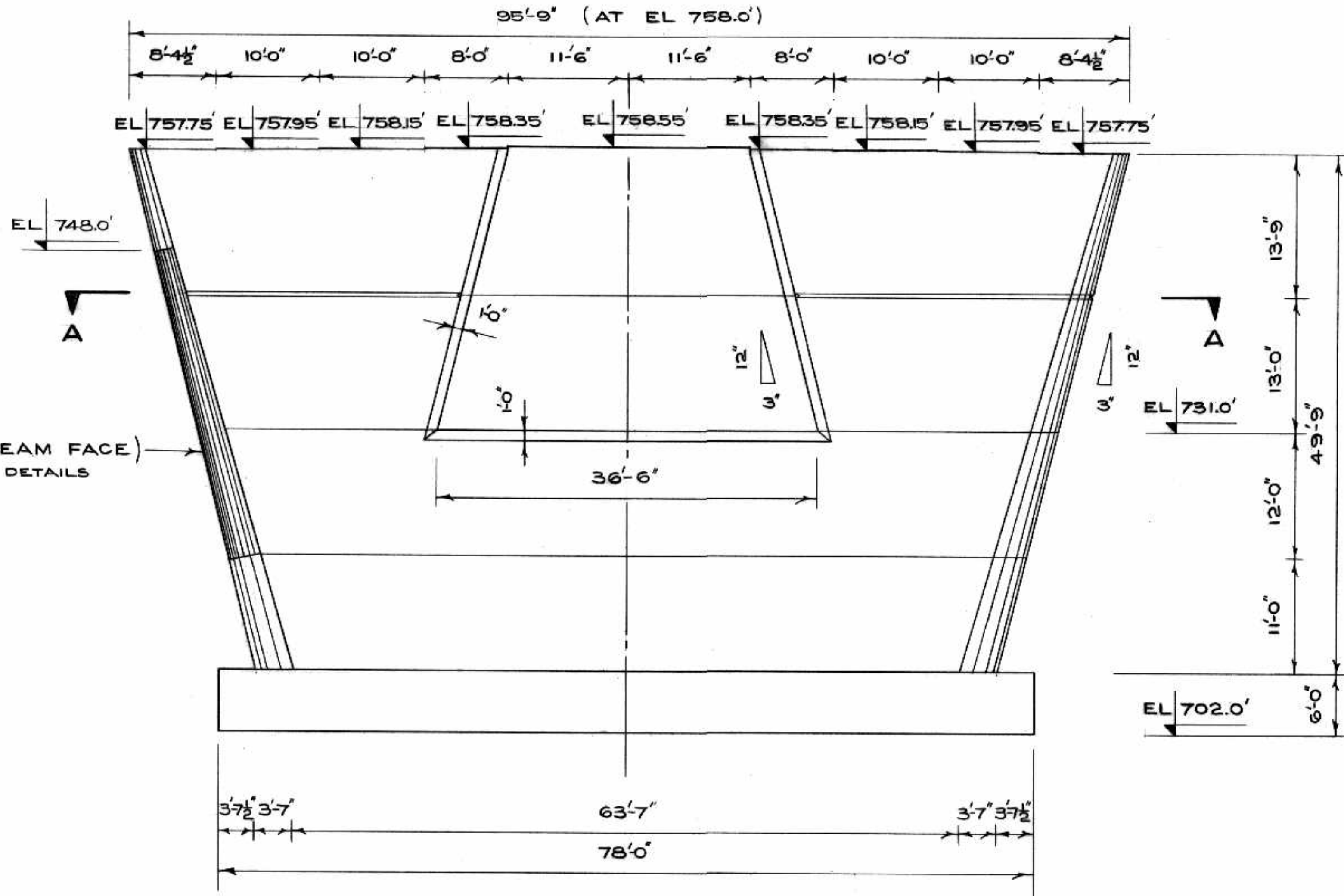
NOTE:

NO CHAMFER UNDER NOSE PLATE.



T Y P. C H A M F E R SCALE: 1/2" = 1'-0"

PIER NO. 4, NO. 5 & NO. 6.



TOTAL VOLUME CONCRETE 1084 CY.

AS BUILT ALS mAR/68

B-5015-102

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

PIER NO. 5

NO.	DATE	BY	DESCRIPTION
1			YES/68 W.S. PIER 5 CHAINAGE REVISED
2			DET. 9-24-68 ADH. ANCHOR BOLT HLS SKEWED

APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

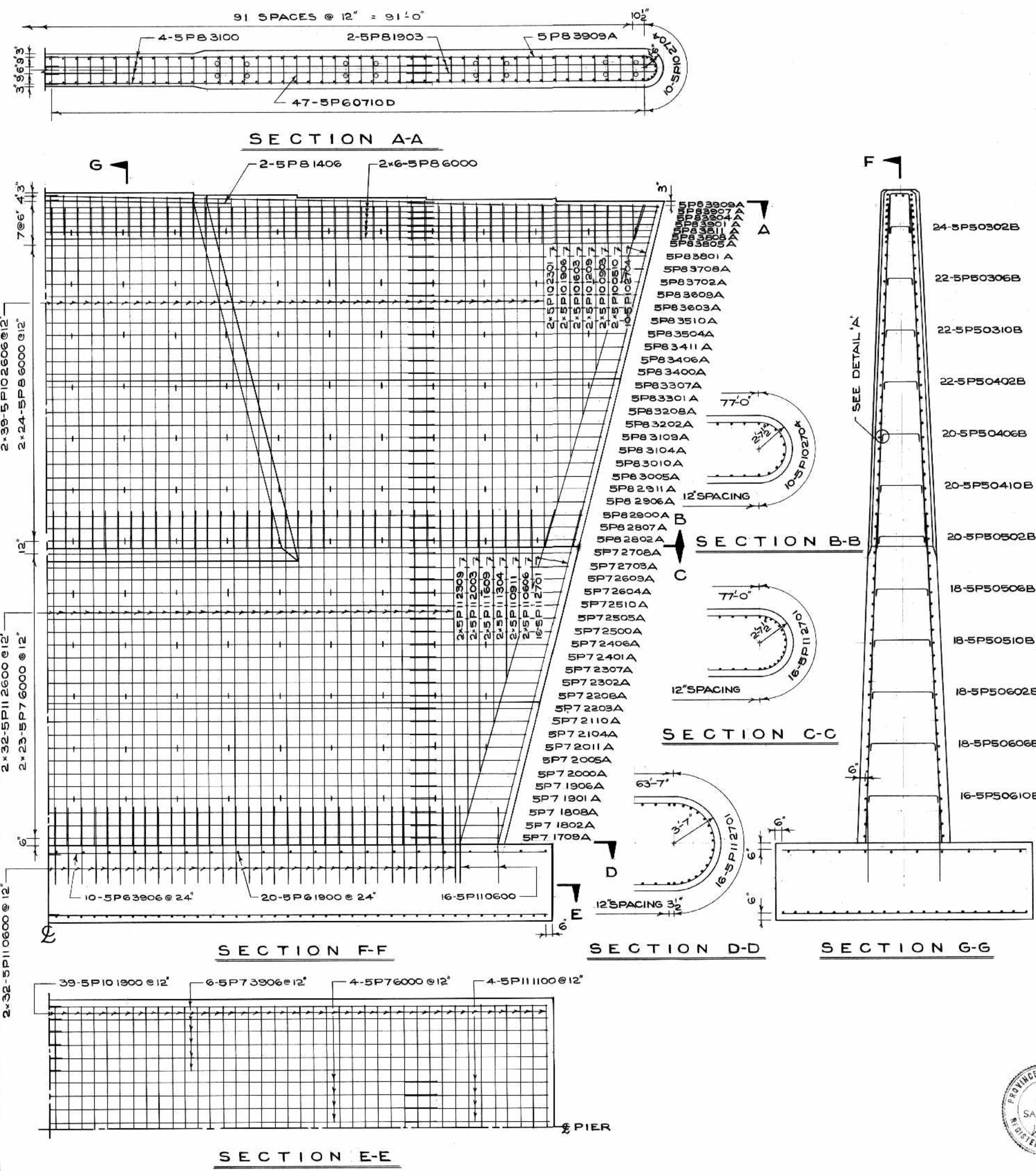
PROVINCE OF MANITOBA REGISTERED ENGINEER

PROVINCE OF MANITOBA REGISTERED ENGINEER

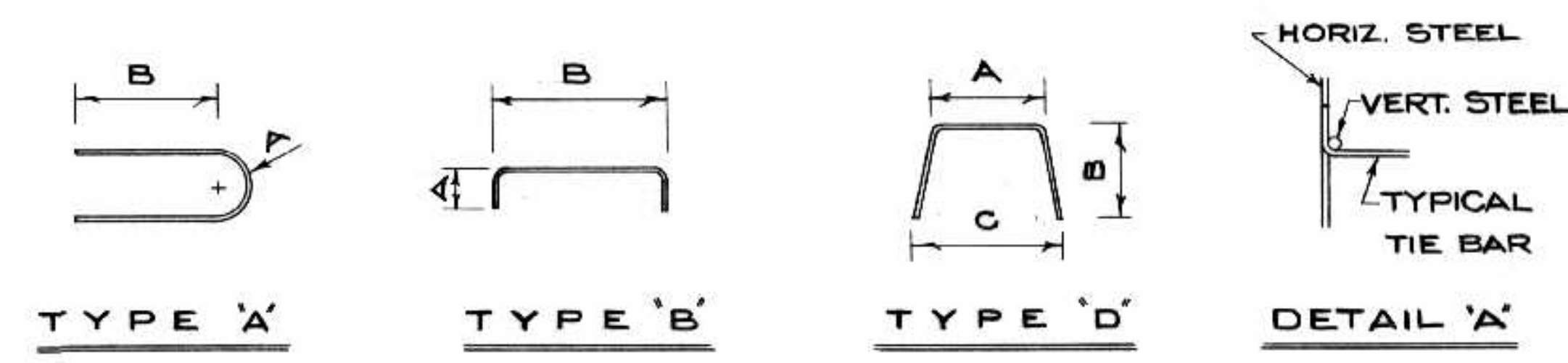
T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861.
DATE SEPT. 1964.
SCALE 1/8" = 1'-0"
DWN. BY 23.
CHKD. BY *[Signature]*
DWG. No. F-23





REINFORCING STEEL SCHEDULE PIER No 5																
MARK	No	SIZE	LENGTH	SKETCH	A	B	WEIGHT	MARK	No	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT
5P101900	78	#10	19'-0"	STR.			6377.0	5P83208A	2	#8	32'-8"		1'-8"	13'-8"		174.4
5P73906	24	#7	39'-6"	"			1837.7	5P83202A	2	#8	32'-2"	"	1'-8"	13'-5"		171.7
5P76000	8	#7	60'-0"	"			981.1	5P83109A	2	#8	31'-9"	"	1'-9"	13'-4"		169.5
5P11100	16	#11	11'-0"	"			935.1	5P83104A	2	#8	31'-4"	"	1'-9"	12'-10"		167.3
5P61900	40	#6	19'-0"	"			1141.5	5P83010A	2	#8	30'-10"	"	1'-10"	12'-6"		164.6
5P63906	20	#6	39'-6"	"			1186.6	5P83005A	2	#8	30'-5"	"	1'-10"	12'-3"		162.4
5P110600	160	#11	6'-0"	"			5100.5	5P82911A	2	#8	29'-11"	"	1'-11"	11'-11"		159.7
5P112600	128	#11	26'-0"	"			17681.6	5P82906A	2	#8	29'-6"	"	1'-11"	11'-8"		157.5
5P112309	4	#11	23'-9"	"			504.7	5P82900A	2	#8	29'-0"	"	2'-0"	11'-4"		154.8
5P112003	4	#11	20'-3"	"			430.3	5P82807A	2	#8	28'-7"	"	2'-0"	11'-1"		152.6
5P111609	4	#11	16'-9"	"			356.0	5P82802A	2	#8	28'-2"	"	2'-1"	10'-9"		150.4
5P111304	4	#11	13'-4"	"			283.3	5P72708A	2	#7	27'-8"	"	2'-1"	10'-6"		113.1
5P110911	4	#11	9'-11"	"			210.7	5P72703A	2	#7	27'-3"	"	2'-2"	10'-2"		111.4
5P110606	4	#11	6'-6"	"			138.1	5P72609A	2	#7	26'-9"	"	2'-2"	9'-1"		109.4
5P112701	32	#11	27'-1"	"			4604.5	5P72604A	2	#7	26'-4"	"	2'-3"	9'-1"		107.6
5P102606	156	#10	26'-6"	"			17788.6	5P72510A	2	#7	25'-10"	"	2'-3"	9'-4"		105.6
5P102301	4	#10	23'-1"	"			397.3	5P72505A	2	#7	25'-5"	"	2'-4"	9'-0"		103.9
5P101906	4	#10	19'-6"	"			335.6	5P72500A	2	#7	25'-0"	"	2'-4"	8'-9"		102.2
5P101603	4	#10	16'-3"	"			279.7	5P72406A	2	#7	24'-6"	"	2'-5"	8'-5"		100.2
5P101209	4	#10	12'-9"	"			219.4	5P72401A	2	#7	24'-1"	"	2'-5"	8'-2"		98.4
5P100903	4	#10	9'-3"	"			159.2	5P72307A	2	#7	23'-7"	"	2'-6"	7'-10"		96.4
5P100510	4	#10	5'-10"	"			100.4	5P72302A	2	#7	23'-2"	"	2'-6"	7'-7"		94.7
5P102704	20	#10	27'-4"	"			2352.3	5P72208A	2	#7	22'-8"	"	2'-7"	7'-3"		92.6
5P76000	46	#7	60'-0"	"			5641.4	5P72203A	2	#7	22'-3"	"	2'-7"	7'-0"		90.9
5P86000	60	#8	60'-0"	"			9612.0	5P72110A	2	#7	21'-10"	"	2'-8"	6'-8"		89.2
5P81406	4	#8	14'-6"	"			154.8	5P72104A	2	#7	21'-4"	"	2'-8"	6'-5"		87.2
5P83100	8	#8	31'-0"	"			662.1	5P72011A	2	#7	20'-11"	"	2'-9"	6'-1"		85.5
5P81903	4	#8	19'-3"	"			205.6	5P72005A	2	#7	20'-5"	"	2'-9"	5'-10"		83.5
5P83903A	2	#8	39'-9"	"	1'-0"	18'-3"	212.3	5P72000A	2	#7	20'-0"	"	2'-10"	5'-6"		81.7
5P83907A	2	#8	39'-7"	"	1'-0"	18'-2"	211.4	5P71906A	2	#7	19'-6"	"	2'-10"	5'-3"		79.7
5P83304A	2	#8	39'-4"	"	1'-0"	18'-0"	210.0	5P71901A	2	#7	19'-1"	"	2'-11"	4'-11"		78.0
5P83901A	2	#8	39'-1"	"	1'-0"	17'-10"	208.7	5P71808A	2	#7	18'-8"	"	2'-11"	4'-8"		76.3
5P83811A	2	#8	38'-11"	"	1'-1"	17'-8"	207.8	5P71802A	2	#7	18'-2"	"	3'-0"	4'-4"		74.3
5P83806A	2	#8	38'-8"	"	1'-1"	17'-7"	206.6	5P71709A	2	#7	17'-9"	"	3'-0"	4'-1"		72.5
5P83805A	2	#8	38'-5"	"	1'-1"	17'-5"	205.1	5P50302B	24	#5	3'-2"	"	6"	2'-2"		79.2
5P83801A	2	#8	38'-1"	"	1'-2"	17'-2"	203.4	5P50306B	22	#5	3'-6"	"	6"	2'-6"		80.3
5P83708A	2	#8	37'-8"	"	1'-2"	16'-1"	201.1	5P50310B	22	#5	3'-10"	"	6"	2'-10"		87.9
5P83702A	2	#8	37'-2"	"	1'-3"	16'-7"	198.5	5P50402B	22	#5	4'-2"	"	6"	3'-2"		95.6
5P83609A	2	#8	36'-9"	"	1'-3"	16'-4"	196.2	5P50406B	20	#5	4'-6"	"	6"	3'-6"		93.8
5P83603A	2	#8	36'-3"	"	1'-4"	16'-0"	193.6	5P50410B	20	#5	4'-10"	"	6"	3'-10"		100.8
5P83510A	2	#8	35'-10"	"	1'-4"	15'-9"	191.3	5P50502B	20	#5	5'-2"	"	6"	4'-2"		107.7
5P83504A	2	#8	35'-4"	"	1'-5"	15'-5"	188.6	5P50506B	18	#5	5'-6"	"	6"	4'-6"		103.3
5P83411A	2	#8	34'-11"	"	1'-5"	15'-2"	186.4	5P50510B	18	#5	5'-10"	"	6"	4'-10"		109.5
5P83406A	2	#8	34'-6"	"	1'-6"	14'-10"	184.2	5P50602B	18	#5	6'-2"	"	6"	5'-2"		115.7
5P83400A	2	#8	34'-0"	"	1'-6"	14'-7"	181.5	5P50606B	18	#5	6'-6"	"	6"	5'-6"		122.0
5P83307A	2	#8	33'-7"	"	1'-7"	14'-3"	178.3	5P50610B	16	#5	6'-10"	"	6"	5'-10"		114.0
5P83301A	2	#8	33'-1"	"	1'-7"	14'-0"	176.6	5P60710D	94	#6	7'-0"	"	14"	3'-0"	2'-1"	1106.0



AS BUILT TOTAL REINFORCEMENT FOR PIER NO.5 89755 LBS
 ALS MAR/16 B-5015-103

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
 STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

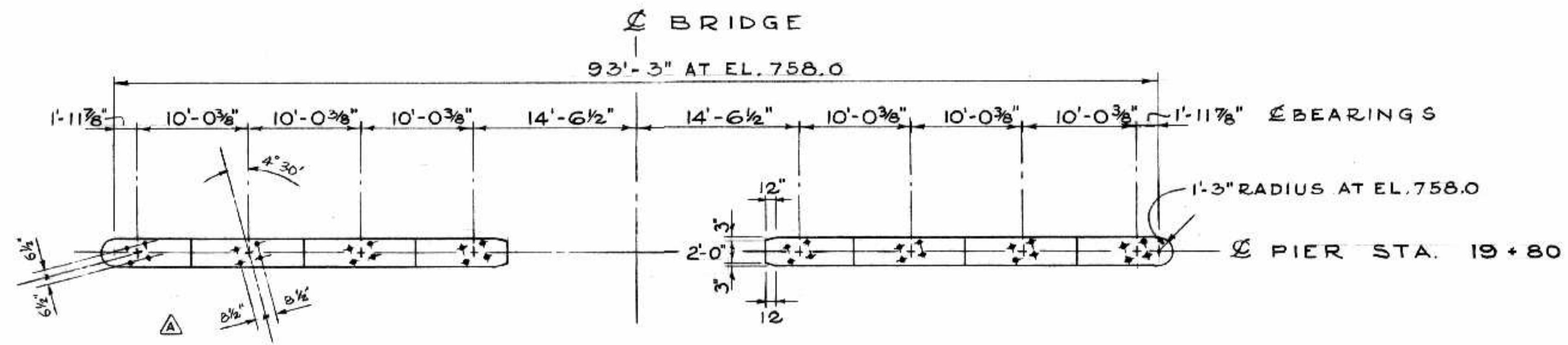
PIER NO. 5
 REINFORCING DETAILS

FILE No. 861.
 DATE SEPT 1964
 SCALE 1/4" = 1'-0"
 DWN. BY 2.3
 CHKD. BY Dadeh
 DWG. No. F-24

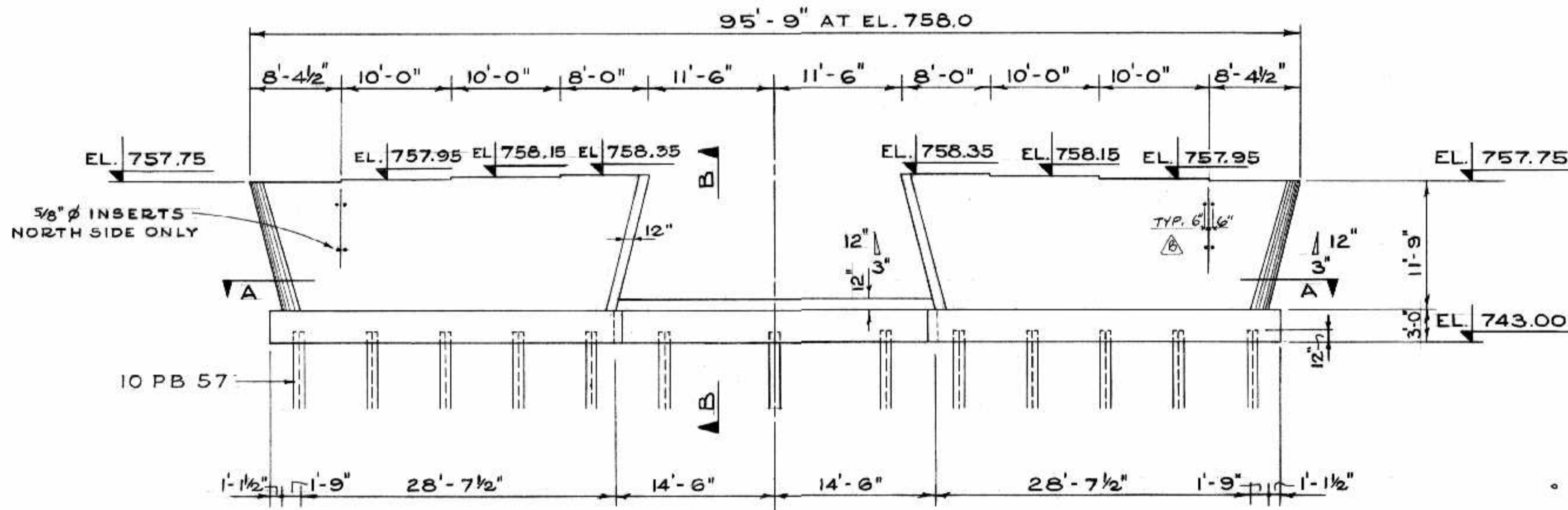
APPROVED BY *[Signature]*
 DEPUTY DIRECTOR OF STREETS & TRANSIT

T. LAMB, McMANUS & ASSOCIATES LTD.
 CONSULTING ENGINEERS
 EDMONTON CALGARY WINNIPEG

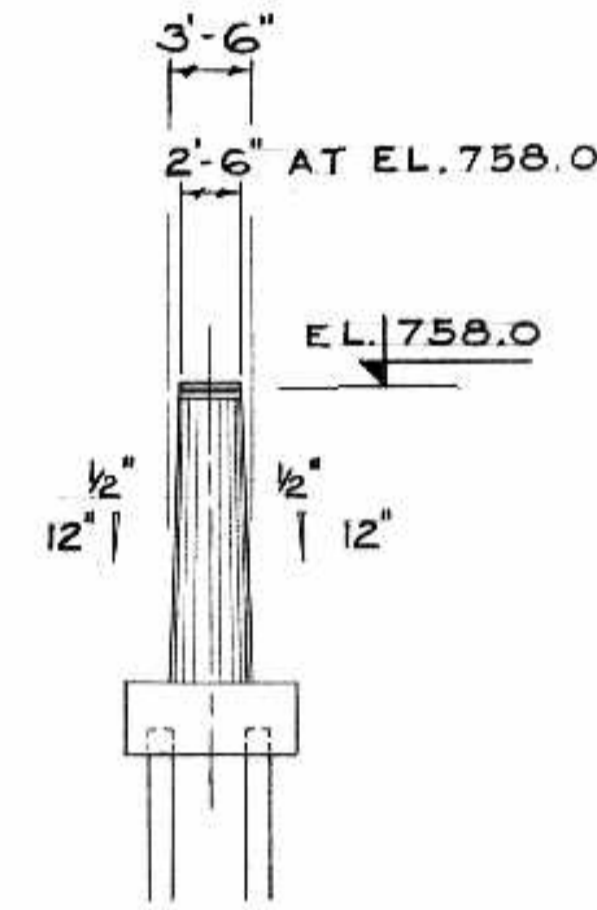




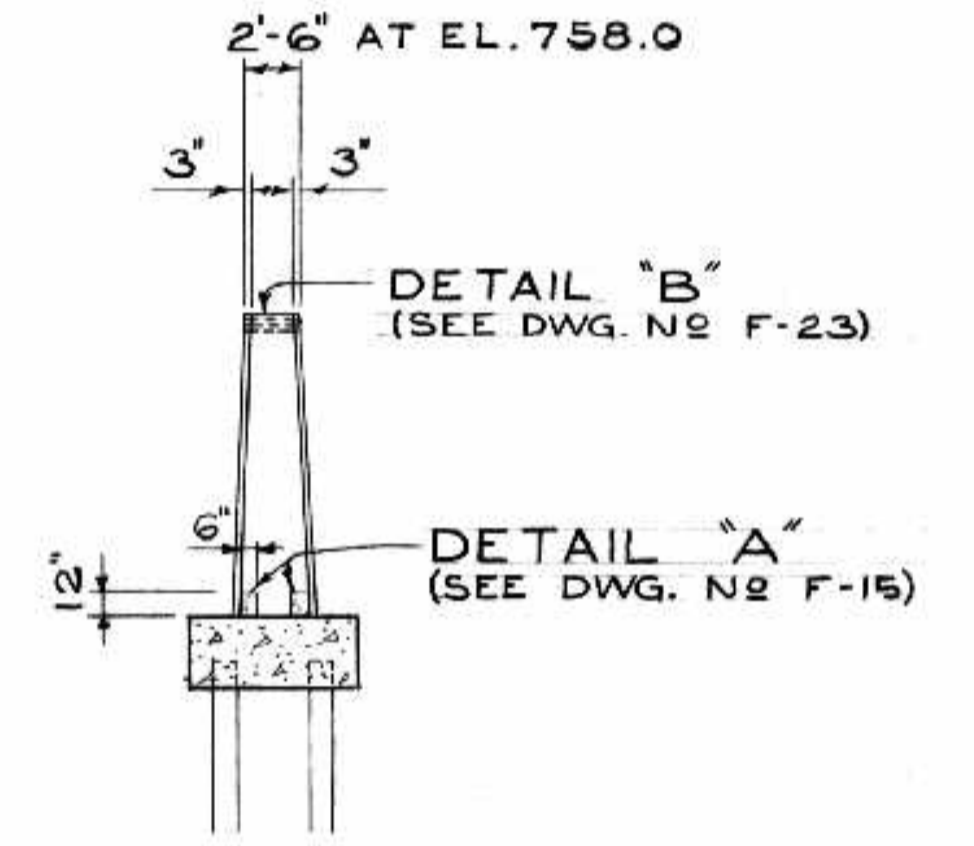
TOP VIEW



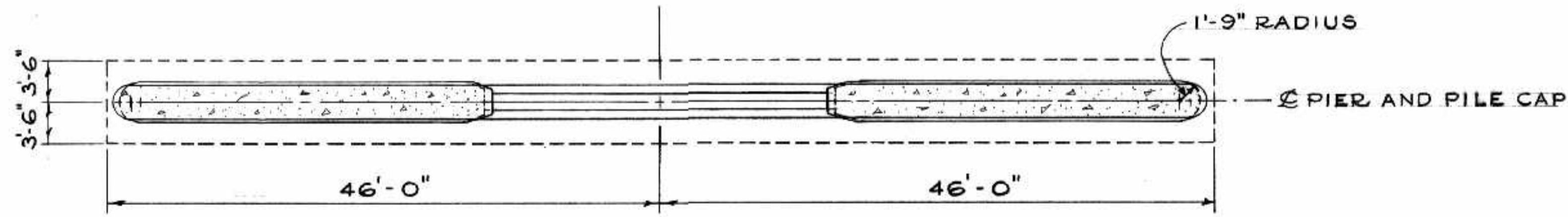
ELEVATION



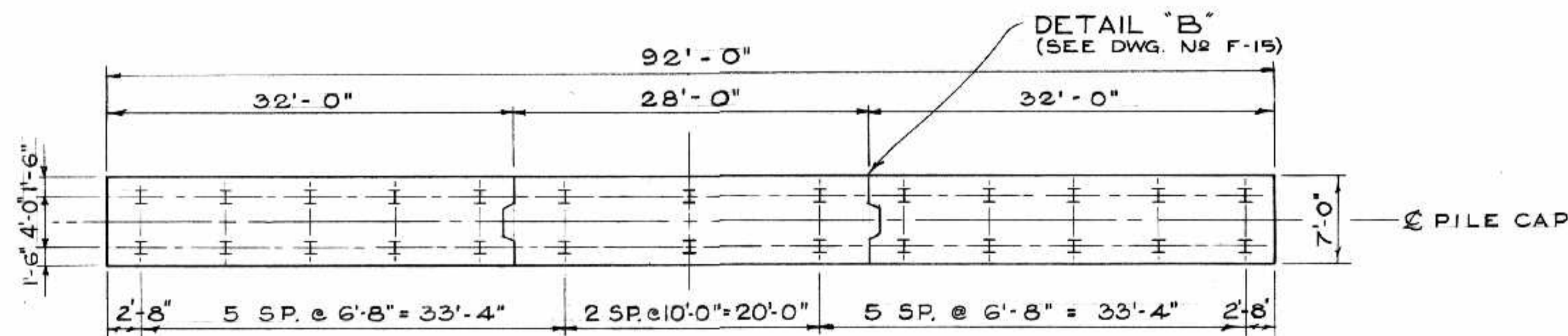
END VIEW



SECTION B-B



SECTION A-A



PLAN OF PILES

TOTAL VOLUME CONCRETE 158 C.Y. CLASS A
1.1 C.Y. CLASS C

B-5015-104

AS BUILT ALS 10/26/68

NO.	DATE	BY	DESCRIPTION
1			REVISIONS
2			
3			
4			
5			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

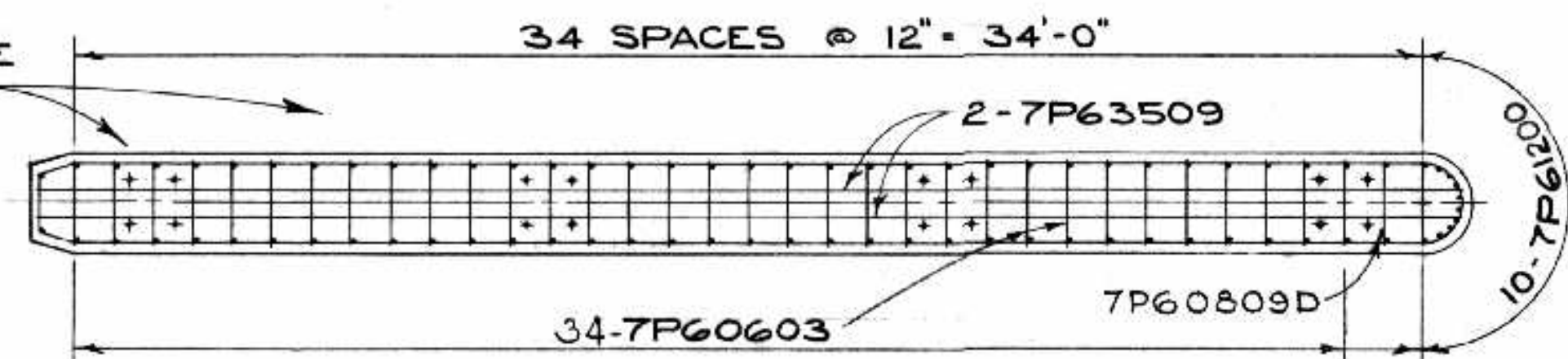
PIER NO. 7

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EDMONTON CALGARY WINNIPEG

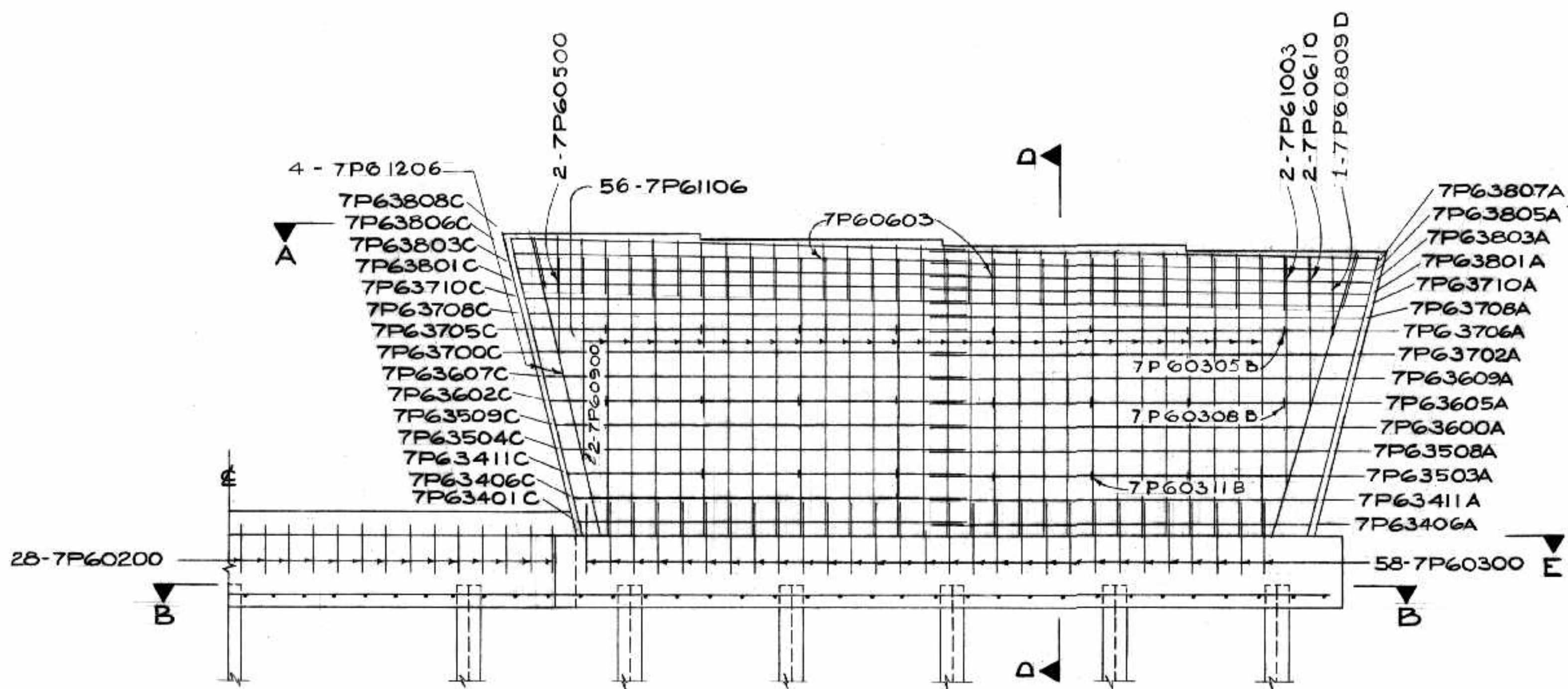
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DATE SEPT. 1964
SCALE 1/8" = 1'-0"
DWN. BY [Signature]
CHKD. BY [Signature]
DWG. No. F-25



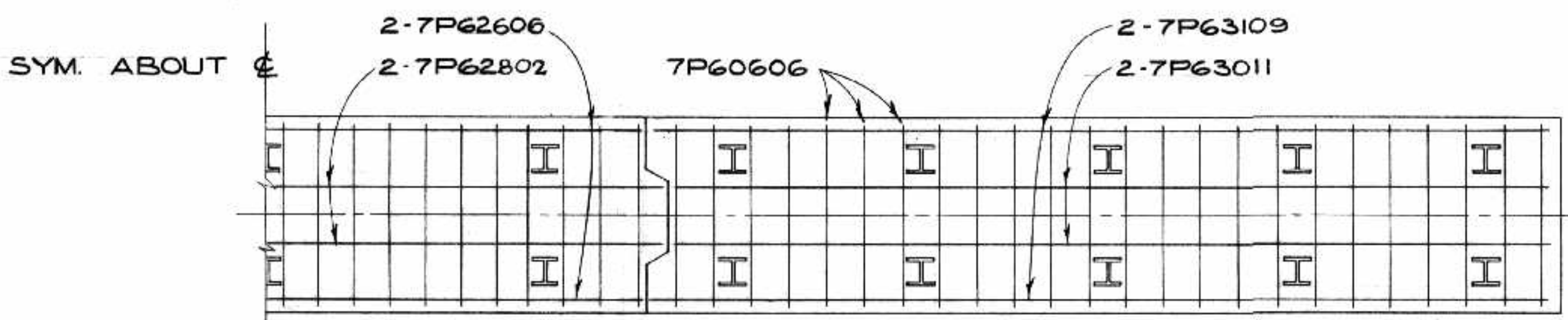
PIPE SLEEVES FOR ANCHOR BOLTS SEE DETAIL DRWG. N^o F-29



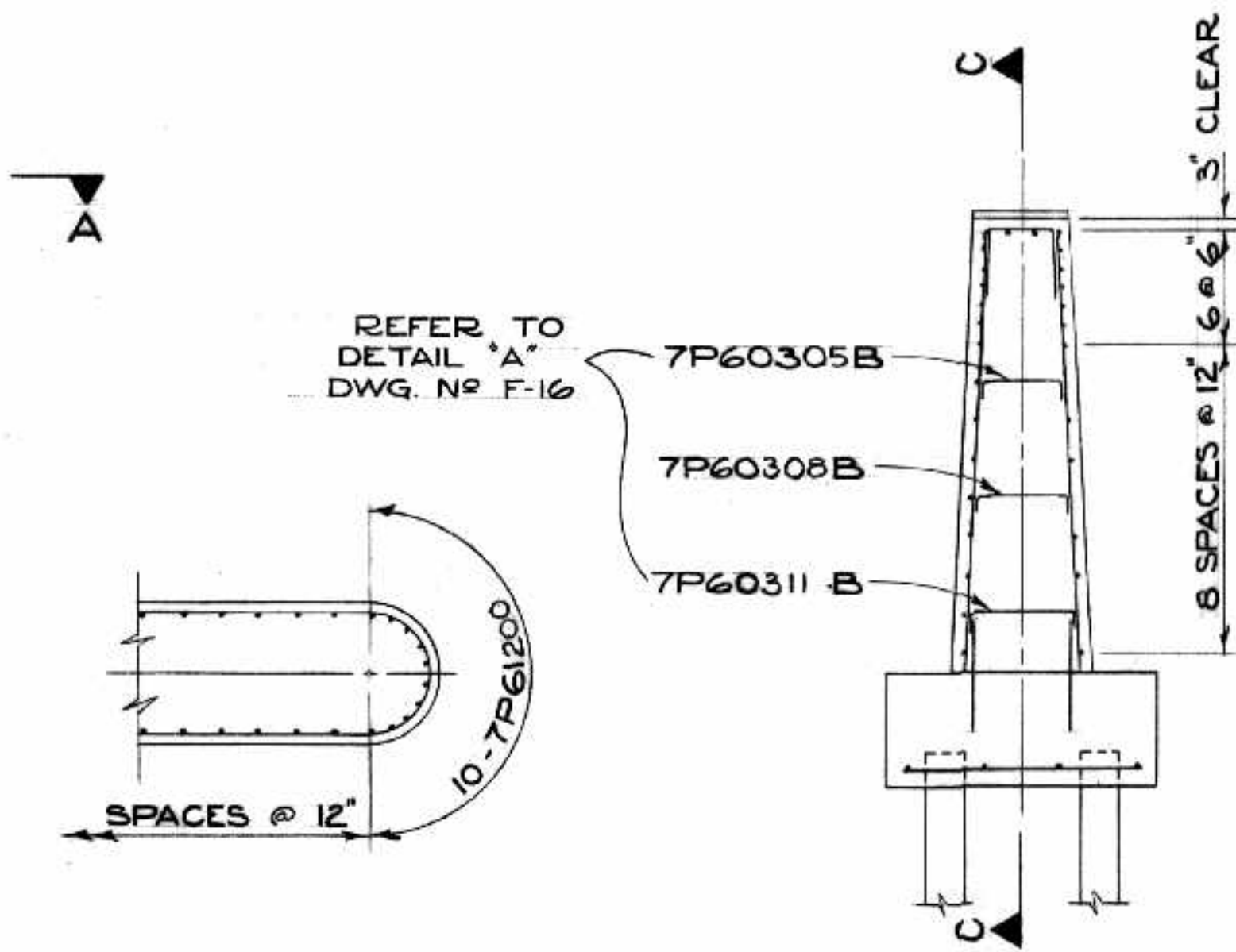
SECTION A-A



SECTION C-C

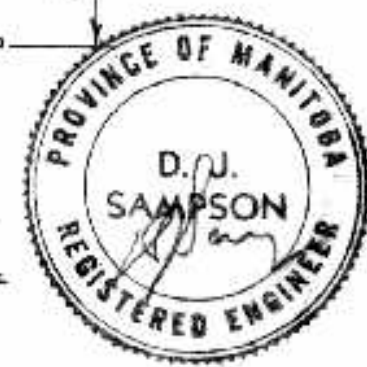
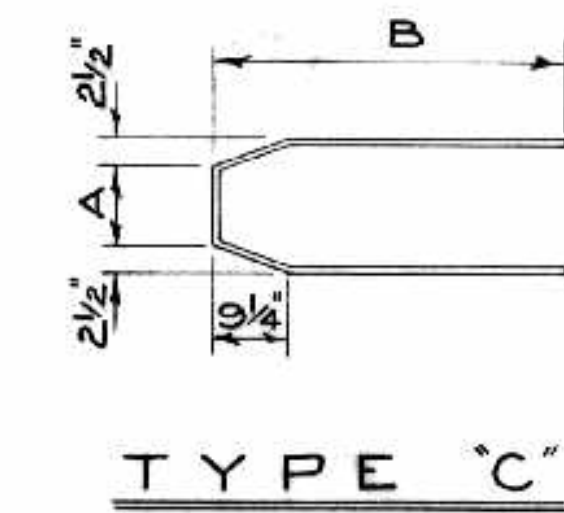
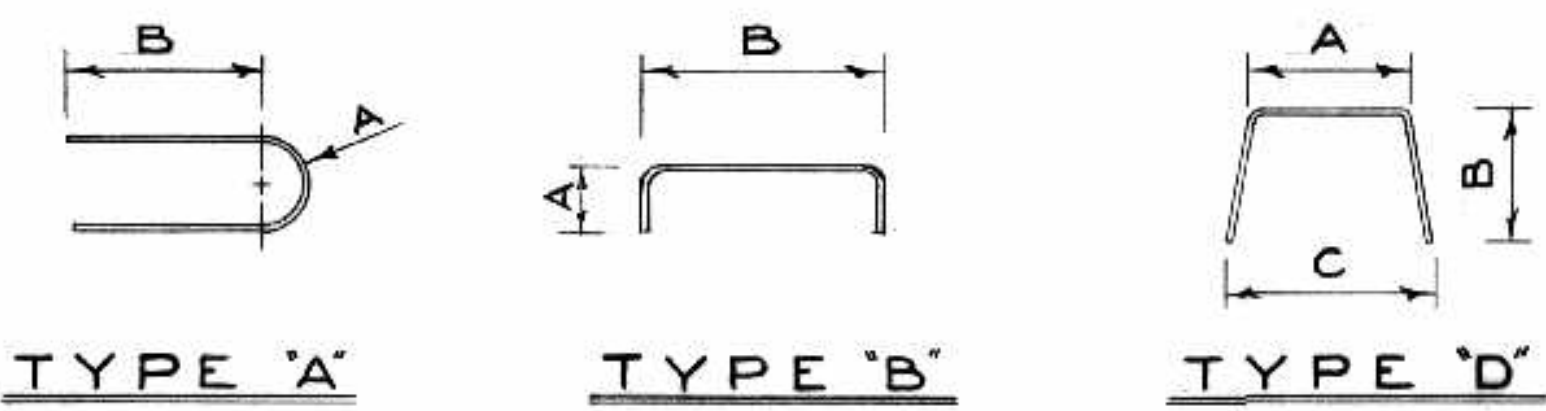


SECTION B-B



SECTION E-E

SECTION D-D



REINFORCING STEEL SCHEDULE PIER N ^o 7								
MARK	N ^o	SIZE	LENGTH	SKETCH	A	B	C	WEIGHT
7P60606	70	# 6	6'-6"	STR.				683.4
7P62606	2	# 6	26'-6"	"				79.6
7P62802	2	# 6	28'-2"	"				84.6
7P63011	4	# 6	30'-11"	"				185.8
7P63109	4	# 6	31'-9"	"				190.8
7P60200	56	# 6	2'-0"	"				168.2
7P60300	116	# 6	3'-0"	"				522.7
7P60900	4	# 6	9'-0"	"				54.1
7P60610	4	# 6	6'-10"	"				41.0
7P60500	4	# 6	5'-0"	"				30.1
7P61003	4	# 6	10'-3"	"				61.6
7P61200	20	# 6	12'-0"	"				360.5
7P61106	112	# 6	11'-6"	"				1934.6
7P63509	4	# 6	35'-9"	"				214.8
7P63406A	2	# 6	34'-6"	"	1'-5 3/4"	14'-11 1/4"		103.6
7P63411A	2	# 6	34'-11"	"	1'-5 1/4"	15'-2 1/4"		104.9
7P63503A	2	# 6	35'-3"	"	1'-4 3/4"	15'-5 1/4"		105.9
7P63508A	2	# 6	35'-8"	"	1'-4 1/4"	15'-8 1/4"		107.2
7P63600A	2	# 6	36'-0"	"	1'-3 3/4"	15'-11 1/4"		108.1
7P63605A	2	# 6	36'-5"	"	1'-3 1/4"	16'-2 1/4"		109.4
7P63609A	2	# 6	36'-9"	"	1'-2 3/4"	16'-5 1/4"		110.4
7P63702A	2	# 6	37'-2"	"	1'-2 1/4"	16'-8 1/4"		111.6
7P63706A	2	# 6	37'-6"	"	1'-1 3/4"	16'-11 1/4"		112.6
7P63708A	2	# 6	37'-8"	"	1'-1 1/2"	17'-0 3/4"		113.2
7P63710A	2	# 6	37'-10"	"	1'-1 1/4"	17'-2 1/4"		113.6
7P63801A	2	# 6	38'-1"	"	1'-1"	17'-3 3/4"		114.4
7P63803A	2	# 6	38'-3"	"	1'-0 3/4"	17'-5 1/4"		114.9
7P63805A	2	# 6	38'-5"	"	1'-0 1/2"	17'-6 3/4"		115.4
7P63807A	2	# 6	38'-7"	"	1'-0 1/4"	17'-8 1/4"		115.9
7P60305B	16	# 6	3'-5"	"	6"	2'-4 1/2"		82.2
7P60308B	16	# 6	3'-8"	"	6"	2'-7 1/2"		88.2
7P60311B	14	# 6	3'-11"	"	6"	2'-10 1/2"		82.4
7P60603D	68	# 6	6'-3"	"	1'-1 1/2"	2'-2"	2'-1"	638.4
7P63401C	2	# 6	34'-1"	"	2'-6"	15'-9 1/2"	2'-11"	102.4
7P63406C	2	# 6	34'-6"	"	2'-5"	16'-0 1/2"	2'-10"	103.6
7P63411C	2	# 6	34'-11"	"	2'-4"	16'-3 1/2"	2'-9"	104.9
7P63504C	2	# 6	35'-4"	"	2'-3"	16'-6 1/2"	2'-8"	106.1
7P63509C	2	# 6	35'-9"	"	2'-2"	16'-9 1/2"	2'-7"	107.4
7P63602C	2	# 6	36'-2"	"	2'-1"	17'-0 1/2"	2'-6"	108.6
7P63607C	2	# 6	36'-7"	"	2'-0"	17'-3 1/2"	2'-5"	109.9
7P63700C	2	# 6	37'-0"	"	1'-11"	17'-6 1/2"	2'-4"	111.1
7P63705C	2	# 6	37'-5"	"	1'-10"	17'-9 1/2"	2'-3"	112.4
7P63708C	2	# 6	37'-8"	"	1'-9 1/2"	17'-11"	2'-2 1/2"	113.1
7P63710C	2	# 6	37'-10"	"	1'-9"	18'-0 1/2"	2'-2"	113.6
7P63801C	2	# 6	38'-1"	"	1'-8 1/2"	18'-2 1/4"	2'-1 1/2"	114.4
7P63803C	2	# 6	38'-3"	"	1'-8"	18'-3 1/2"	2'-1"	114.9
7P63806C	2	# 6	38'-6"	"	1'-7 1/2"	18'-5 1/4"	2'-0 1/2"	115.7
7P63808C	2	# 6	38'-8"	"	1'-7"	18'-6 1/2"	2'-0"	116.2
7P61206	8	# 6	12'-6"	STR.				150.2
7P60809D	2	# 6	8'-9"	"	1'-11"	3'-5"	2'-2 1/2"	26.3
TOTAL								5994.9
								LBS

AS BUILT ALS MAR/68

B-5015-105

NO.	DATE BY	DESCRIPTION

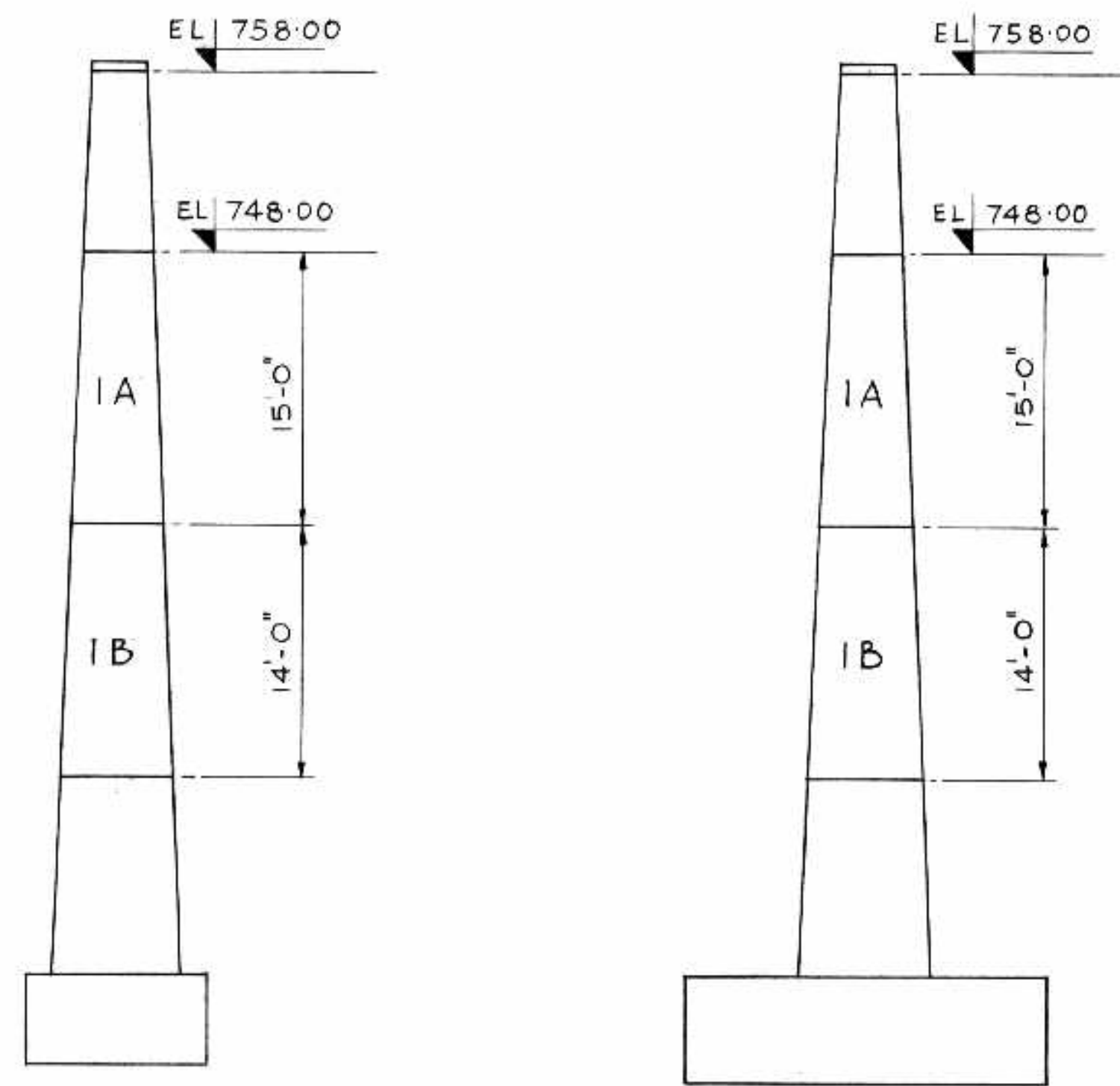
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

PIER NO. 7
REINFORCING DETAILS

FILE No. 861.
DATE SEPT. 1964
SCALE 1/4" = 1'-0"
DWN. BY RP
CHKD. BY S.A.S.
DWG. NO. F-26

T. LAMB, McMANUS & ASSOCIATES LTD.
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EDMONTON CALGARY WINNIPEG

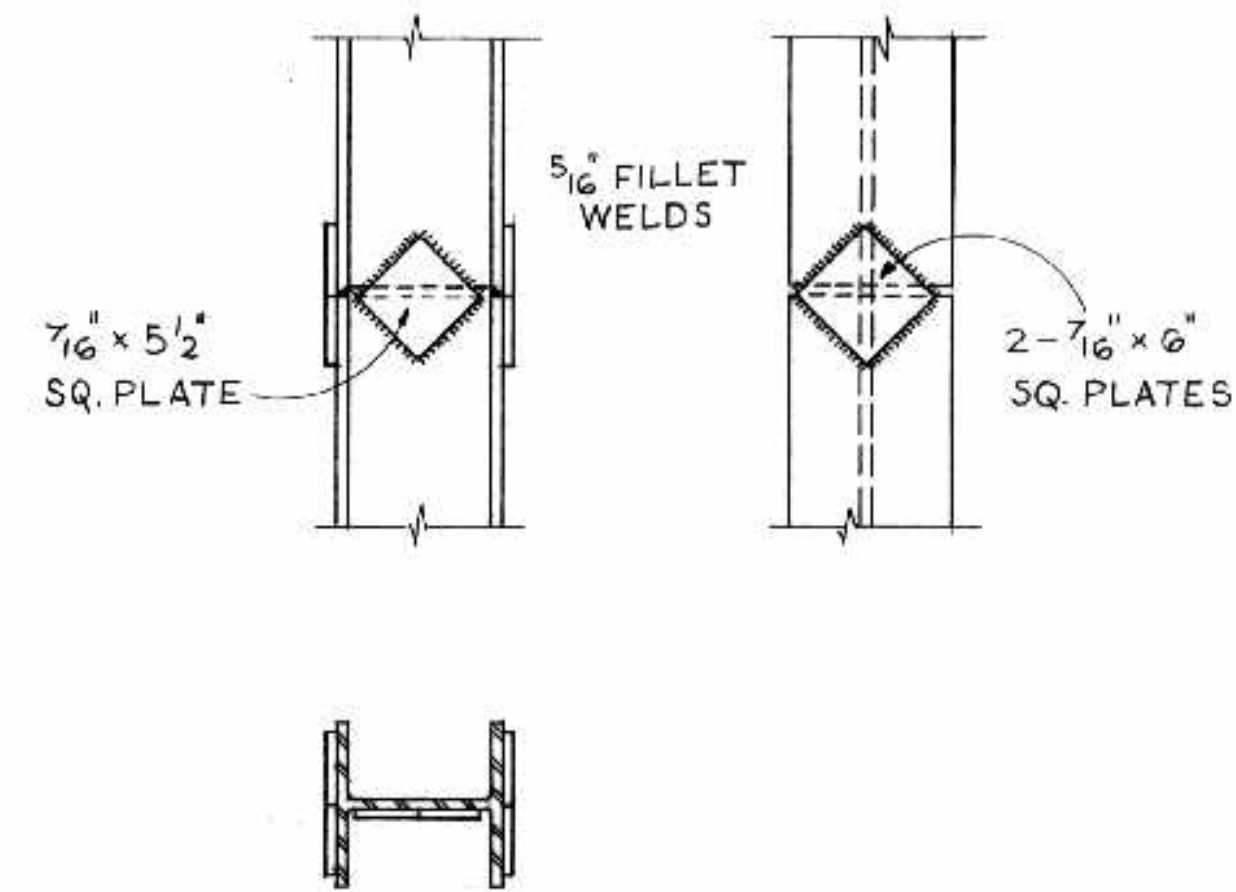


PIERS N° 4 & 6

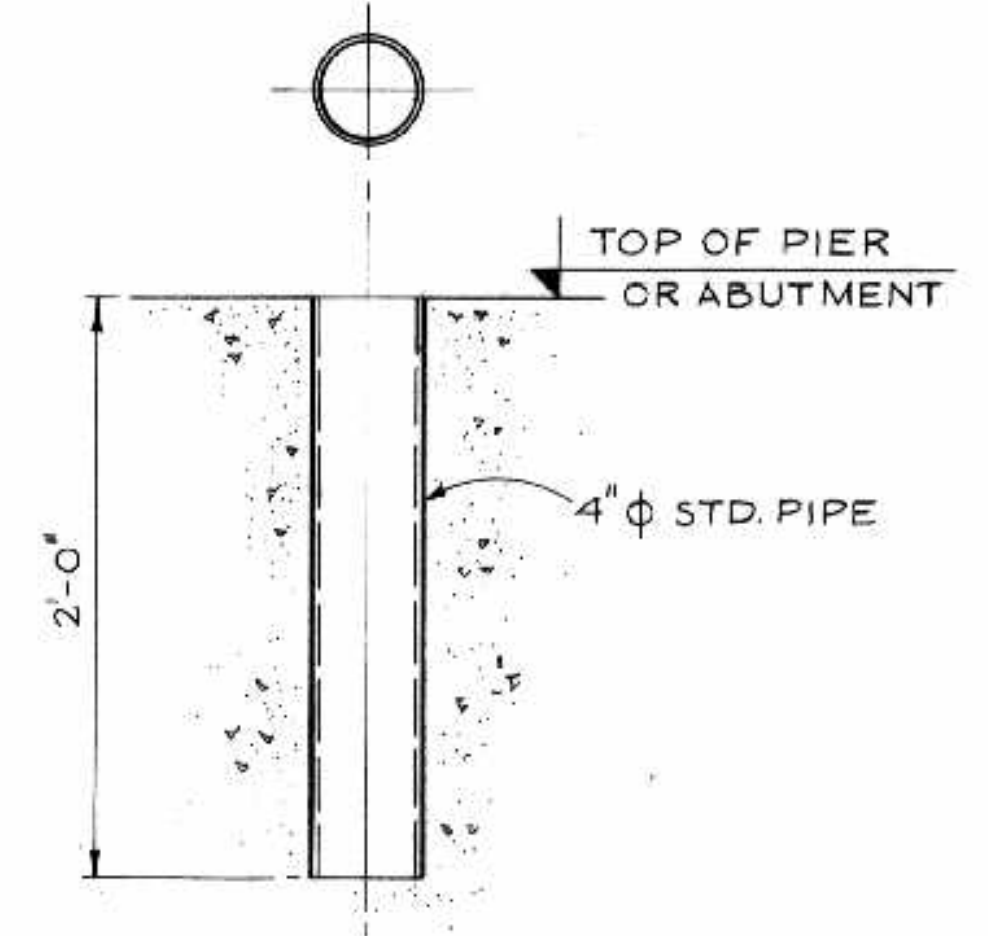
PIER N° 5

PIER NOSE PLATE SCHEDULE				
MARK	X	Y	C	D
1 A	1'-11" EL. 748.00	2'-6 1/2" EL. 733.00	6'-0 1/4" EL. 729.00	7'-11 1/8" EL. 723.00
1 B	2'-6 1/2" EL. 723.00	3'-1 1/2" EL. 719.00	7'-11 1/8" EL. 723.00	9'-9 3/8" EL. 719.00

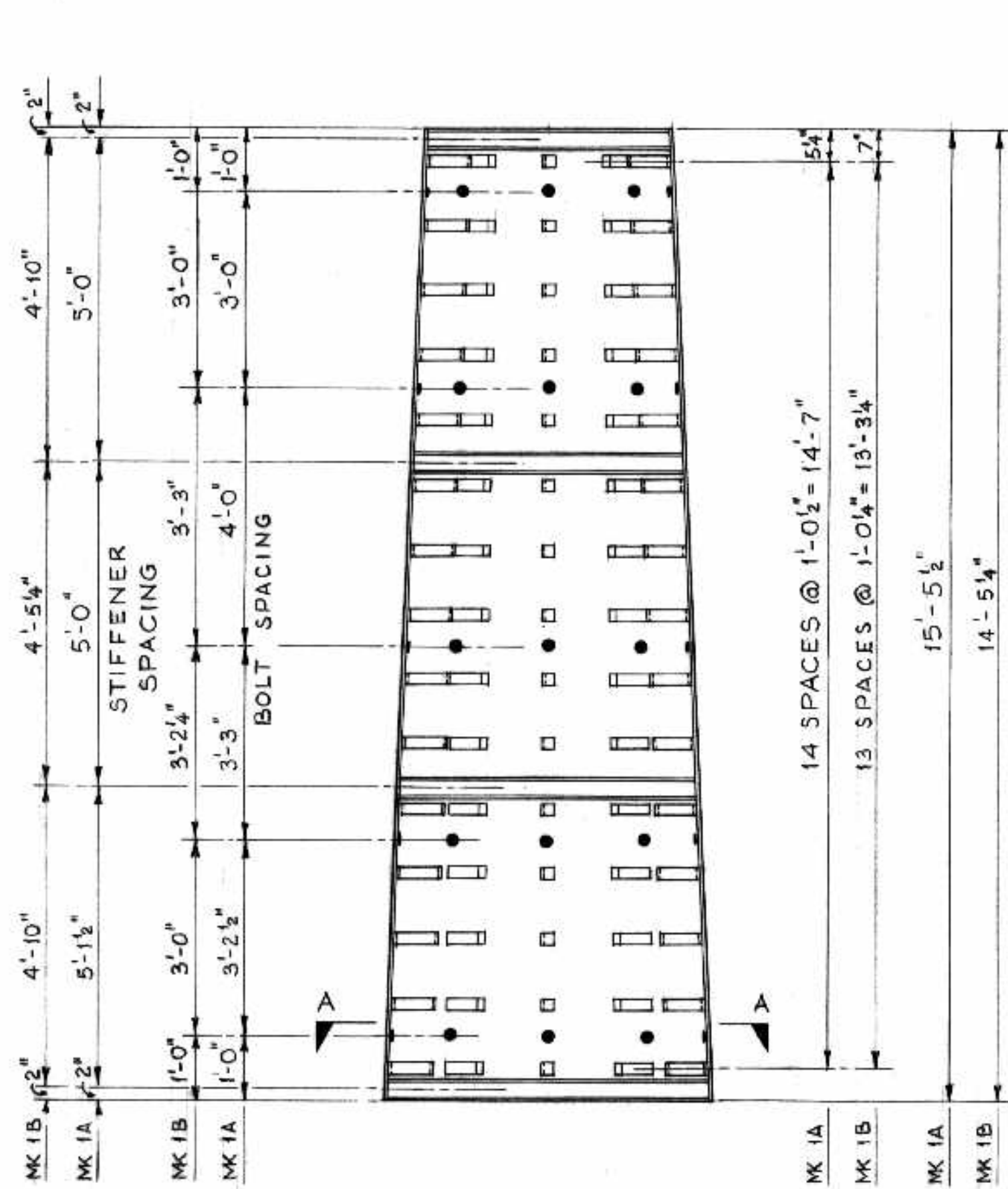
NOTE
 ALL PLATES 3/8" THICK.
 JOINT BETWEEN UPPER AND LOWER PLATES TO BE WELDED IN PLACE BEFORE CONCRETE IS POURED.
 ALL DIMENSIONS CALCULATED ON A HORIZONTAL PLANE.



SUGGESTED PILE SPLICE
 SCALE: 1" = 1'-0"

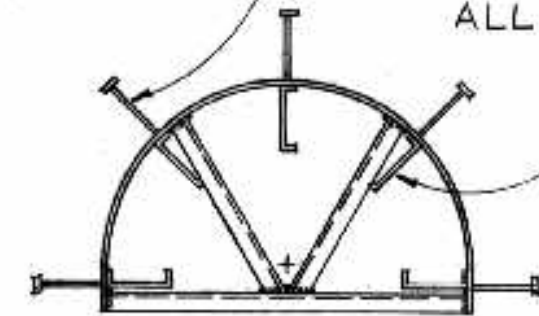


TYPICAL PIPE SLEEVE FOR ANCHOR BOLTS
 SCALE: 1 1/2" = 1'-0"

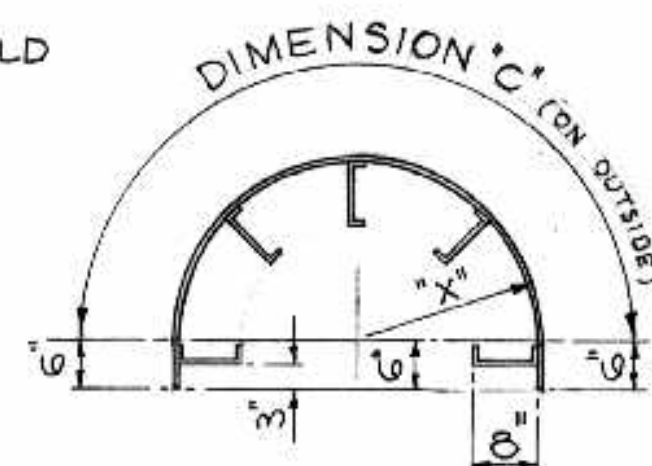


DETAIL UPPER NOSE PLATE - MK 1A
 DETAIL LOWER NOSE PLATE - MK 1B

3/4" ϕ FORM BOLTS DRILL 1 3/16" ϕ HOLE IN PLATE & WELD 3/4" NUT TO INSIDE FACE OF PLATE CONCENTRIC WITH HOLE
 ANCHORS - 2" x 3/8" x 12" STRAP IRON WITH 2" LEG BENT EACH END AS SHOWN. WELD TO INSIDE OF PLATE WITH 1/4" FILLET WELD ALL AROUND

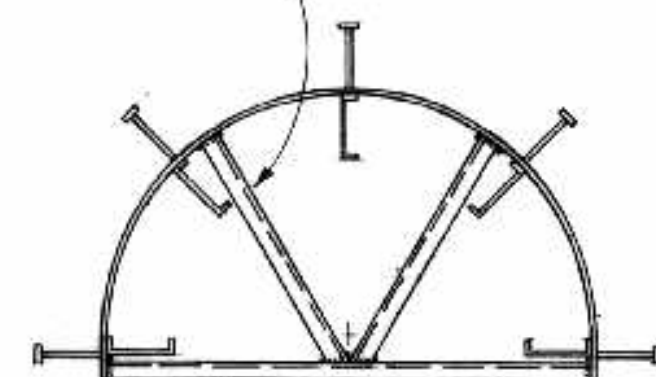


NOSE PLATE (TOP VIEW)

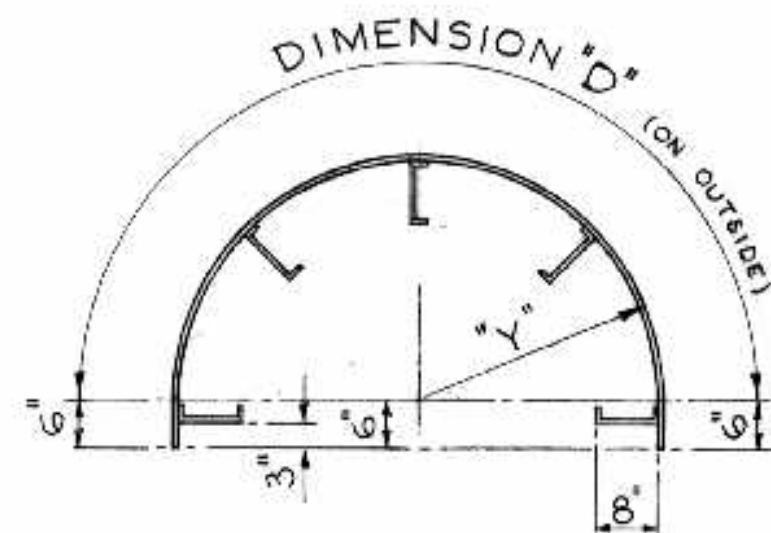


NOSE PLATE (TOP VIEW)

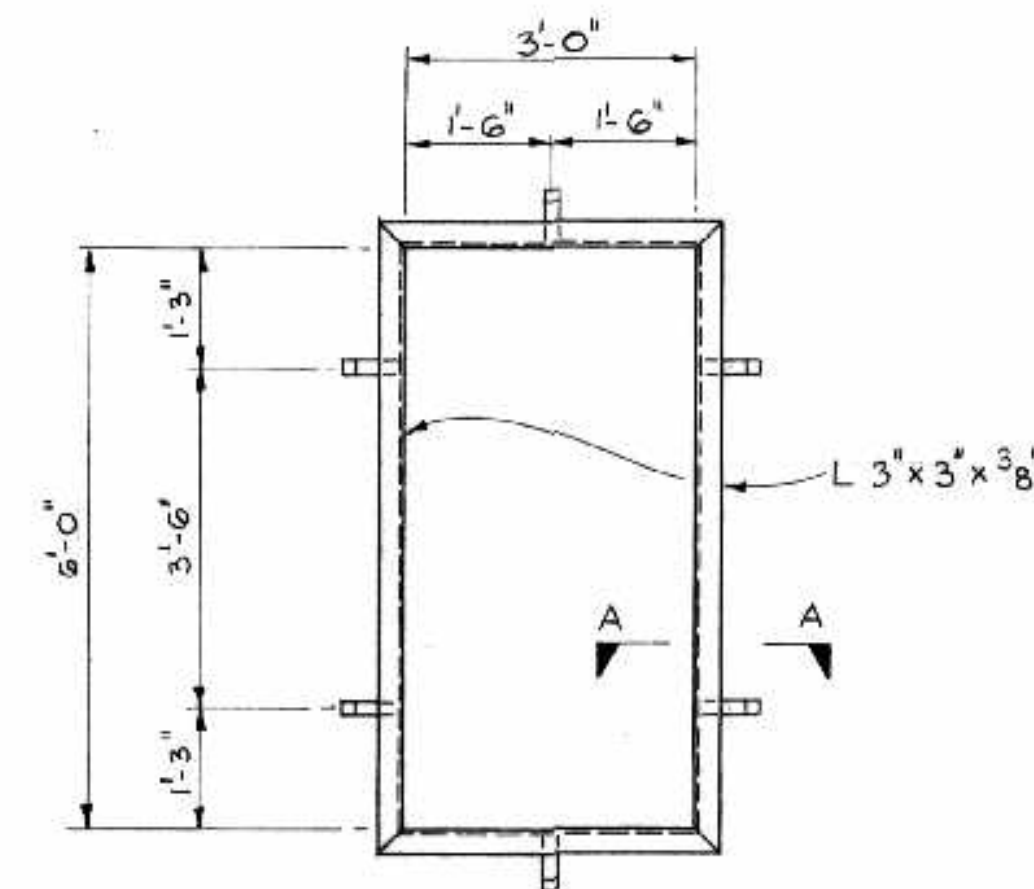
4" E 5-4 STIFFENERS WELDED TO PLATE (FOR SHIPPING ONLY)



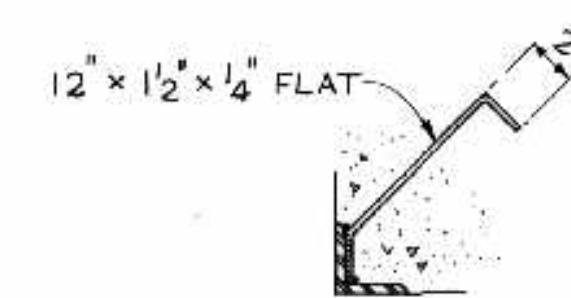
SECTION A-A



SECTION A-A



DOOR FRAME
 SCALE: 1/2" = 1'-0"

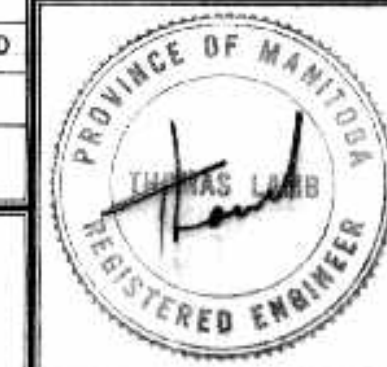


SECTION A-A
 SCALE: 1 1/2" = 1'-0"

AS BUILT ALS npe/68.



NO.	DATE BY	DESCRIPTION
1	NOV 26-64 JLD	NOSE PLATE DETAILS CORRECTED
REVISIONS		
APPROVED BY: <i>[Signature]</i> DEPUTY DIRECTOR OF STREETS & TRANSIT		



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
 STREETS AND TRANSIT DIVISION

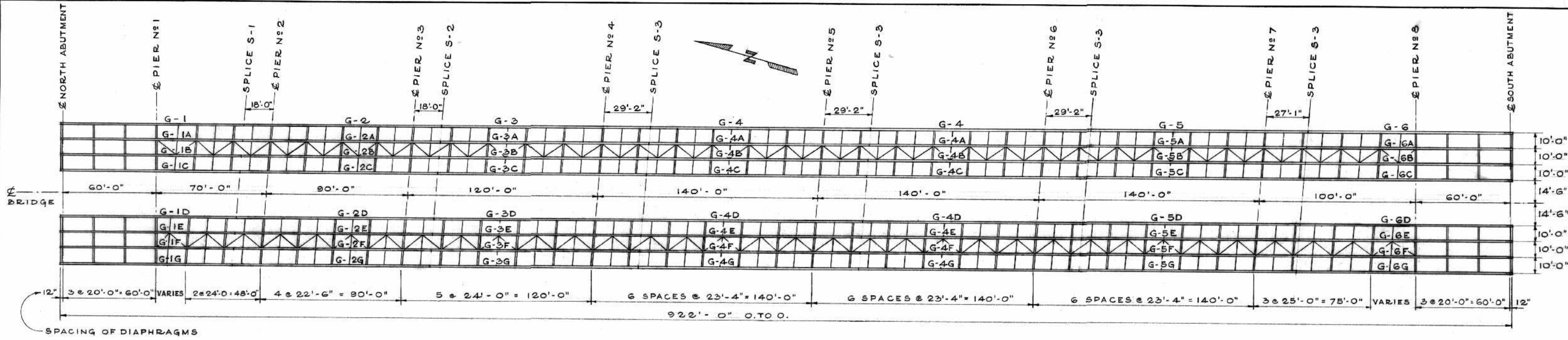
ST. VITAL BRIDGE PROJECT

MISCELLANEOUS IRON

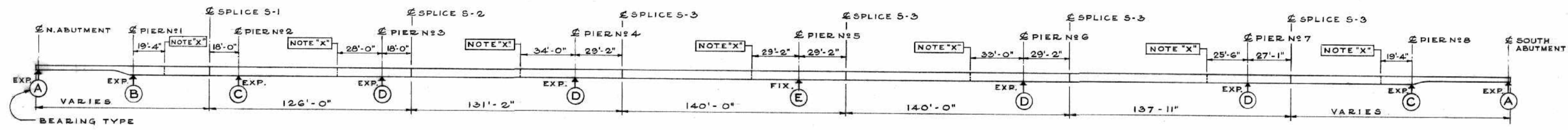
T. LAMB, McMANUS & ASSOCIATES LTD.
 CONSULTING ENGINEERS
 EDMONTON CALGARY WINNIPEG

FILE No. 861.
 DATE SEPT. 1964
 SCALE NOTED
 DWN. BY V. T.
 CHKD. BY *[Signature]*
 DWG. No. F-29

B-5015-108

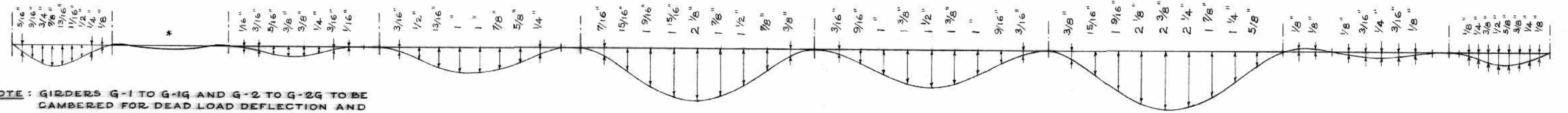


• PLAN SHOWING DIAPHRAGMS AND BRACING •



• ELEVATION OF GIRDERS •

• SCALE: 1" = 30'-0" •



• THEORETICAL DEAD LOAD DEFLECTION DIAGRAM • (* DEFLECTIONS LESS THAN 1/8" NOT SHOWN)

• SCALE: HORIZ. 1" = 30'-0", VERT. HALF SIZE •

• GENERAL NOTES •

- DESIGN SPECIFICATIONS**
DESIGN IS IN ACCORDANCE WITH ASSHO 1961 AS AMENDED.
- WELDING SPECIFICATIONS**
WELDING IS TO CONFORM TO THE REQUIREMENTS OF SECTION 4 "WORKMANSHIP AND TECHNIQUE" OF AWS D2.0-63; EXCEPT AS NOTED ON DRAWINGS AND SPECIFICATIONS.
- MATERIALS**
1. WEB PLATES TO CONFORM TO CSA G 40.8 GR. B.
 2. FLANGE PLATES UP TO 1/2" IN THICKNESS SHALL CONFORM TO CSA G 40.8 GR. B. FLANGE PLATES OF THICKNESS GREATER THAN 1/2" SHALL CONFORM TO ASTM A 441.
 3. DIAPHRAGMS, JACKING BEAMS, BRACING AND STIFFENERS TO CONFORM TO ASTM A 36.
 4. BEARING BASE, SOLE PLATES AND GREASE BOXES TO CONFORM TO ASTM A 36.
- LOADING**
LIVE LOAD H 20-S16-44 - FUTURE 6 LANES.

- DESIGN DATA**
- UNIT STRESSES
1. WEB PLATES, G 40.8 B - 22,000 psi
 2. FLANGE PLATES G 40.8 B - 20,000 psi
 3. FLANGE PLATES A 441 - 22,000 psi
- FABRICATION**
1. WEB AND FLANGE SHOP SPLICES TO BE STAGGERED FROM EACH OTHER A MINIMUM OF 12".
 2. ALL BOLTS TO BE 7/8" ϕ H.S. BOLTS U/N.
 3. ALL SHEAR CONNECTOR STUDS TO BE 3/4" ϕ x 4", NELSON OR EQUIVALENT.
 4. ALL DIMENSIONS TRUE FOR 40°F.
 5. WELDING OTHER THAN SHOWN ON THE DRAWINGS NOT PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE ENGINEER.
 6. SHEAR CONNECTOR STUDS TO BE WELDED ON A SKEW OF 4° 30' ON ALL GIRDERS.

NOTE "X" ϕ OF ADDITIONAL FIELD SPLICE IF REQUIRED BY THE CONTRACTOR SUBJECT TO THE WRITTEN APPROVAL OF THE ENGINEER.

TOTAL WEIGHT OF SUPERSTRUCTURE (NOT INCLUDING BEARINGS): 1,850,200 LBS



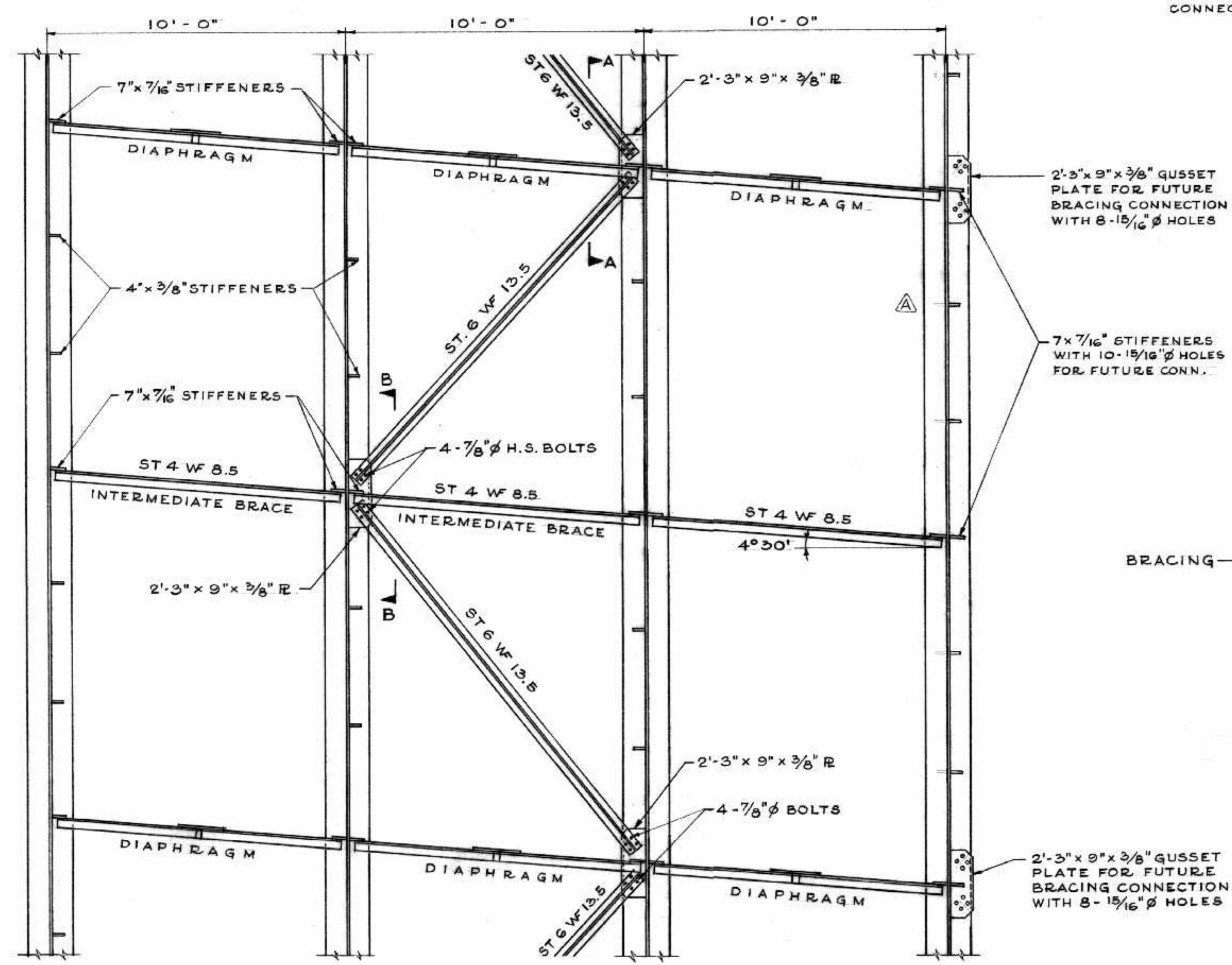
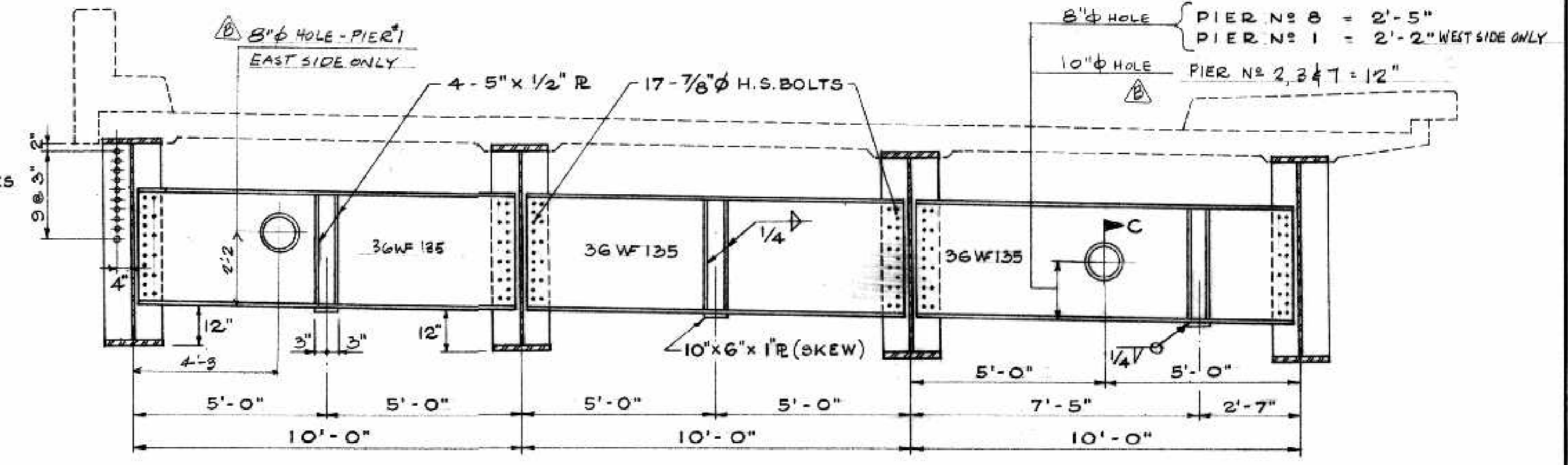
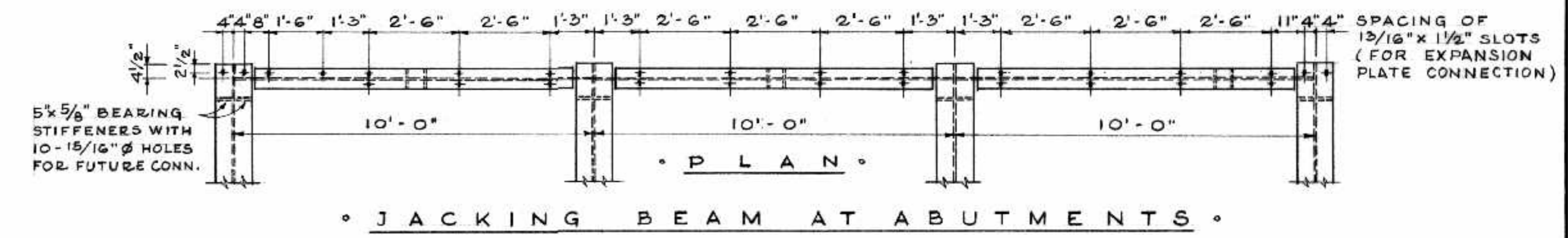
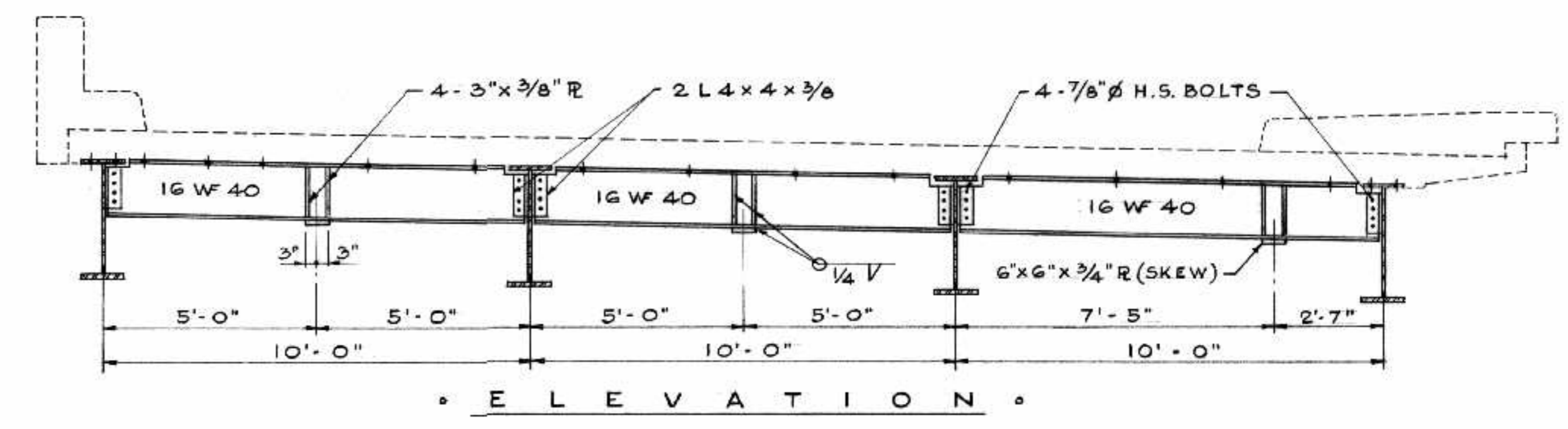
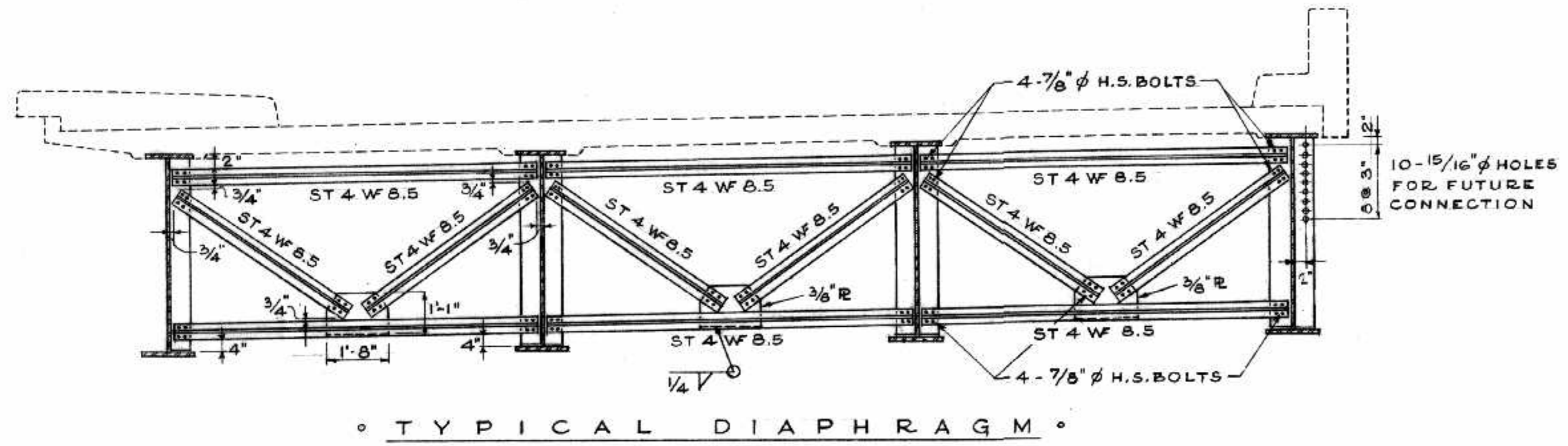
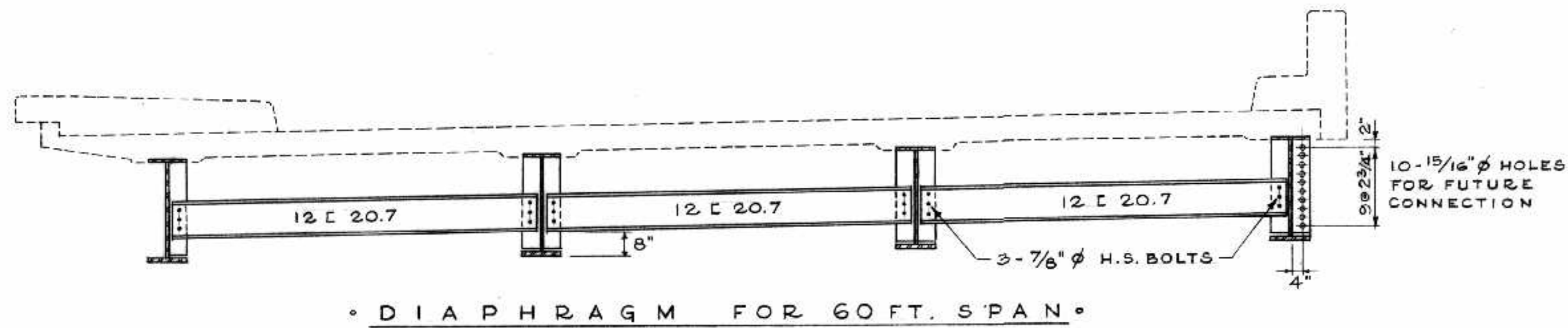
AS BUILT	
PER/CHECKED	CHANGES OF PIERS # 4 & 5 TO BE REVISED PER DWG. S-1
NO. DATE BY	DESCRIPTION
REVISIONS	
APPROVED BY	<i>[Signature]</i>
DEPUTY DIRECTOR OF STREETS & TRANSIT	

B-5015-109

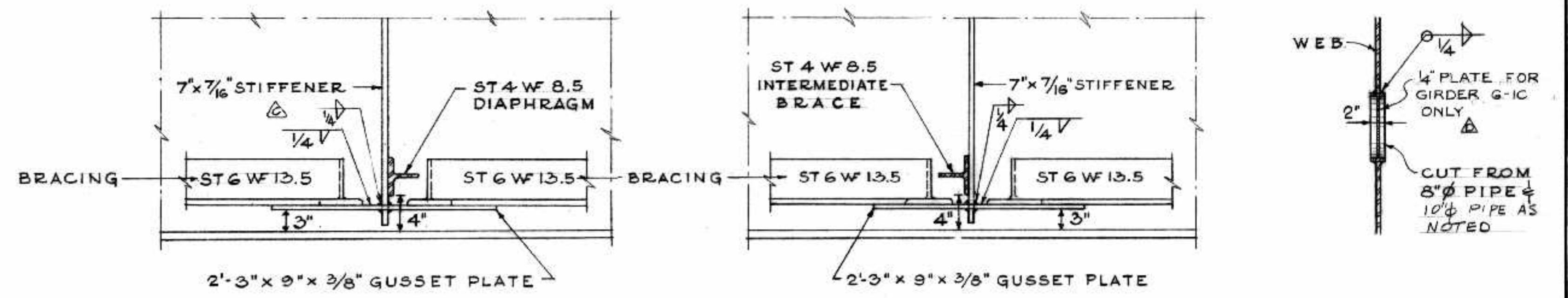
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

GENERAL ARRANGEMENT AND NOTES	FILE No. 861 DATE OCT. 1964. SCALE 1" = 30'-0" DWN. BY A.V.S. CHKD. BY <i>[Signature]</i> DWG. No. S-2
T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG	



• (BOTTOM FLANGE) •
• SCALE : 3/8" = 1'-0" •



NOTE - GUSSET PLATES TO BE SLOPED TO SUIT LATERAL BRACING.
• SCALE : 1" = 1'-0" •

AS BUILT *ALS MARKS*

NO.	DATE	BY	DESCRIPTION
1	3/7/67	D.L.	PLUG OPN'G IN GIRDER G-1C
2	MAY 1968	W.S.	MEMBERS OF GUSSET PLATE CHANGED
3	MAY 1968	W.S.	HOLES IN WEBS OF JACKING BEAMS REVISED
4	JAN 1968	W.S.	STIFF REVERSED ON WEB

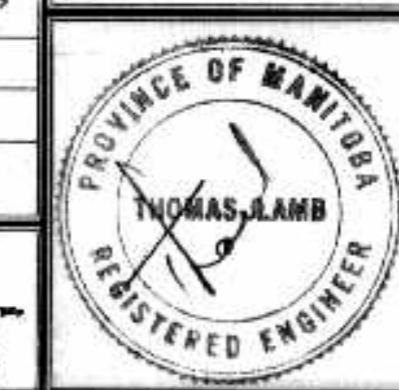
APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

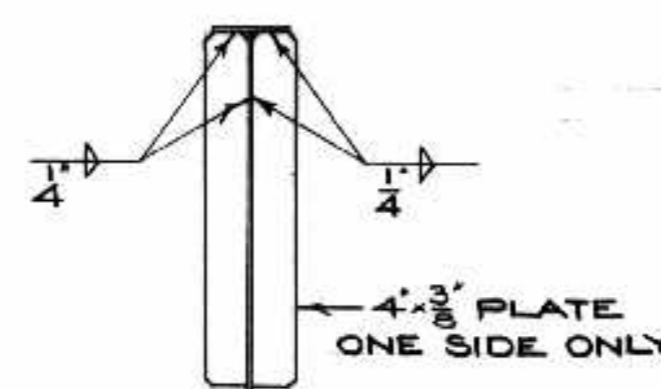
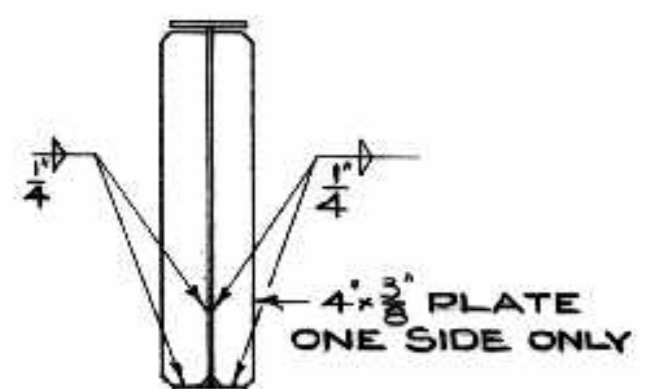
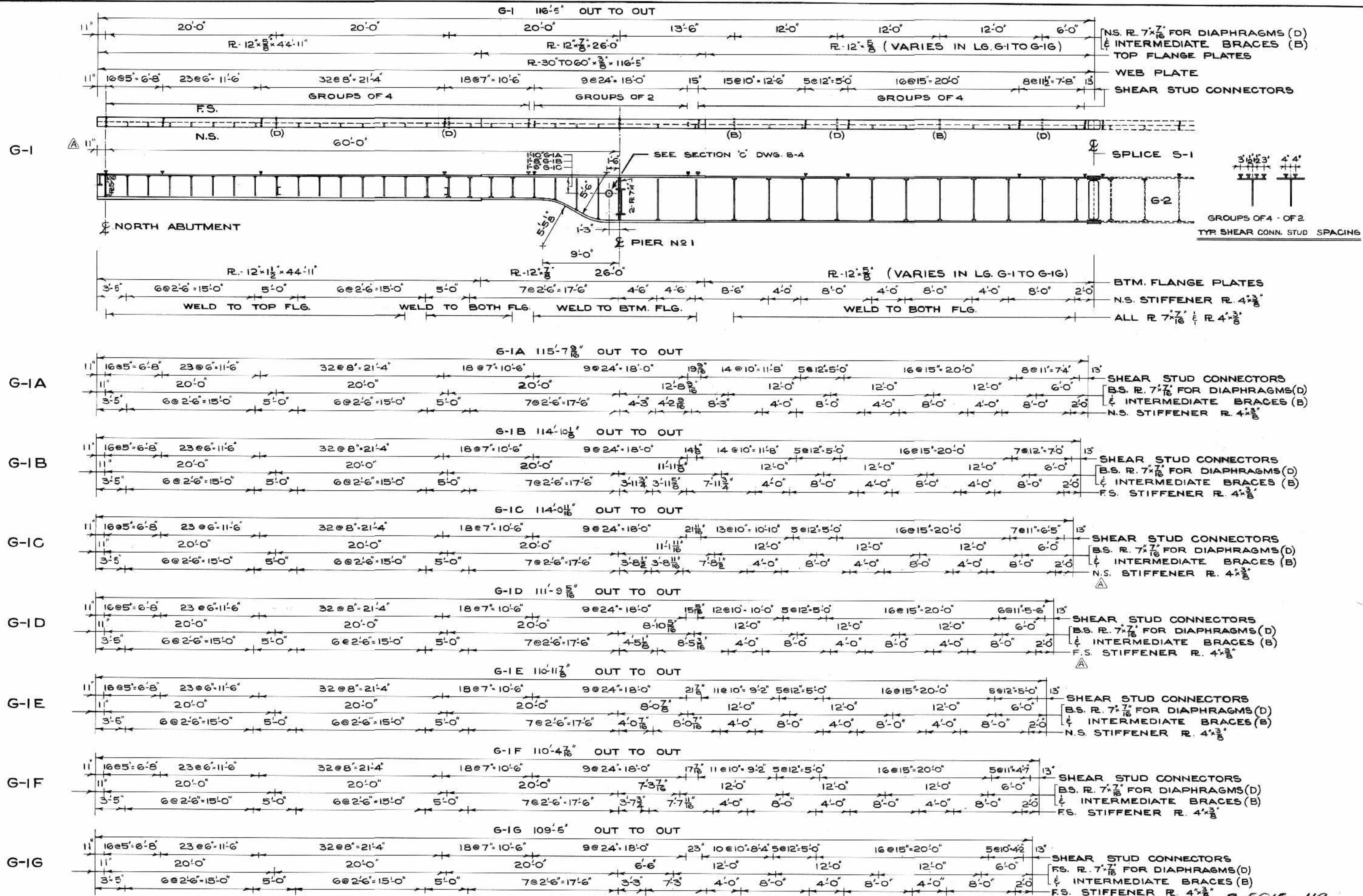
B-5015-111

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

<p>DIAPHRAGMS, BRACING AND JACKING BEAMS</p> <p>T. LAMB, McMANUS & ASSOCIATES LTD. CONSULTING ENGINEERS EDMONTON CALGARY WINNIPEG</p>	<p>FILE No. 861 DATE OCT. 1964 SCALE NOTED DWN. BY A.V.S. CHKD. BY <i>[Signature]</i> DWG. No. 5-4</p>
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TYP. STIFFENER DETAIL FOR BTM FLANGE WELDING FOR 7x7/16 & 4x3/8 R

TYP. STIFFENER DETAIL FOR TOP FLANGE WELDING FOR 7x7/16 & 4x3/8 R

LEGEND
 F.S. - FAR SIDE
 N.S. - NEAR SIDE
 B.S. - BOTH SIDES

AS BUILT
 ALL MAR/68



NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
 STREETS AND TRANSIT DIVISION

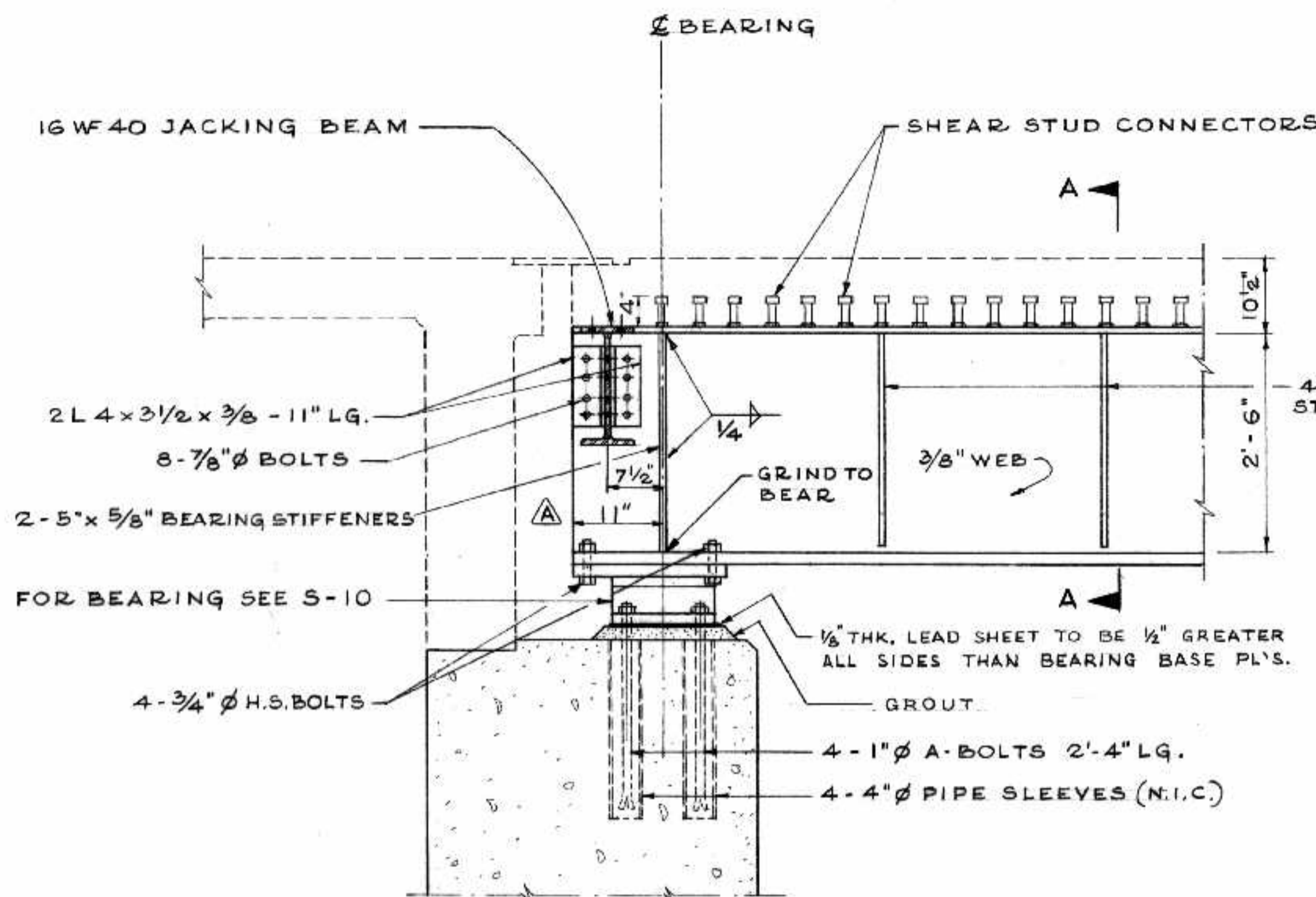
ST. VITAL BRIDGE PROJECT

GIRDER G-1

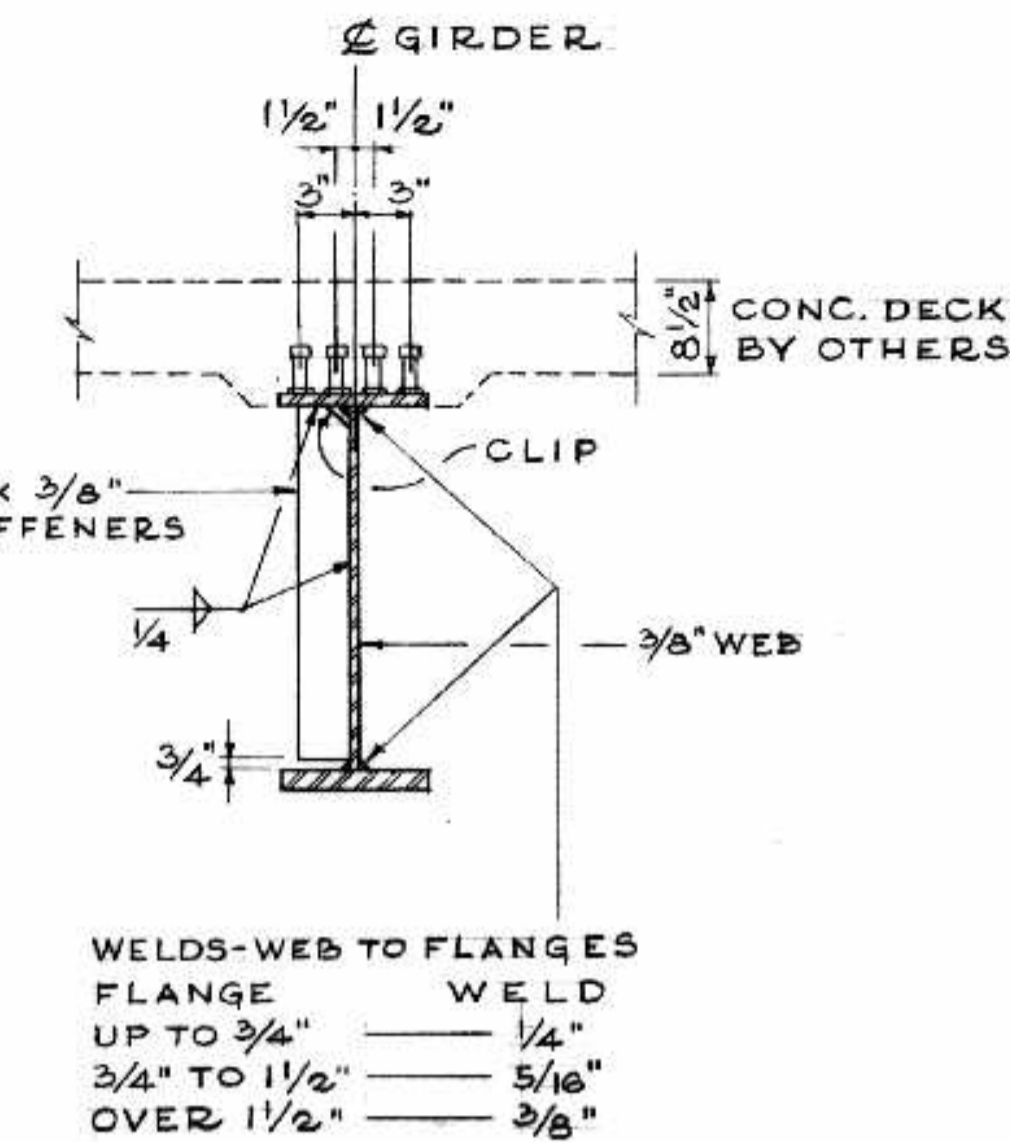
T. LAMB, McMANUS & ASSOCIATES LTD.
 CONSULTING ENGINEERS
 EDMONTON CALGARY WINNIPEG

FILE No. 861
 DATE OCT. 1964
 SCALE 3/16" = 1'-0"
 DWN. BY 23
 CHKD. BY *[Signature]*
 DWG. No. S-5

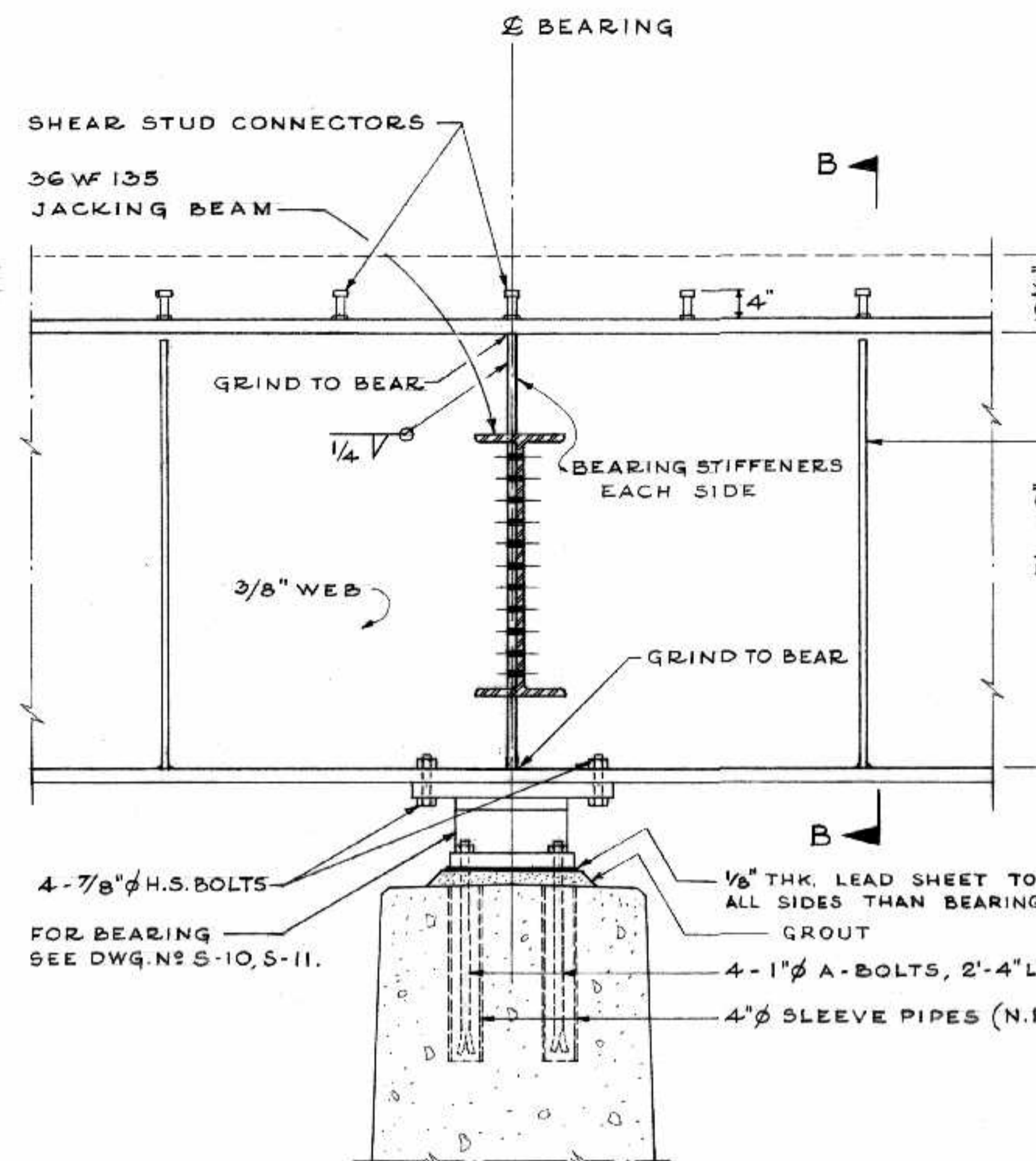
B-5015-112



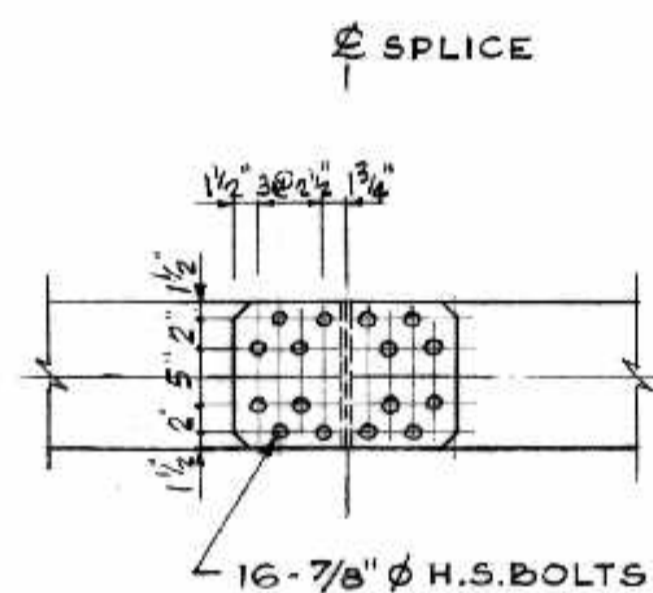
• ABUTMENT BEARING DETAIL •



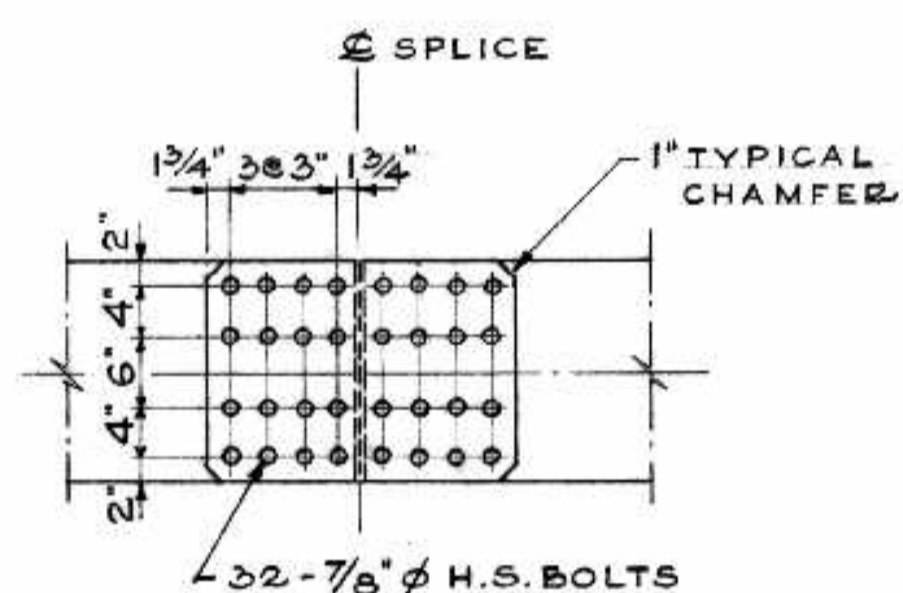
• SECTION A-A •



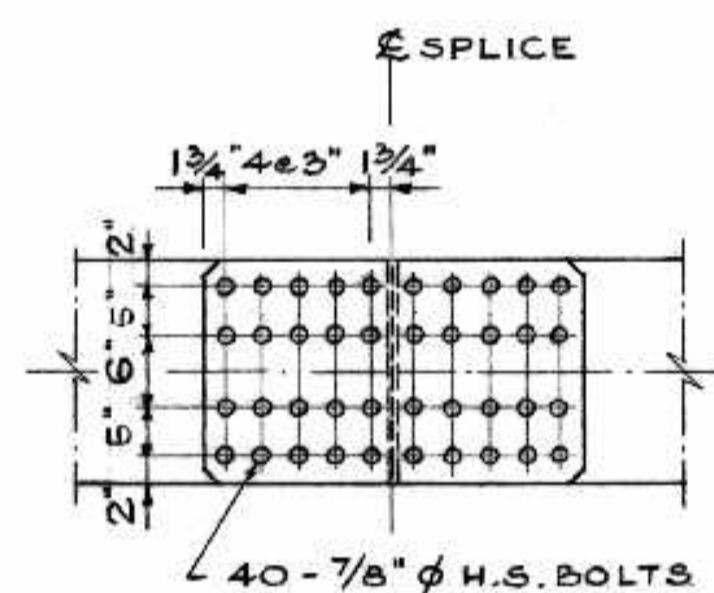
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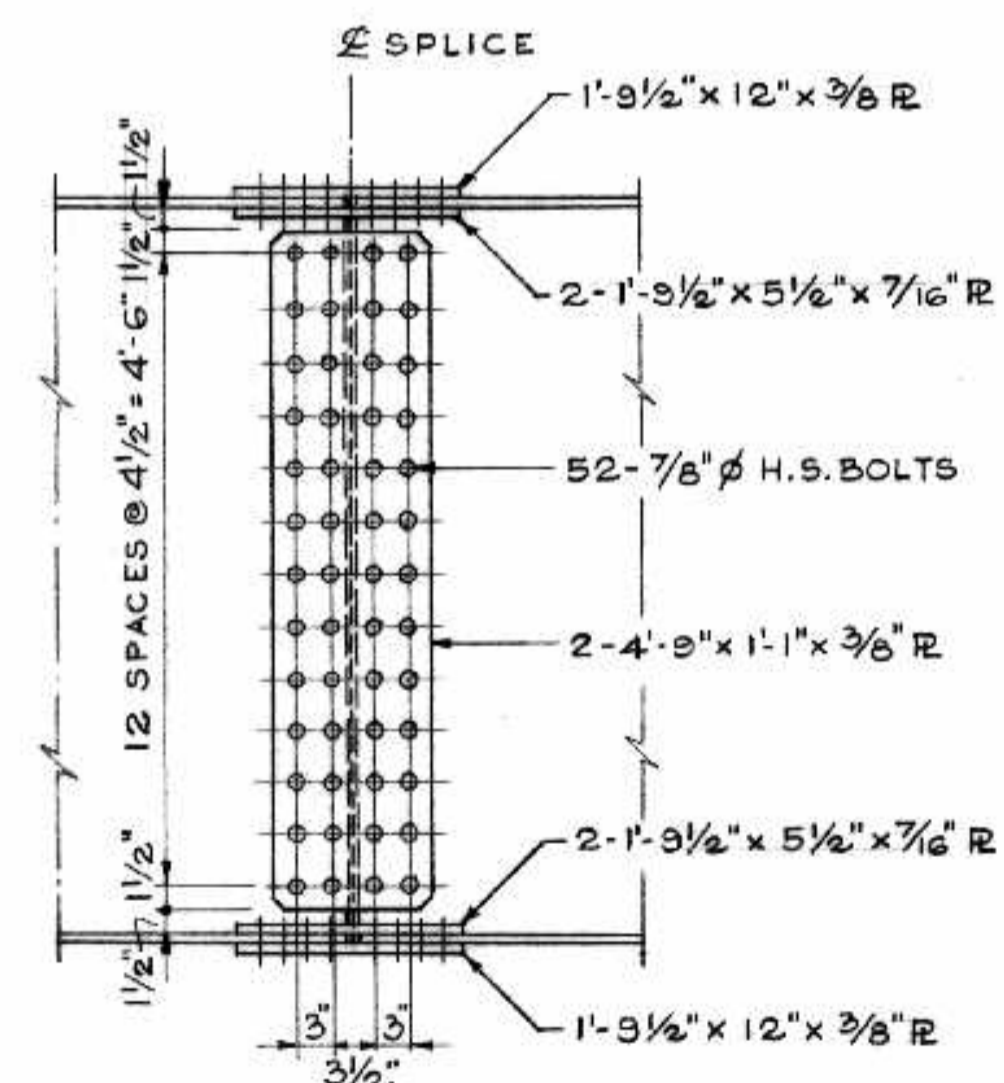
• PLAN •



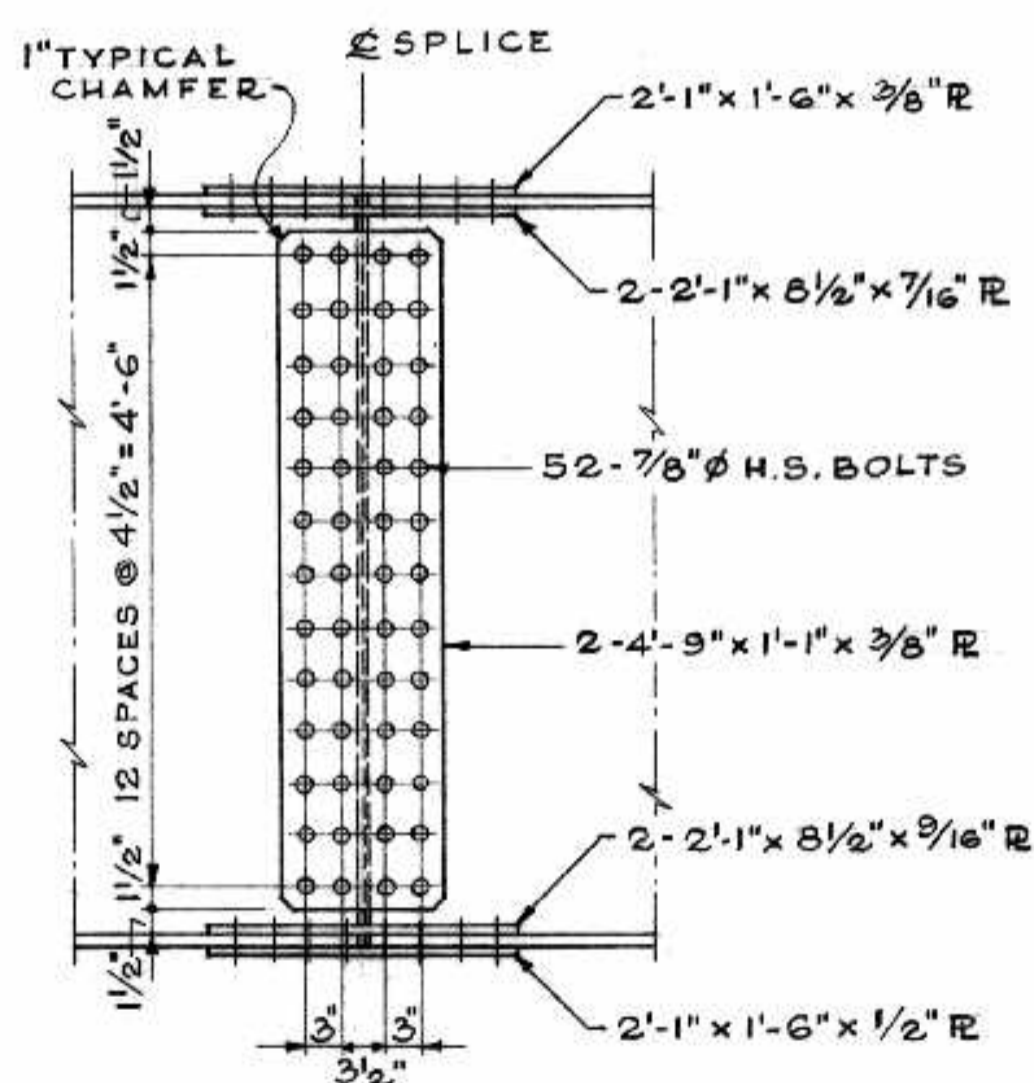
• PLAN •



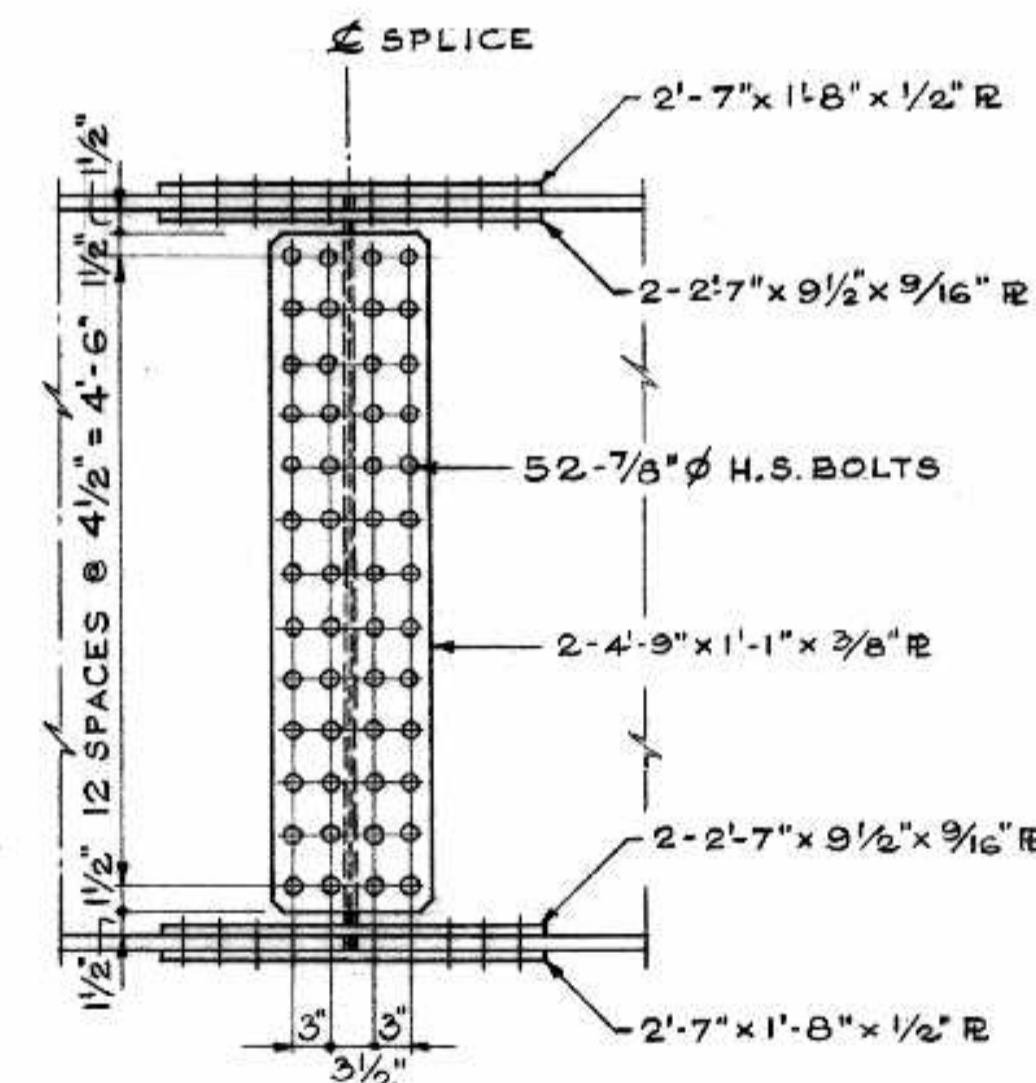
• PLAN •



• S-1 •



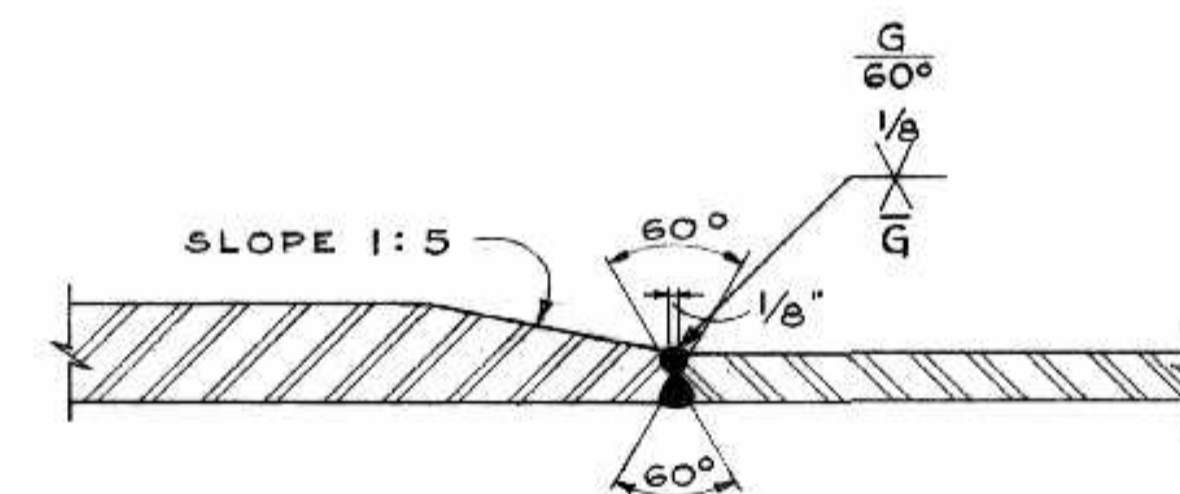
• S-2 •



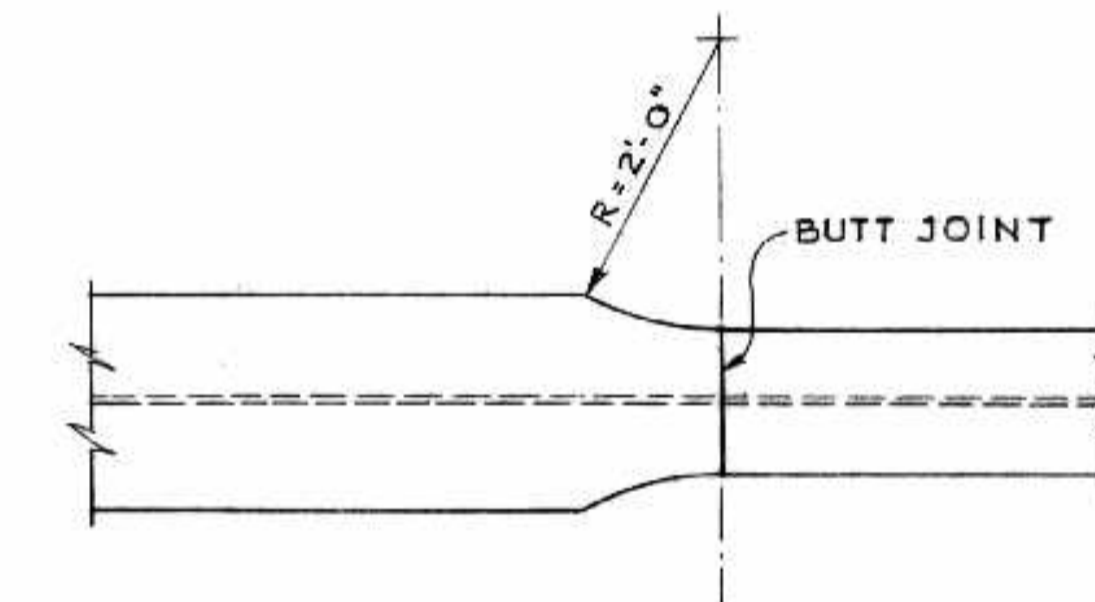
• S-3 •

• SPLICE DETAILS •

• PIER BEARING DETAIL •

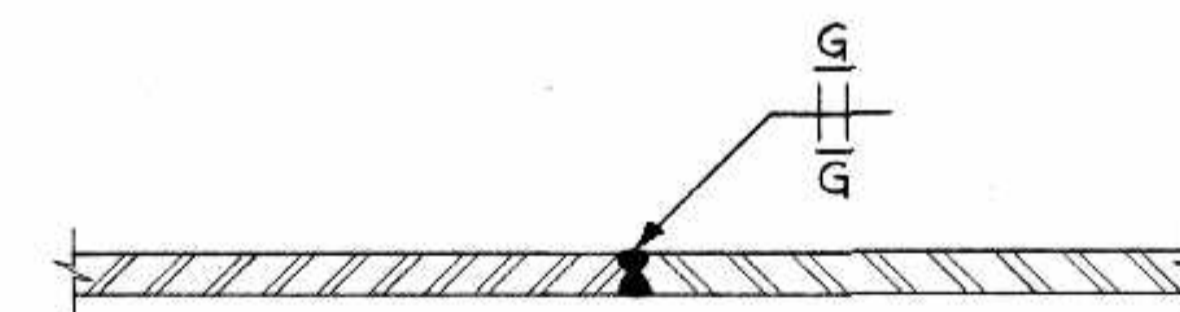


• TYPICAL GIRDER FLANGE WELD •



• TRANSITION OF FLANGE WIDTH •

• UNLESS OTHERWISE SHOWN •



• TYPICAL WEB WELD •

AS BUILT ALL MARKS

NO.	DATE	BY	DESCRIPTION
1			CHANGED OVERHANG FROM 12" TO 11"
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

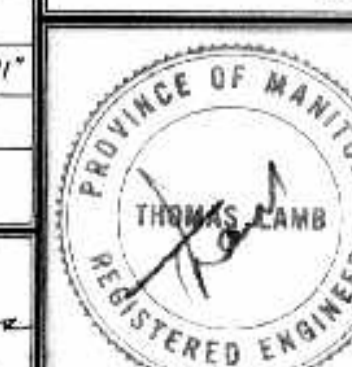
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

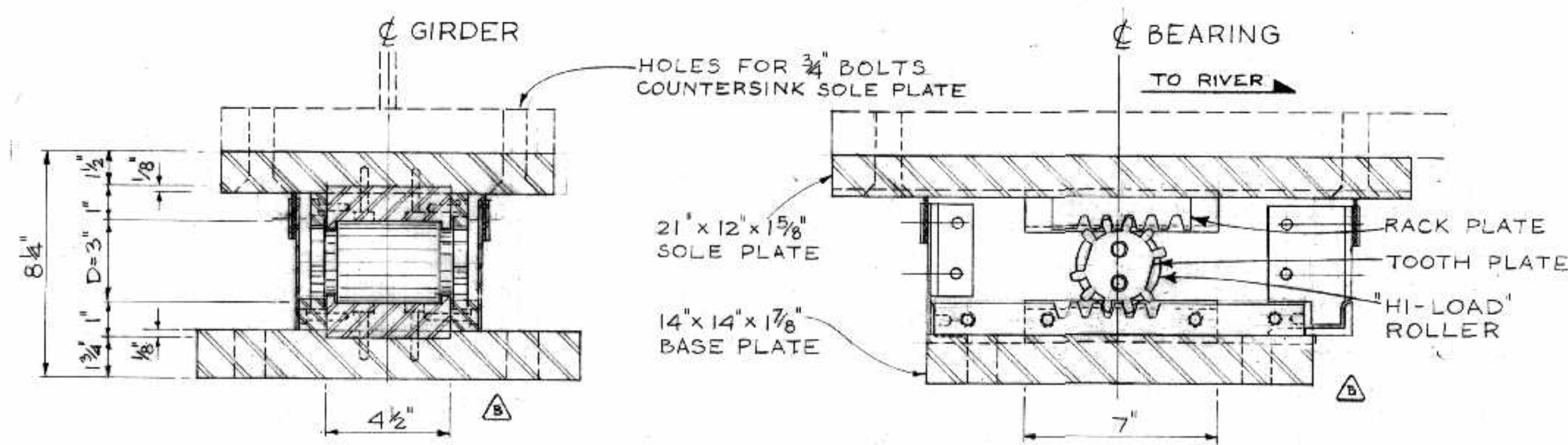
TYPICAL DETAILS

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861.
DATE OCT. 1964
SCALE 3/4" = 1'-0"
DWN. BY A.V.S.
CHKD. BY *[Signature]*
DWG. No. S-9

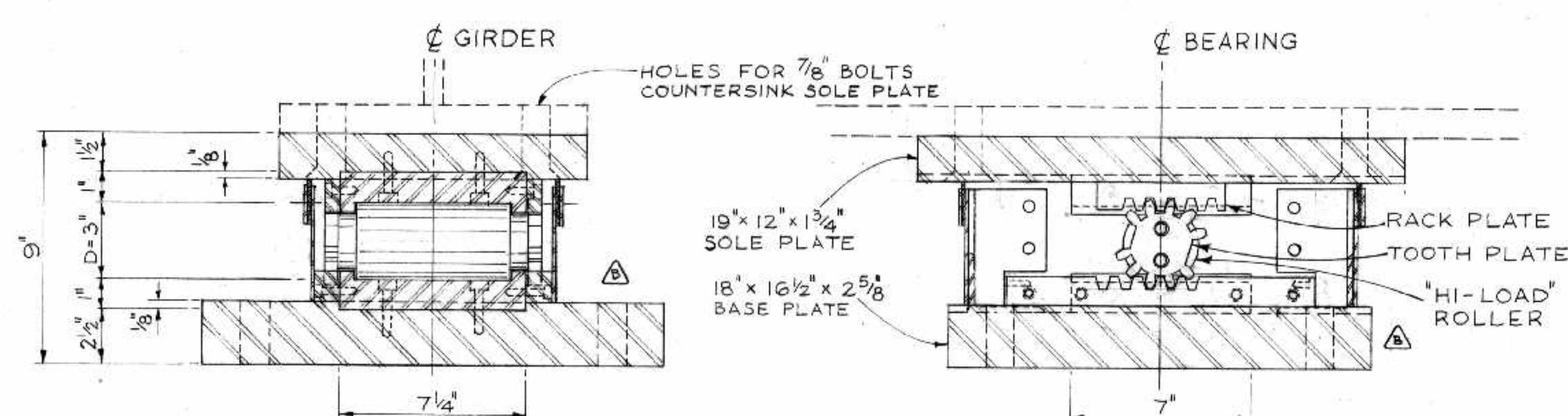


B-5015-116



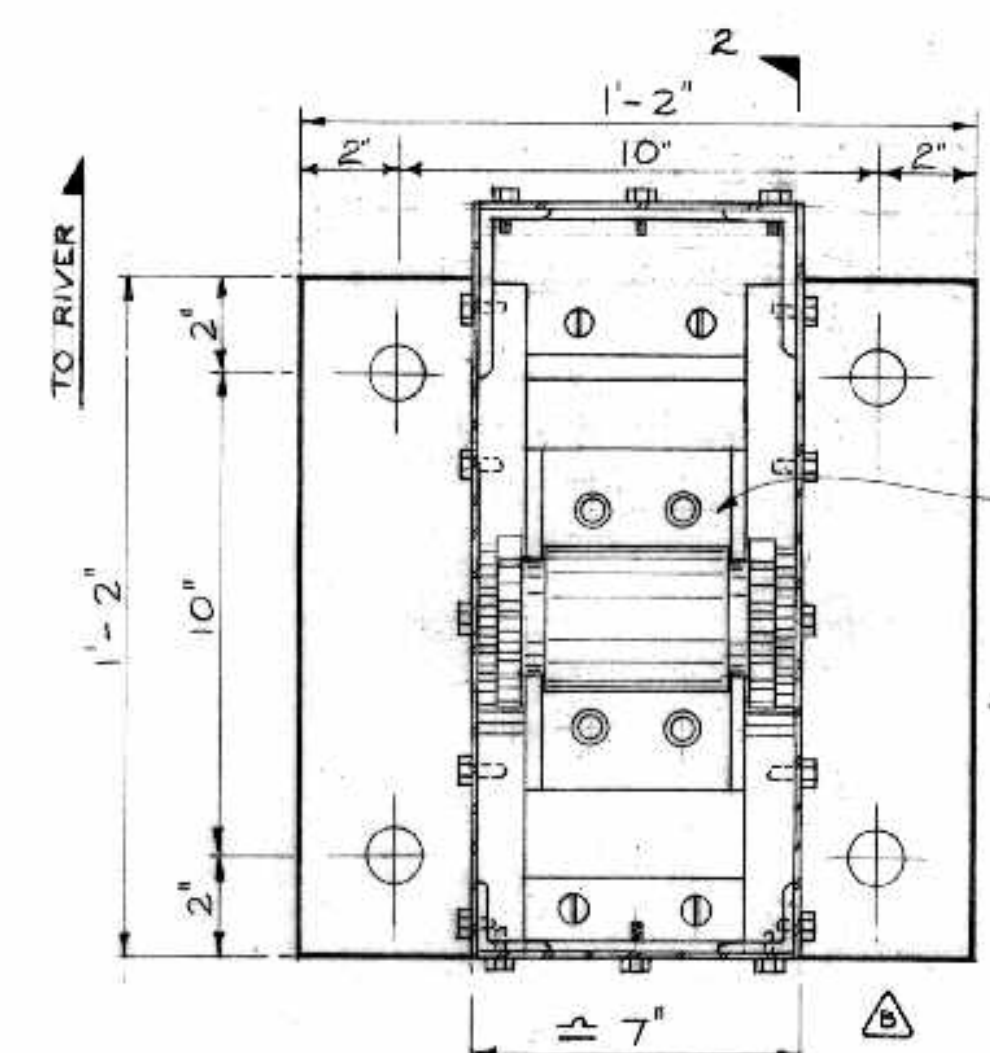
SECTION 1-1

SECTION 2-2



SECTION 5-5

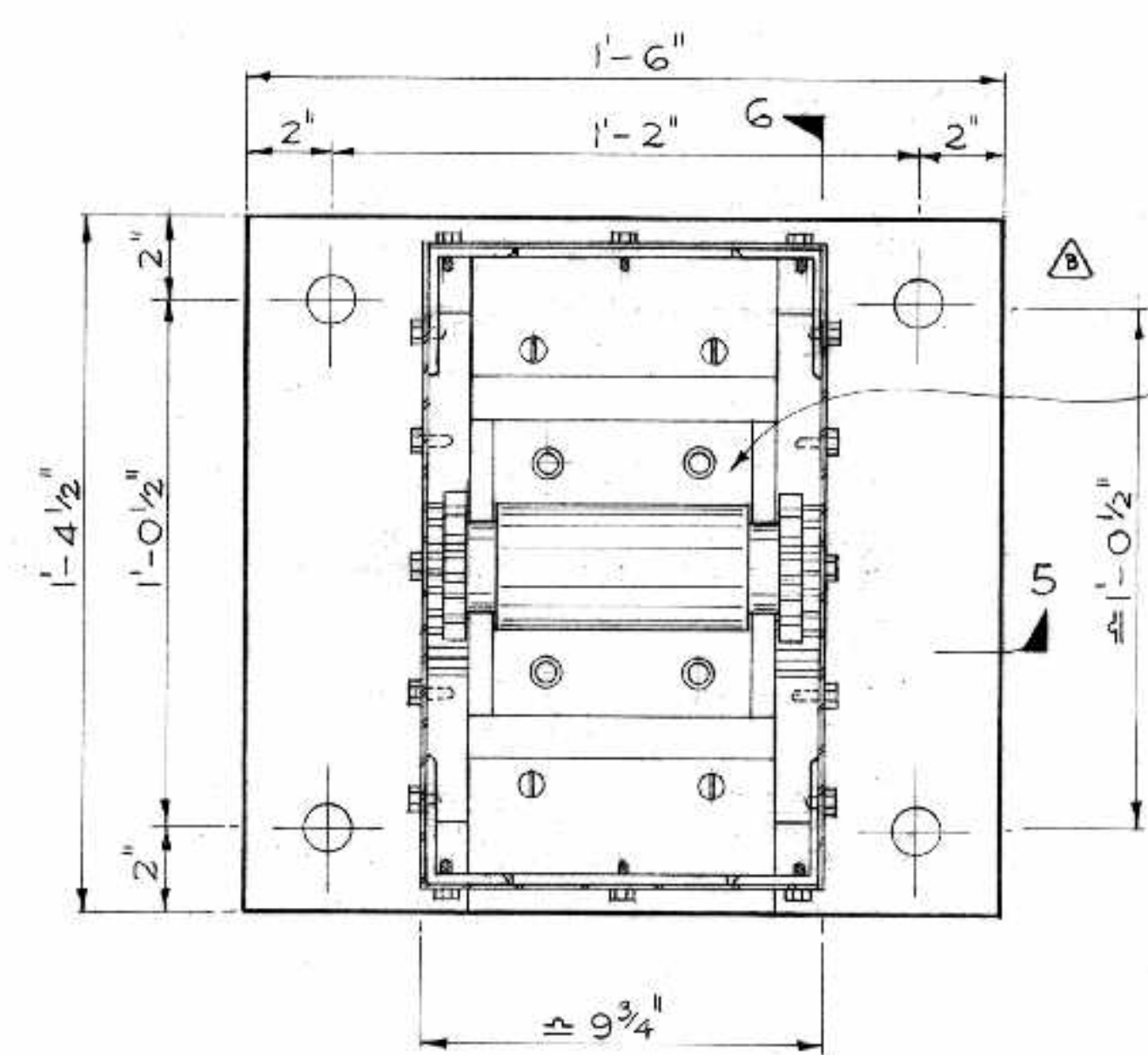
SECTION 6-6



PLAN

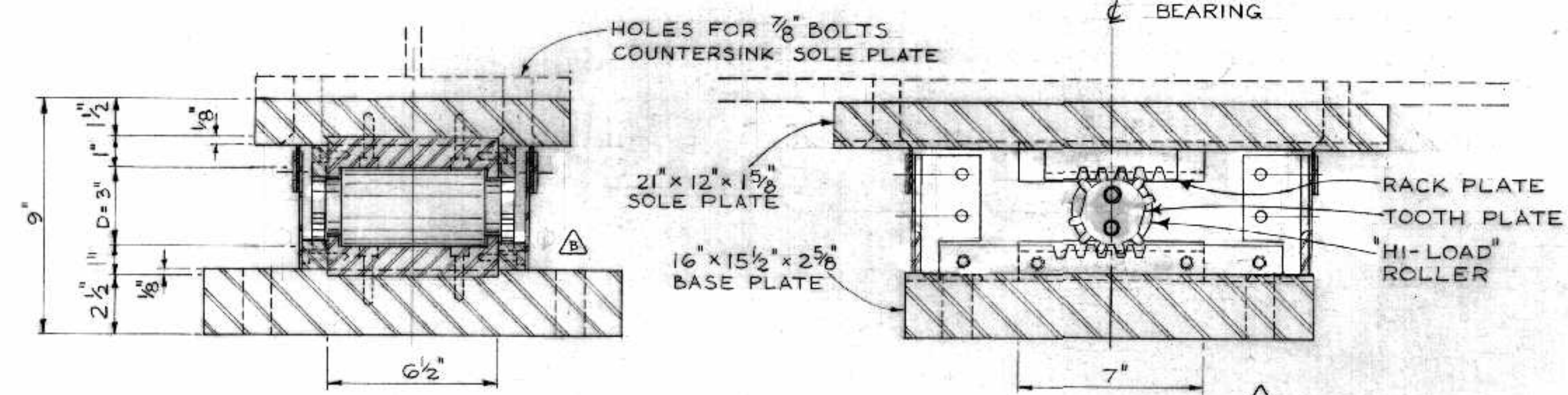
16 REQUIRED

BEARING "A"
FOR NORTH & SOUTH
ABUTMENTS



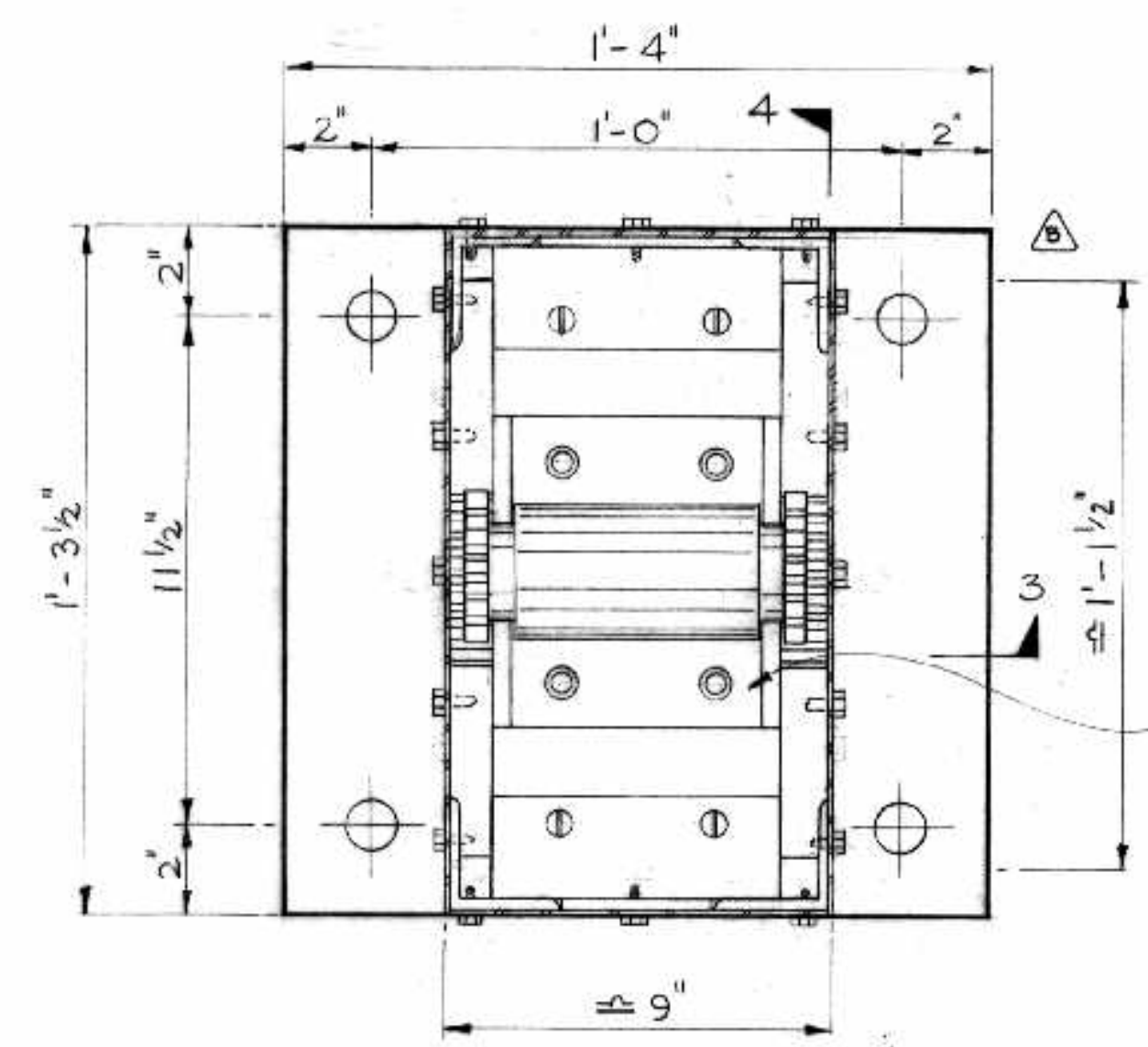
PLAN

BEARING "C"
FOR PIERS NO 2 & 8
16 REQUIRED



SECTION 3-3

SECTION 4-4



PLAN

BEARING "B"
FOR PIER NO 1
8 REQUIRED

TO BE OBTAINED FROM JOSEPH WESTWOOD & CO. LTD BY CONTRACTOR:-

- 1 "HI-LOAD" ROLLER, "HI-LOAD" TOP & BOTTOM PLATES TOOTH PLATES, RACK PLATES
- 2 BOLTS FOR THE FOLLOWING CONNECTIONS:-
 - a) "HI-LOAD" TOP & BOTTOM PLATES TO BASE & SOLE PLATES
 - b) RACK PLATES TO "HI-LOAD" TOP & BOTTOM PLATES
 - c) TOOTH PLATES TO "HI-LOAD" ROLLER
- 3 JOSEPH WESTWOOD & CO. LTD. SHALL DO ALL TAPPING & SUPPLY ALL BOLTS & SCREWS FOR CONNECTIONS TO ITEMS SUPPLIED BY JOSEPH WESTWOOD & CO. LTD.

TO BE SUPPLIED BY CONTRACTOR:-

- 1 BASE & SOLE PLATES PLANED TO RECEIVE "HI-LOAD" TOP & BOTTOM PLATES
- 2 BASE ANGLES FOR END SUPPORT OF STEEL GREASE BOX
- 3 STEEL GREASE BOX COMPLETE, EXCEPT SCREWS SPECIFIED ABOVE

PAINTING

GREASE BOX & EXPOSED PORTIONS OF BASE & SOLE PLATES SHALL BE COMMERCIAL BLAST CLEANED & PAINTED AS SPECIFIED

AS BUILT

NO.	DATE	BY	DESCRIPTION
1	2 JUN 68	M.S.	MODIFICATIONS SEPT/67
2	19 NOV 64	J.D.K.	REV'D AS PER ADD. NO. 1, 3, 1

APPROVED BY: *[Signature]*
DEPUTY DIRECTOR OF STREETS & TRANSIT

B-5015-117

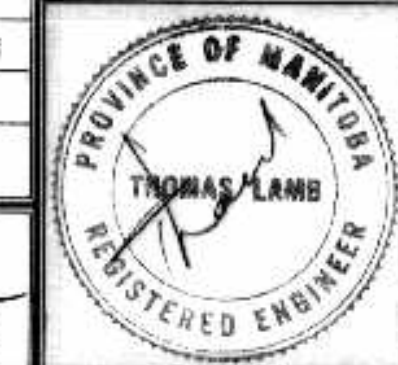
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

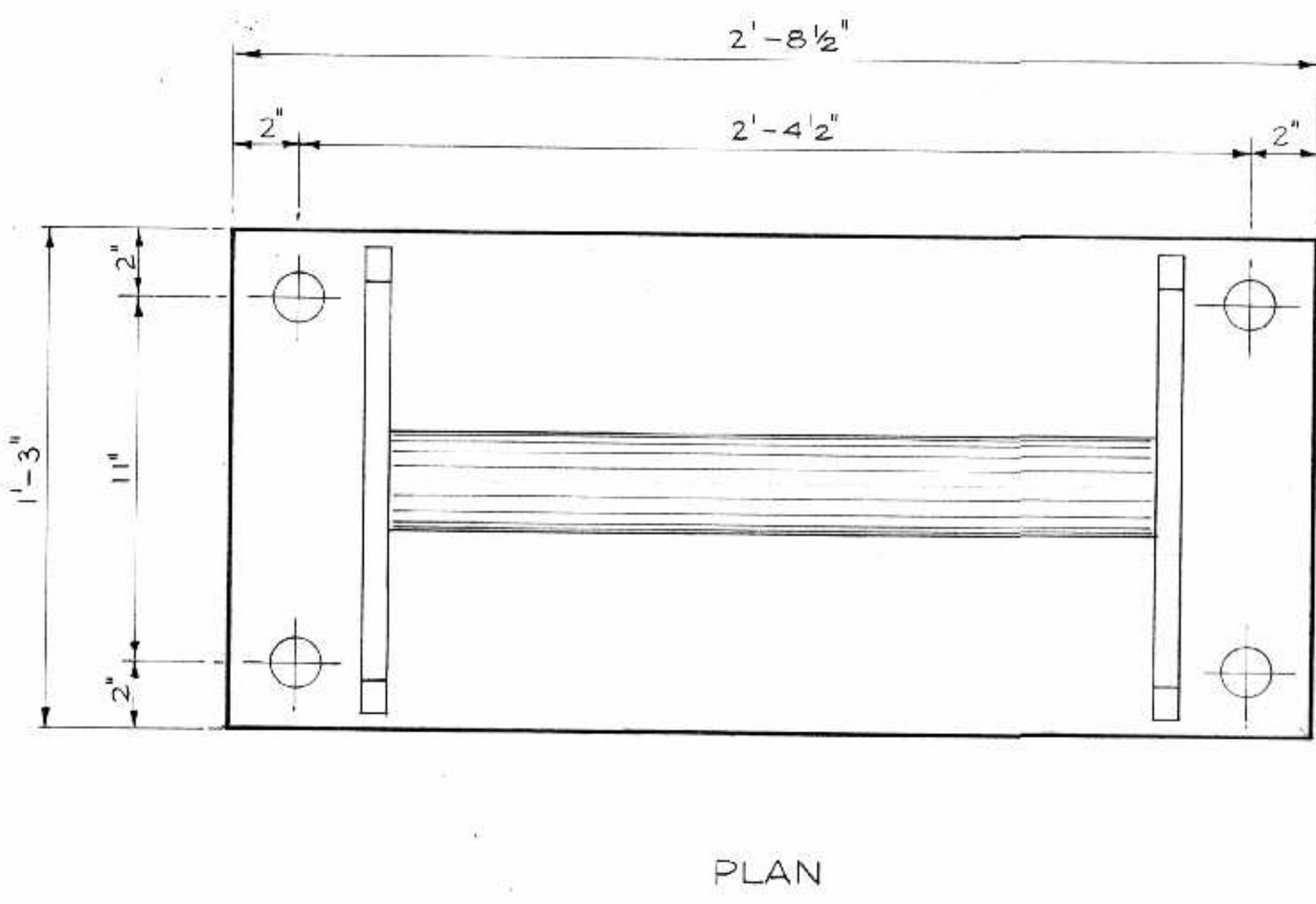
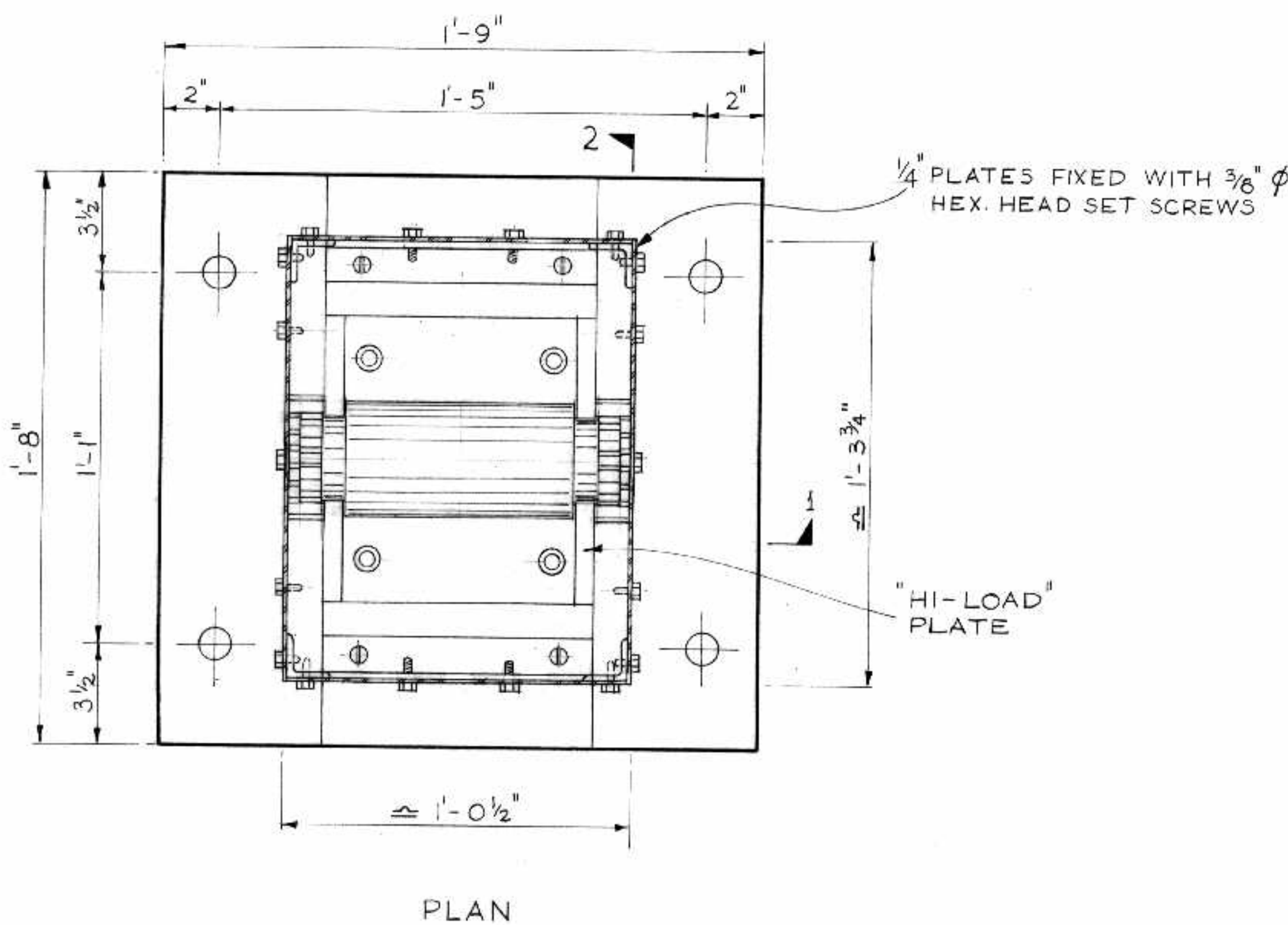
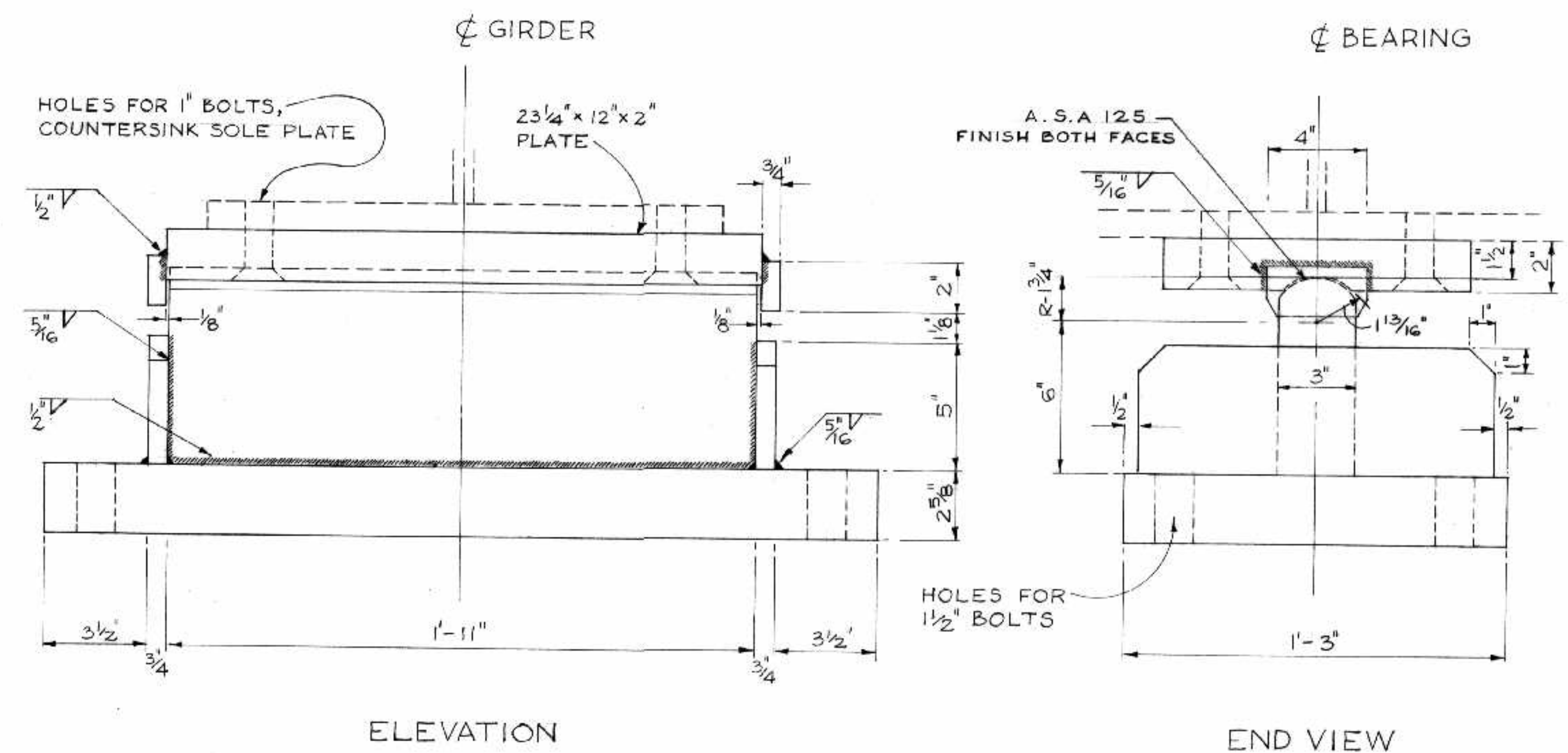
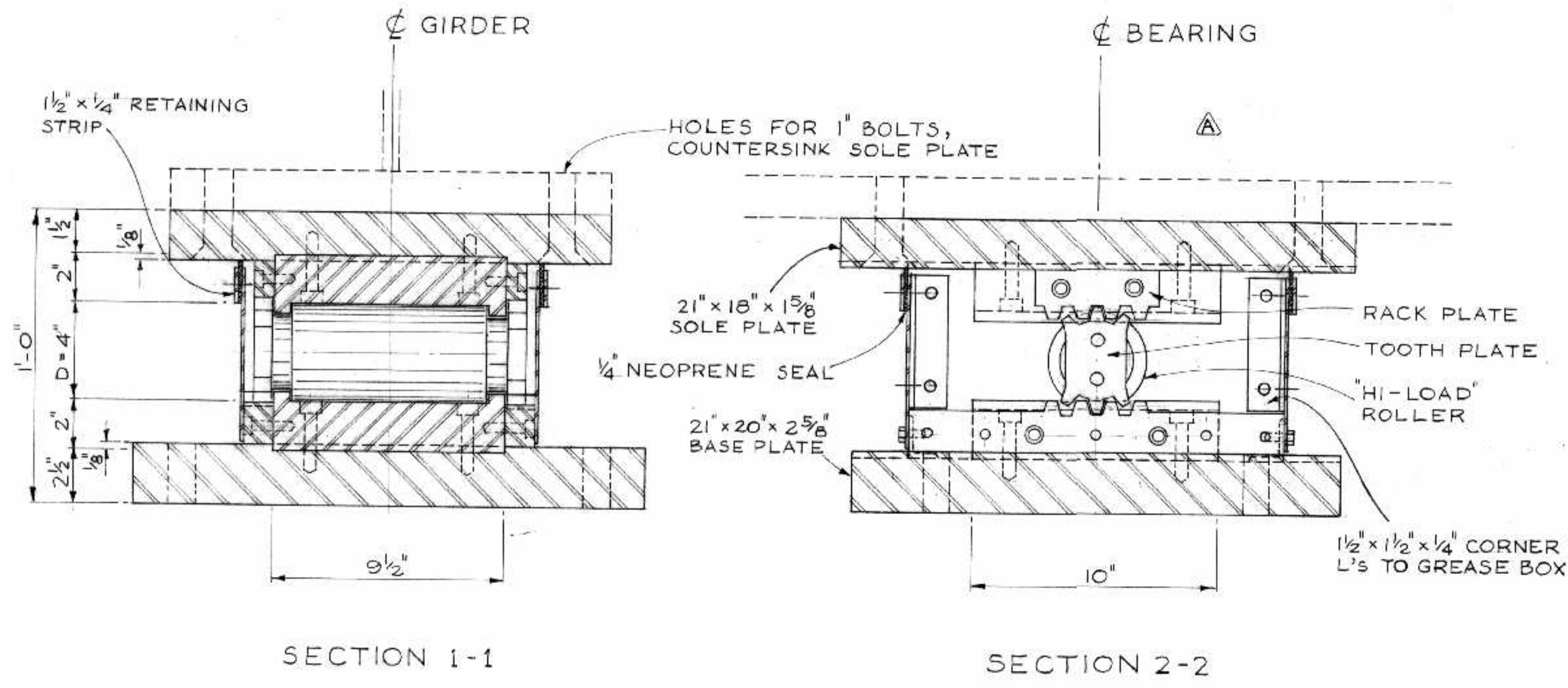
ST. VITAL BRIDGE PROJECT

BEARING DETAILS

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861
DATE OCT. 1964
SCALE 3" = 1'-0"
DWN. BY V. T.
CHKD. BY <i>[Signature]</i>
DWG. No. S-10





BEARING "E"
PIER NO 5
8 REQUIRED

BEARING "D"
FOR PIERS NO 3-4-6-7
32 REQUIRED



AS BUILT	
NO.	DATE
BY	DESCRIPTION
REVISIONS	
APPROVED BY	
DEPUTY DIRECTOR OF STREETS & TRANSIT	



B-5015-118

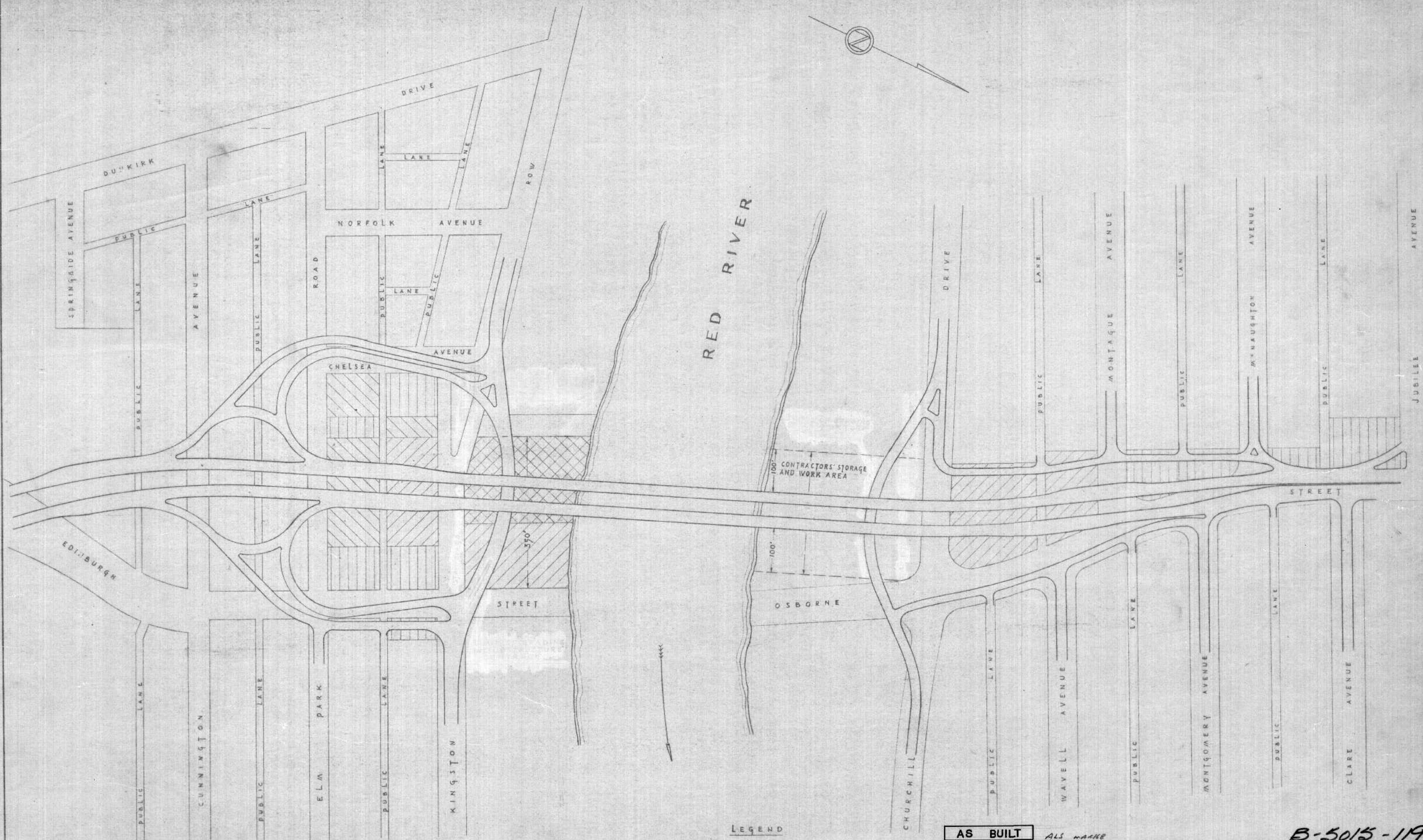
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT




BEARING DETAILS

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No.	861.
DATE	OCT. 1964
SCALE	3" = 1'-0"
DWN. BY	V. T.
CHKD. BY	[Signature]
DWG. No.	SH



LEGEND

-  HOUSE POSSESSION DATE SEPTEMBER 17, 1964.
-  HOUSE POSSESSION DATE NOVEMBER 2, 1964.
-  HOUSE POSSESSION DATE APRIL 1, 1965.

AS BUILT *ALS MAKE*

NO.	DATE	BY	DESCRIPTION
REVISIONS			
APPROVED BY: <i>[Signature]</i>			
DEPUTY DIRECTOR OF STREETS & TRANSIT			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

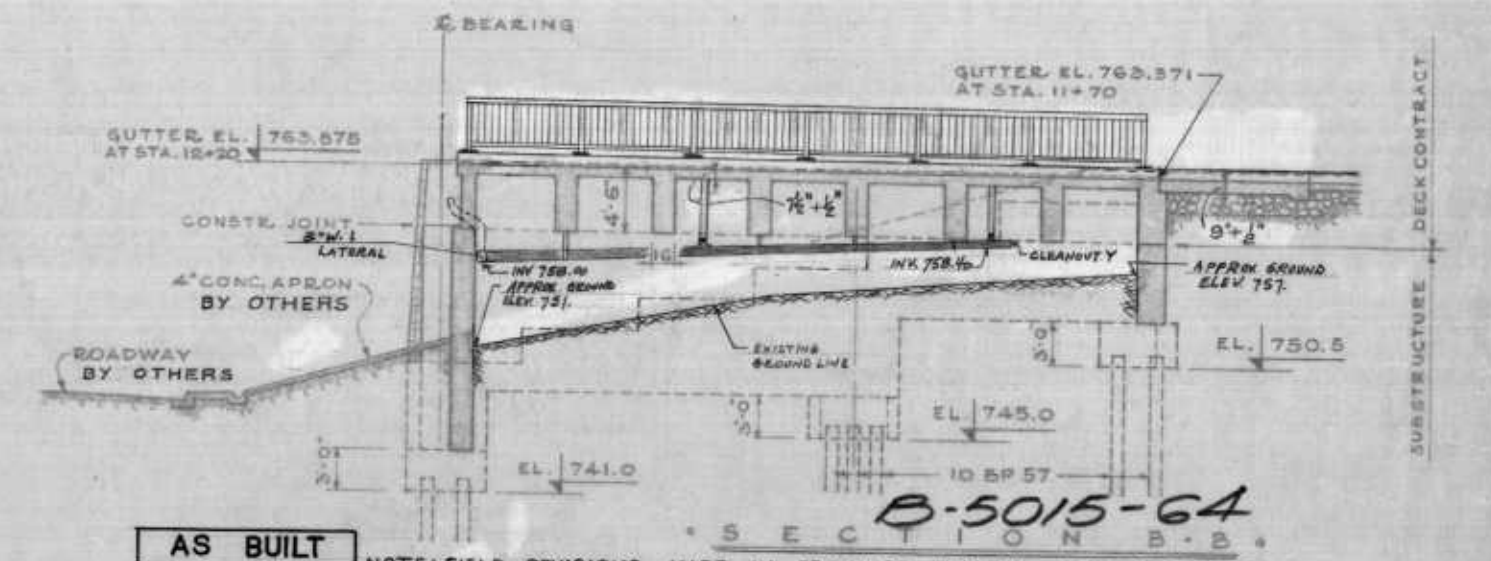
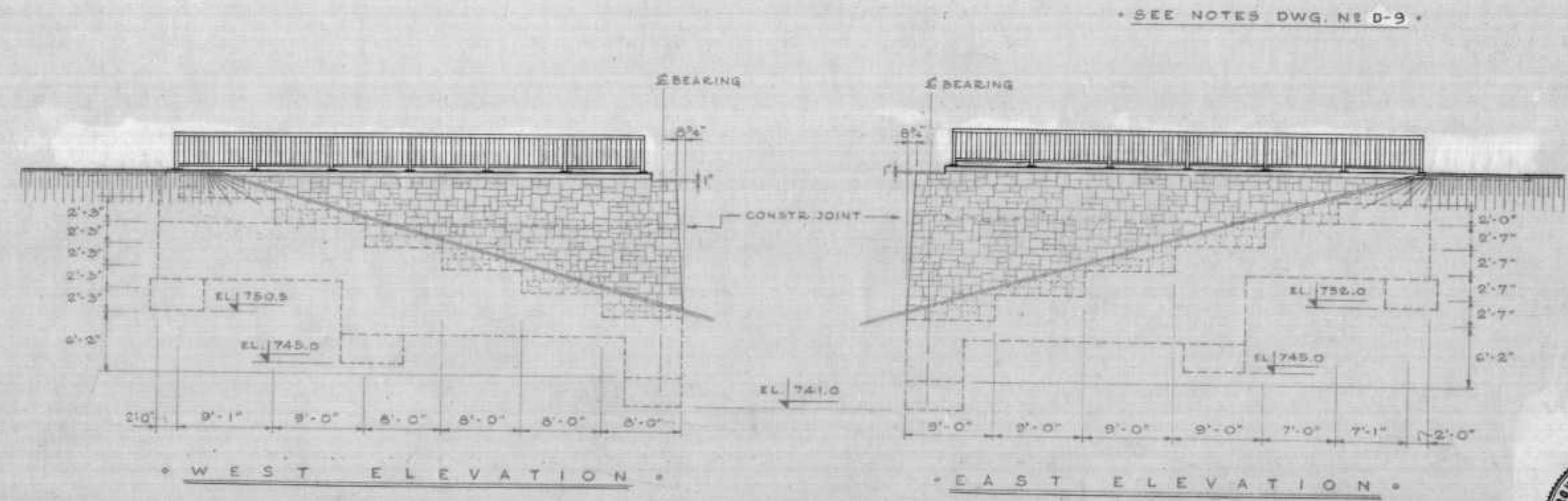
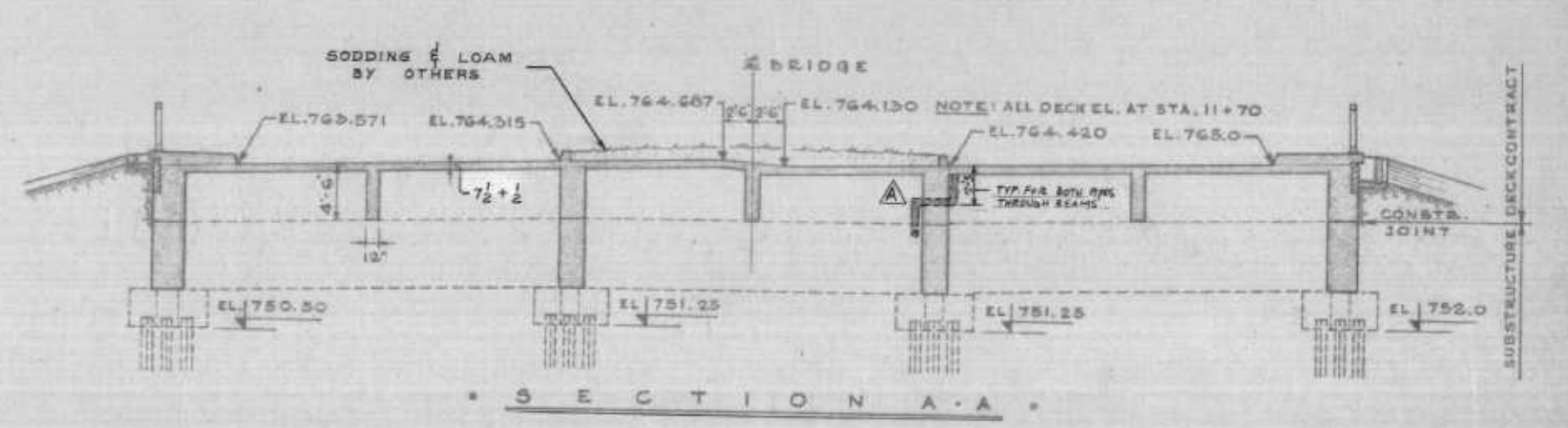
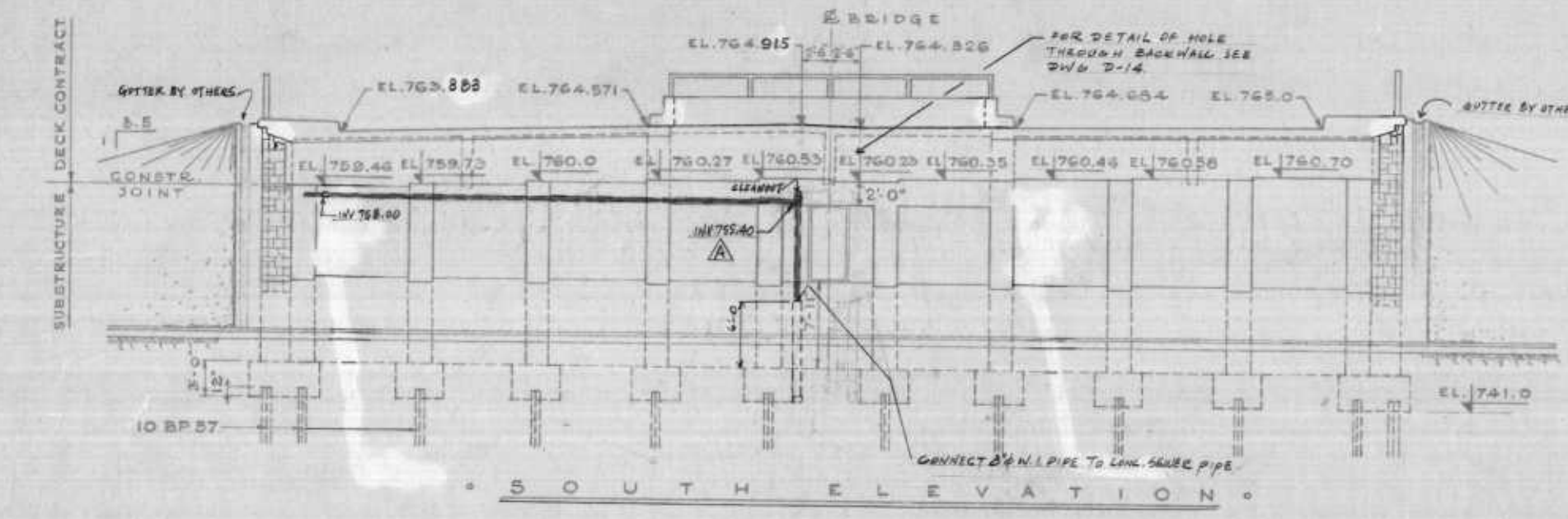
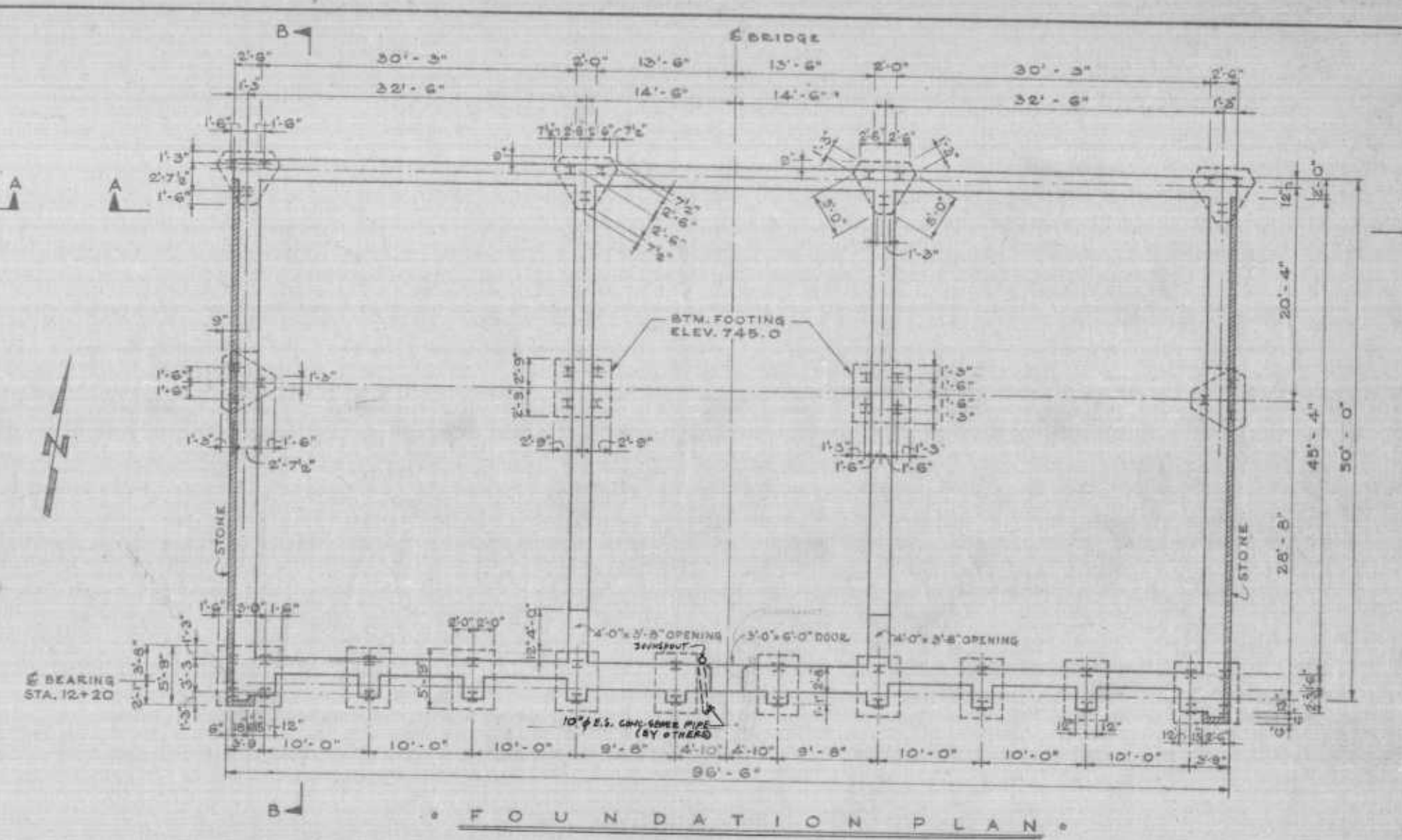
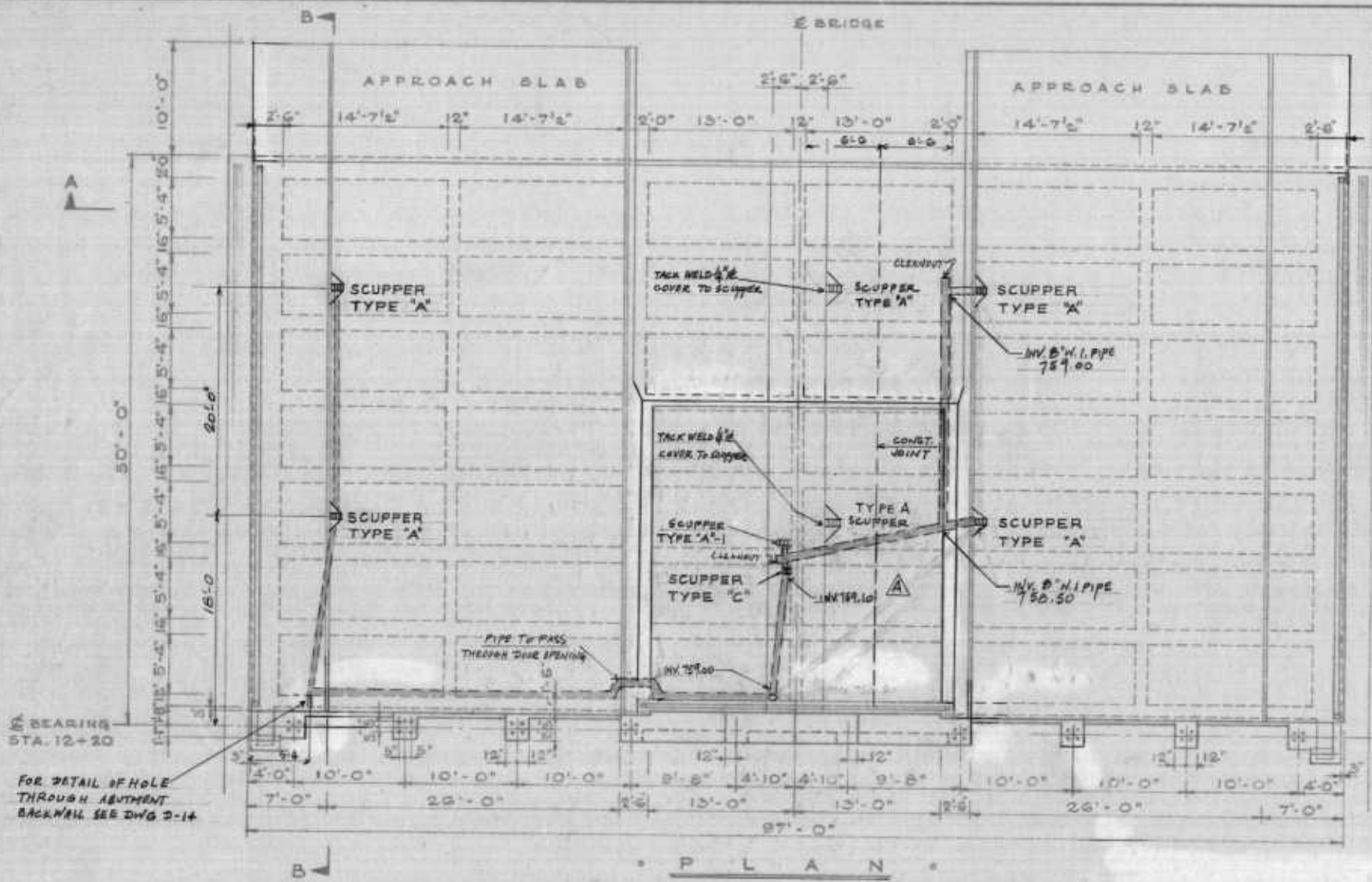
SITE PLAN



T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

FILE No. 861
DATE SEPT 1964
SCALE 1" = 100'
DWN. BY W.A.R.
CHKD. BY D.J.S.
DWG. No. **S-12**

B-5015-119



TOTAL VOLUME CONCRETE (DECK) - 379 C.Y. NORTH ABUTMENT.

AS BUILT NOTE: FIELD REVISIONS MADE IN DRAINAGE SYSTEM - NOT RECORDED

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
STREETS AND TRANSIT DIVISION

ST. VITAL BRIDGE PROJECT

NORTH ABUTMENT

FILE No. W-1008
DATE MAY 1965
SCALE 1/8" = 1'-0"
DWN. BY JB
CHKD. BY [Signature]
DWG. D-5

APPROVED BY: [Signature]
DEPUTY DIRECTOR OF STREETS & TRANSIT

T. LAMB, McMANUS & ASSOCIATES LTD.
CONSULTING ENGINEERS
EDMONTON CALGARY WINNIPEG

