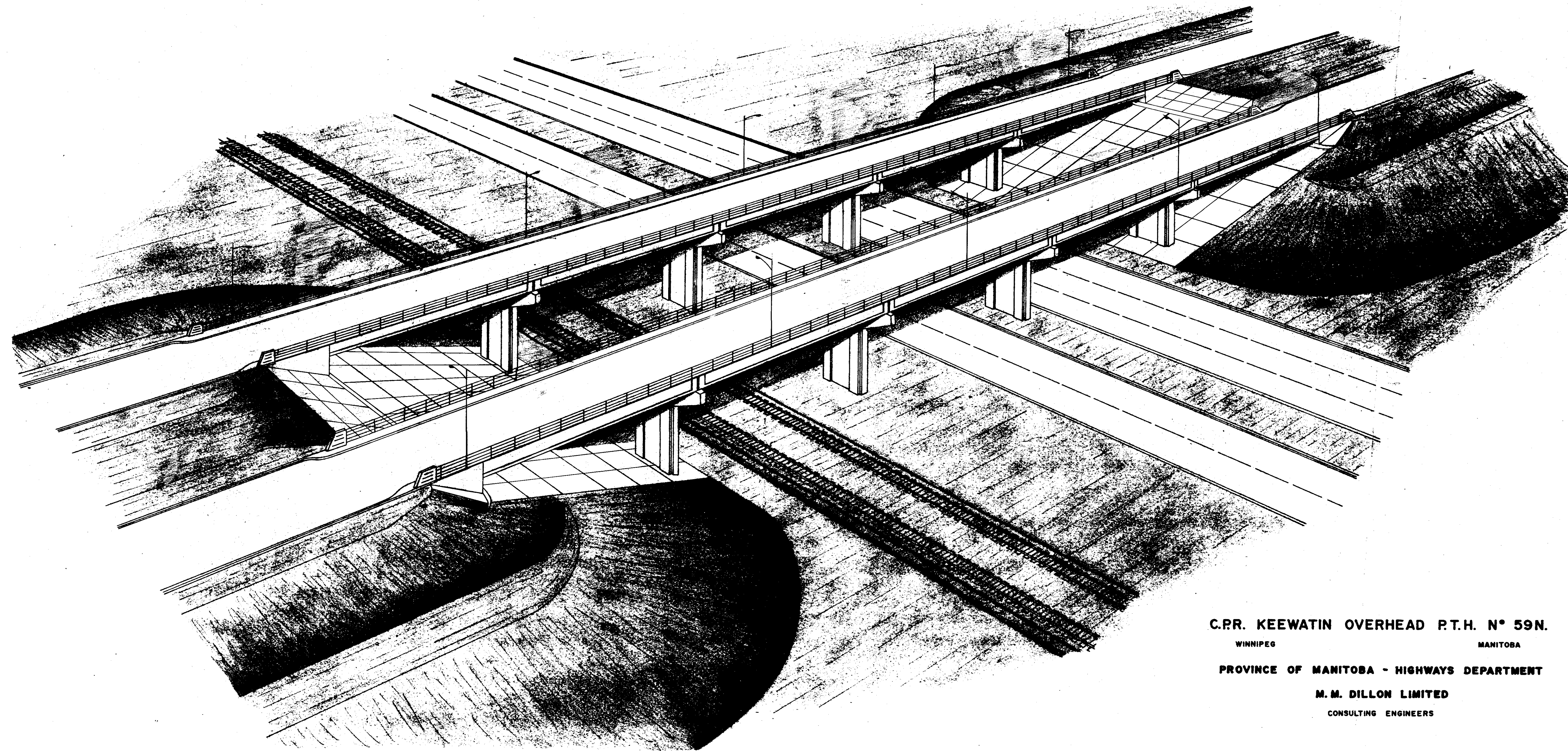


APPENDIX G: EXISTING DRAWINGS



C.P.R. KEEWATIN OVERHEAD P.T.H. N° 59N.
 WINNIPEG MANITOBA
 PROVINCE OF MANITOBA - HIGHWAYS DEPARTMENT
 M.M. DILLON LIMITED
 CONSULTING ENGINEERS

SUBSTRUCTURE AND DECK
(QUANTITIES FOR BOTH STRUCTURES)

SUMMARY OF QUANTITIES

1. UNIT EXCAVATION "B"	381	CU. YDS.
2. UNIT BACKFILL "B"	5348	CU. YDS.
3. PRECAST PRESTRESSED CONCRETE PILES	ABUTMENTS 14,151 L.F.T. PIERS 8002 L.F.T. TOTAL — 22,153 L.F.T.	EACH
4. WELDED PILE SPLICES	169	EACH
5. REINFORCING STEEL	ABUTMENTS 59948 PIERS 110731 DECKS, CURBS & DIAPHRAGMS 229,927 APPROACH SLABS 19359 SLOPE PROTECTION 15800 PILE EXTENSIONS 6140 TOTAL — 441,905	LBS
6. STRUCTURAL CONCRETE	PIERS 7254 CU. YDS. DECKS, CURBS & DIAPHRAGMS 8434 CU. YDS. APPROACH SLABS 971 CU. YDS. SLOPE PROTECTION 3270 CU. YDS. ABUTMENTS 4380 CU. YDS. PILE EXTENSIONS 106 CU. YDS. TOTAL — 24,415	CU. YDS.
7. WORKING BASE CONCRETE	72.1	CU. YDS.
8. POZZOLITH @ 0.25 lb/BAG OF CEMENT	3,540.1	CU. YDS.
9. MISCELLANEOUS METALS	77,403	LBS.
10. STRUCTURAL STEEL (EXPANSION JOINT)	30,177	LBS.
11. RUB FINISH CONCRETE	17,221	SQ. FT.
12. CEMENT FOR WORKING BASE CONCRETE @ 4 1/2 BAGS/CU. YD.	3,245	BAGS
13. CEMENT FOR STRUCTURAL CONCRETE @ 5.71 BAGS/CU. YD.	3,1702	BAGS
	9,3366	BAGS
	12,5068	BAGS

SUMMARY OF QUANTITIES FOR CONTRACT

1. LUMP SUM EXCAVATION "B"	LUMP SUM
2. UNIT EXCAVATION "B"	381 CU. YDS.
3. LUMP SUM BACKFILL "B"	LUMP SUM
4. UNIT BACKFILL "B"	5348 CU. YDS.
5. DRIVING PRECAST CONCRETE PILES	22,153 L.F.T.
6. WELDED PILE SPLICES	169 EACH
7. PLACING REINFORCING STEEL	441,905 LBS.
8. MIXING & PLACING CONCRETE (PIERS & ABUTMENTS)	1,174 CU. YDS.
9. do do do (OTHER THAN PIERS & ABUTMENTS EXCEPT SLOPE PROTECTION)	9405 CU. YDS.
10. do do do (SLOPE PROTECTION)	327 CU. YDS.
11. HEATING CONCRETE (PIERS & ABUTMENTS INCL. LEAN MIX WORKING BASE)	1,197 CU. YDS.
12. RUB FINISHING CONCRETE	17,221 SQ. FT.
13. ERECTION OF STRUCTURAL STEEL (EXPANSION DAMS)	30,177 LBS.
14. PLACING MISCELLANEOUS METAL	77,403 LBS.
15. SUPPLYING GRANULAR BACKFILL	68673 CU. YDS.
16. SUPPLYING & PLACING DRAINFILL TYPE "A"	60 CU. YDS.
17. do do do TYPE "B"	1,5261 CU. YDS.
18. do do DRAINPIPE	1,020 L.F.T.
19. do do TELEPHONE CONDUIT	LUMP SUM
20. do do ELECTRICAL CONDUIT	LUMP SUM
21. FIELD PAINTING	573 TONS
22. SUPPLY OF FIELD OFFICE	LUMP SUM

GIRDERS

SUMMARY OF QUANTITIES

1. ERECTION OF ELASTOMERIC BEARING PADS	100	UNITS
2. FABRICATION, SUPPLY, & ERECTION OF PRECAST PRESTRESSED 54" DEEP GIRDERS (WT. 57,300 lbs. EA.)	50	GIRDERS

PLANS

OF PROPOSED

C. P. R. KEEWATIN OVERHEAD

ON

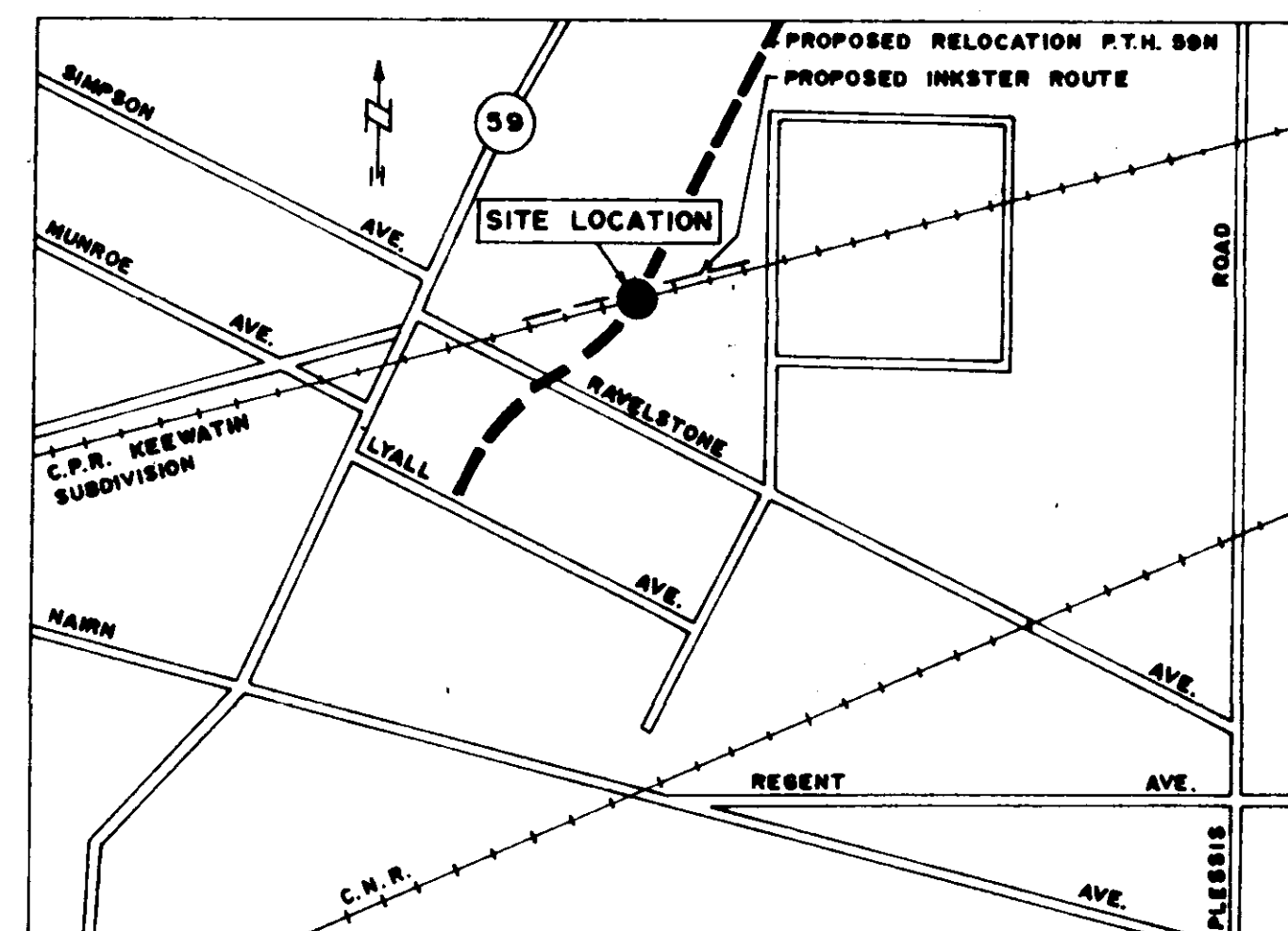
RELOCATED P. T. H. 59 NORTH

LENGTH 398' - 0" C. TO C. OF ABUTMENT BEARINGS
SUPERSTRUCTURE TWIN SIMPLE SPANS USING PRECAST, PRESTRESSED CONCRETE I BEAM GIRDERS AND COMPOSITE REINFORCED CONCRETE DECK
SUBSTRUCTURE REINFORCED CONCRETE ABUTMENTS AND PIERS
ROADWAY WIDTH 27' - 0" CL. CURB TO CURB, NORTH BOUND AND SOUTH BOUND STRUCTURES
LOCATION RIVER LOTS 87 & 88 O.T.M. PARISH OF KILDONAN

IN THE RURAL MUNICIPALITY

OF

NORTH KILDONAN



LOCATION PLAN
SCALE 1" = 500'

PROVINCE OF MANITOBA

HIGHWAYS DEPARTMENT

REF. PLAN N° 871

APPROVED BY:

CHIEF BRIDGE ENGINEER

DIRECTOR OF PLANNING

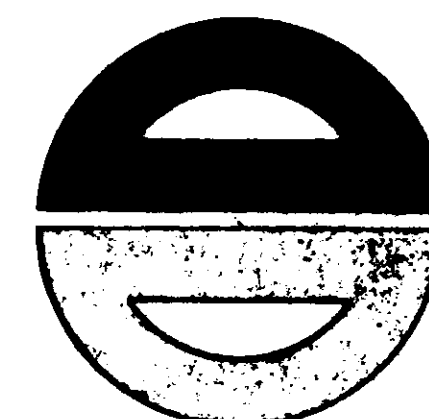
ASSISTANT DEPUTY MINISTER
23/6/67

M. M. DILLON LIMITED

CONSULTING ENGINEERS

LONDON

WINNIPEG



DILLON

DESIGN DATA

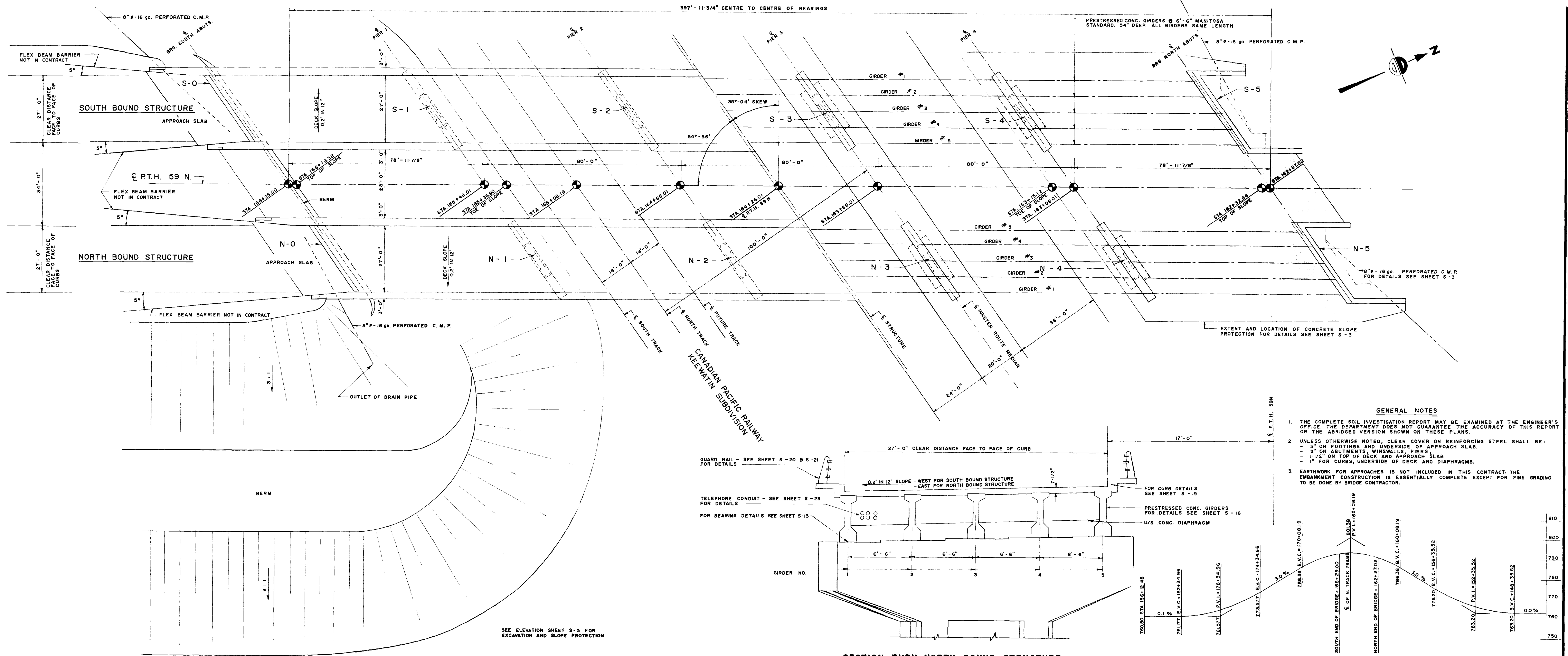
UNIT STRESSES -
f_s = 20,000 P.S.I.
f_c = 1,500 P.S.I.
f_s = 4000 P.S.I. (SUPERSTRUCTURE)
f_c = 3,750 P.S.I. (SUBSTRUCTURE)

LIVE LOADING
H20-S16-44 TRUCK AND LANE LOADING

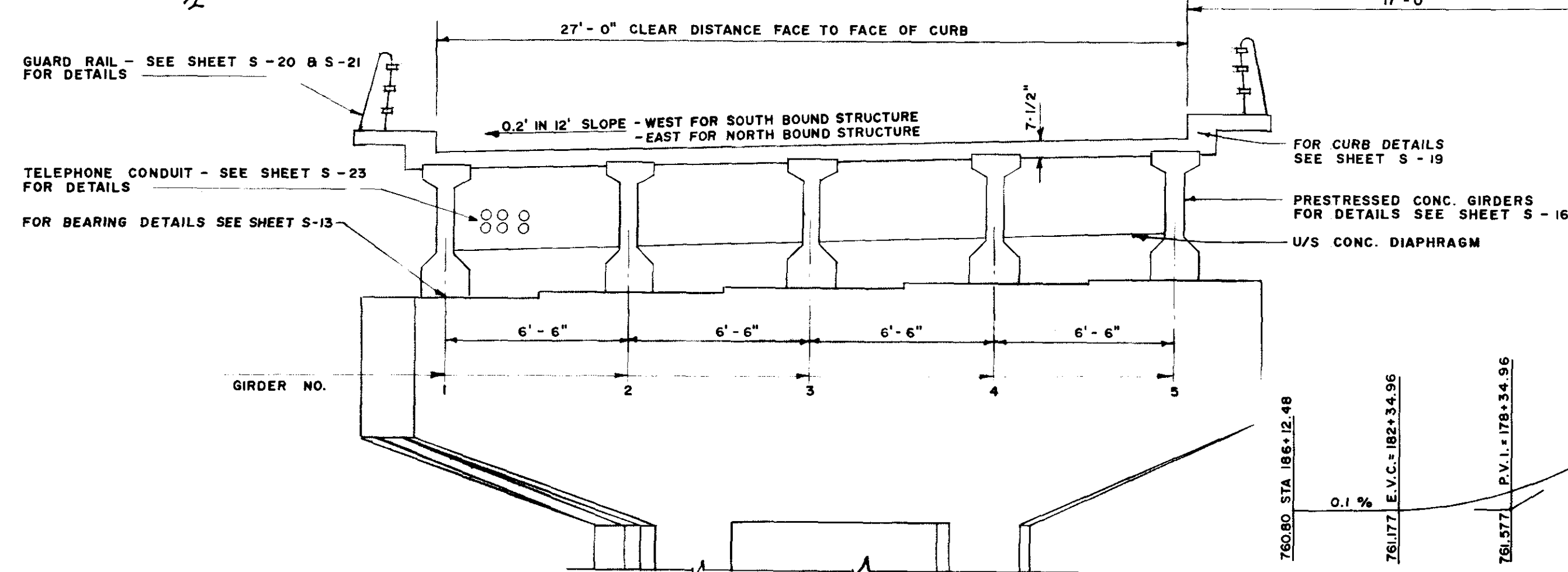
SOIL INFORMATION
FOR DETAILED SOIL DATA REFER TO SHEET S-2 AND REPORTS DATED JANUARY 14, 1966 AS COMPILED BY RIPLEY, KLOHN & LEONOFF LTD. CONSULTING ENGINEERS, WINNIPEG, MANITOBA. SOIL REPORT AVAILABLE FOR INSPECTION AT M. M. DILLON LIMITED, WINNIPEG

DRAWING LISTING

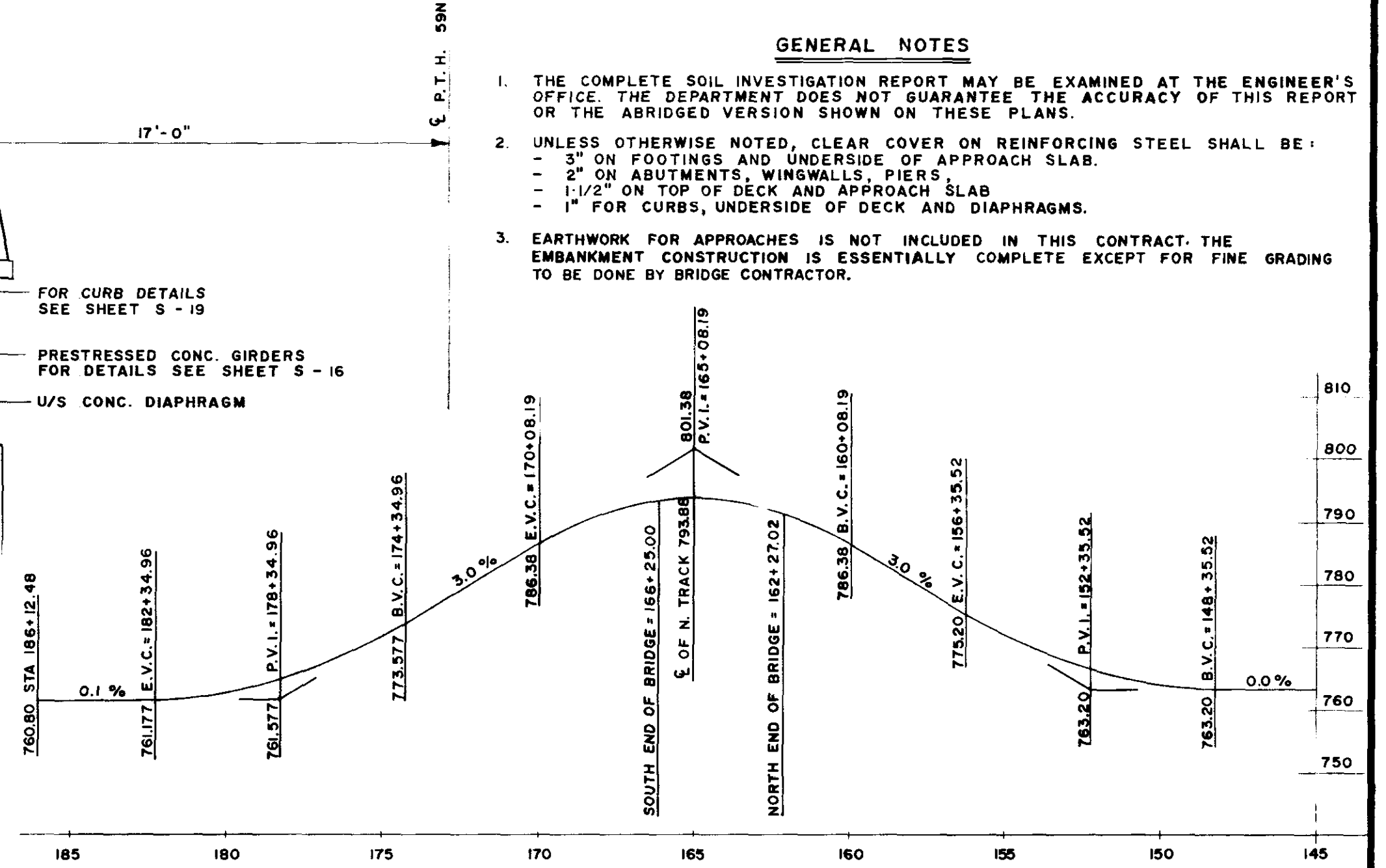
- S-0 COVER SHEET
- S-00 PERSPECTIVE VIEW
- S-1 GENERAL LAYOUT
- S-2 EXISTING GRADE & LOG BORING DATA
- S-3 CONCRETE SLOPE PROTECTION DETAILS
- S-4 FOOTING AND PILE LAYOUT
- S-5 ABUTMENT AND PIER FOOTINGS
- S-6 ABUTMENT N-0 CONCRETE DETAILS
- S-7 ABUTMENT N-5 CONCRETE DETAILS
- S-8 ABUTMENT S-0 CONCRETE DETAILS
- S-9 ABUTMENT S-5 CONCRETE DETAILS
- S-10 ABUTMENT REINFORCING DETAILS
- S-11 PIER DETAILS N-1 TO N-4
- S-12 PIER DETAILS S-1 TO S-4
- S-13 BEARING DETAILS
- S-14 DECK EXPANSION JOINT DETAILS
- S-15 CURB EXPANSION JOINT DETAILS
- S-16 PRESTRESSED GIRDER DETAILS
- S-17 DECK AND DIAPHRAGM CONCRETE DETAILS
- S-18 DECK AND DIAPHRAGM REINFORCING DETAILS
- S-19 CURB DETAILS
- S-20 GUARDRAIL POST DETAILS
- S-21 GUARDRAIL DETAILS
- S-22 ELECTRICAL PLAN AND DETAILS
- S-23 TELEPHONE CONDUIT LAYOUT
- S-24 APPROACH SLAB DETAILS
- S-25 BAR BENDING DETAILS
- S-26 BAR BENDING DETAILS
- S-27 BAR BENDING DETAILS
- S-28 PILE LAYOUT
- S-29 SUBSTRUCTURE CONTROL SURVEY
- S-30 SUPERSTRUCTURE CONTROL SURVEY



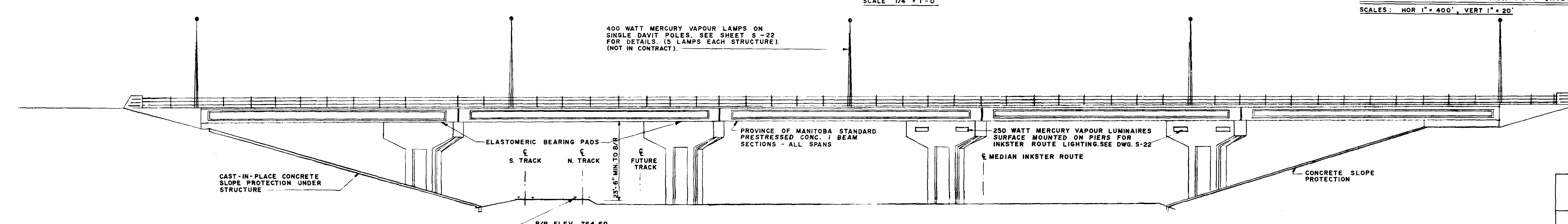
PLAN OF STRUCTURE
SCALE 1" = 16'



SECTION THRU NORTH BOUND STRUCTURE
SYMMETRICAL ABOUT C
SCALE 1/4" = 1'-0"



VERTICAL CURVE C.P.T.H. 59N (INSIDE CURB ELEVATIONS)
SCALE: HOR 1" = 400', VERT 1" = 20'



ELEVATION NORTH BOUND STRUCTURE (ELEVATION SOUTH BOUND STRUCTURE SIMILAR)
SCALE 1" = 16'

- GENERAL NOTES
1. THE COMPLETE SOIL INVESTIGATION REPORT MAY BE EXAMINED AT THE ENGINEER'S OFFICE. THE DEPARTMENT DOES NOT GUARANTEE THE ACCURACY OF THIS REPORT OR THE ABRIDGED VERSION SHOWN ON THESE PLANS.
 2. UNLESS OTHERWISE NOTED, CLEAR COVER ON REINFORCING STEEL SHALL BE:
 - 3" ON FOOTINGS AND UNDERSIDE OF APPROACH SLAB
 - 2" ON ABUTMENTS, WINGWALLS, PIERS
 - 1 1/2" ON TOP OF DECK AND APPROACH SLAB
 - 1" FOR CURBS, UNDERSIDE OF DECK AND DIAPHRAGMS.
 3. EARTHWORK FOR APPROACHES IS NOT INCLUDED IN THIS CONTRACT. THE EMBANKMENT CONSTRUCTION IS ESSENTIALLY COMPLETE EXCEPT FOR FINE GRADING TO BE DONE BY BRIDGE CONTRACTOR.

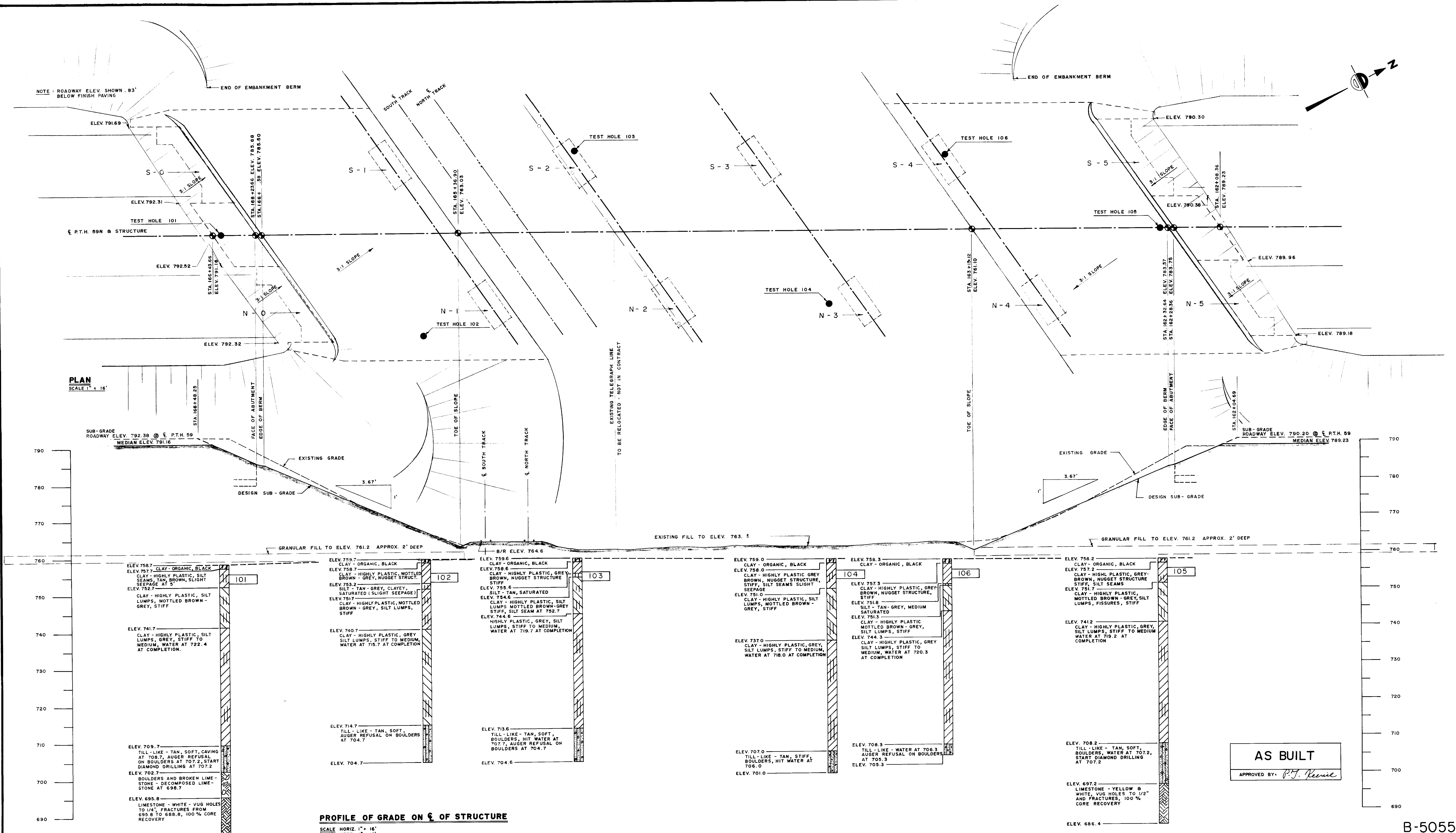
AS BUILT

APPROVED BY: *P.T. Keme*

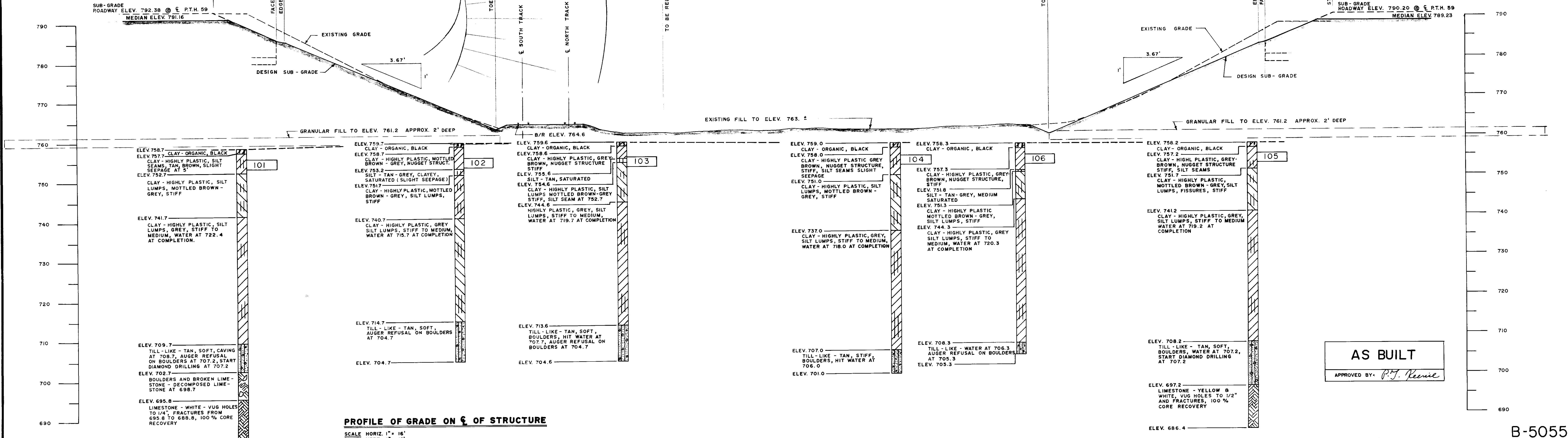
B-5055-3

APPROVED BY: *Chief Bridge Engineer* *Director of Planning*

PRINT RECORD NO. FOR DATE	SPECIFICATIONS A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING	PROVINCE OF MANITOBA REGISTERED ENGINEER M.M. DILLON LIMITED CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	DESIGN DRAWN B.T. CHECKED APPROVED DATE MAY - 1967 SCALE AS SHOWN	GENERAL LAYOUT C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH SHEET NO. S-1
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PLAN
SCALE 1" = 16'



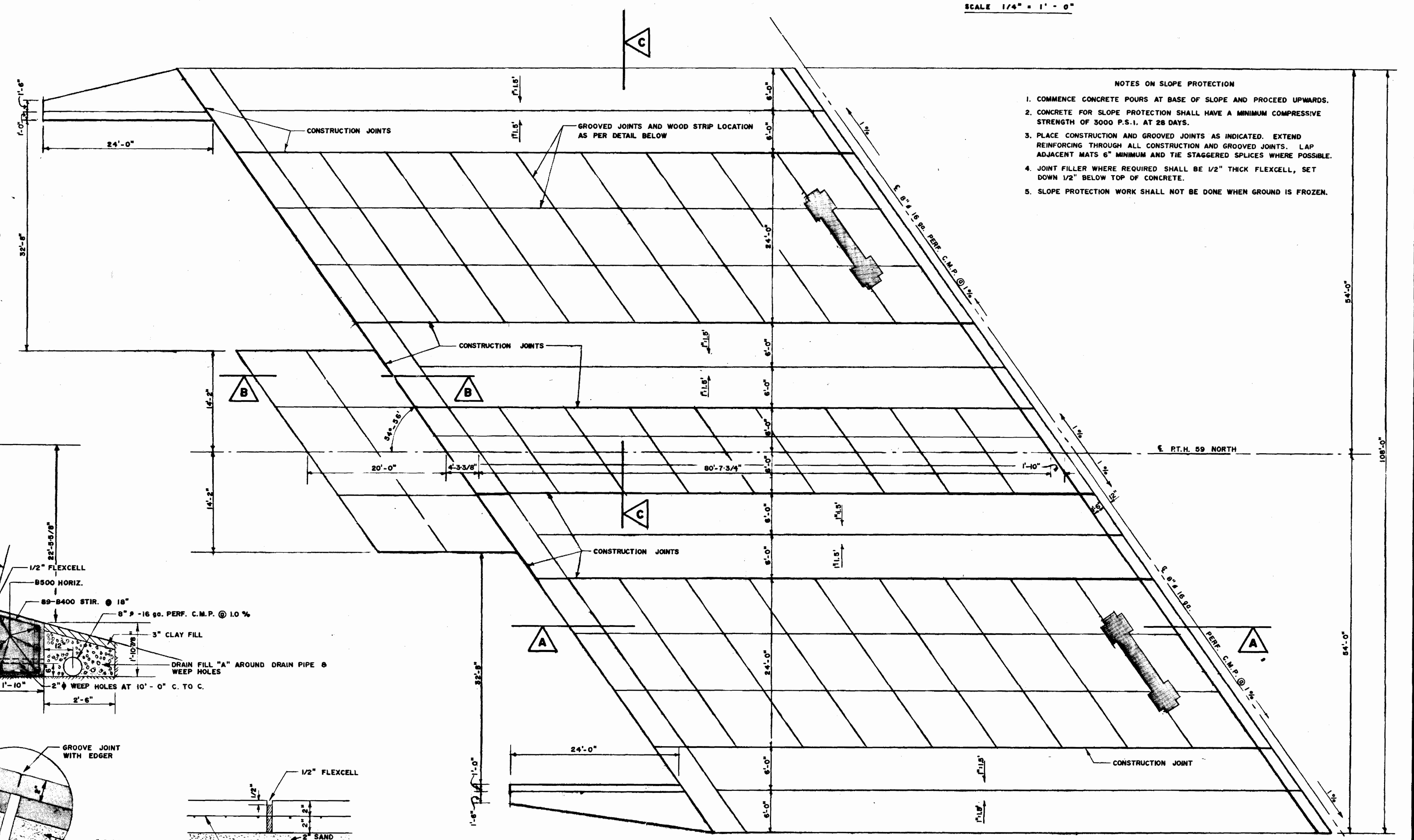
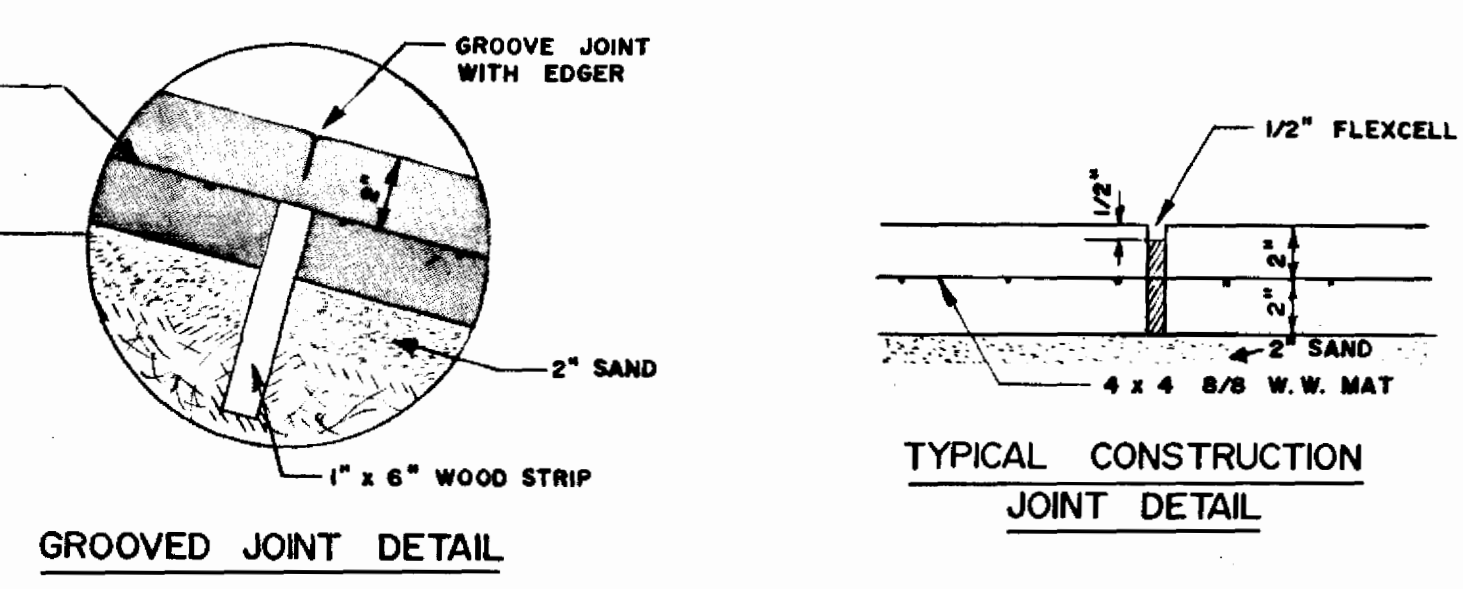
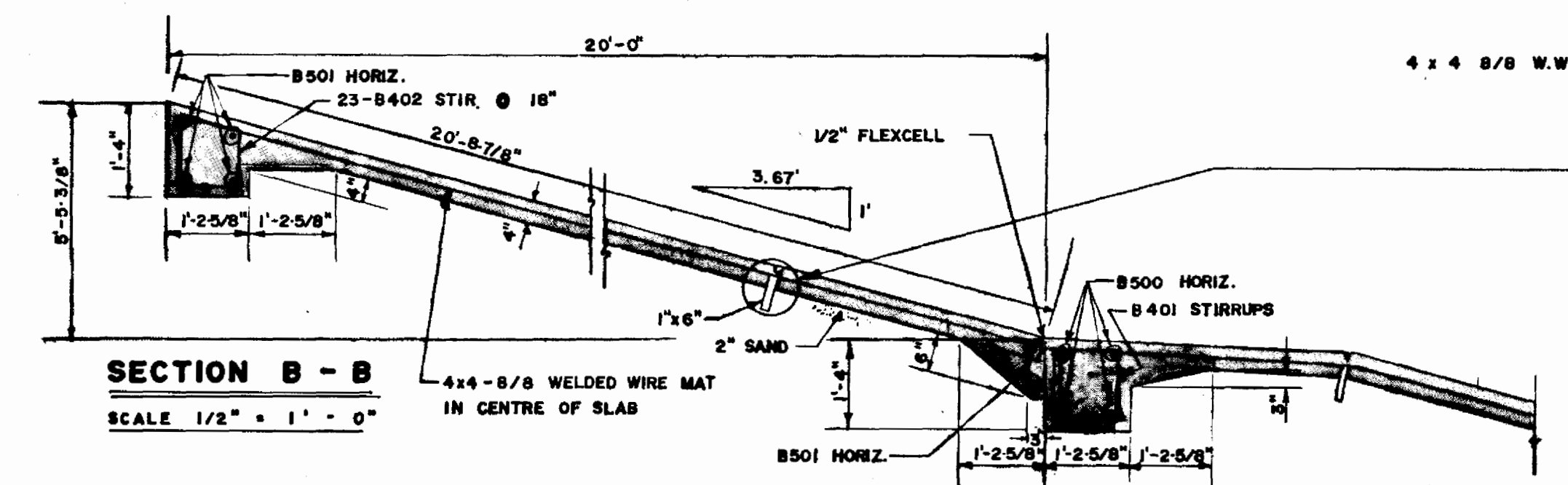
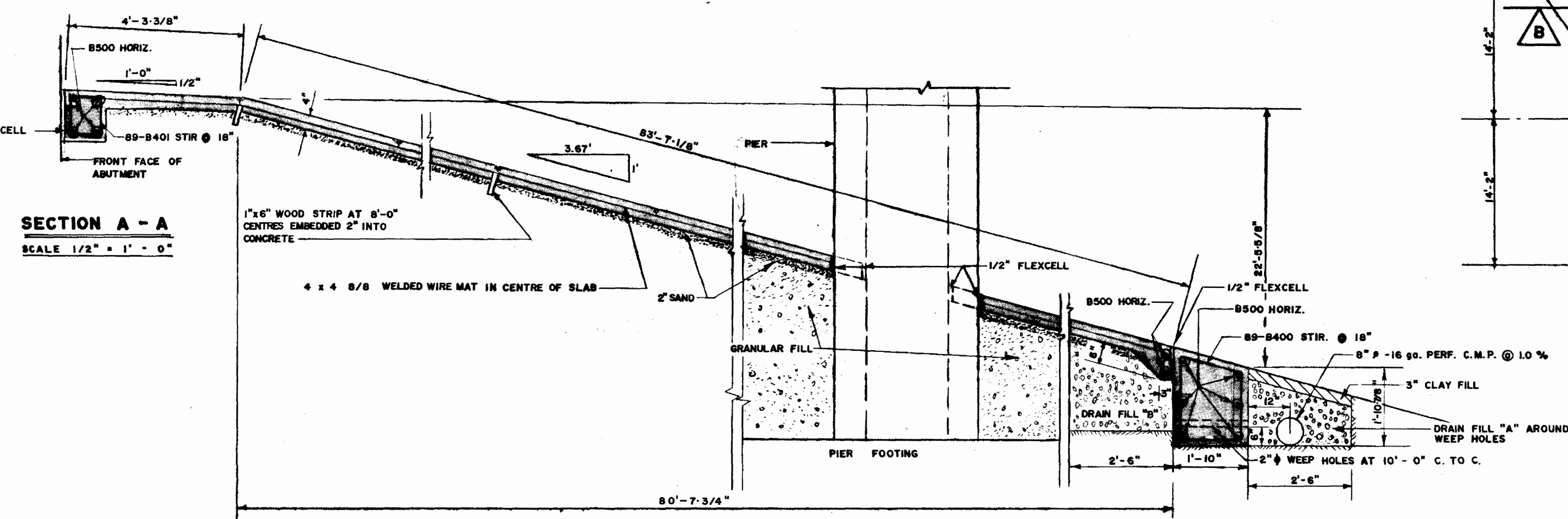
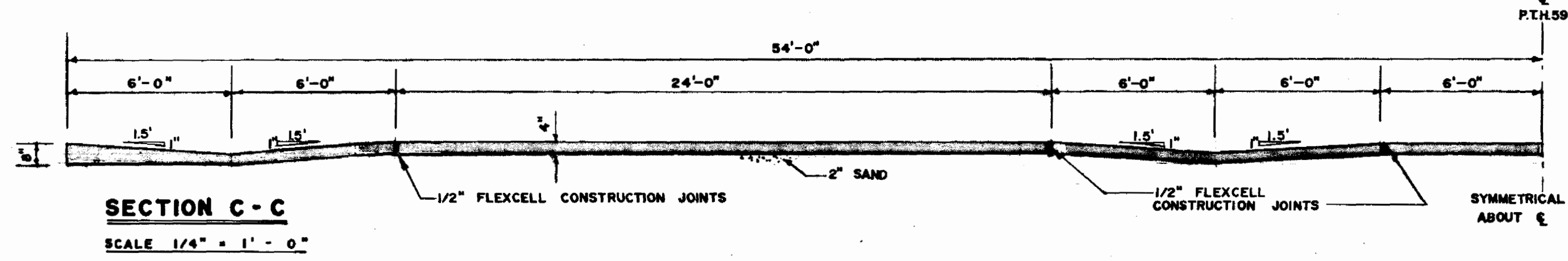
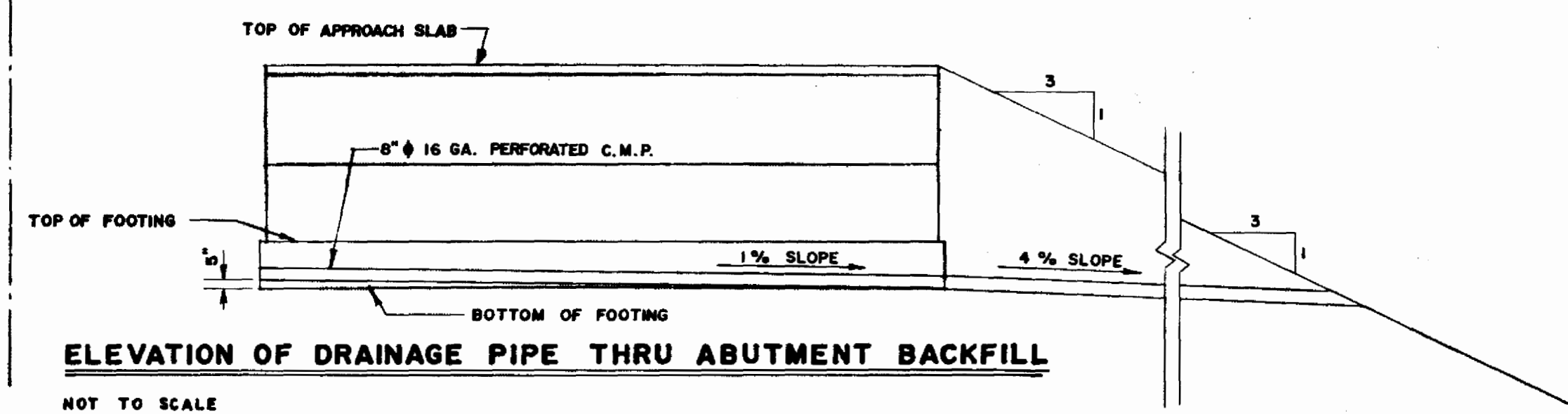
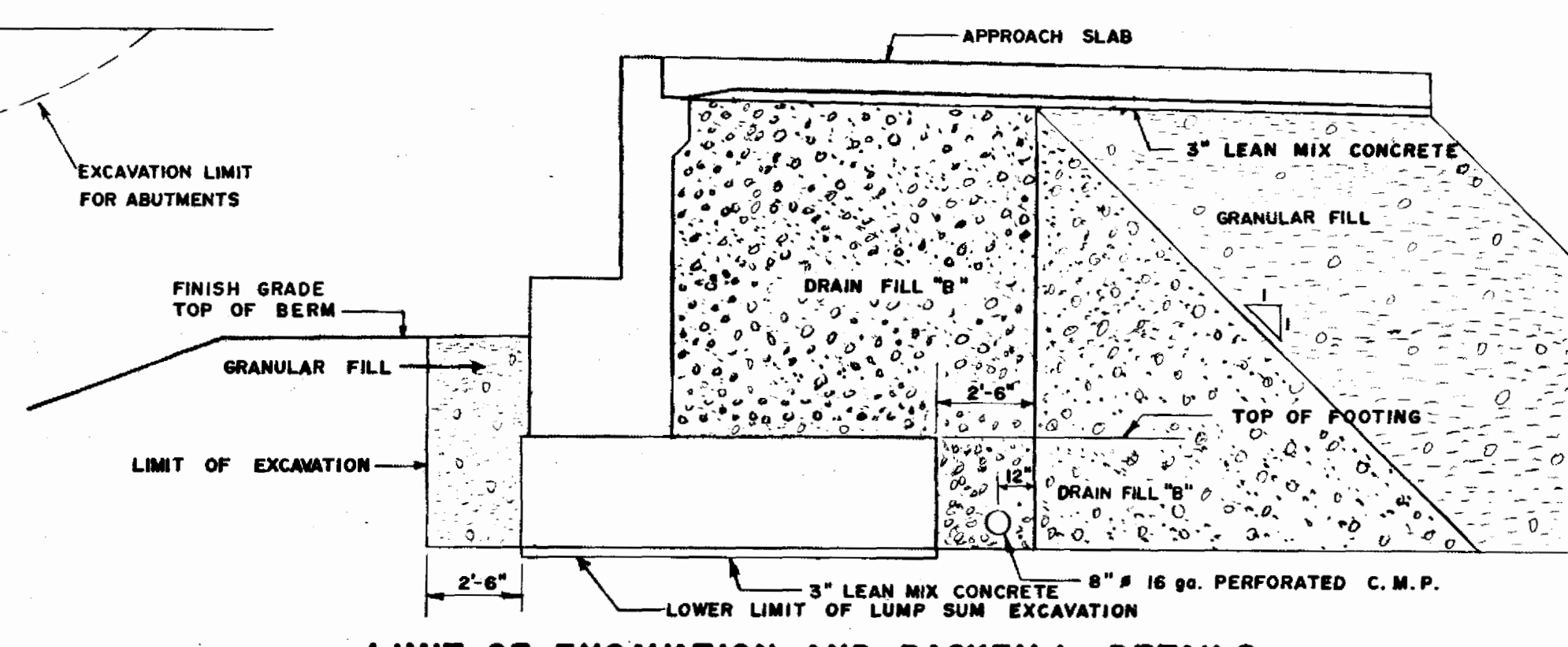
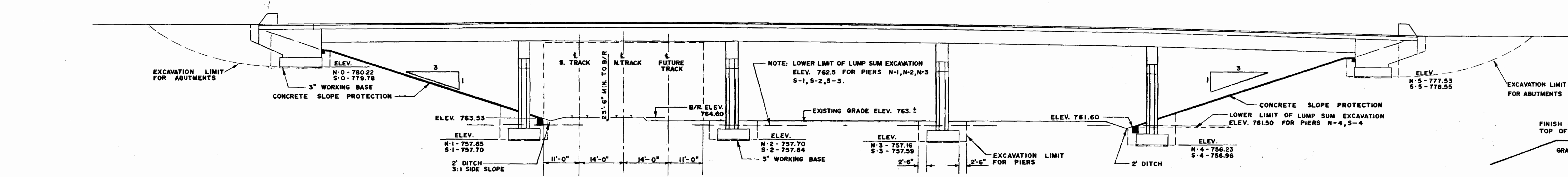
PROFILE OF GRADE ON E OF STRUCTURE
SCALE HORIZ. 1" = 16'
VERT. 1" = 10'

AS BUILT
APPROVED BY: *P.J. Keme*

PRINT RECORD NO. FOR DATE	SPECIFICATIONS A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING				M. M. DILLON LIMITED LONDON - TORONTO - OTTAWA - WINNIPEG - SUDBURY - WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	DESIGN <i>[Signature]</i>	EXISTING GRADE & LOG BORING DATA C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH	PROJECT NO.
							DRAWN B.T.		SHEET NO.
							CHECKED <i>[Signature]</i>		S-2
							APPROVED <i>[Signature]</i>		OF
		DATE NOV. 67	DATE MAY 1967			SCALE AS SHOWN			

B-5055-4

APPROVED BY *[Signature]* CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING



- NOTES ON SLOPE PROTECTION**
1. COMMENCE CONCRETE POURS AT BASE OF SLOPE AND PROCEED UPWARDS.
 2. CONCRETE FOR SLOPE PROTECTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.
 3. PLACE CONSTRUCTION AND GROOVED JOINTS AS INDICATED. EXTEND REINFORCING THROUGH ALL CONSTRUCTION AND GROOVED JOINTS. LAP ADJACENT MATS 6" MINIMUM AND TIE STAGGERED SPLICES WHERE POSSIBLE.
 4. JOINT FILLER WHERE REQUIRED SHALL BE 1/2" THICK FLEXCELL, SET DOWN 1/2" BELOW TOP OF CONCRETE.
 5. SLOPE PROTECTION WORK SHALL NOT BE DONE WHEN GROUND IS FROZEN.

AS BUILT
APPROVED BY: *P.T. Kamil*

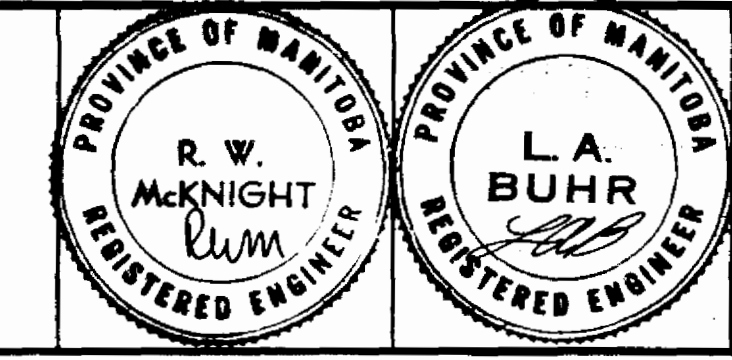
APPROVED BY: *[Signature]*
CHIEF BRIDGE ENGINEER
DIRECTOR OF PLANNING

B-5055-5

CONCRETE SLOPE PROTECTION DETAILS
C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH
PROJECT NO. S-3

REV.	DATE	DESCRIPTION

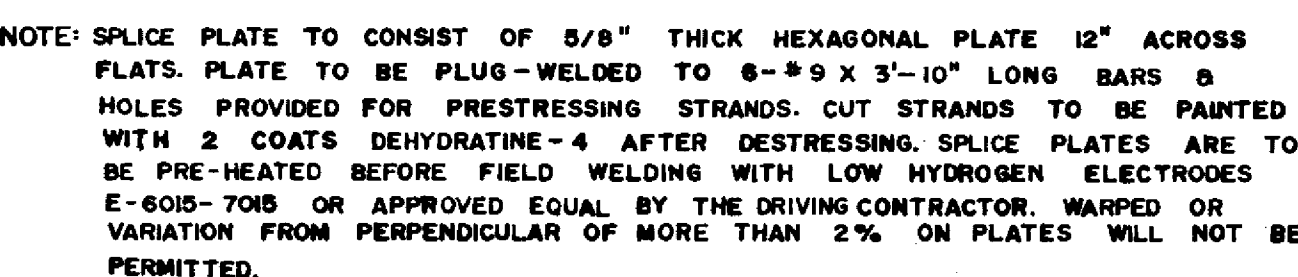
SPECIFICATIONS
A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961)
H20 - S16 - 44 TRUCK LIVE LOADING



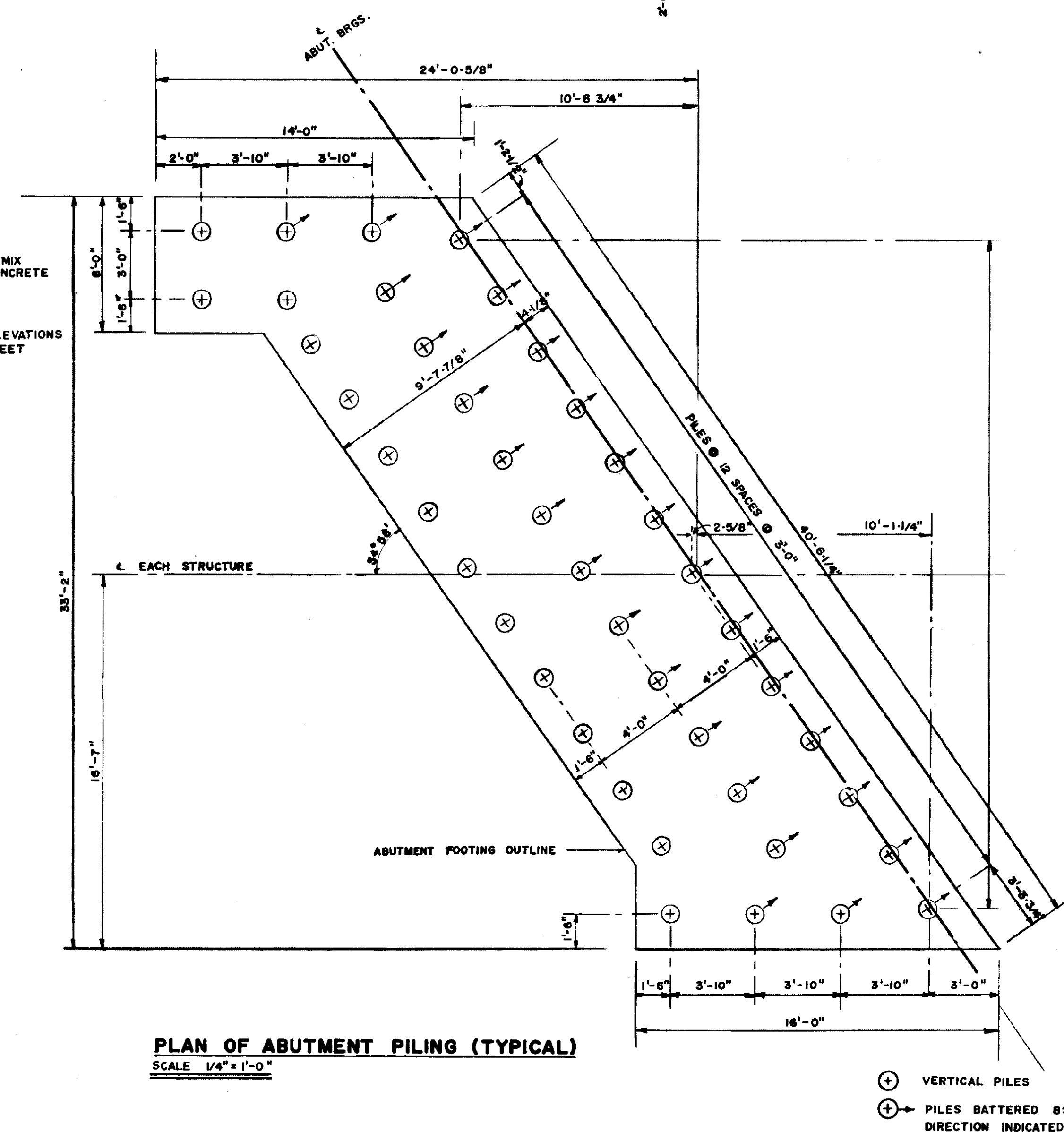
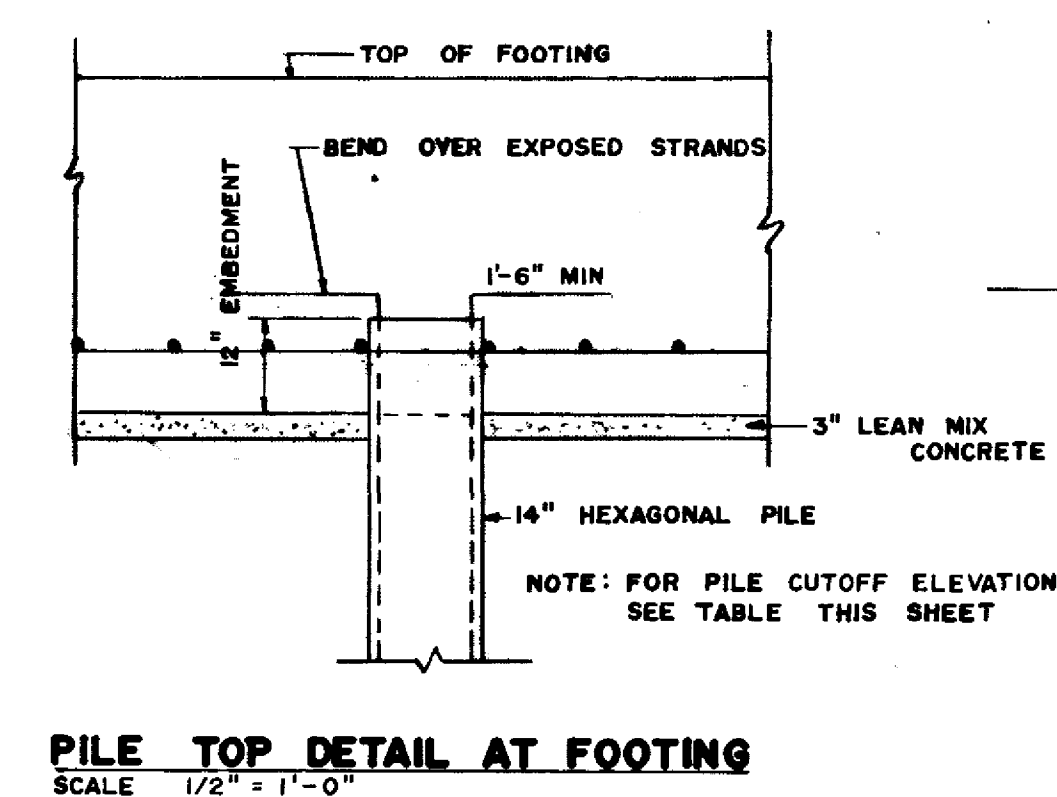
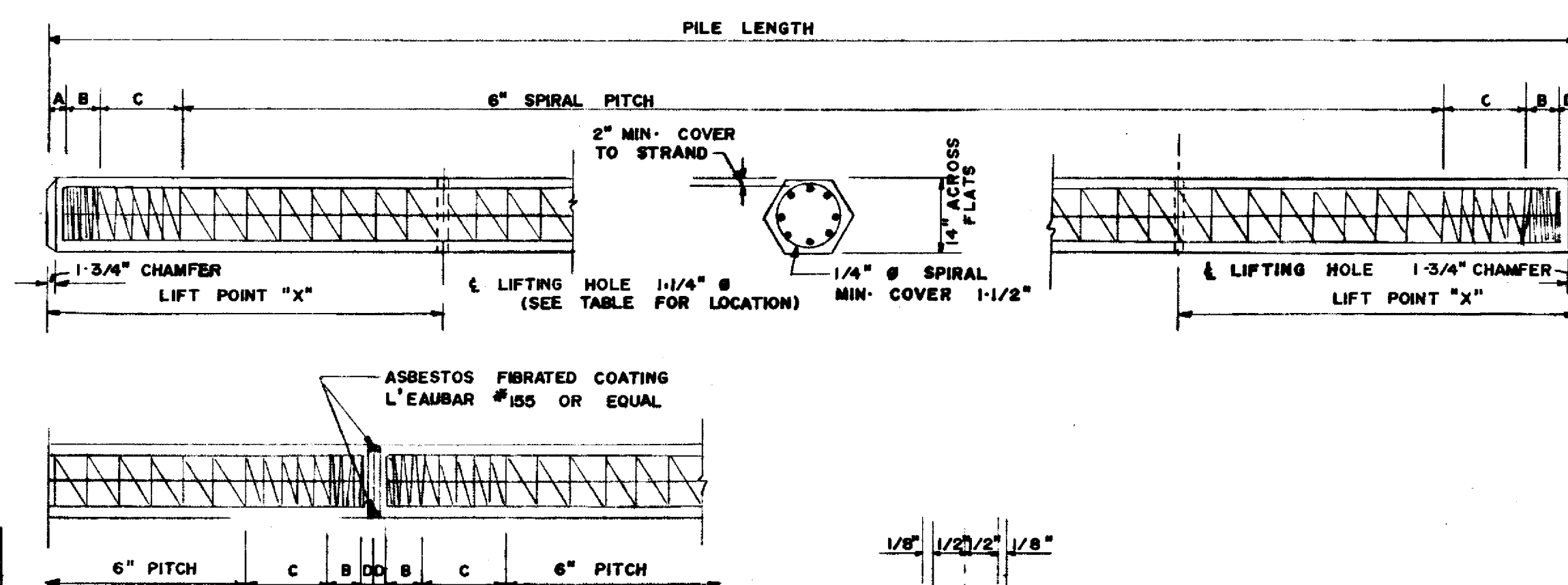
M.M. DILLON LIMITED
CONSULTING ENGINEERS
PROJECT OFFICE: WINNIPEG

PROVINCE OF MANITOBA
HIGHWAYS DEPARTMENT
REF. PLAN N° 871
LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA
RAILWAY CHAINAGE - MILE 122.4
KEEWATIN SUBDIVISION

NO.	REVISIONS	DATE	BY	SCALE
1	EXISTING GRADE	NOV. /67	P.M.	AS SHOWN



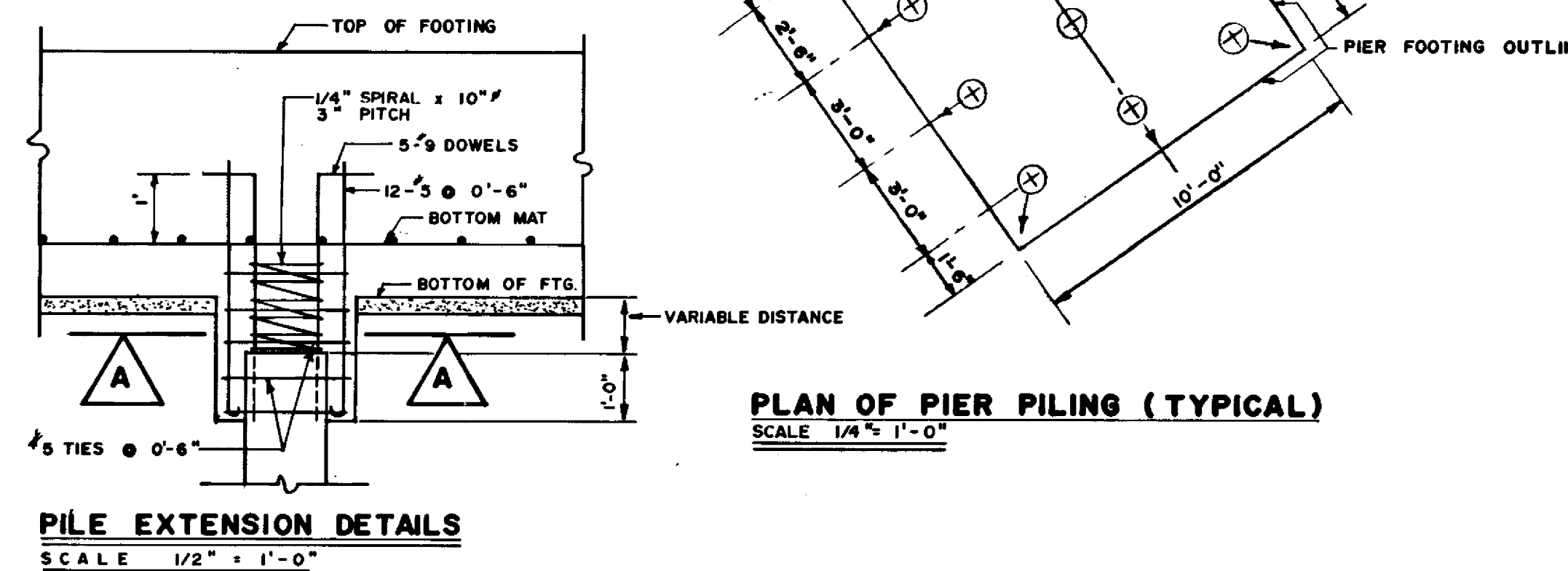
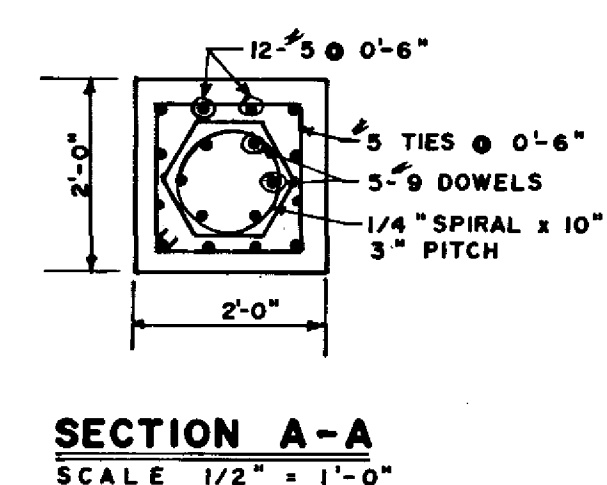
FILE CUT-OFF ELEVATIONS						
LOCATION	S-0	S-1	S-2	S-3	S-4	S-5
SOUTH BOUND STRUCTURE	780.78	758.70	758.84	758.59	757.96	779.55
LOCATION	N-0	N-1	N-2	N-3	N-4	N-5
NORTH BOUND STRUCTURE	781.22	758.85	758.70	758.16	757.23	778.63



PILE DATA											
PILE LOCATION	PILE LENGTH	NO. REQUIRED	STRAND SIZE	SPIRAL TURNS	PILE WT. BUTT. END	LIFT POINT "X"	DIMENSIONS				REMARKS
							A	B	C	D	
2-45'-0" LENGTH SPliced FOR ABUTMENT PILES	45'-0"	336	8-1/2" ϕ	106	7,965	10'-4"	3"	6 TURNS ϕ 1"	5 TURNS ϕ 3"	1-3/8"	SPlice PLATE REQUIRED
PIERS	63'-0"	136	12-3/8" ϕ	146	11,150	13'-0"	3"	6 TURNS ϕ 1"	5 TURNS ϕ 3"	3"	

PRESTRESSED PRECAST PILING NOTES

1. AT ALL TIMES ALL PILES MUST BE HANDLED USING THE LIFTING POINTS AS SHOWN
2. DESIGN LOAD ON PILES = 150 KIPS.
3. CONCRETE STRENGTH OF PILES:
 - 4000 P.S.I. AT STRESS TRANSFER
 - 5000 P.S.I. AT DRIVING
 - 6000 P.S.I. AT 28 DAYS
4. ALL PILES SHALL BE MADE WITH ALKALI-SULPHATE RESISTANT CEMENT.
5. IN NO CASE WILL PILES BE DRIVEN UNTIL 7 DAYS AFTER CASTING.



AS BUILT

APPROVED BY: *P.T. Keenan*

APPROVED BY: Mark Law
CHIEF BRIDGE ENGINEER

B-5055-6

DIRECTOR OF PLANNING

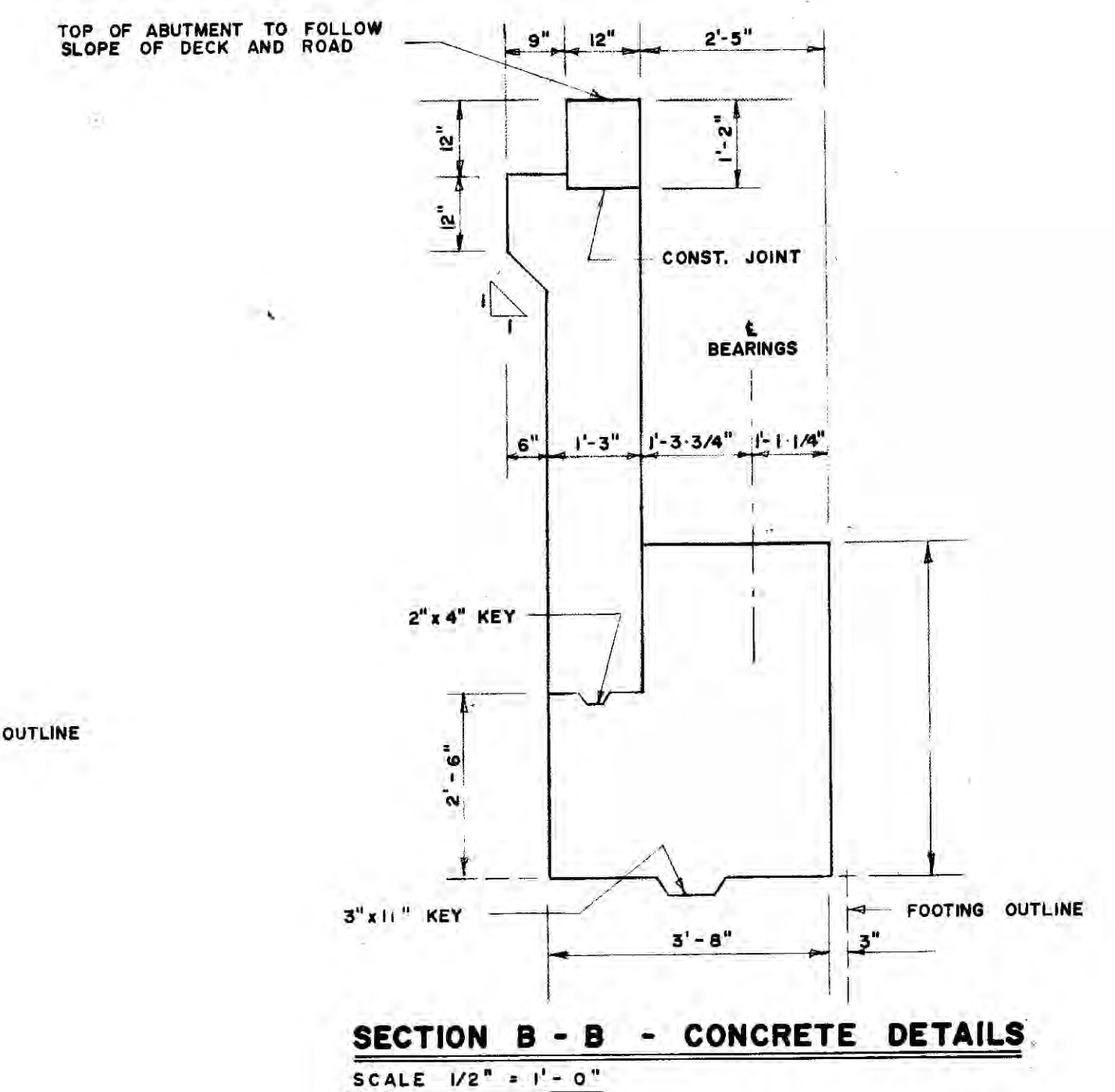
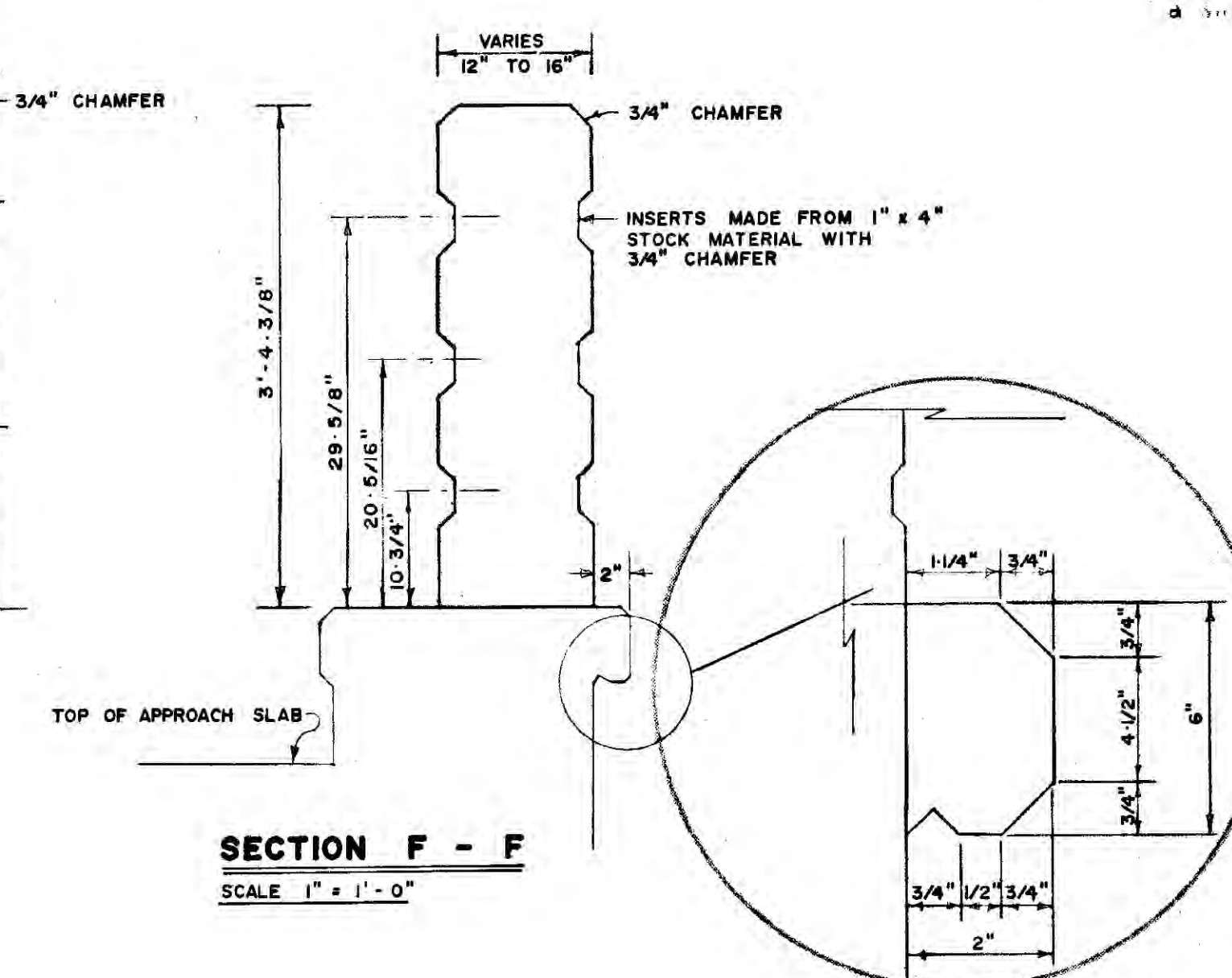
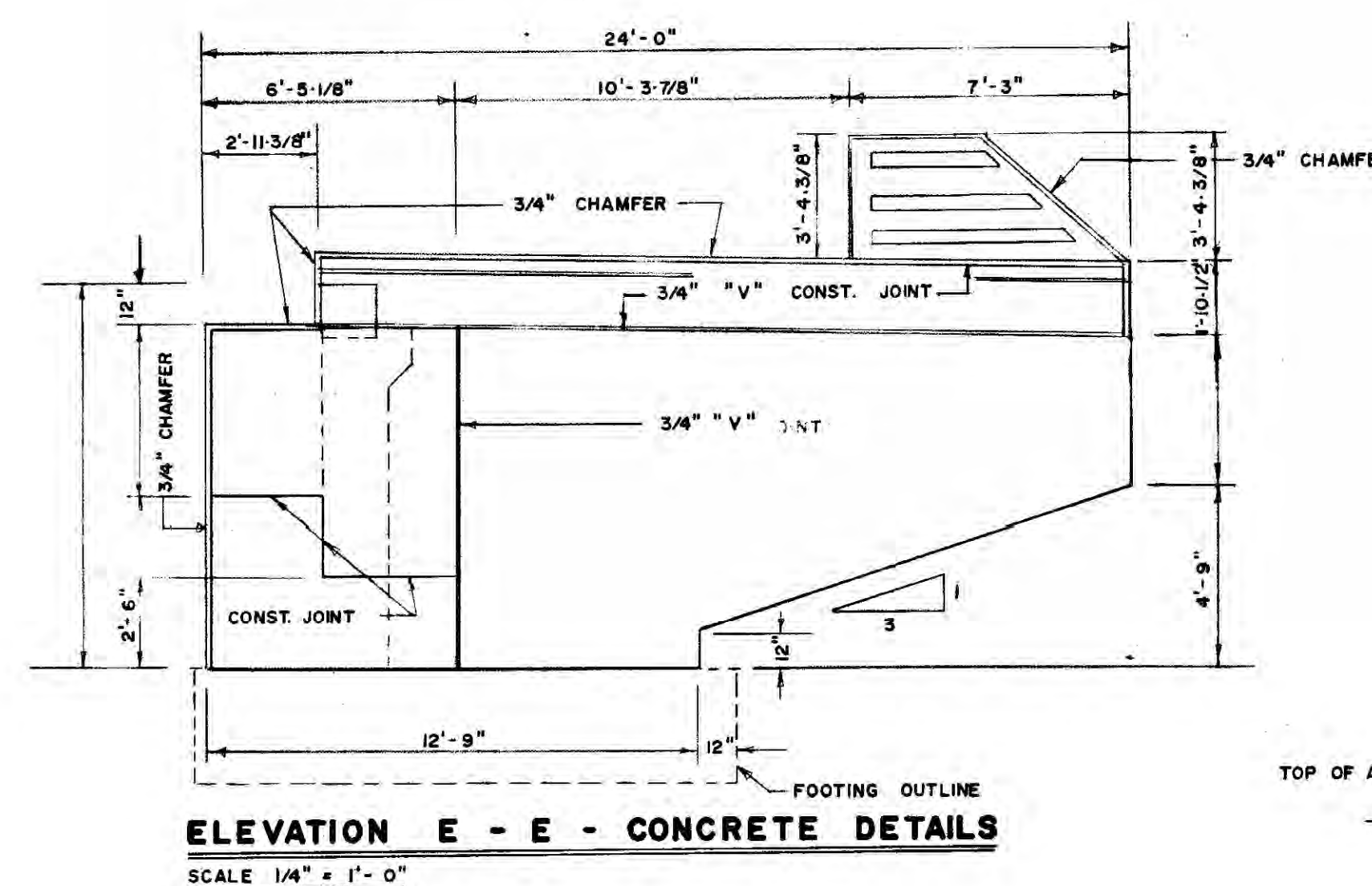
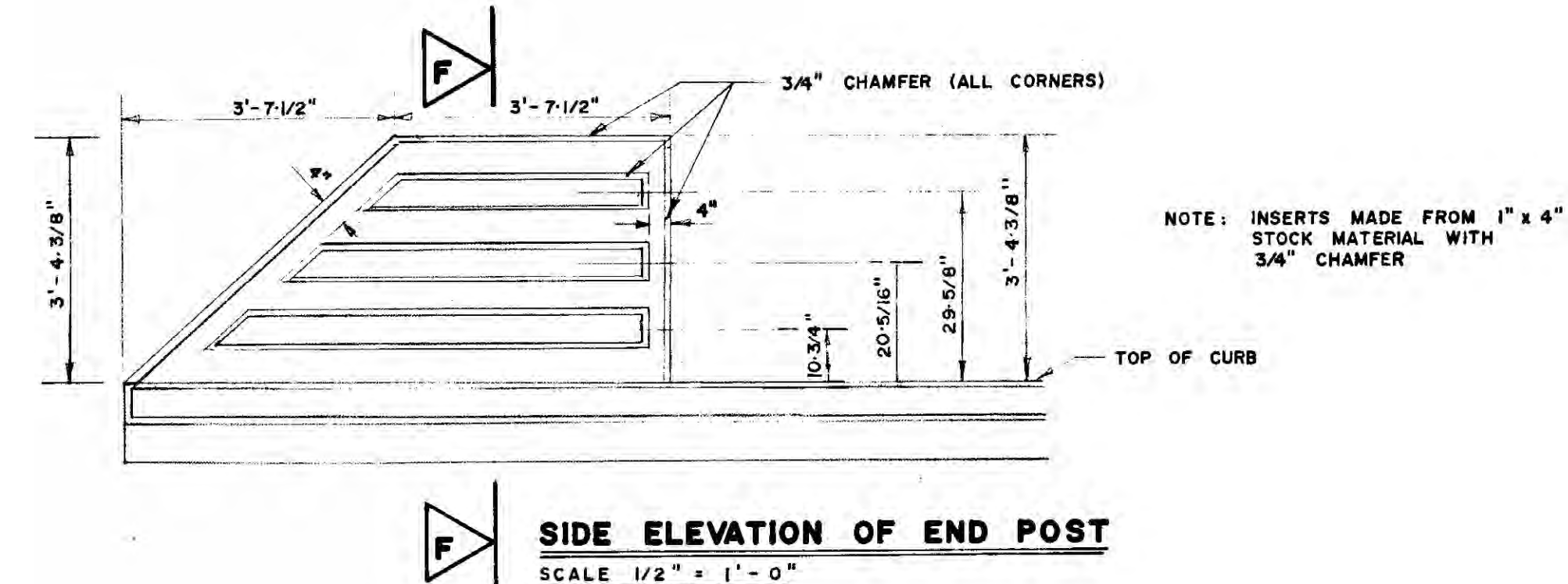
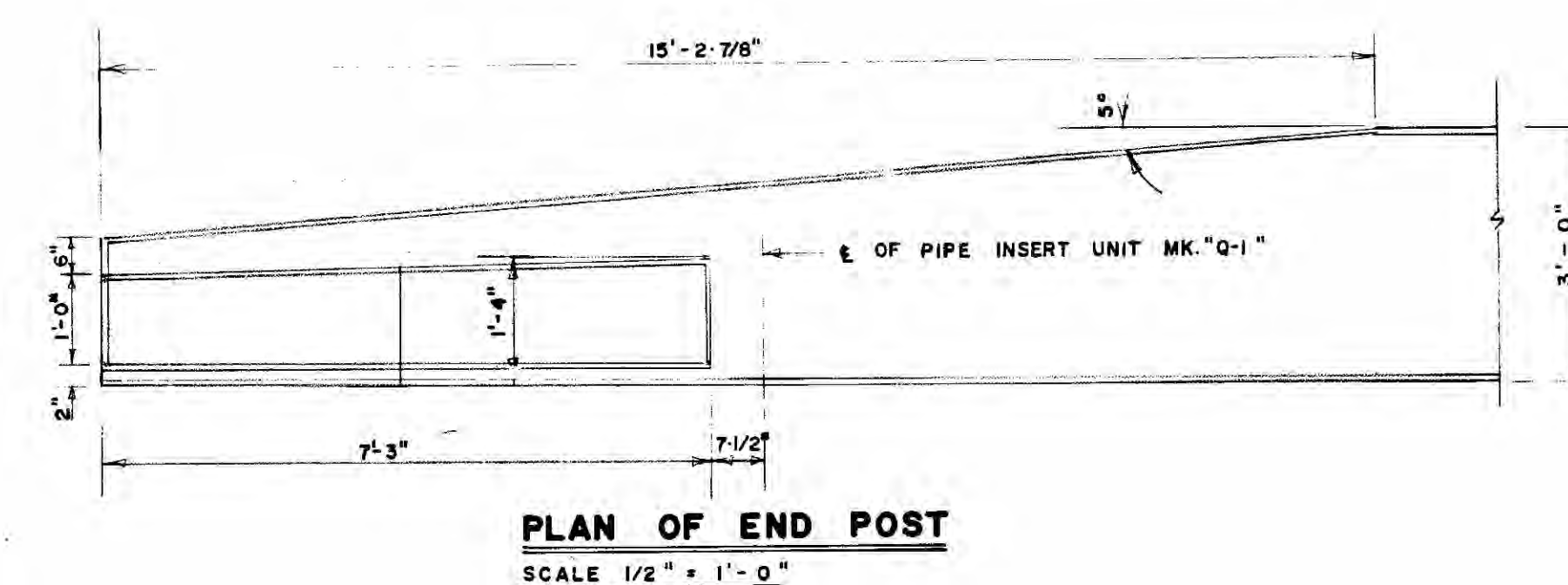
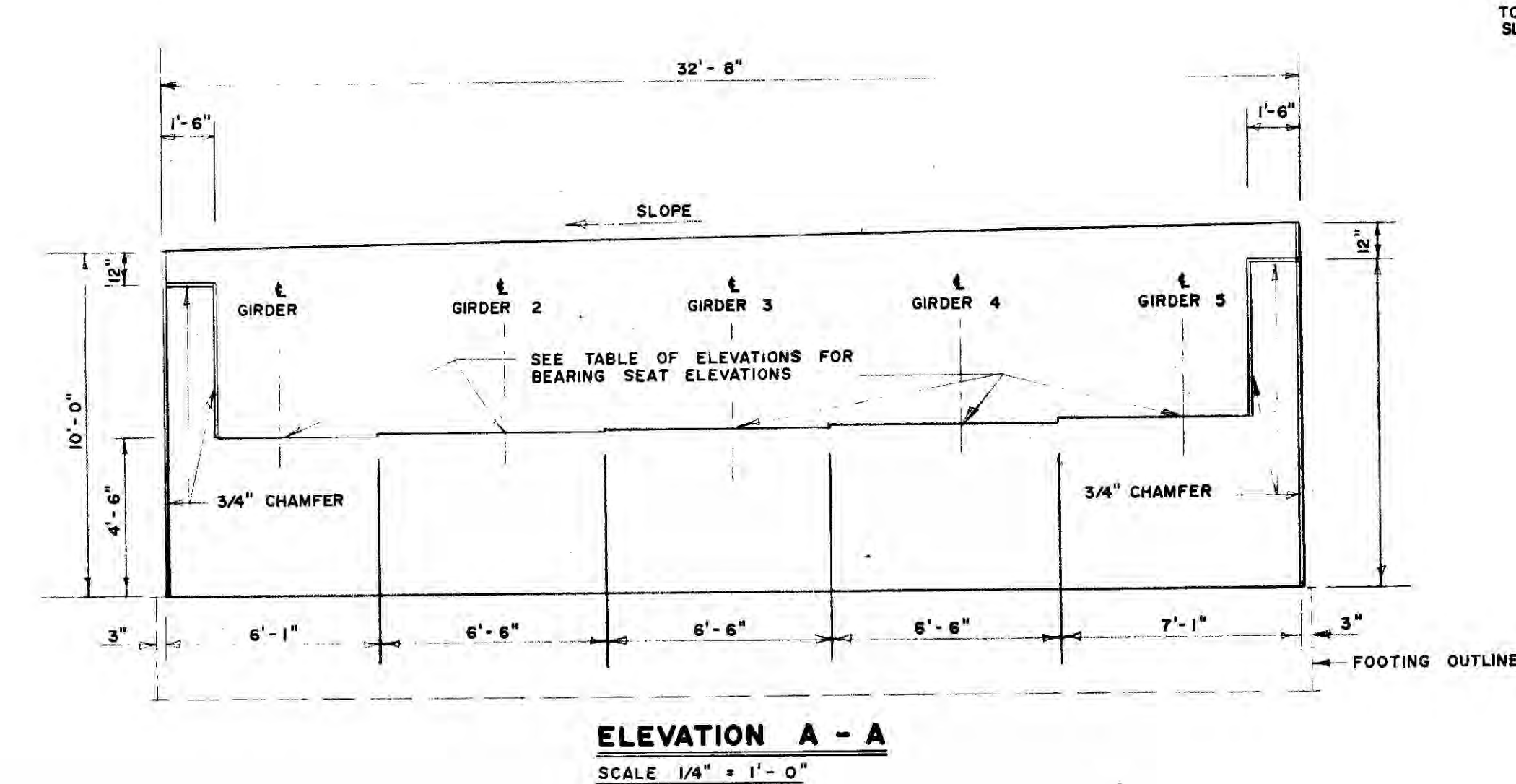
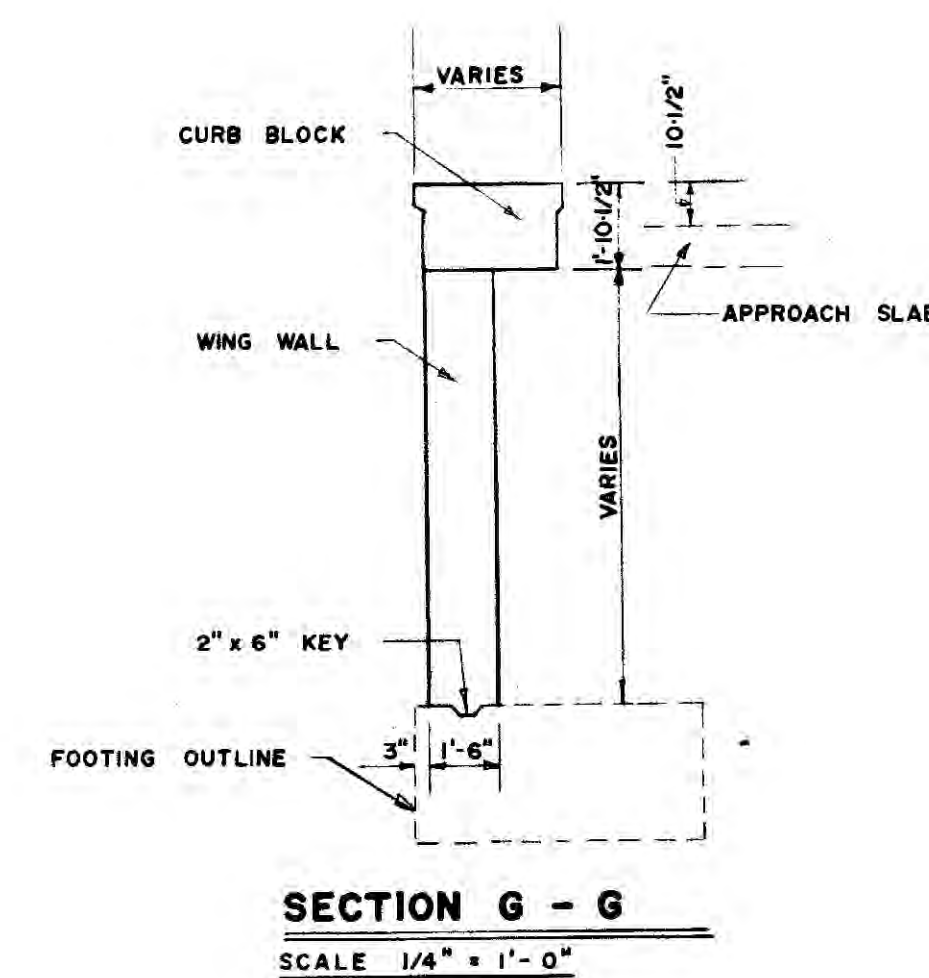
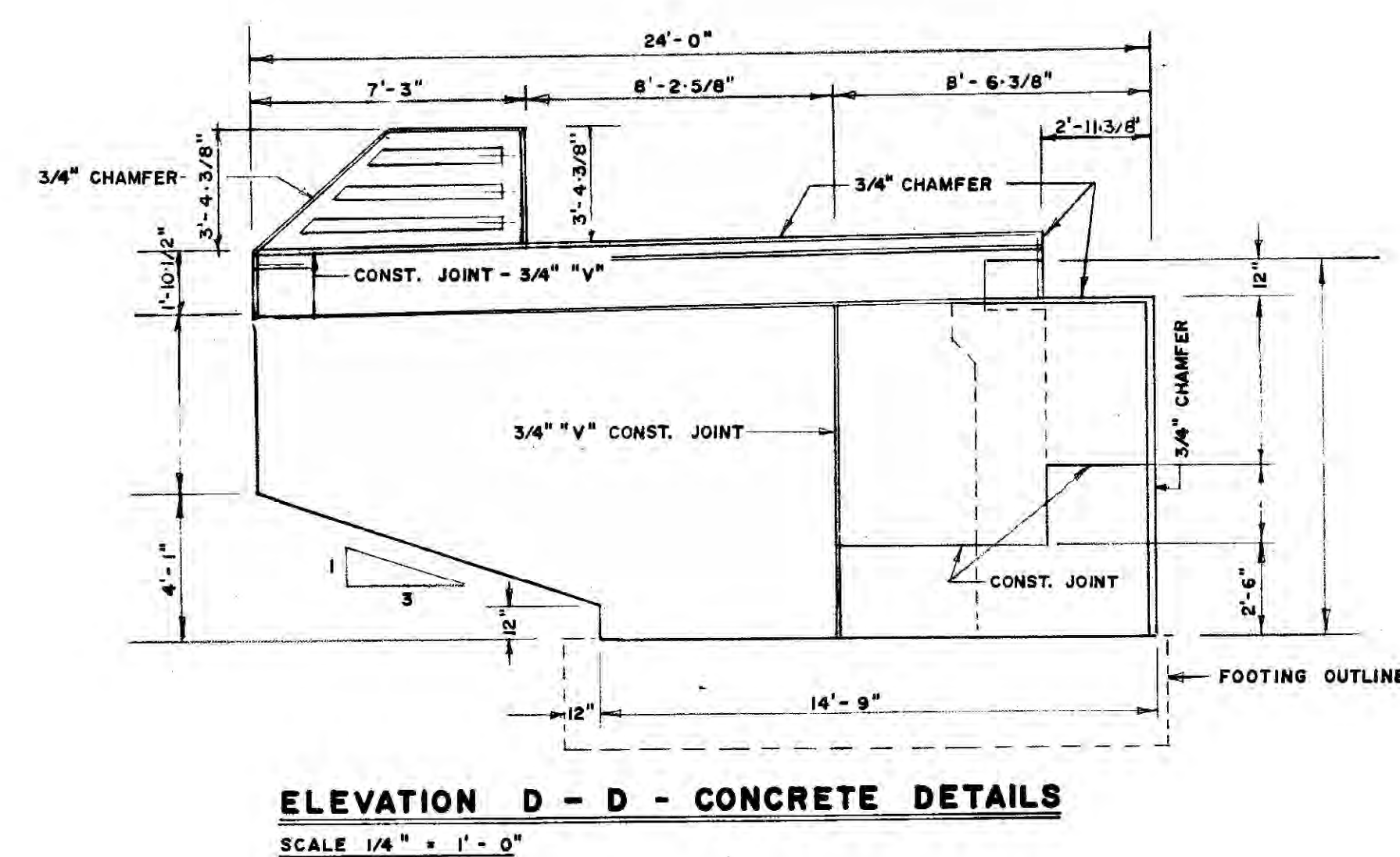
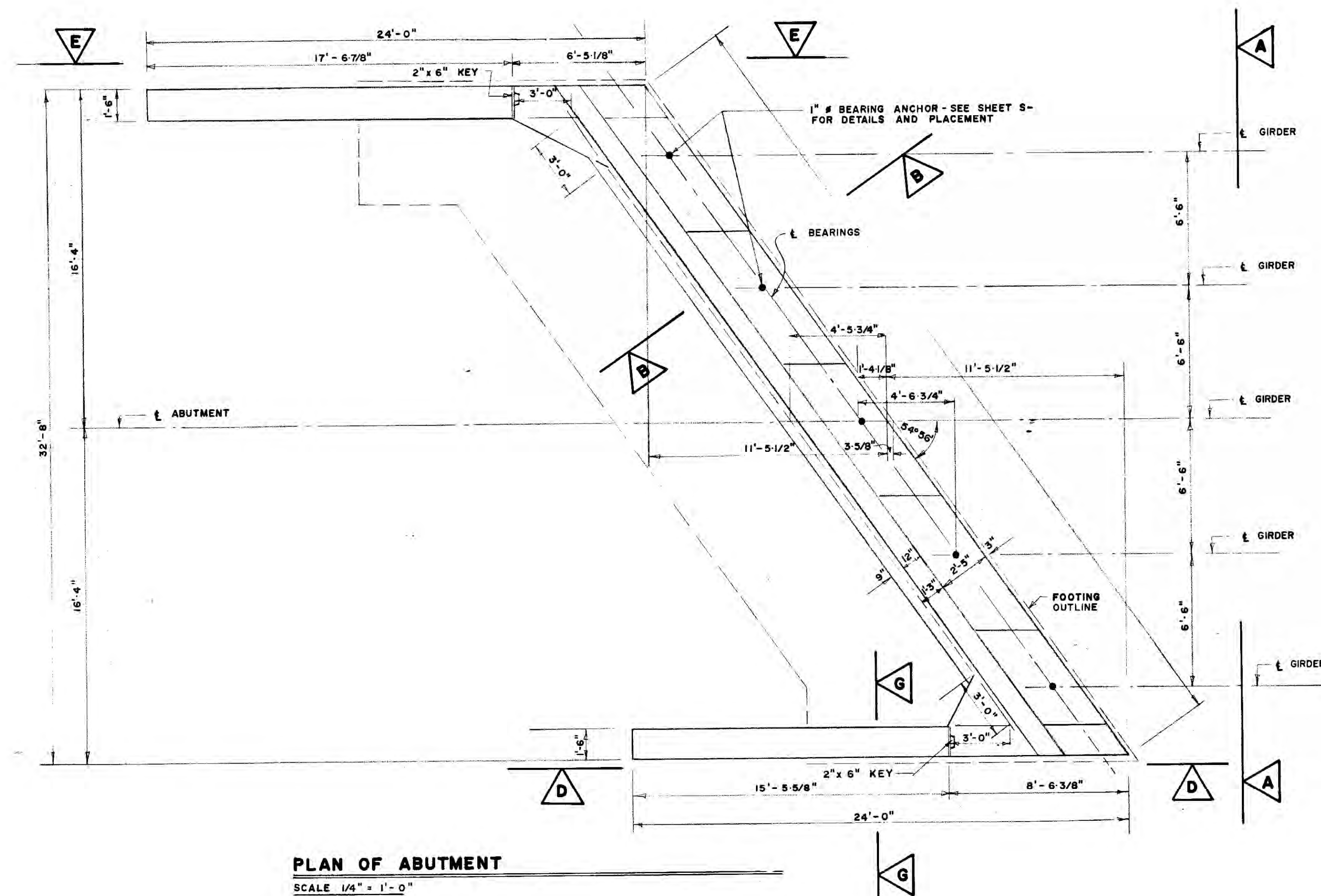
FOOTING AND PILE LAYOUT

C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH

S-4

OF

PRINT RECORD	DATE		SPECIFICATIONS A.A.S.H.Q. SPECS. FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING	PROVINCE OF MANITOBA R. W. MCKNIGHT REGISTERED ENGINEER PROVINCE OF MANITOBA L. A. BUHR REGISTERED ENGINEER	 M.M. DILLON LIMITED LONDON - TORONTO - OTTAWA - WINNIPEG - SUDABURY - WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	<table><tr><td>NO.</td><td>REVISIONS</td><td>DATE</td><td>BY</td></tr><tr><td></td><td></td><td></td><td></td></tr></table>	NO.	REVISIONS	DATE	BY					DESIGN <i>Jab</i> DRAWN B. T. CHECKED <i>Jab</i> APPROVED <i>Rum</i> DATE MAY, 1987 SCALE AS SHOWN	FOOTING AND PILE LAYOUT C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH	PROJECT NO. SHEET NO. S-4 OF
	NO.	REVISIONS						DATE	BY									
FOR																		



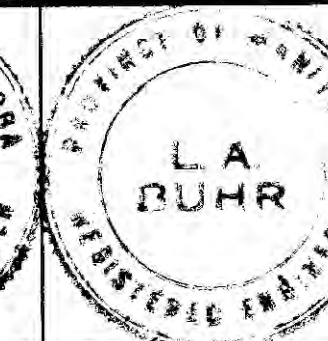
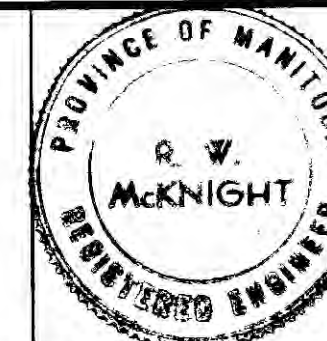
APPROVED BY: CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING

[illegible]

SPECIFICATIONS

A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961)

H20 - S16 - 44 TRUCK LIVE LOADING



M. M. DILLON LIMITED
LONDON • TORONTO • OTTAWA • WINNIPEG • SUDBURY • WINDSOR
CONSULTING ENGINEERS
PROJECT OFFICE: **WINNIPEG**

PROVINCE OF MANITOBA
HIGHWAYS DEPARTMENT
REF. PLAN N° 871
LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA
RAILWAY CHAINAGE - MILE 122.4
KEEWATIN SUBDIVISION

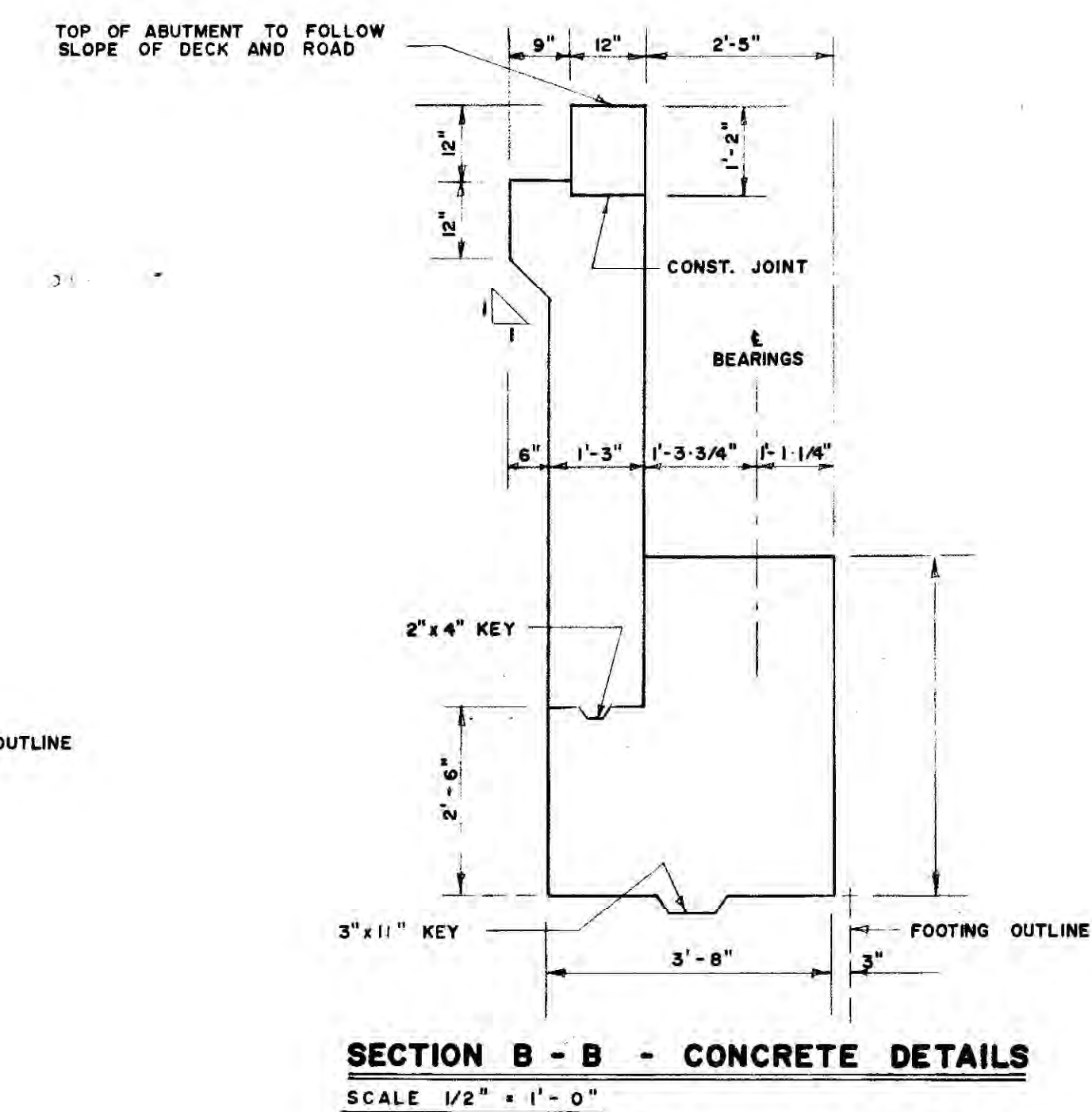
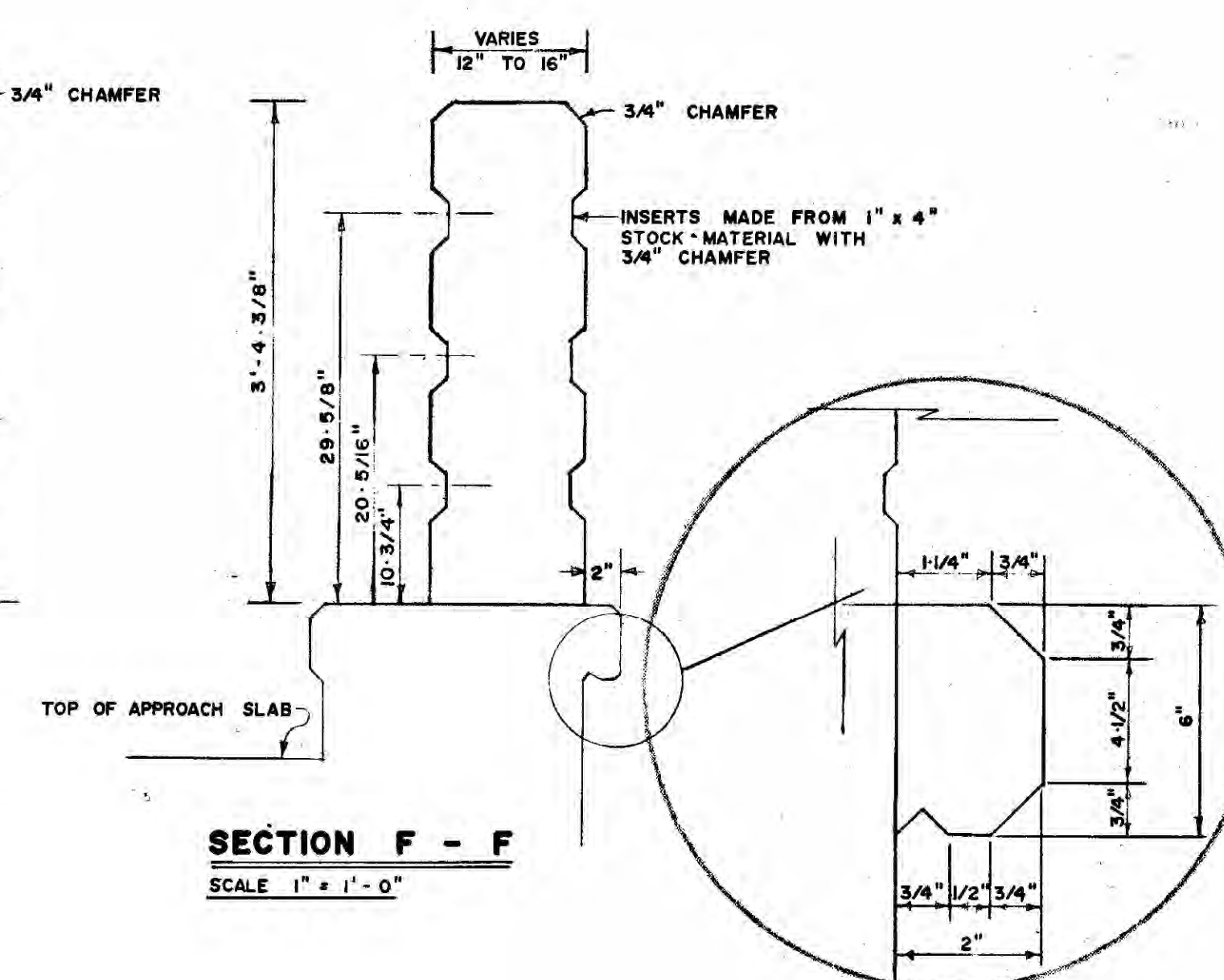
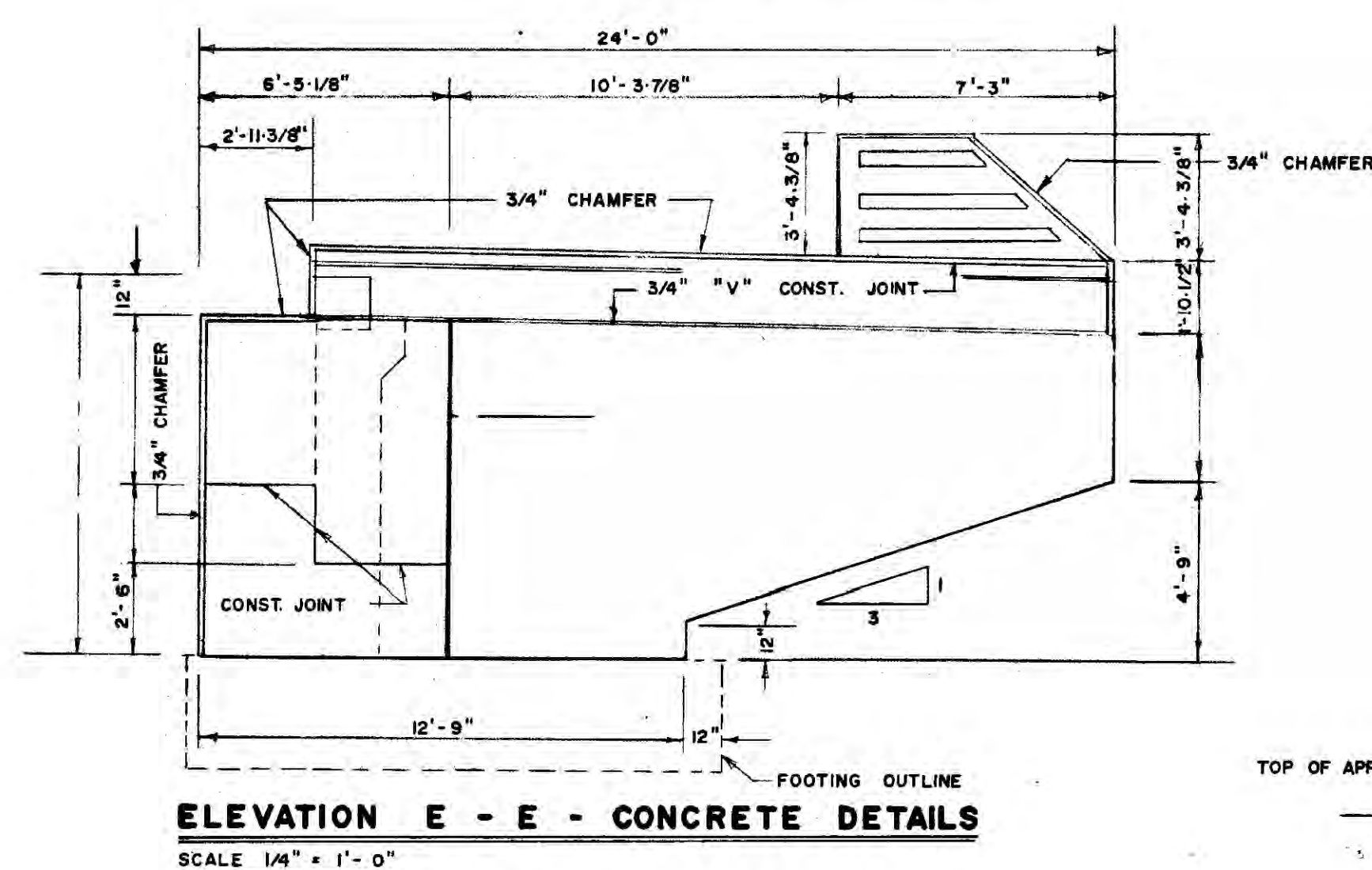
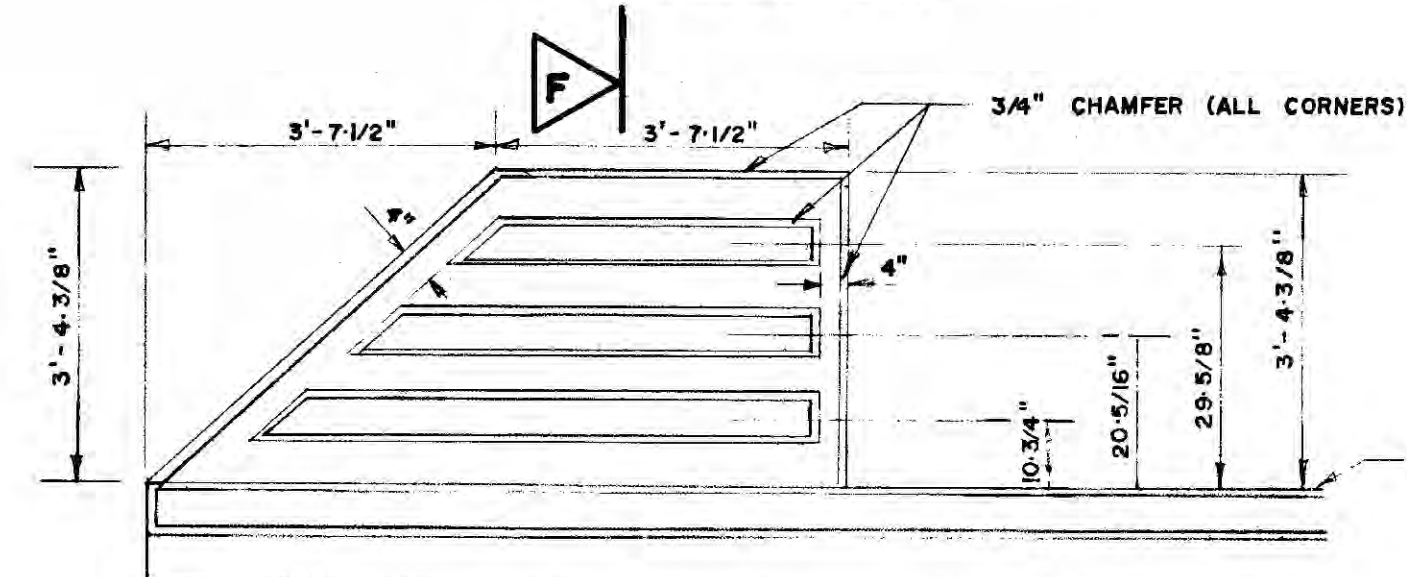
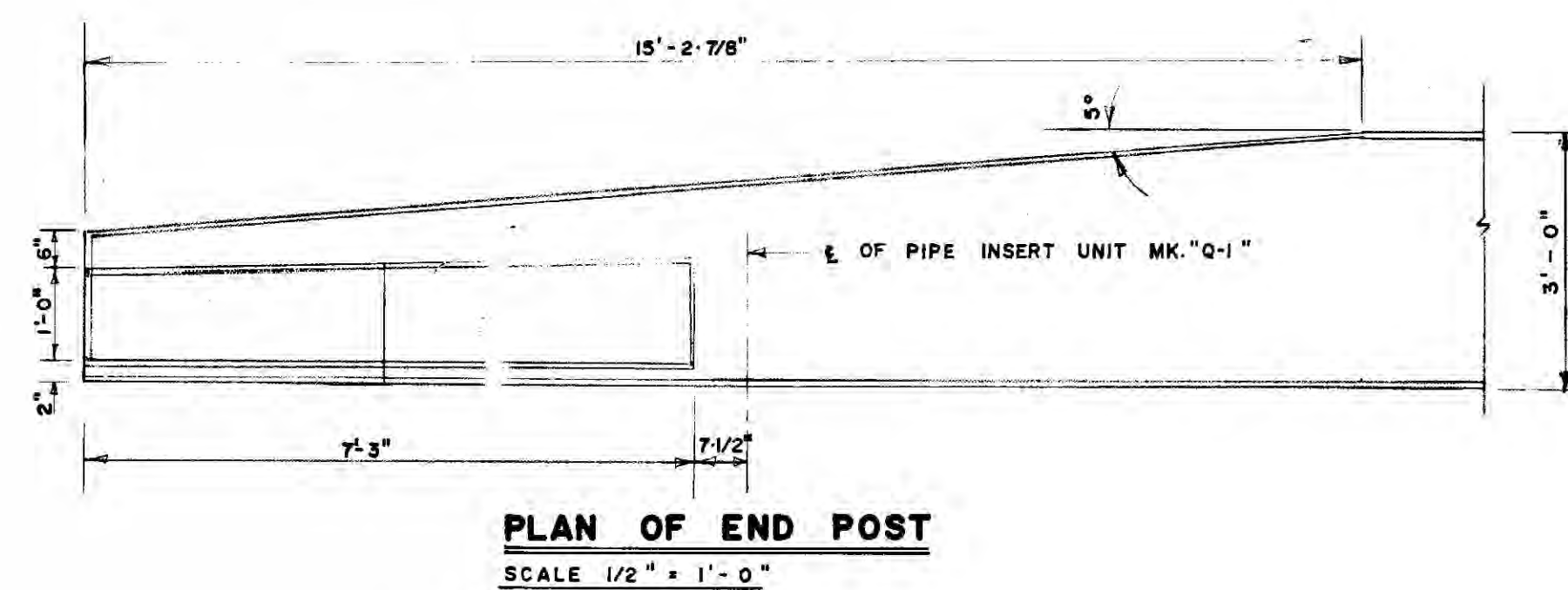
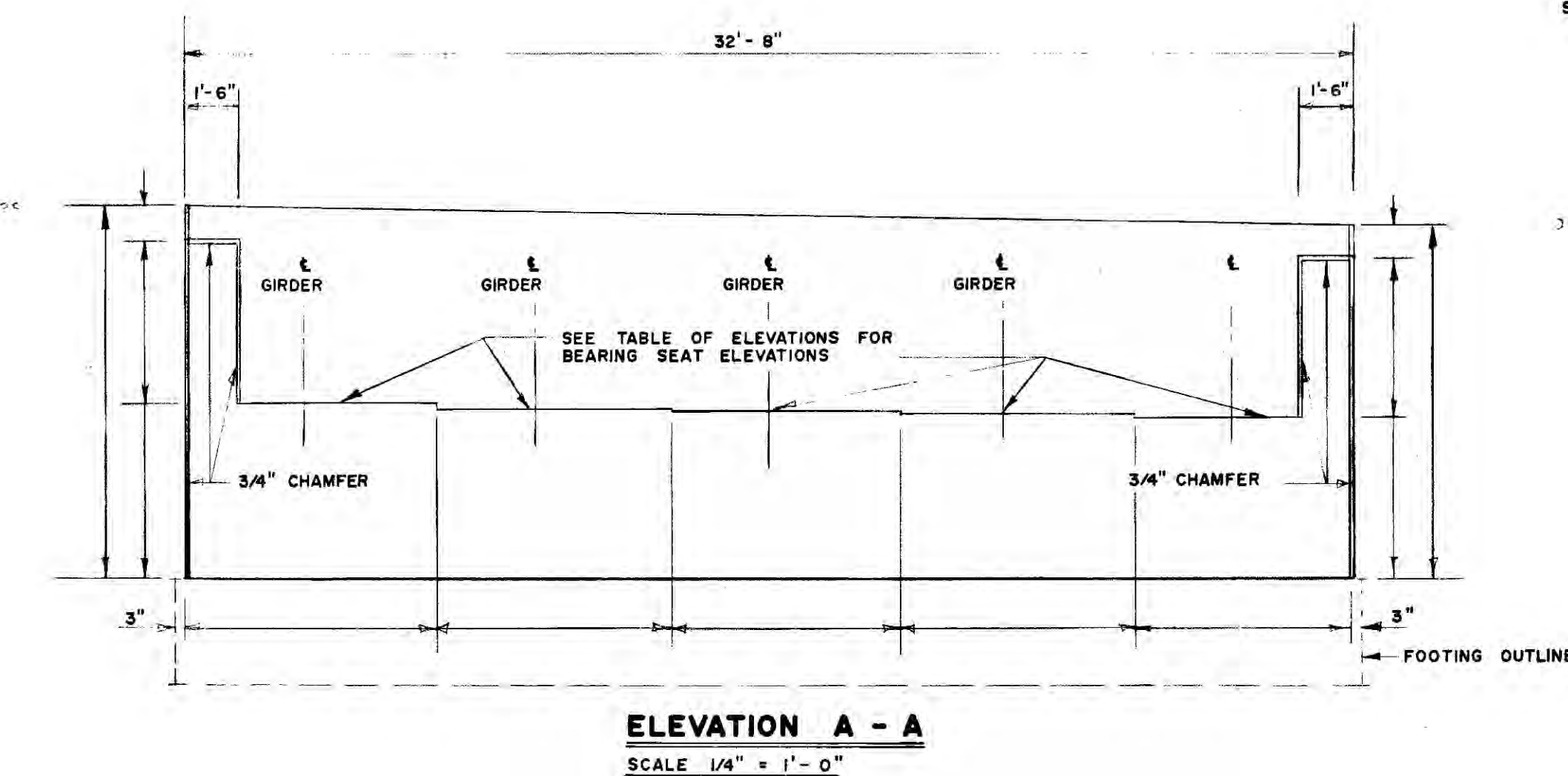
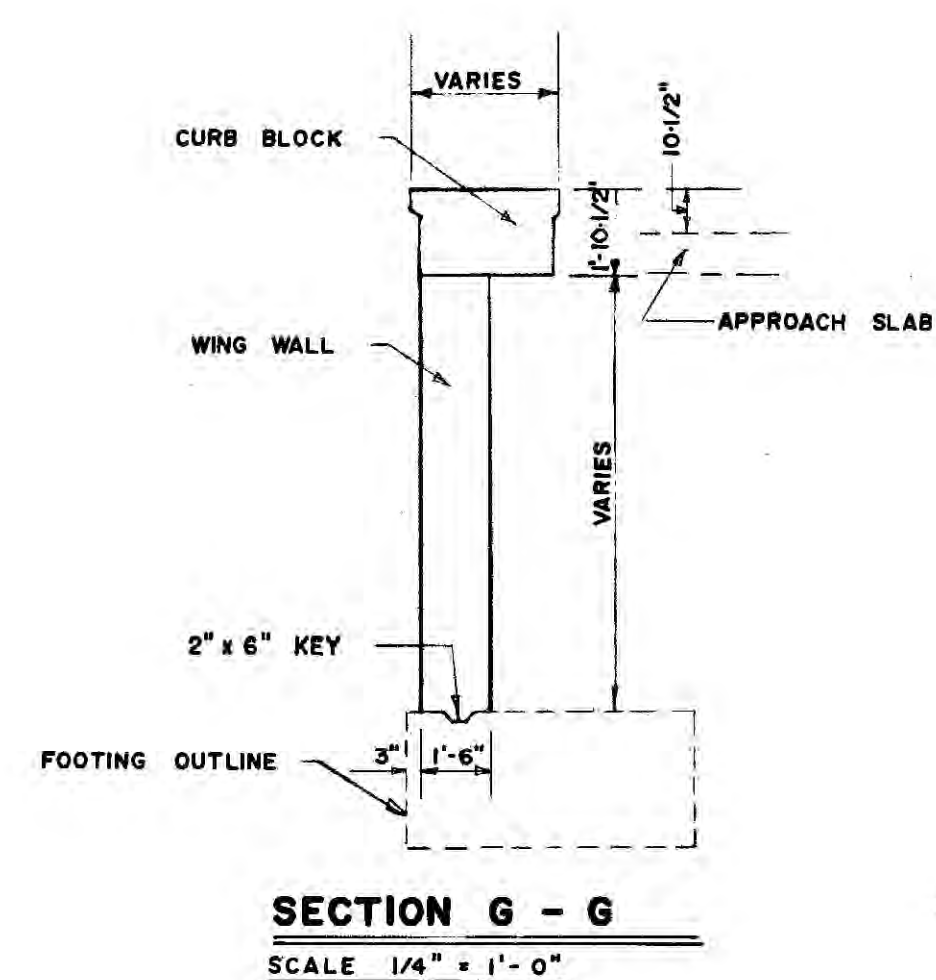
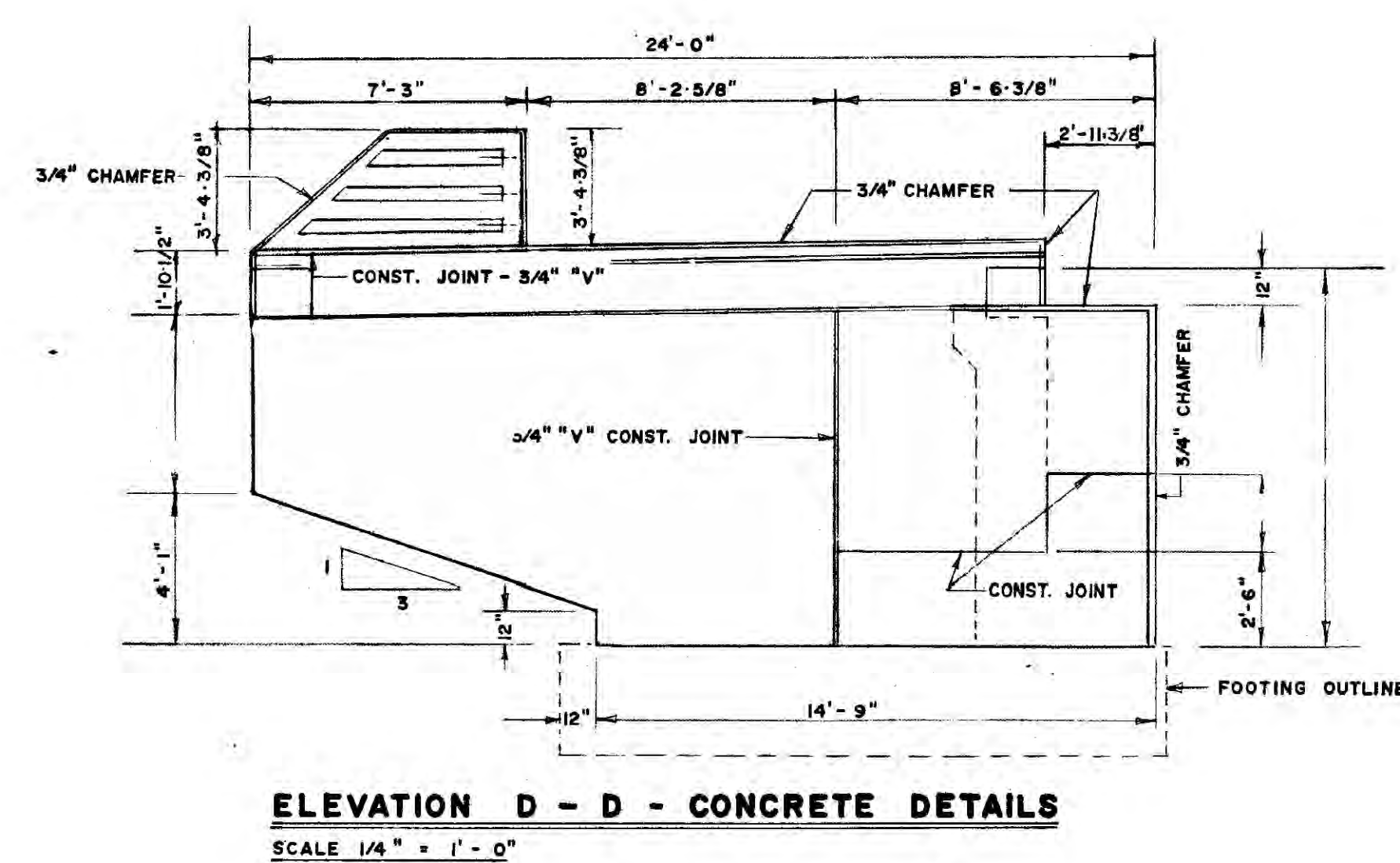
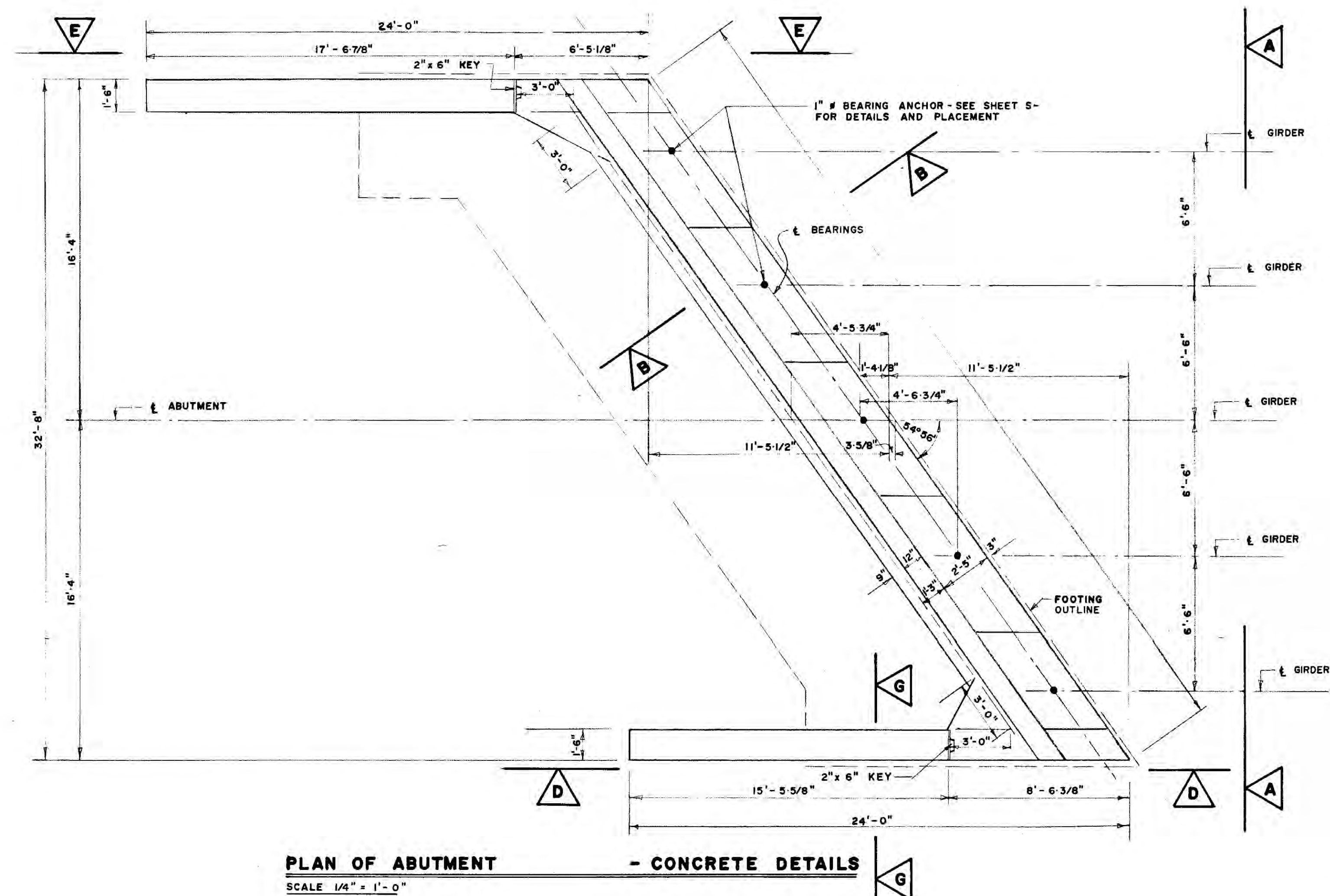
			DESIGN	
			DRAWN B. T.	
			CHECKED	
			APPROVED	
			DATE MAY 1967	
NO.	REVISIONS	DATE	BY	SCALE AS SHOWN

C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH

PROJECT NO. _____

SHEET NO. _____

0



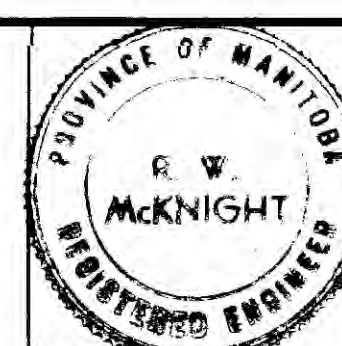
APPROVED BY, _____

CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING

[illegible]

SPECIFICATIONS

A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961)
H20 - S16 - 44 TRUCK LIVE LOADING



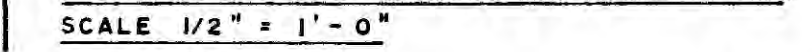
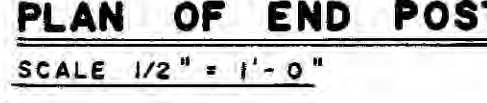
M. M. DILLON LIMITED
LONDON • TORONTO • OTTAWA • WINNIPEG • SUDBURY • WINDSOR
CONSULTING ENGINEERS
PROJECT OFFICE: **WINNIPEG**

PROVINCE OF MANITOBA
HIGHWAYS DEPARTMENT
REF. PLAN N° 871
LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA
RAILWAY CHAINAGE - MILE 122.4
KEEWATIN SUBDIVISION

						DESIGN
						DRAWN B. T.
						CHECKED
						APPROVED
						DATE MAY 1967
NO.		REVISIONS		DATE	BY	SCALE

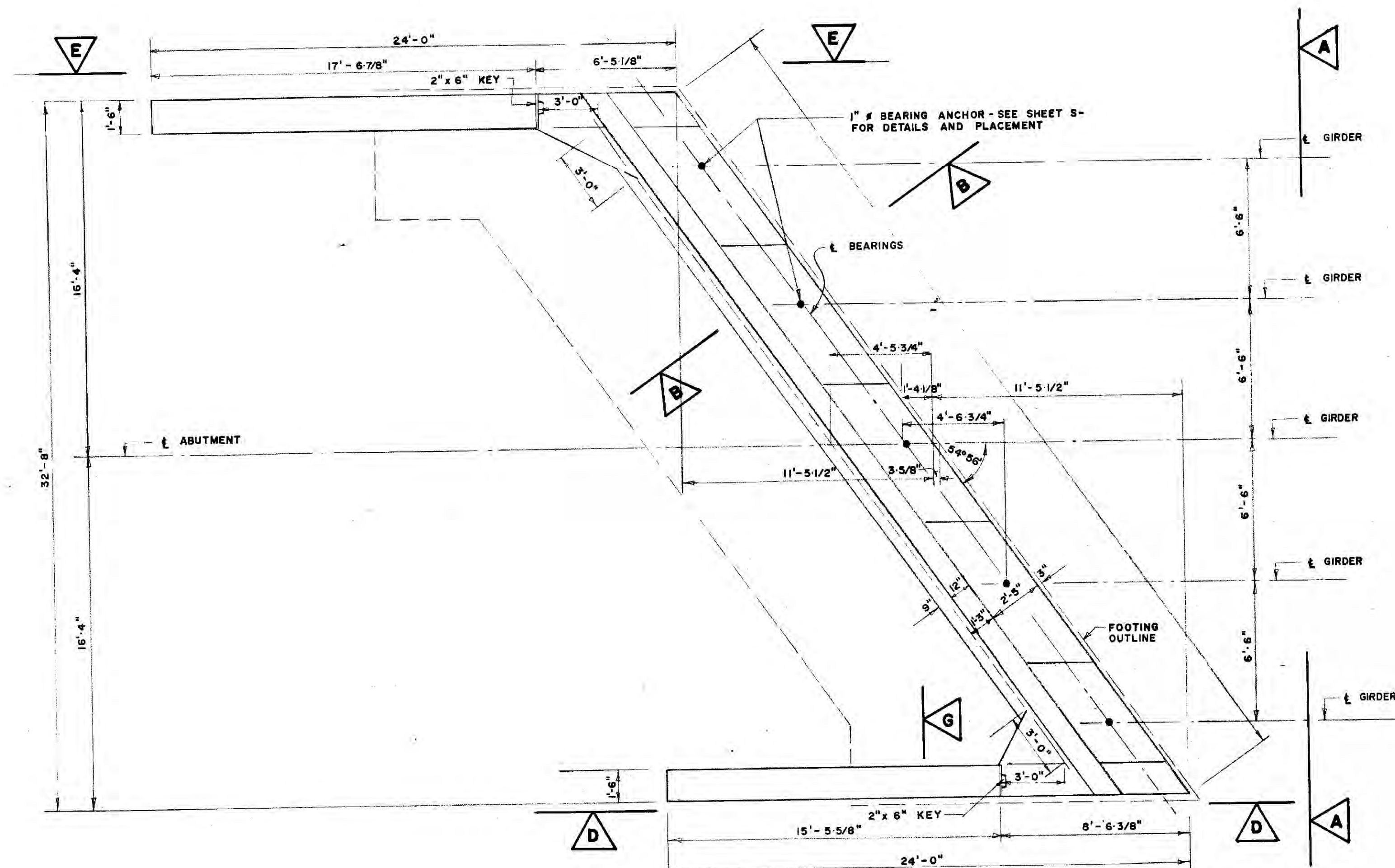
C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH

PROJECT NO.	
SHEET NO.	
OF	

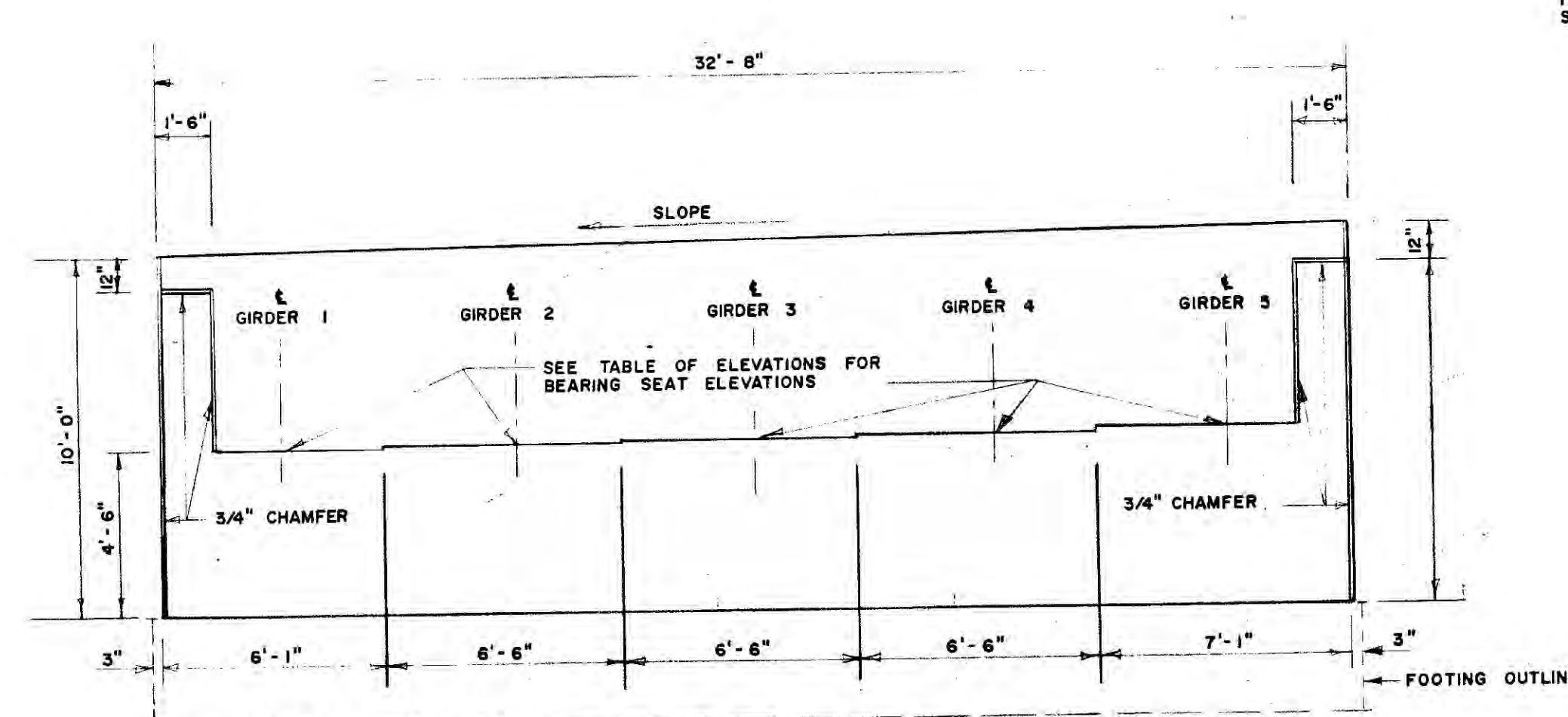


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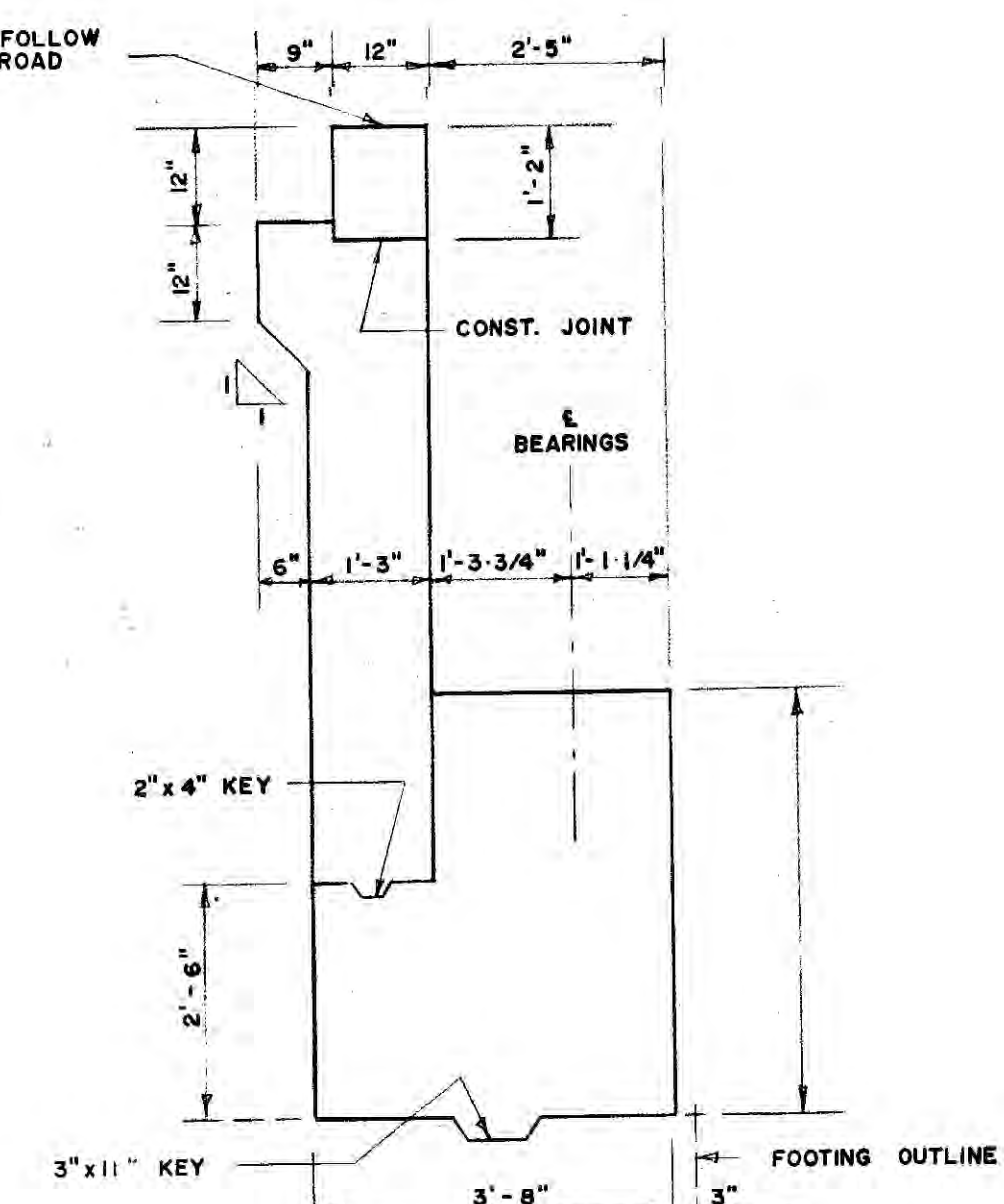
PRINT RECORD	DATE		SPECIFICATIONS A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING	 	 M. M. DILLON LIMITED LONDON - TORONTO - OTTAWA - WINNIPEG - SUDBURY - WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	DESIGN		PROJECT NO.	
	FOR						DRAWN	B. T.		SHEET NO.
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	DATE						DATE	MAY 1967		
	NO.						SCALE	AS SHOWN		
							REVISIONS			
		DATE	BY							



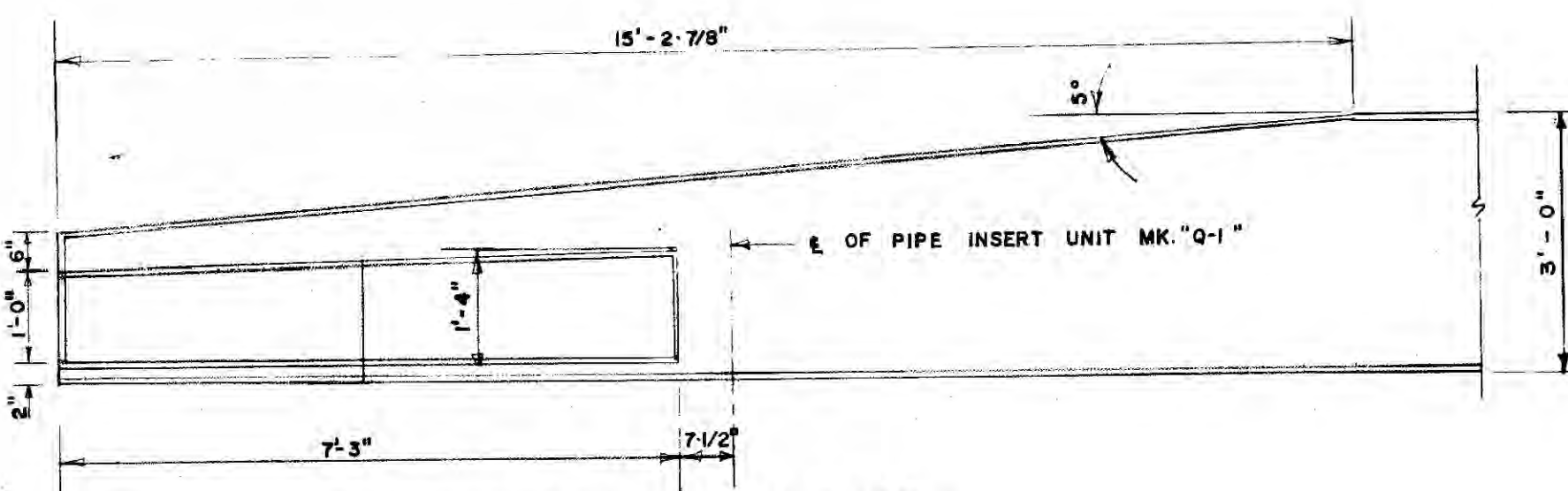
PLAN OF ABUTMENT - CONCRETE DETAILS
SCALE 1/4" = 1'-0"



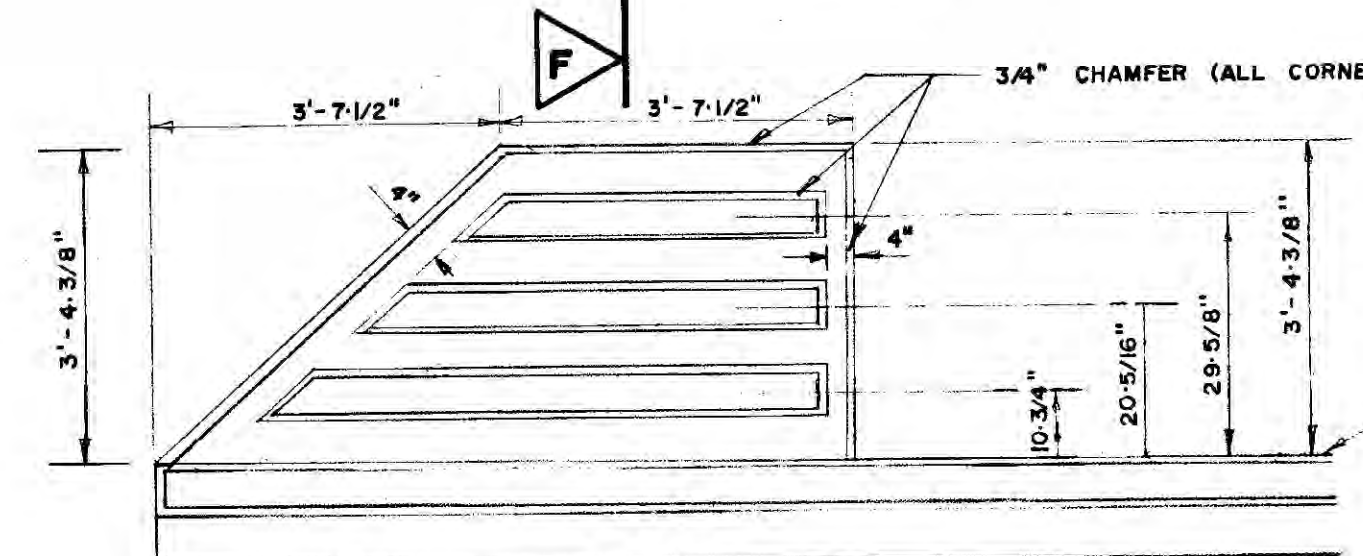
ELEVATION A - A
SCALE 1/4" = 1'-0"



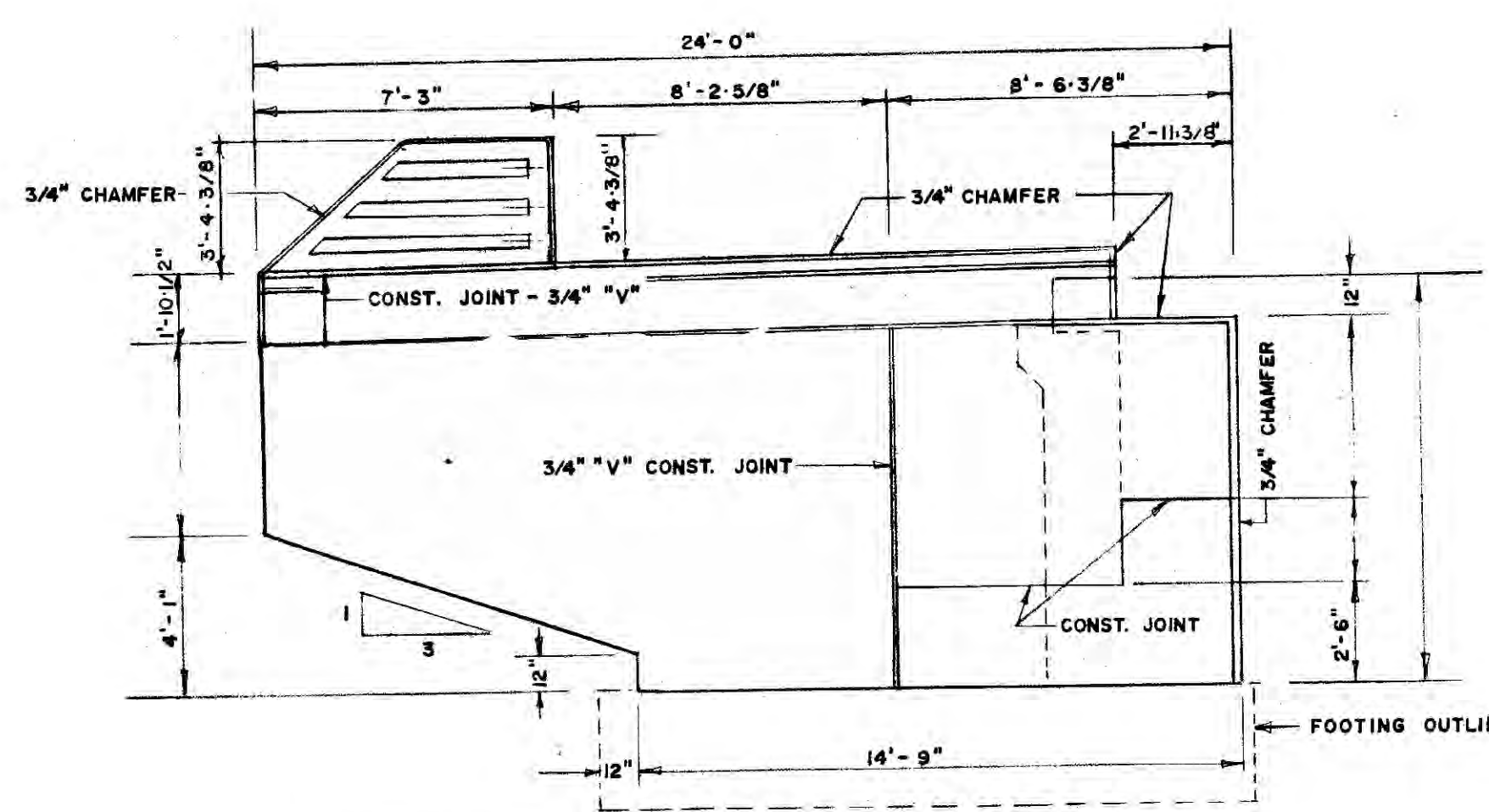
SECTION B - B - CONCRETE DETAILS
SCALE 1/2" = 1'-0"



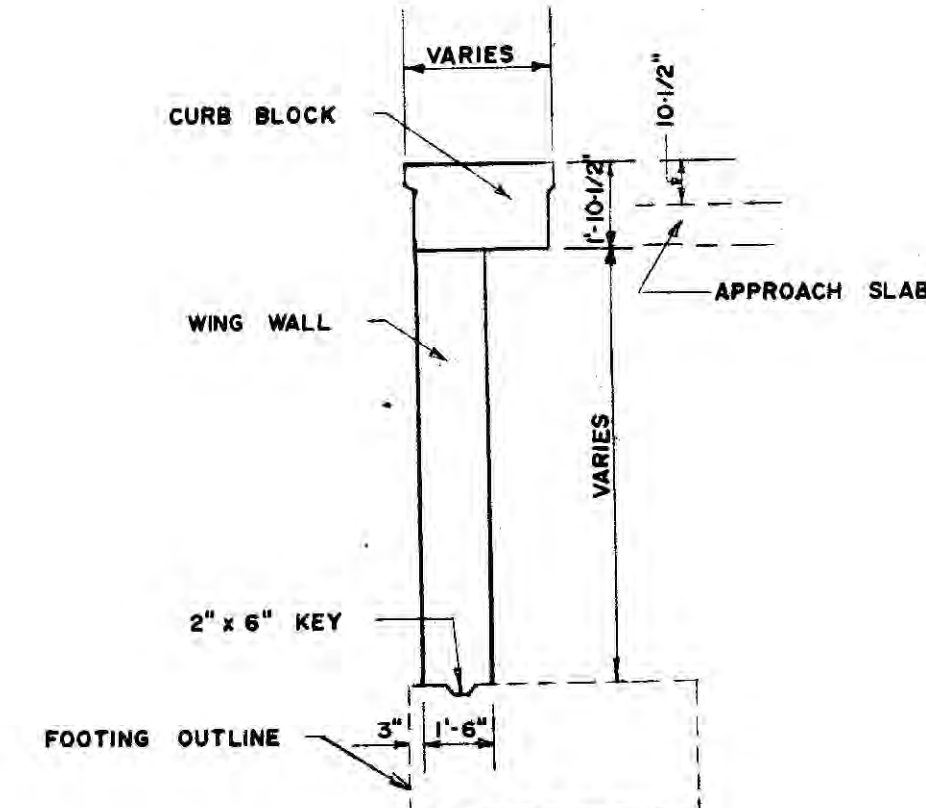
PLAN OF END POST
SCALE 1/2" = 1'-0"



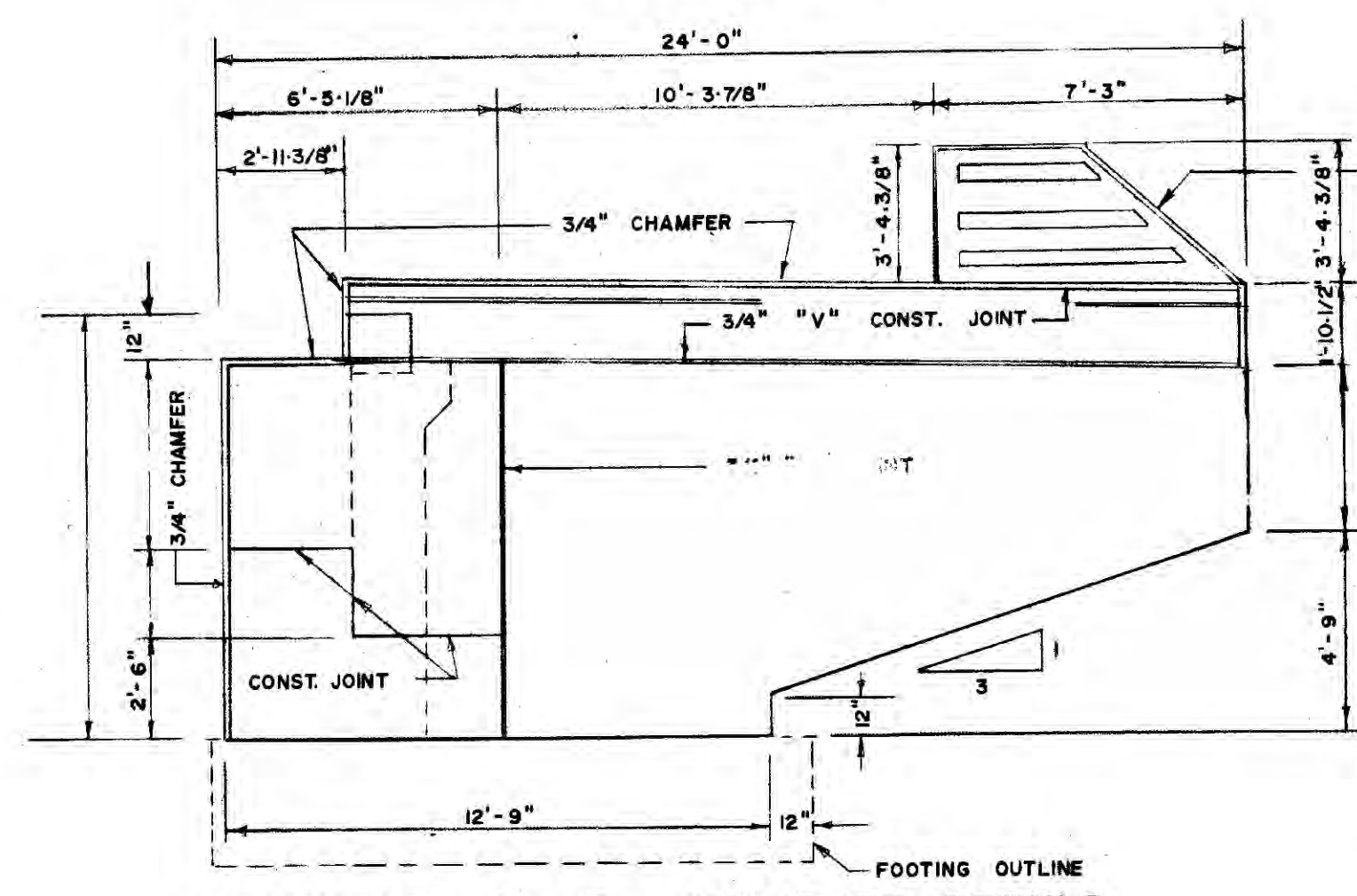
SIDE ELEVATION OF END POST
SCALE 1/2" = 1'-0"



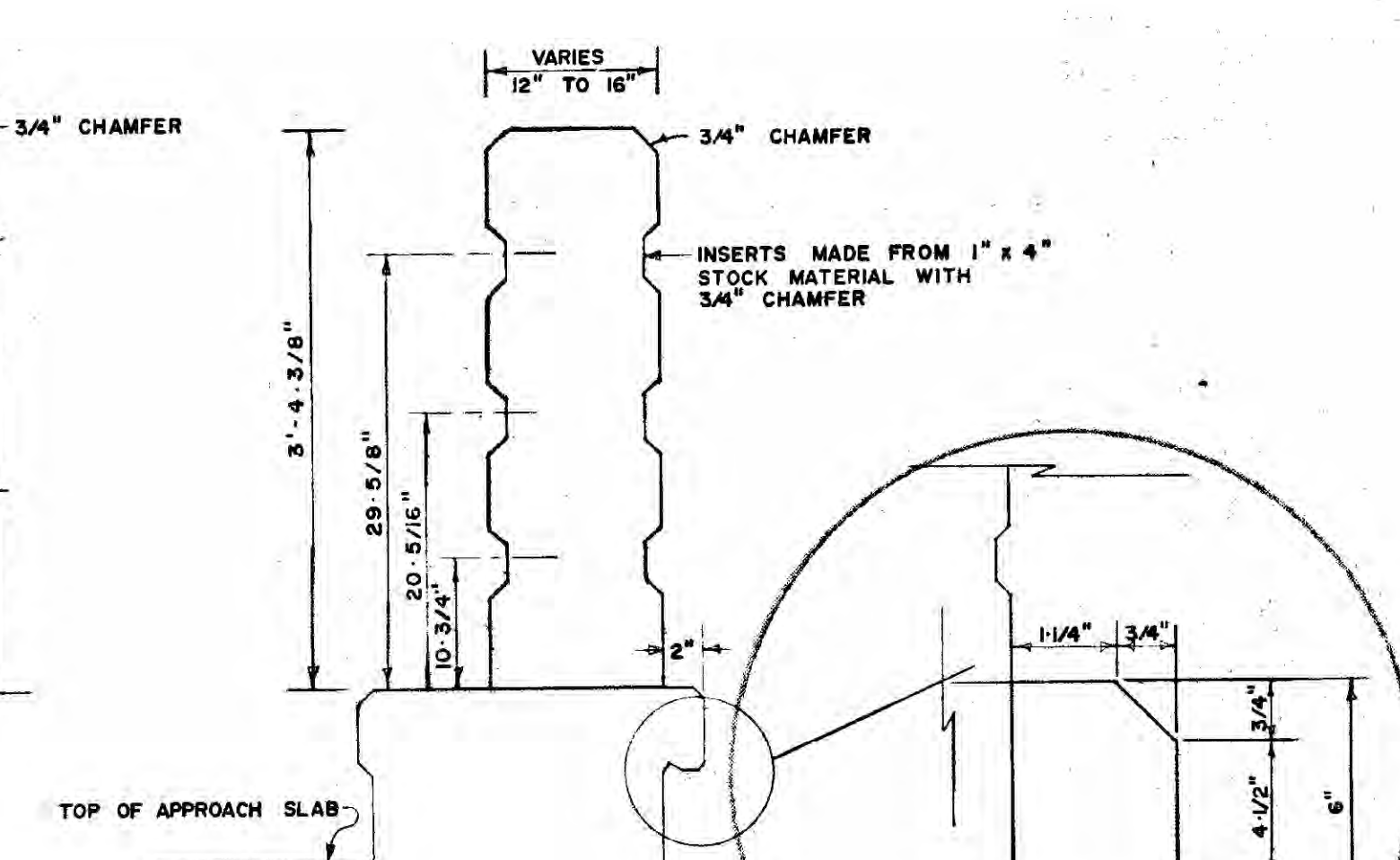
ELEVATION D - D - CONCRETE DETAILS
SCALE 1/4" = 1'-0"



SECTION G - G
SCALE 1/4" = 1'-0"

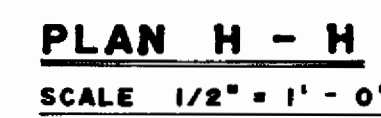
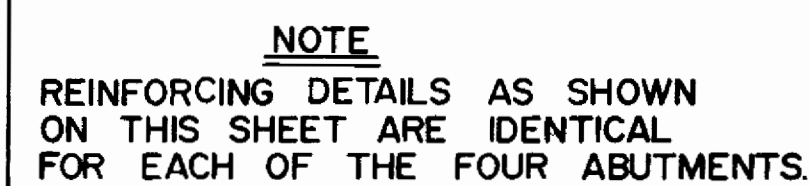
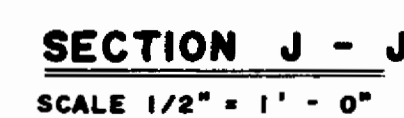
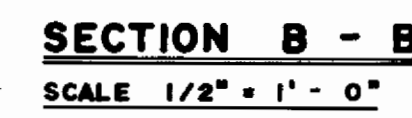
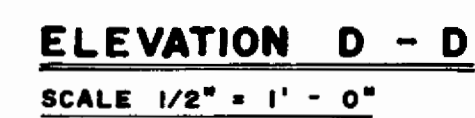
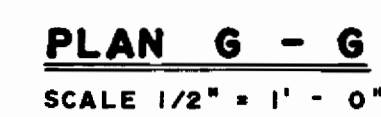
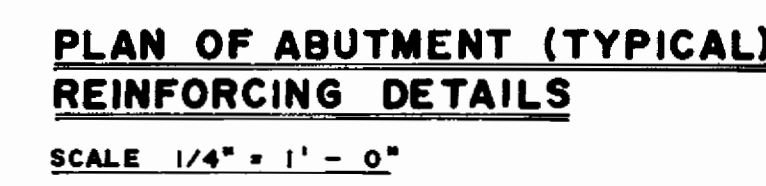


ELEVATION E - E - CONCRETE DETAILS
SCALE 1/4" = 1'-0"



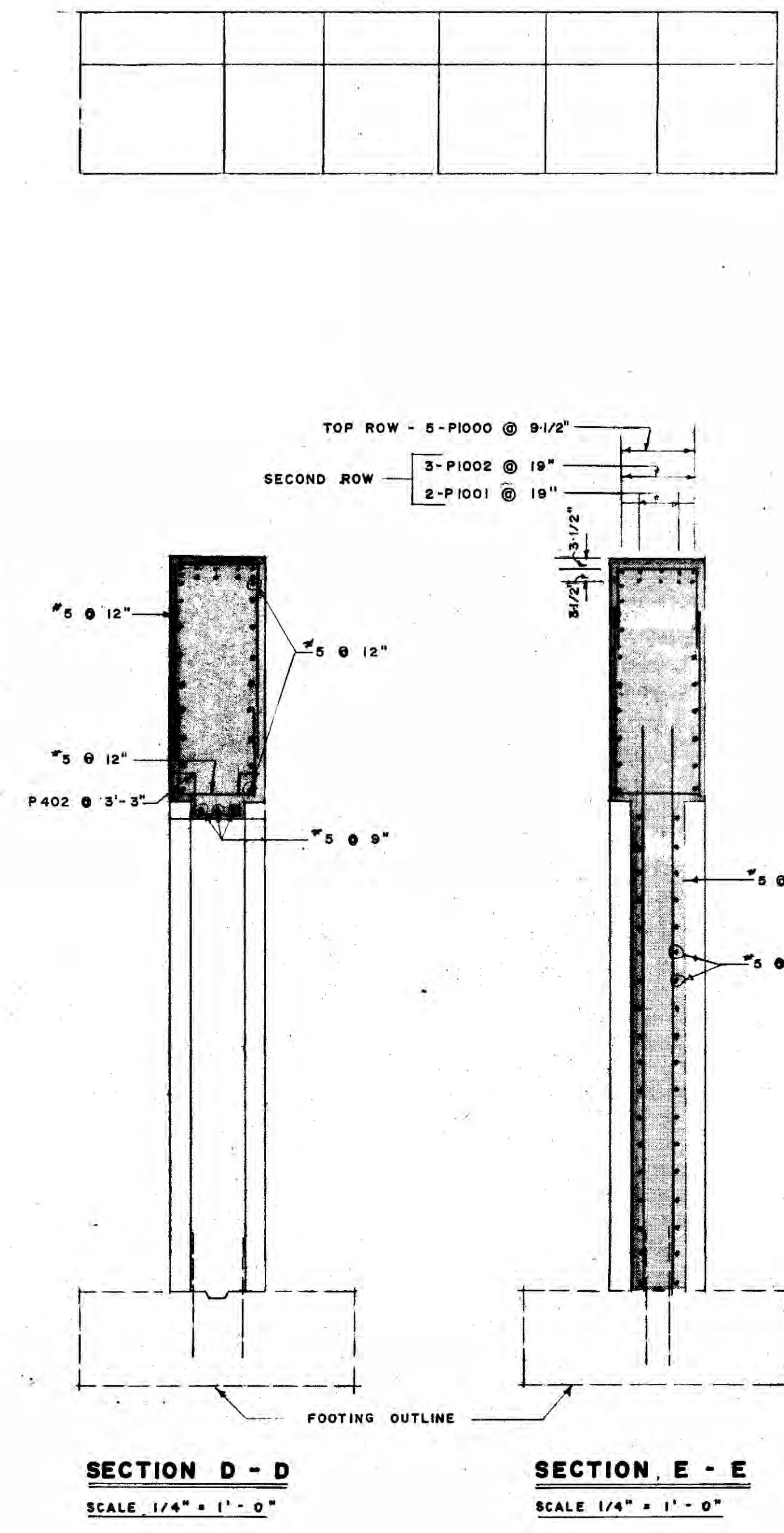
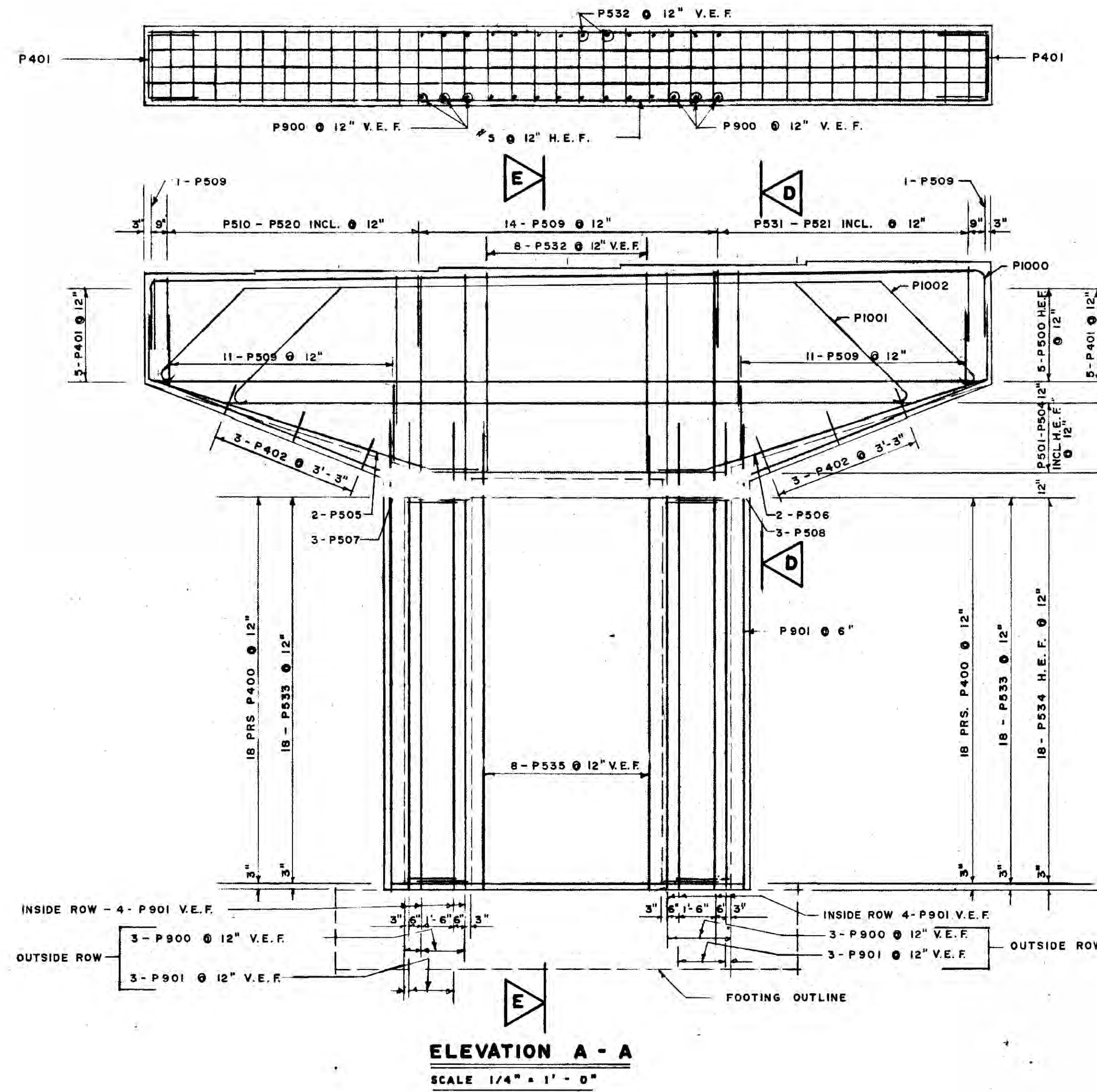
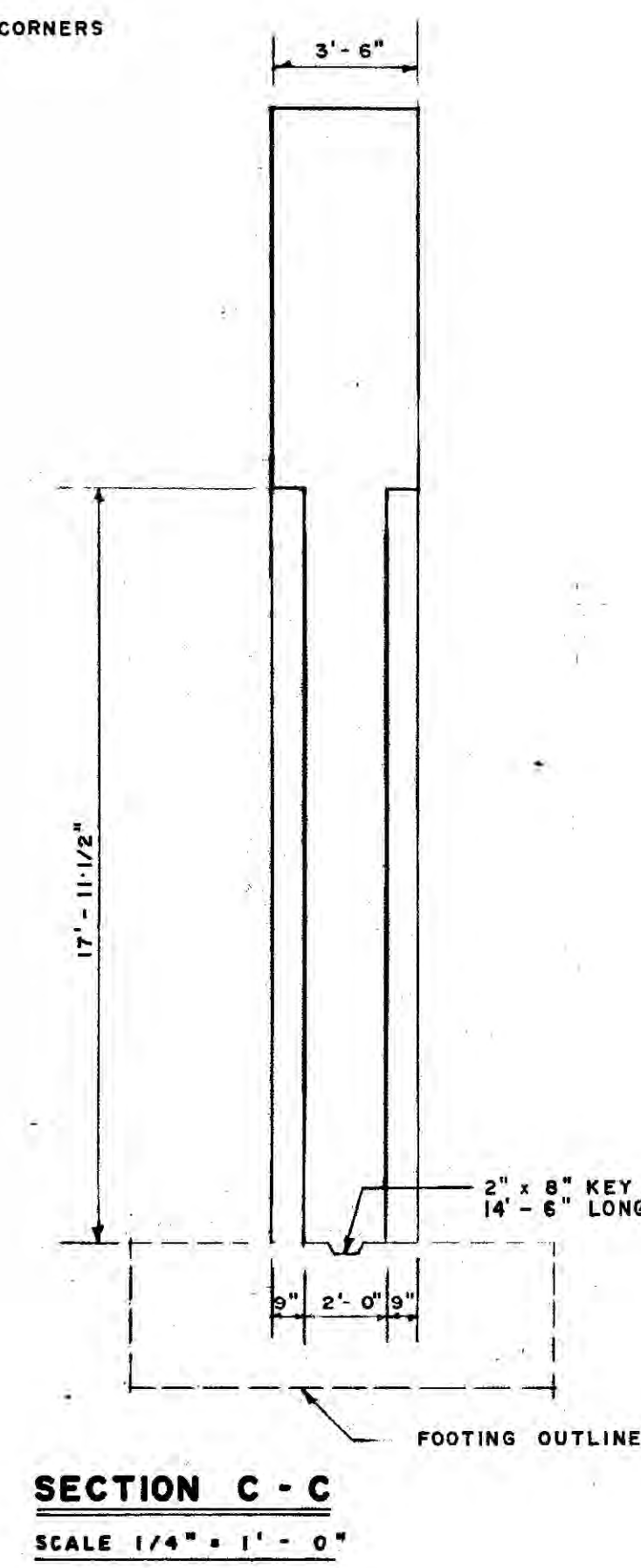
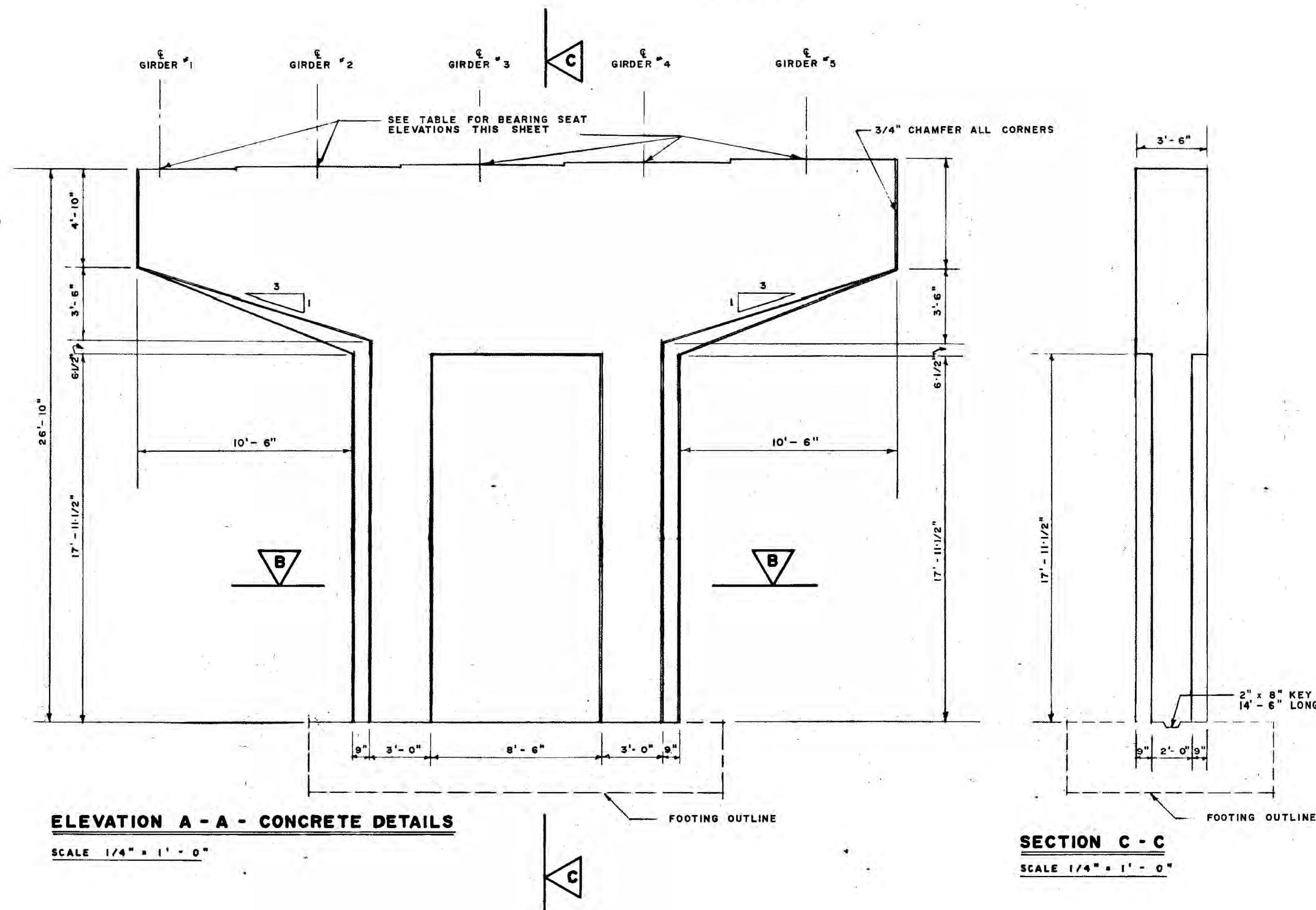
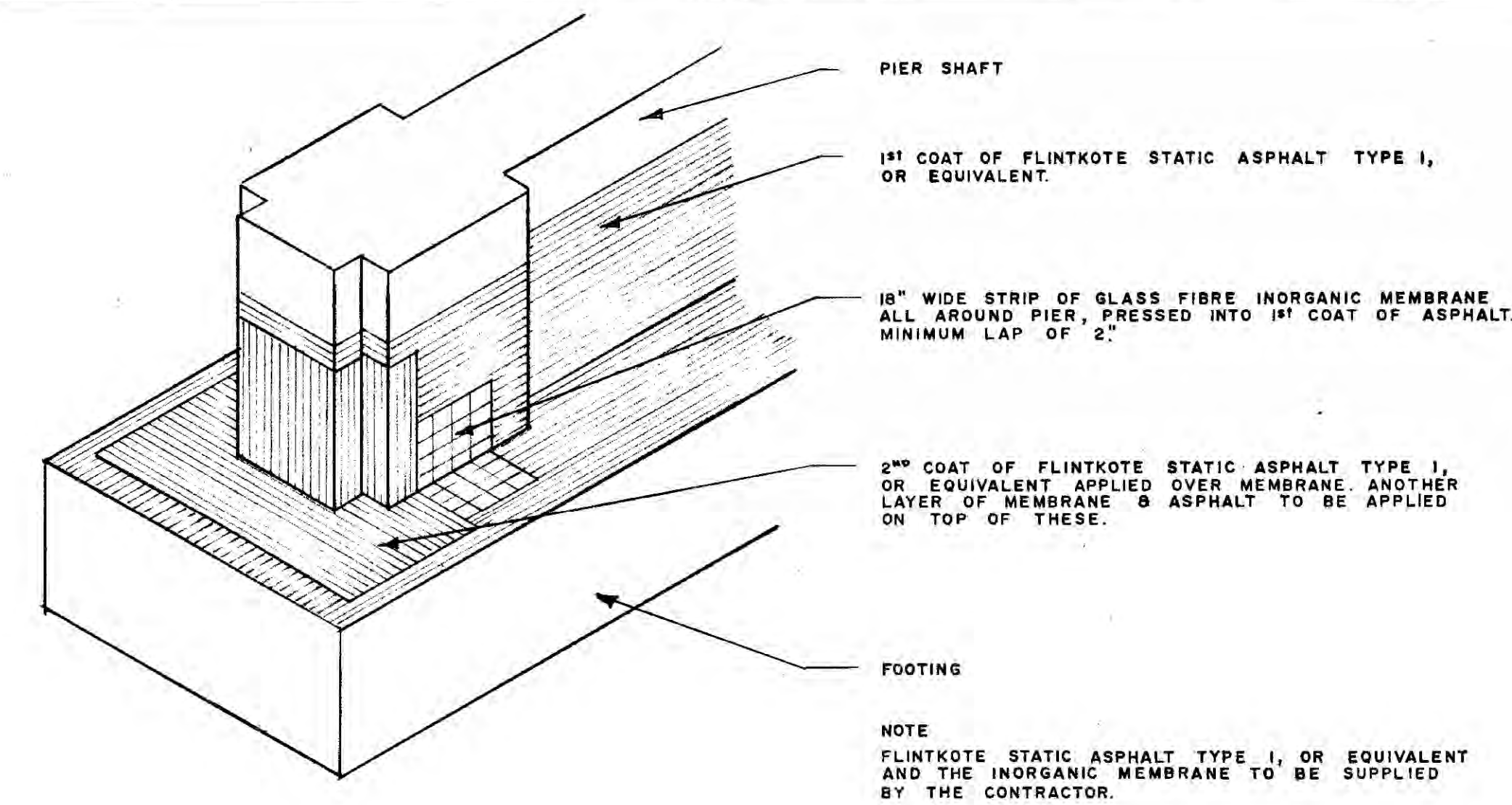
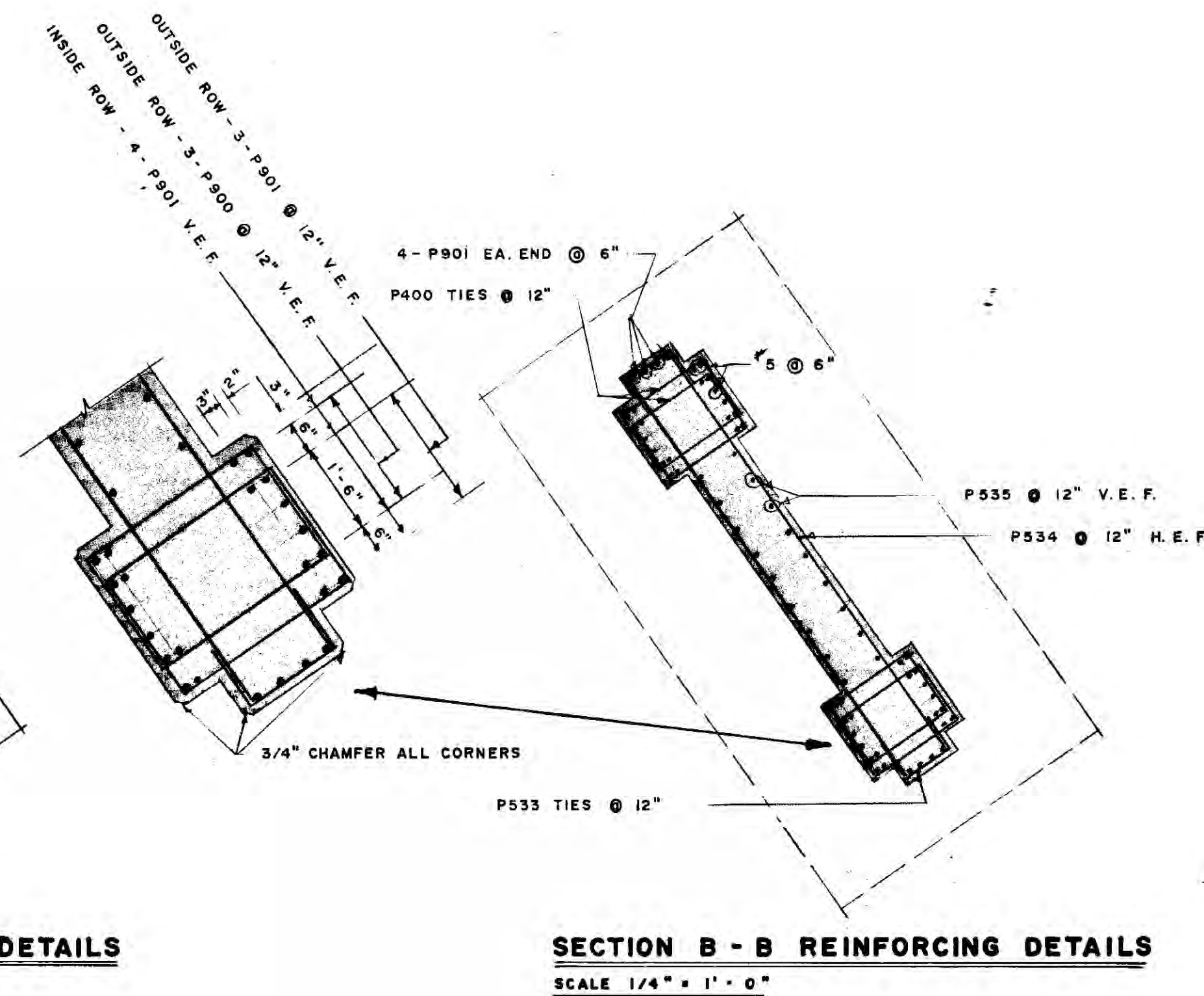
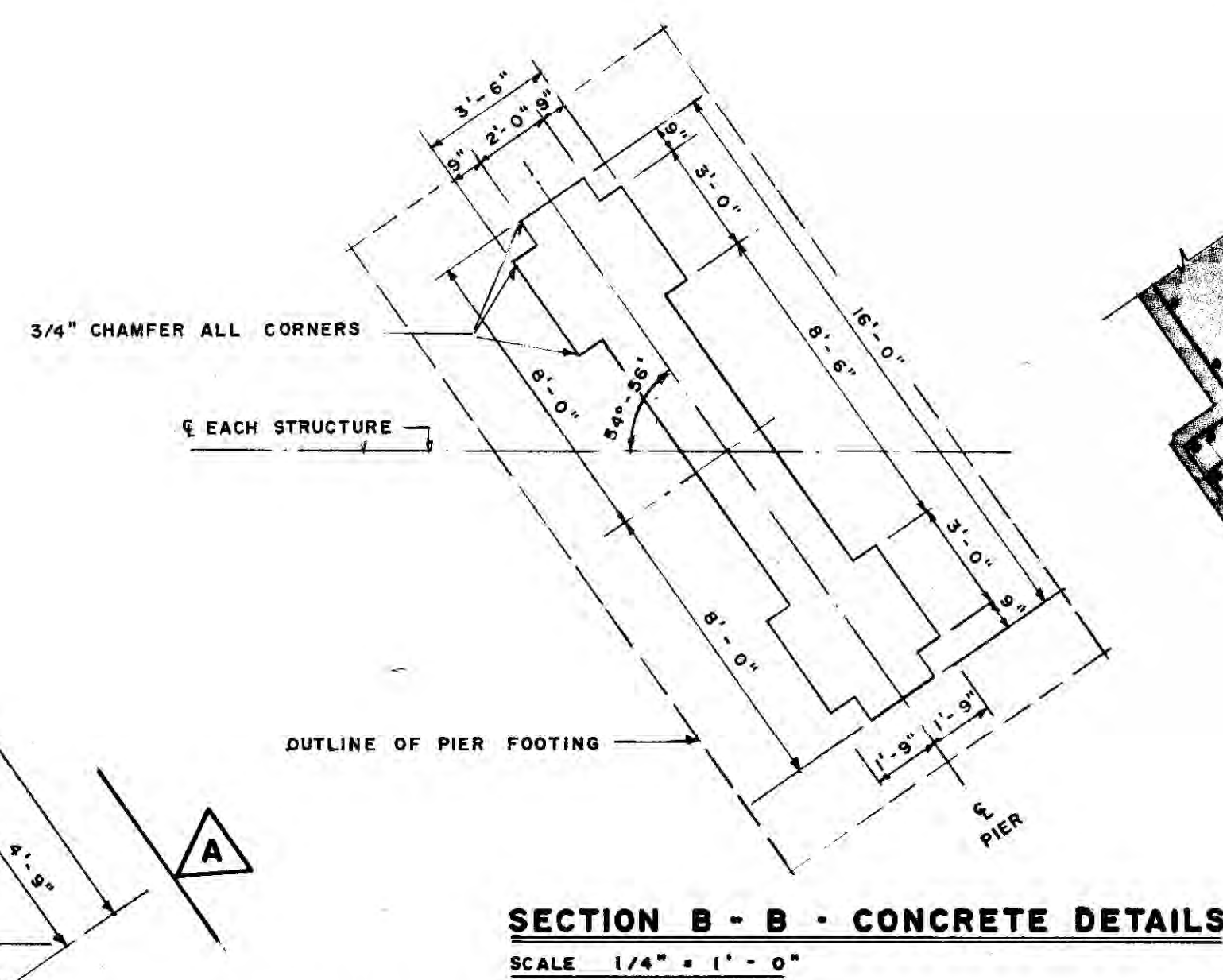
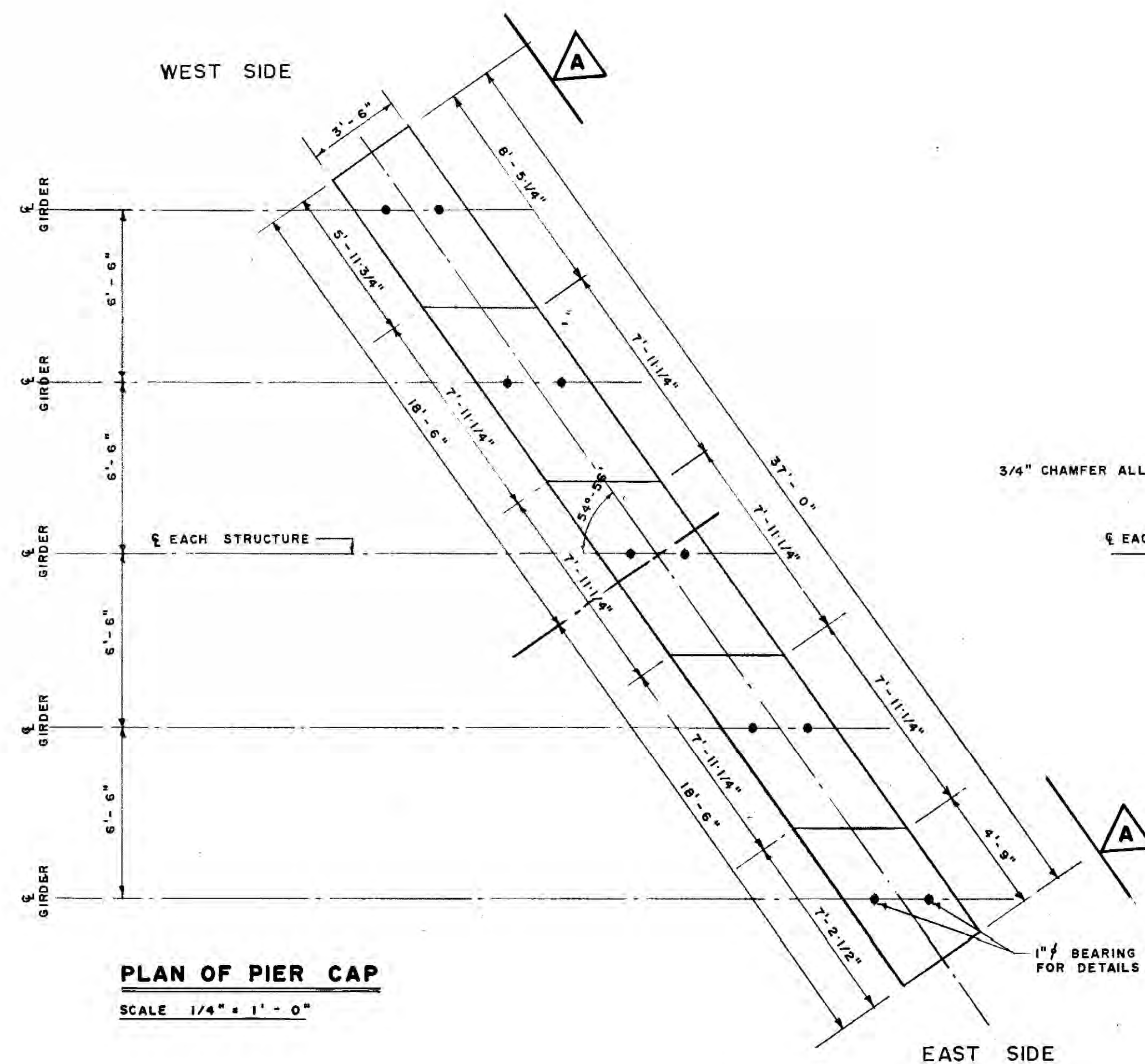
SECTION F - F
SCALE 1" = 1'-0"

APPROVED BY: CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING

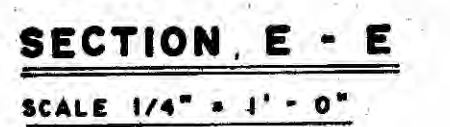
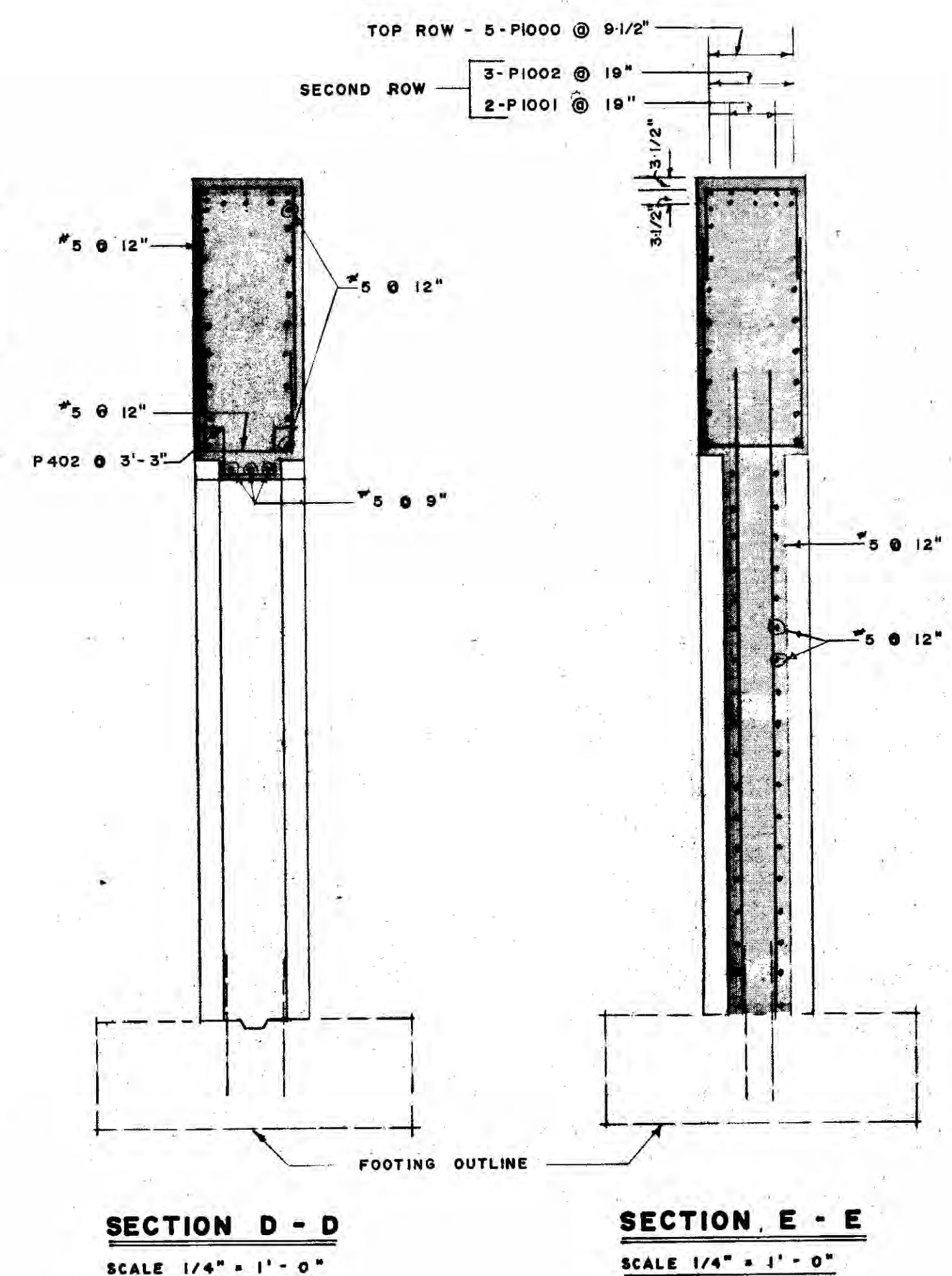
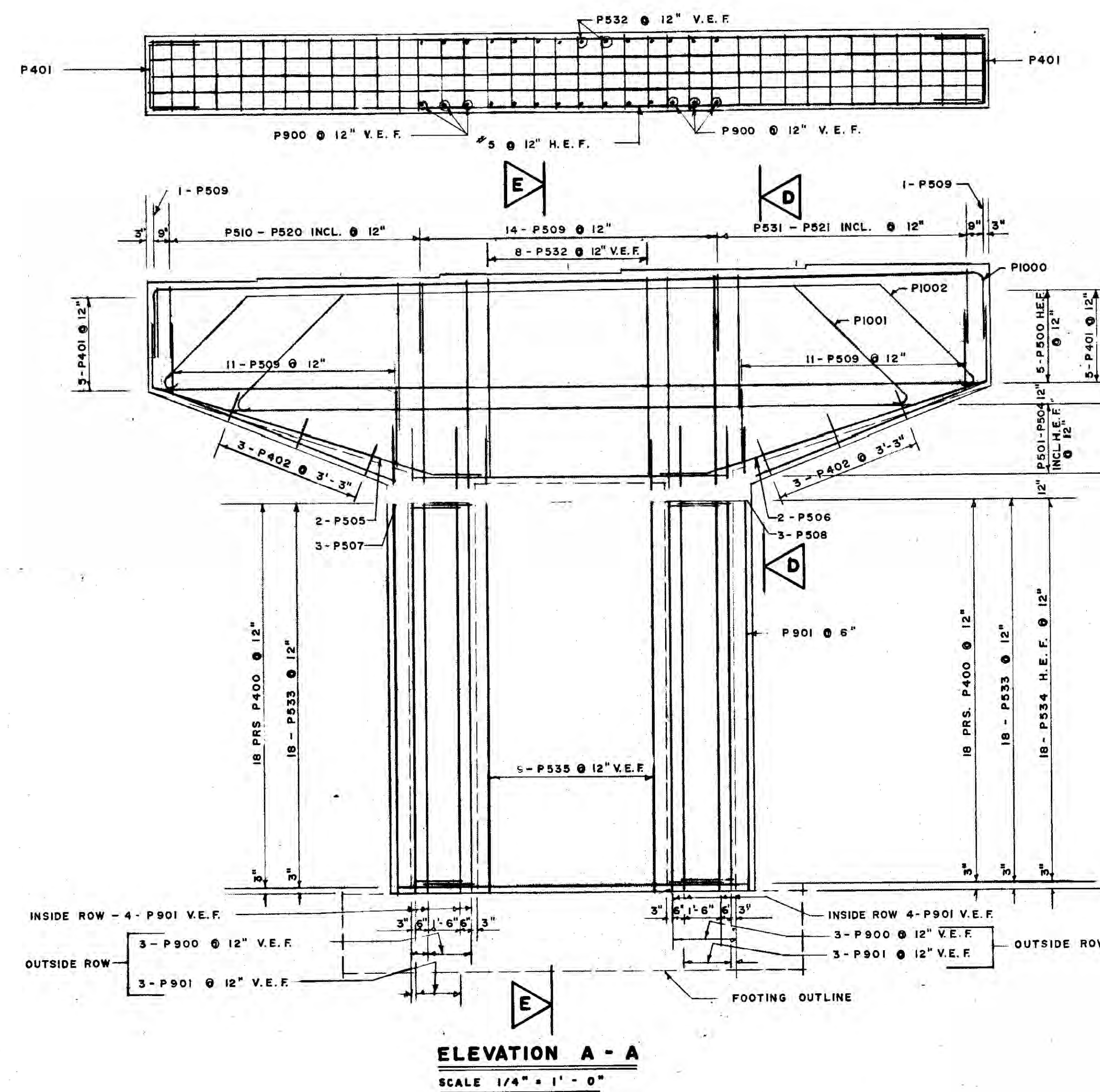
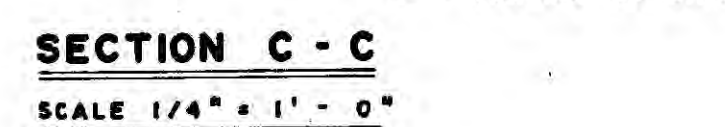
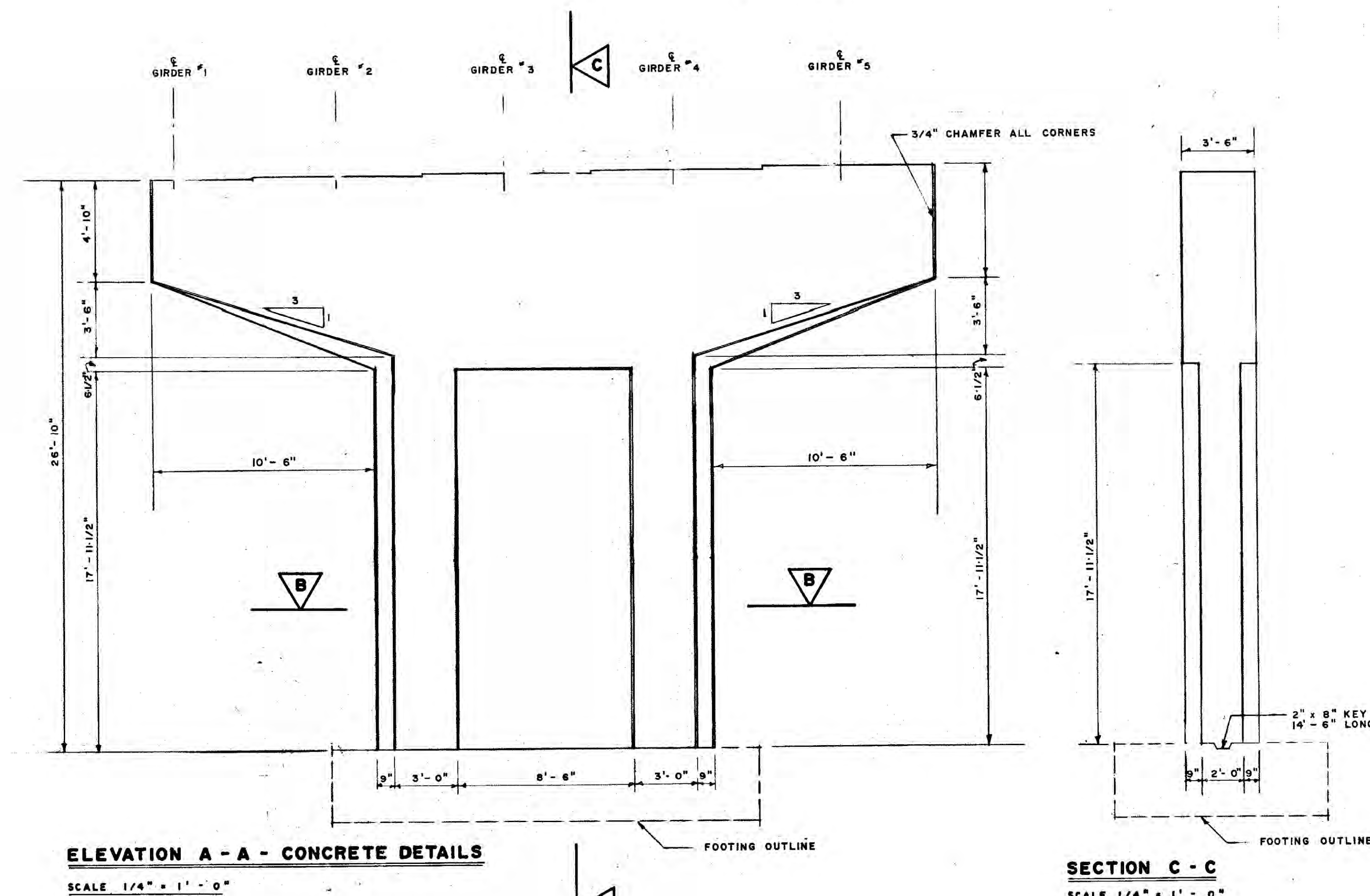
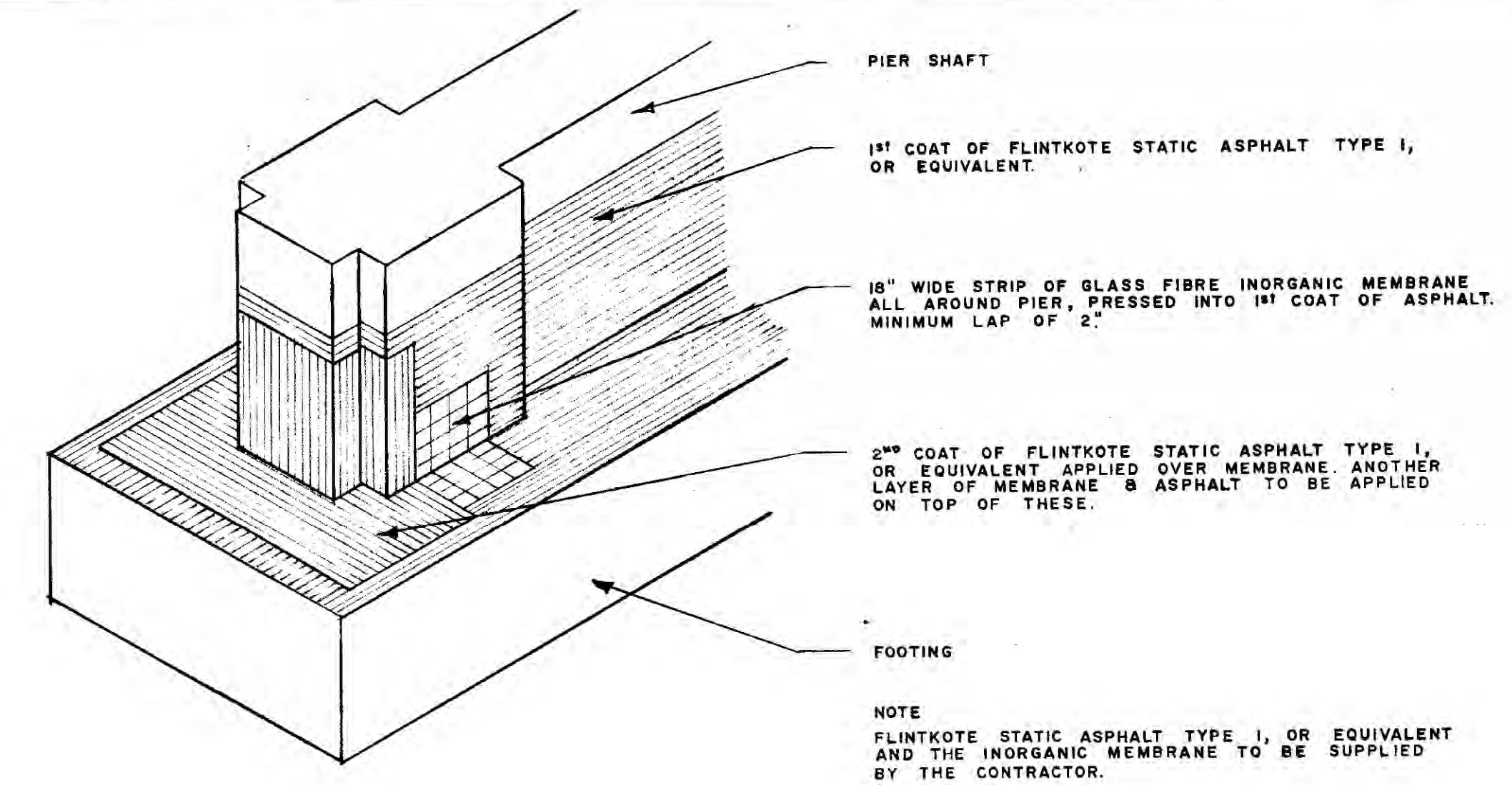
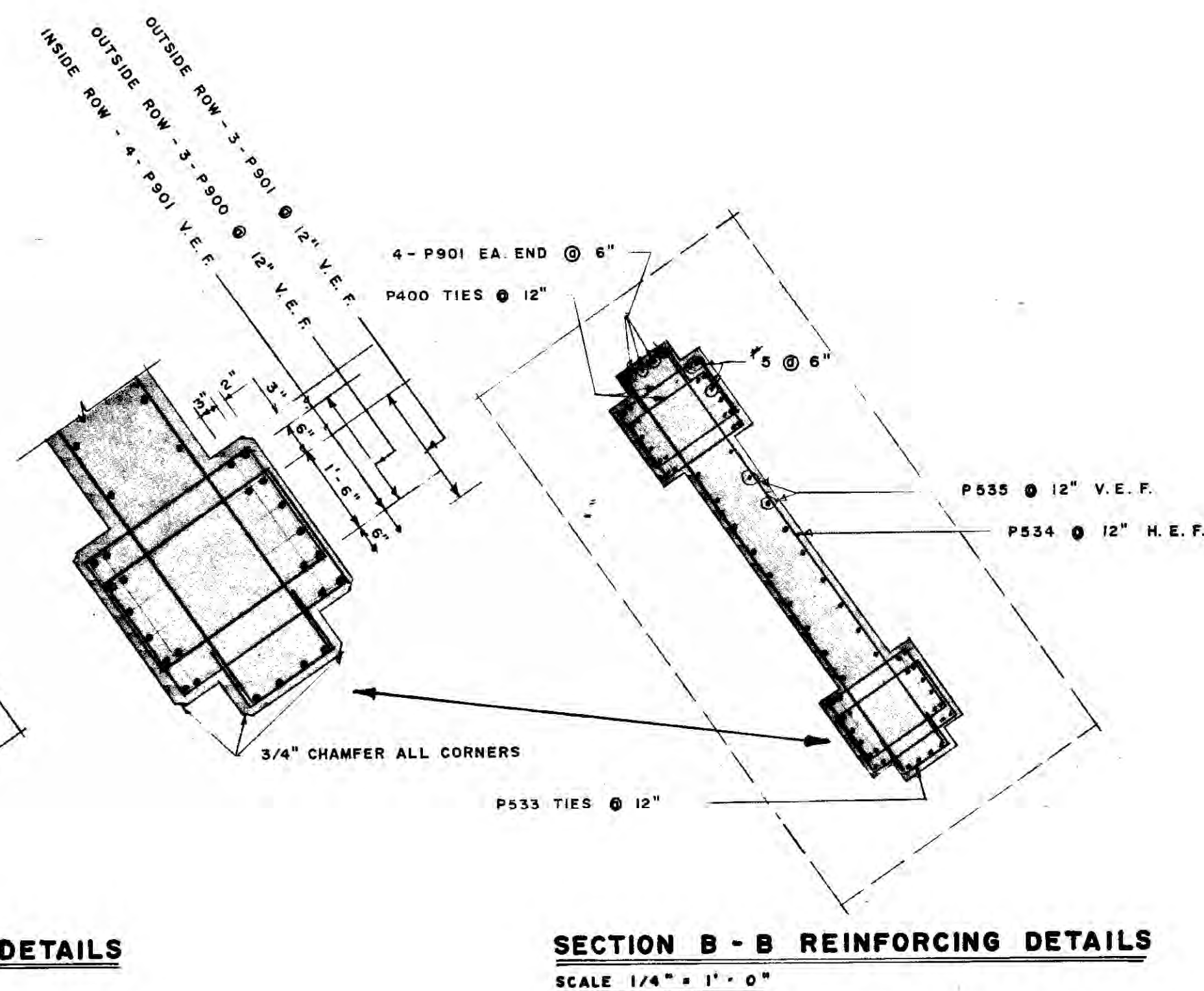
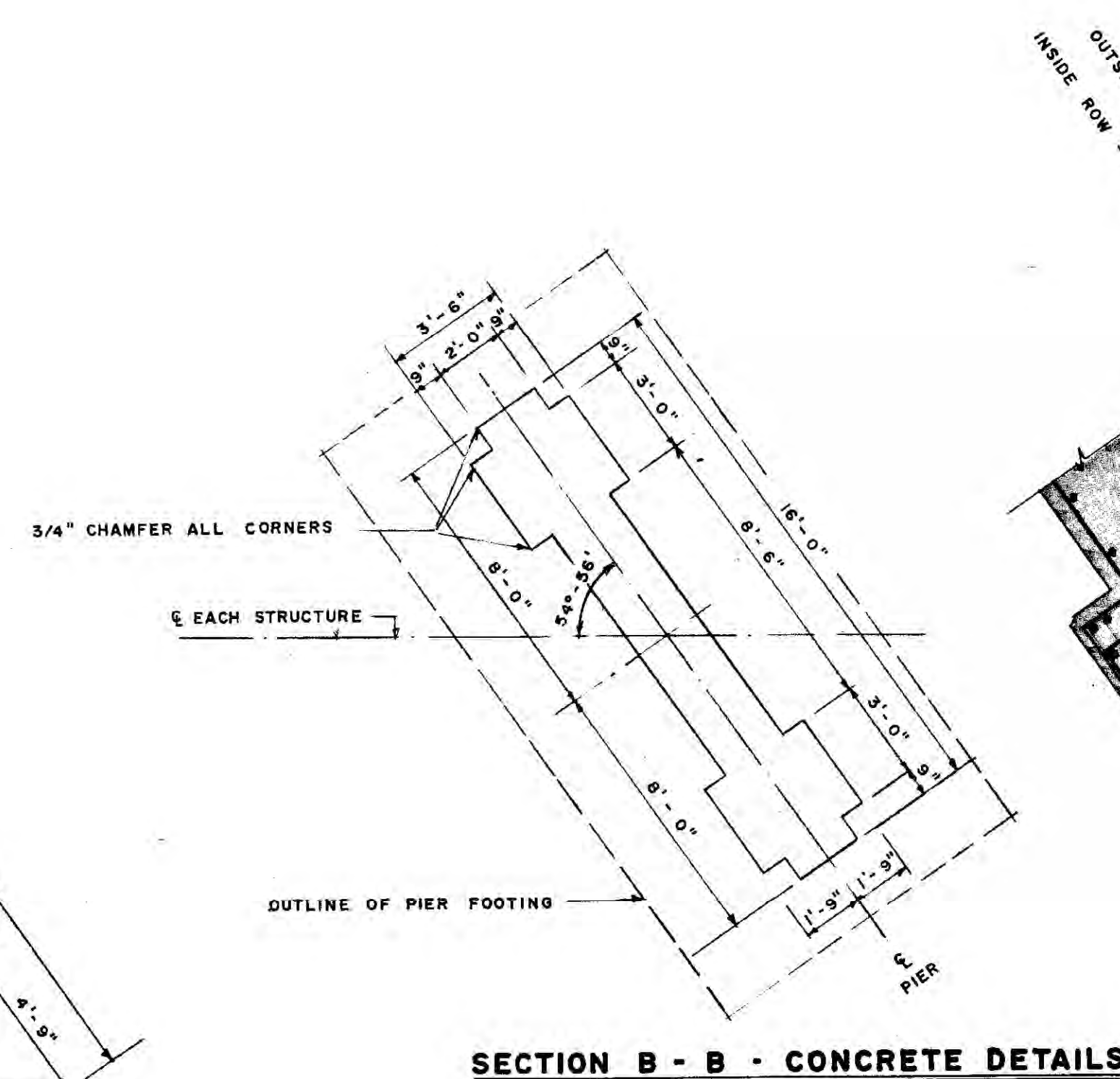
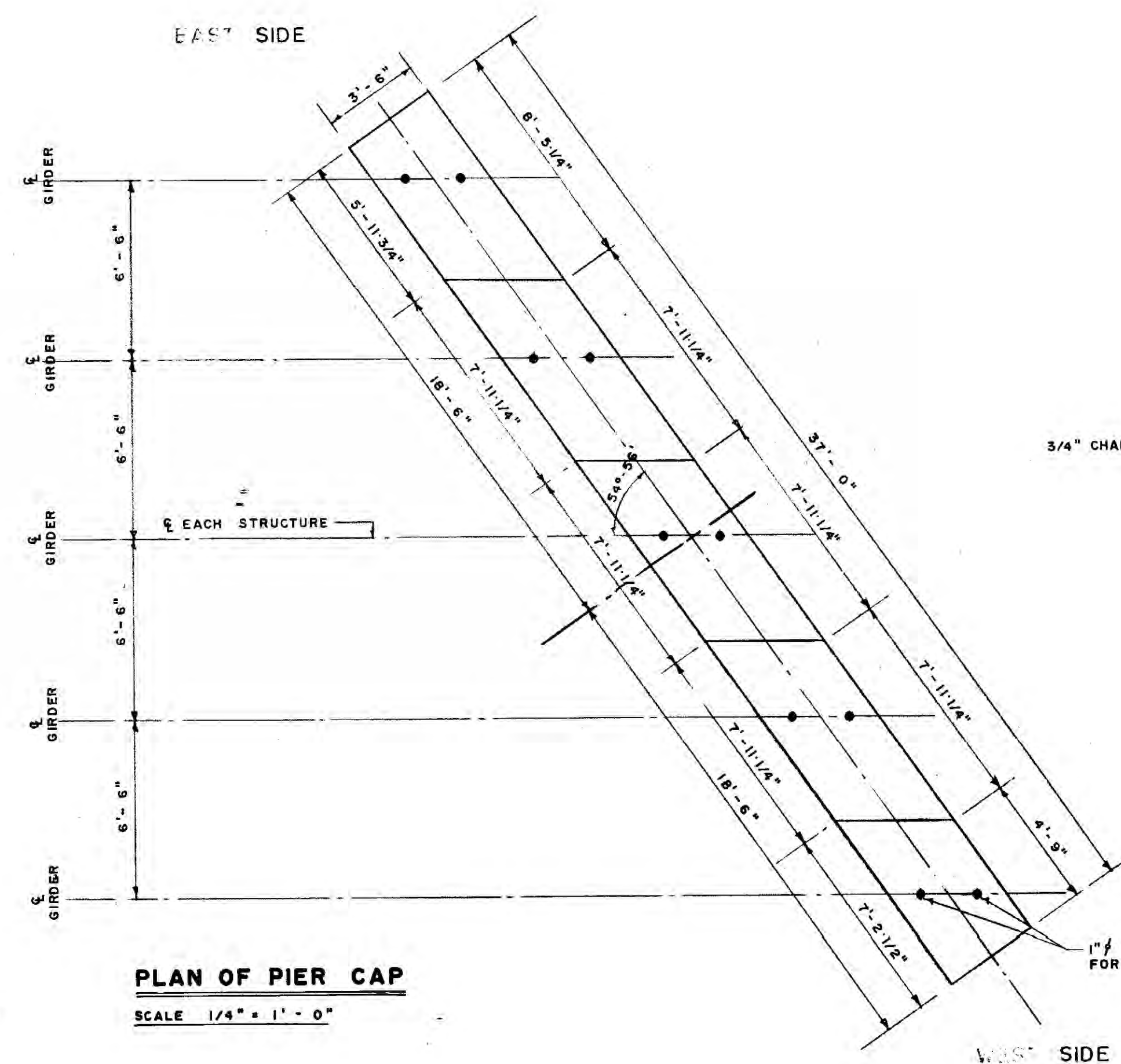


APPROVED BY: *P. J. Keenle*

ABUTMENT REINFORCING DETAILS C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH	PROJECT NO.
	SHEET NO.
	S - 10
	OF

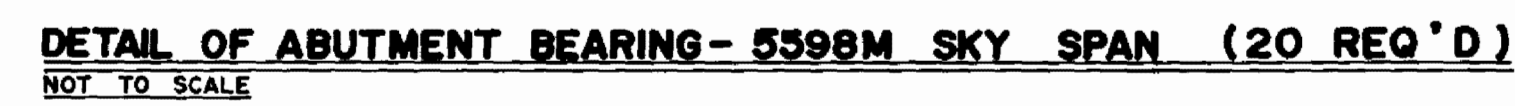


APPROVED BY: CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING



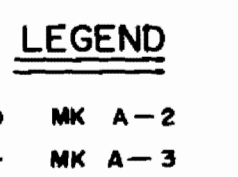
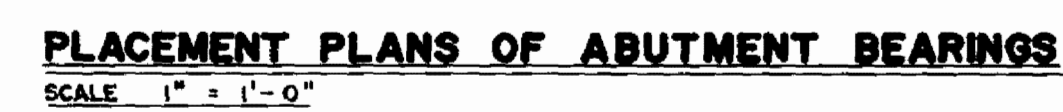
APPROVED BY: CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING

PRINT RECORD	DATE		SPECIFICATIONS A.A.S.H.Q. SPECS. FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING	PROVINCE OF MANITOBA R.W. MCKNIGHT REGISTERED ENGINEER PROVINCE OF MANITOBA L.A. BUHR REGISTERED ENGINEER	 M.M. DILLON LIMITED LONDON • TORONTO • OTTAWA • WINNIPEG • SUDBURY • WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	DESIGN		C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH	SHEET NO. OF
	DRAWN	E.T.								
	CHECKED									
	APPROVED									
	DATE	MAY /67								
NO.	REVISIONS	DATE	BY	SCALE	AS SHOWN					



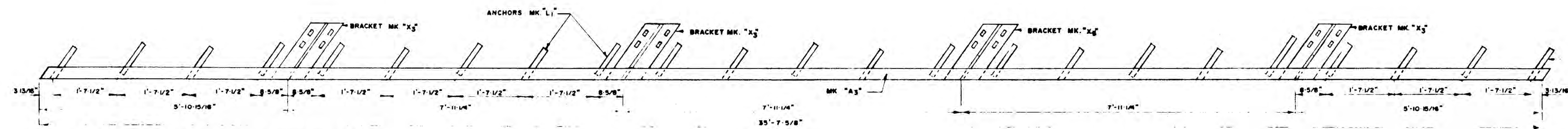
AS BUILT

APPROVED *P. J. Keenle*

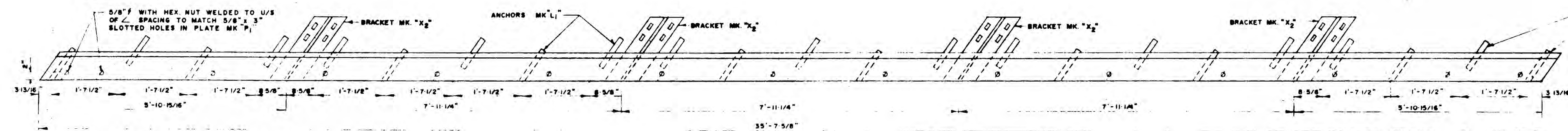


B-5055-15

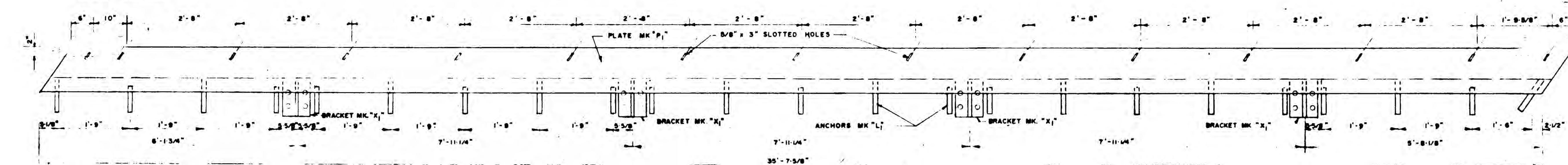
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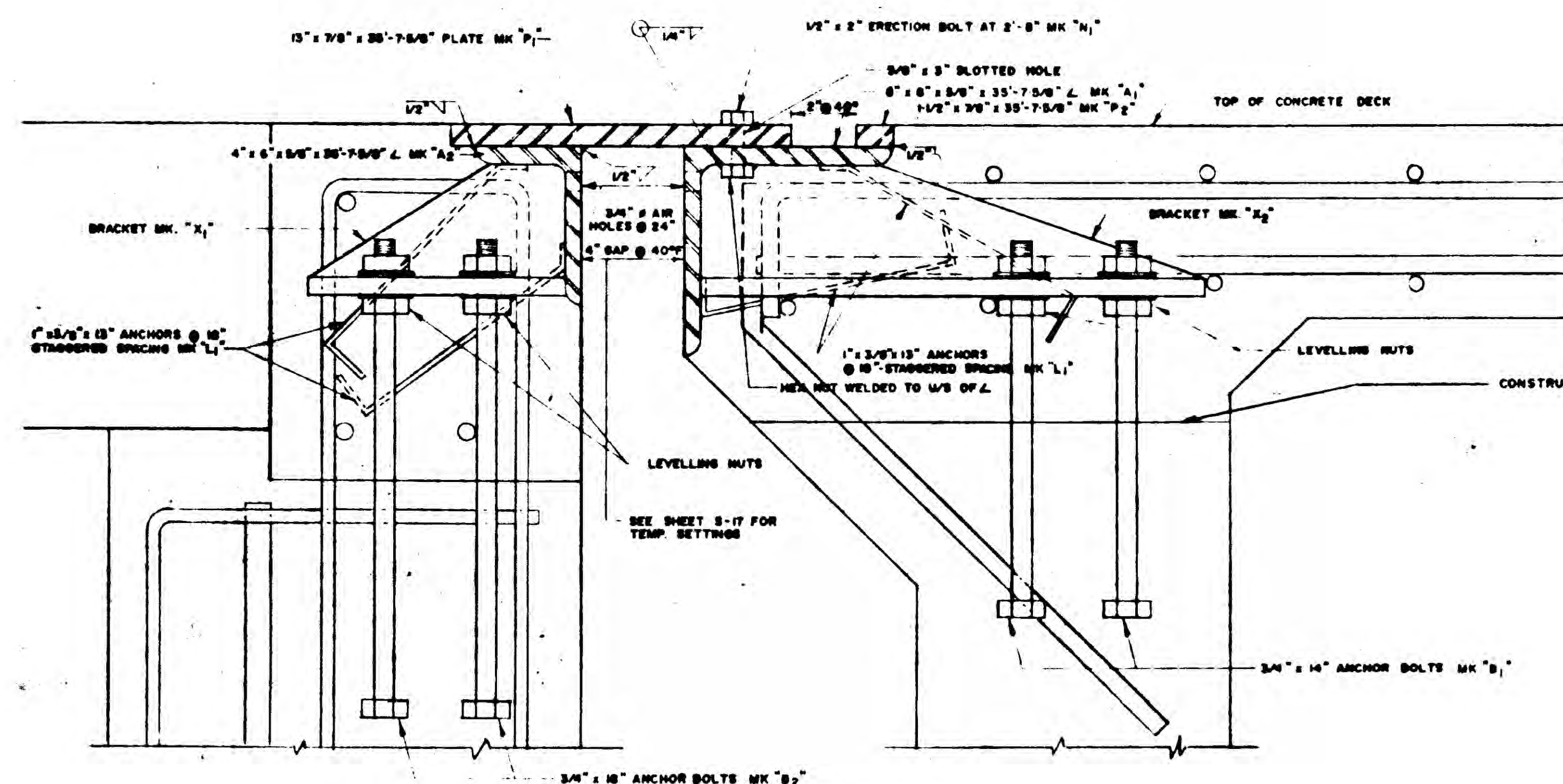
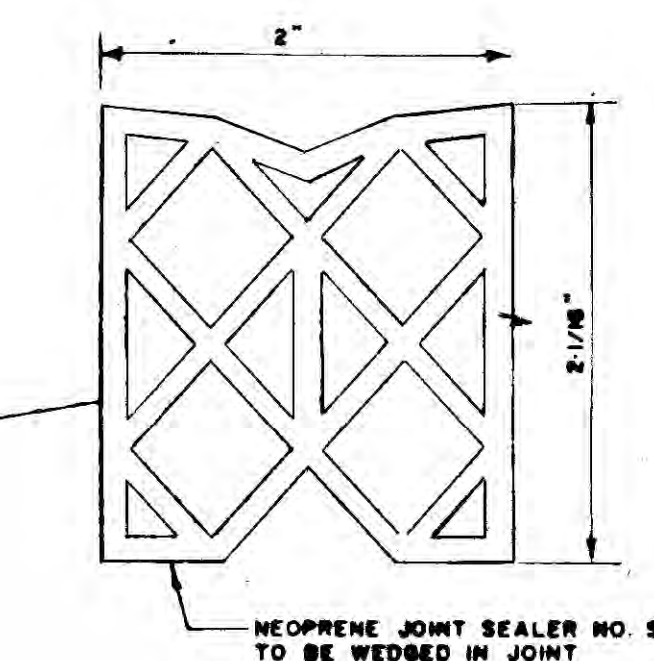
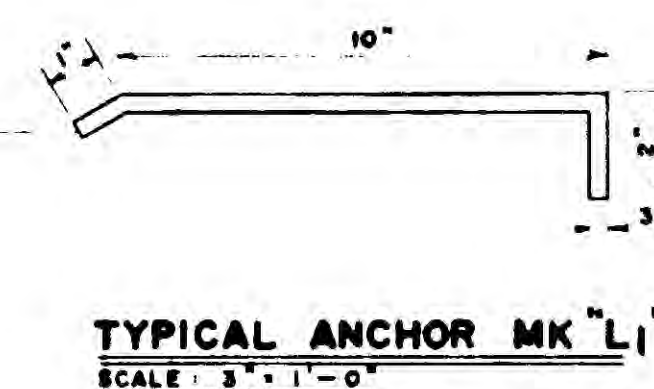
PLAN OF HALF OF EXPANSION JOINT OVER PIERS
SCALE: 3/4" = 1'-0"



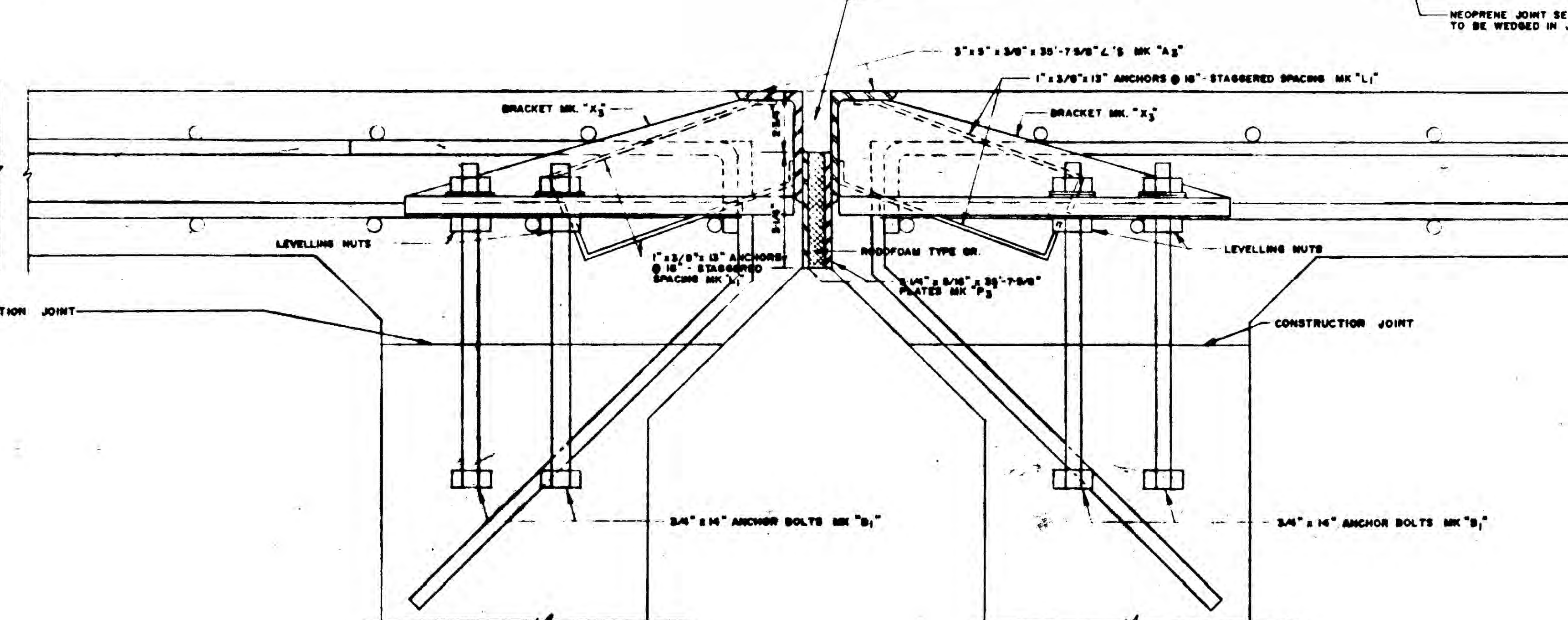
PLAN OF DECK HALF OF EXPANSION JOINT AT ABUTMENTS
SCALE: 3/4" = 1'-0"



PLAN OF ABUTMENT HALF OF EXPANSION JOINT AT ABUTMENTS
SCALE: 3/4" = 1'-0"



DETAIL OF EXPANSION JOINT IN DECK AT ABUTMENT
SCALE: 3" = 1'-0"



DETAIL OF EXPANSION JOINT IN DECK AT PIERS
SCALE: 3" = 1'-0"

NOTE
SEE SHEET S-15 FOR BILL OF MISCELLANEOUS
METALS & BRACKET FABRICATION DETAILS

APPROVED BY :

[Signature]
CHIEF BRIDGE ENGINEER

DIRECTOR OF PLANNING

[illegible]

SPECIFICATIONS

A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961)
H20 - S16 - 44 TRUCK LIVE LOADING

		
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 **M. M. DILLON LIMITED**
LONDON • TORONTO • OTTAWA • WINNIPEG • SUFFOLK • MONTREAL
CONSULTING ENGINEERS
PROJECT OFFICE: WINNIPEG

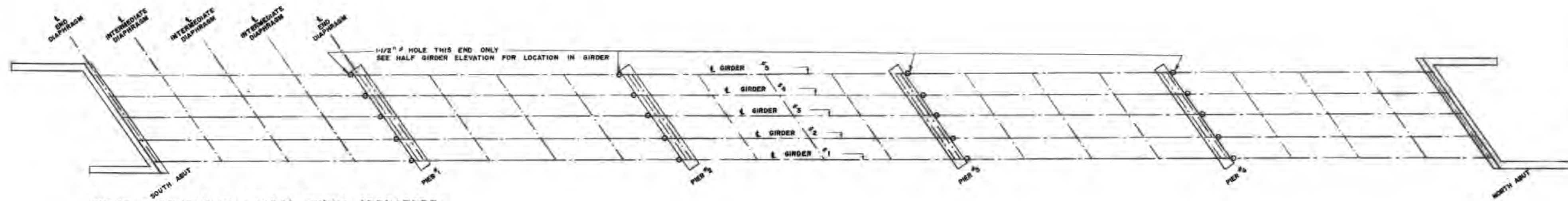
PROVINCE OF MANITOBA
HIGHWAYS DEPARTMENT
REF. PLAN N° 871
LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA
RAILWAY CHAINAGE - MILE 122.4
KEEWATIN SUBDIVISION

						DRAWN	B T.
						CHECKED	Rwm
						APPROVED	Rwm
						DATE	MAY, 1967
NO		REVISIONS		DATE	BY	SCALE	AS SHOWN

DECK EXPANSION JOINT DETAILS

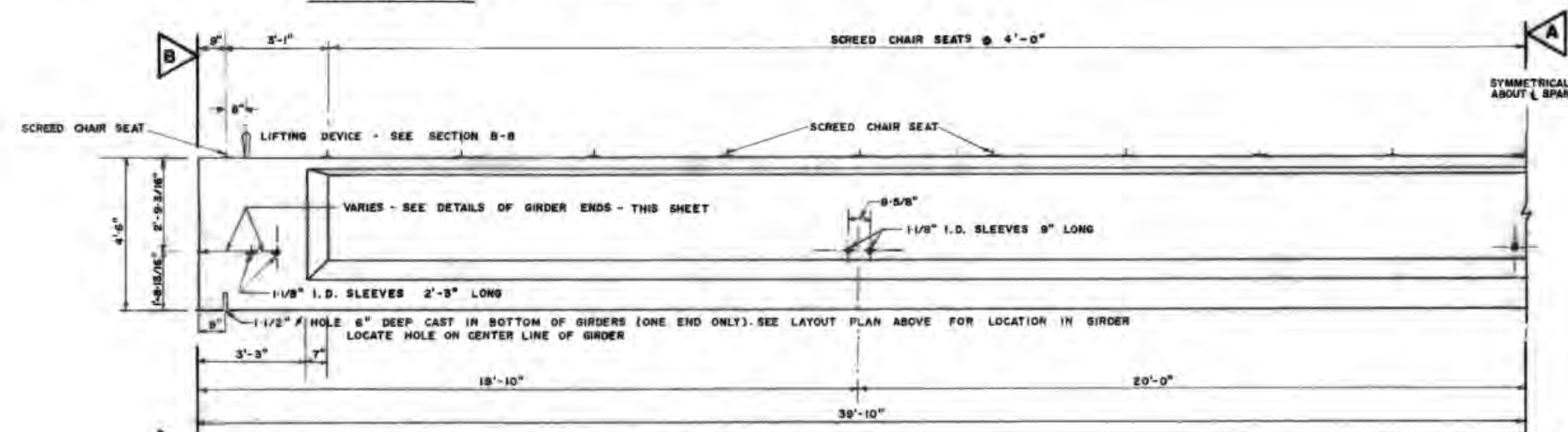
C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH

PROJECT NO.	
SHEET NO.	S-14
OF	27

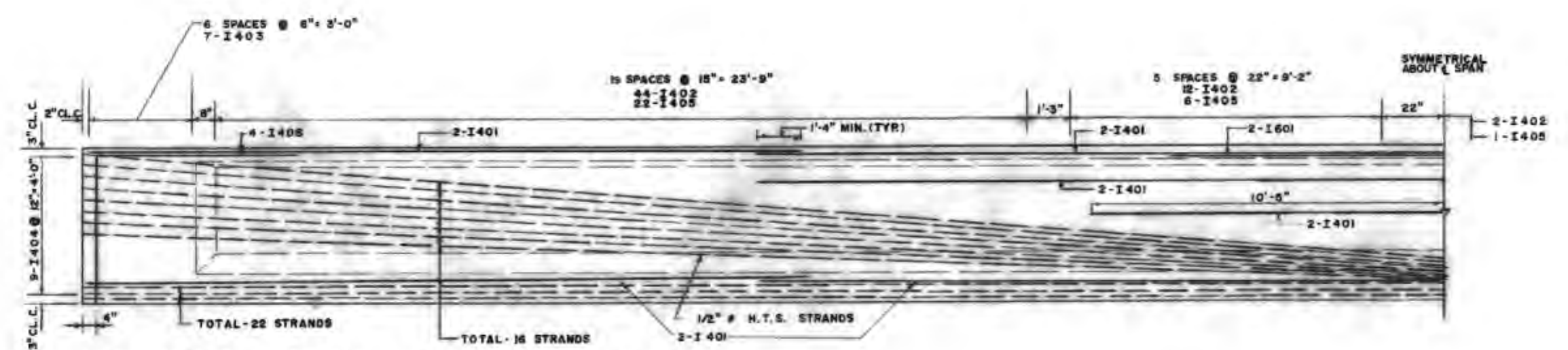


GIRDER LAYOUT PLAN - NORTH BOUND STRUCTURE
(SOUTH BOUND STRUCTURE SIMILAR)
SCALE 1/16" = 1' - 0"

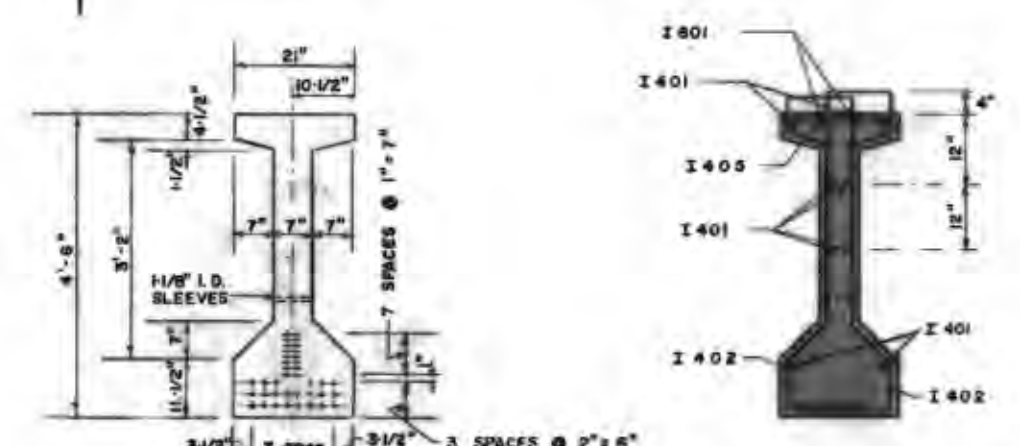
BILL OF REINFORCING STEEL FOR EACH GIRDER				
MARK	NO. BARS	SIZE	LENGTH	SHAPE
I 401	2	6	16'-0"	
I 401	22	4	20'-10"	
I 402	114	4	9'-10"	
I 403	14	4	13'-2"	
I 404	1	4	2'-1"	
I 405	57	4	1'-7"	
I 406	8	4	10'-4"	
I 407	4	4	4'-2"	
1-1/8" I.D. SLEEVES 9' LONG - 6 EACH FOR GIRDERS 2, 3, 4				
1-1/8" I.D. SLEEVES 2'-3" LONG - 4 EACH FOR GIRDERS 2 & 4				
1-1/8" I.D. SLEEVES 2'-3" LONG - 8 FOR GIRDER 3 ONLY				
THREADED INSERTS - 10 EACH FOR GIRDERS 1 & 5				
11-1/8" x 4'-4" SCREED PLATES FOR EACH GIRDER				
HIGH TENSILE STRANDS 1/2" x 7/16" x 3/25				



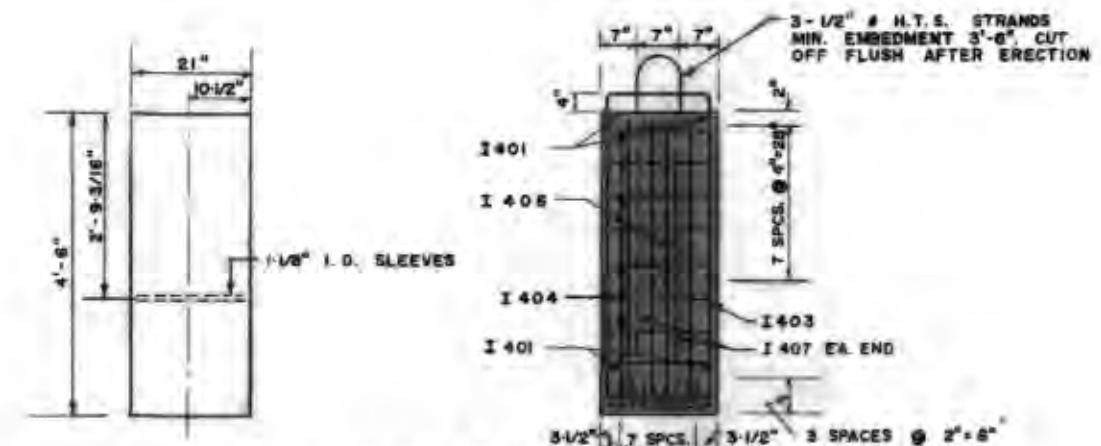
HALF GIRDER ELEVATION - CONCRETE DETAILS
SCALE 3/8" = 1' - 0"



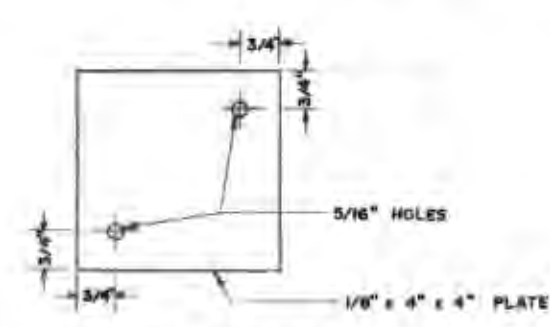
HALF GIRDER ELEVATION - REINFORCING DETAILS
SCALE 3/8" = 1' - 0"



SECTION A-A CONCRETE DETAILS
SCALE 1/2" = 1' - 0"

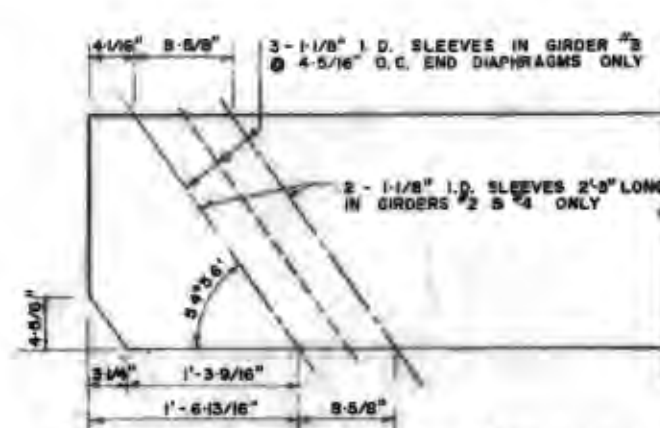


SECTION B-B REINFORCING DETAILS
SCALE 1/2" = 1' - 0"

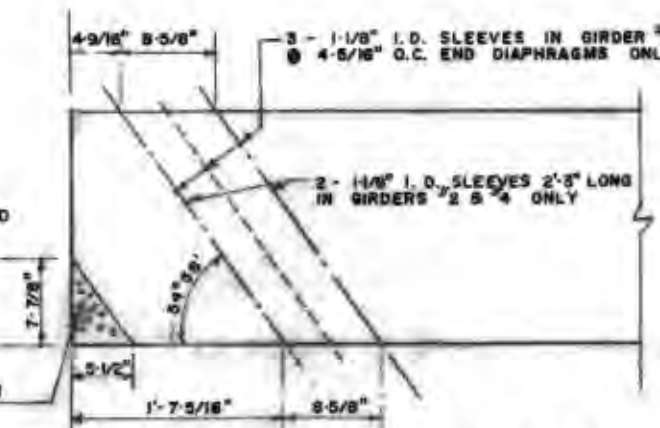


SCREED CHAIR SEAT
SCALE 3/8" = 1' - 0"
BEAM FABRICATOR TO SUPPLY SCREED CHAIR SEATS & TWO 6" NAILS PER SEAT. SEATS SHALL BE PLACED SUCH THAT THE TOP SURFACE IS FLUSH WITH TOP SURFACE OF CONCRETE BEAM WITH TWO EDGES OF SEAT PARALLEL TO EDGES OF TOP FLANGE. SCREED CHAIR SEATS WILL BE AS INDICATED ON LONGITUDINAL C OF BEAM.

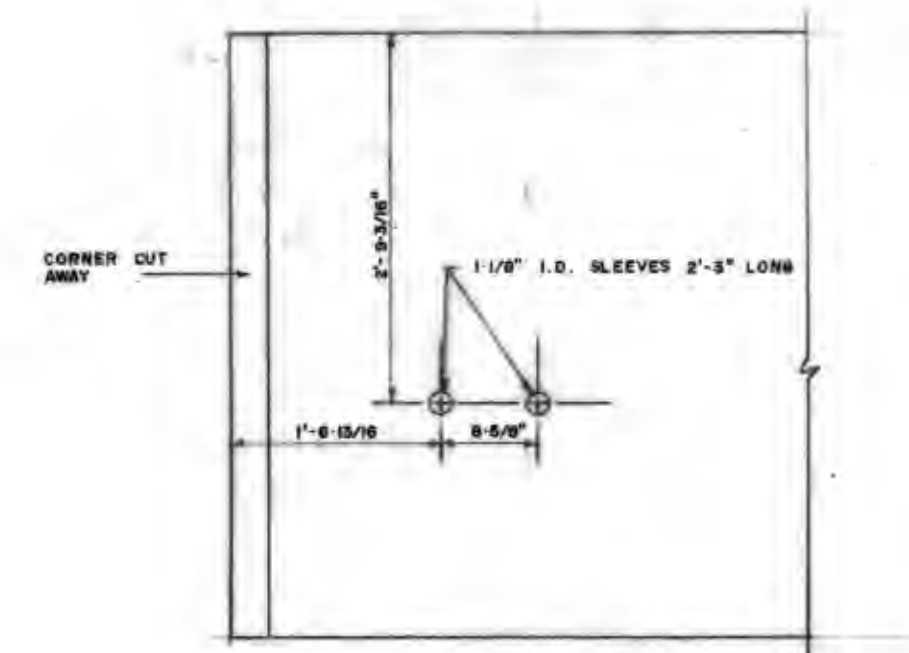
NOTE: 1. ALL GIRDERS 79'-8" LONG.
2. EDGES OF CONCRETE SHALL BE CHAMFERED 3/4"
3. INITIAL PRESTRESS FORCE IN EACH H.T.S. STRAND - 25.2 KIPS
4. CLEAR COVER TO REINFORCING STEEL FOR PRECAST BEAMS - 1" MIN.
5. BOTTOM EDGES OF PRECAST BEAMS SHALL BE ROUNDED TO 3/4" RADII
6. DIMENSIONAL TOLERANCES:
LENGTH ± 1/4"
CROSS SECTION ± 1/8"



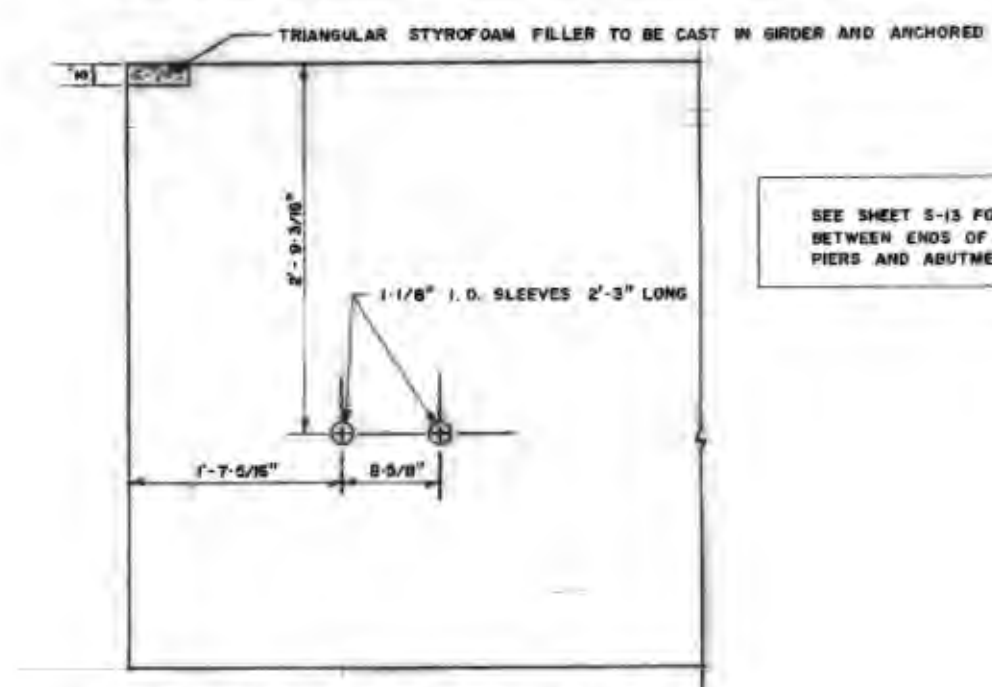
PLAN OF GIRDER END AT ABUTMENT
SCALE 1" = 1' - 0"



PLAN OF GIRDER END AT PIER
SCALE 1" = 1' - 0"



ELEVATION OF GIRDER END AT ABUTMENT
SCALE 1" = 1' - 0"

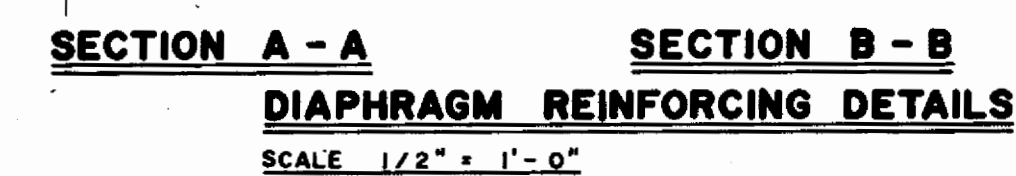
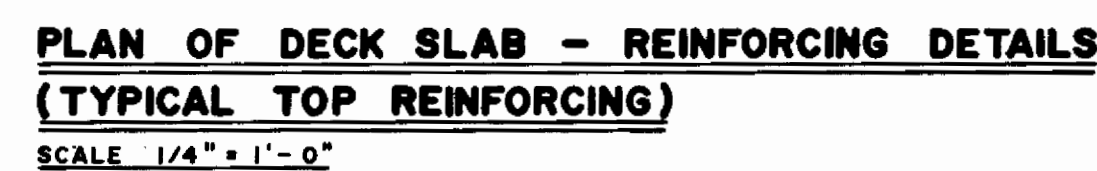
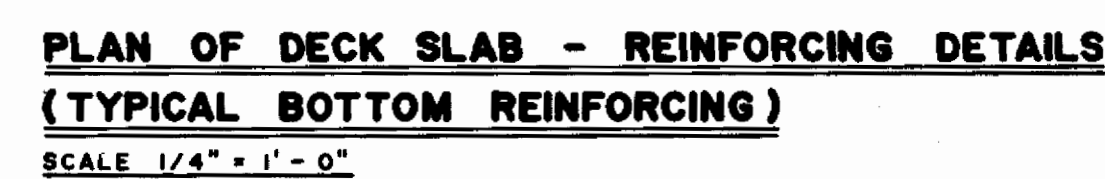


ELEVATION OF GIRDER END AT PIER
SCALE 1" = 1' - 0"

AS BUILT
APPROVED *P.J. Henne*

SEE SHEET S-13 FOR CLEARANCES BETWEEN ENDS OF GIRDERS AND PIERS AND ABUTMENTS.

APPROVED BY: *White* CHIEF BRIDGE ENGINEER
B-5055-18
DIRECTOR OF PLANNING



APPROVED *P. J. Keenie*



3-D404 UNDER LAMP
POST ONLY. SEE KEY PLAN
ON SHEET S-17 FOR
LAMP POST LOCATIONS

G. H. Parns
CHIEF BRIDGE ENGINEER

DIRECTOR OF PLANNING

B-5055-20

DECK REINFORCING DETAILS

C.P.R. KEEWATIN OVERHEAD

P.T.H. 59 NORTH

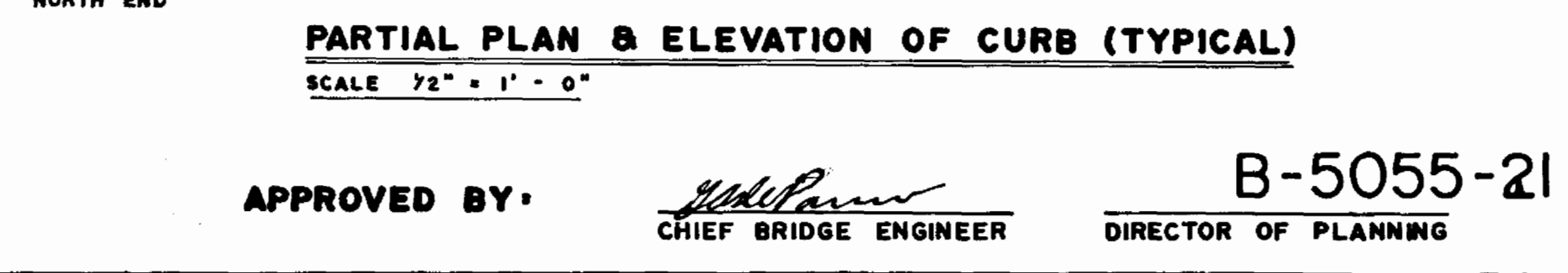
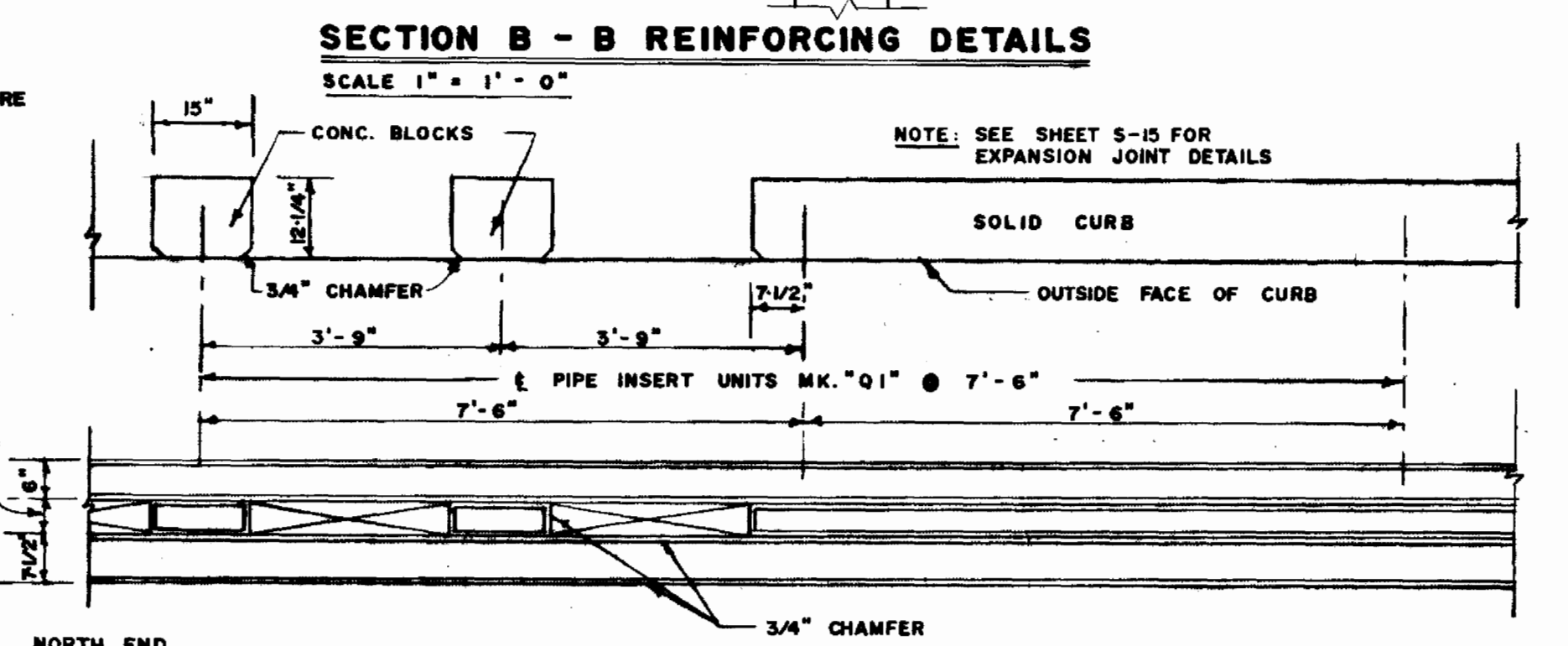
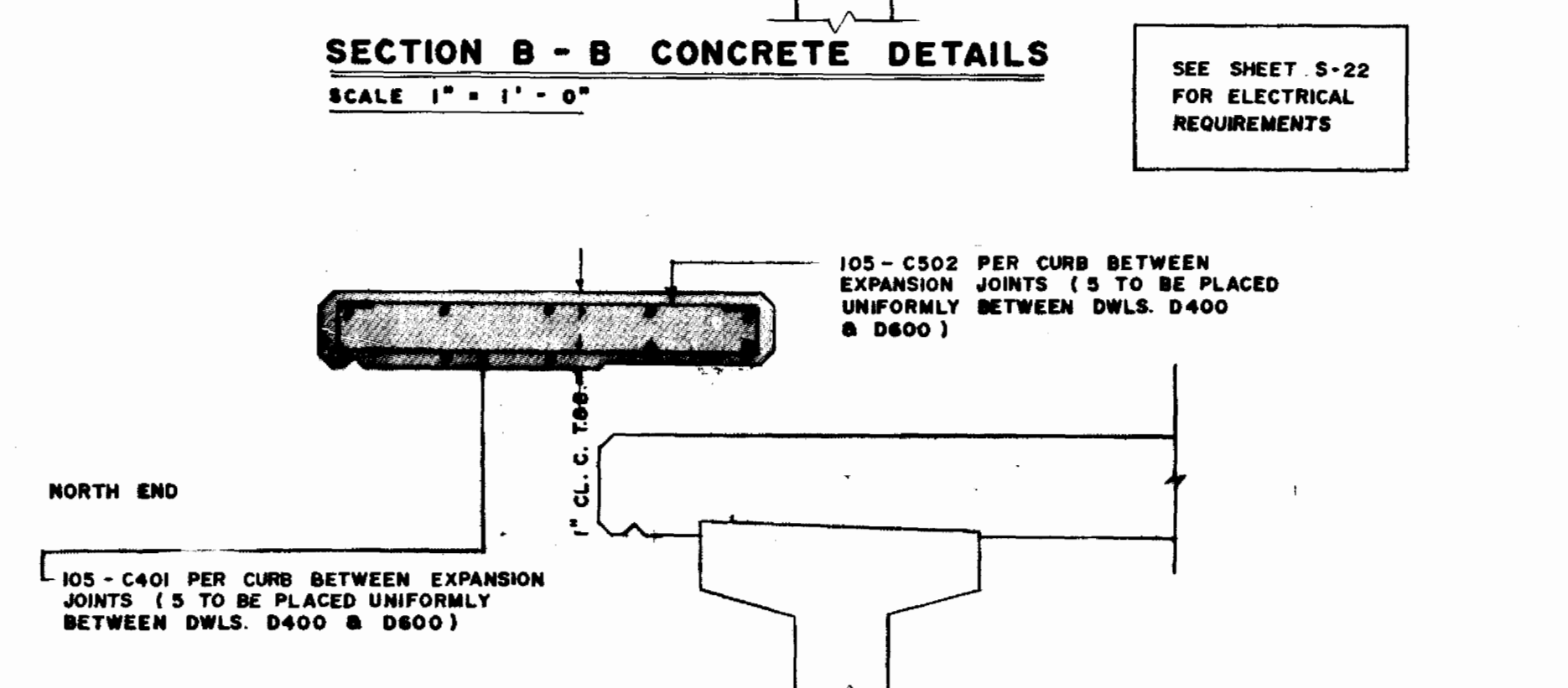
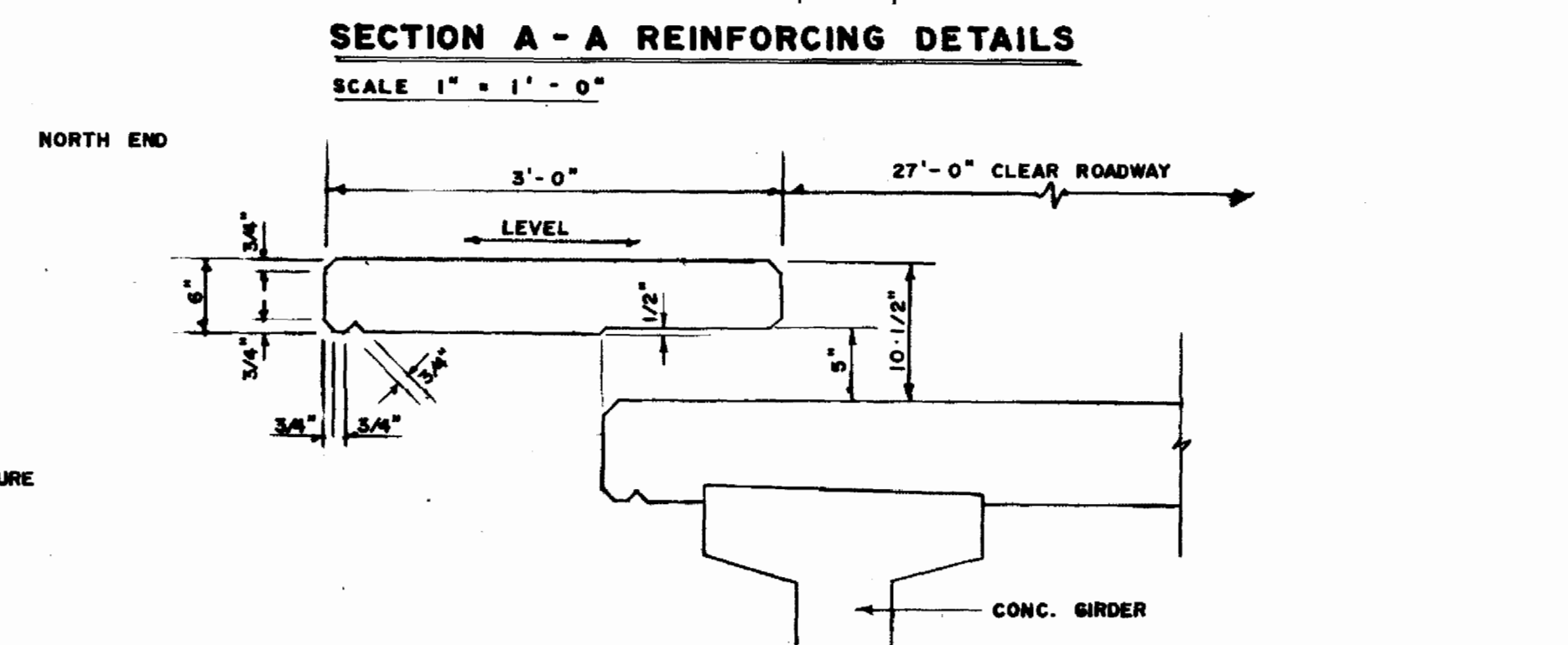
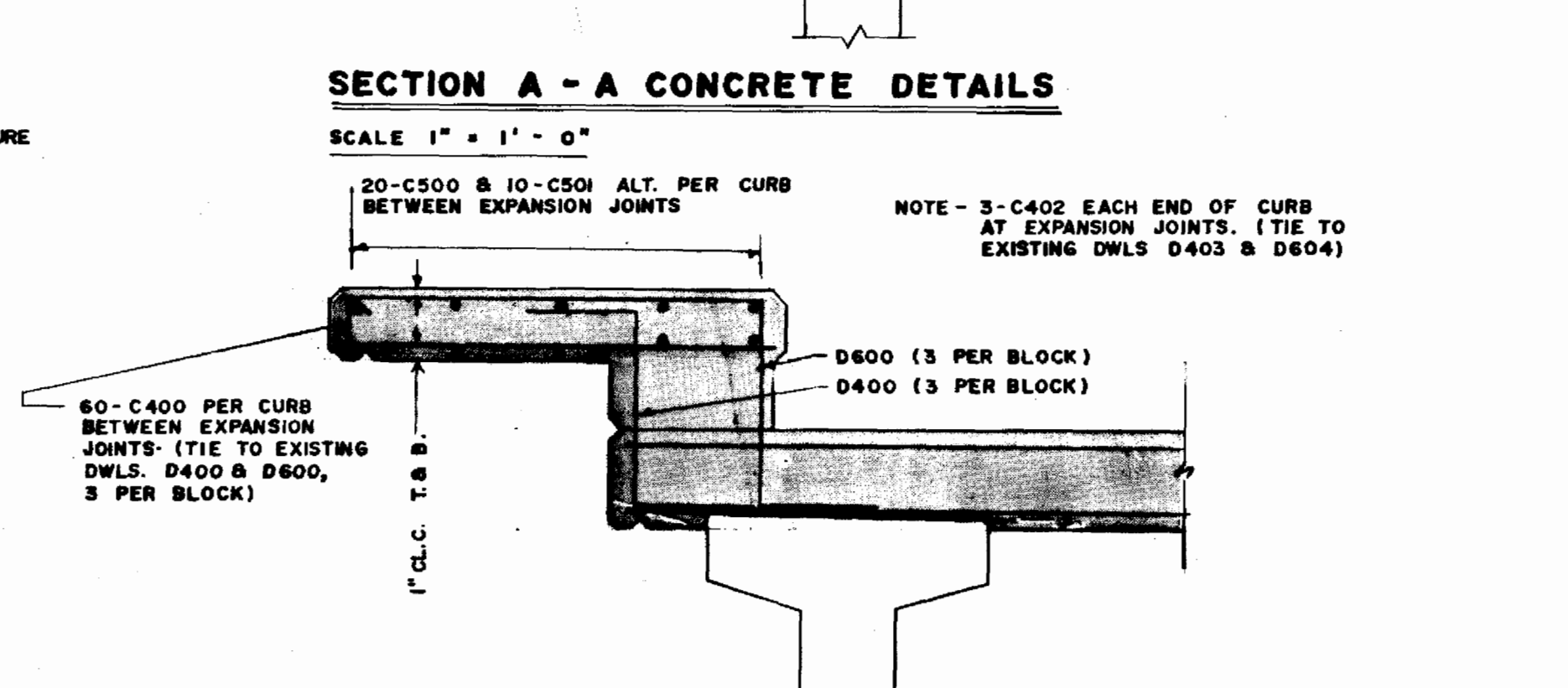
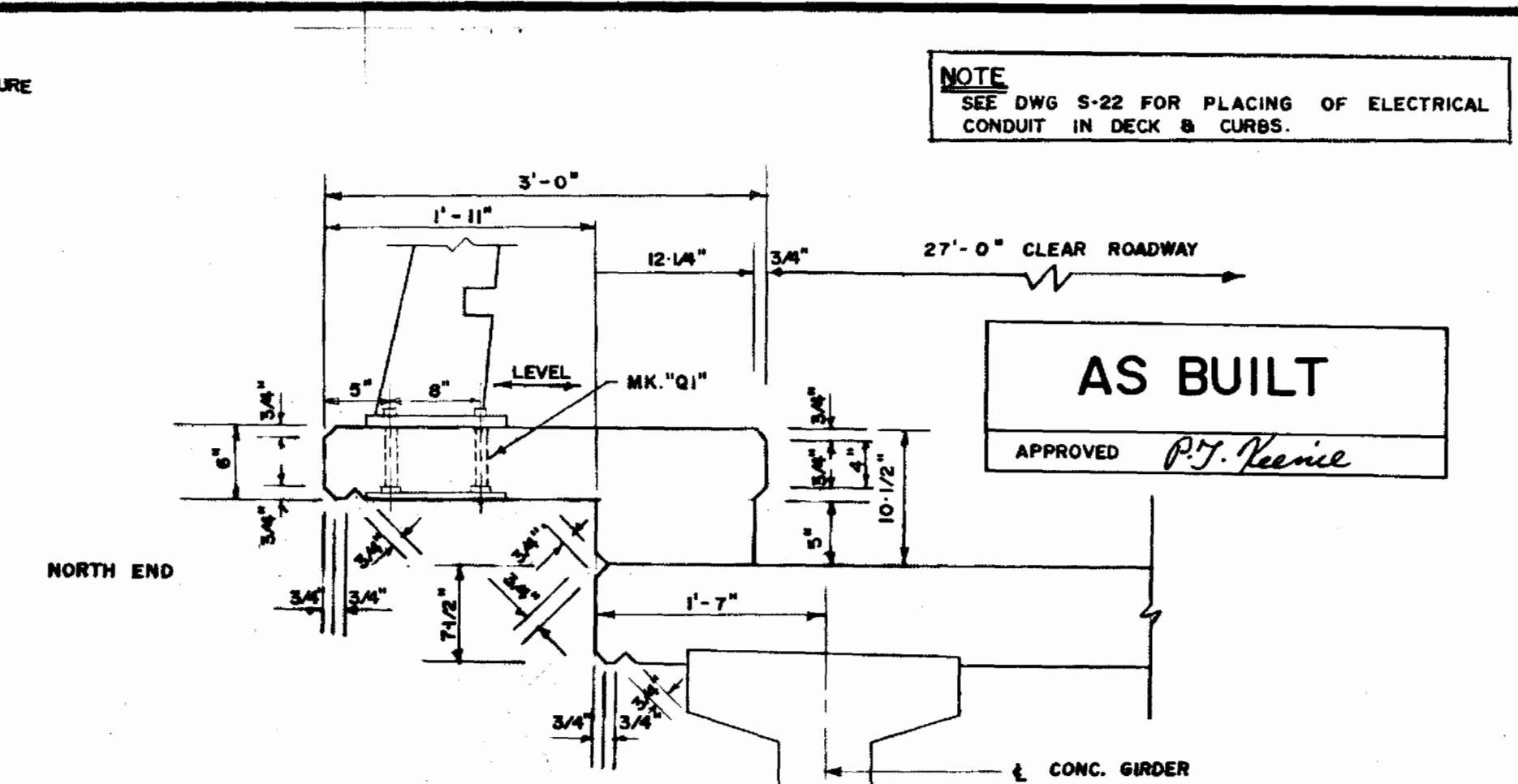
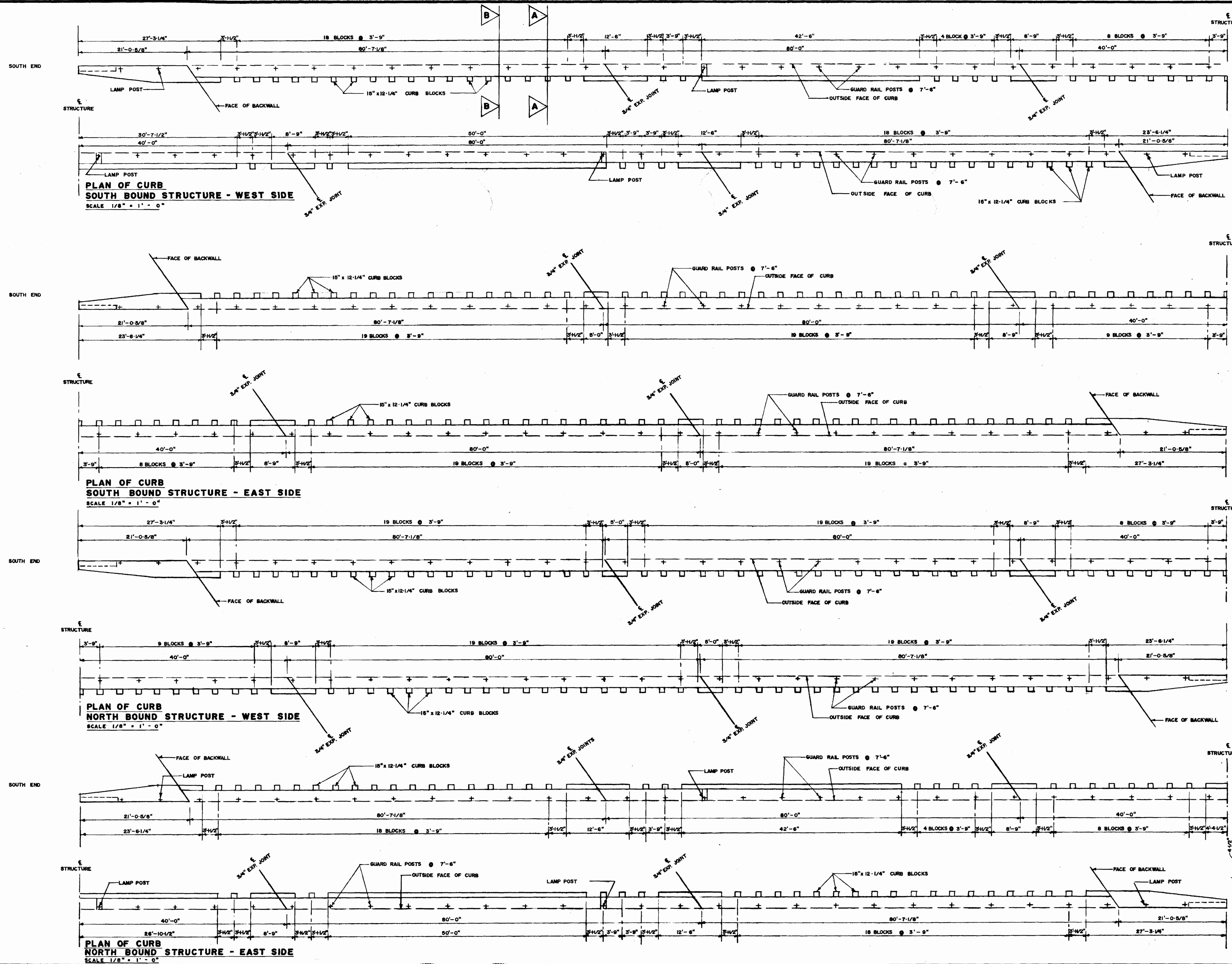
PROJECT NO.

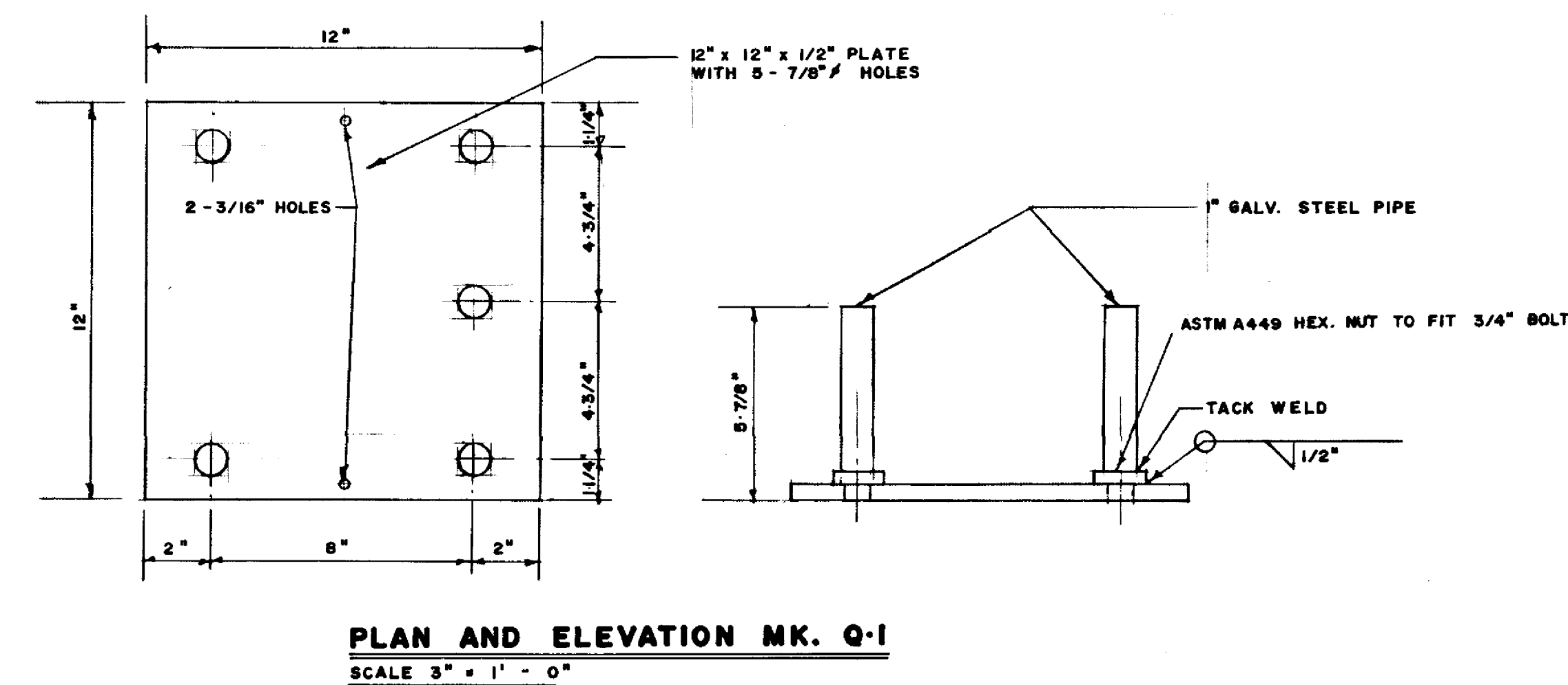
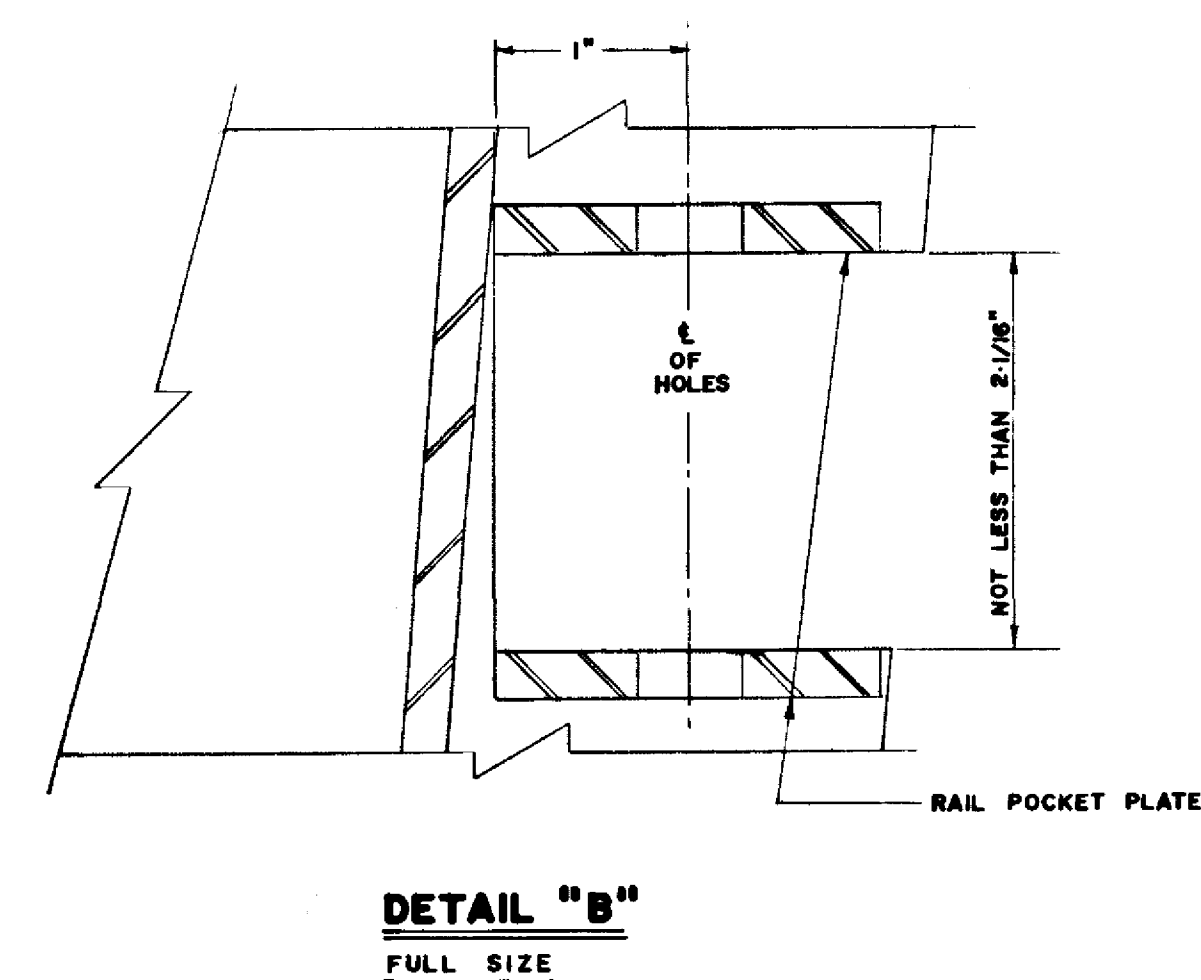
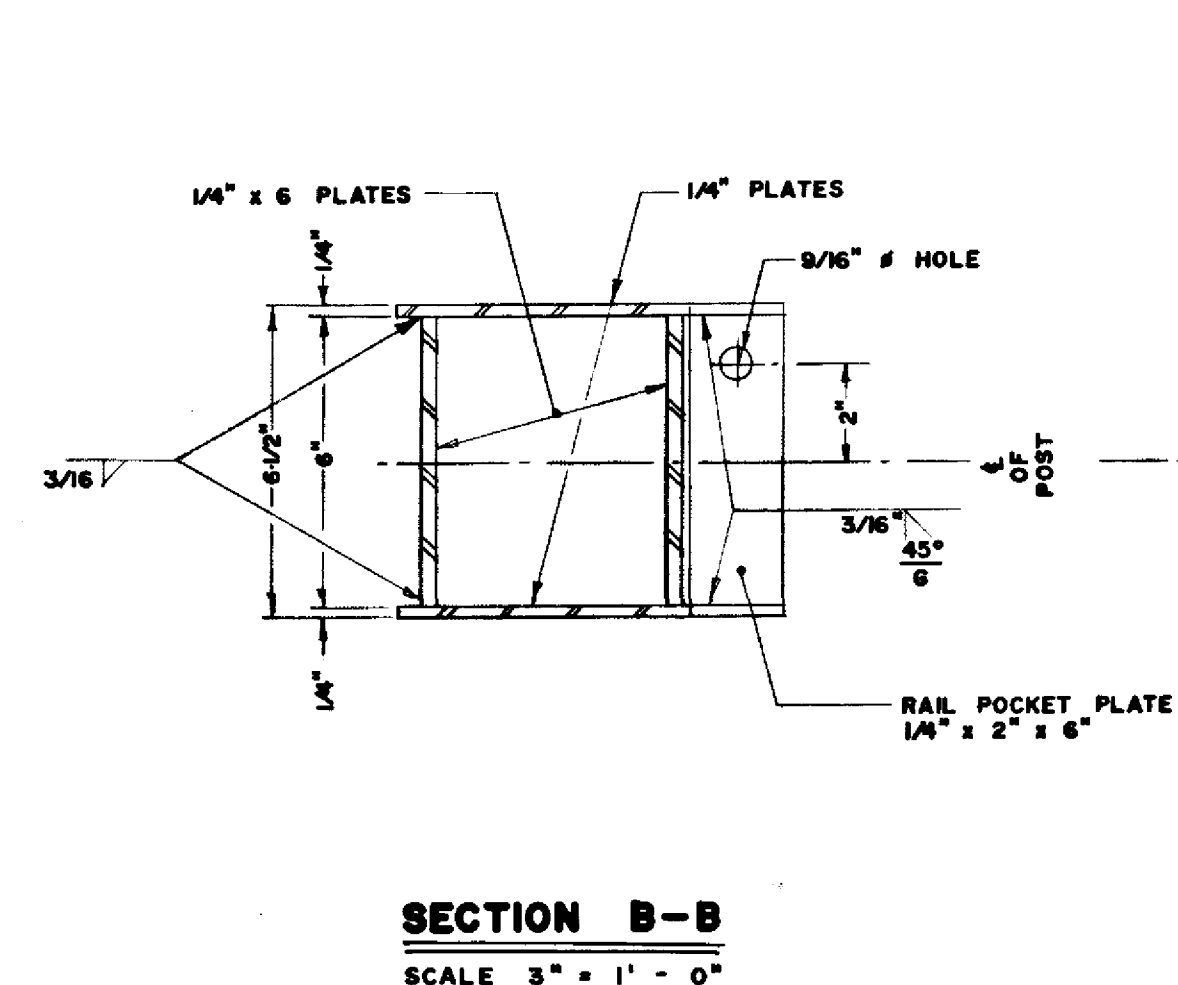
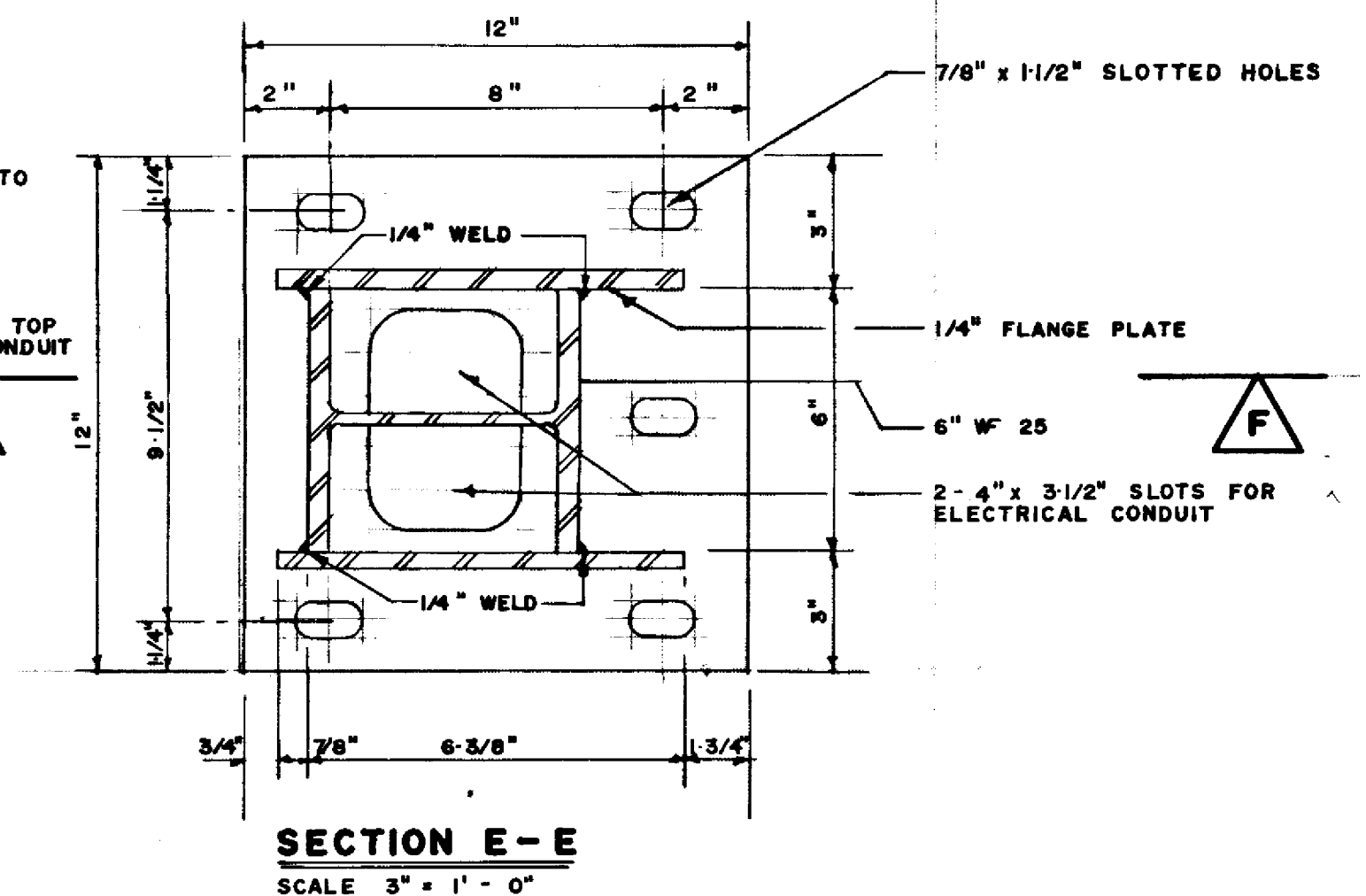
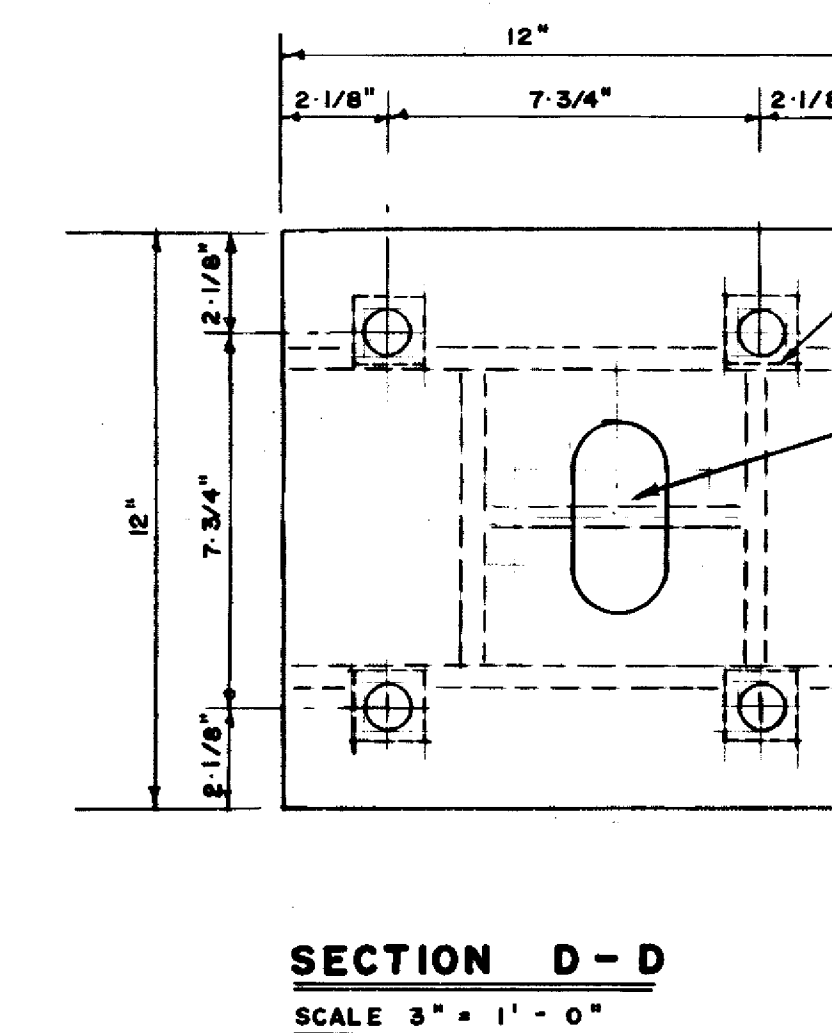
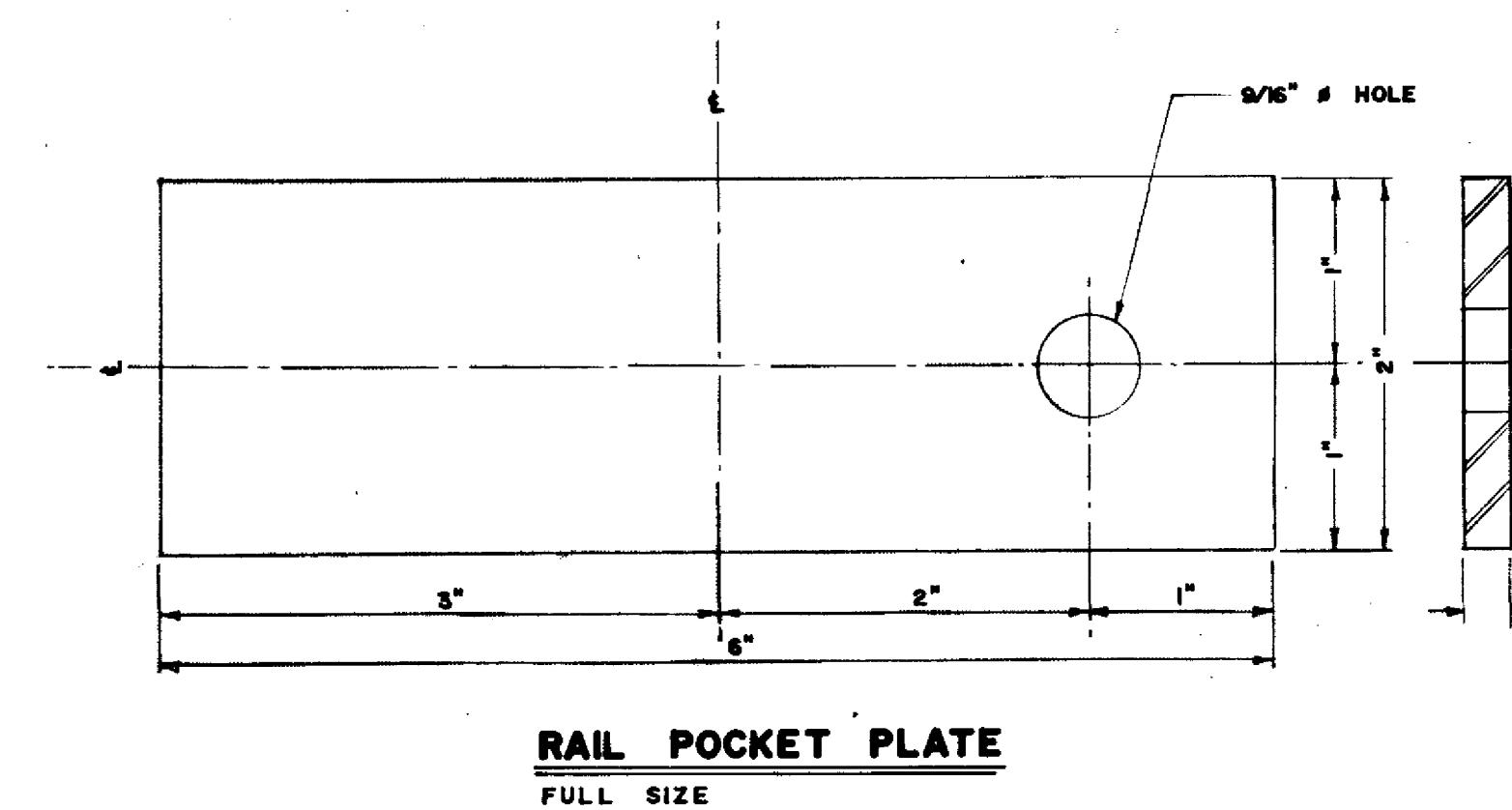
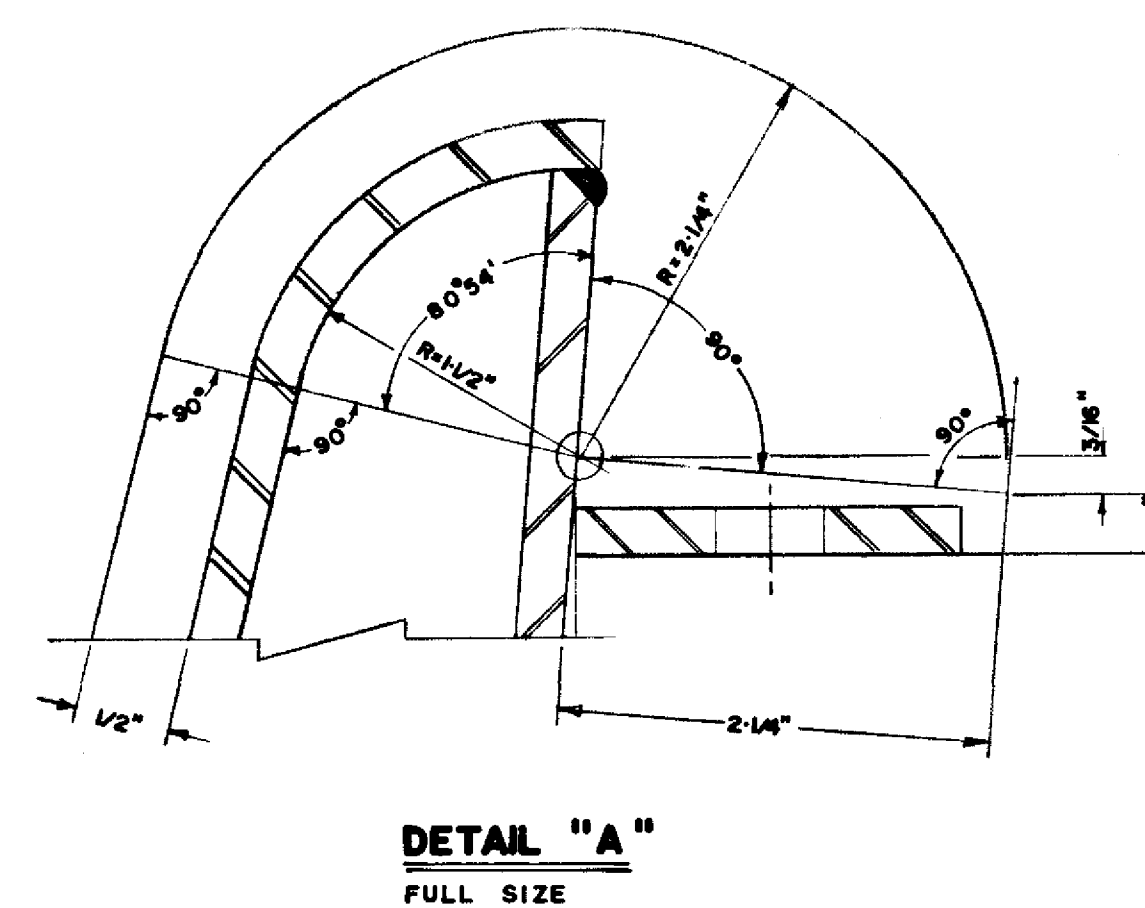
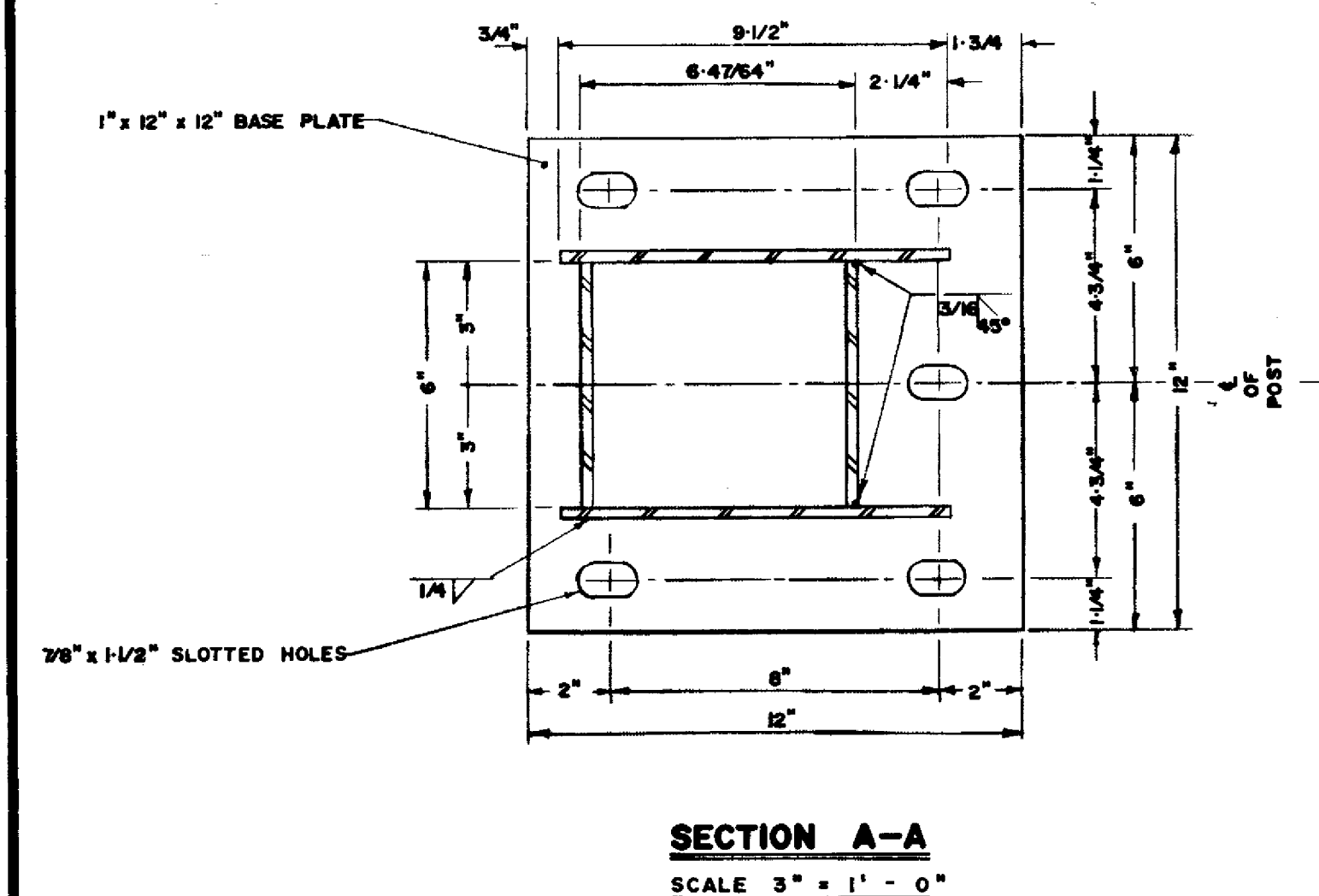
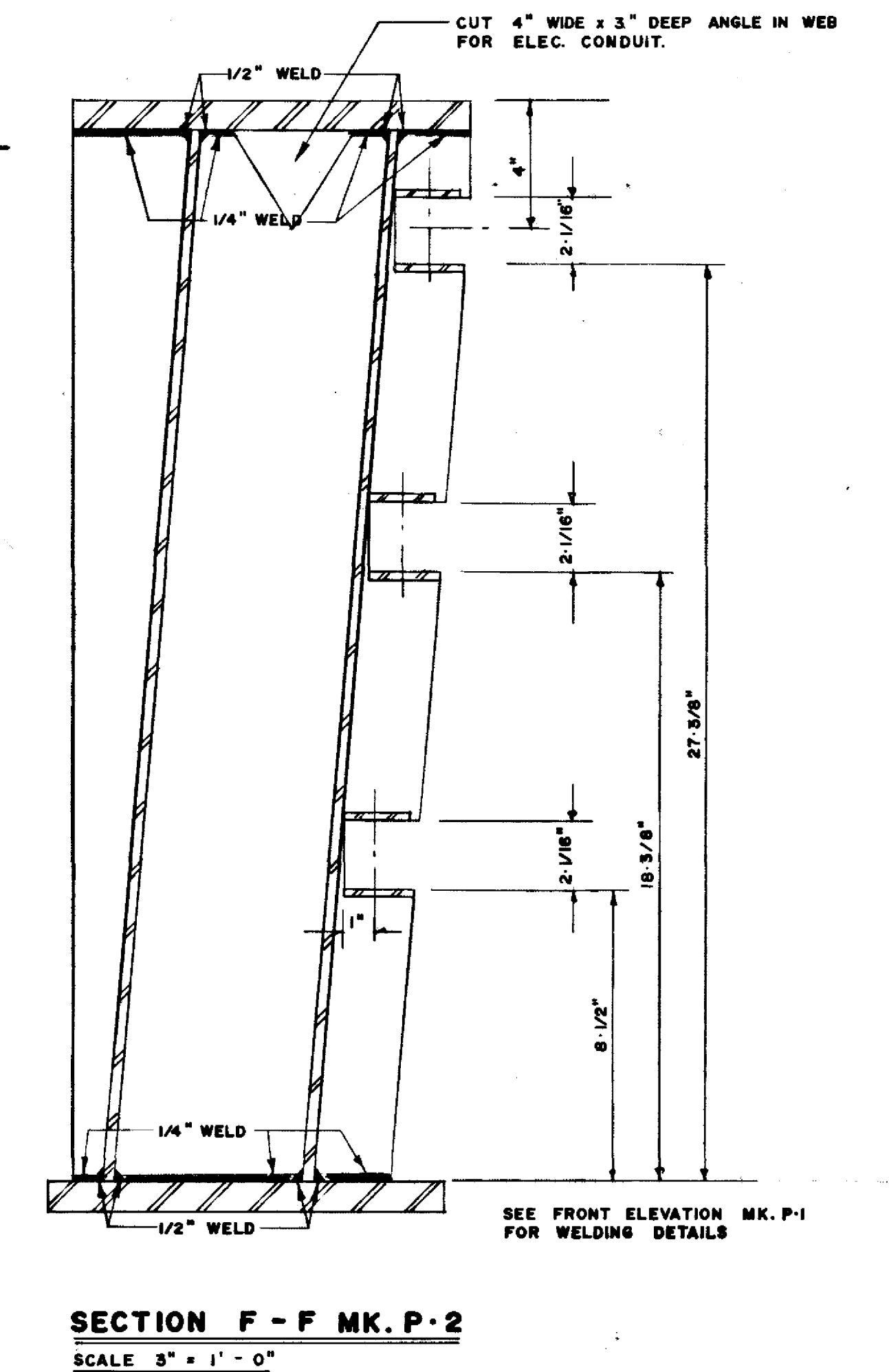
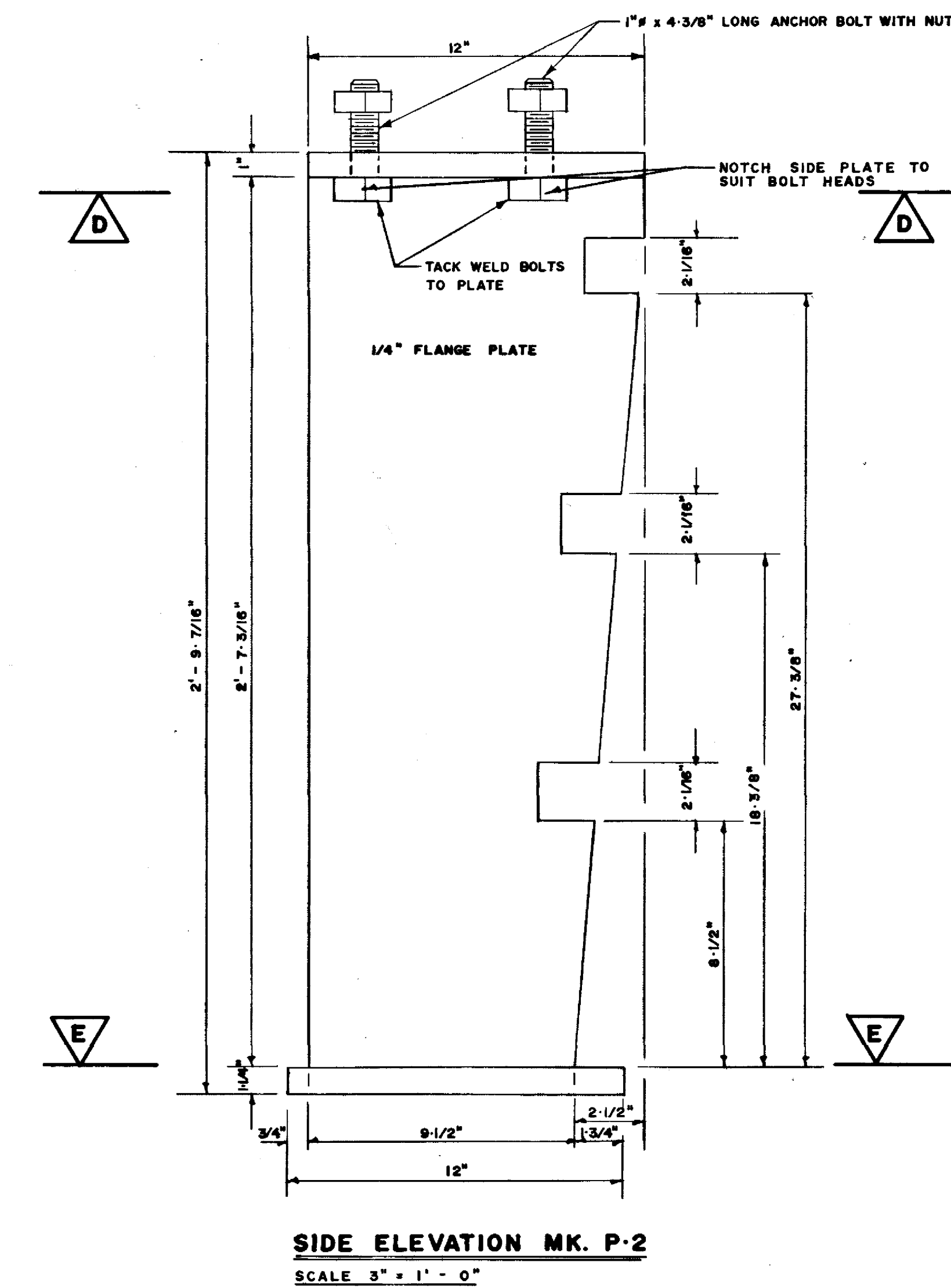
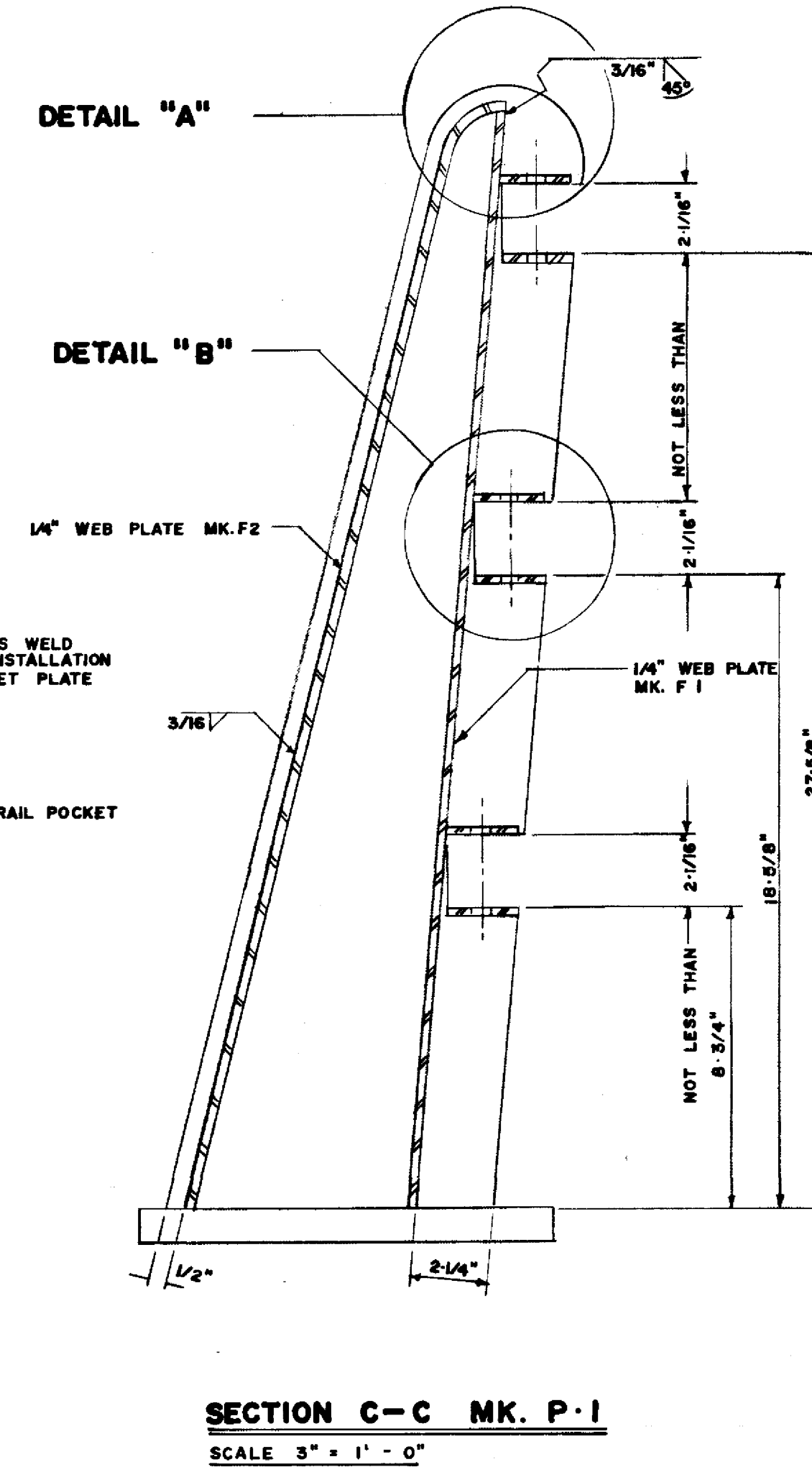
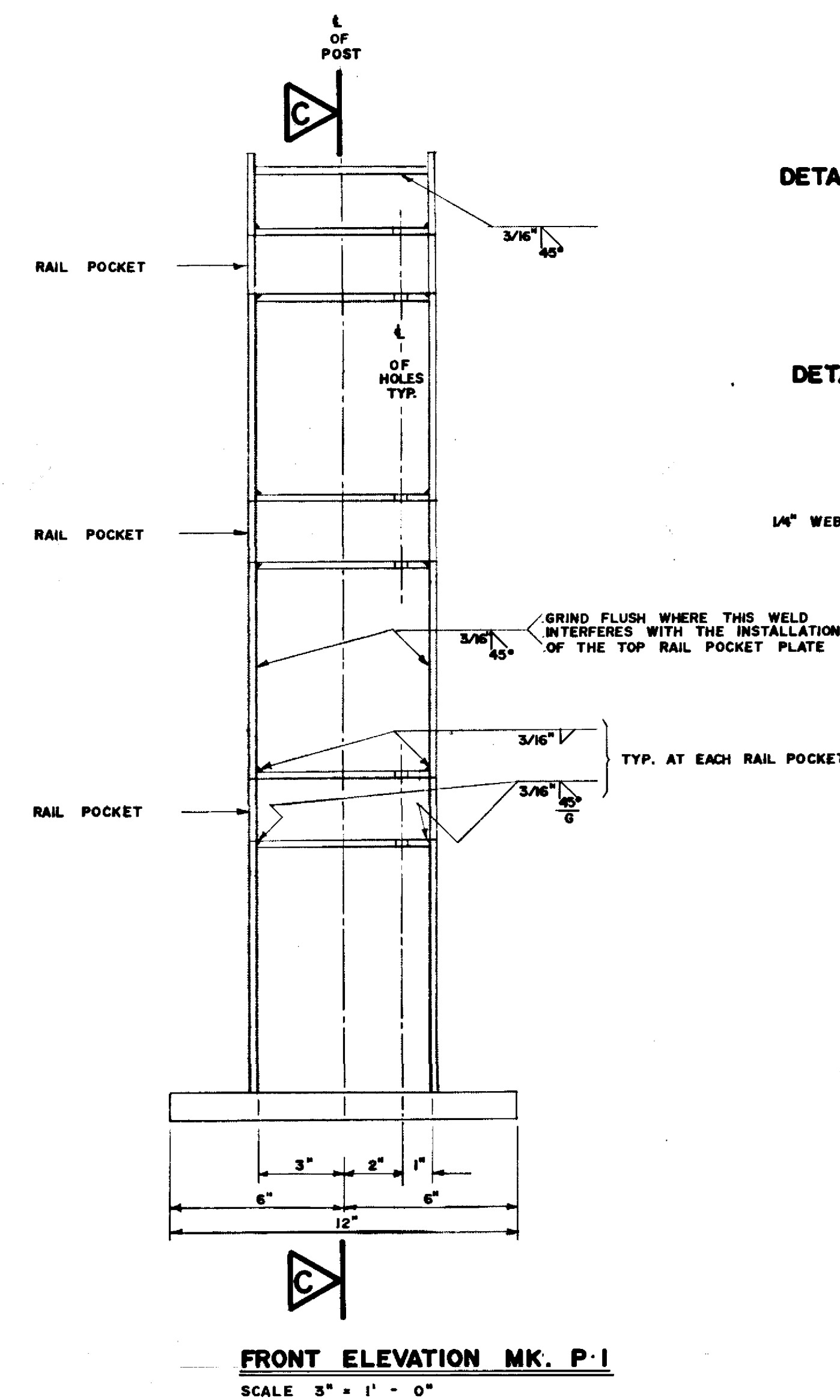
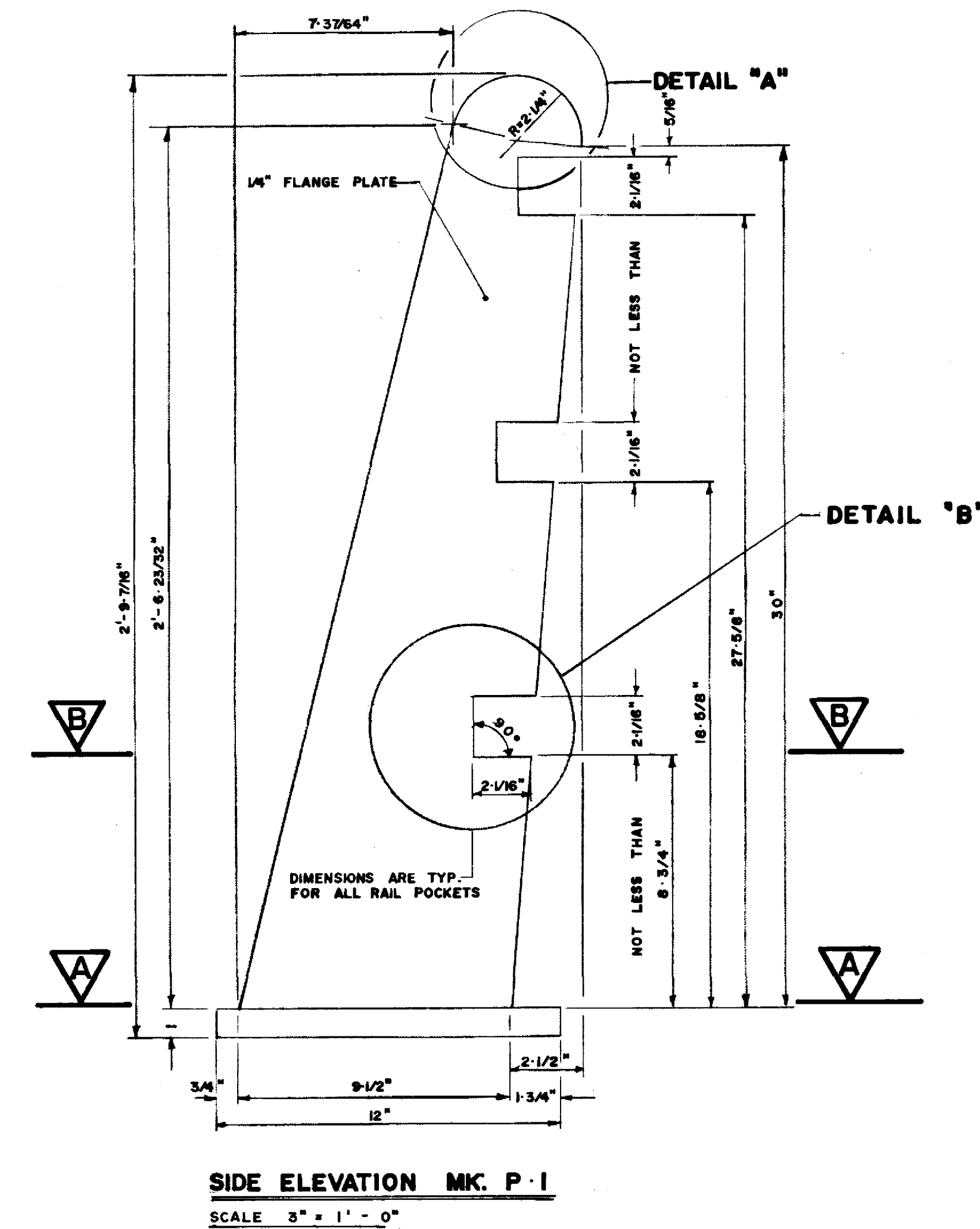
SHEET NO.

S - 18

OF

DECK REINFORCING DETAILS		PROJECT NO.
C.P.R. KEEWATIN OVERHEAD		SHEET NO.
P.T.H. 59 NORTH		S - 18
		OF





AS BUILT

SEE SHEET S-21 FOR BILL
OF MISCELLANEOUS METALS

APPROVED BY:

Bob Paul
CHIEF BRIDGE ENGINEER

DIRECTOR OF PLANNING

B-5055-22

GUARDRAIL POST DETAILS

C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH

PROJECT NO.

SHEET NO.

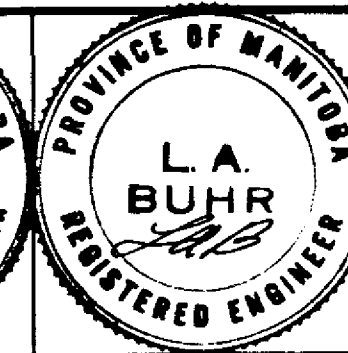
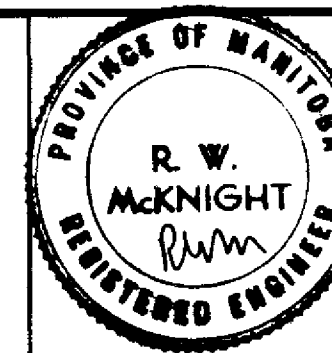
S -20

of

[illegible]

SPECIFICATIONS

A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961)
H20 - S16 - 44 TRUCK LIVE LOADING

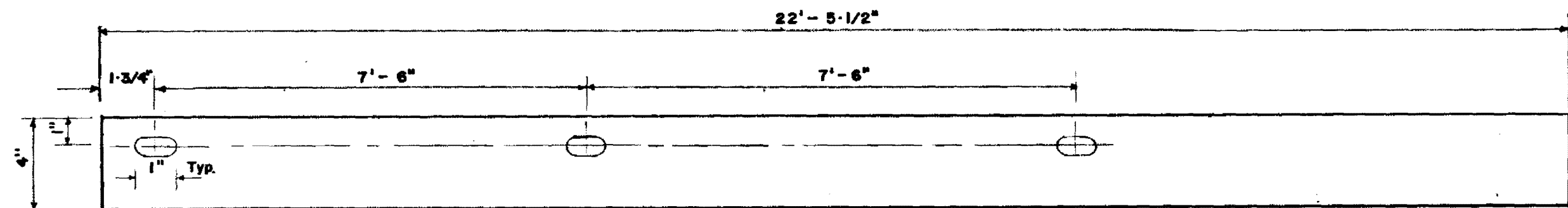


M. M. DILLON LIMITED
LONDON • TORONTO • OTTAWA • WINNIPEG • SUDBURY • WINDSOR
CONSULTING ENGINEERS
PROJECT OFFICE: WINNIPEG

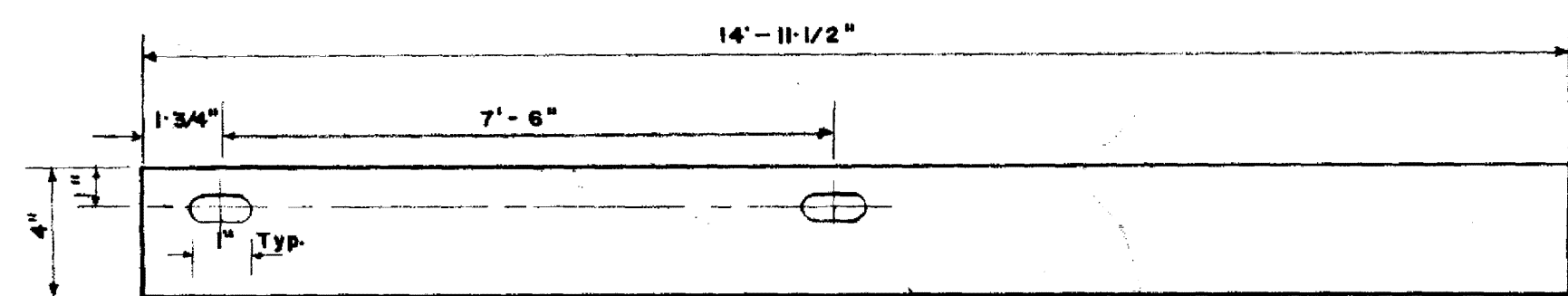
PROVINCE OF MANITOBA
HIGHWAYS DEPARTMENT
REF. PLAN N° 871
LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA
RAILWAY CHAINAGE - MILE 122.4
KEEWATIN SUBDIVISION

					DESIGN	<i>[Signature]</i>
					DRAWN	<i>[Signature]</i>
					CHECKED	<i>[Signature]</i>
					APPROVED	<i>[Signature]</i>
I	MK. Q1 UNIT		NOV. '67	<i>[Signature]</i>	DATE	MAY, 1967
NO.	REVISIONS		DATE	BY	SCALE	AS SHOWN

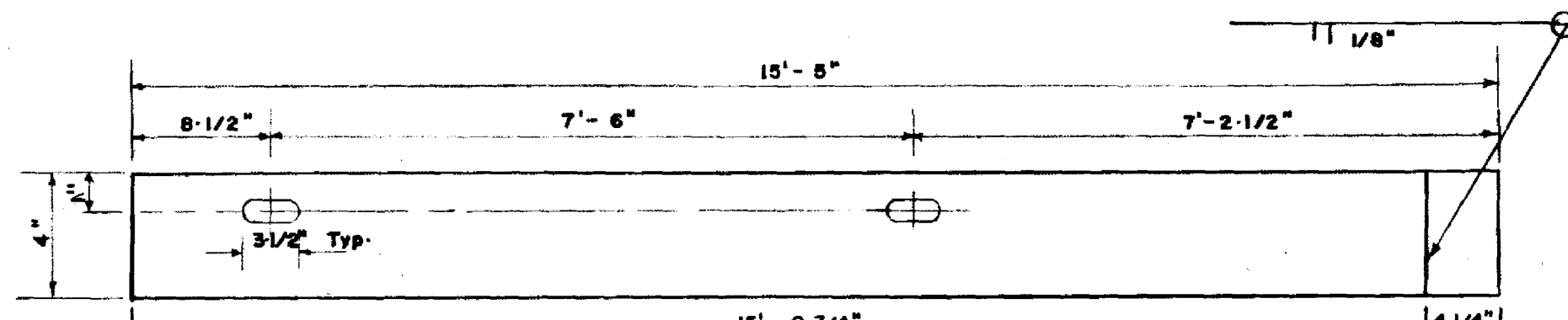
GUARDRAIL POST DETAILS		SHEET NO.
C.P.R. KEEWATIN OVERHEAD		S-20
P.T.H. 59 NORTH		OF



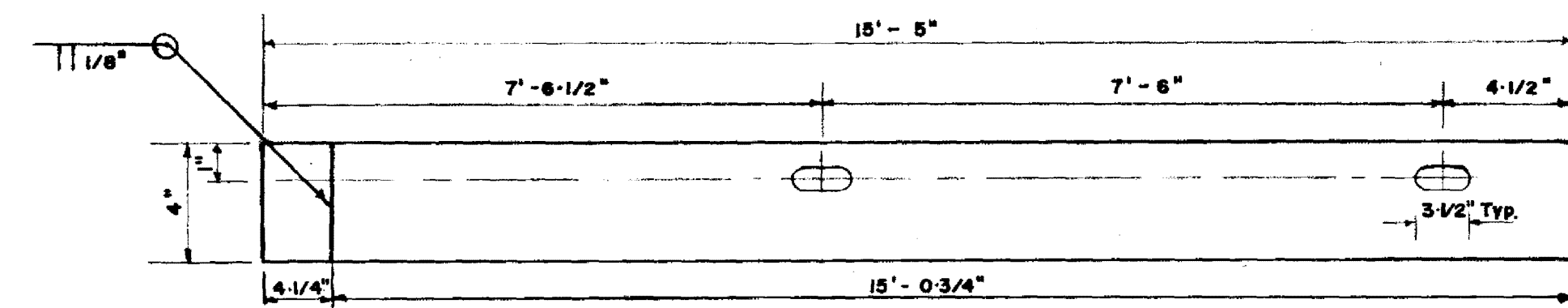
MK.R1



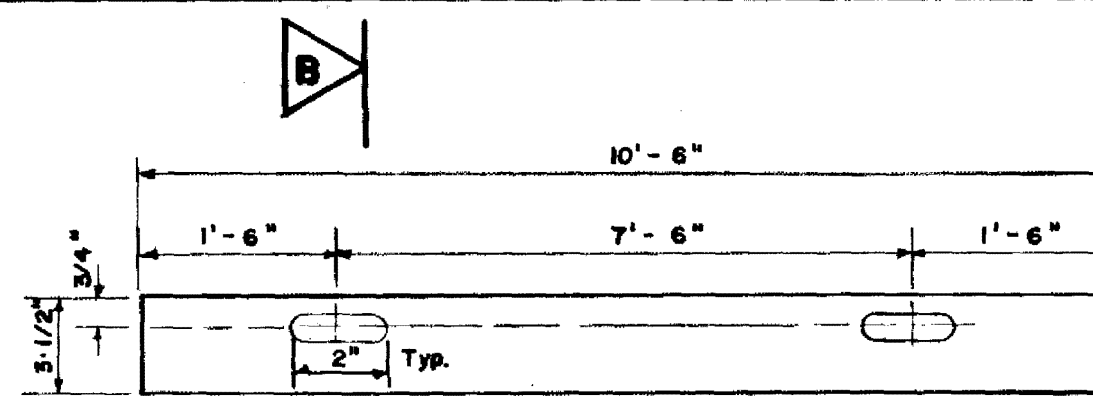
MK.R2



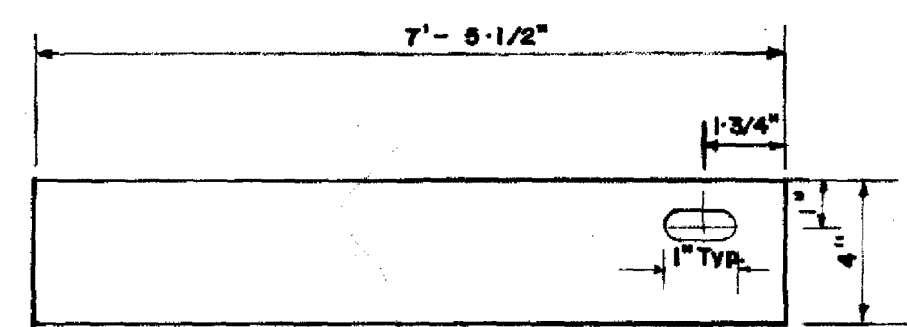
MK.R20 FABRICATE BY WELDING 4-1/4" LENGTH OF PIPE TO THE 15'-0-3/4" LENGTH OF PIPE LEFT AFTER CUTTING 1-MK.R30 FROM A 22'-5-1/2" LENGTH.



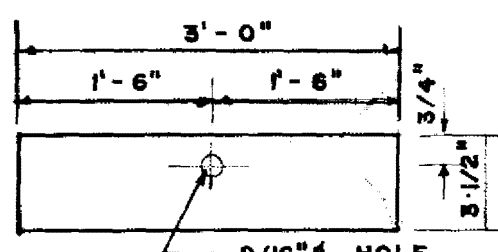
MK.R21 FABRICATE BY WELDING 4-1/4" LENGTH OF PIPE TO THE 15'-0-3/4" LENGTH OF PIPE LEFT AFTER CUTTING 1-MK.R30 FROM A 22'-5-1/2" LENGTH.



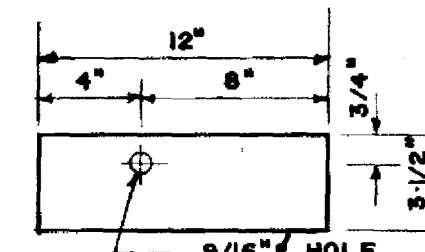
MK.R31



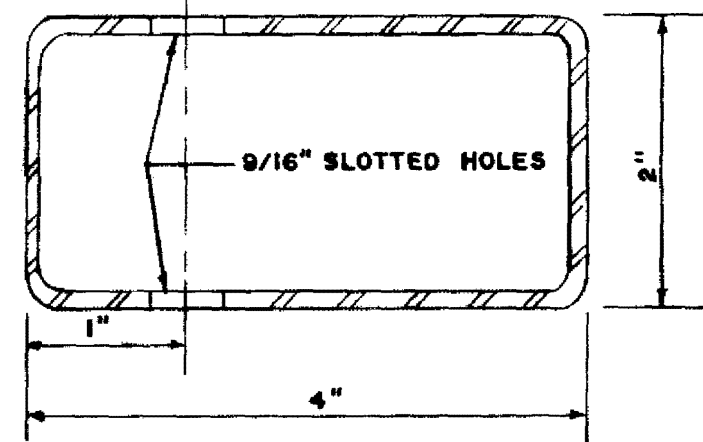
MK.R3



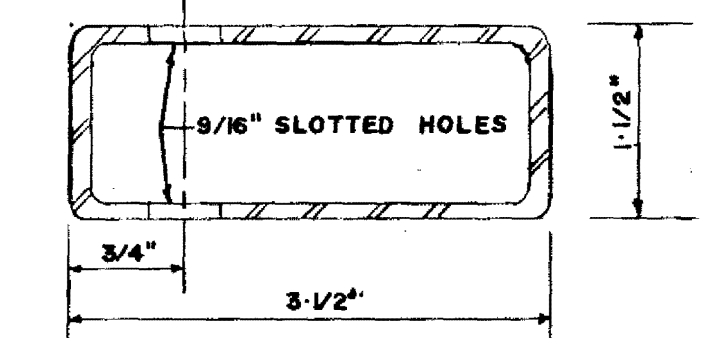
MK.R11



MK.R32



SECTION A - A



SECTION B - B

SEE NOTE #3

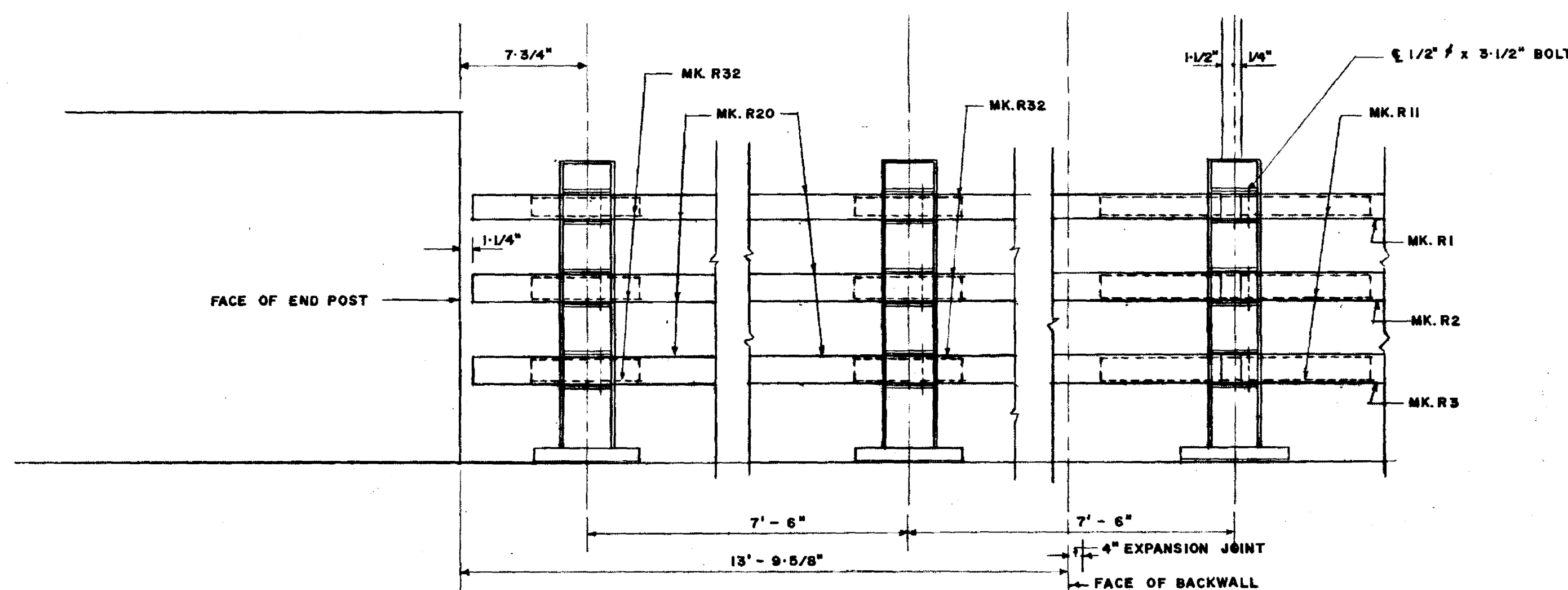
BILL OF MISCELLANEOUS METALS					
MARK	NO.	DESCRIPTION	SIZE	COMPONENT WEIGHT	WT. PER POST
MATERIAL TO BE SUPPLIED AND FABRICATED					
P1	222	RAIL POSTS	22'-5 1/2" LONG	14.68	29.36
		FLANGE PLATES	2-1/4" THICK PLATES	13.50	13.50
		WEB PLATE	1-1/4" x 6" x 2'-7 3/4" LONG MK F1	14.41	14.41
		RAIL POCKET PLATES	6-1/4" x 2" x 2'-9 7/8" LONG MK F2	0.85	5.10
		BASE PLATE	1-1/4" x 2" x 6" LONG	40.83	40.83
P2	10	RAIL POSTS	10'-6" LONG	23.75	47.50
		FLANGE PLATES	2-1/4" THICK PLATES	64.98	64.98
		RAIL POCKET PLATES	6-1/4" x 2" x 2'-9 7/8" LONG	0.85	5.10
		BASE PLATE	1-1/4" x 2" x 6" LONG	50.10	50.10
		TOP PLATE	1-1/4" x 2" x 6" LONG	40.83	40.83
		ANCHOR BOLTS	4-1/2" x 3/4" LONG	1.73	1.73
		LOCK WASHERS	4-TO FIT 1" BOLTS	.14	.14
		NUTS	4-TO FIT 1" BOLTS	.170	.170
W2	232	SHIMS	1/16" x 2" PLATE x 2" LONG	.425	217.71
Q1	252	PIPE INSERT UNITS TO BE FABRICATED FROM:		20.40	3.50
		1-1/2" x 12" x 12" PLATE		.96	
		5-1/2" GALV. STEEL PIPE x 4-3/4" LONG			
		ASTM A449 NUTS TO FIT 3/4" BOLTS			
696		RAILING BOLTS	1/2" x 3-1/2" LONG	.302	5768
696		LOCK WASHERS	TO FIT 1/2" BOLTS	.038	210
696		NUTS	do		26
TOTAL				3106	154

BILL OF MISCELLANEOUS METALS					
MARK	NO.	DESCRIPTION	SIZE	COMPONENT WEIGHT	TOTAL WEIGHT
TO BE FABRICATED FROM MATERIAL SUPPLIED BY MINISTER					
R1	156	GUARD RAIL	4" x 2" x 0.02" RNS 22'-5 1/2" LONG	157.43	24559
R2	40	do	do 14'-11 1/2" LONG	104.86	14194
R3	40	do	do 7'-5 1/2" LONG	52.28	2091
R20	12	do	do 15'-5" LONG	107.77	1293
R21	12	do	do 15'-5" LONG	107.77	1293
R30	48	do	do 7'-4 3/4" LONG	51.73	2483
R11	200	SLEEVES	3-1/2" x 1-1/2" x 0.010" RNS 3'-0" LONG	14.61	2922
R31	48	do	do 10'-6" LONG	51.13	2454
R32	48	do	do 1'-0" LONG	4.87	233
TOTAL				41522	IN

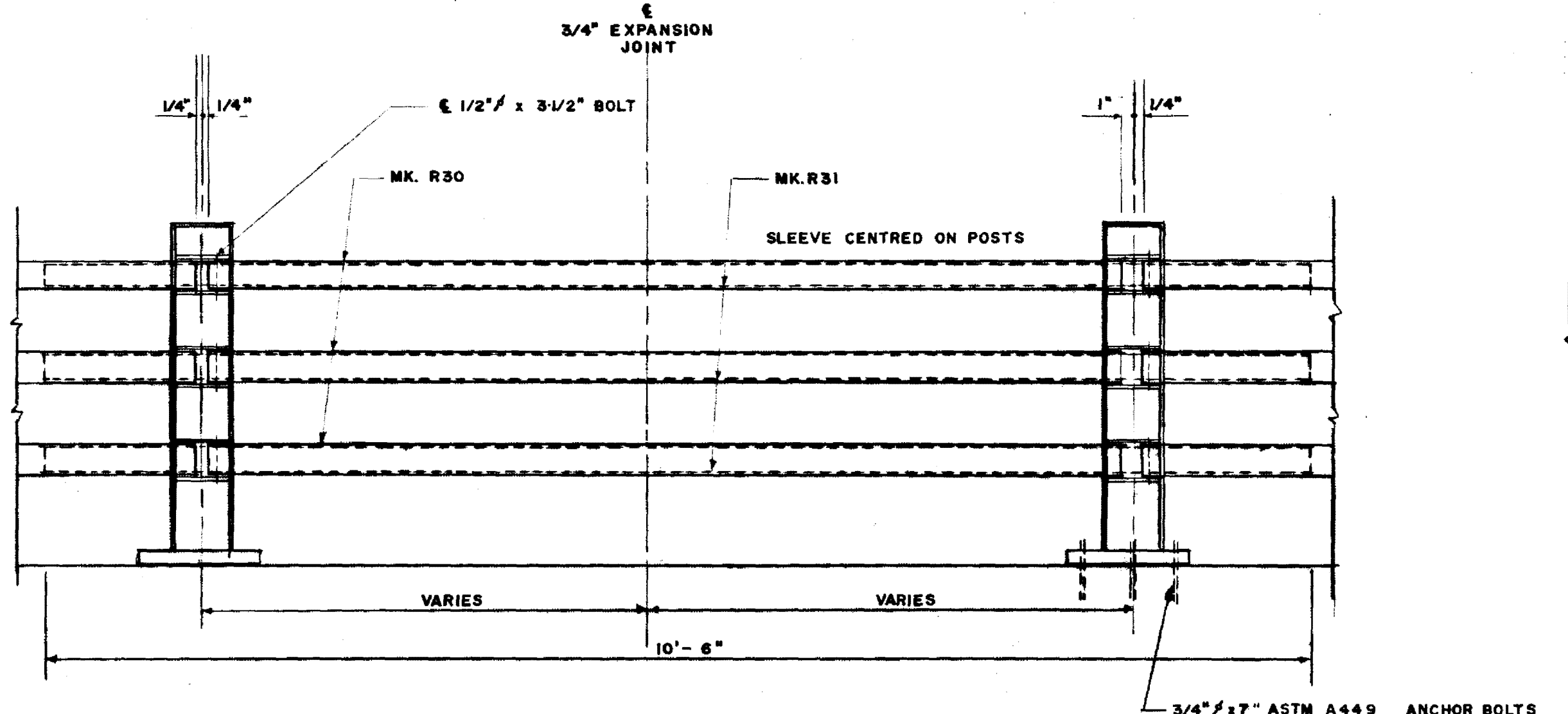
BILL OF MISCELLANEOUS METALS					
MARK	NO.	DESCRIPTION	SIZE	COMPONENT WEIGHT	TOTAL WEIGHT
TO BE SUPPLIED BY MINISTER DIRECT TO THE GENERAL CONTRACTOR					
1180		ASTM A449			
1180		RAIL POST ANCHOR BOLTS	3/4" x 7" LONG		1606
1180		LOCK WASHERS	TO FIT 3/4" BOLT		
1180		PLATE WASHERS	do		
TOTAL					1606

NOTE

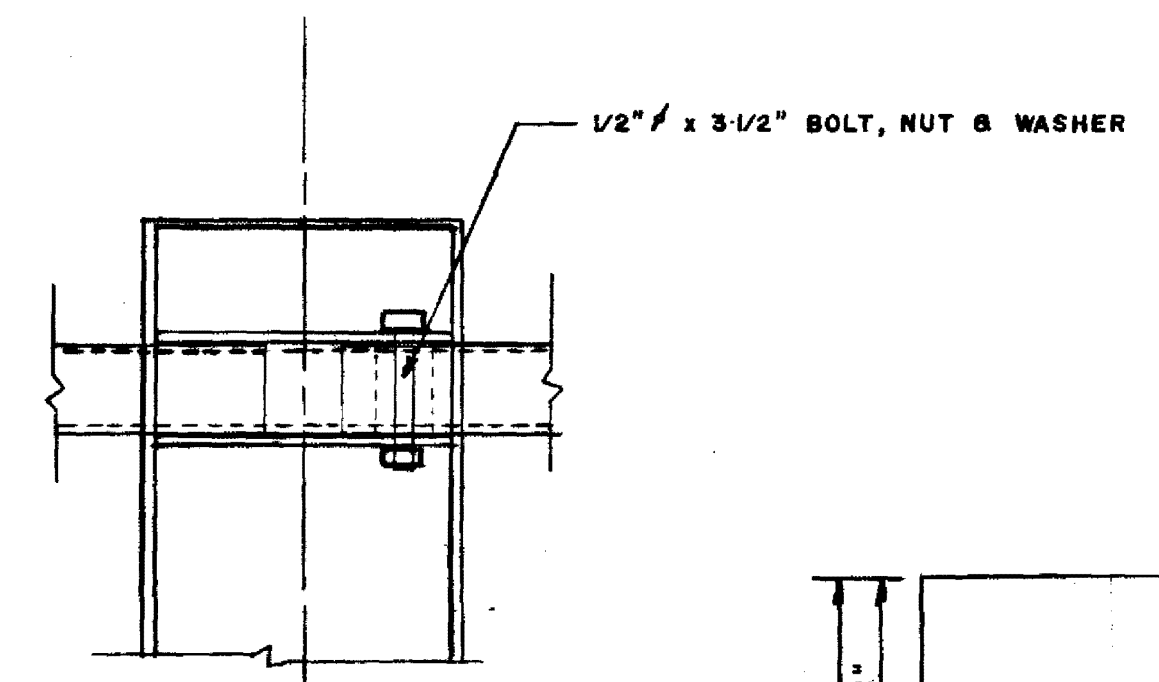
- ALL 2" x 4" (NOMINAL) PIPING WILL BE SUPPLIED IN LENGTHS OF 22'-5 1/2". ALL 1-1/2" x 3-1/2" (NOMINAL) PIPING WILL BE SUPPLIED IN LENGTHS OF 30'-0".
- THE CONTRACTOR FOR THE MISCELLANEOUS METALS WILL BE REQUIRED TO PRODUCE LENGTHS OF PIPE, AS INDICATED IN THE ABOVE BILL, FROM THE MATERIAL SUPPLIED BY THE MINISTER.
- THE CONTRACTOR FOR THE MISCELLANEOUS METALS WILL BE REQUIRED TO PRODUCE THE LENGTHS OF PIPE INDICATED FOR MK.R20, MK.R21 AND MK.R31 FROM 33'-22'-5 1/2" LENGTHS.
- RAIL SECTIONS MK.R20 AND MK.R21 SHALL BE SHOP WELDED BY FABRICATOR. THE WELDS SHALL BE GROUND FLUSH AND FINISHED SMOOTH ON INSIDE AND OUTSIDE.



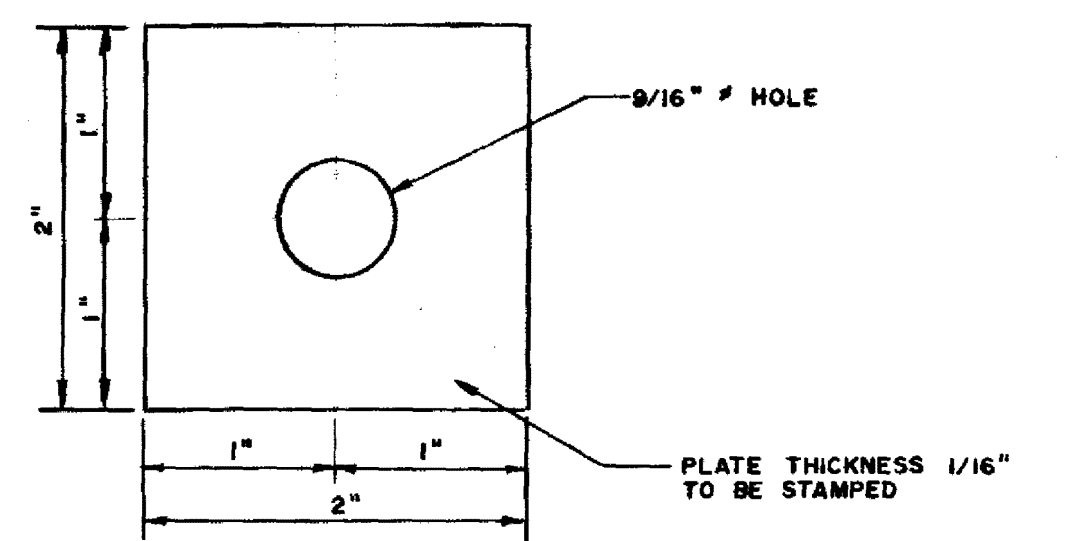
ELEVATION AT ABUTMENTS (TYPICAL)



ELEVATION AT PIERS (TYPICAL)



TYPICAL BOLTING DETAIL



DETAIL OF SHIM MK.W2
SCALE: FULL SIZE

AS BUILT

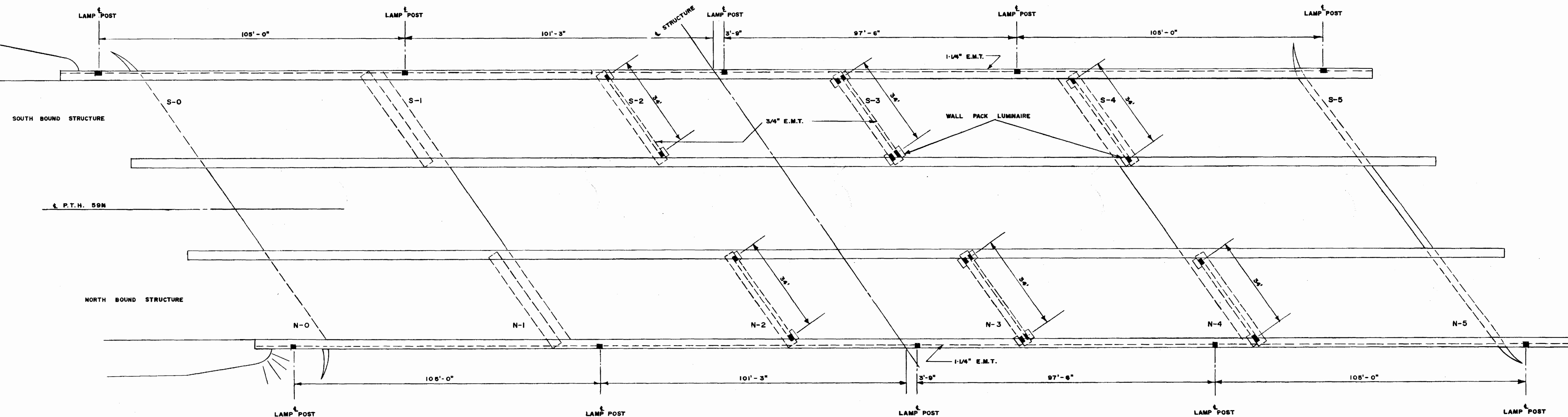
APPROVED *P.T. Kanie*

LAYOUT OF RAILING - WEST SIDE OF NORTH & SOUTH BOUND STRUCTURES
EAST SIDE SIMILAR BUT REVERSE THE ENDS

B-5055-23

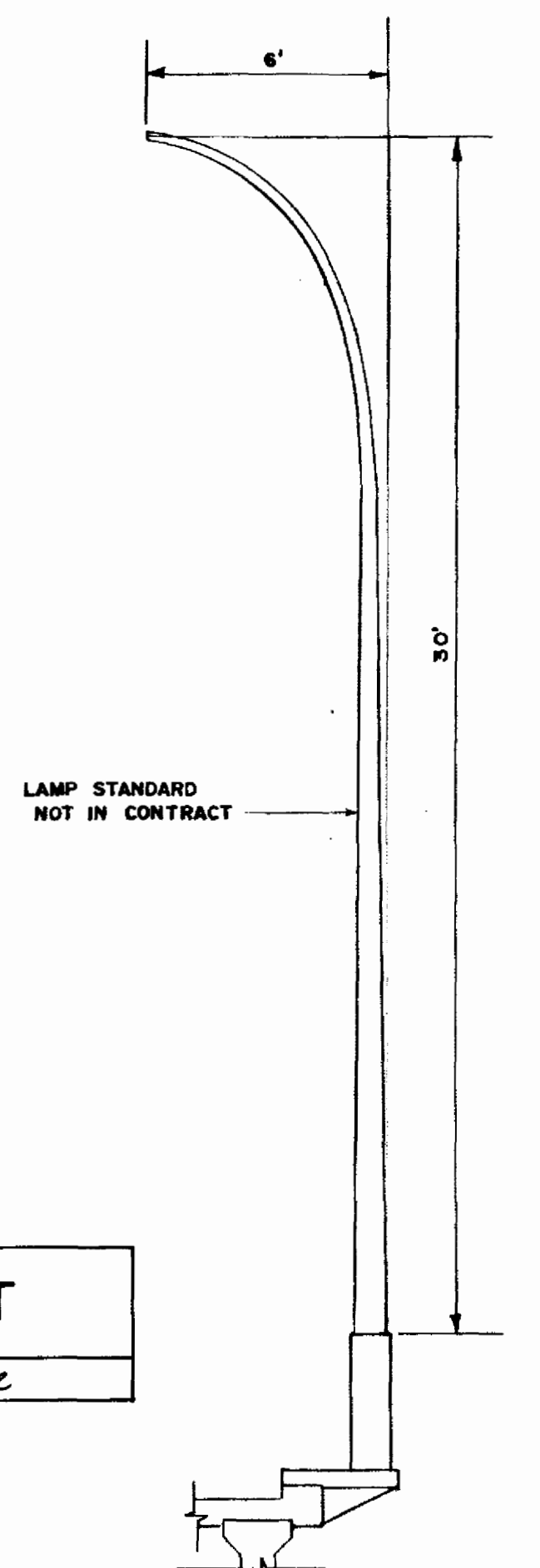
APPROVED BY: *[Signature]* CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING

PRINT RECORD	DATE	NO.	SPECIFICATIONS A.A.S.H.O. SPECS FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING	PROVINCE OF MANITOBA REGISTERED ENGINEER R.W. MCKNIGHT	PROVINCE OF MANITOBA REGISTERED ENGINEER L.A. BUHR	M.M. DILLON LIMITED LONDON - TORONTO - OTTAWA - WINNIPEG - SUDBURY - WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	DESIGN DRAWN CHECKED APPROVED DATE SCALE	NOV/67 MAY 1967 NOT TO SCALE	GUARDRAIL DETAILS C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH	PROJECT NO. SHEET NO. S-21 OF
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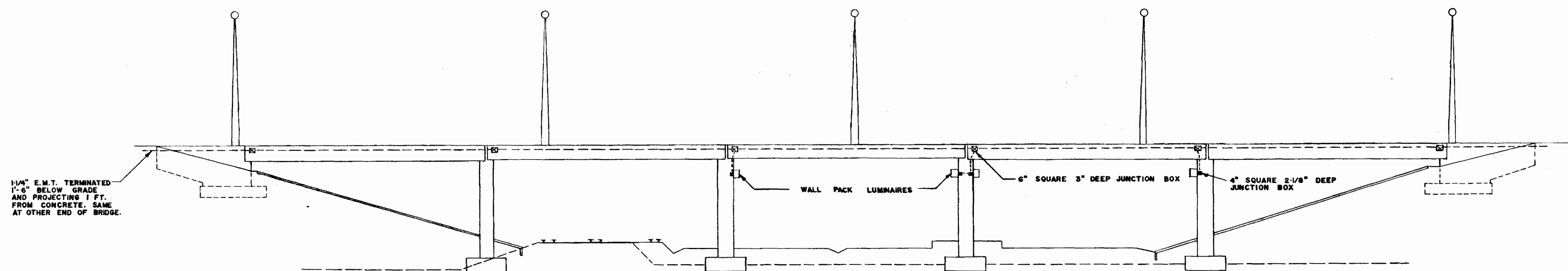


ELECTRICAL PLAN
SCALE 1" = 16'-0"

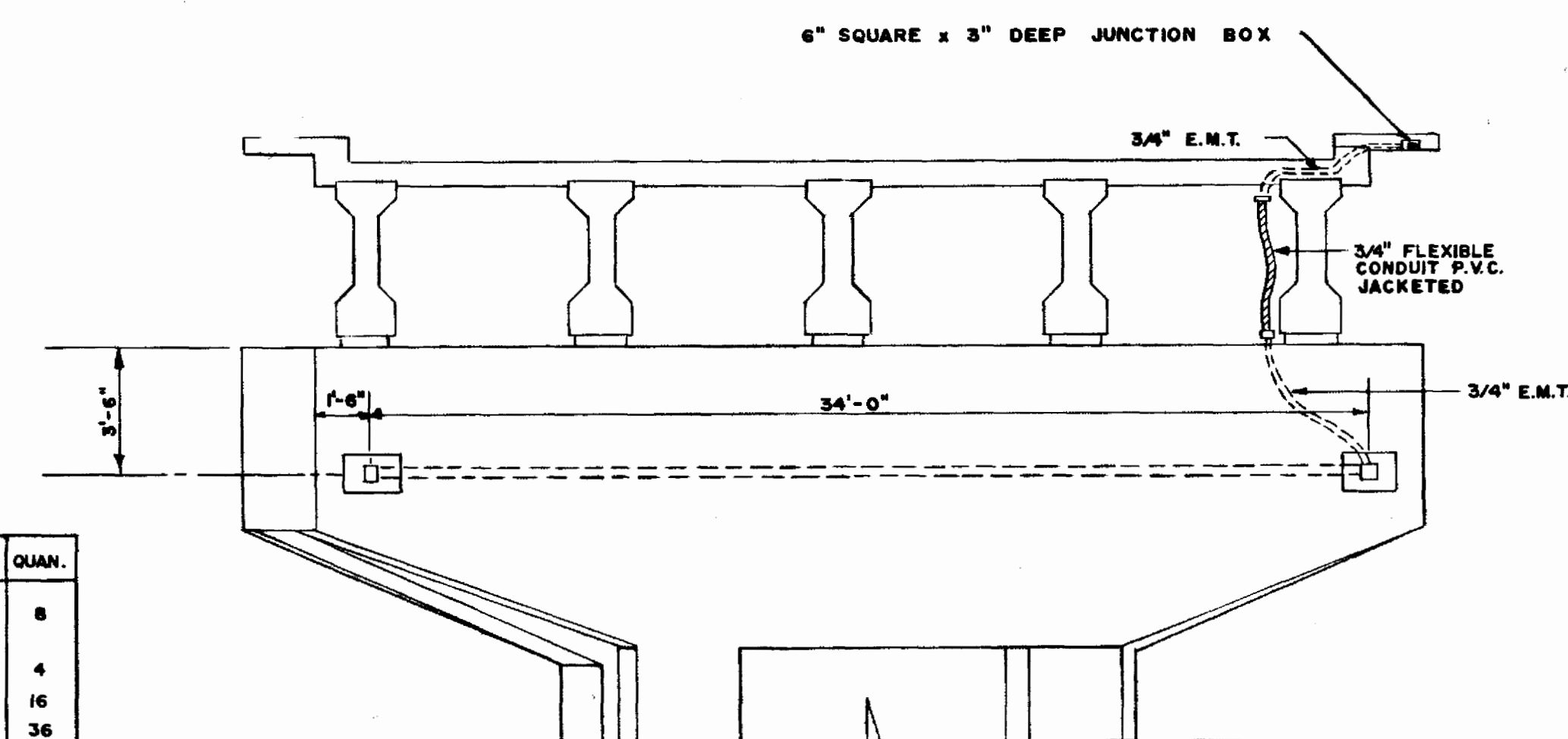
AS BUILT
APPROVED *P.T. Keen*



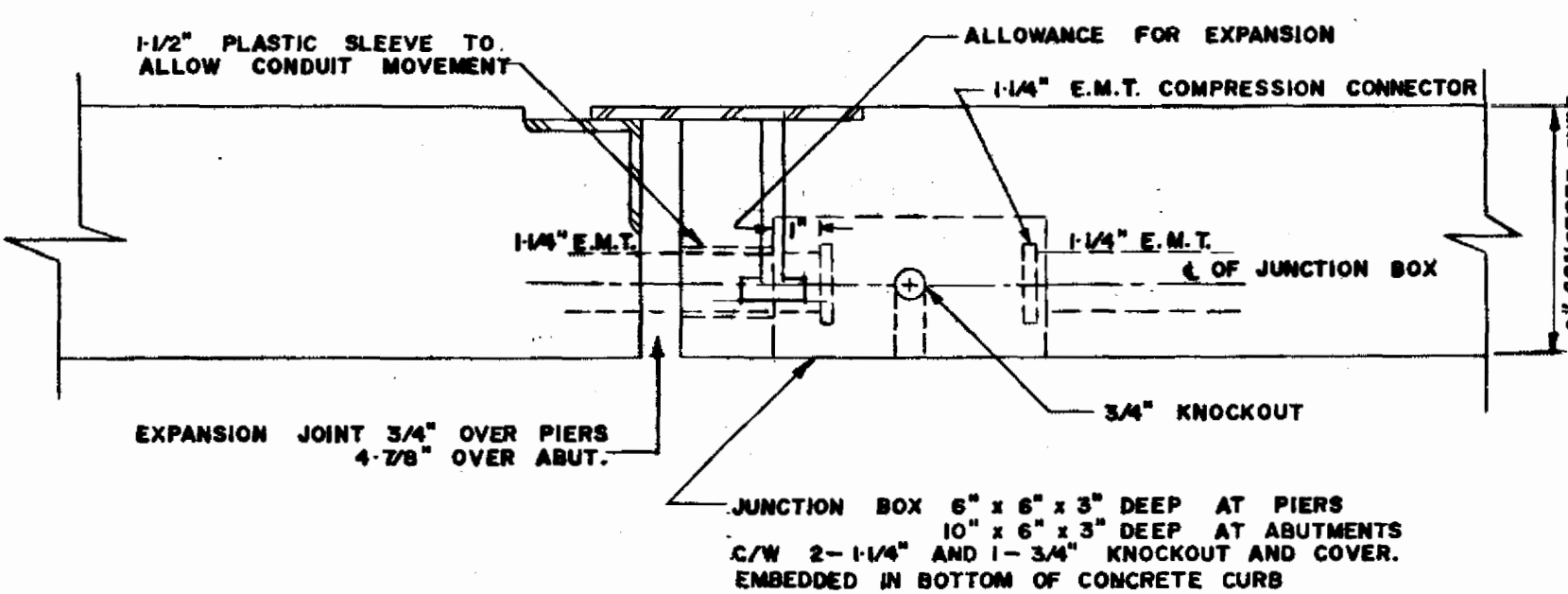
SECTION AT LAMP POST
SCALE 1/4" = 1'-0"



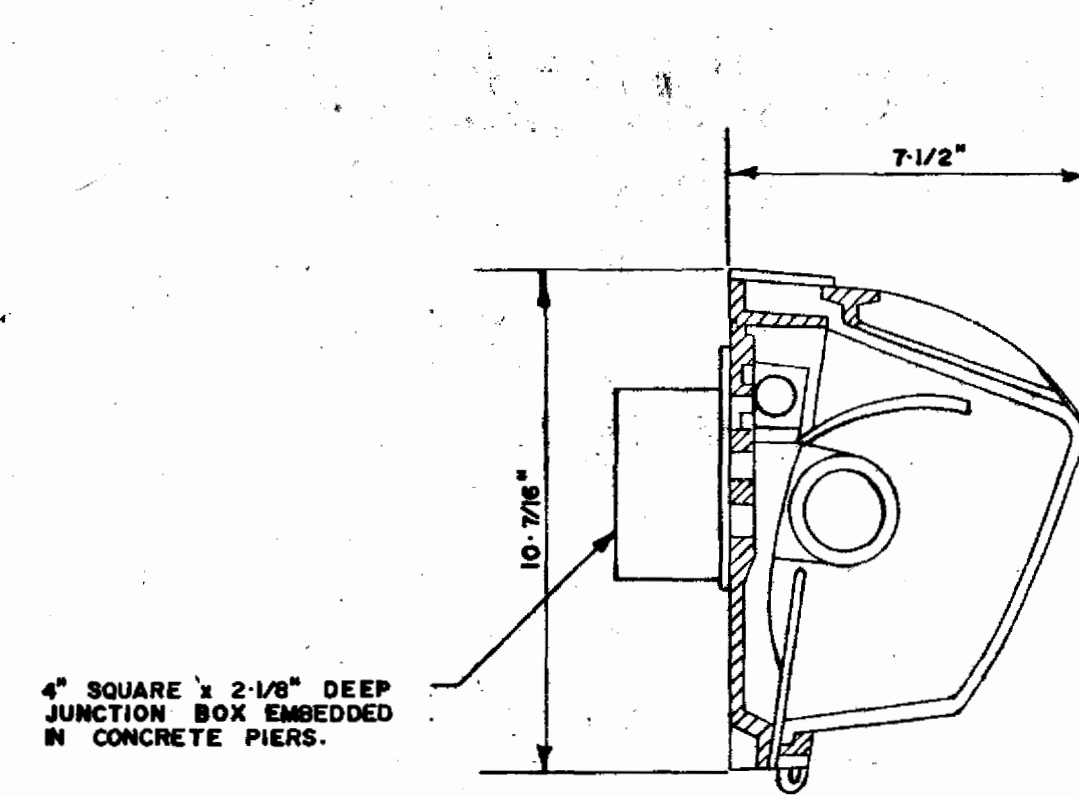
EAST ELEVATION OF NORTH BOUND STRUCTURE PERPENDICULAR TO TRACKS
SCALE 1" = 16'-0"



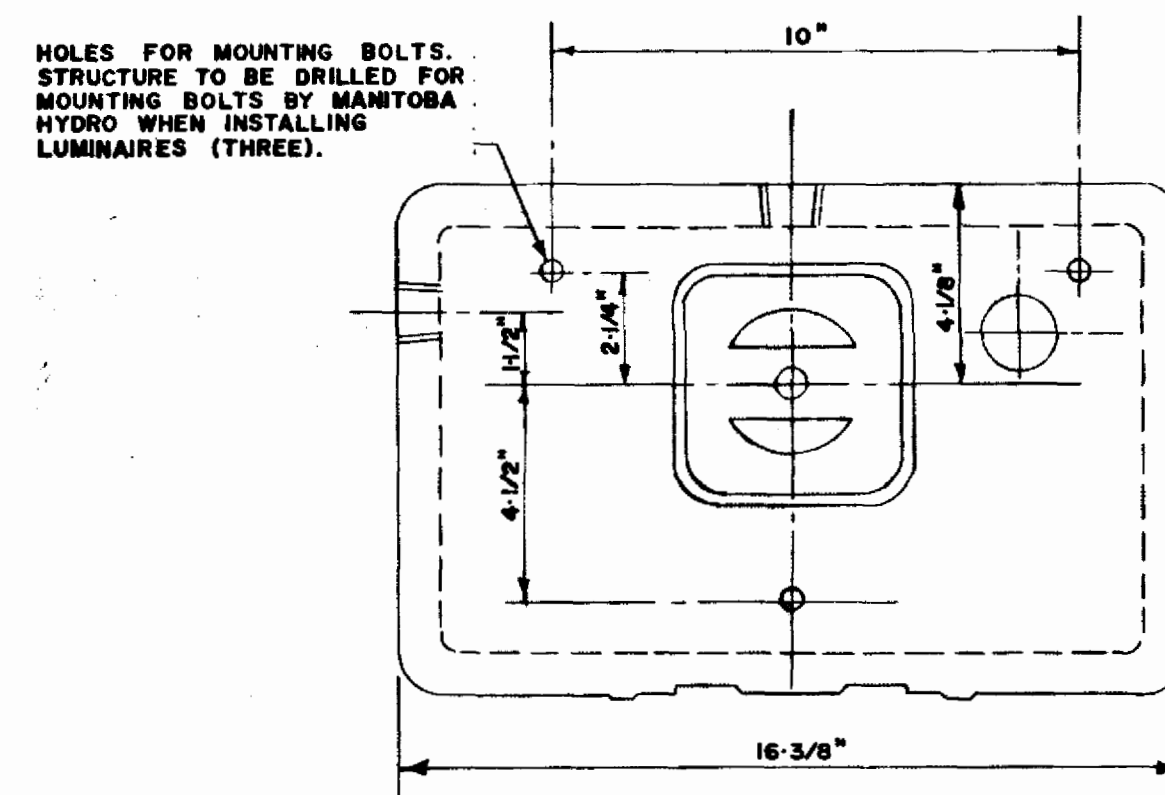
**NORTH BOUND STRUCTURE SHOWN
SOUTH BOUND STRUCTURE SIMILAR**
SCALE 1/4" = 1'-0"



DETAILS OF JUNCTION BOX AT EXPANSION JOINT
SCALE 3" = 1'-0"



WALL MOUNTED LUMINAIRE
SCALE 3" = 1'-0"

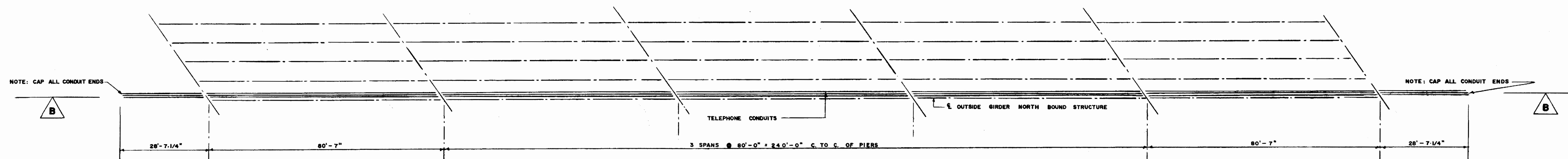
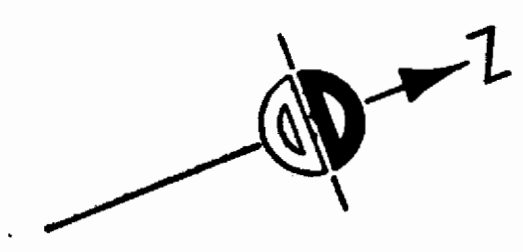


BACK VIEW WALL MOUNTED LUMINAIRE
SCALE 3" = 1'-0"

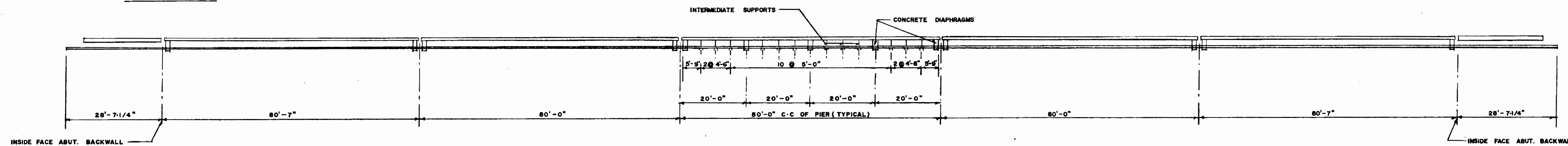
BILL OF ELECTRICAL MATERIALS		
ITEM	DESCRIPTION	QUAN.
1	6" SQUARE x 3" DEEP JUNCTION BOX C/W TWO 1-1/4" & ONE 3/4" KNOCK	8
2	10" x 6" x 3" JUNCTION BOX C/W TWO 1-1/4" AND ONE 3/4" KNOCKOUTS	4
3	4" SQUARE x 2 1/8" DEEP JUNCTION BOX - APPLETON CAT # 450 3/4	16
4	3/4" FLEXIBLE CONDUIT WITH P.V.C. JACKET	36
5	3/4" COUPLING FOR CONNECTING E.M.T. TO FLEXIBLE CONDUIT APPLETON # TWCC-75	12
6	3/4" COMPRESSION CONNECTOR FOR E.M.T. - APPLETON CAT. # 84-T-075	32
7	3/4" COMPRESSION COUPLING FOR E.M.T. - APPLETON CAT. # 93-T-075	28
8	3/4" E.M.T. (THINWALL)	280
9	1-1/4" E.M.T. (THINWALL)	850
10	1-1/4" COMPRESSION CONNECTOR FOR E.M.T. - APPLETON CAT. # 84-T-125	48
11	1-1/4" COMPRESSION COUPLING FOR E.M.T. - APPLETON CAT. # 93-T-125	85
12	6" SQUARE JUNCTION BOX BLANK COVERS	12
13	30' DAVIT STANDARDS C/W 6 FT. ARM	10

NOTE:
DRAWN IN ACCORDANCE TO MANITOBA HYDRO PLAN NO. 4000-E-0476, DATED MARCH 31, 1966.
THE CONTRACTOR SHALL SUPPLY & INSTALL ALL ELECTRICAL CONDUIT AND ASSOCIATE ELECTRICAL MATERIAL SHOWN ON THIS DRAWING EXCEPT AS OTHERWISE NOTED.
THE CONTRACTOR SHALL SUPPLY AND INSTALL PULL WIRE IN ALL CONDUITS.
ERECTION OF LAMP STANDARD NOT INCLUDED IN THIS CONTRACT
MANITOBA HYDRO WILL SUPPLY & INSTALL THE ELECTRICAL WIRING AND LUMINAIRES.

APPROVED BY: *[Signature]* **B-5055-24**
CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING



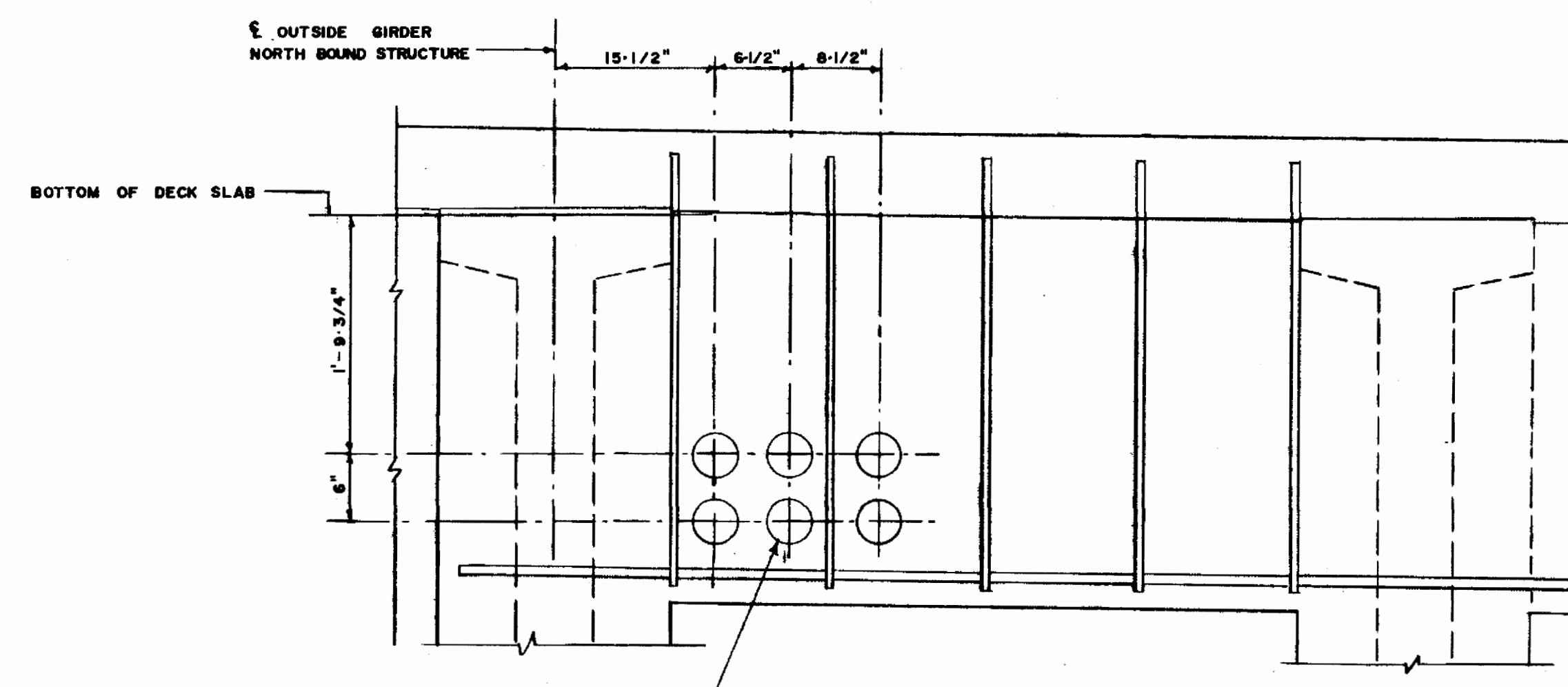
PLAN OF NORTH BOUND STRUCTURE
SCALE 1/16" = 1' - 0"



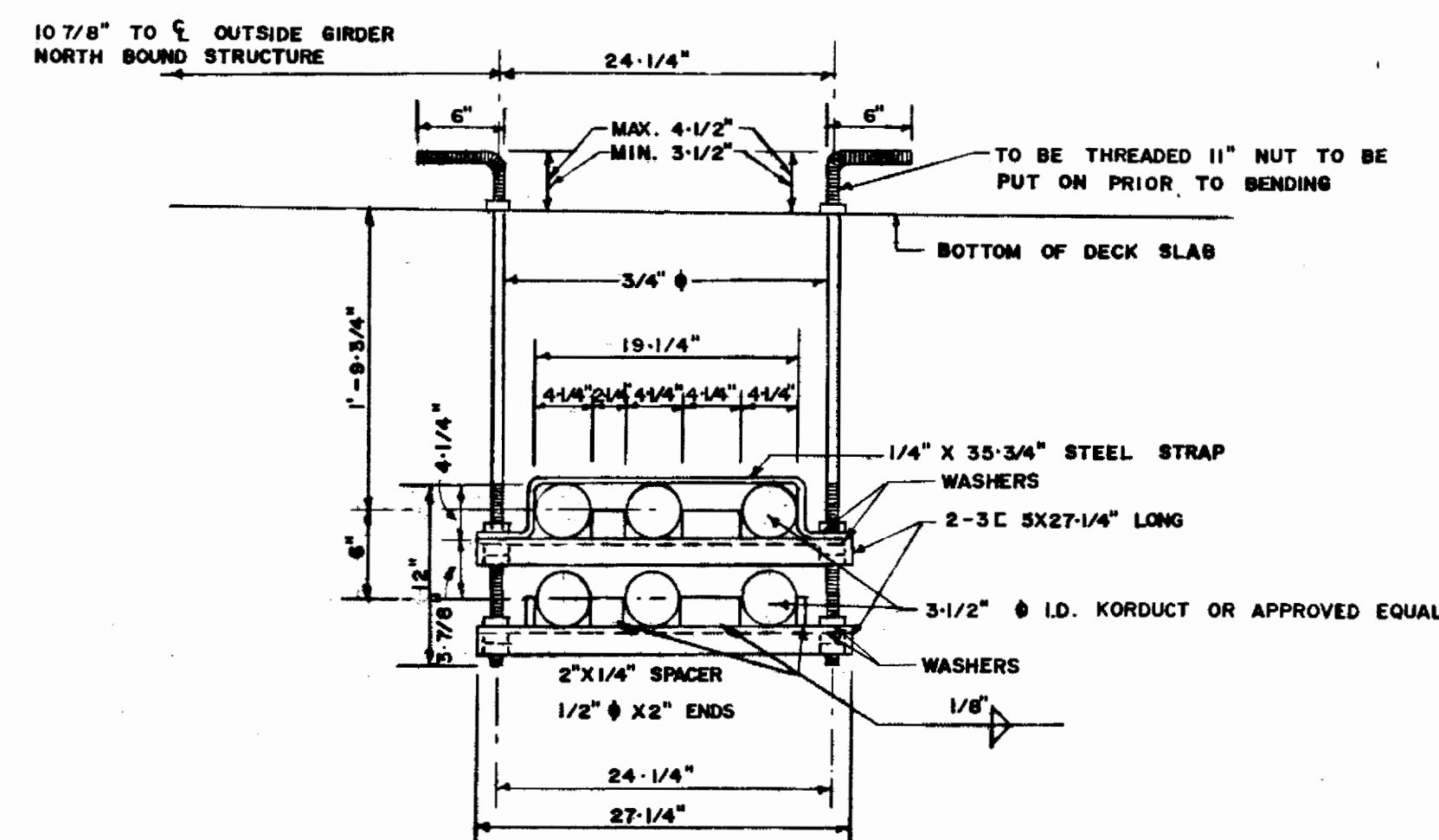
SECTION B - B
SCALE 1/16" = 1' - 0"

AS BUILT

APPROVED *P.J. Keenie*



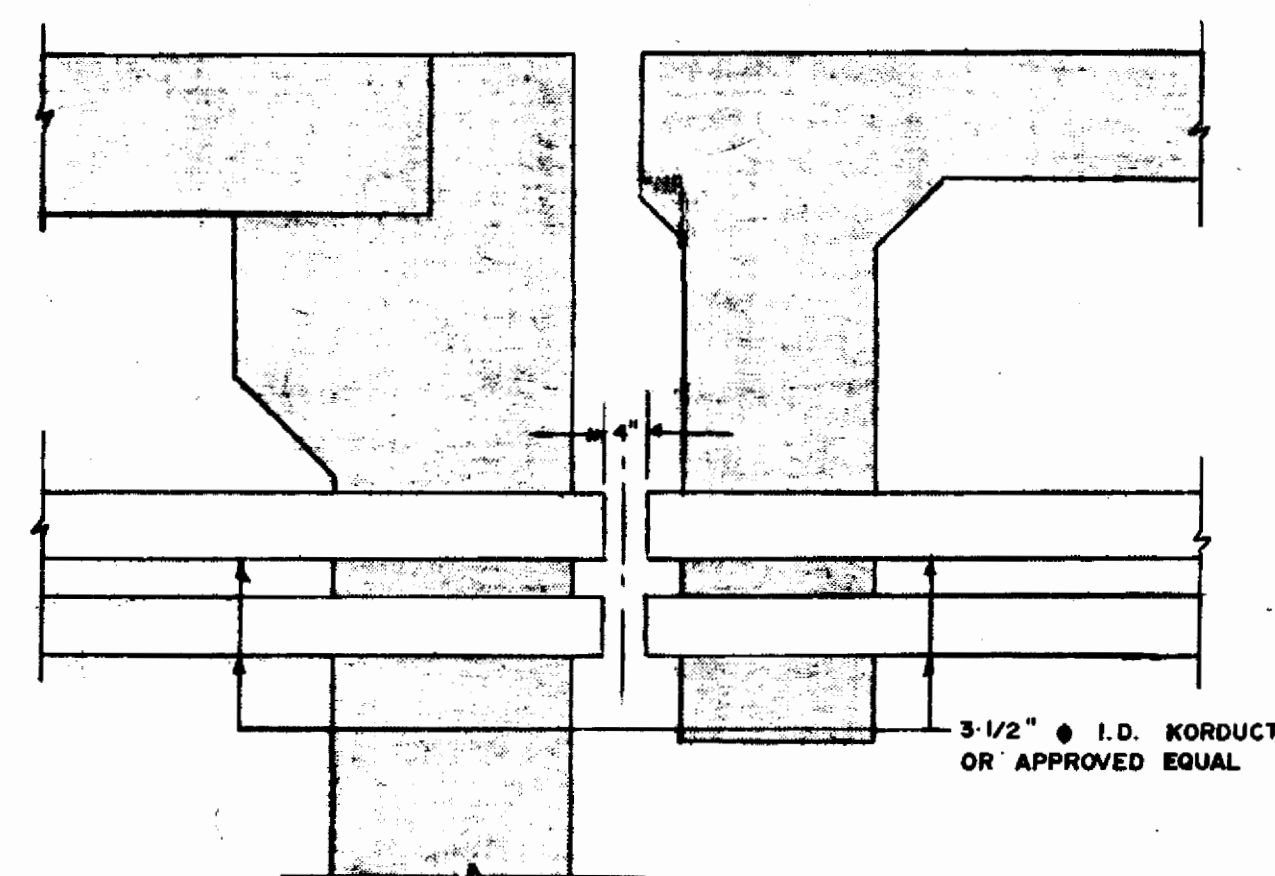
DETAIL OF HOLES IN CONCRETE DIAPHRAGMS
SCALE 1" = 1' - 0"



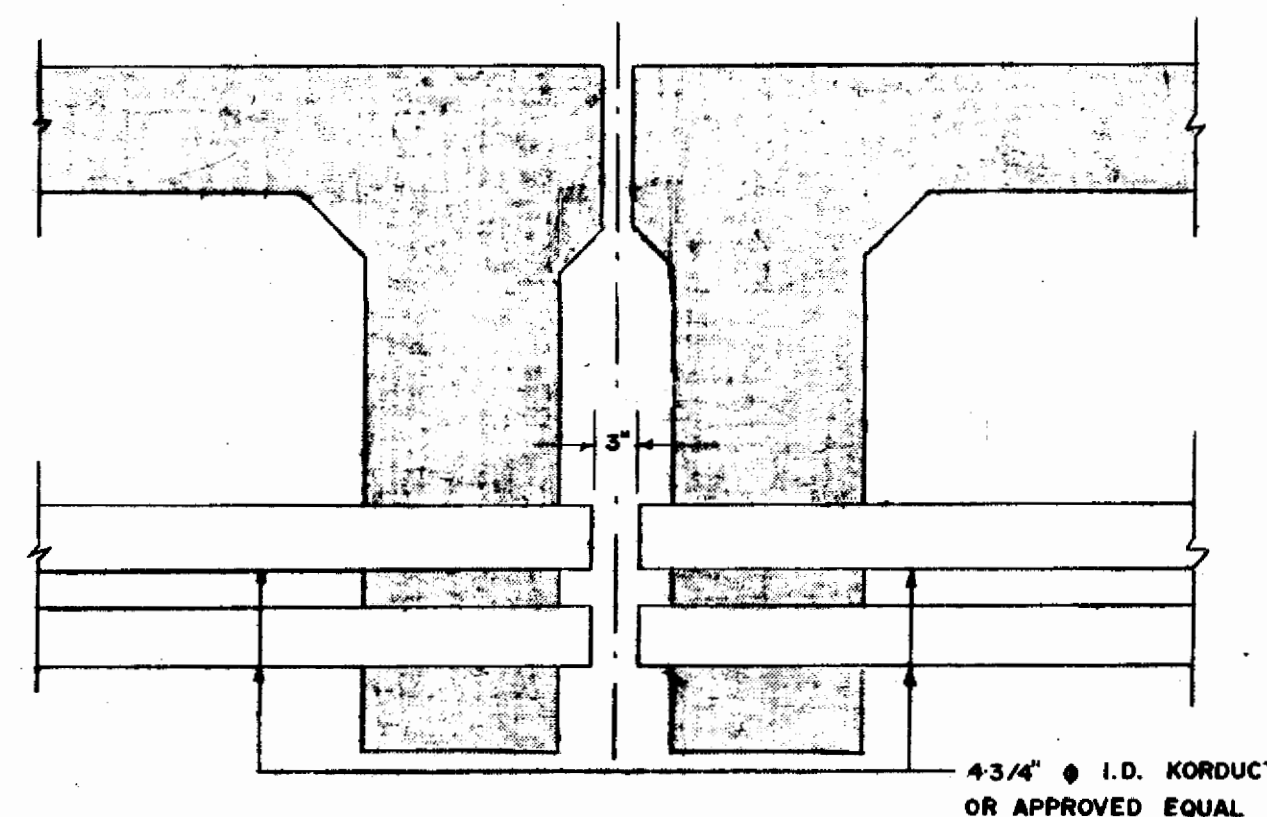
DETAIL OF INTERMEDIATE SUPPORT MK E-1
SCALE 1" = 1' - 0"

BILL OF MISCELLANEOUS METAL			
NO.	DESCRIPTION	W.T./UNIT	TOTAL
60	INTERMEDIATE SUPPORT		
	2-3 E 8 x 27'-1/4"	22.62	
	4-1/4" x 2" SPACERS	1.90	
	4-1/2" x 2"	.45	
	1-1/4" x 35-3/4" STEEL STRAP	5.06	
	2-3/4" x 42-1/2" ANCHOR BARS WITH		
	SQUARE NUTS	10.68	
	#8-3/4" WASHERS	.80	
	12-3/4" SQUARE NUTS (HEAVY)	2.80	
	TOTAL	44.31	2659 lbs.

NOTE: -- ITEMS MARKED * TO BE CAST WITH DECK



SECTION THRU DIAPHRAGM AT ABUTMENT
SCALE 1" = 1' - 0"



SECTION THRU DIAPHRAGMS AT PIERS
SCALE 1" = 1' - 0"

APPROVED BY:

[Signature]
CHIEF BRIDGE ENGINEER

DIRECTOR OF PLANNING

B-5055-25

TELEPHONE CONDUIT LAYOUT
C.P.R. KEEWATIN OVERHEAD
P.T.H. 59 NORTH

PROJECT NO.

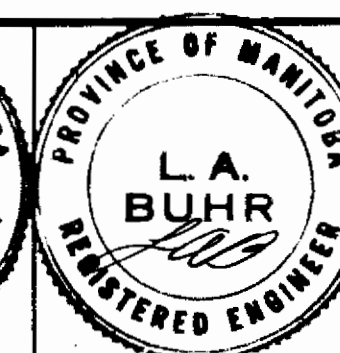
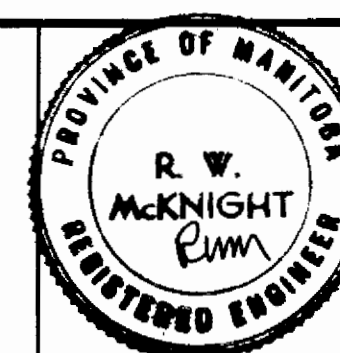
SHEET NO.

S - 23

OF

SPECIFICATIONS

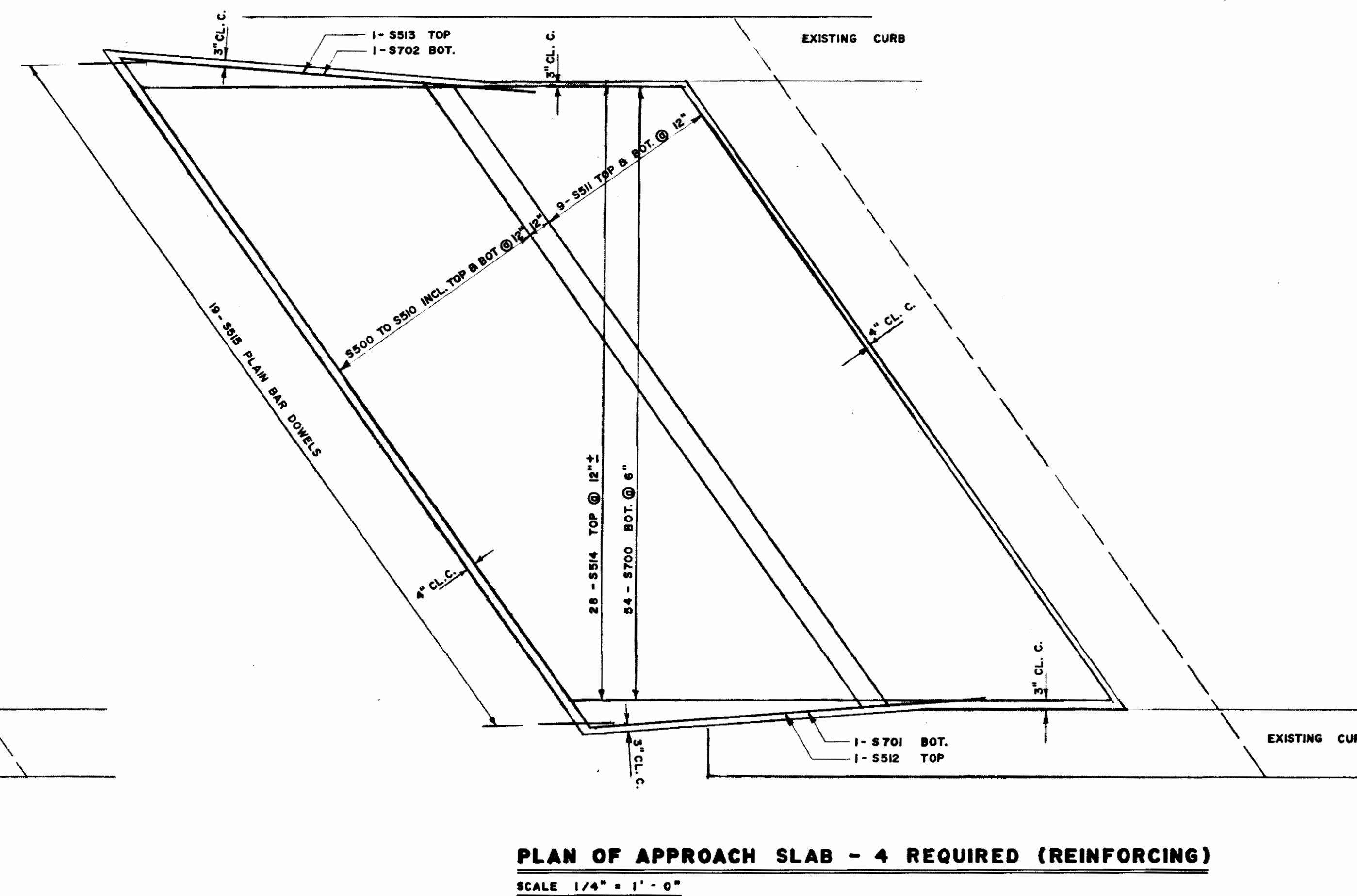
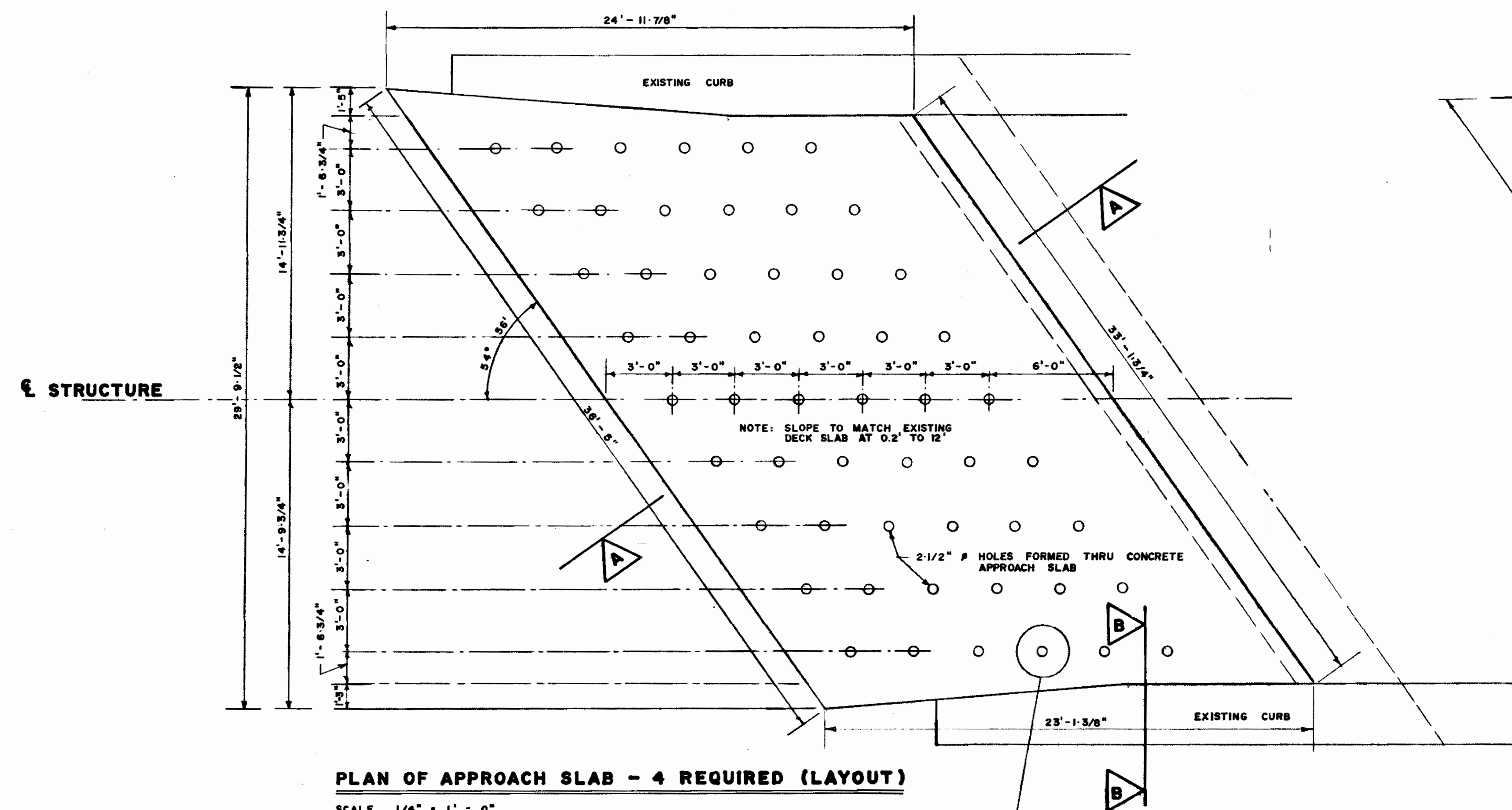
A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961)
H20 - S16 - 44 TRUCK LIVE LOADING



M. M. DILLON LIMITED
LONDON - TORONTO - OTTAWA - WINNIPEG - SUDBURY - WINDSOR
CONSULTING ENGINEERS
PROJECT OFFICE: WINNIPEG

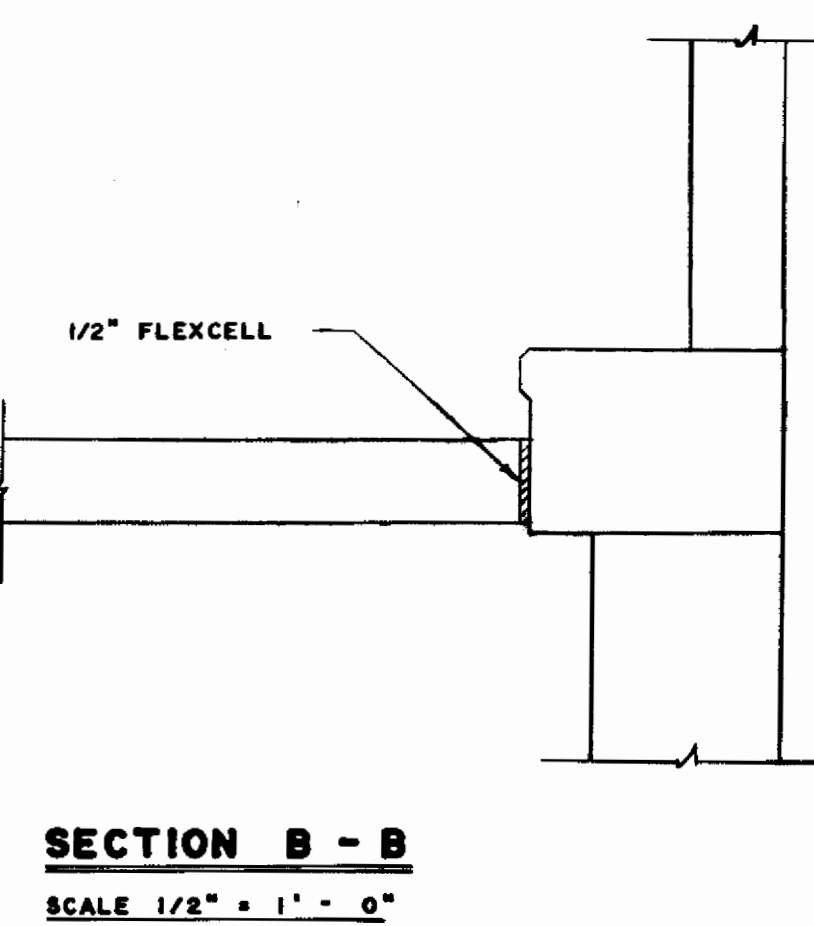
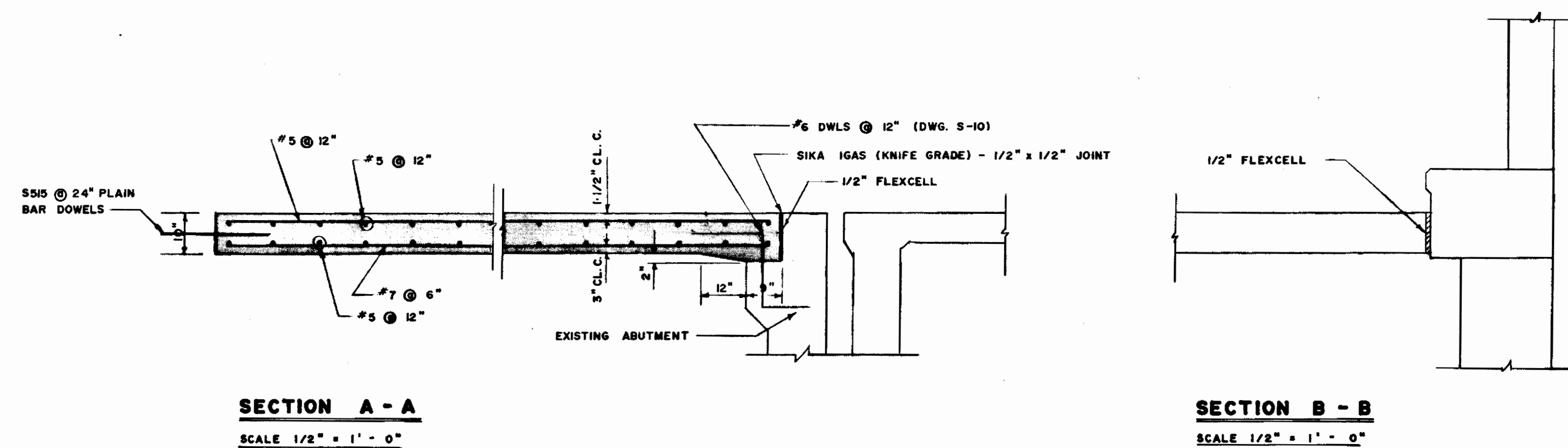
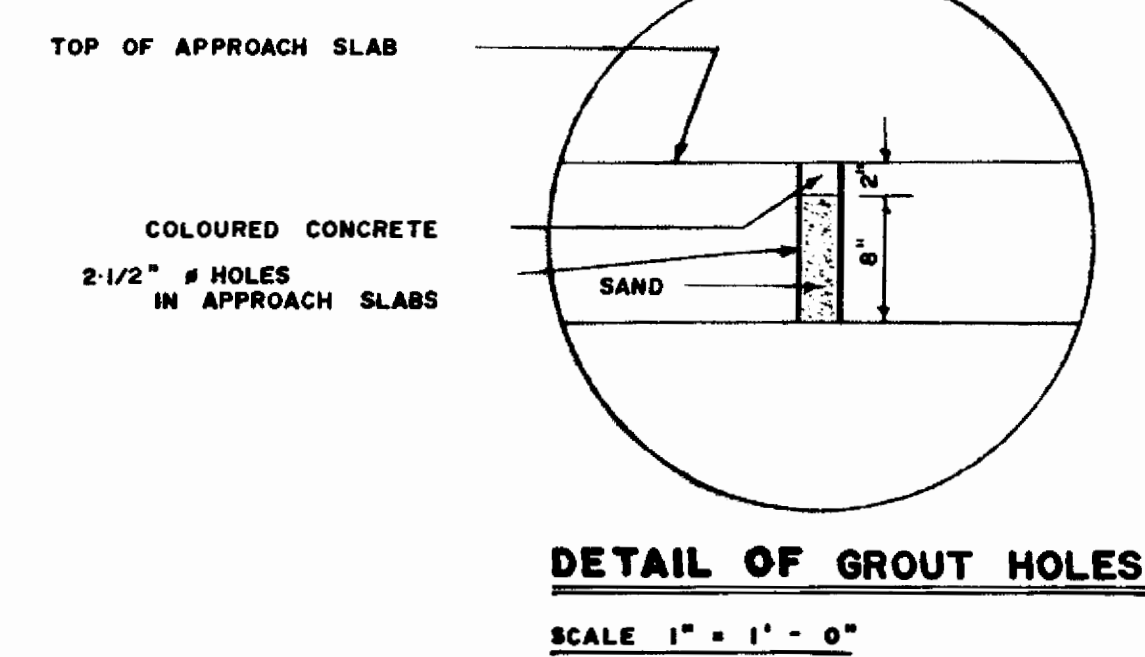
PROVINCE OF MANITOBA
HIGHWAYS DEPARTMENT
REF. PLAN N° 871
LOTS 87 & 88 Q.T.M. PARISH OF KILDONAN, MANITOBA
RAILWAY CHAINAGE - MILE 122.4
KEEWATIN SUBDIVISION

DESIGN	<i>[Signature]</i>
DRAWN	B. T.
CHECKED	<i>[Signature]</i>
APPROVED	<i>[Signature]</i>
DATE	MAY 1967
SCALE	AS SHOWN
NO.	
REVISIONS	
DATE	
BY	



AS BUILT

APPROVED *P. T. Keen*



APPROVED BY :

G. M. P. [Signature]
CHIEF BRIDGE ENGINEER

B-5055-26

DIRECTOR OF PLANNING

PRINT RECORD	DATE	SPECIFICATIONS										 	 M.M. DILLON LIMITED LONDON - TORONTO - OTTAWA - WINNIPEG - SUDBURY - WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION		<table><tr><td>DESIGN</td><td><i>WMB</i></td></tr><tr><td>DRAWN</td><td>S.T.</td></tr><tr><td>CHECKED</td><td><i>WMB</i></td></tr><tr><td>APPROVED</td><td><i>Rum</i></td></tr><tr><td>DATE</td><td>MAY 1987</td></tr><tr><td>SCALE</td><td>AS SHOWN</td></tr></table>	DESIGN	<i>WMB</i>	DRAWN	S.T.	CHECKED	<i>WMB</i>	APPROVED	<i>Rum</i>	DATE	MAY 1987	SCALE	AS SHOWN	APPROACH SLAB DETAILS		PROJECT NO.
	DESIGN	<i>WMB</i>																													
	DRAWN	S.T.																													
	CHECKED	<i>WMB</i>																													
APPROVED	<i>Rum</i>																														
DATE	MAY 1987																														
SCALE	AS SHOWN																														
FOR	A.A.S.H.O. SPECS. FOR HIGHWAY BRIDGES (1961) H20 - S16 - 44 TRUCK LIVE LOADING													SHEET NO.																	
NO.															S - 24																
															OF																

SLOPE PROTECTION	(2 REQ'D)
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SUMMARY

[illegible]

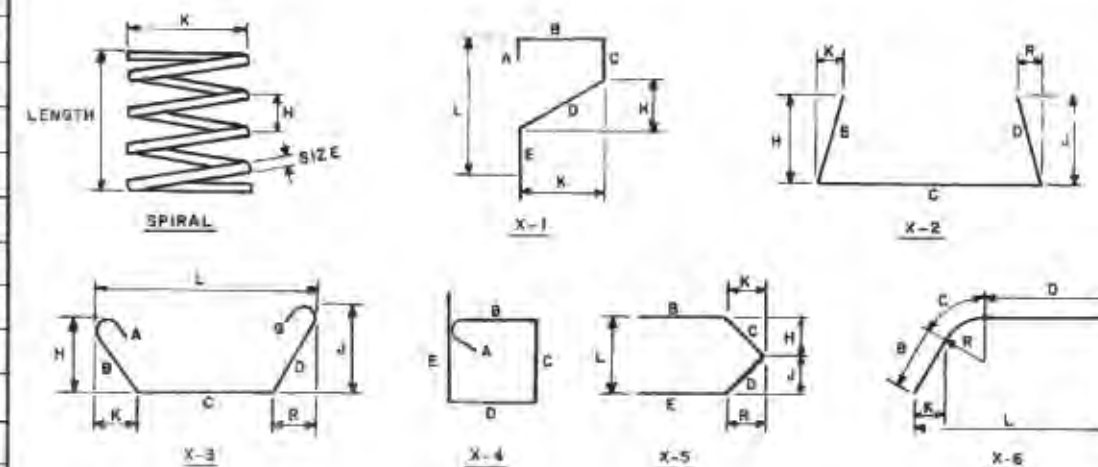
Figure 10 displays 32 diagrams illustrating various types of structural cross-sections and their dimensions. The diagrams are numbered 1 through 32 and show different shapes and configurations, including I-beams, channels, Z-sections, and built-up sections. Dimensions are labeled with letters and numbers, indicating specific measurements for each section.

WHERE SLOPE DIFFERS FROM 45° DIMENSIONS 'H' & 'K' MUST BE SHOWN

ENLARGED VIEW SHOWING
BAR BENDING DETAILS.

NOTES

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
2. 'J' DIMENSION ON 180° AND 90° HOOKS TO BE SHOWN ONLY WHEN NECESSARY TO RESTRICT HOOK SIZE.
3. WHERE 'J' IS NOT SHOWN, 'J' WILL BE KEPT EQUAL TO OR LESS THAN 'H' WHERE 'J'  .
4. 'H' DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOK SIZE.
5. WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS WHICH REQUIRE CLOSER WORKING SHOULD HAVE LIMITS INDICATED.
6. FIGURES IN CIRCLES SHOW TYPES.
7. NO ALLOWANCE HAS BEEN MADE FOR CREEP.
8. SPACERS TO BE PROVIDED WITH ALL SPIRALS AS SPECIFIED IN A.C.I. 308.3F.
9. WEIGHT OF SPIRALS AND SPACERS NOT INCLUDED ON THIS DRAWING.



AS BUILT

APPROVED *P. F. Norris*

APPROVED BY: M. D. Pauw CHIEF BRIDGE ENGINEER DIRECTOR OF PLANNING

1.	WT. CORRECTIONS	DEC 22/67
NO.	REVISIONS	DATE



CONSULTING ENGINEER
PROJECT OFFICE: WINNIPEG

C B R KEEWATIN OVERHEAD

P.T.H. 59 NORTH

REINFORCING STEEL SCHEDULE

LOCATION: B-5055-2

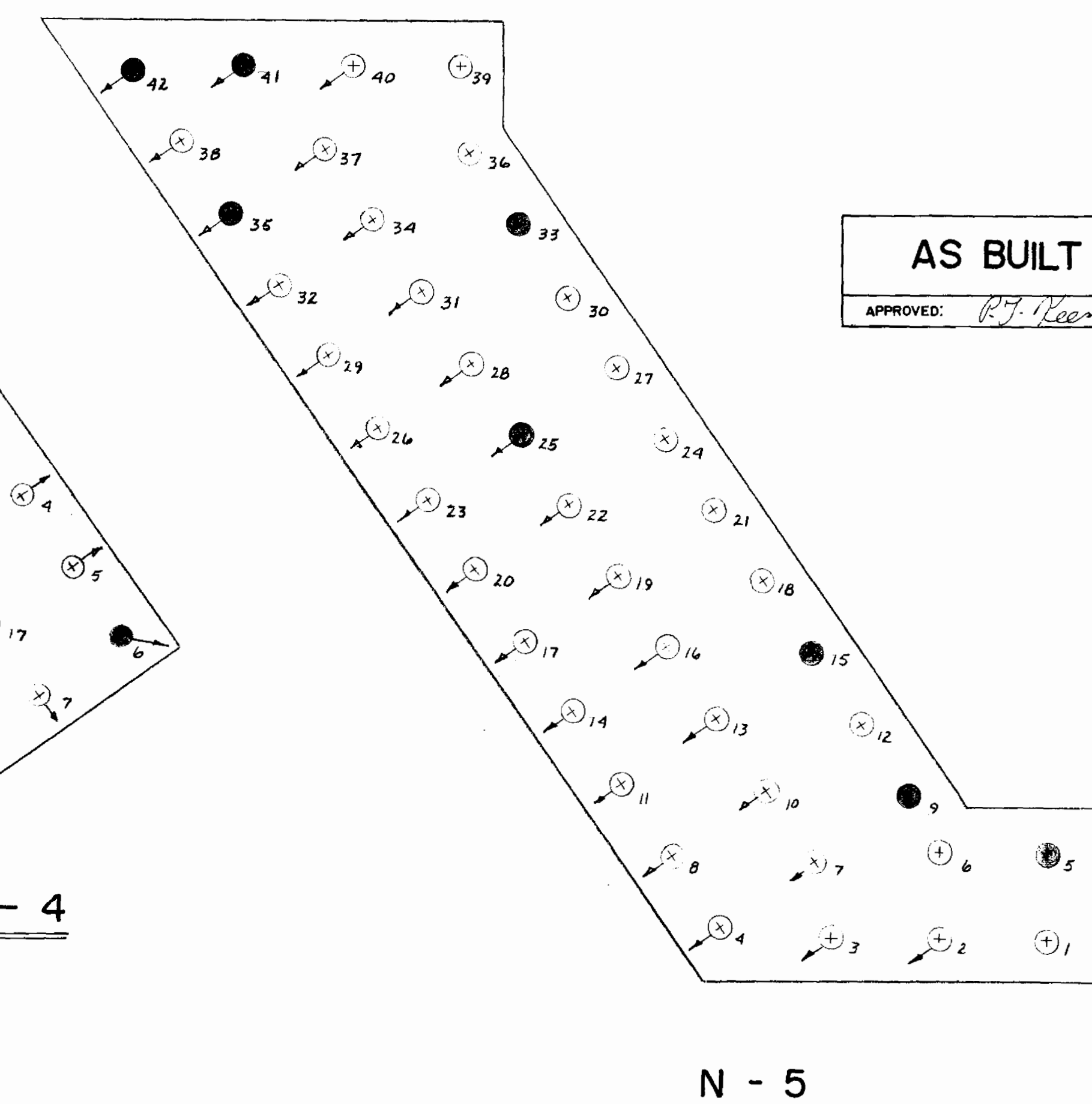
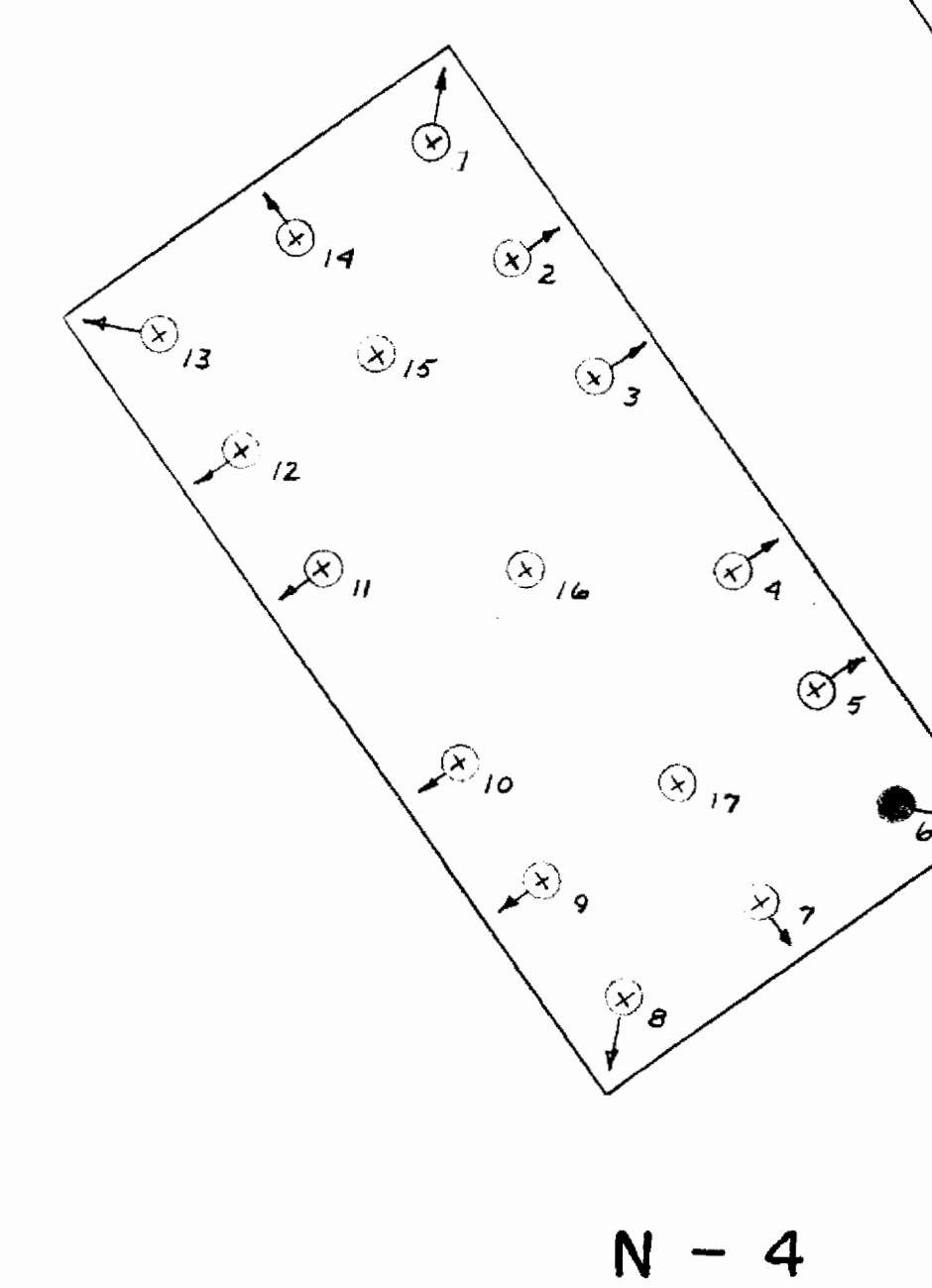
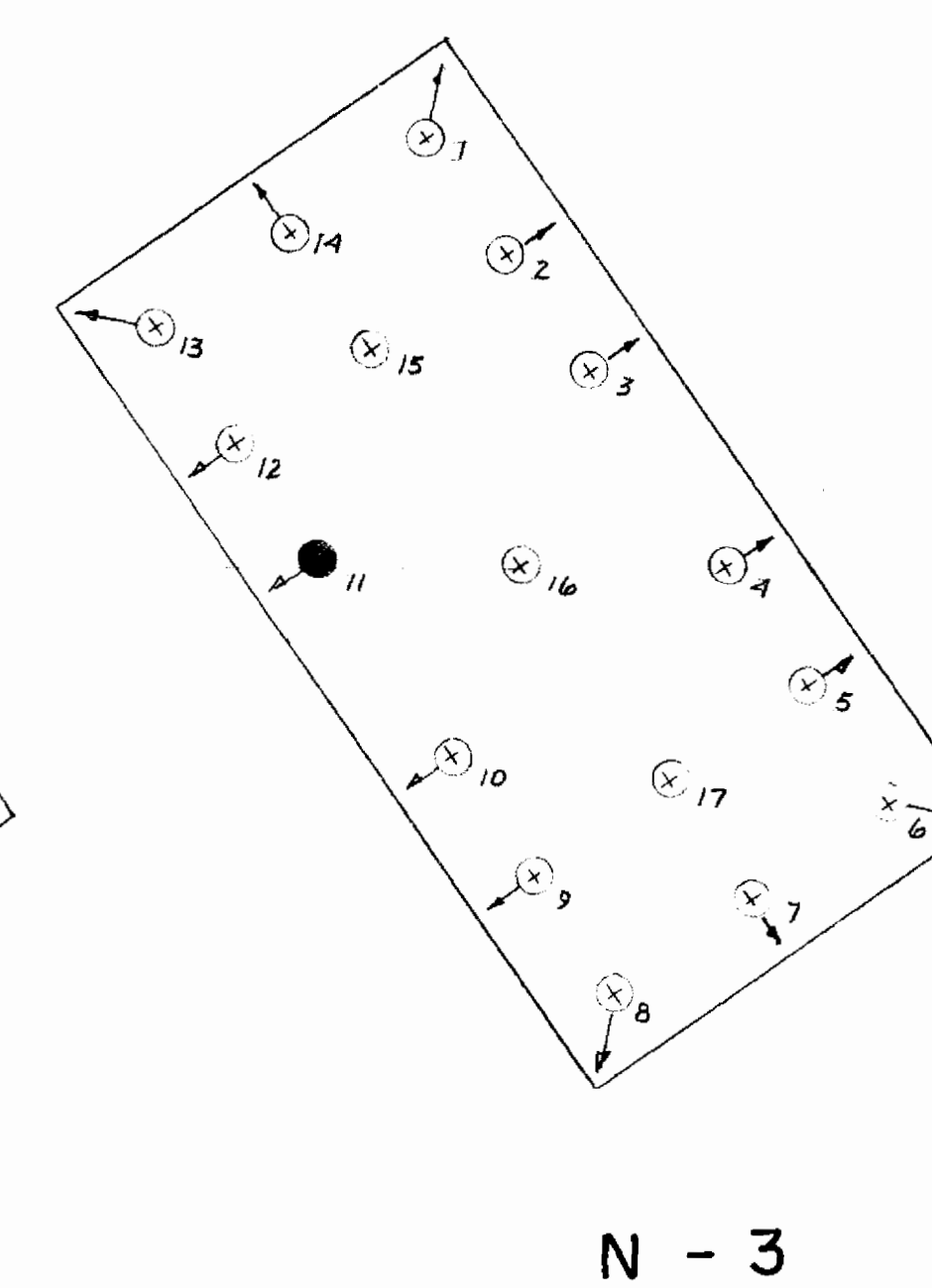
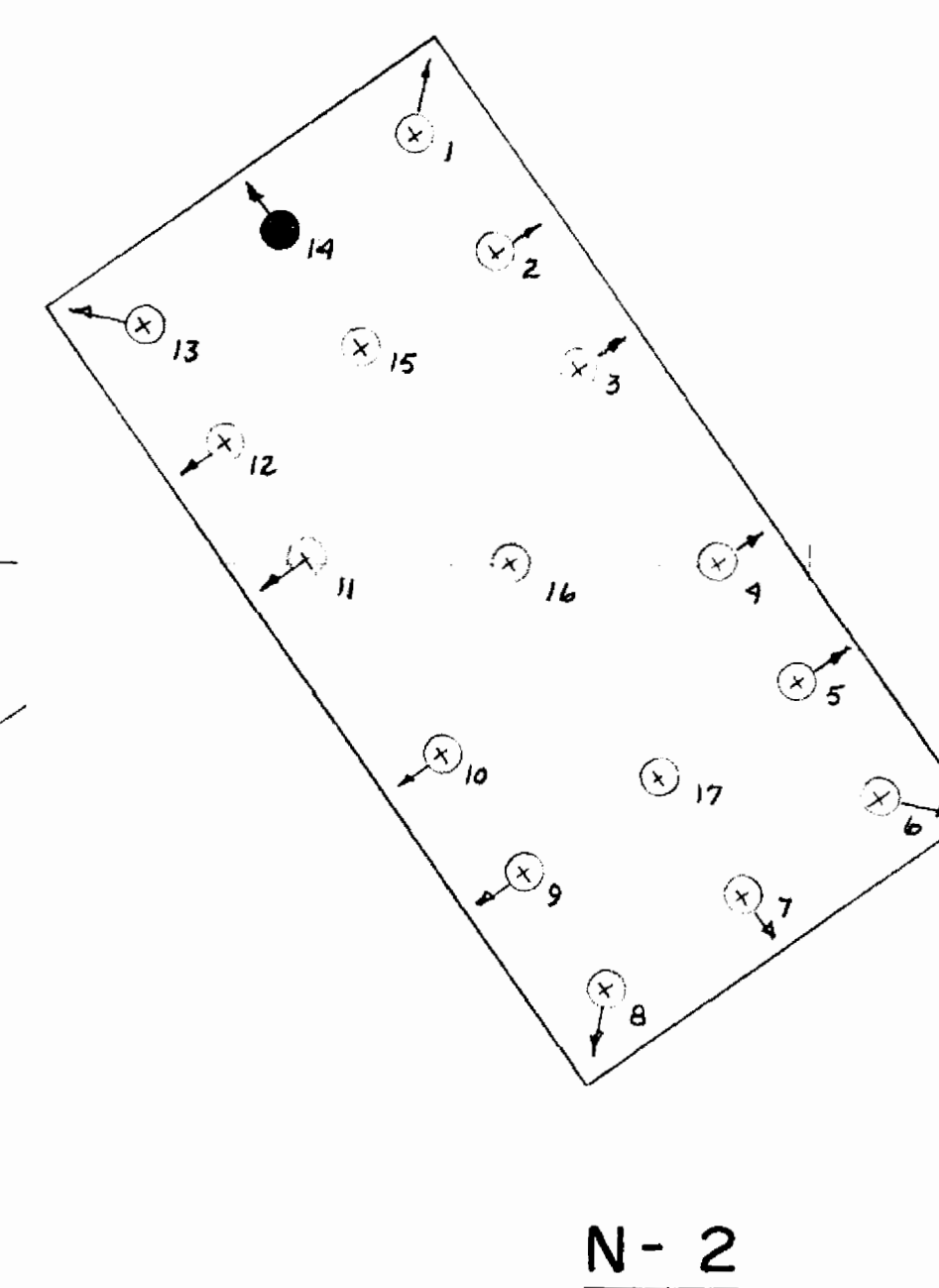
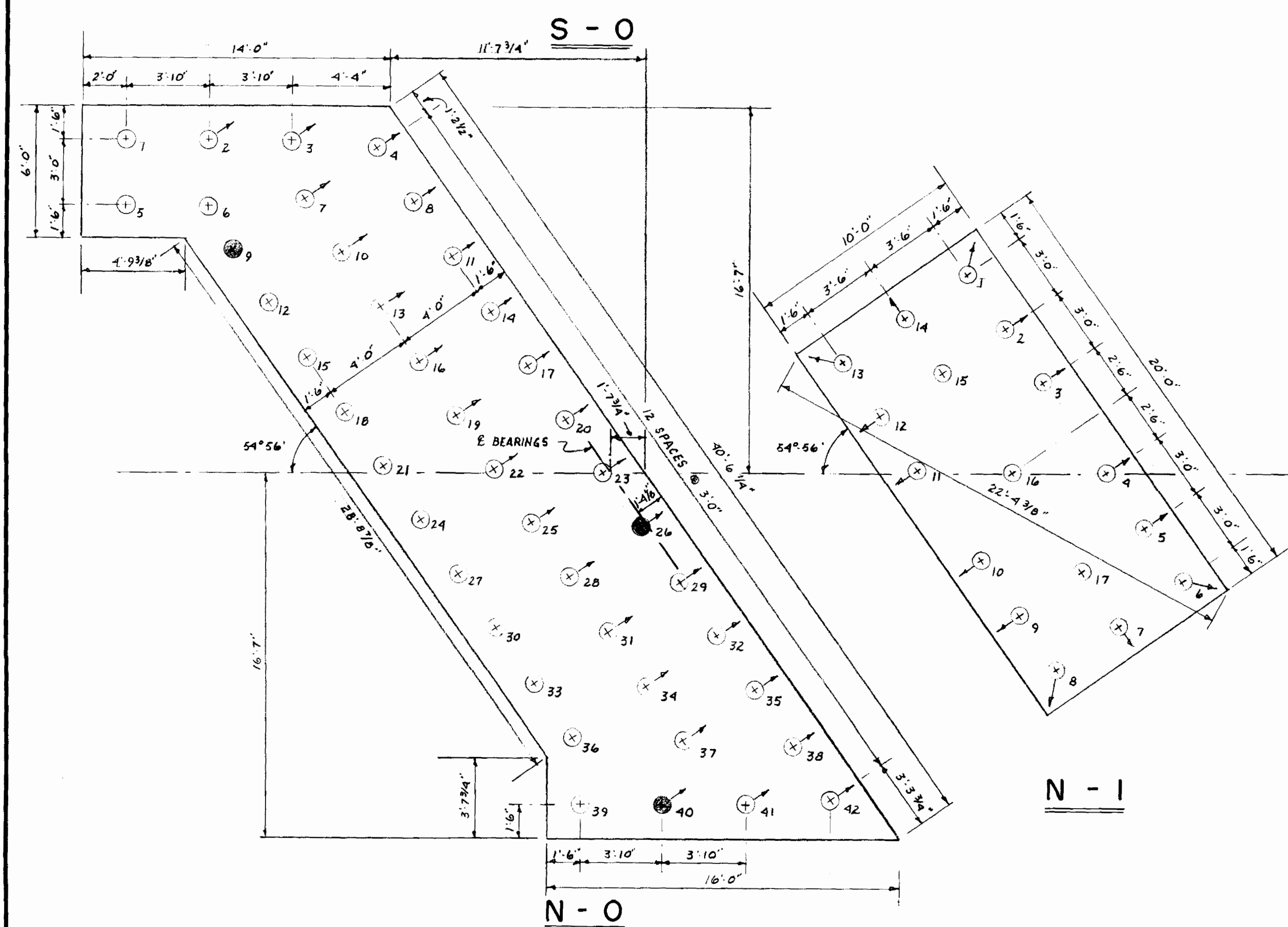
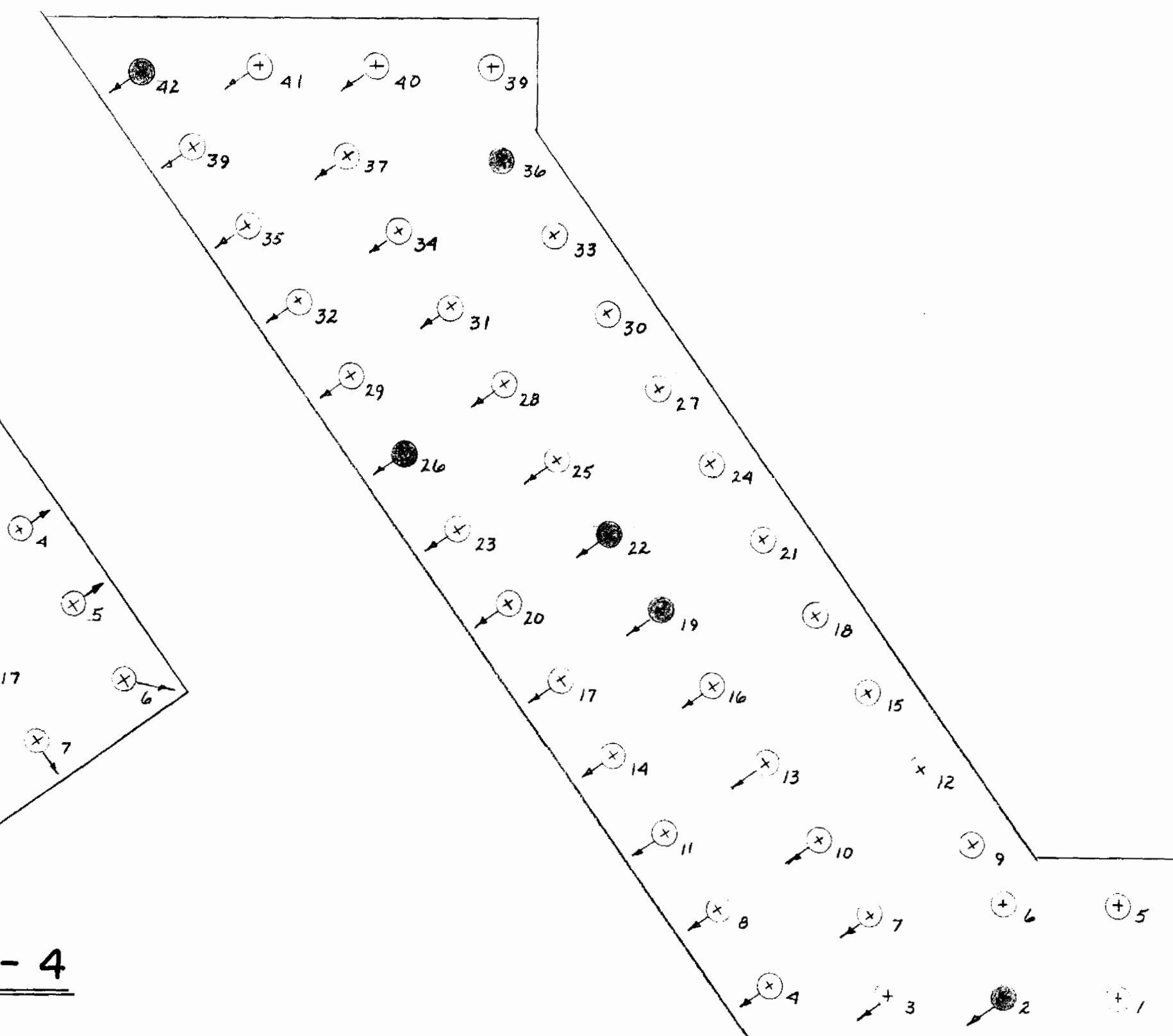
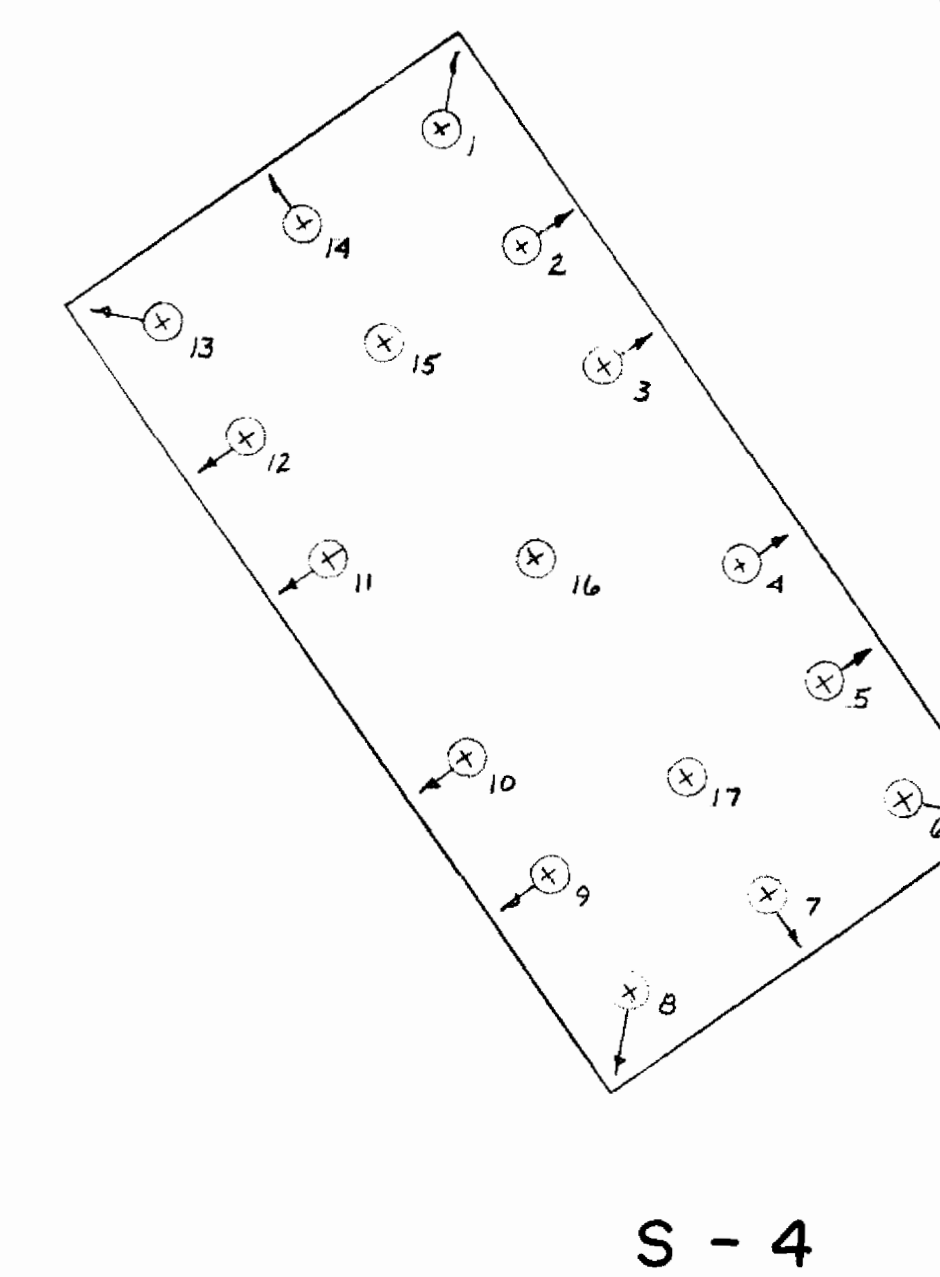
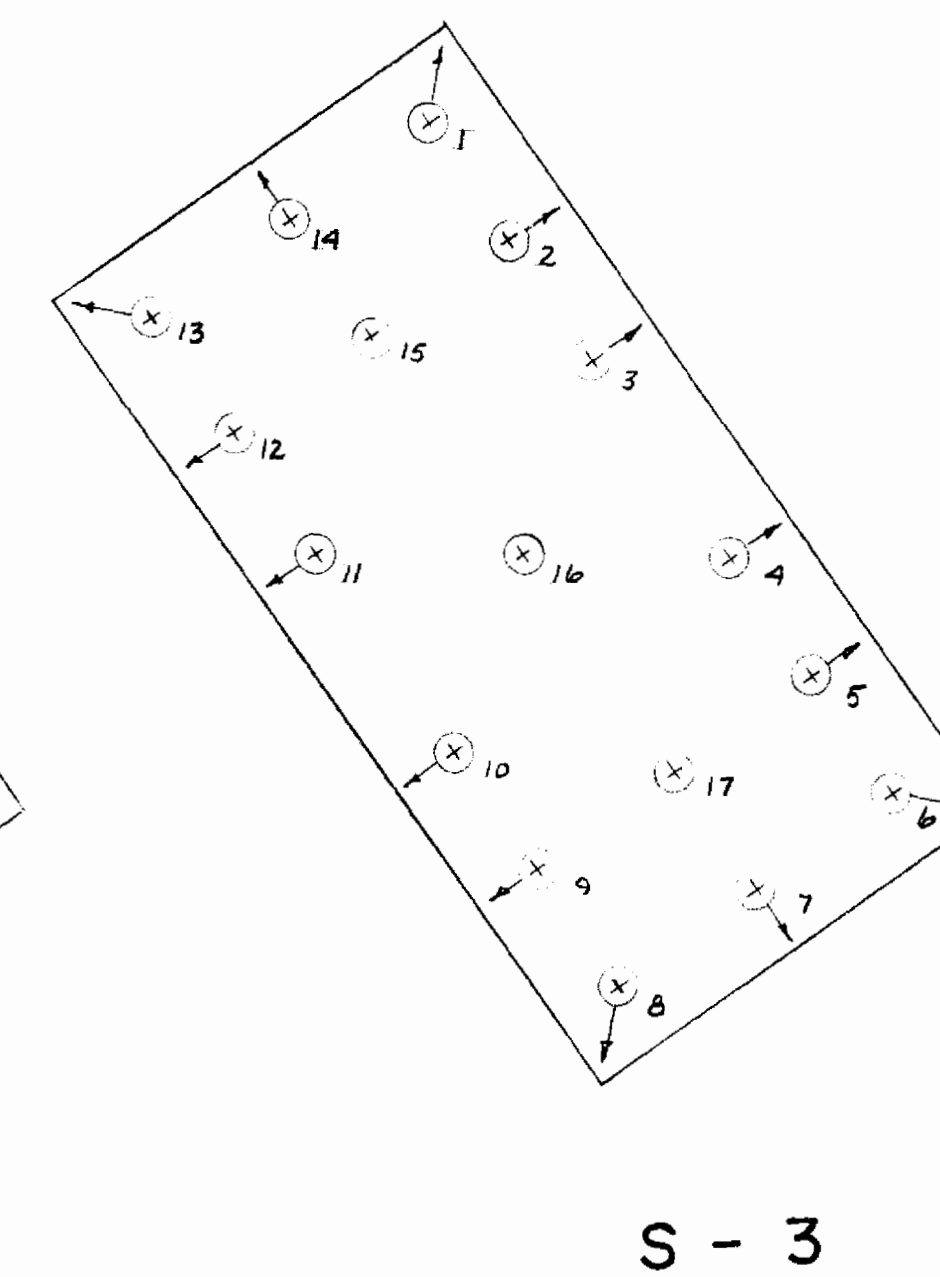
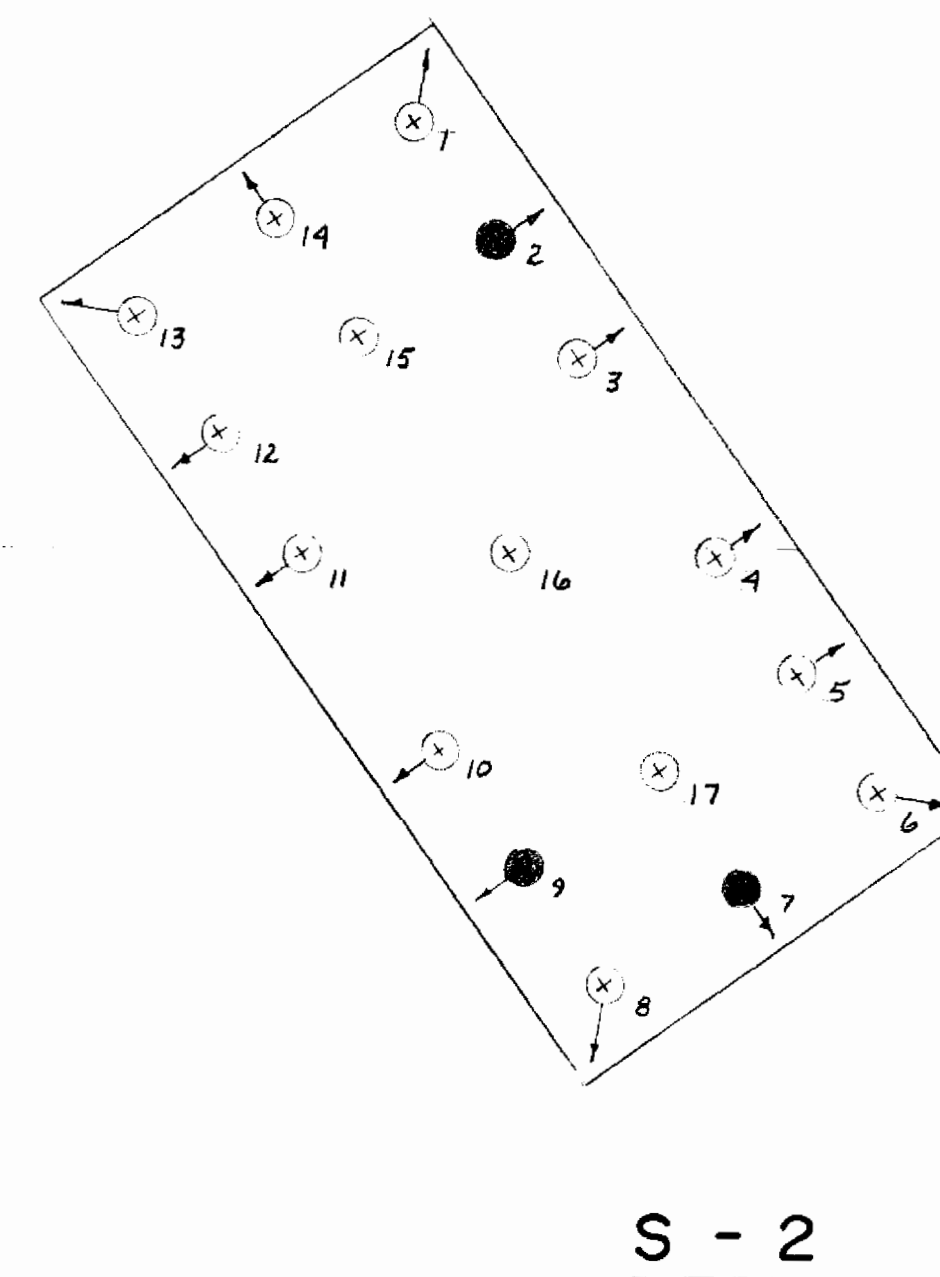
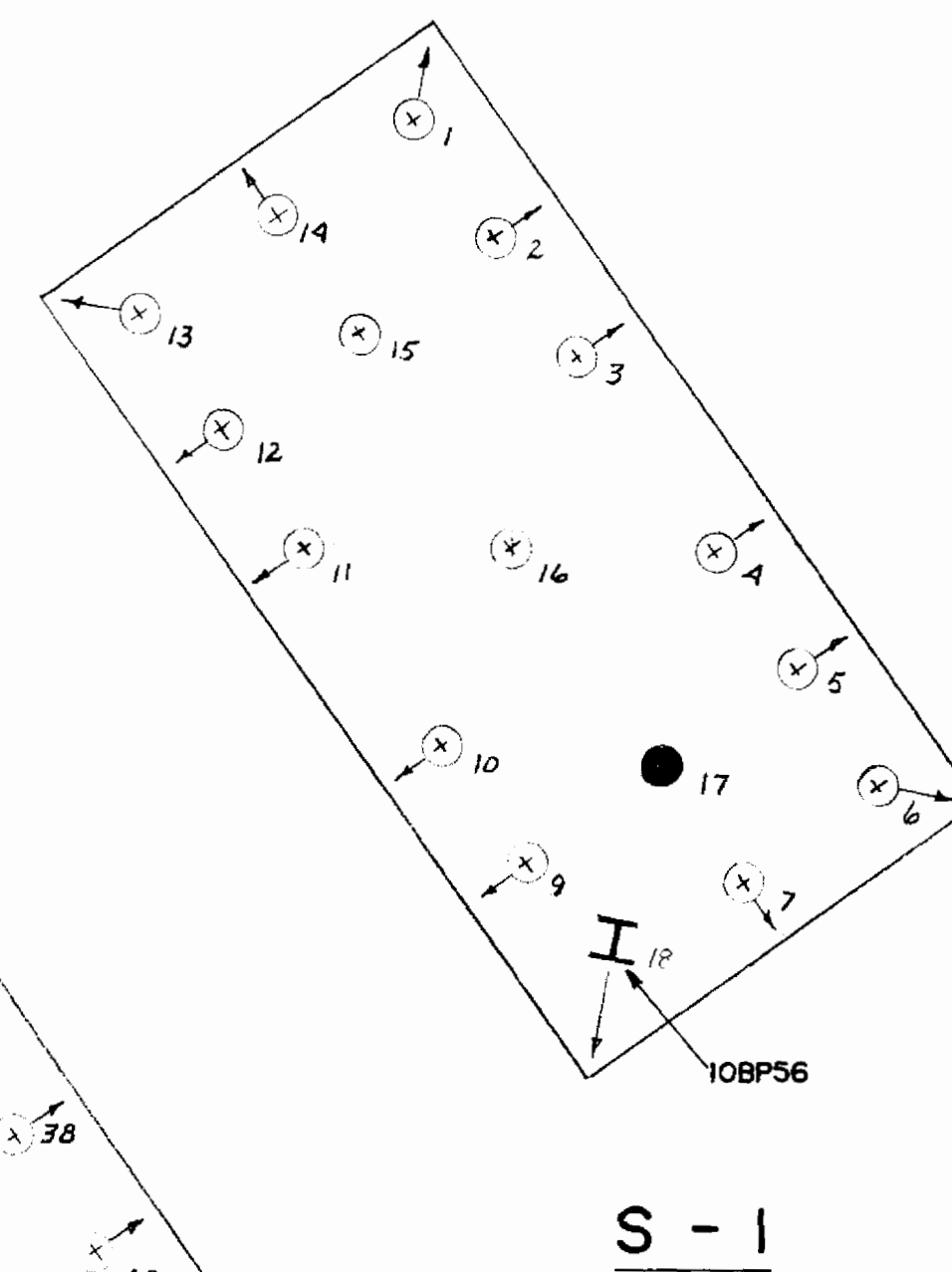
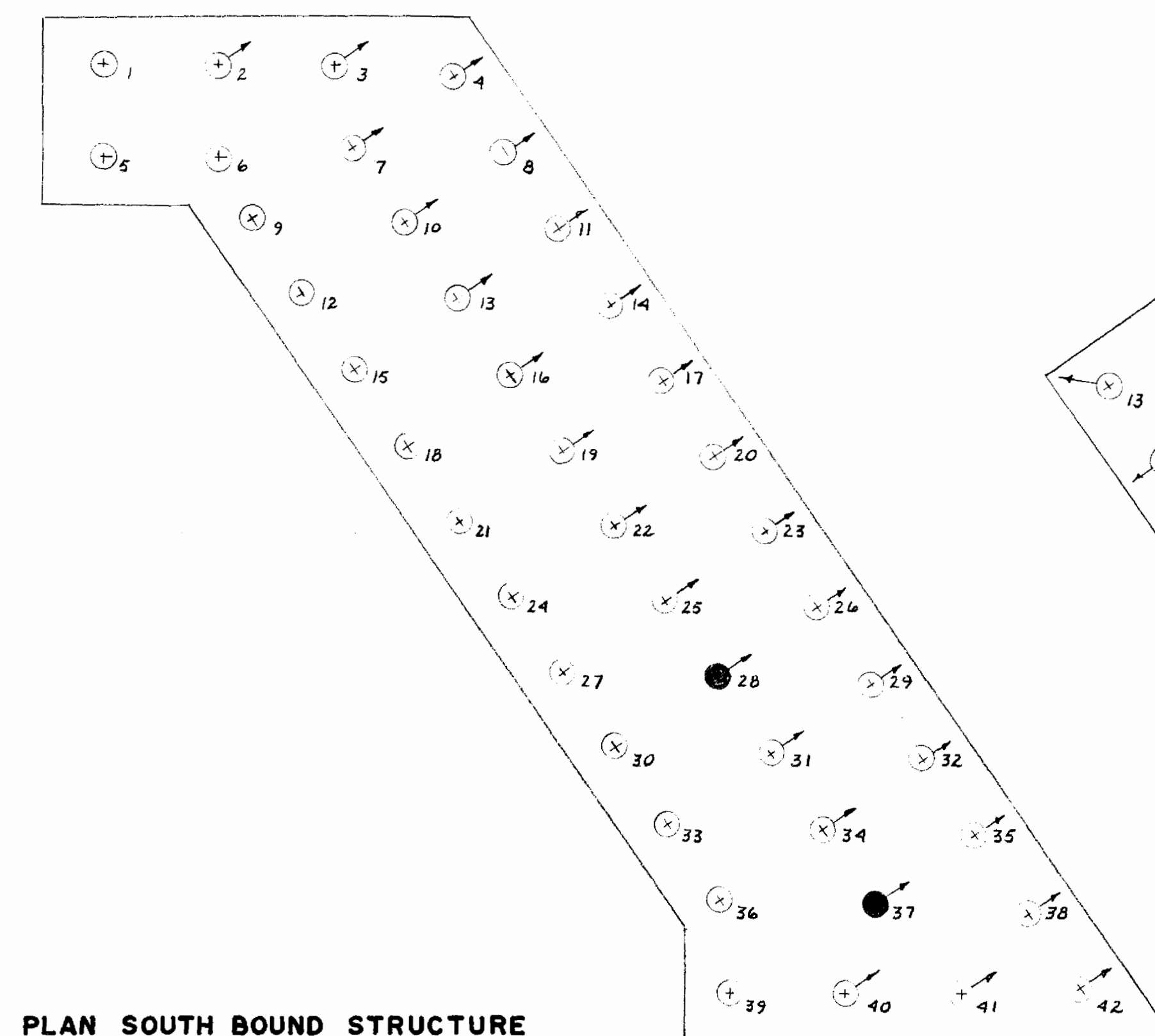
REFER TO DRAWG NO:

DRAWN B.T.	PROVINCE OF MANITOBA	PROJECT
DATE		SHEET


 CHIEF ENGINEER  HIGHWAYS DEPARTMENT
 APPROVED  S-

DATE MAY 1967	REF. PLAN N° 871	DP
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NO	FOR	
PRINT RECORD		



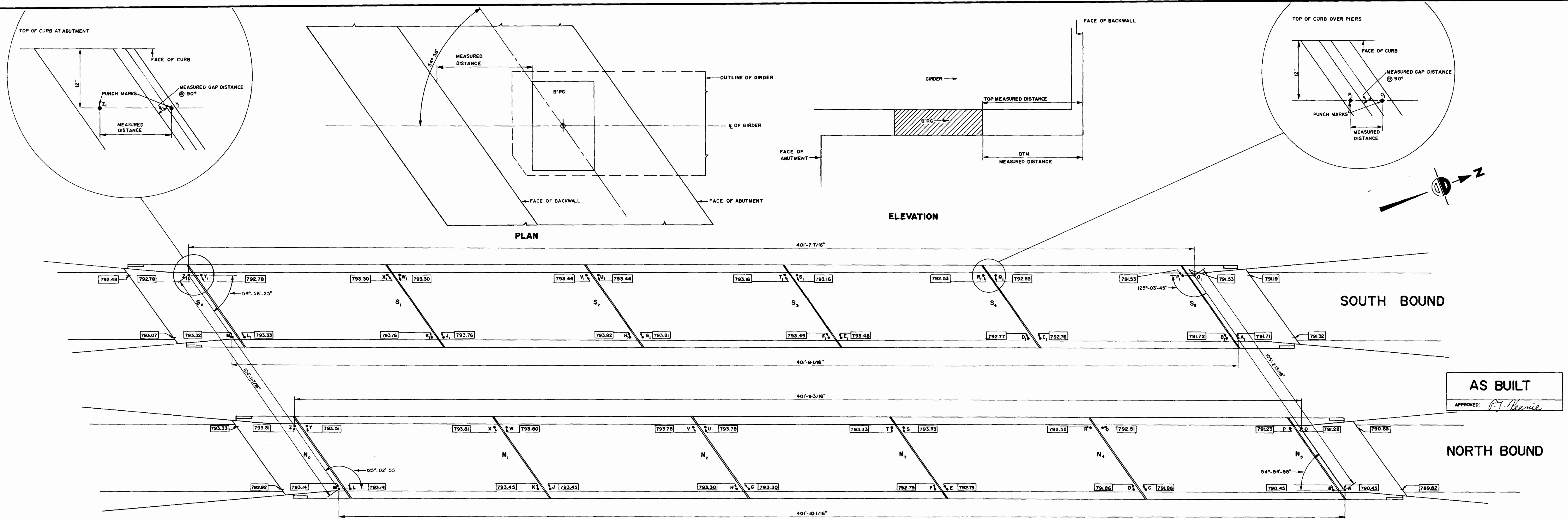
AS BUILT

APPROVED: *R. F. Noe*

←● INDICATES PILE BUILD UPS
(DETAIL OF TYPICAL PILE EXTENSION SHOWN ON SHEET S-4)

B-5055-30

PRINT RECORD	DATE		 P.T. KEENEY REGISTERED ENGINEER PROVINCE OF MANITOBA	 M. M. DILLON LIMITED LONDON • TORONTO • OTTAWA • WINNIPEG • SUDBURY • WINDSOR CONSULTING ENGINEERS PROJECT OFFICE: WINNIPEG	PROVINCE OF MANITOBA HIGHWAYS DEPARTMENT REF. PLAN N° 871 LOTS 87 & 88 O.T.M. PARISH OF KILDONAN, MANITOBA RAILWAY CHAINAGE - MILE 122.4 KEEWATIN SUBDIVISION	<table><tr><td>DESIGN</td><td></td></tr><tr><td>DRAWN</td><td>B. T.</td></tr><tr><td>CHECKED</td><td></td></tr><tr><td>APPROVED</td><td></td></tr><tr><td>DATE</td><td>MAY 1967</td></tr></table>	DESIGN		DRAWN	B. T.	CHECKED		APPROVED		DATE	MAY 1967	PILE LAYOUT C.P.R. KEEWATIN OVERHEAD P.T.H. 59 NORTH	PROJECT NO.	
	DESIGN																		
	DRAWN	B. T.																	
	CHECKED																		
	APPROVED																		
	DATE	MAY 1967																	
PER		SHEET NO.	S-28																
NO.		OF	27																



AS BUILT
APPROVED: *P.T. Keenie*

TABLE 1

DECK MEASUREMENTS - NORTH BOUND STRUCTURE - EAST CURB

DATE	SEPT. 5, 1968	MAY 5, 1969								
TEMP.	54°F	60°F								
CK'D BY	L.G.	C.H.								
POINTS	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE
A-B	2-1/16"	1'-3-7/16"		1'-3-9/16"						
B-C		79'-5-1/2"								
C-D	1-9/16"	0'-5-5/8"		0'-5-11/16"						
D-E		79'-5-17/32"								
E-F	1-5/8"	0'-5-15/16"		0'-5-7/8"						
F-G		79'-6-3/8"								
G-H	1-1/2"	0'-5-9/16"		0'-5-15/32"						
H-J		79'-6-1/8"								
J-K	1-11/16"	0'-6"		0'-6"						
K-L		79'-2-17/32"								
L-M	2-11/16"	1'-5-7/16"		1'-5-17/32"						

TABLE 3

DECK MEASUREMENTS - SOUTH BOUND STRUCTURE - EAST CURB

DATE	SEPT. 5, 1968	MAY 5, 1969								
TEMP.	54°F	60°F								
CK'D BY	L.G.	C.H.								
POINTS	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE
A1-B1	1-15/16"	1'-4-1/2"		1'-4-3/8"						
B1-C1		79'-4"								
C1-D1	1-7/16"	0'-5-3/8"		0'-5-1/2"						
D1-E1		79'-5-27/32"								
E1-F1	1-1/2"	0'-5-1/2"		0'-5-13/32"						
F1-G1		79'-6-1/32"								
G1-H1	1-1/2"	0'-5-3/4"		0'-5-13/16"						
H1-J1		79'-6-5/32"								
J1-K1	1-7/16"	0'-5-9/16"		0'-5-17/32"						
K1-L1		79'-3-5/32"								
L1-M1	2-3/16"	1'-4-3/16"		1'-4-5/16"						

TABLE 5

BEARING & EXPANSION DAM MEASUREMENTS

NORTH BOUND STRUCTURE SOUTH ABUTMENT

DATE	SEPT. 5, 1968								
TEMP.	54°F								
CK'D	R.C.								
W. B'RG	TOP	1'-7-1/2"							
	BTM	1'-7-11/16"							
	GAP	2-1/4"							
Y-Z	DIST.	1'-4-13/16"							
	TOP	1'-8-11/16"							
E. B'RG	BTM	1'-8-7/8"							
	TOP	1'-7-1/2"							
	BTM	1'-7-1/2"							
	GAP	2-11/16"							
L-M	DIST.	1'-5-7/16"							

TABLE 7

BEARING & EXPANSION DAM MEASUREMENTS

SOUTH BOUND STRUCTURE SOUTH ABUTMENT

DATE	SEPT. 5, 1968								
TEMP.	54°F								
CK'D	R.C.								
W. B'RG	TOP	1'-9-1/4"							
	BTM	1'-8-1/4"							
	GAP	2-1/4"							
Y1-Z1	DIST.	1'-4-1/2"							
	TOP	1'-8-5/16"							
E. B'RG	BTM	1'-8-9/16"							
	TOP	1'-7"							
	BTM	1'-7-3/8"							
	GAP	2-3/16"							
L1-M1	DIST.	1'-4-3/16"							

TABLE 2

DECK MEASUREMENTS - NORTH BOUND STRUCTURE - WEST CURB

DATE	SEPT. 5, 1968	MAY 5, 1969								
TEMP.	54°F	60°F								
CK'D BY	L.G.	C.H.								
POINTS	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE
O-P	2-1/4"	1'-4-7/16"		1'-4-7/16"						
P-Q		79'-3-13/32"								
Q-R	1-7/16"	0'-5-7/16"		0'-5-21/32"						
R-S		79'-6-13/32"								
S-T	1-9/16"	0'-5-11/16"		0'-5-11/16"						
T-U		79'-6-3/16"								
U-V	1-1/2"	0'-5-11/16"		0'-5-21/32"						
V-W		79'-6-5/16"								
W-X	1-5/8"	0'-5-11/16"		0'-5-25/32"						
X-Y		79'-3-1/8"								
Y-Z	2-1/4"	1'-4-13/16"		0'-4-13/16"						

TABLE 4

DECK MEASUREMENTS - SOUTH BOUND STRUCTURE - WEST CURB

DATE	SEPT. 5, 1968	MAY 5, 1969								
TEMP.	54°F	60°F								
CK'D BY	L.G.	C.H.								
POINTS	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE	GAP	DISTANCE
O1-P1	2-3/16"	1'-4-1/16"		1'-4-1/32"						
P1-Q1		79'-3-17/32"								
Q1-R1	1-5/8"	0'-5-15/16"		0'-5-5/16"						
R1-S1		79'-5-3/16"								
S1-T1	1-7/16"	0'-5-9/16"		0'-5-17/32"						
T1-U1		79'-6-17/32"								
U1-V1	1-3/8"	0'-5-9/16"		0'-5-21/32"						
V1-W1		79'-6-29/32"								
W1-X1	1-7/16"	0'-5-9/16"		0'-5-21/32"						
X1-Y1		79'-2-3/32"								
Y1-Z1	2-1/4"	1'-4-1/2"		1'-4-5/8"						

TABLE 6

BEARING & EXPANSION DAM MEASUREMENTS

NORTH BOUND STRUCTURE NORTH ABUTMENT

DATE	SEPT. 5, 1968								
TEMP.	54°F								
CK'D	R.C.								
W. B'RG	TOP	1'-7-7/8"							
	BTM	1'-8-1/16"							
	GAP	2-1/4"							
O-P	DIST.	1'-4-7/16"							
	TOP	1'-7-7/8"							
E. B'RG	BTM	1'-7-7/8"							
	TOP	1'-7-3/4"							
	BTM	1'-7-3/4"							
	GAP	2-1/16"							
A-B	DIST.	1'-3-7/16"							

TABLE 8

BEARING & EXPANSION DAM MEASUREMENTS

SOUTH BOUND STRUCTURE NORTH ABUTMENT

DATE	SEPT. 5, 1968								
TEMP.	54°F								
CK'D	R.C.								
W. B'RG	TOP	1'-6-3/8"							
	BTM	1'-6-5/16"							
	GAP	2-13/16"							
O1-P1	DIST.	1'-4-1/16"							
	TOP	1'-7-3/8"							
E. B'RG	BTM	1'-7-3/8"							
	TOP	1'-7-3/8"							
	BTM	1'-8-1/16"							
	GAP	1'-15/16"							
A1-B1	DIST.	1'-4-1/2"							

B-5055-32