

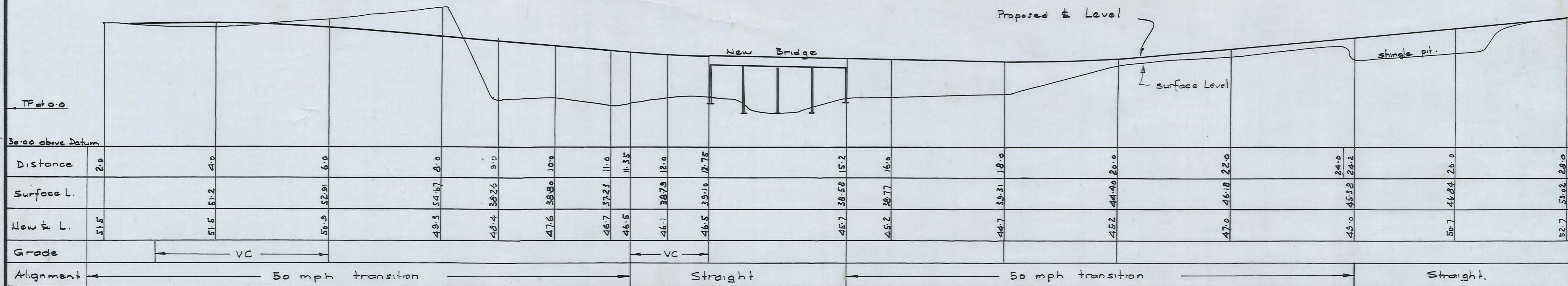
MANIOTOTO COUNTY COUNCIL

DUNSTAN CREEK BRIDGE
ST. BATHANS LOOP ROAD

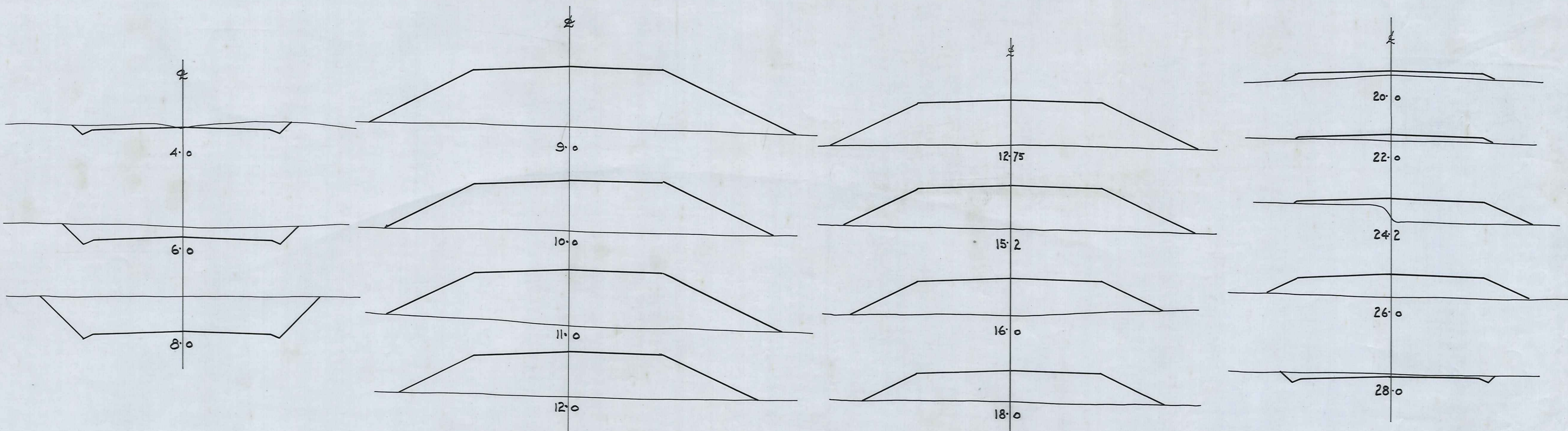
DUFFILL WATTS & KING
CIVIL ENGINEERS AND SURVEYORS
DUNEDIN and INVERCARGILL

NO.	NAME	DATE
DESIGNED BY	<i>[Signature]</i>	Aug. 1941
DRAWN	<i>[Signature]</i>	Sept. 1941
CHECKED	<i>[Signature]</i>	Sept. 1941
SCALE		

JOB NO. 4113/0
P.B.C. FILE NO. 6/243

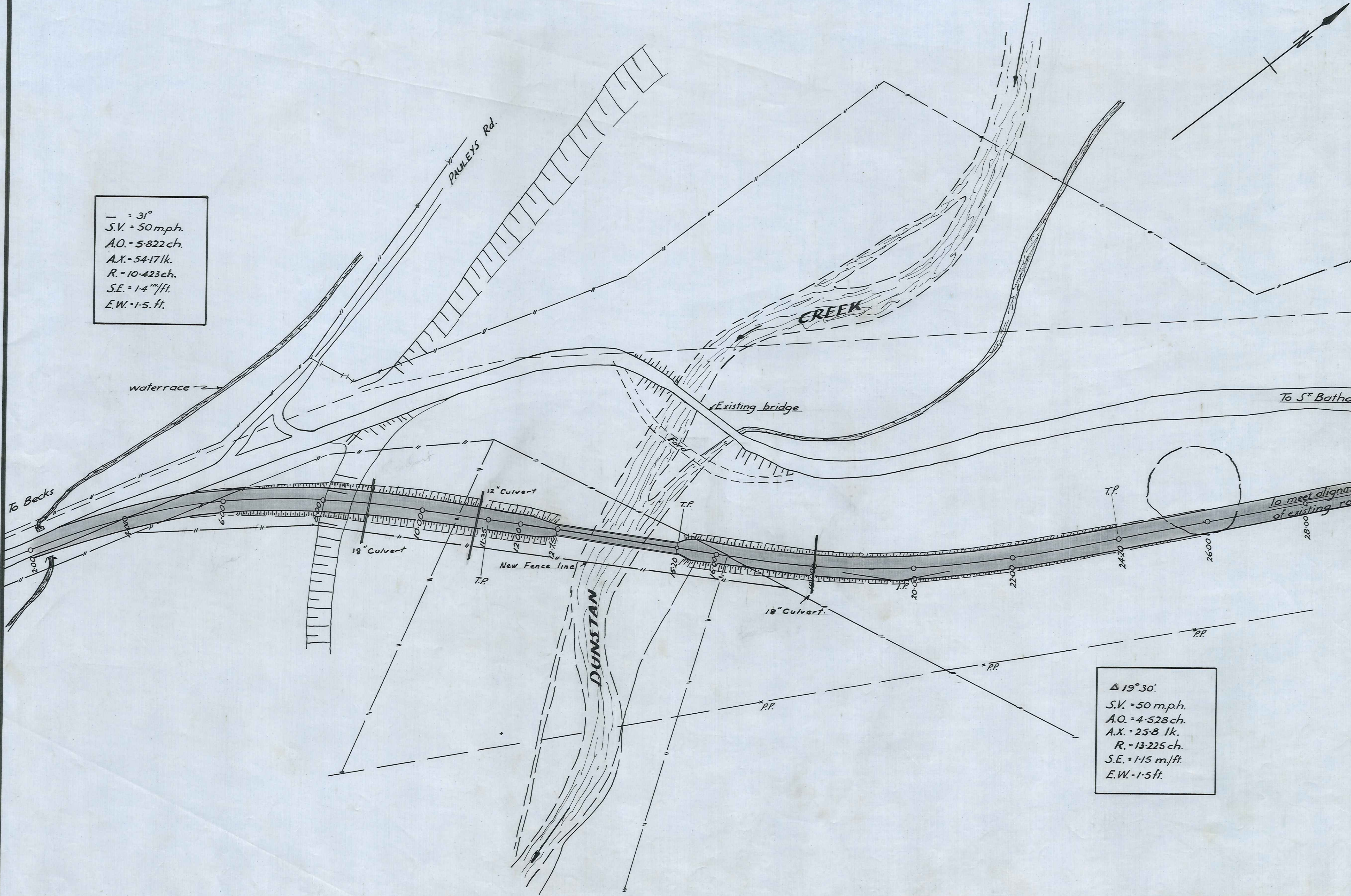


Longitudinal Section of Approaches
 Scales: Horiz 1" = 10' Vert 1" = 10'



X-Sections
 Scale: 10' to 1" horiz & vert

$\Delta = 31^\circ$
 S.V. = 50 mph.
 A.O. = 5.822 ch.
 A.X. = 54.17 lk.
 R. = 10.423 ch.
 S.E. = 1.4 m/ft.
 E.W. = 1.5 ft.



$\Delta 19^\circ 30'$
 S.V. = 50 m.p.h.
 A.O. = 4.528 ch.
 A.X. = 25.8 lk.
 R. = 13.225 ch.
 S.E. = 1.15 m/ft.
 E.W. = 1.5 ft.

Scale: 1 CH. to 1 IN.

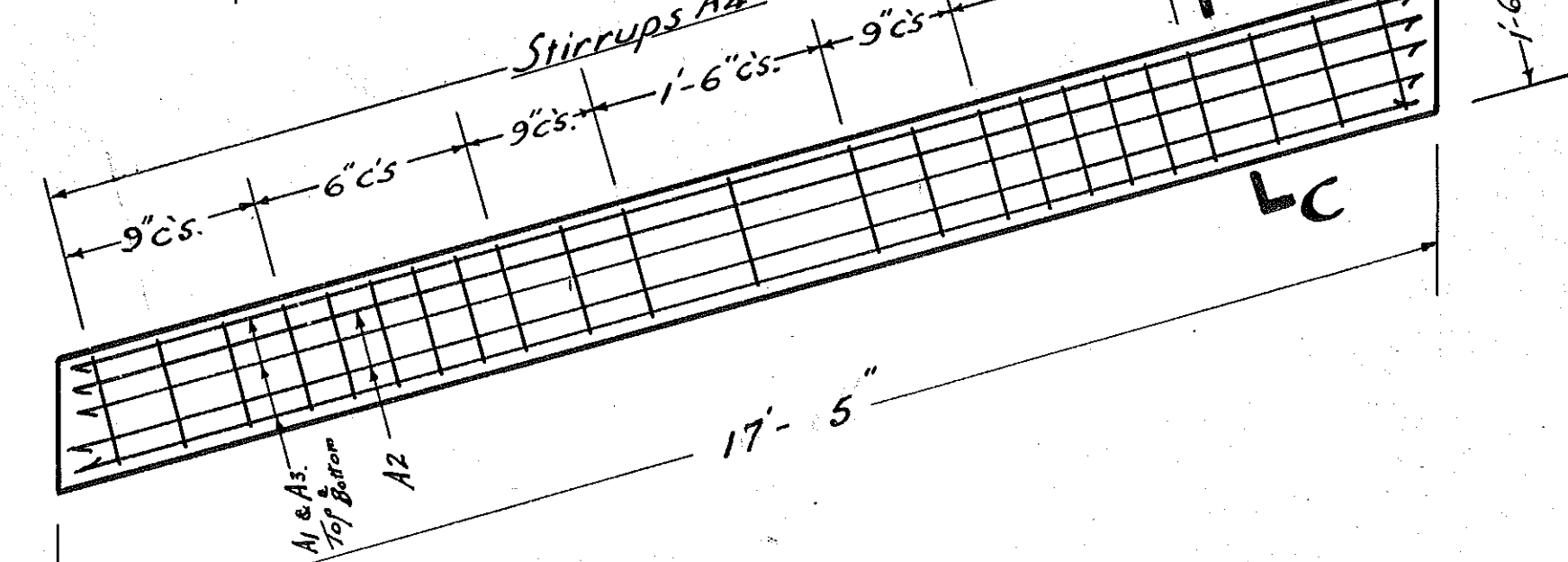
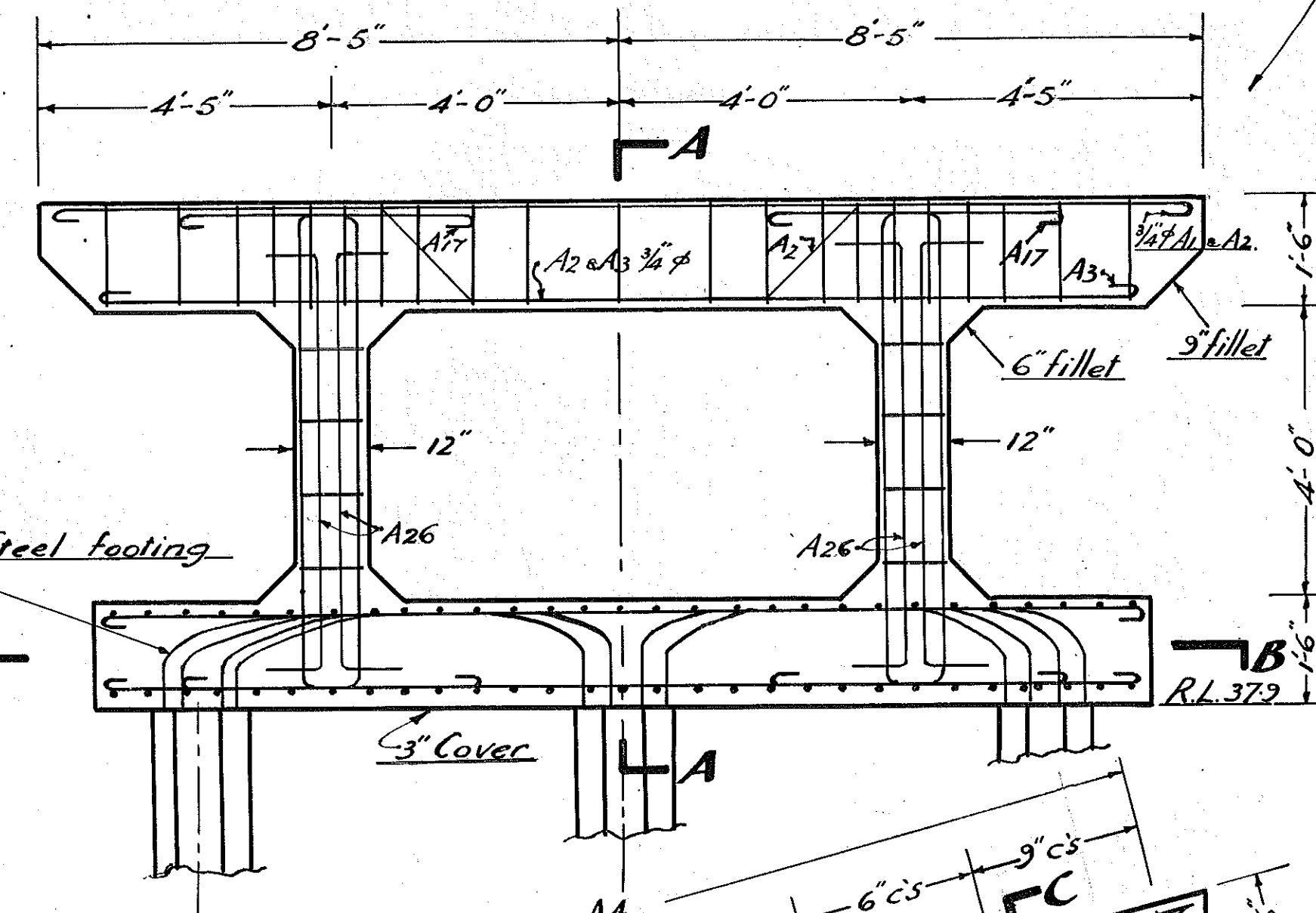
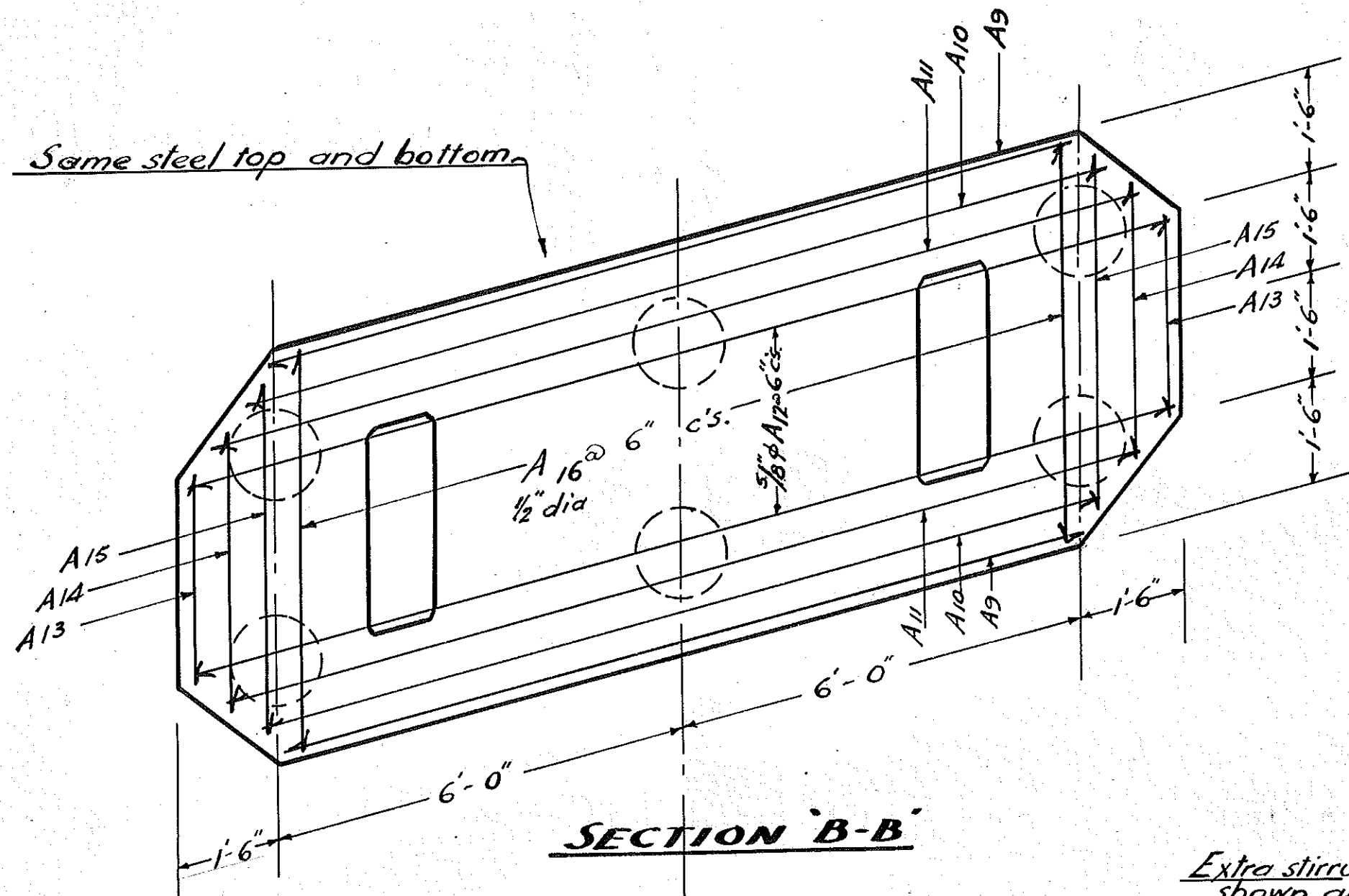
MANIOTOTO COUNTY COUNCIL

DUNSTAN CREEK BRIDGE
ST. BATHANS LOOP ROAD.

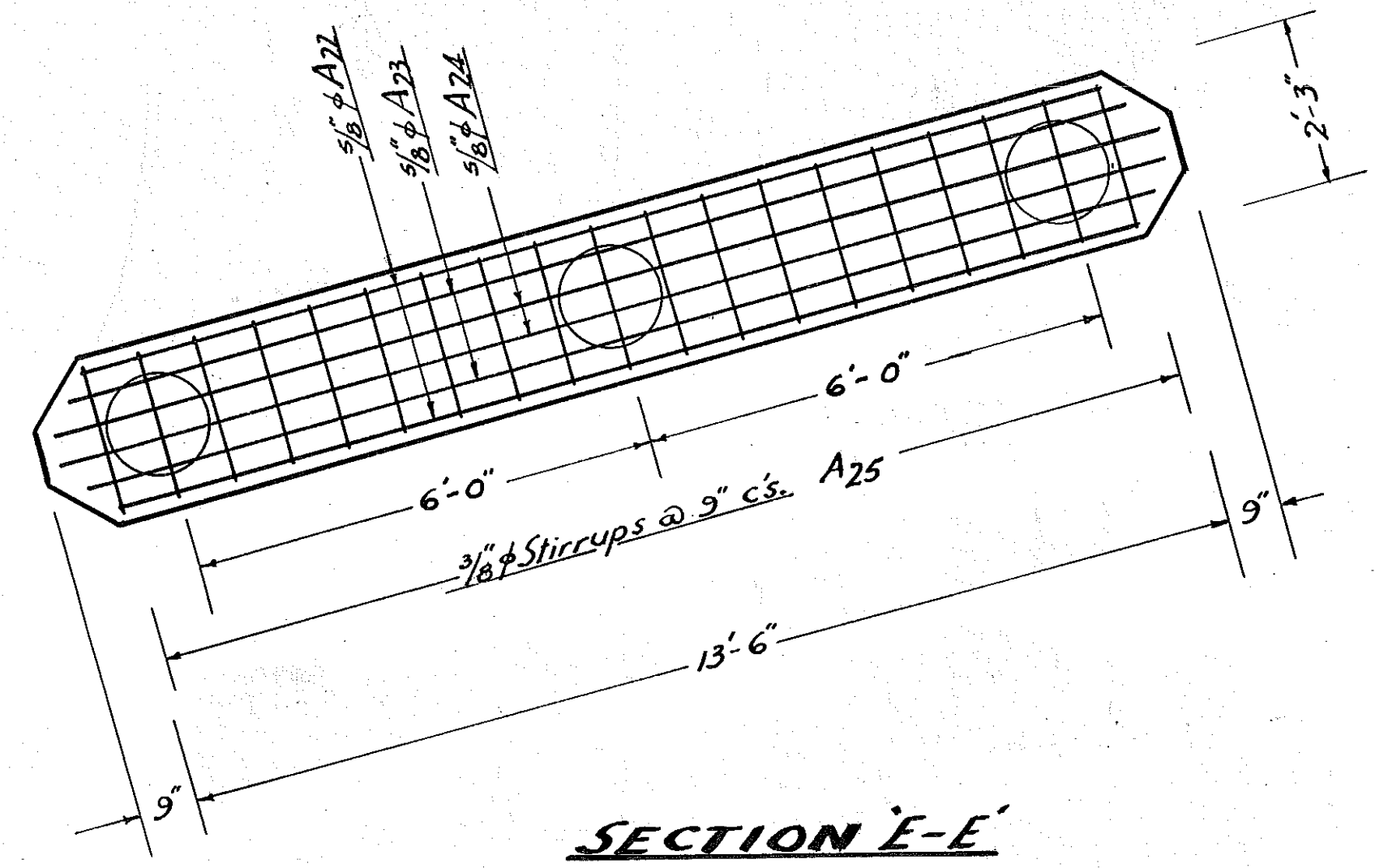
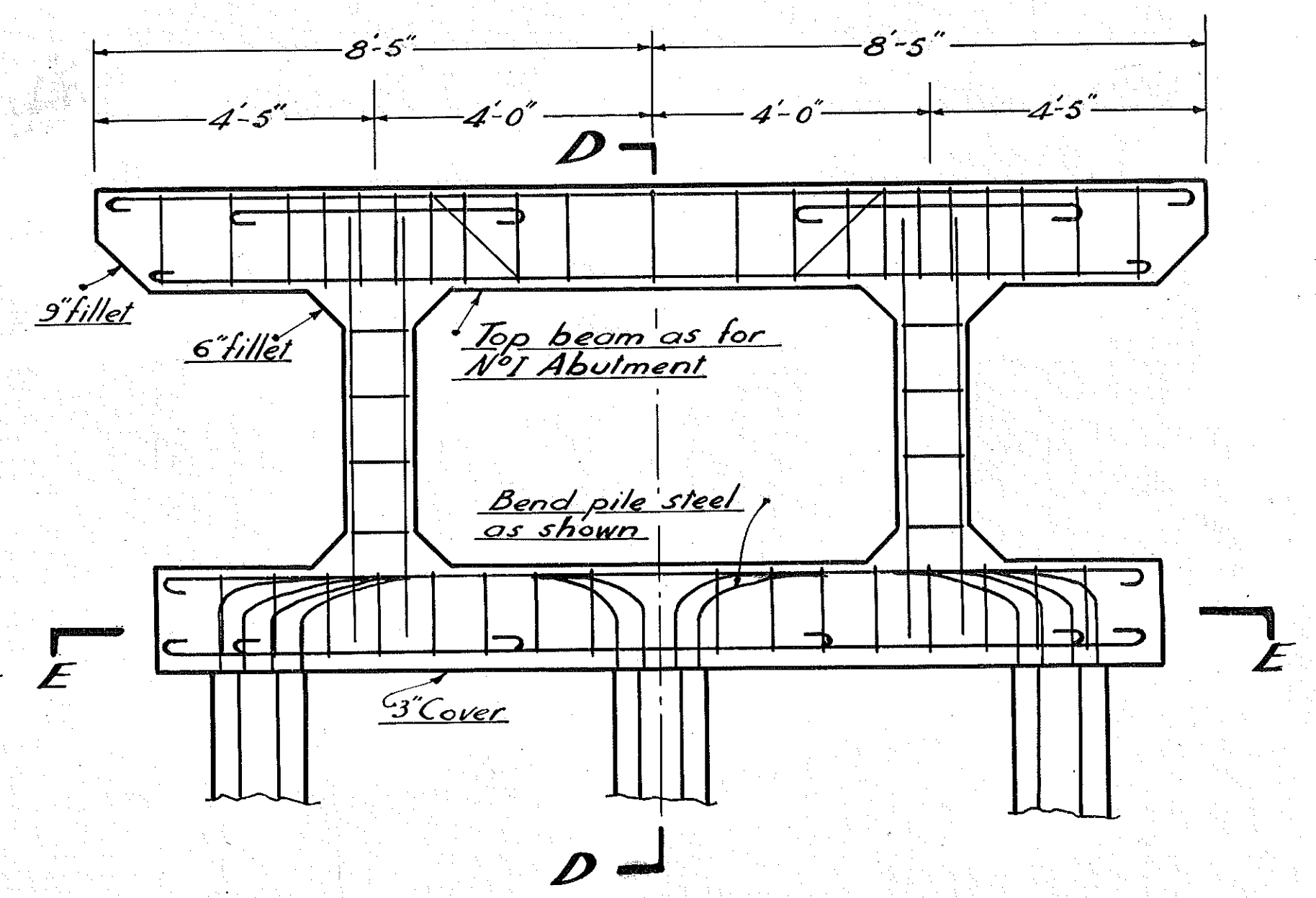
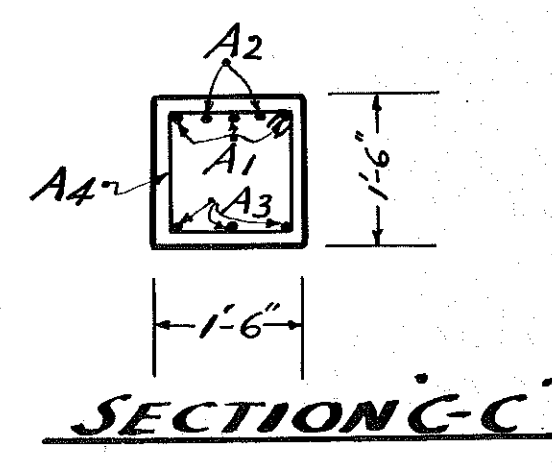
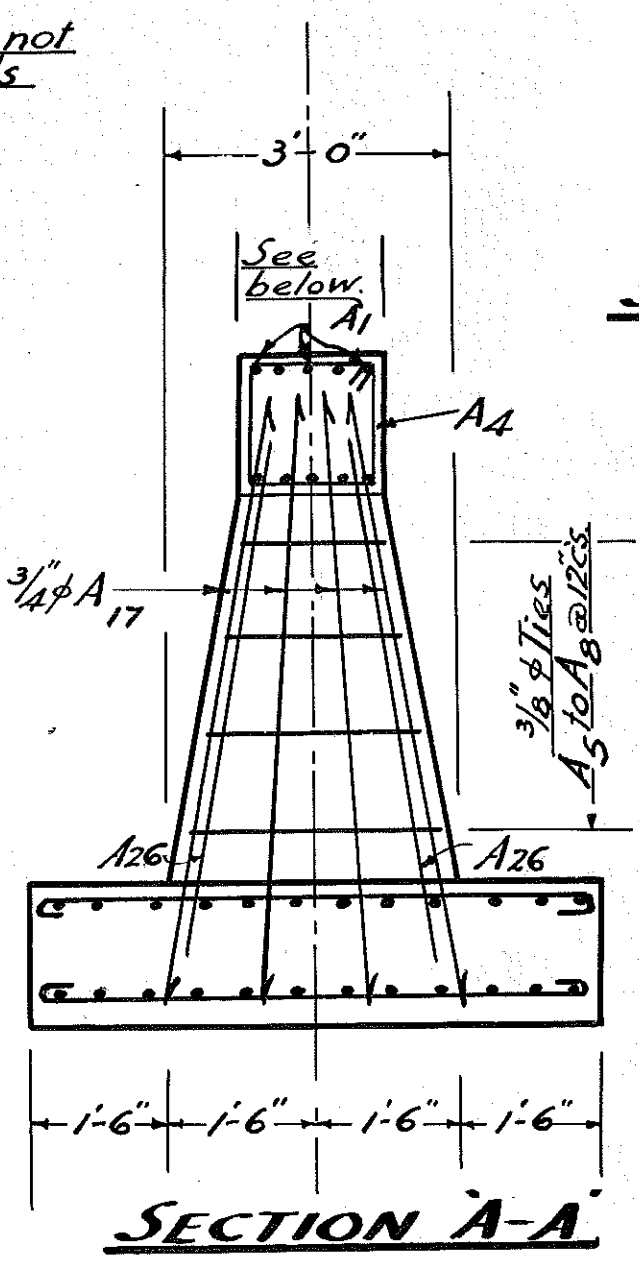
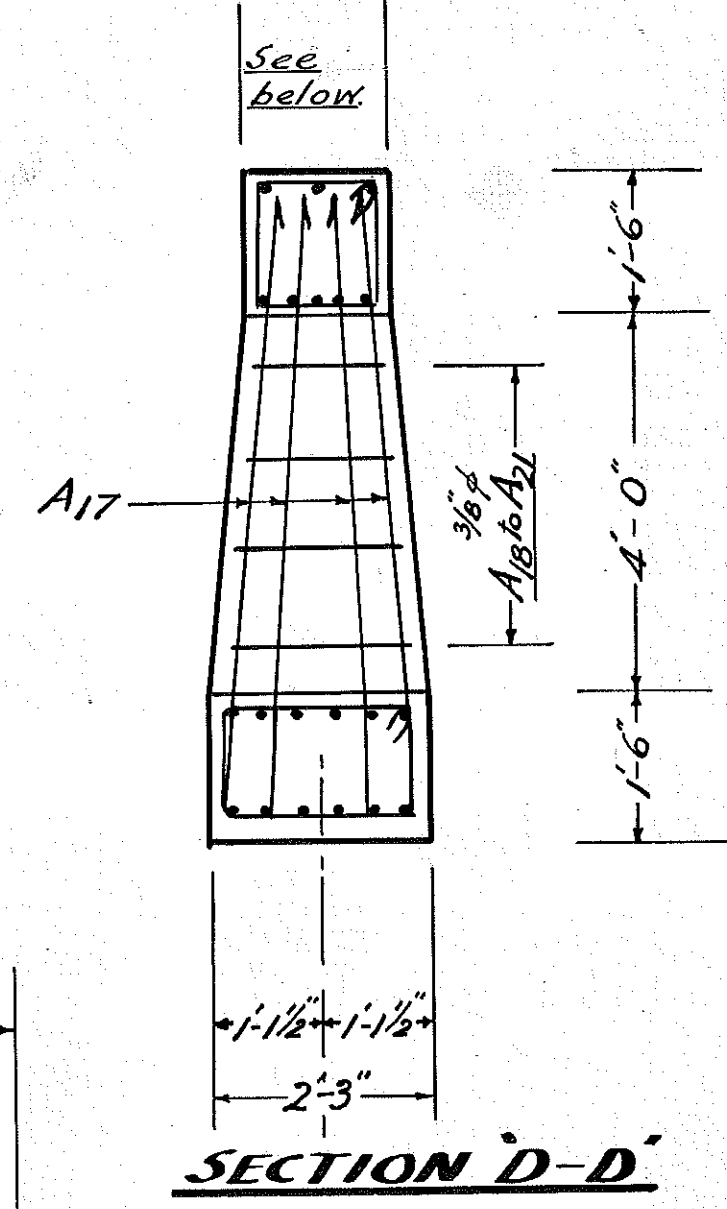
DUFFILL, WATTS & KING
CIVIL ENGINEERS AND SURVEYORS
DUNEDIN and INVERCARGILL

NO.	NAME	DATE
DESIGNED BY	T.F. Page	Nov. 1960
DRAWN	I.R. Cairman	Jan. 1961
CHECKED		
TRACED	R. Allworden	Jan. 1961

JOB NO.
4113/1
FILE No. 6/43



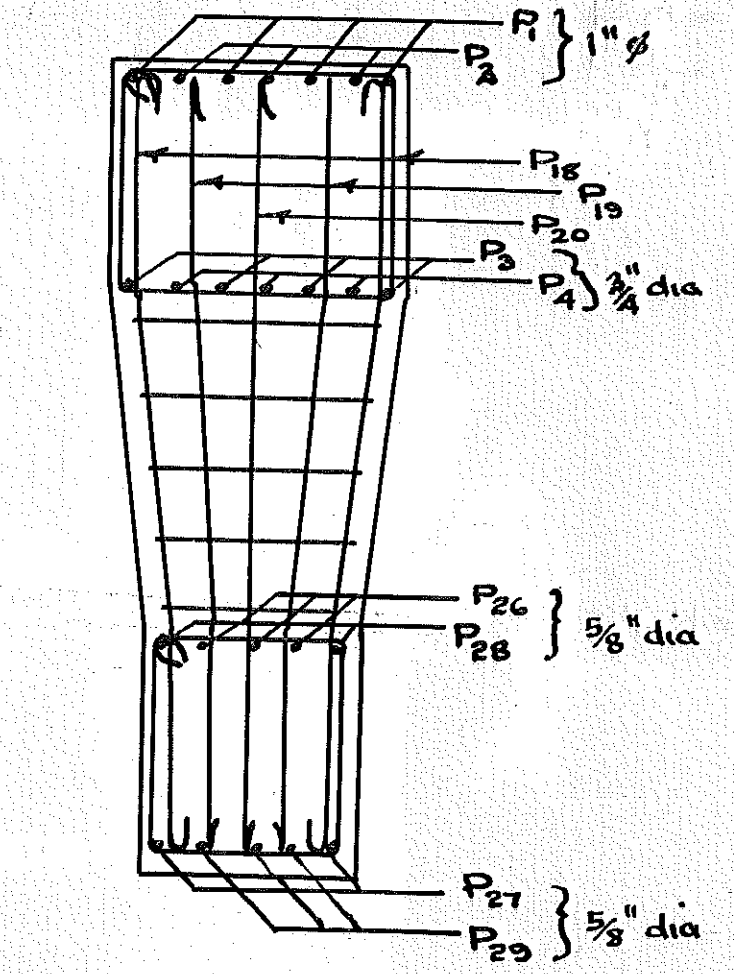
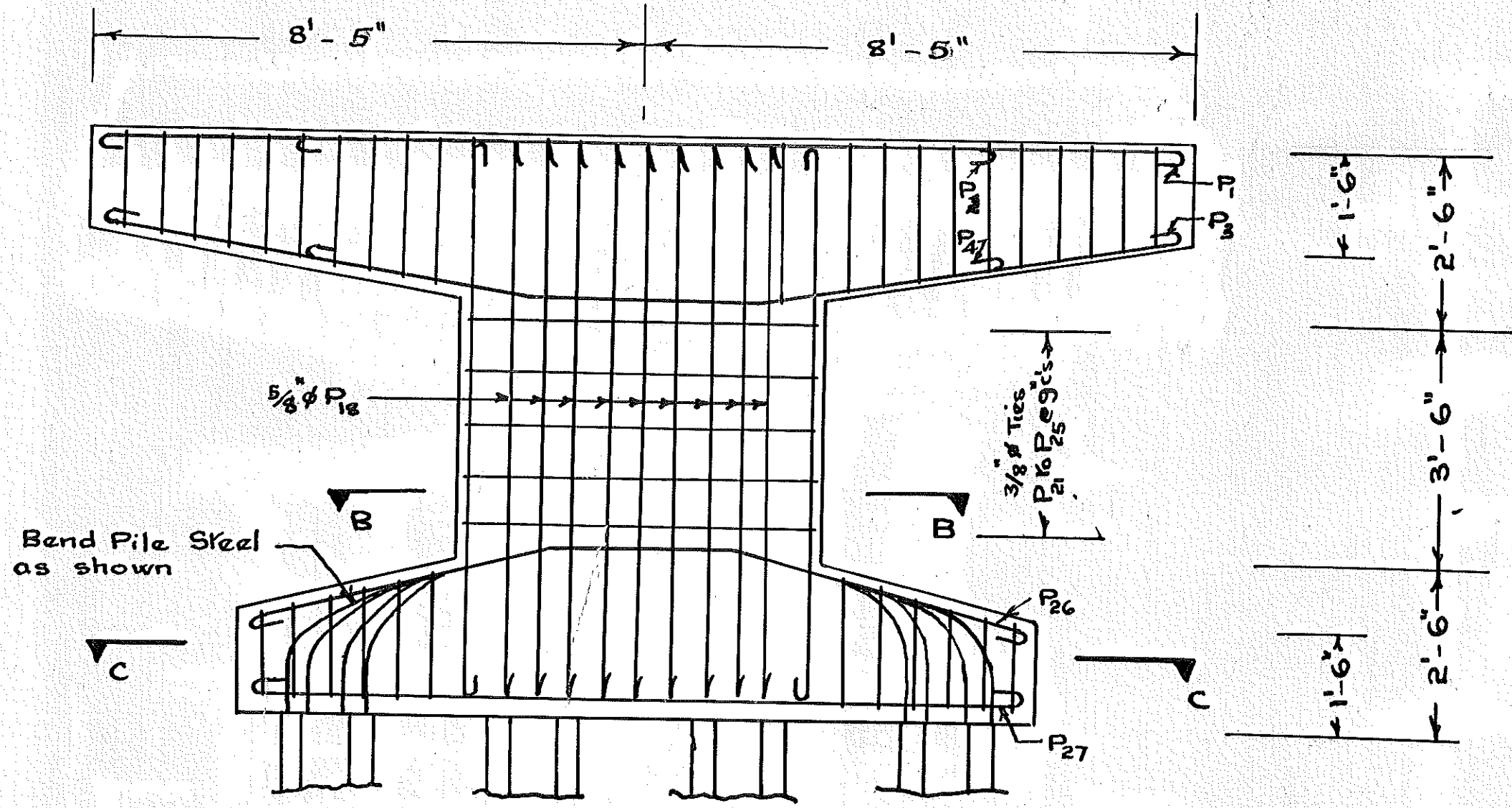
PLAN SHOWING TOPBEAM
Same as for No2 Abutment
—NO1 ABUTMENT—



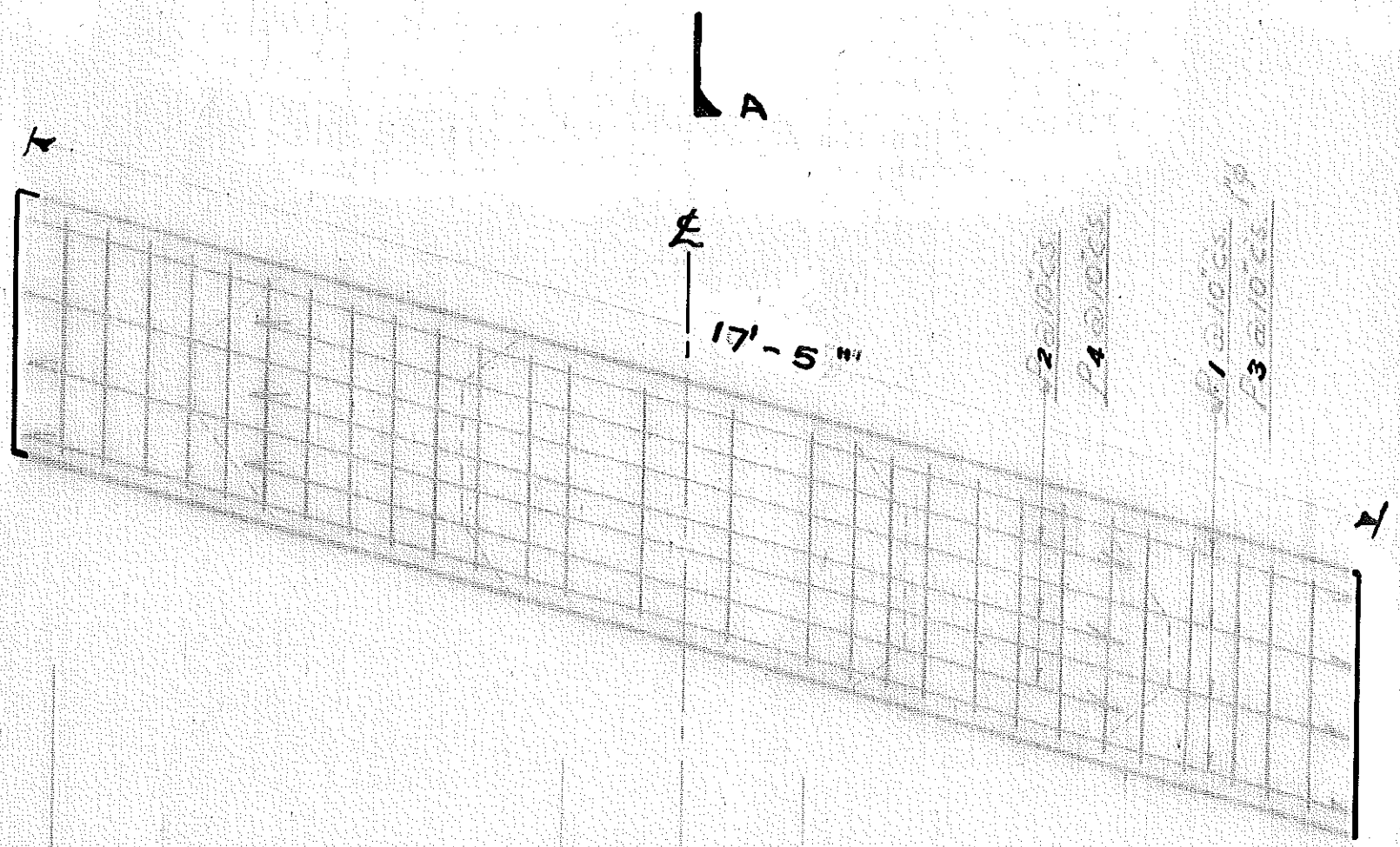
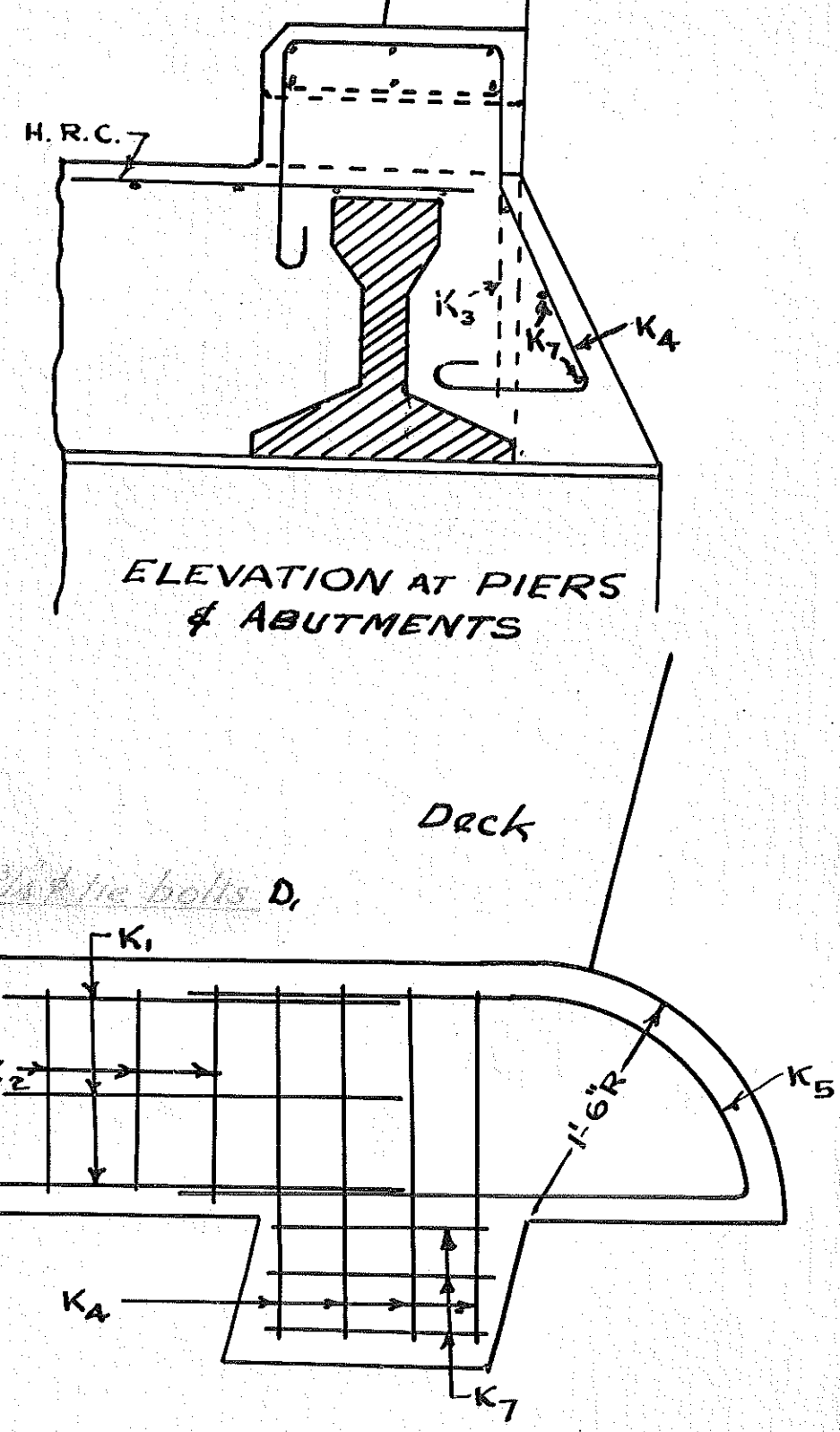
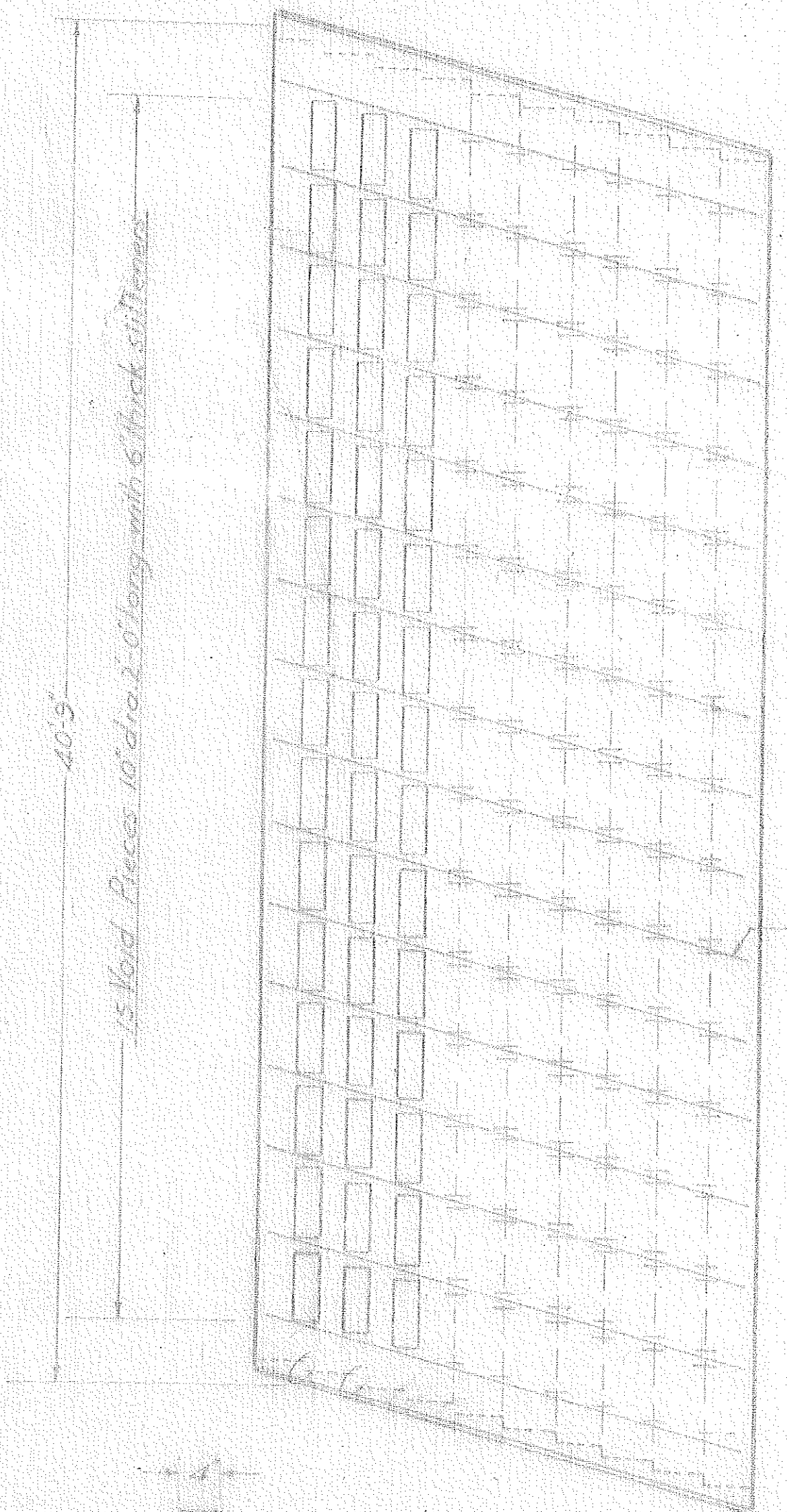
—NO2 ABUTMENT—

SCALE: 1/2" to 1'-0"

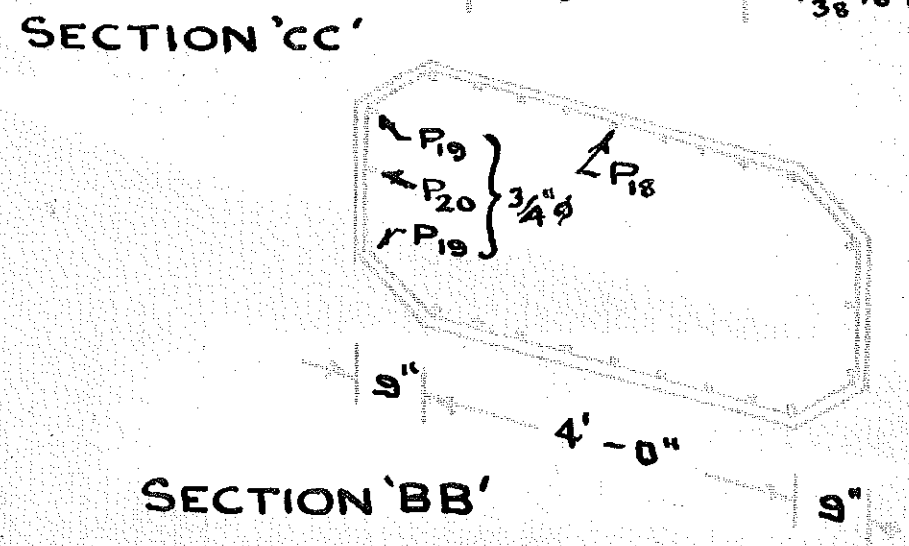
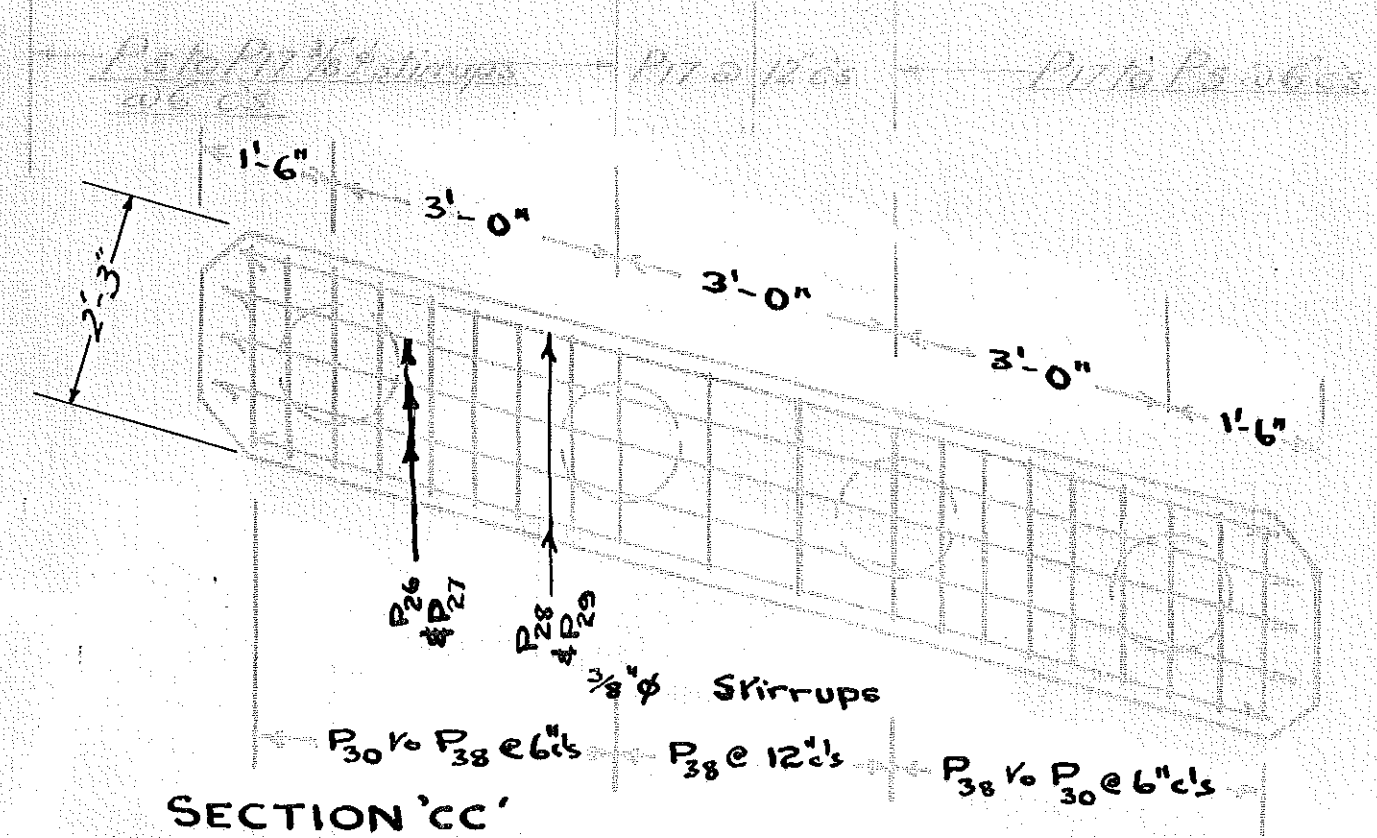
All cover to be 1 1/2" unless shown otherwise.



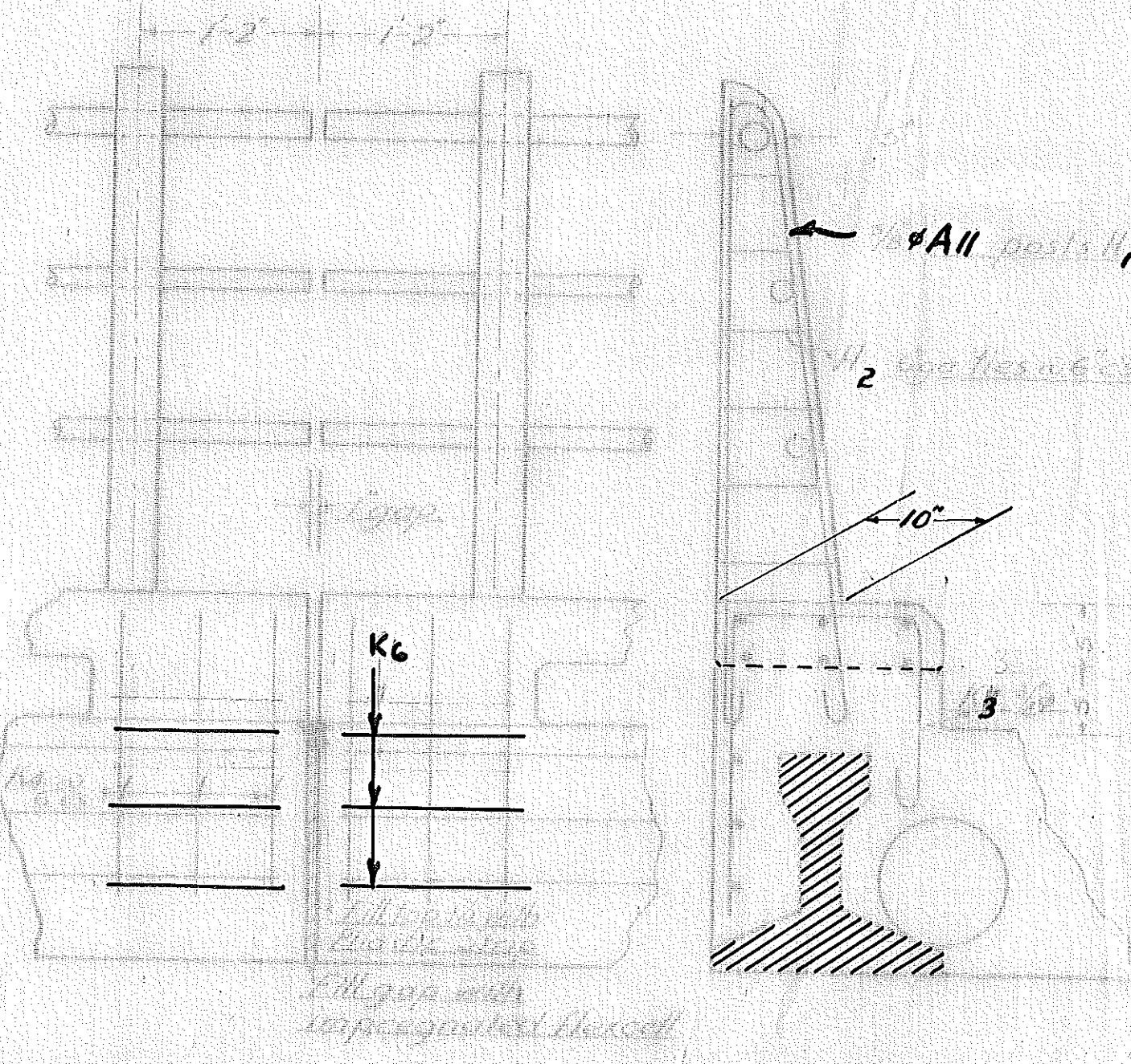
TYPICAL DECK PLAN



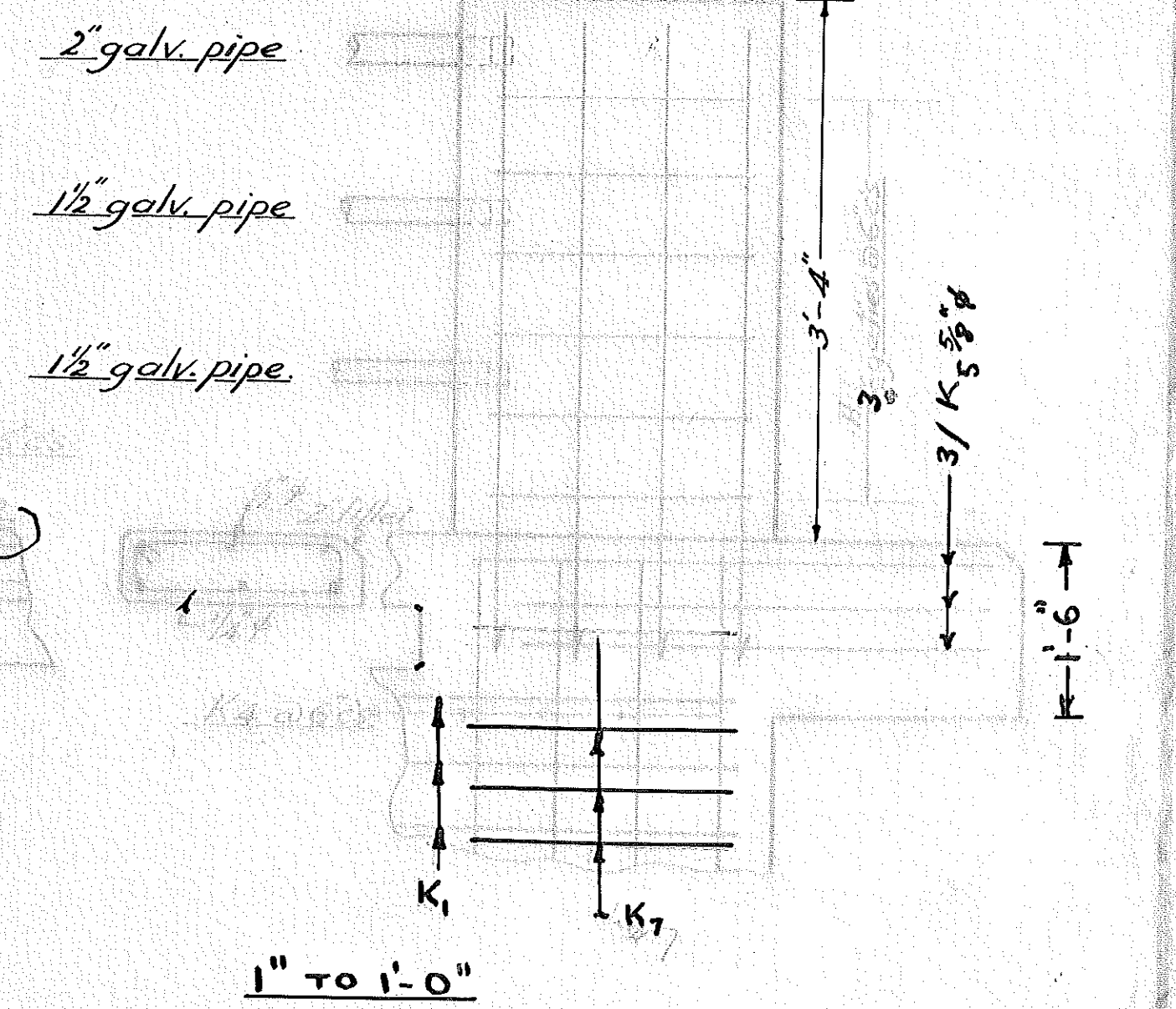
SECTION A-A



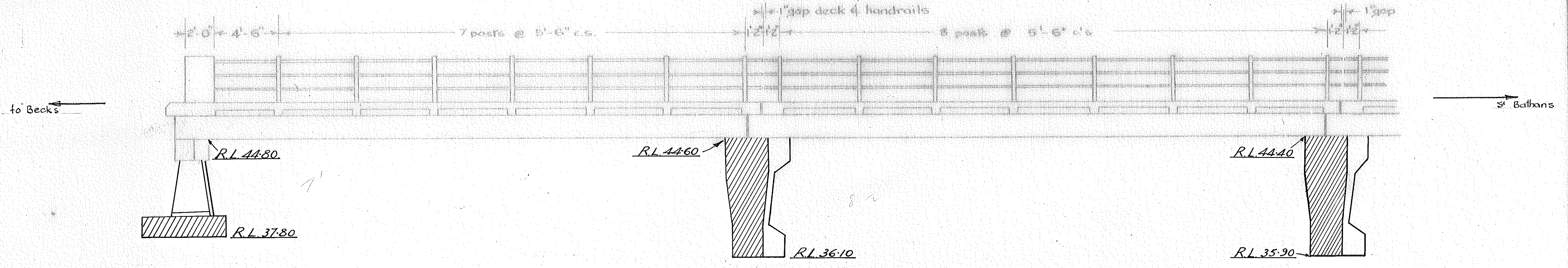
PIER DETAILS 1/2" TO 1'-0"



KERB DETAIL



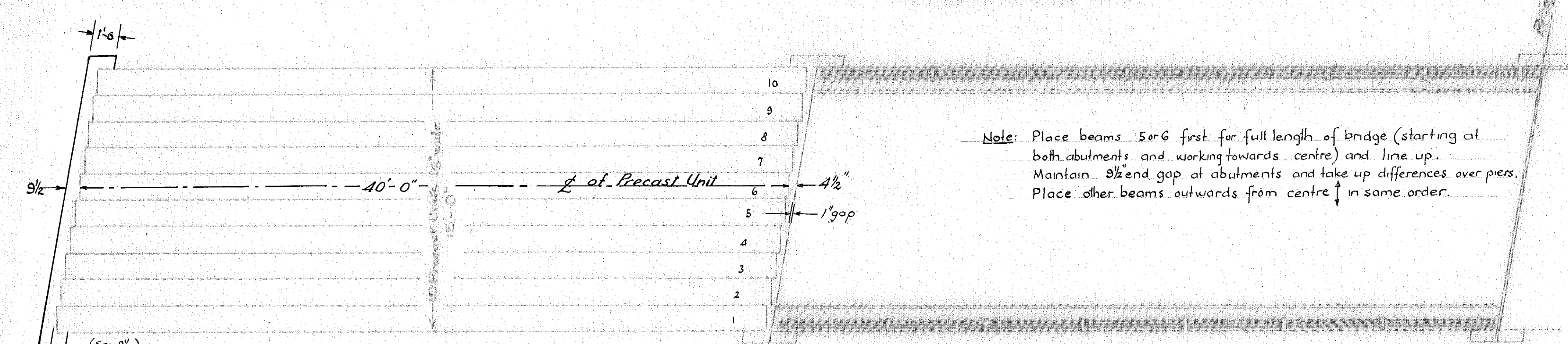
1" TO 1'-0"



16" Octagonal Piles 24'-0" Long
Paints to finish not less than 21'-0" below
R.L. of Pier & Abutment bases.

SECTIONAL ELEVATION
SCALE 1/2" TO 1'-0"

Note: On plan 4113/4 both abutment plans
have been drawn with skewis reversed.

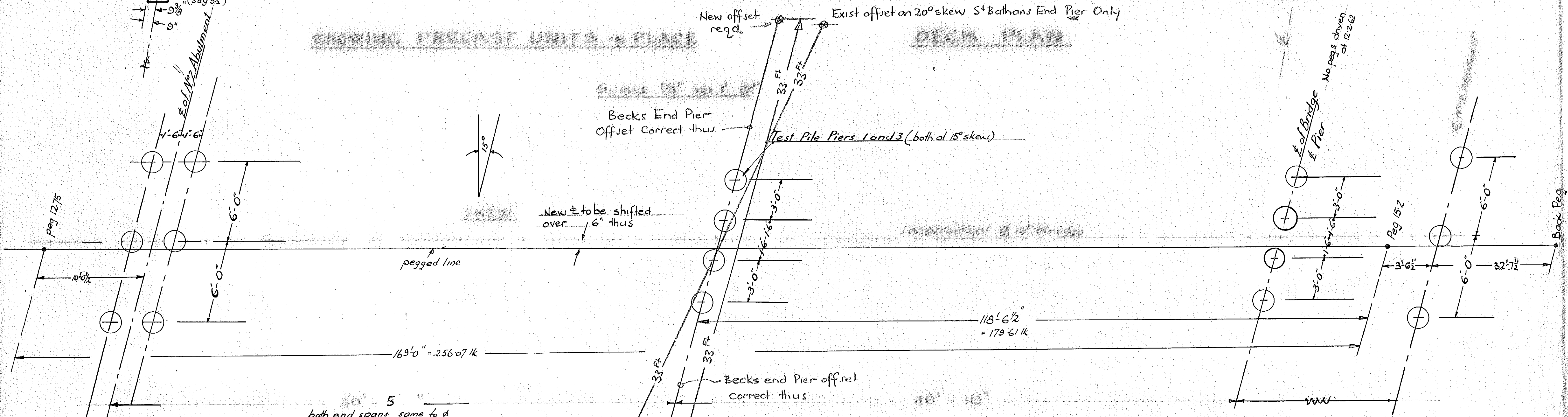


Note: Place beams 5 or 6 first for full length of bridge (starting at both abutments and working towards centre) and line up. Maintain 9/2" end gap at abutments and take up differences over piers. Place other beams outwards from centre in same order.

SHOWING PRECAST UNITS IN PLACE

DECK PLAN

SCALE 1/4" TO 1'-0"

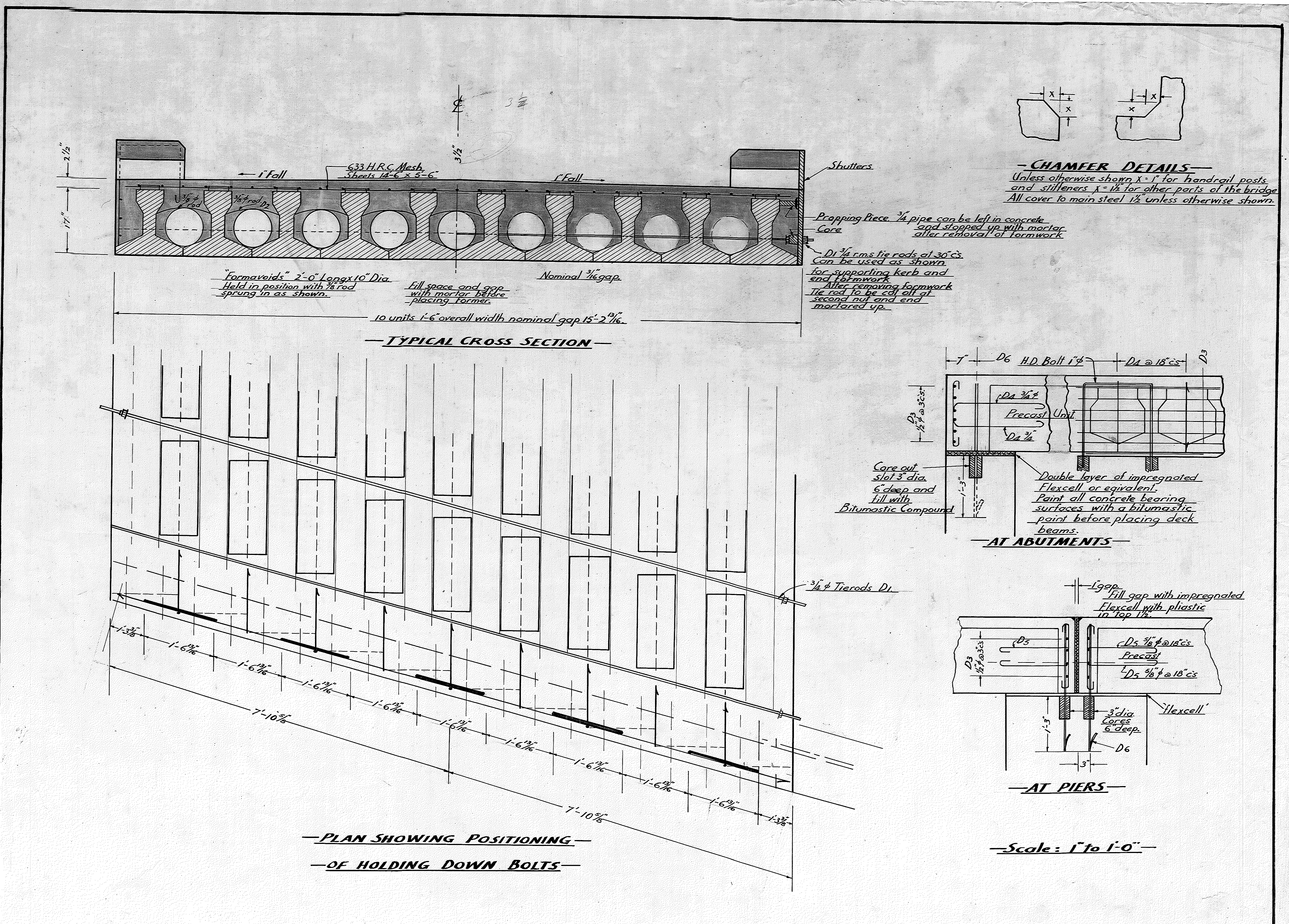


SHOWING PILE CENTRES

NOTE BRIDGE SYMETRICAL ABOUT C

DUNSTON CREEK BRIDGE

DUFFILL, WATTS & KING		NAME	DATE	JOB NO.
APPROVED BY	DRAWN BY	PAGE	NOV 1961	4113/4
			AUG 1961	



MANIOTOTO COUNTY COUNCIL

DUNSTAN CREEK BRIDGE
DECK & HOLDING DOWN BOLT DETAILS

DUFFILL, WATTS & KING
CIVIL ENGINEERS AND SURVEYORS
DUNEDIN AND INVERCARGILL

DATE: 11/11/61
JOB NO: 4113/6
FILE NO: 6/43

STEEL BENDING SCHEDULE

Mark	Dia.	Type	Position	No Off	Dimensions			Cur Length	Mark	Dia.	Type	Position	No Off	Dimensions			Cur Length	Shape
					a	b	c							a	b	c		
A1	3/4"	I	Abut	6	17'-1"			18'-4"	K1	1/2"	I	Kerbs	144	2'-0"			21'-9"	
A2	"	I		4	5'-3"	1'-8"	4'-3"	15'-4"	K2	3/4"	II		500	3"	2'-6"		6'-0"	
A3	"	I		6	15'-7"			16'-10"	K3	3/4"	IIIa		96	1'-2"	2'-0"	1'-3"	5'-1"	
A4	3/8"	II		50	1'-3"	1'-3"		5'-9"	K4	3/4"	III		52				6'-7"	
A5	"	"		2	9'	2'-6"		7'-3"	K5	5/8"	III		12				7'-2"	
A6	"	"		2	9'	2'-2"		6'-7"	K6	1/2"	III		36	1'-2"			1'-2"	
A7	"	"		2	8'	1'-10"		5'-11"	K7	1/2"	III		12	1'-0"			1'-8"	
A8	"	"		2	9'	1'-5"		5'-1"										
A9	5/8"	I		4	11'-10"			12'-10"										
A10	"	"		4	12'-8"			13'-8"										
A11	"	"		4	13'-9"			14'-9"	H1	5/8"	I	Handrail	126				9'-2"	
A12	"	"		12	14'-8"			15'-8"	H2	1 1/2"	band		an	an			6'-7"	
A13	1/2"	"		4	3'-0"			3'-9"	H3	"	"							
A14	"	"		4	4'-1"			4'-10"										
A15	"	"		4	5'-1"			5'-9"										
A16	"	"		48	5'-9"			6'-6"										
A17	3/4"	VII		32	6'-6"	2'-3"	2'-3"	12'-3"	D1	3/4"	II	Deck	64	16'-10"			16'-10"	
A18	3/8"	II		2	9'	1'-9"		5'-9"	D2	3/8"	III		540	1'-2 1/2"	(as cast)		11'-2 1/2"	
A19	"	"		2	9'	1'-7"		5'-5"	D3	1/2"	I		36	15'-4"			16'-1"	
A20	"	"		2	9'	1'-5"		5'-1"	D4	5/8"	II		36	2'-0"	1'-0"		4'-2"	
A21	"	"		2	9'	1'-3"		4'-9"	D5	5/8"	II		108	1'-6"	1'-0"		3'-6"	
A22	5/8"	I		2	13'-6"			14'-6"	D6	1"	VII		40	1'-6 1/2"	2'-9"	2'-9"	8'-7"	
A23	"	"		2	14'-0"			15'-0"										
A24	"	"		2	14'-6"			15'-6"										
A25	3/8"	IV		19	1'-1"	2'-0"		6'-11"										
A26	1"	VIIIa		8	5'-6"	2'-0"		9'-6"										
P1	1"	I	Piers	12	17'-1"			18'-4"										
P2	"	"		9	11'-0"			12'-6"										
P3	3/4"	III		12	6'-8"	3'-6"	17°	18'-1"										
P4	"	"		9	3'-6"	3'-6"	17°	11'-9"										
P5	3/8"	IV		6	1'-4"	2'-10"		4'-11"										
P6	"	"		6	1'-5"	2'-10"		5'-1"										
P7	"	"		6	1'-6"	2'-10"		5'-3"										
P8	"	"		6	1'-7"	2'-10"		5'-5"										
P9	"	"		6	1'-8"	2'-10"		5'-7"										
P10	"	"		6	1'-9"	2'-10"		5'-9"										
P11	"	"		6	1'-10"	2'-10"		5'-11"										
P12	"	"		6	1'-11"	2'-10"		6'-1"										
P13	"	"		6	2'-0"	2'-10"		6'-3"										
P14	"	"		6	2'-1"	2'-10"		6'-5"										
P15	"	"		6	2'-2"	2'-10"		6'-7"										
P16	"	"		6	2'-3"	2'-10"		6'-9"										
P17	"	"		12	2'-4"	2'-10"		6'-11"										
P18	3/8"	V		54	-	-		8'-1"										
P19	3/8"	VII		12	-	-		8'-4"										
P20	"	"		6	8'-0"	-		8'-3"										
P21	3/8"	VI		3	9'	-		13'-8"										
P22	"	"		3	11'	-		14'-0"										
P23	"	"		3	11'-3"	-		14'-8"										
P24	"	"		3	11'-5"	-		15'-0"										
P25	"	"		9	4'-7"	2'-8"	165°	12'-10"										
P26	5/8"	III		9	4'-4"	2'-8"	165°	12'-6"										
P27	"	"		6	11'-0"	2'-8"	165°	12'-4"										
P28	"	"		6	11'-2"	2'-0"		12'-0"										
P29	3/8"	IV		6	1'-2"	2'-0"		7'-1"										
P30	"	"		6	1'-3 1/2"	2'-0"		7'-4"										
P31	"	"		6	1'-5"	2'-0"		7'-7"										
P32	"	"		6	1'-6 1/2"	2'-0"		7'-10"										
P33	"	"		6	1'-8"	2'-0"		8'-1"										
P34	"	"		6	1'-8 1/2"	2'-0"		8'-4"										
P35	"	"		6	1'-11"	2'-0"		8'-7"										
P36	"	"		6	2'-0 1/2"	2'-0"		8'-10"										
P37	"	"		12	2'-2"	2'-0"		9'-1"										

MANIOTOTO COUNTY COUNCIL

DUNSTAN CREEK BRIDGE

DUFFILL, WATTS & KING
CIVIL ENGINEERS AND SURVEYORS
DUNEDIN AND INVERCARGILL

DATE: 11/11/61
JOB NO: 4113/7
FILE NO: 6/43