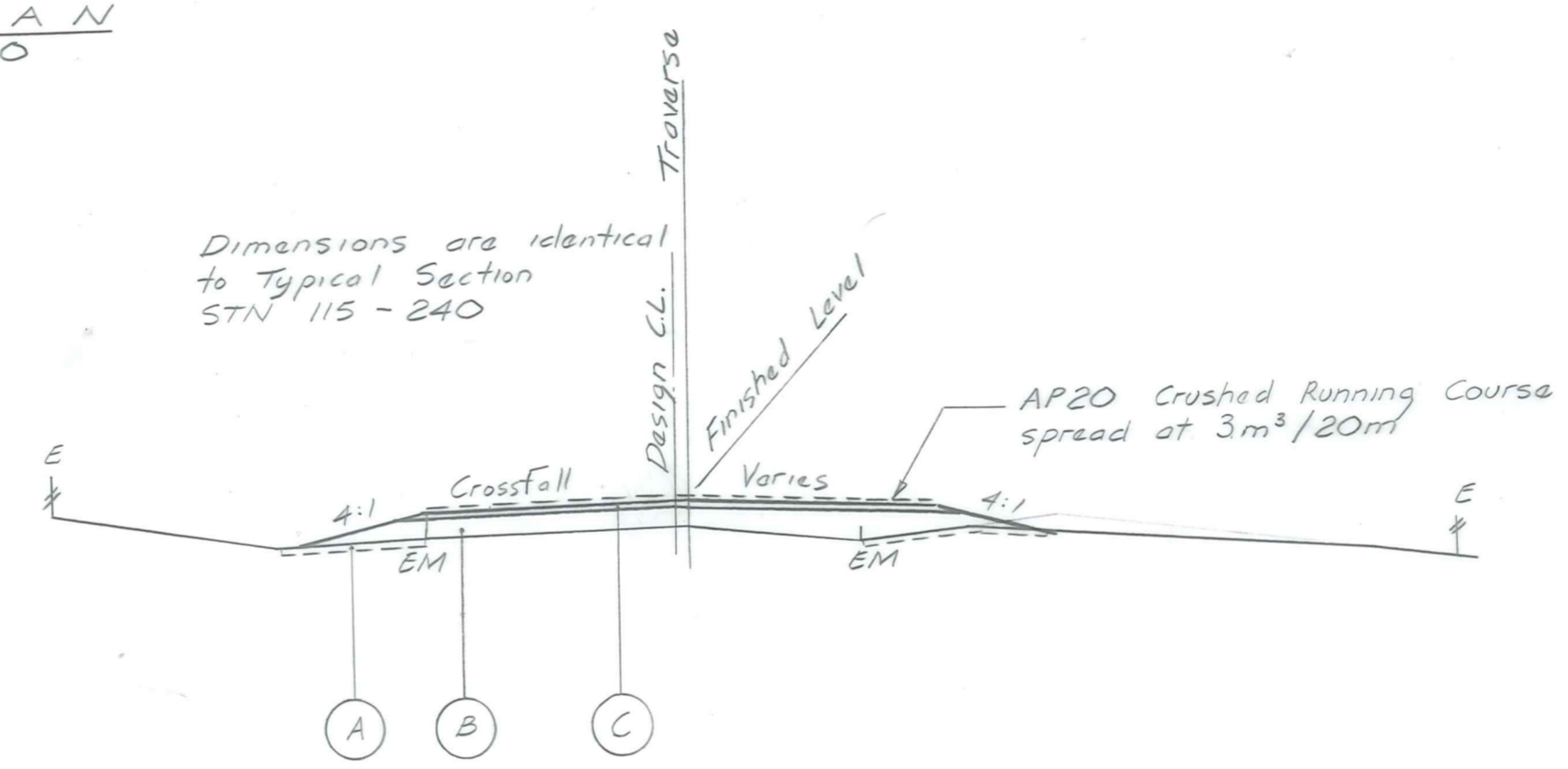
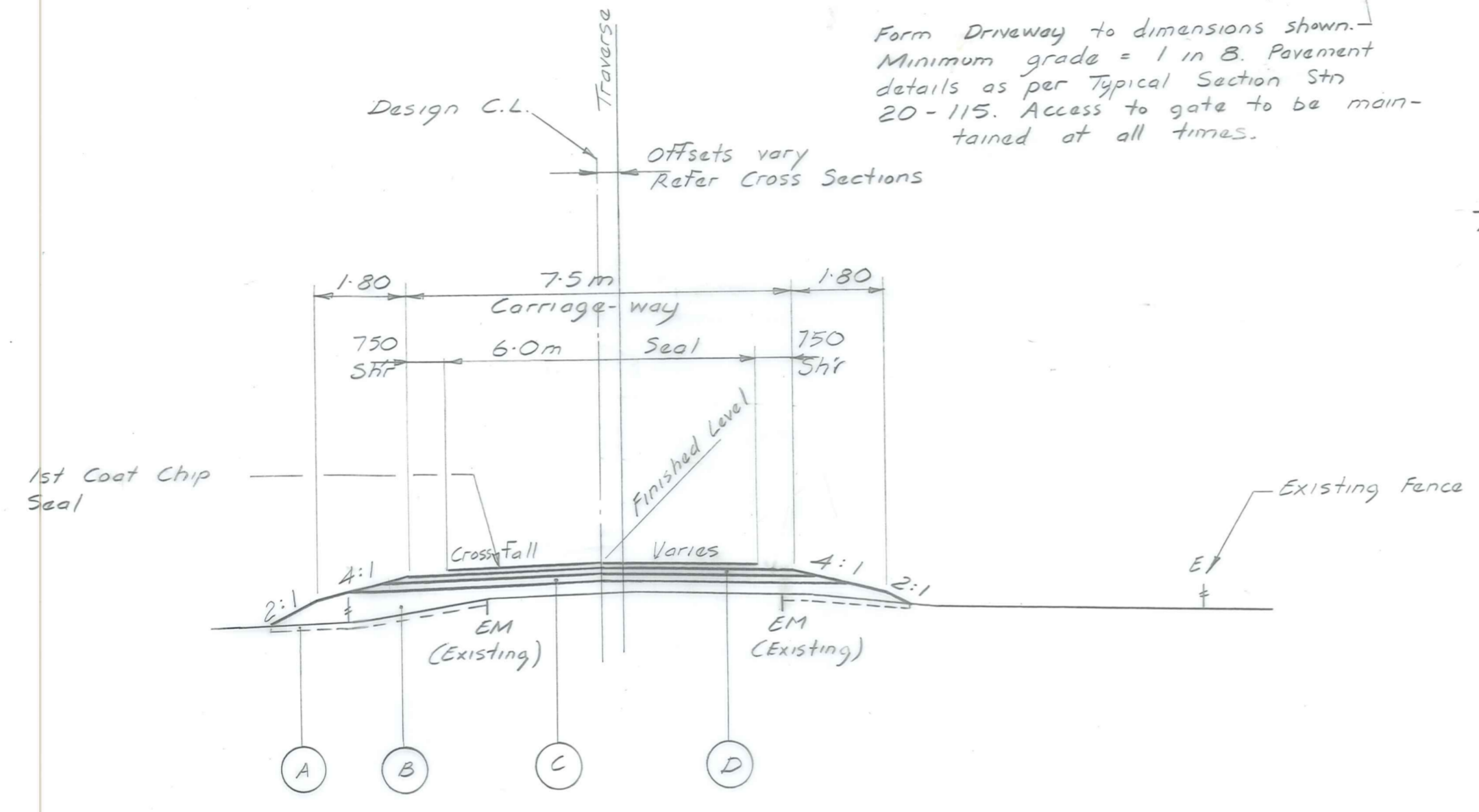
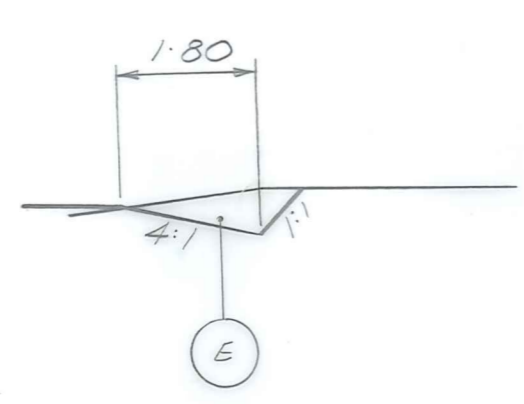


- Notes
1. Remove existing traffic signs during construction, & replace upon completion. Weight restriction signs to be removed to store.
 2. Fill batters to be adjusted as necessary to stay within fence lines.
 3. [Hatched pattern] denotes First Coat Sealing.
 4. Traverse Pins are Markers only. Do not use as a basis for levelling.



LEGEND TYPICAL CROSS SECTION

A	Strip Topsoil 100mm nom. & respread over Ford vehicle track or as directed.
B	Bulk Fill & Subgrade Fill
C	150mm AP65 Sub-basecourse
D	100mm Crushed M/A AP40 Basecourse
E	Cut to Waste



No.	Revisions	Date	Appvd
Designed	R. MINNEMA	4/92	Print Date
Drawn	R. MINNEMA	4/92	
Checked	[Signature]	6/92	
Approved	[Signature]	11/92	
File	225/16/6/3	Ref	



Client
 Project
 CODC CONTRACT No. 91/122
 SPEC. GULLY No. 1 BRIDGE
 REPLACEMENT.

Sheet Title
 PLAN & TYPICAL
 SECTIONS

Job No. 14140	Sheet No. 1	Revision
		of sheets

Duffill Watts & King Ltd
 CONSULTING ENGINEERS

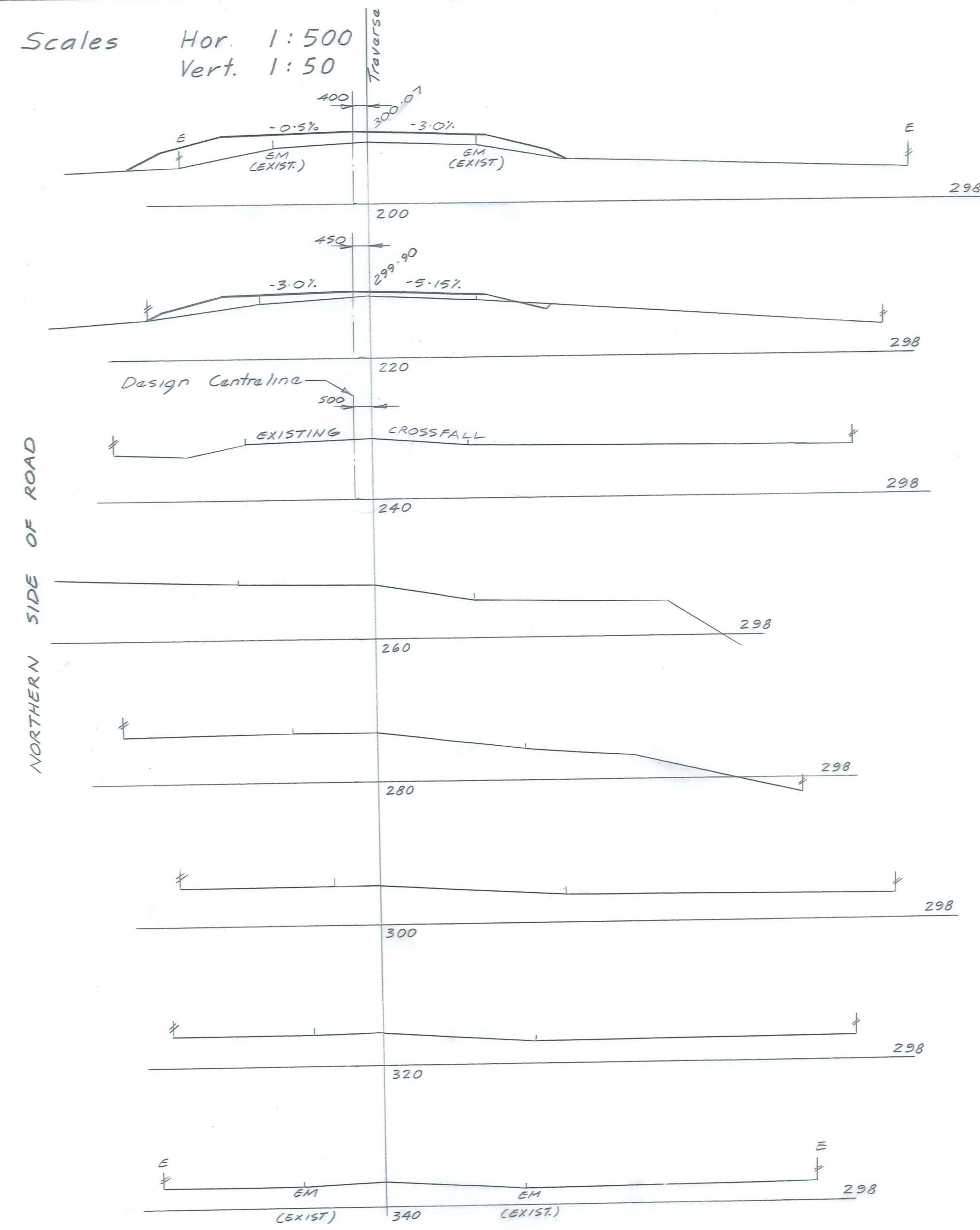
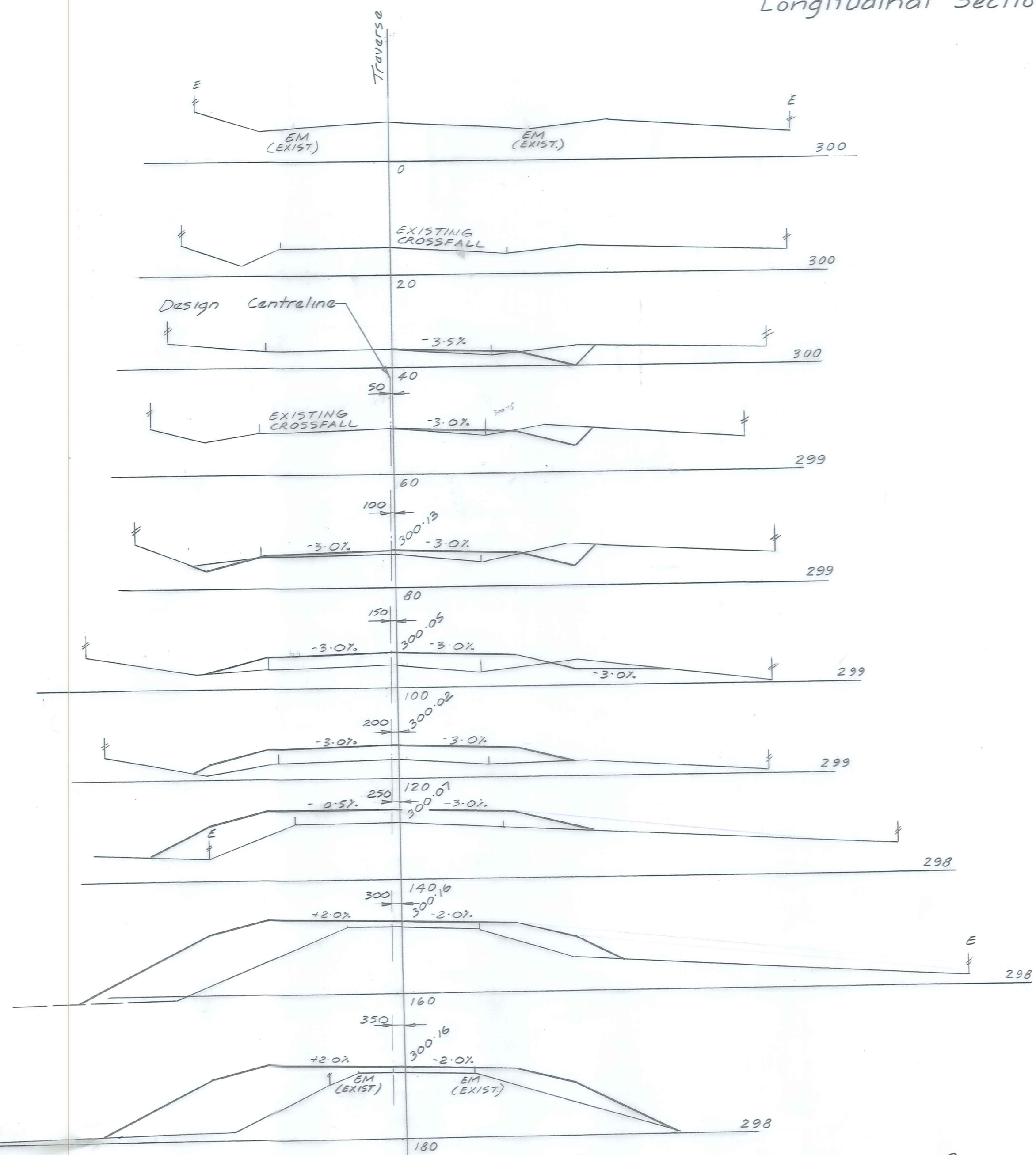
Contract No. 9/1/22
 Re-Order Filemaster "D" SELF-ADHESIVE PLAN HANGER
 Patent Number 137841
 Spec Gully No. 1 Bridge Replacement

Longitudinal Section
 & Cross Sections

Distances	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	
Existing G.L. on trav. line	301.19	300.04	300.54	300.32	299.96	299.65	299.58	299.66	299.77	299.94	299.76	299.75	299.70	299.48	299.40	299.28	299.13	298.93	298.68
Finished Level on Design Centreline	N/A	N/A	N/A	EXIST.	300.13	300.05	300.08	300.07	300.15	300.16	300.07	299.90	EXIST.	N/A	N/A	N/A	N/A	N/A	N/A

Blend in to Existing
 Finished Level on Design Centreline
 Existing Ground Level on Traverse
 New Bridge approx. 14.5m long.
 Track
 Ford
 Blend in to Existing
 Trav. angle Deflection 20°30'

Longitudinal Section Scales Hor. 1:500 Vert. 1:50



Cross Sections Scale 1:100

Height Datum
 B.M. on post 300.00
 see plan.

No.	Revisions	Date	Appvd
Designed	R. MINNEMA	Date 4/92	Print Date
Drawn	R. MINNEMA	4/92	
Checked	G. P. [Signature]	5/92	
Approved	[Signature]	1/5/92	
File	225/16/6/13	Ref	

Client
 CENTRAL OTAGO DISTRICT COUNCIL

Project
 CODC CONTRACT No. 9/1/22
 SPEC GULLY No. 1 BRIDGE
 REPLACEMENT

Sheet Title
 LONGITUDINAL SECTION
 & CROSS SECTIONS

Job No. 14140	Sheet No. 2	Revision of shts
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Duffill Watts & King Ltd
 CONSULTING ENGINEERS

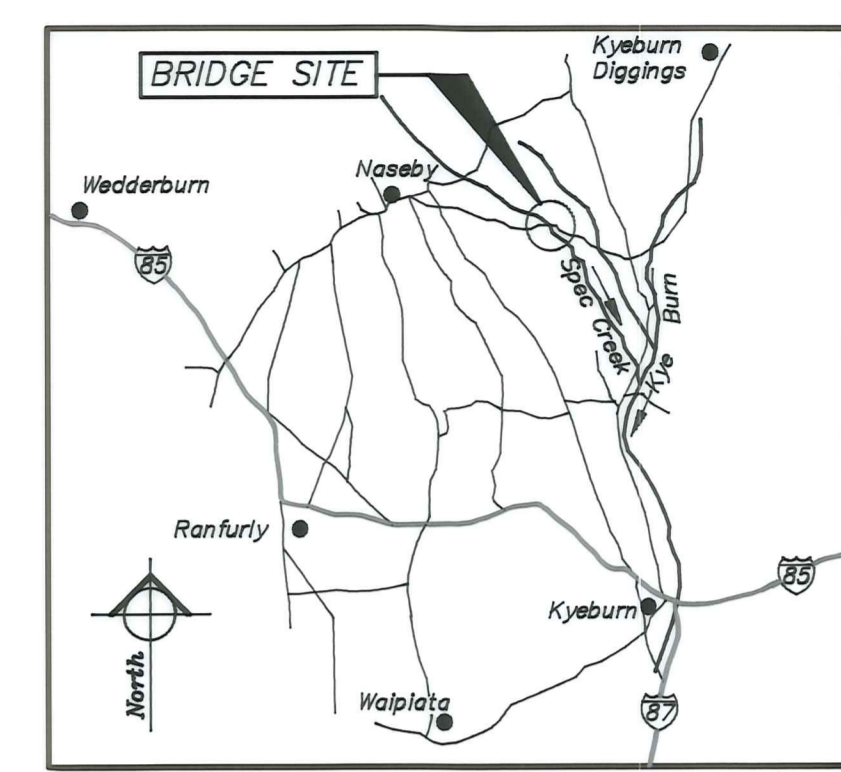
Re-Order Filemaster "D" Replacement of Bridge No. 113 Spec Gully No. 1
 SELF-ADHESIVE PLAN HANGER
 Patent Number 137841

General Arrangement

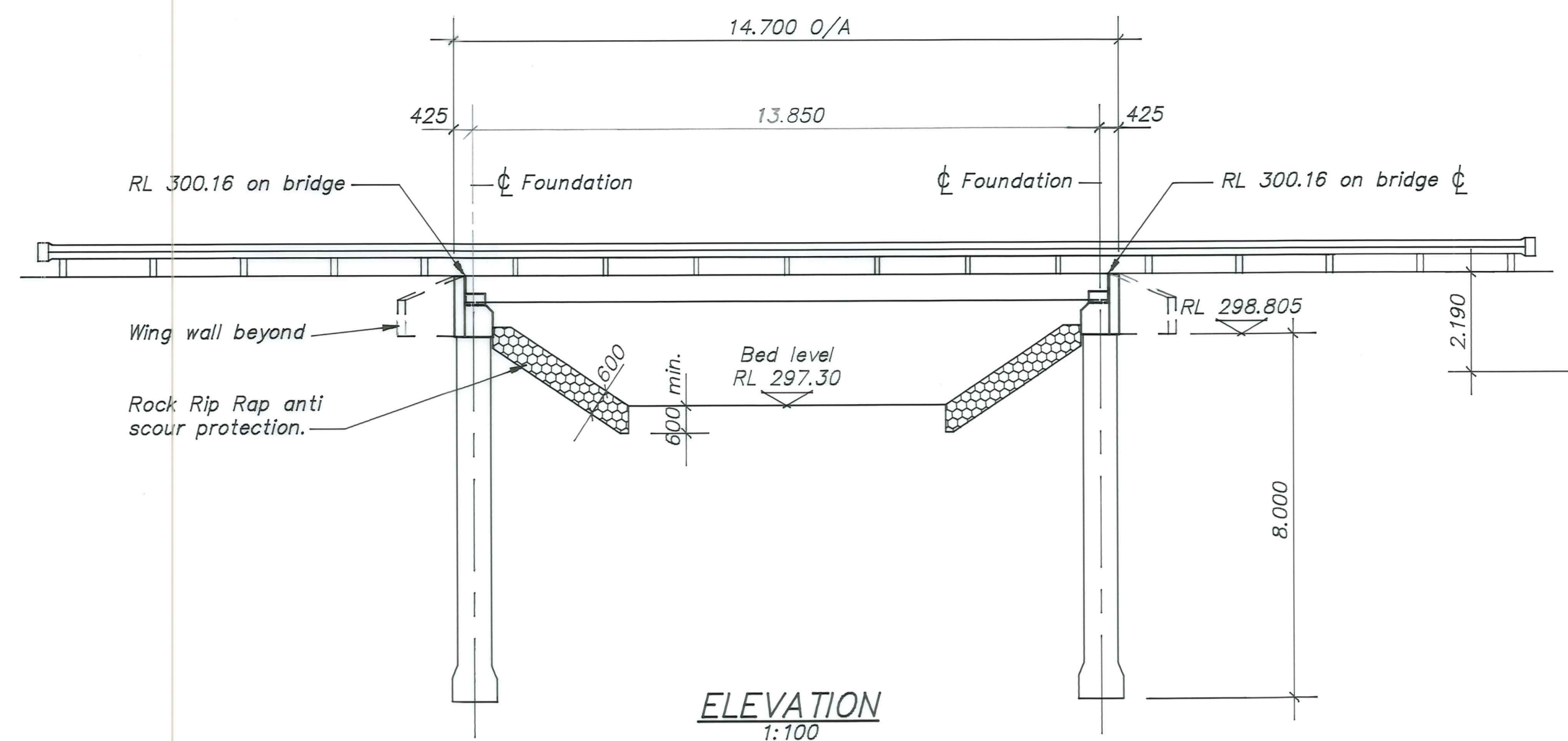
ORIGINAL SIZE mm

Notes

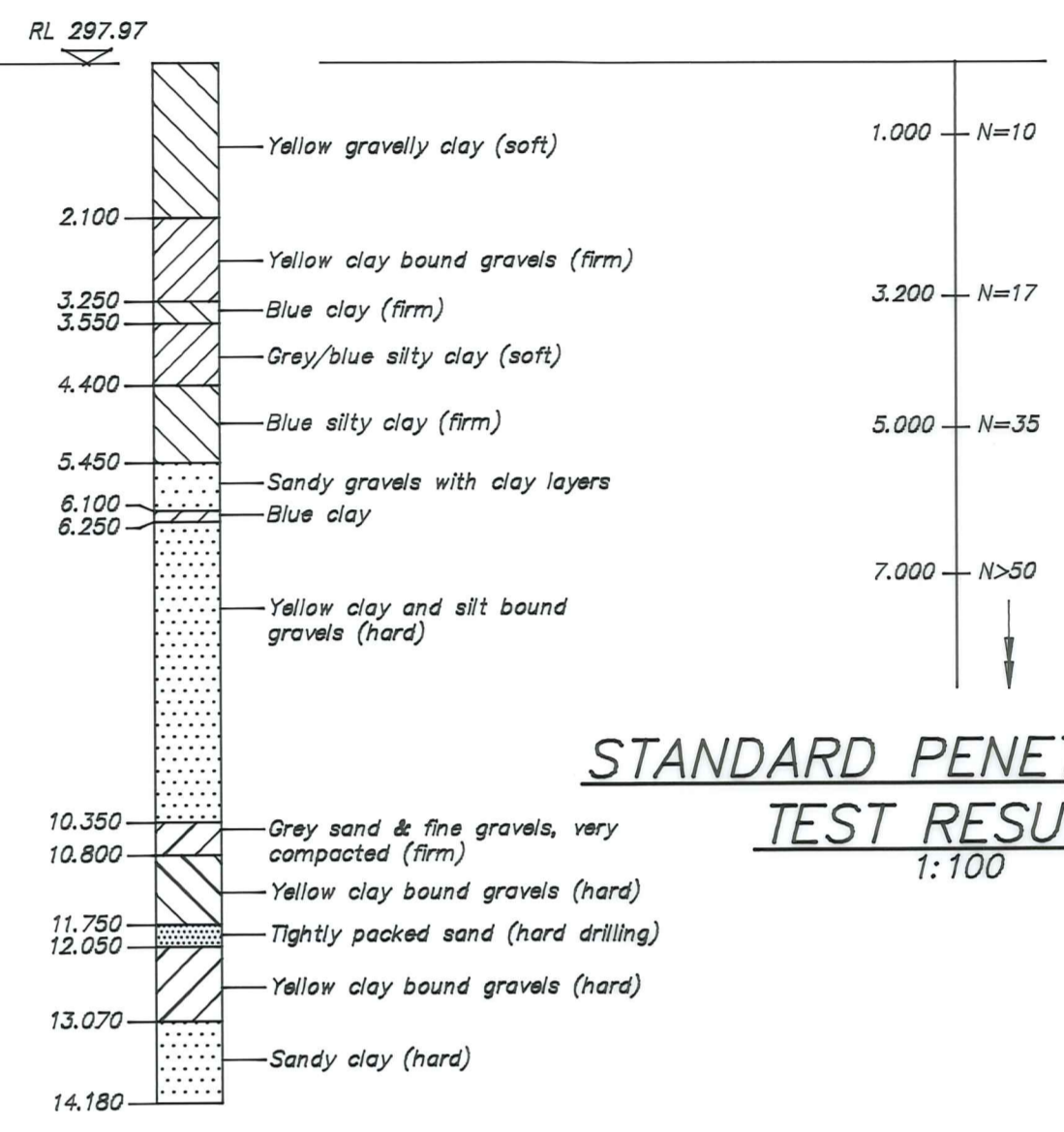
Note: Levels shown are to an arbitrary, assumed datum. Refer to sheet 1 for location and level of Bench Mark.



LOCALITY PLAN
1:250000

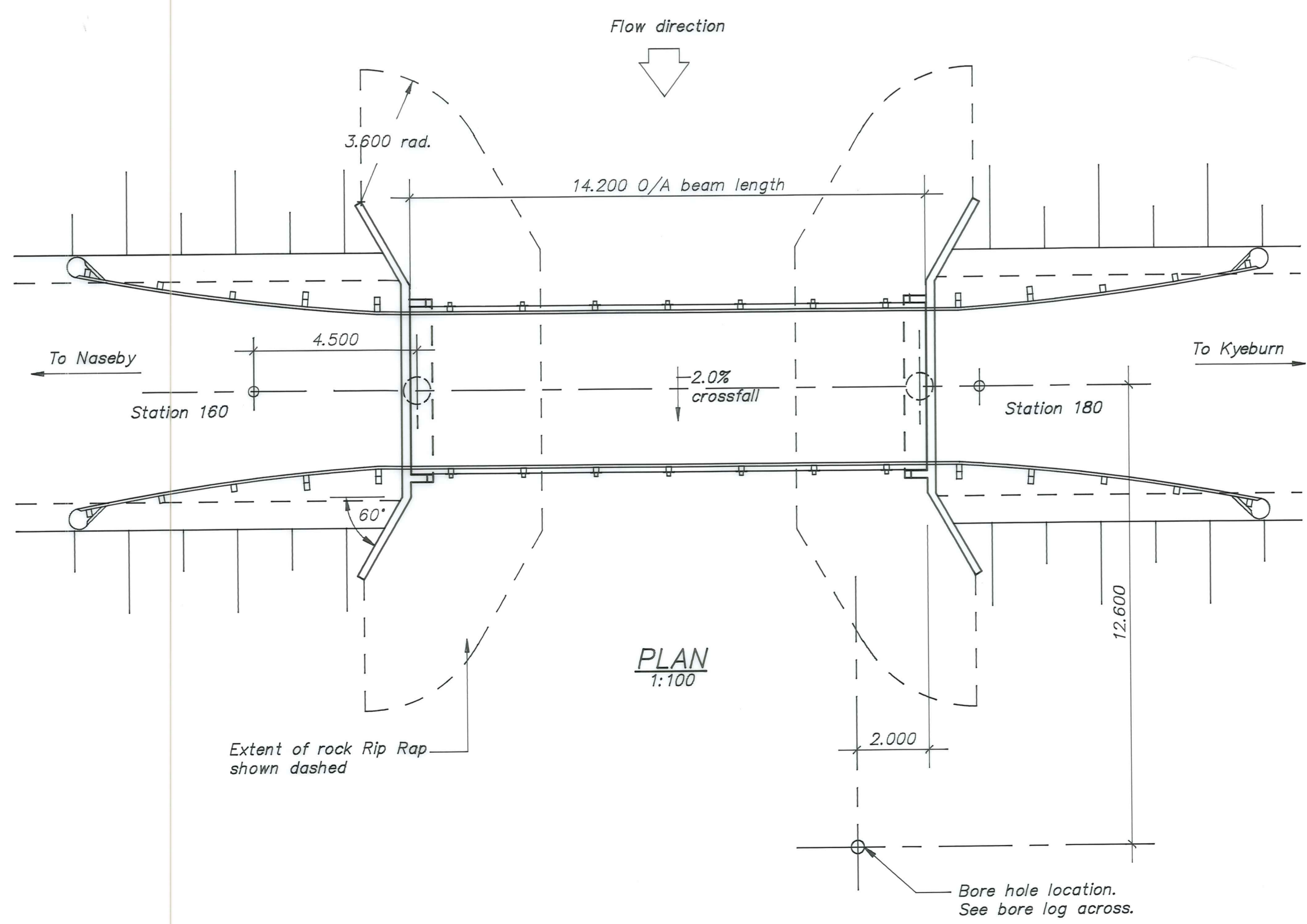


ELEVATION
1:100

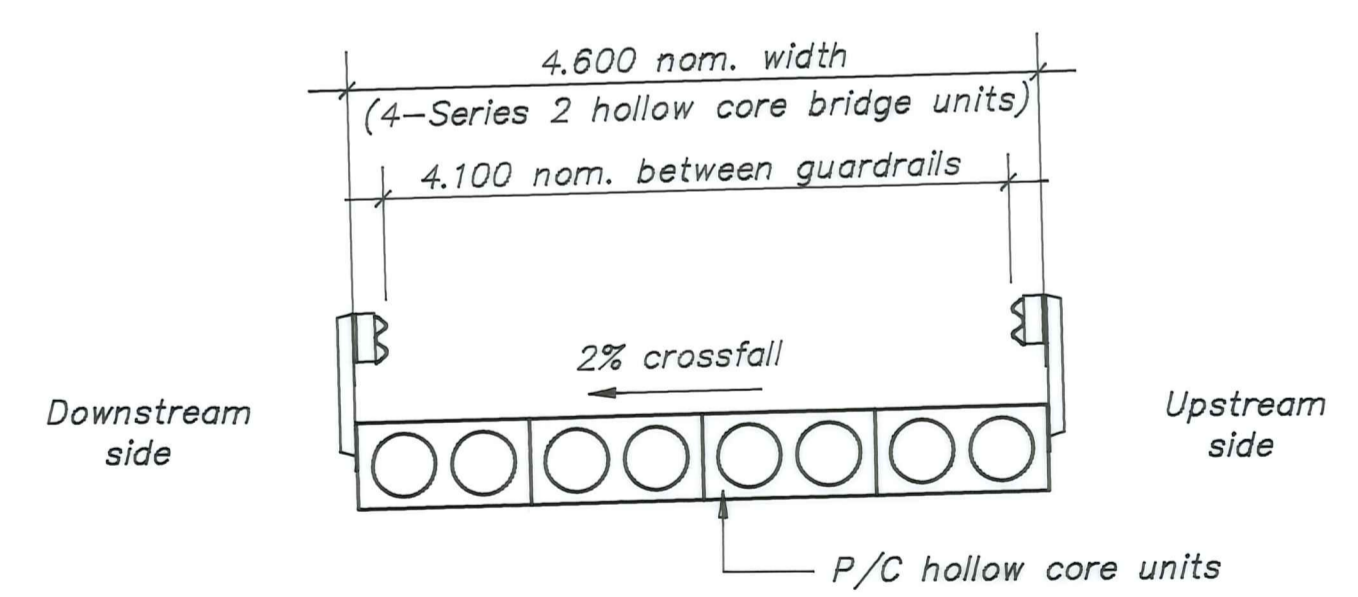


STANDARD PENETROMETER
TEST RESULTS
1:100

BORE HOLE DATA
1:100



PLAN
1:100



TYPICAL DECK CROSS SECTION
1:50

No.	Revisions	Date	Appvd
Designed	J. BEEKHUIS	Date April 92	Print Date
Drawn	E. Wilson	"	"
Checked	J. Beekhuis	30/4/92	
Approved	Pauline	1/5/92	
File	225/16/6/3	Ref	aBRG---P-

Client
CENTRAL OTAGO DISTRICT COUNCIL

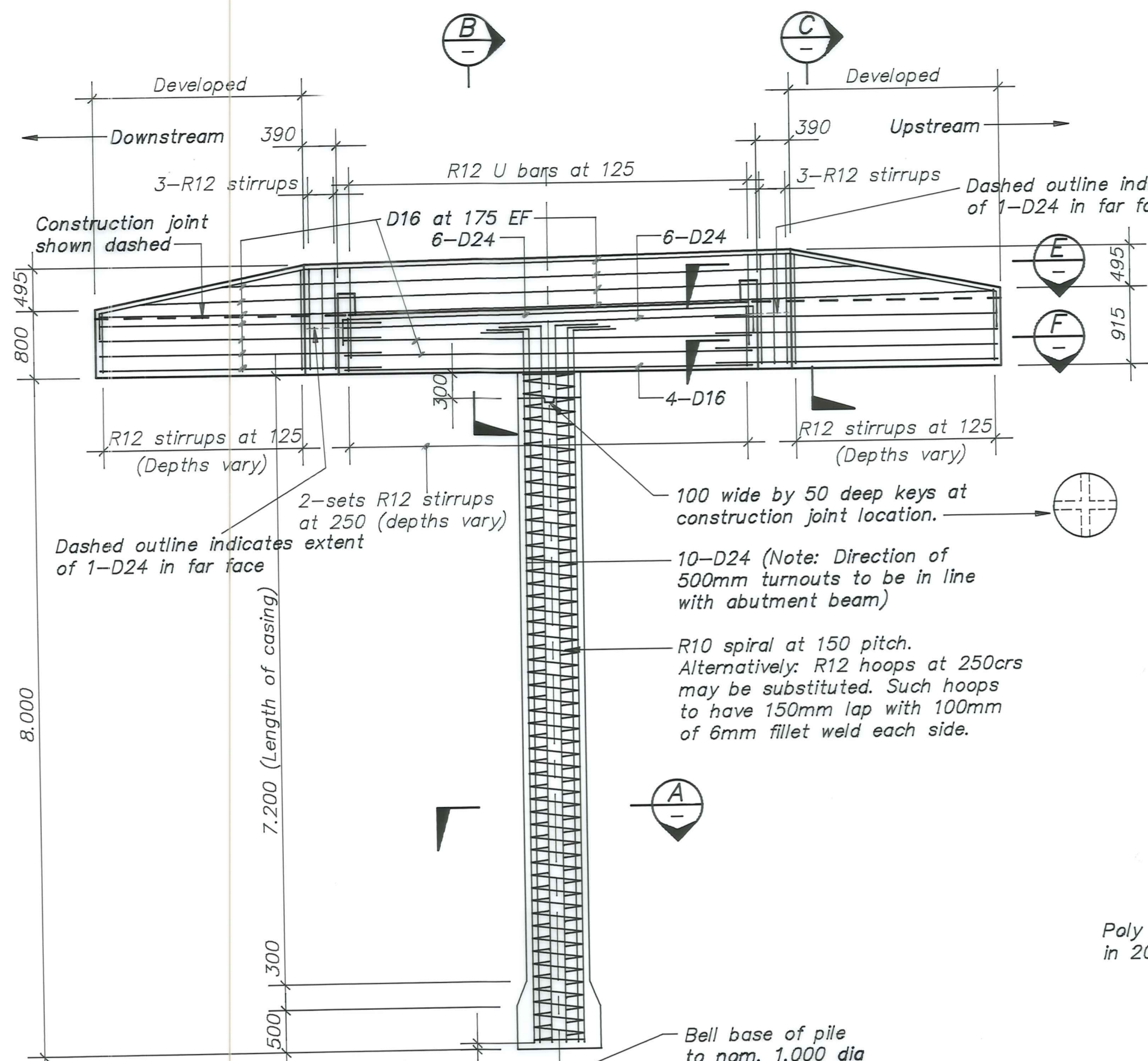
Project
REPLACEMENT OF BRIDGE No. 113 SPEC GULLY No. 1

Sheet Title
GENERAL ARRANGEMENT

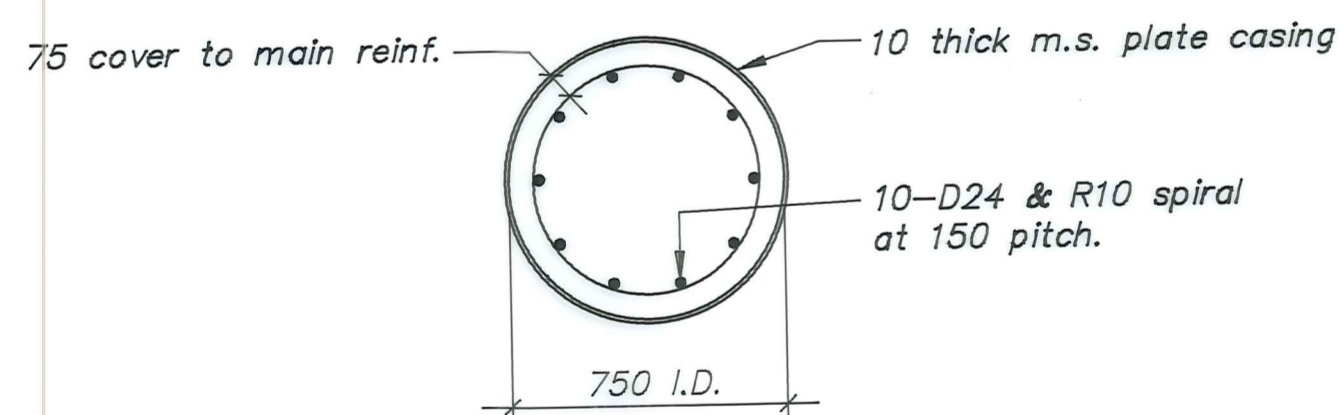
Job No. 14140	Sheet No. 3	Revision of shts
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Duffill Watts & King Ltd
 CONSULTING ENGINEERS

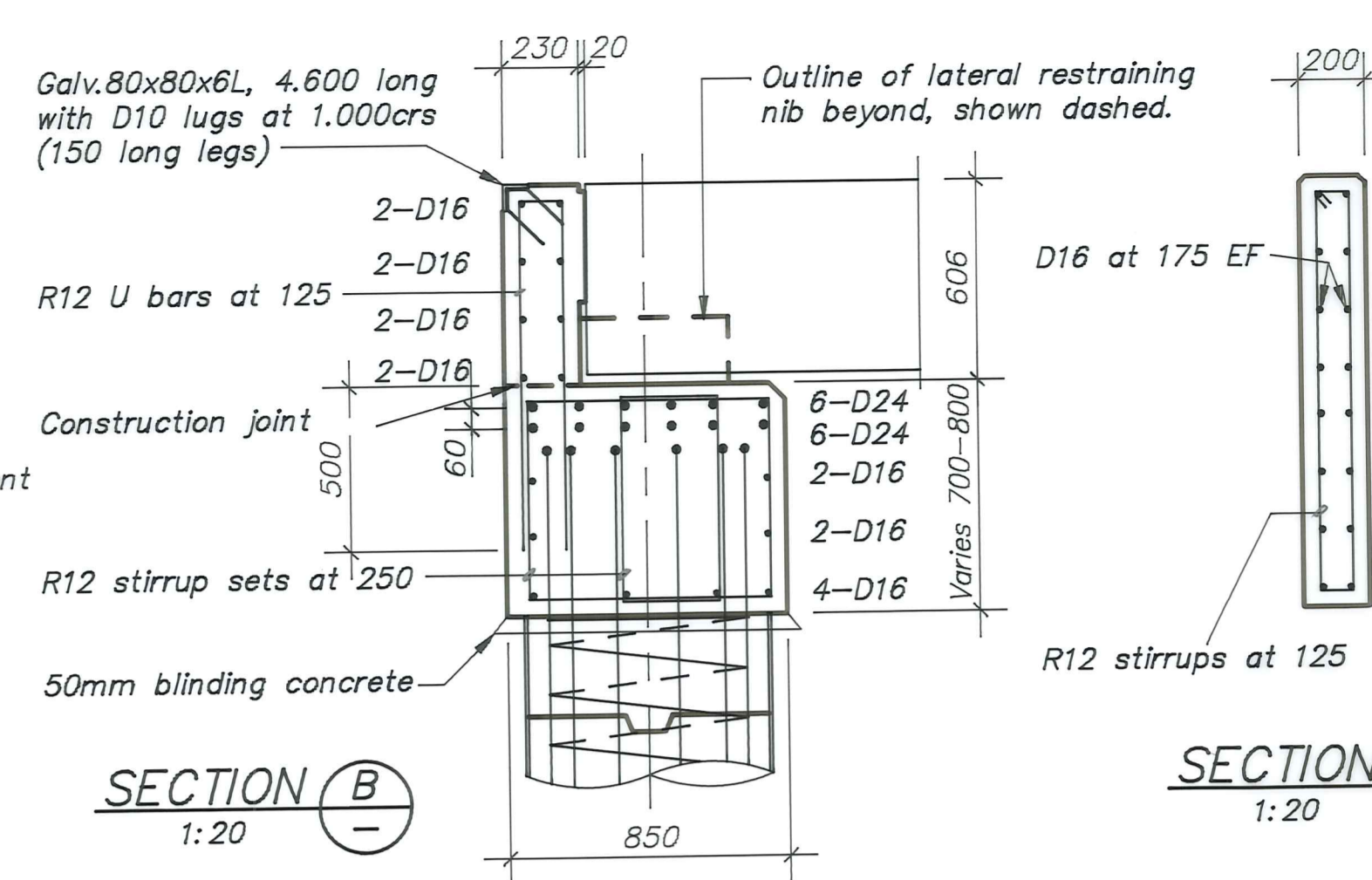
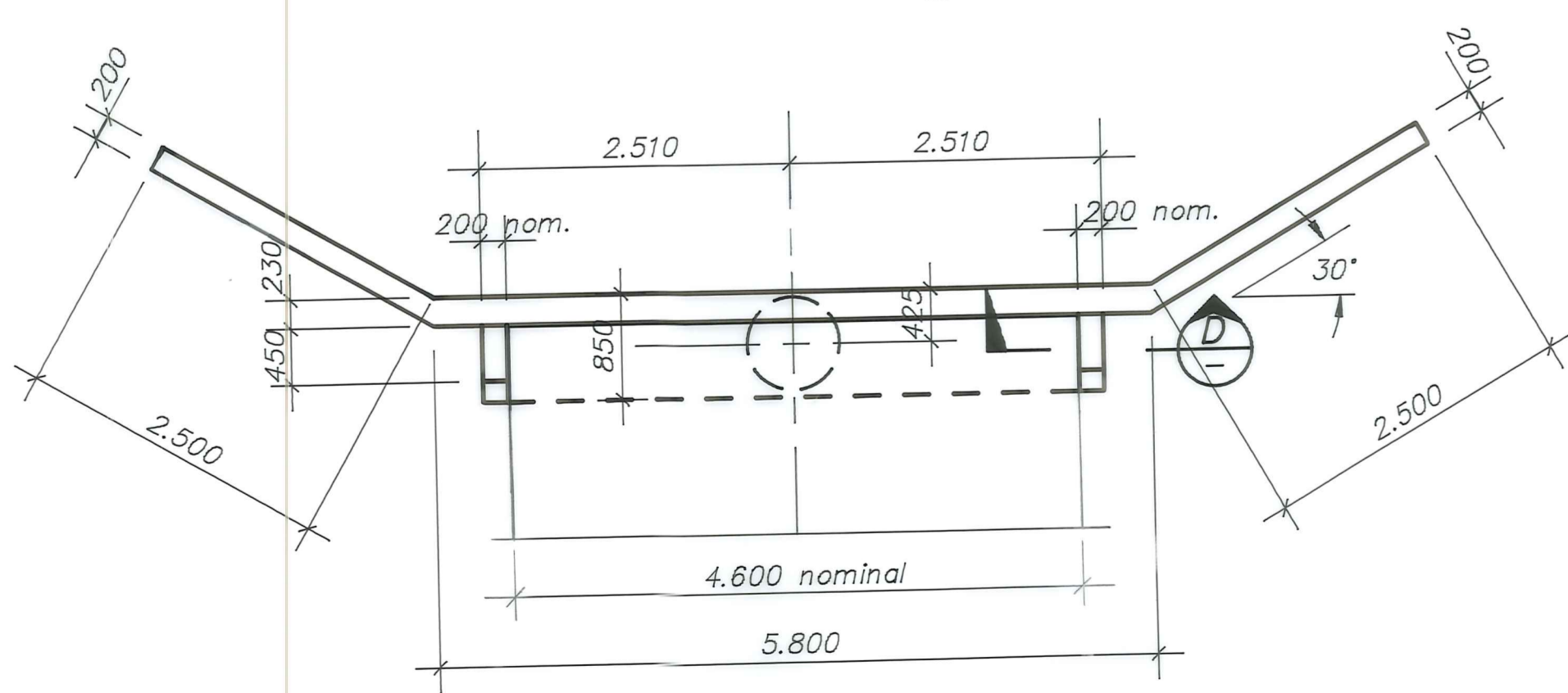
ORIGINAL SIZE mm



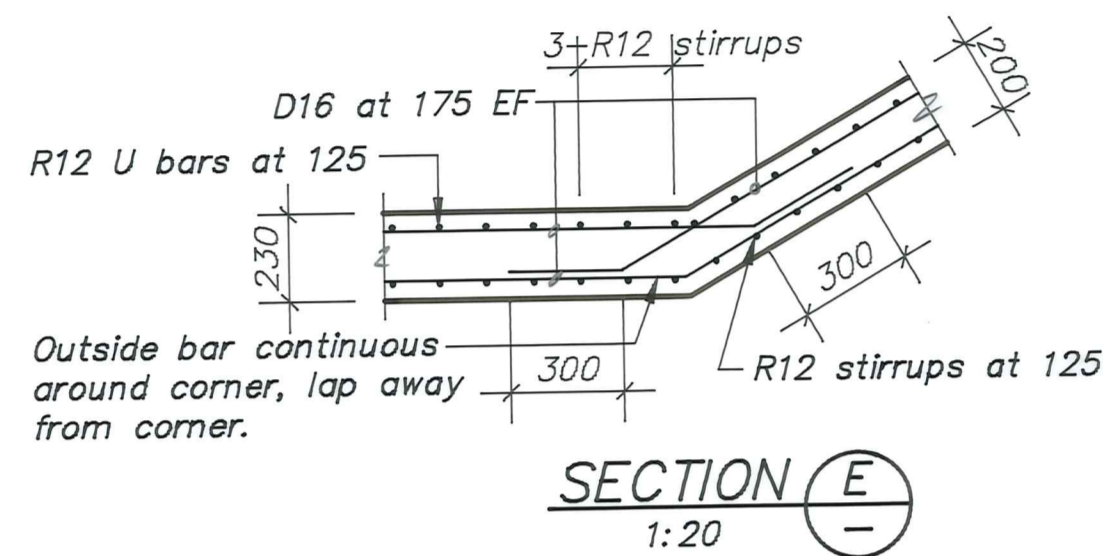
ABUTMENT ELEVATION
1:50
Naseby abutment shown
Kyeburn abutment same but handed



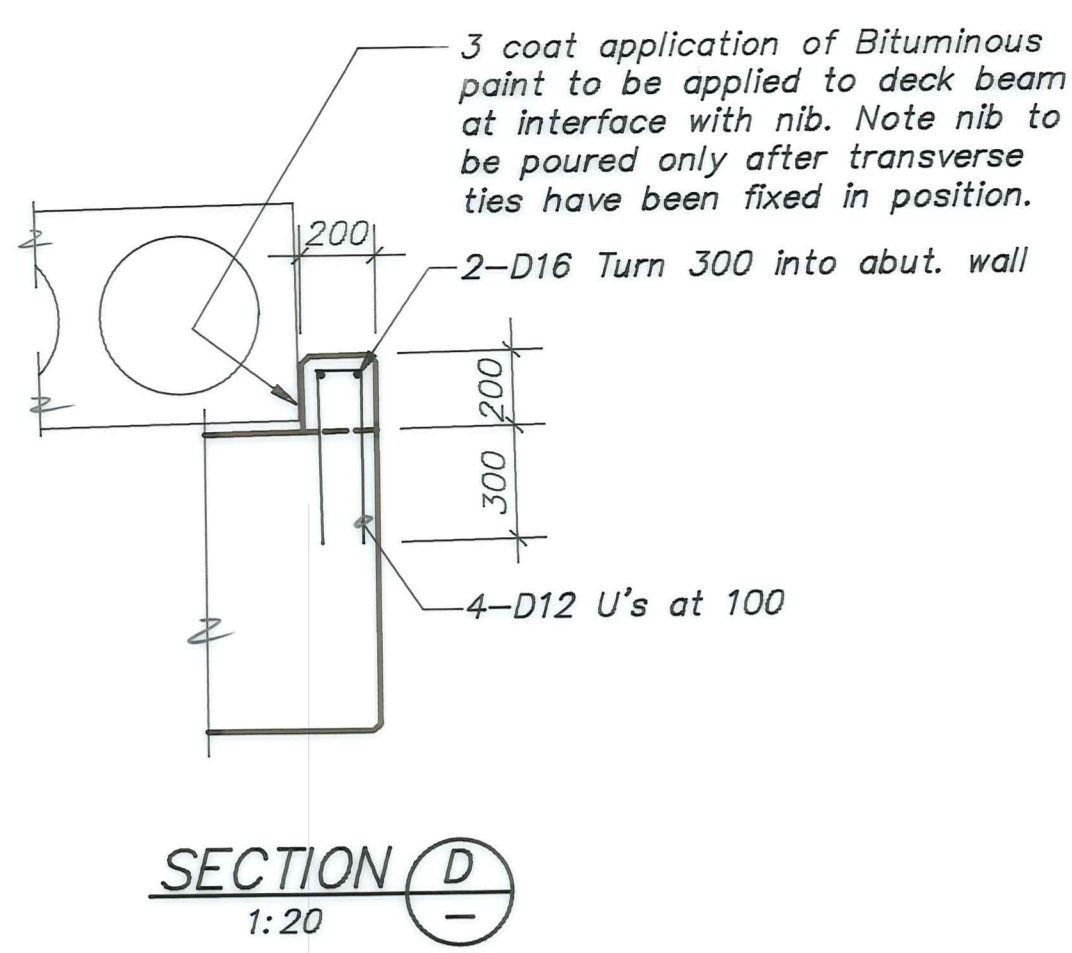
ABUTMENT PLAN
1:50



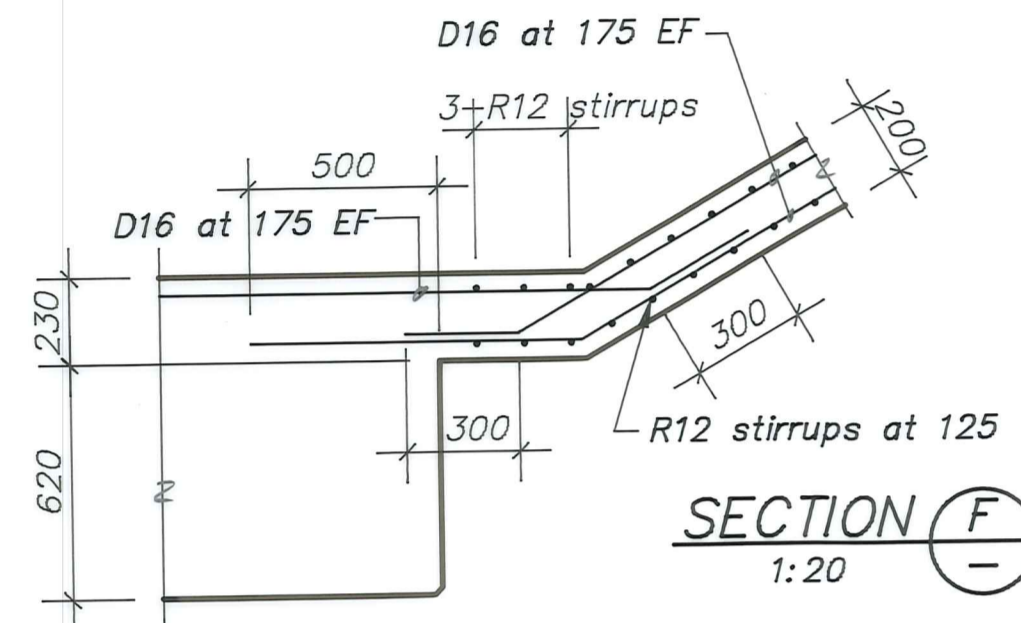
SECTION (B)
1:20



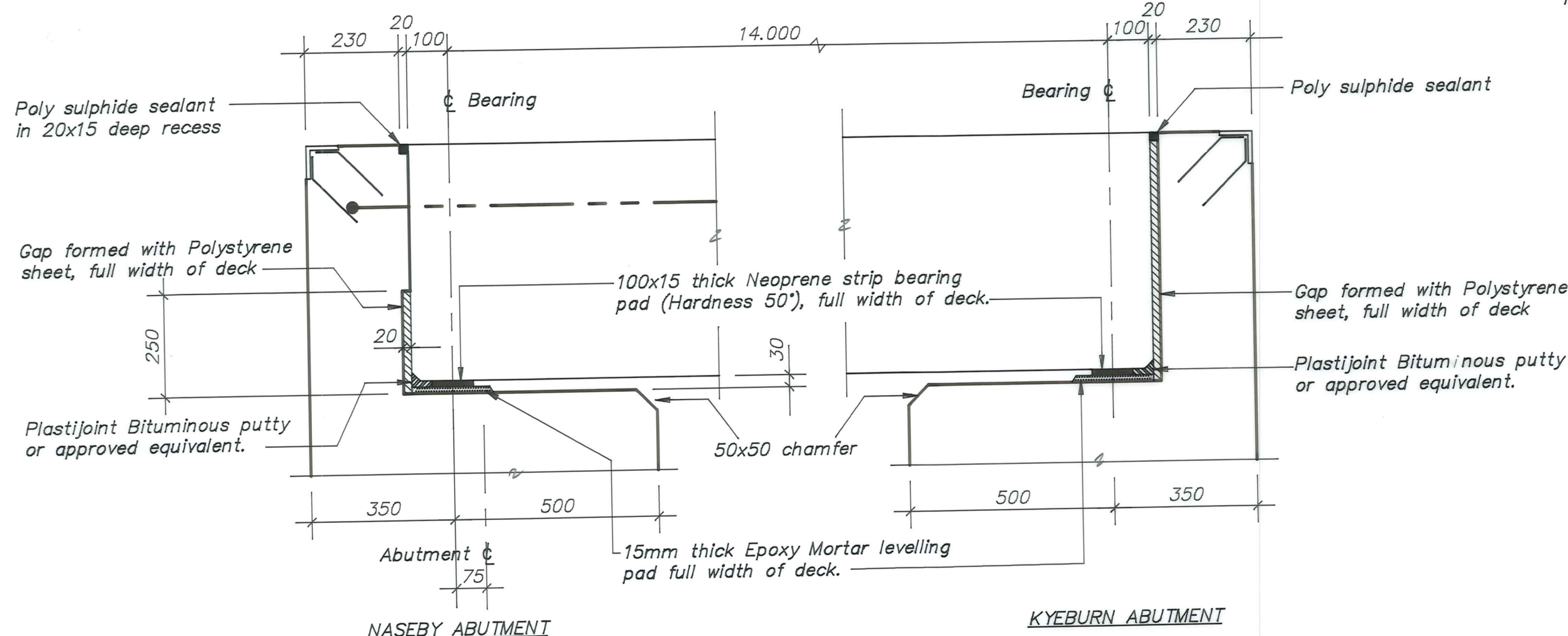
SECTION (E)
1:20



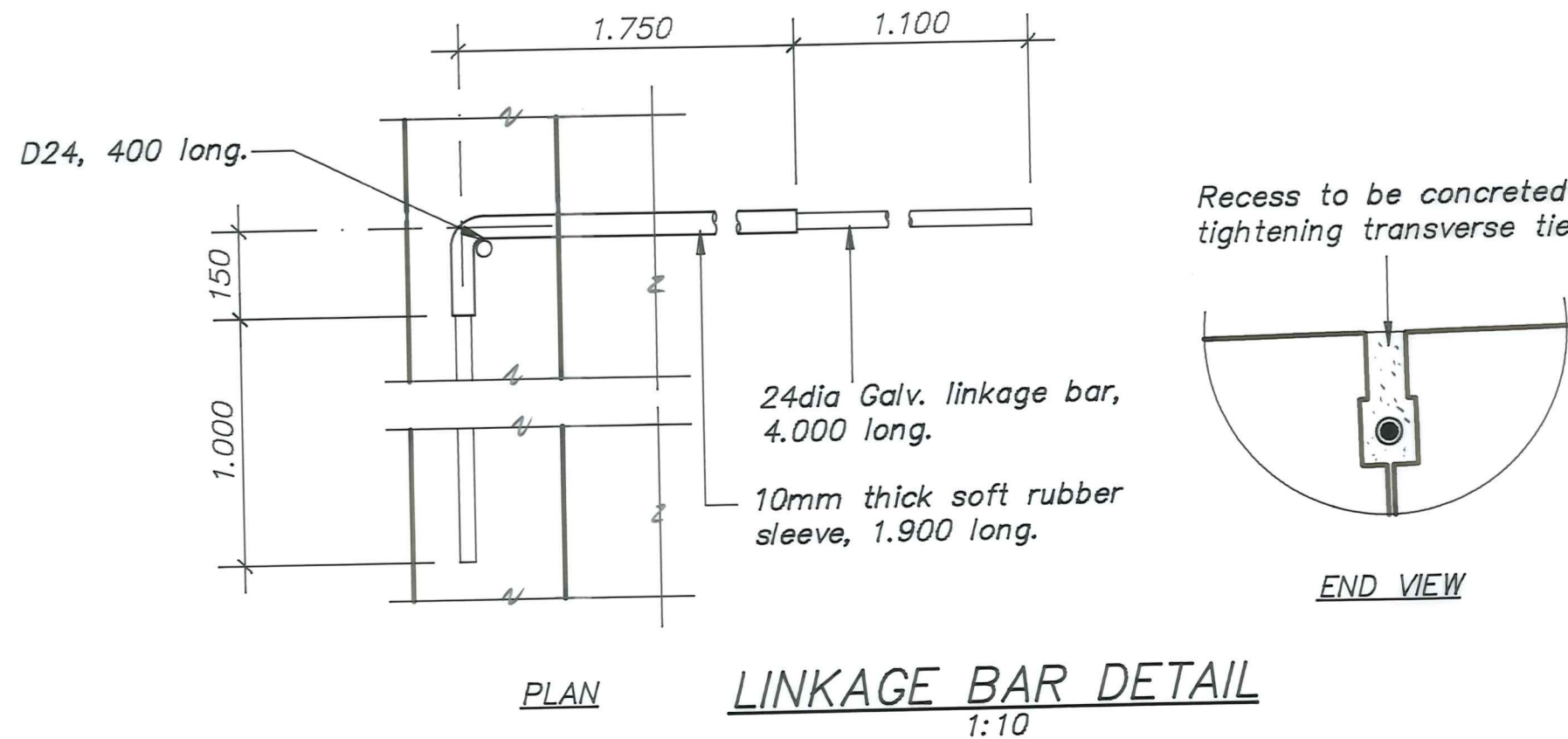
SECTION (D)
1:20



SECTION (F)
1:20

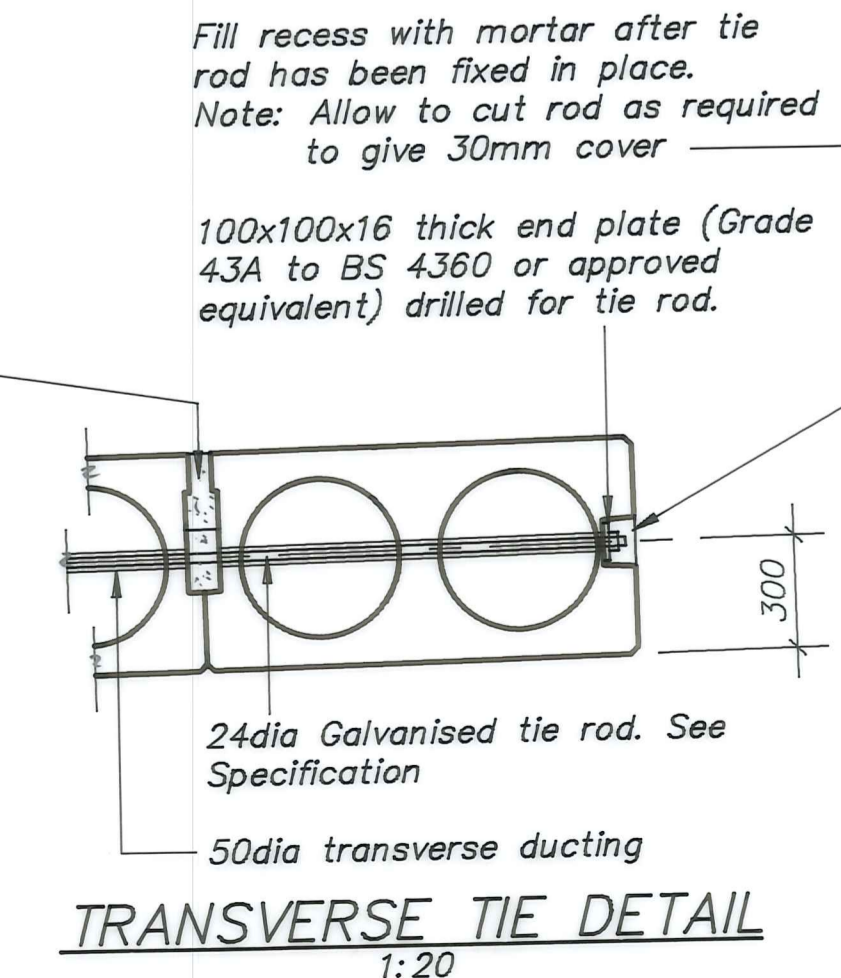


ABUTMENT BEARING DETAILS
1:10



LINKAGE BAR DETAIL
1:10

Note: Linkage bars occur in each joint between deck units at Naseby abutment only



TRANSVERSE TIE DETAIL
1:20

NOTE: Tie rod connections occur at each end & midspan of double hollow core units.

- NOTES:
- Concrete shall have a 28 day compressive strength of 25MPa except for precast deck units
 - Clear cover to reinforcement shall be 50mm unless otherwise indicated.
 - Unless otherwise shown all exposed corners shall be chamfered 20mm & all re-entrant angles shall have 20mm fillets.
 - Backwall nibs to be constructed only when backfill is up to beam seat level and deck units have been installed & stressed transversely.
 - Do not scale this drawing.

No.	Revisions	Date	Appvd
Designed	J. BECKHUIS	Date April 90	Print Date
Drawn	E. P. Wilson		
Checked	W. J. Beckhuis	30/4/92	
Approved	P. J. J. J.	1/5/92	
File	225/16/6/3	Ref	aBRG--E



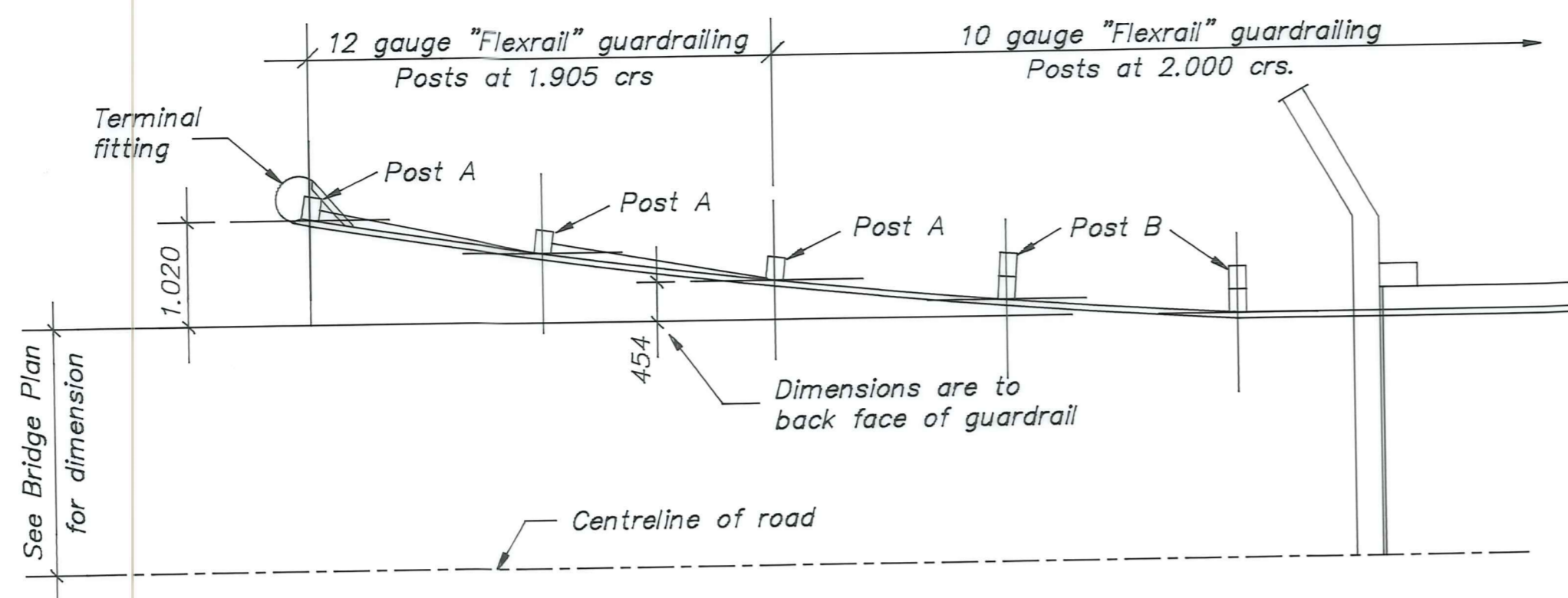
Project
REPLACEMENT OF BRIDGE No. 113 SPEC GULLY No. 1

Sheet Title
ABUTMENT ELEVATION AND DETAILS

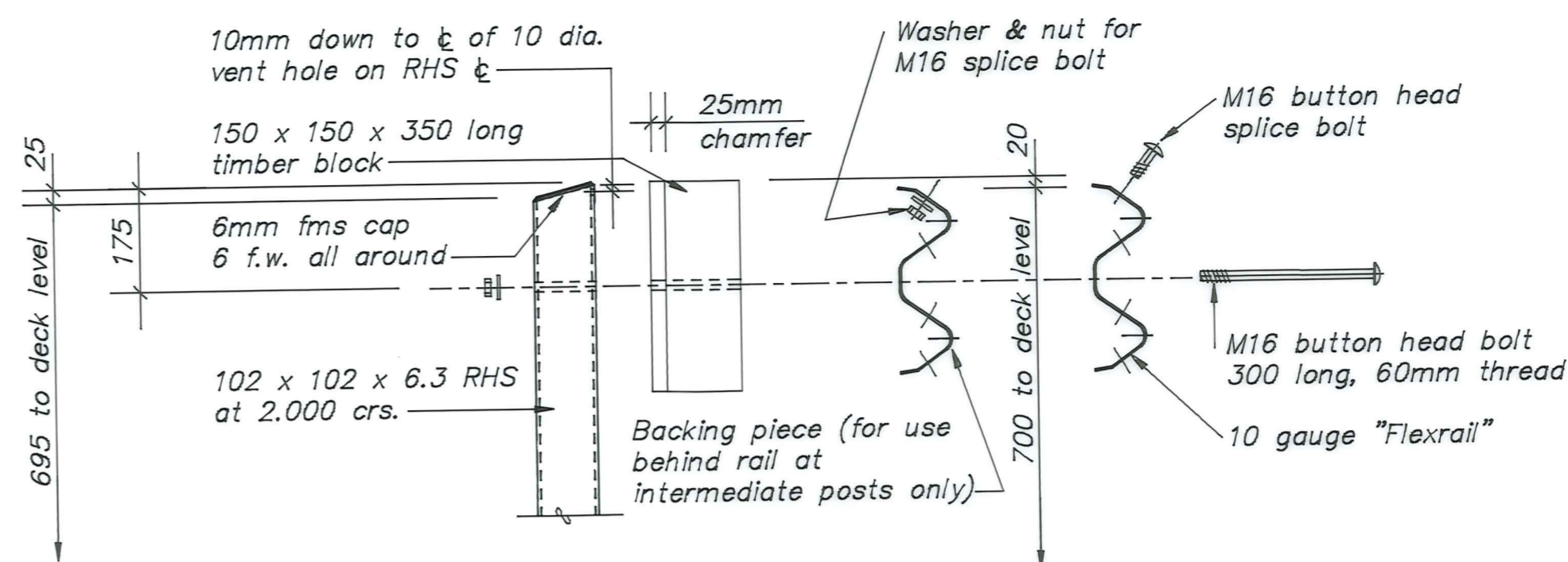
Job No. **14140** Sheet No. **4** of **4** SHES

Duffill Watts & King Ltd
CONSULTING ENGINEERS

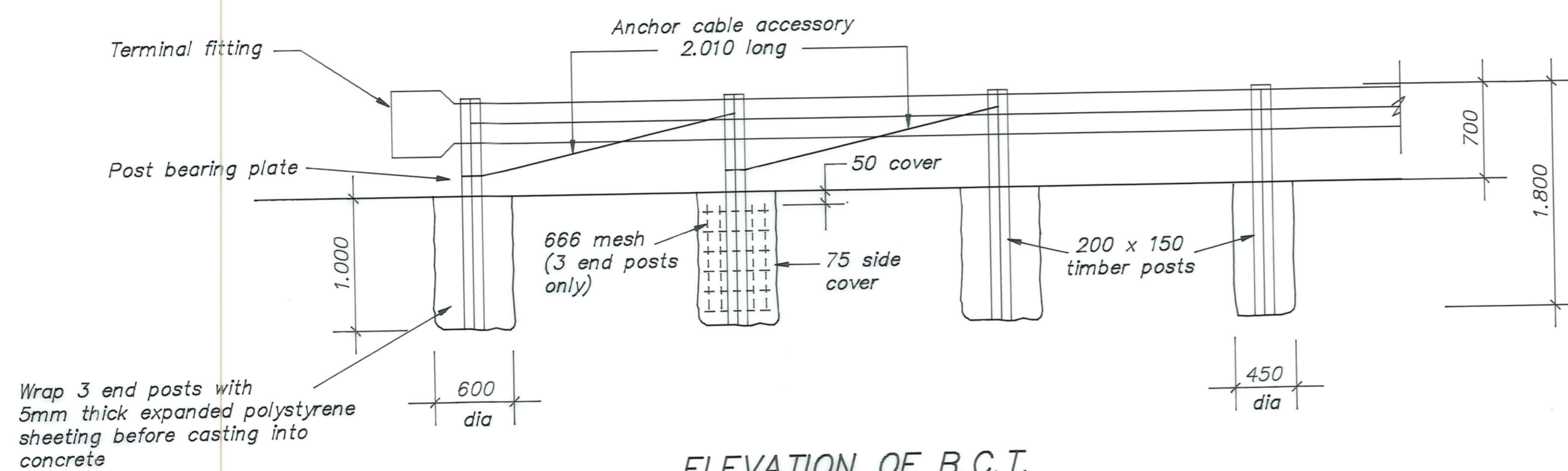
Notes
 All steelwork to be hot dipped galvanised after fabrication including guardrail, bolts, nuts & washers.
 All timber posts & blocks to be Pinus Radiata merchantable grade cut to size, drilled & then preservative to the Timber Preservation Authority Specification H4.



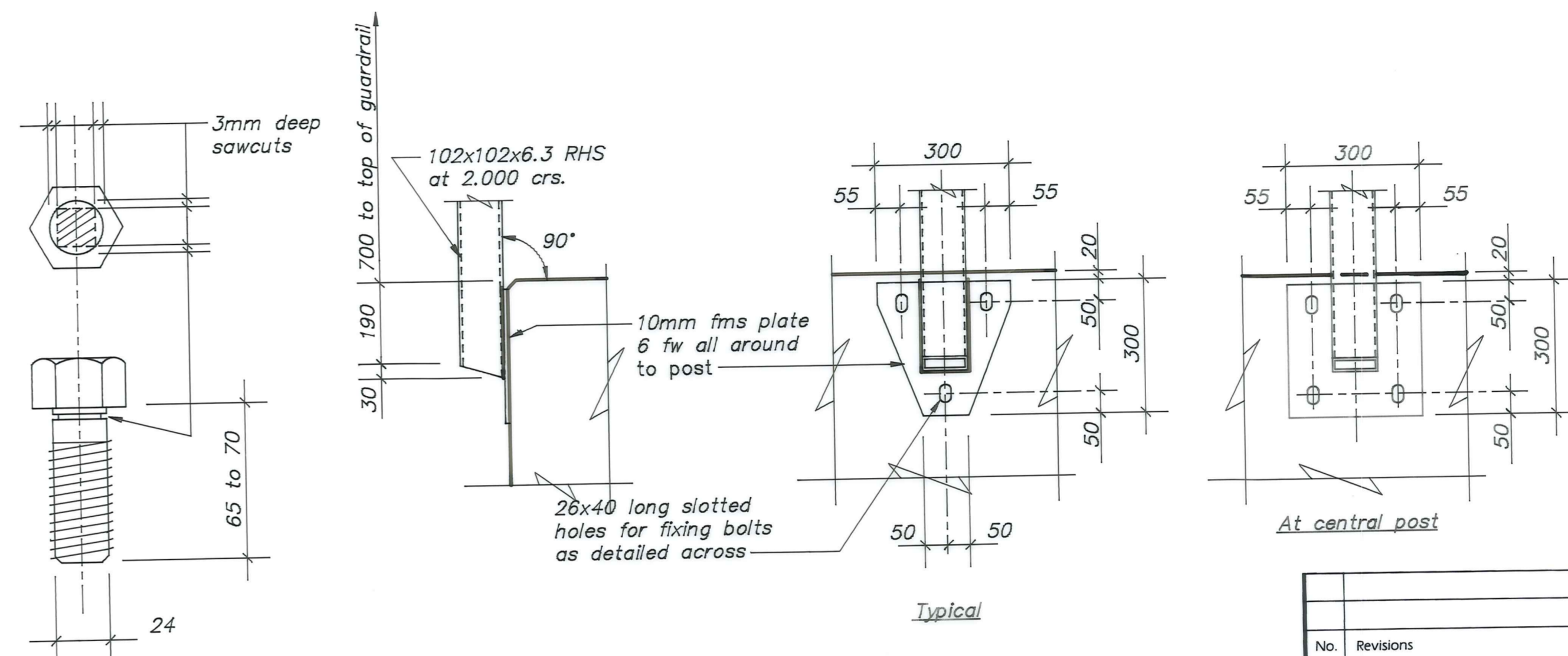
TYPICAL GUARDRAIL LAYOUT PLAN
 1:50



BRIDGE GUARDRAIL FIXING DETAILS
 1:10

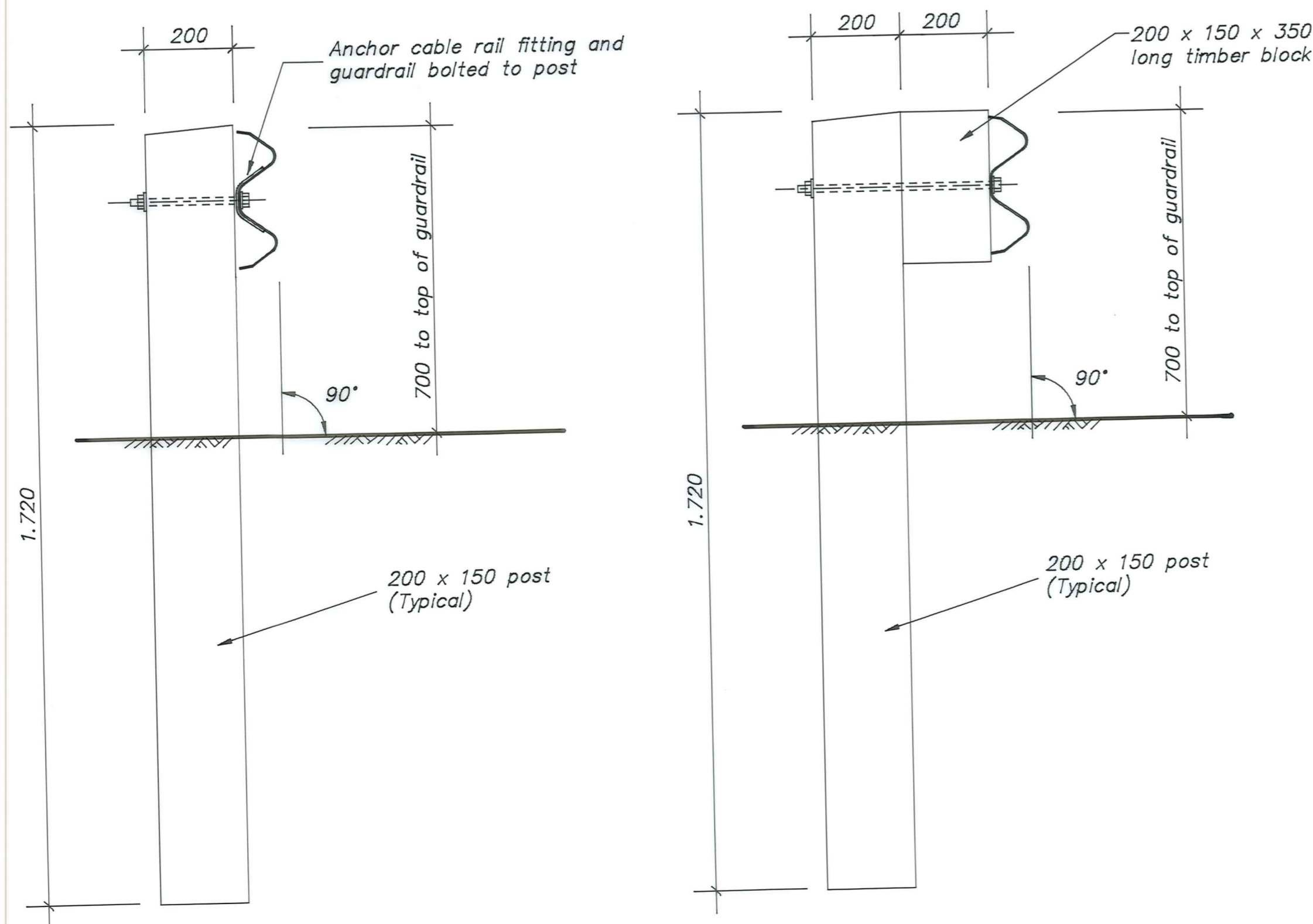


ELEVATION OF B.C.T.
 N.T.S.



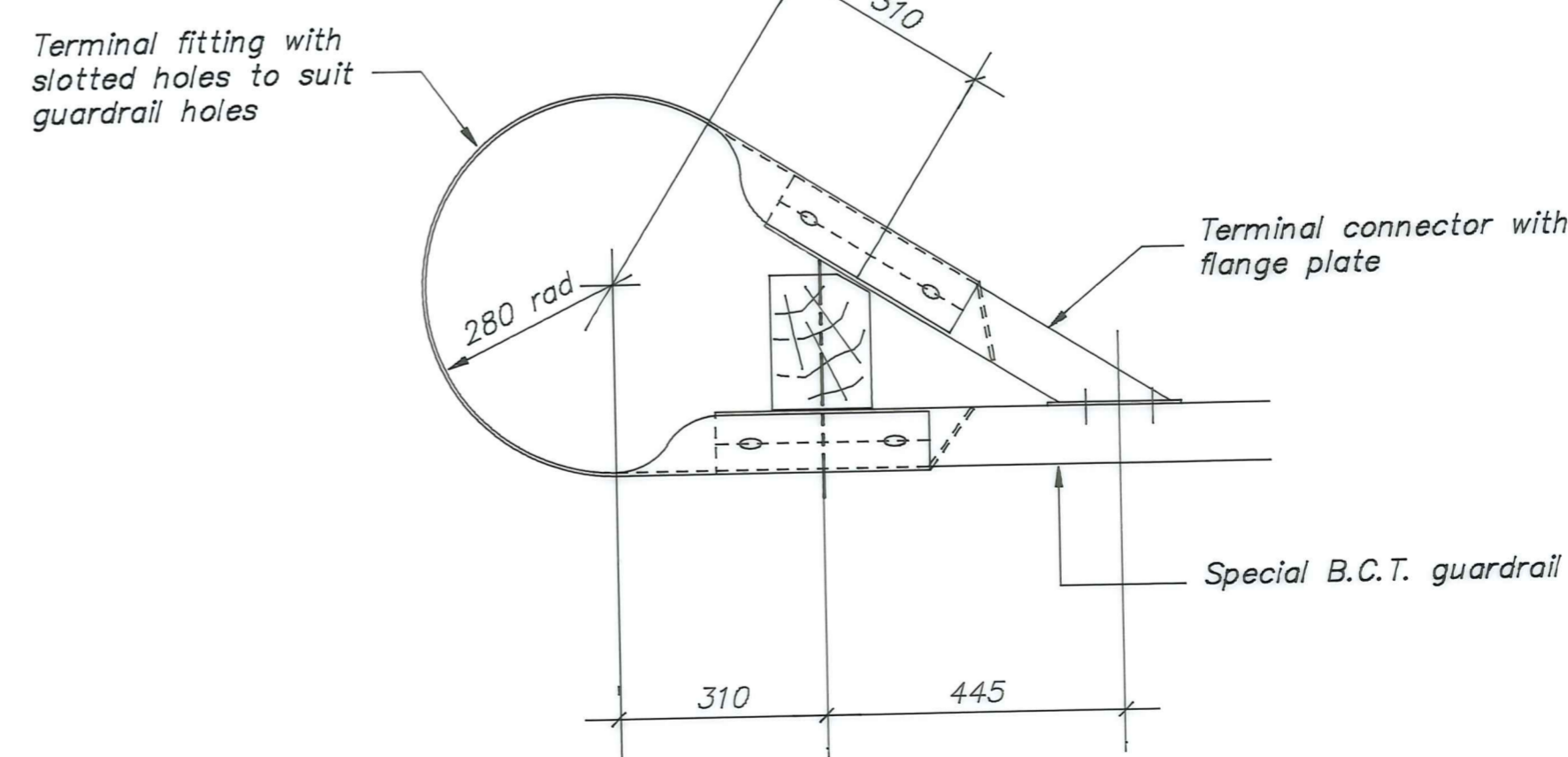
BOLT DETAIL
 1:10

GUARDRAIL POST FIXING DETAILS
 1:10



POST A
 1:10

POST B
 1:10



TERMINAL FITTING AND CONNECTOR
 DETAIL FOR B.C.T.
 1:10

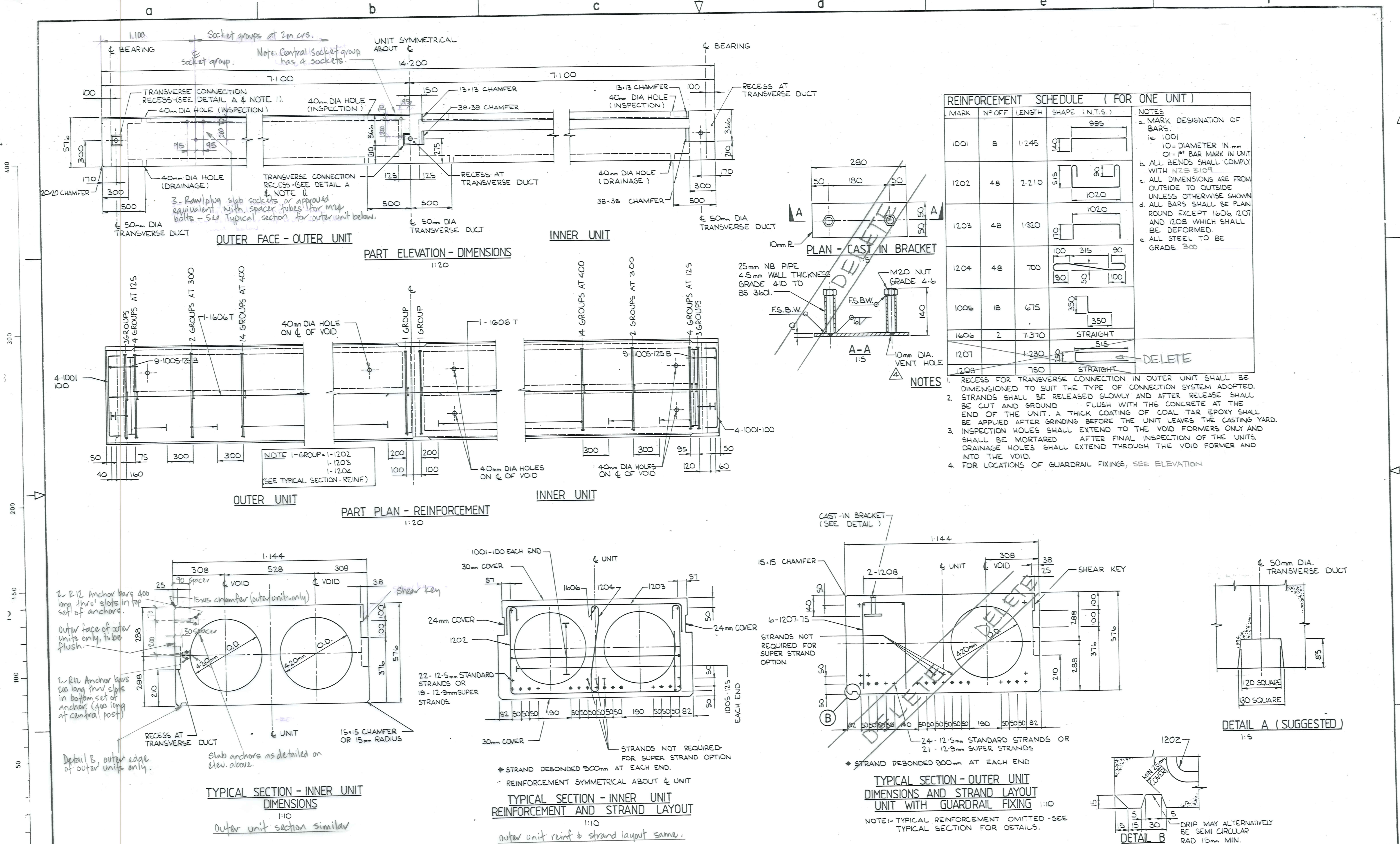
No.	Revisions	Date	Appvd
Designed	I. BEELHUIS	Date Apr/1992	Print Date
Drawn	E. P. WILSON		
Checked	W. Beckh.	30/4/92	
Approved	R. Jones	1/5/92	
File	225/16/6/3	Ref	aBRG--D

Client
CENTRAL OTAGO DISTRICT COUNCIL

Project
REPLACEMENT OF BRIDGE No. 113 SPEC GULLY No. 1

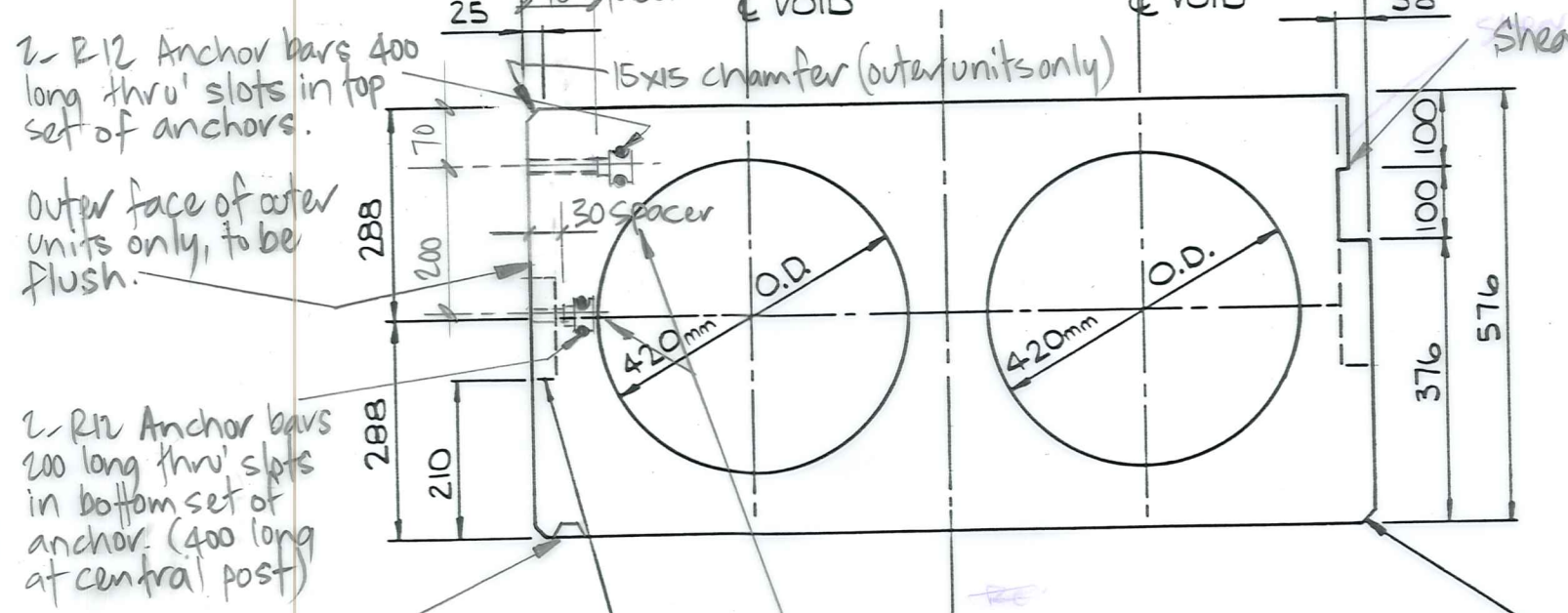
Sheet Title
GUARDRAIL DETAILS

Job No. 14140	Sheet No. 5	Revision of shcs
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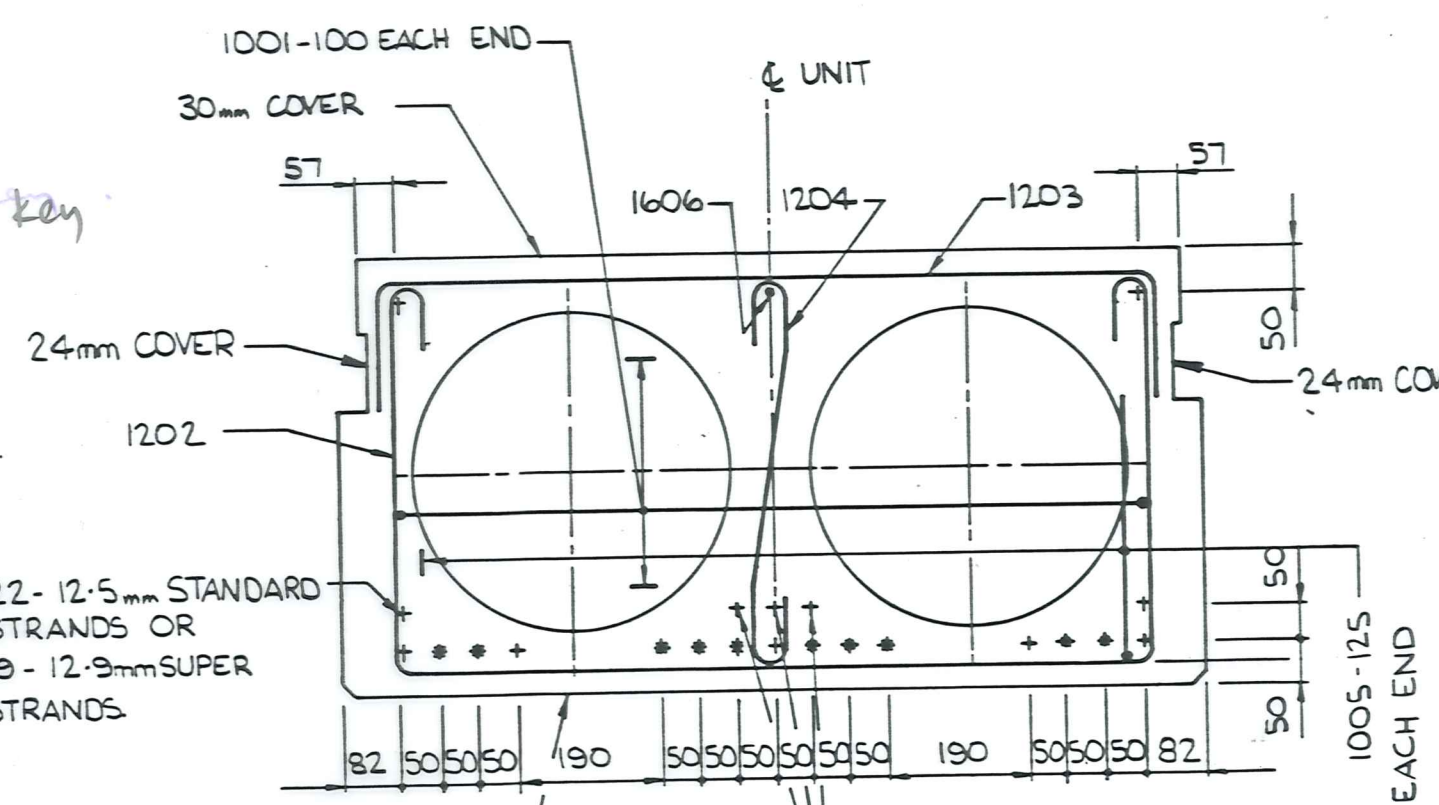


REINFORCEMENT SCHEDULE (FOR ONE UNIT)				
MARK	NO OF	LENGTH	SHAPE (N.T.S.)	NOTES
1001	8	1.245		a. MARK DESIGNATION OF BARS. ie 1001 10 = DIAMETER IN mm O1 = 1" BAR MARK IN UNIT
1202	48	2.210		b. ALL BENDS SHALL COMPLY WITH NZS 3109
1203	48	1.320		c. ALL DIMENSIONS ARE FROM OUTSIDE TO OUTSIDE UNLESS OTHERWISE SHOWN
1204	48	700		d. ALL BARS SHALL BE PLAIN ROUND EXCEPT 1606, 1207 AND 1208 WHICH SHALL BE DEFORMED.
1005	18	675		e. ALL STEEL TO BE GRADE 300
1606	2	7.370	STRAIGHT	
1207	1	1.230		DELETE
1208	1	750	STRAIGHT	

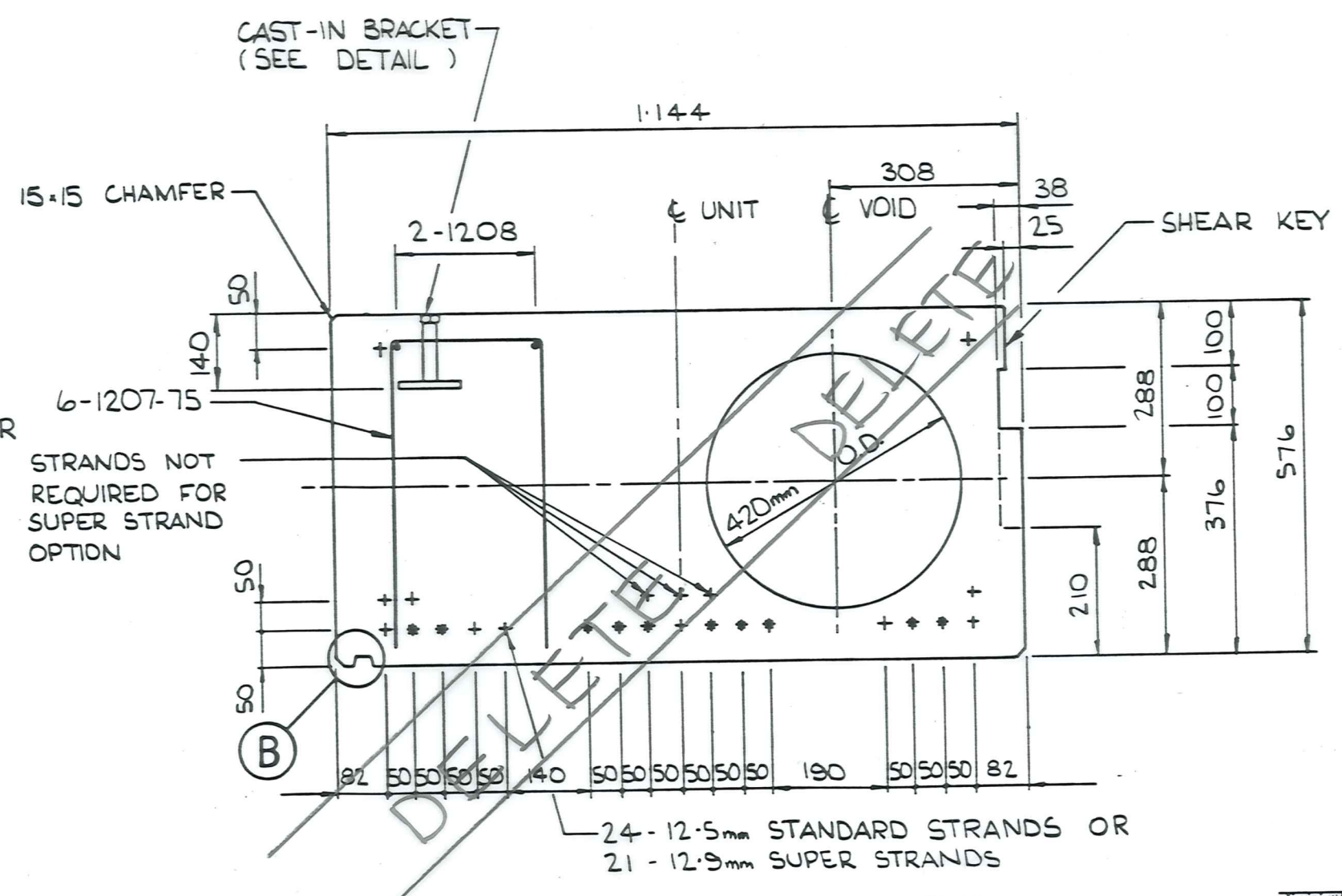
- NOTES**
- RECESS FOR TRANSVERSE CONNECTION IN OUTER UNIT SHALL BE DIMENSIONED TO SUIT THE TYPE OF CONNECTION SYSTEM ADOPTED.
 - STRANDS SHALL BE RELEASED SLOWLY AND AFTER RELEASE SHALL BE CUT AND GRIND FLUSH WITH THE CONCRETE AT THE END OF THE UNIT. A THICK COATING OF COAL TAR EPOXY SHALL BE APPLIED AFTER GRINDING BEFORE THE UNIT LEAVES THE CASTING YARD.
 - INSPECTION HOLES SHALL EXTEND TO THE VOID FORMERS ONLY AND SHALL BE MORTARED AFTER FINAL INSPECTION OF THE UNITS. DRAINAGE HOLES SHALL EXTEND THROUGH THE VOID FORMER AND INTO THE VOID.
 - FOR LOCATIONS OF GUARDRAIL FIXINGS, SEE ELEVATION



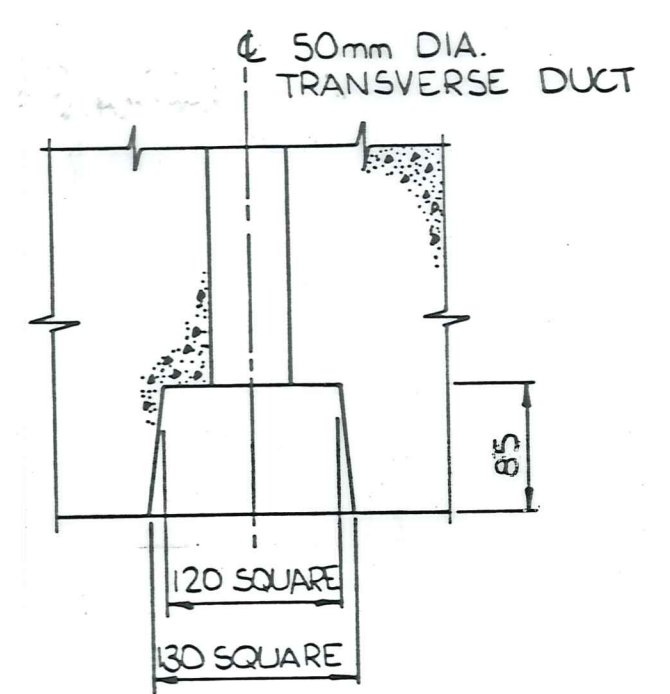
TYPICAL SECTION - INNER UNIT DIMENSIONS
1:10
Outer unit section similar



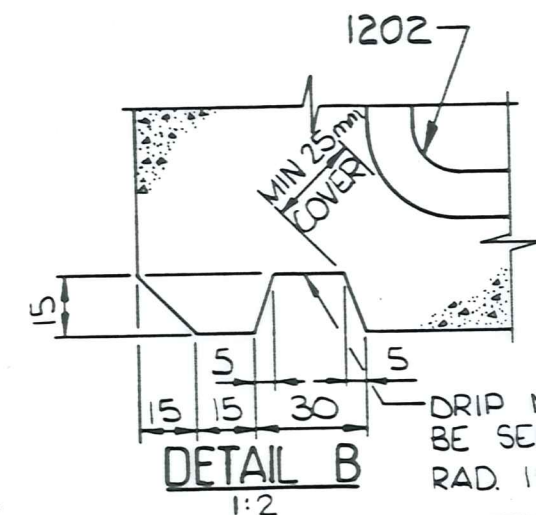
TYPICAL SECTION - INNER UNIT REINFORCEMENT AND STRAND LAYOUT
1:10
outer unit reinf & strand layout same.



TYPICAL SECTION - OUTER UNIT DIMENSIONS AND STRAND LAYOUT UNIT WITH GUARDRAIL FIXING
1:10
NOTE: TYPICAL REINFORCEMENT OMITTED - SEE TYPICAL SECTION FOR DETAILS.



DETAIL A (SUGGESTED)
1:5



DETAIL B
1:2

DESIGNED	BY	CHECKED	DATE	R. L. PRESTON CHIEF CIVIL ENGINEER	Ministry of Works and Development	STANDARD BRIDGE DESIGNS - PRESTRESSED CONCRETE BEAMS PRECAST PRETENSIONED DOUBLE CORE UNITS	ORIGINAL SCALES	AS SHOWN	FILE	81 / 12 / 31 / 1
DRAWN			1/85	J. C. RUTLEDGE CHIEF DESIGNING ENGINEER			CIVIL ENGINEERING HEAD OFFICE			DOSSIER
DES. SUP			1/85		BRIDGE SECTION	576mm DEEP - 12m TO 16m SPANS (SERIES 2)	JOB	0 / 111 / 1	CODE	7004
DWG. SUP			1/85		T.G. SHADWELL - Commissioner	DIMENSIONS, REINFORCEMENT, STRESSING DETAILS FOR 14m UNIT	SHEET	7	REVISION	R4A
RECOMMENDED			9-1-85							

Spec Gully
Creek Detail
(at Bridge No. 113
- Spec Gully No 1)

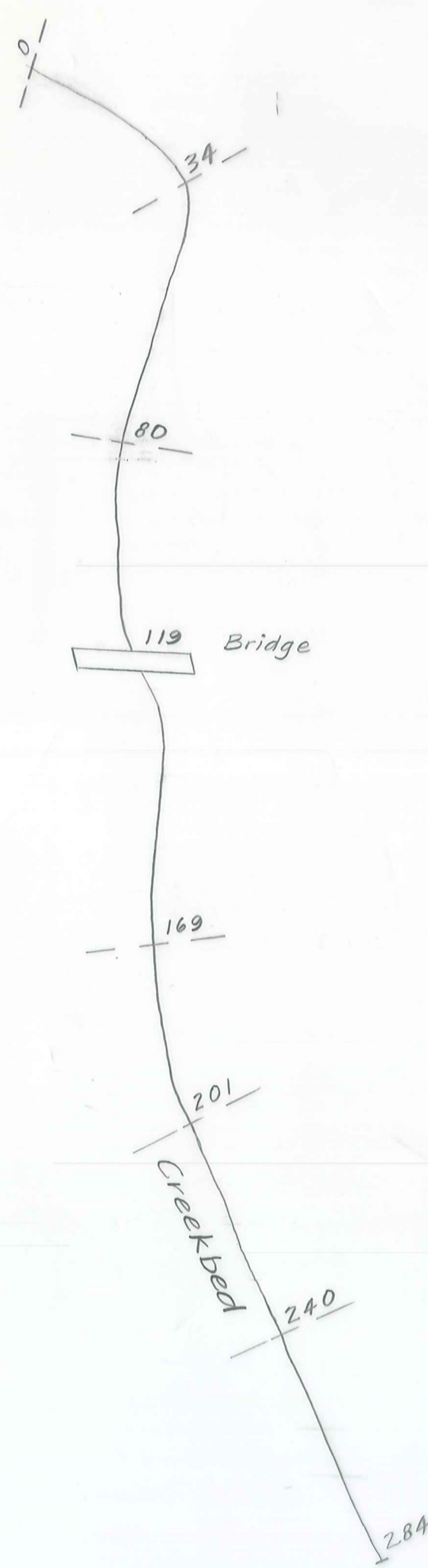
14140

SD3 CODC

Re-order Filemaster "D"

SELF-ADHESIVE PLAN HANGER

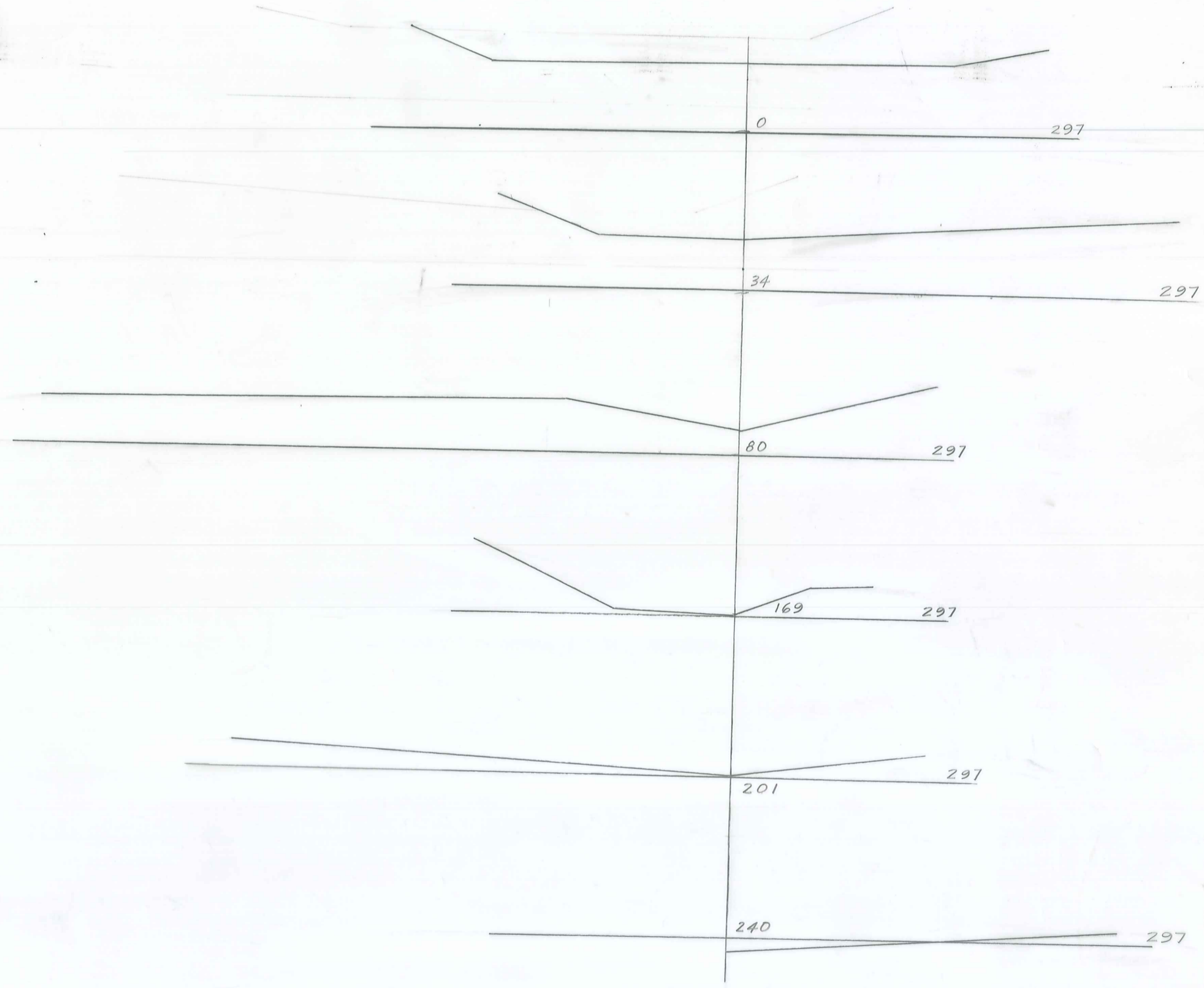
Patent No. 137841



Plan
Scale 1:1000

HAD 296								
Distances	0	34	80	119	169	201	240	284
Creekbed Levels	298.7	298.3	297.6	297.3	297.0	297.0	296.6	296.4

Spec Gully Creekbed Scales
1:1000 Hor.
1:100 Vert.



Cross Sections Scale 1:100

CENTRAL OTAGO DISTRICT COUNCIL
Spec Gully Creek Detail
(At Bridge No. 113 - Spec Gully No 1)

Surveyed by: McGeorge & Elder, Alexandra		SHEET
14140		SD3
DRAWN G. Elder	CHECKED	SCALES
TRACED	DATE	SERIES OF
		REF