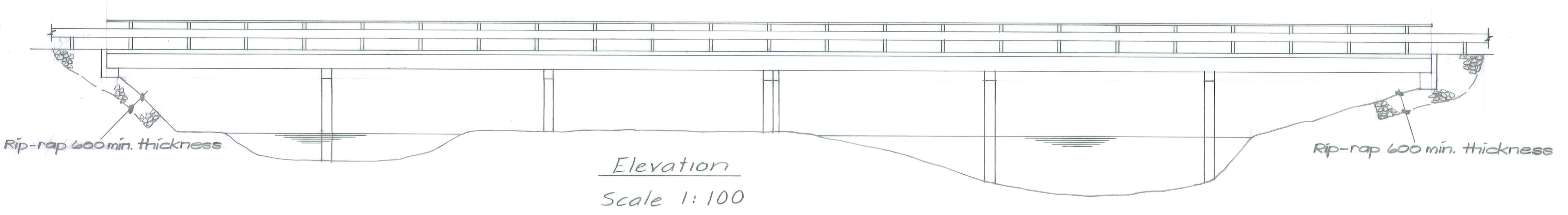
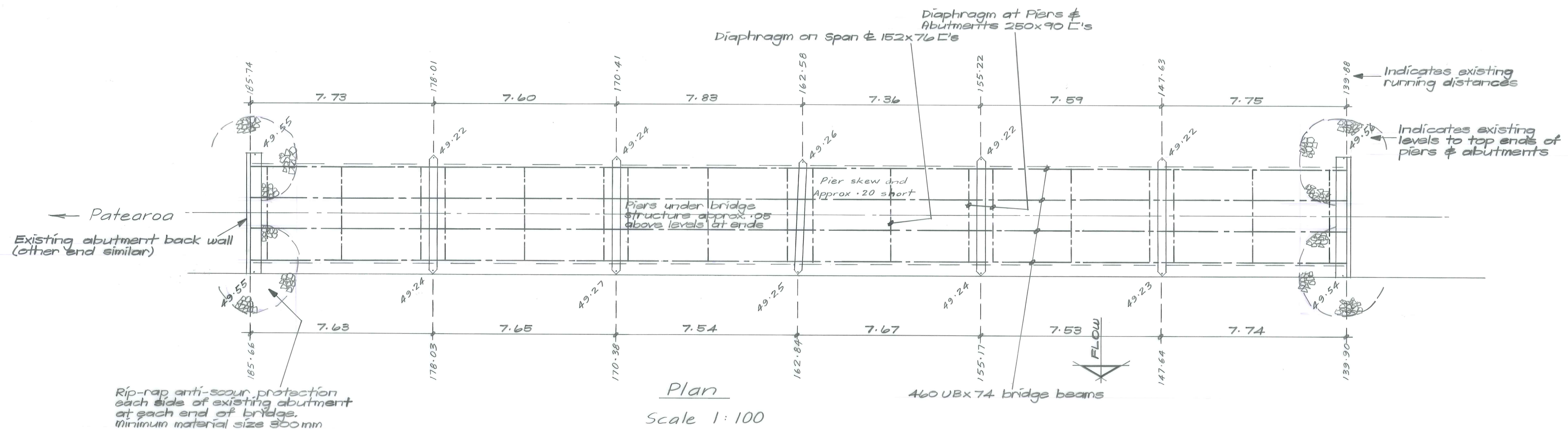


ORIGINAL SIZE mm



No.	Revisions	Date	Appvd
Designed	D. Kensington	Date 4/92	Print Date
Drawn	M. Ferguson	April 1992	
Checked		"	
Approved	<i>[Signature]</i>	5/5/92	
File	225/16/6/4	Ref	

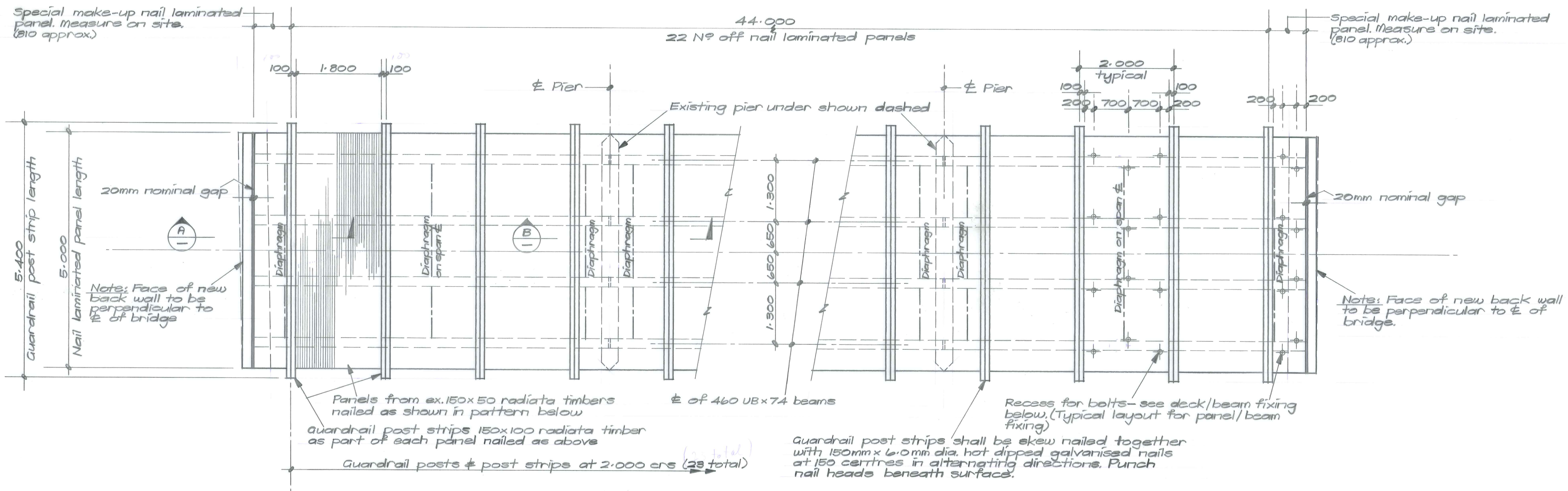
Client
CENTRAL OTAGO DISTRICT COUNCIL

Project
UPGRADING HORE'S
BRIDGE SUPERSTRUCTURE
BRIDGE N° 152

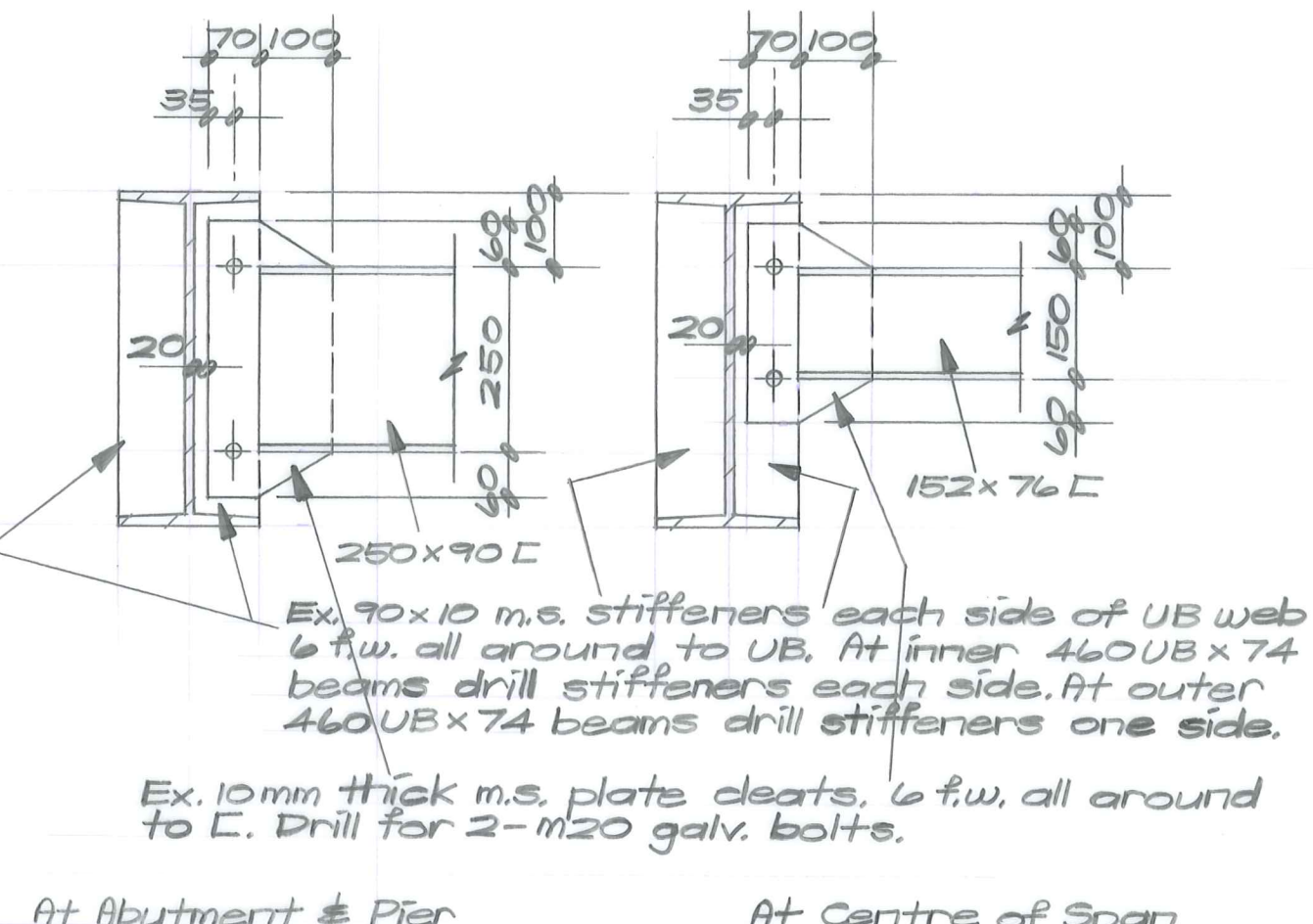
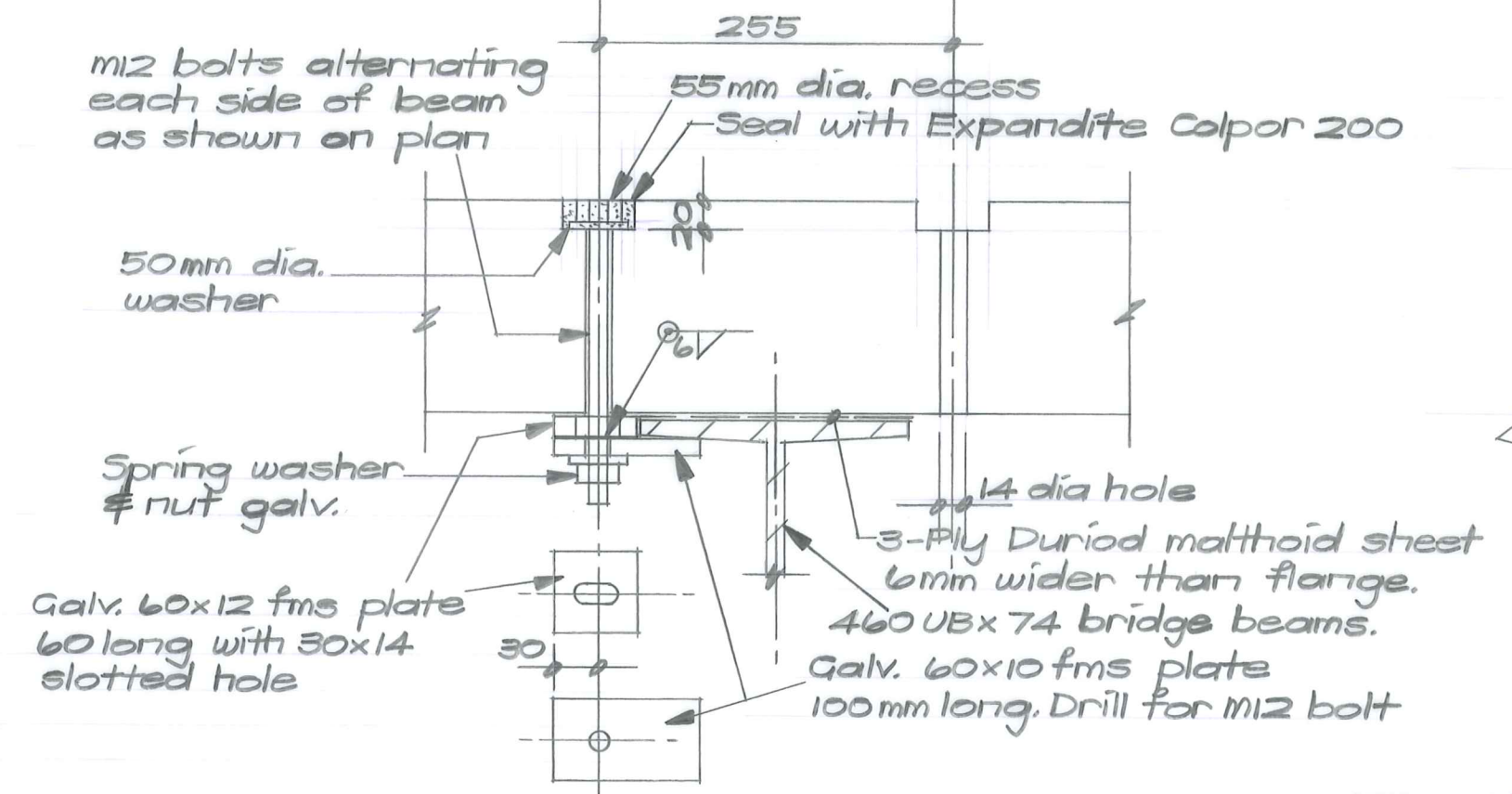
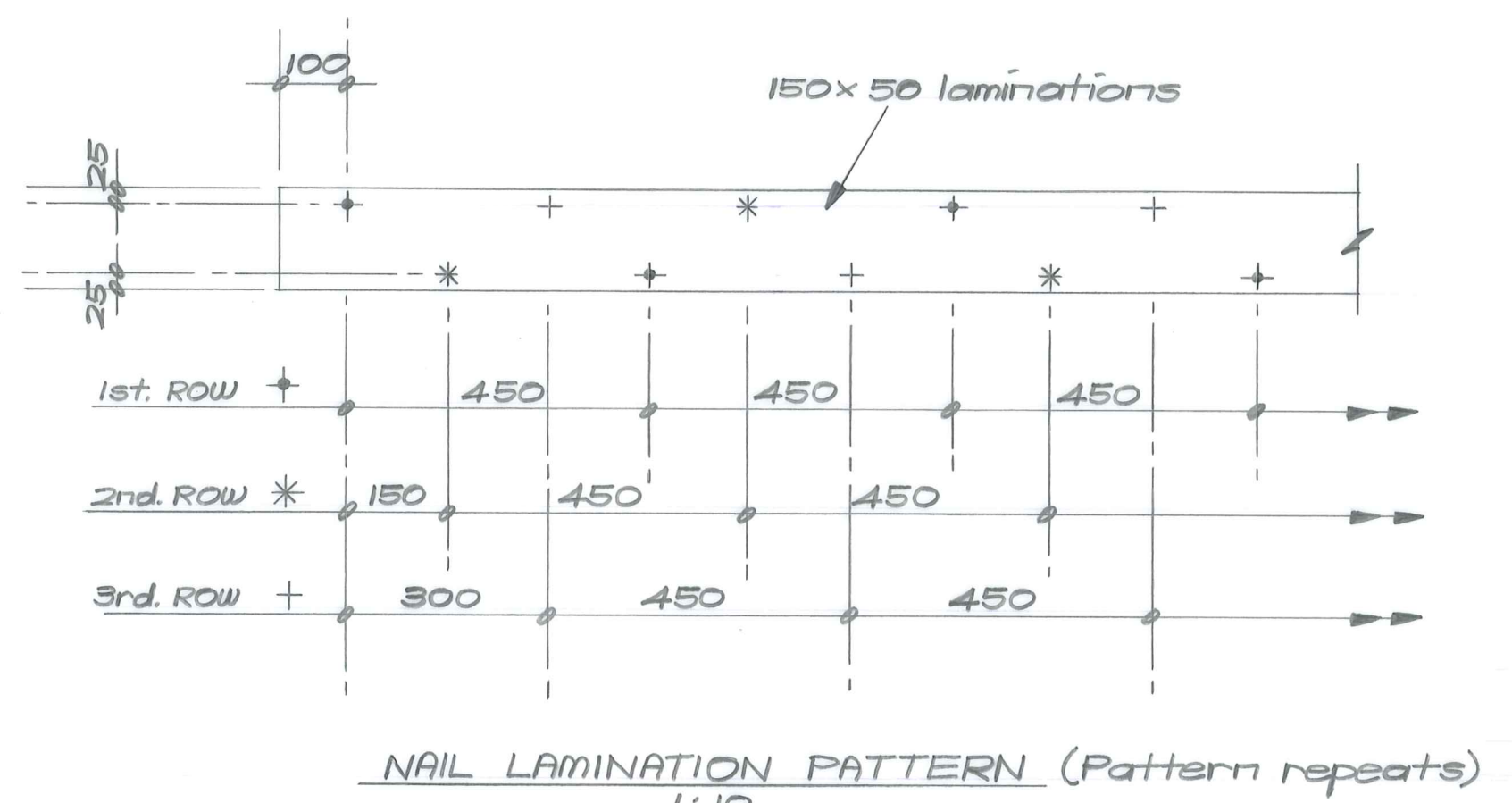
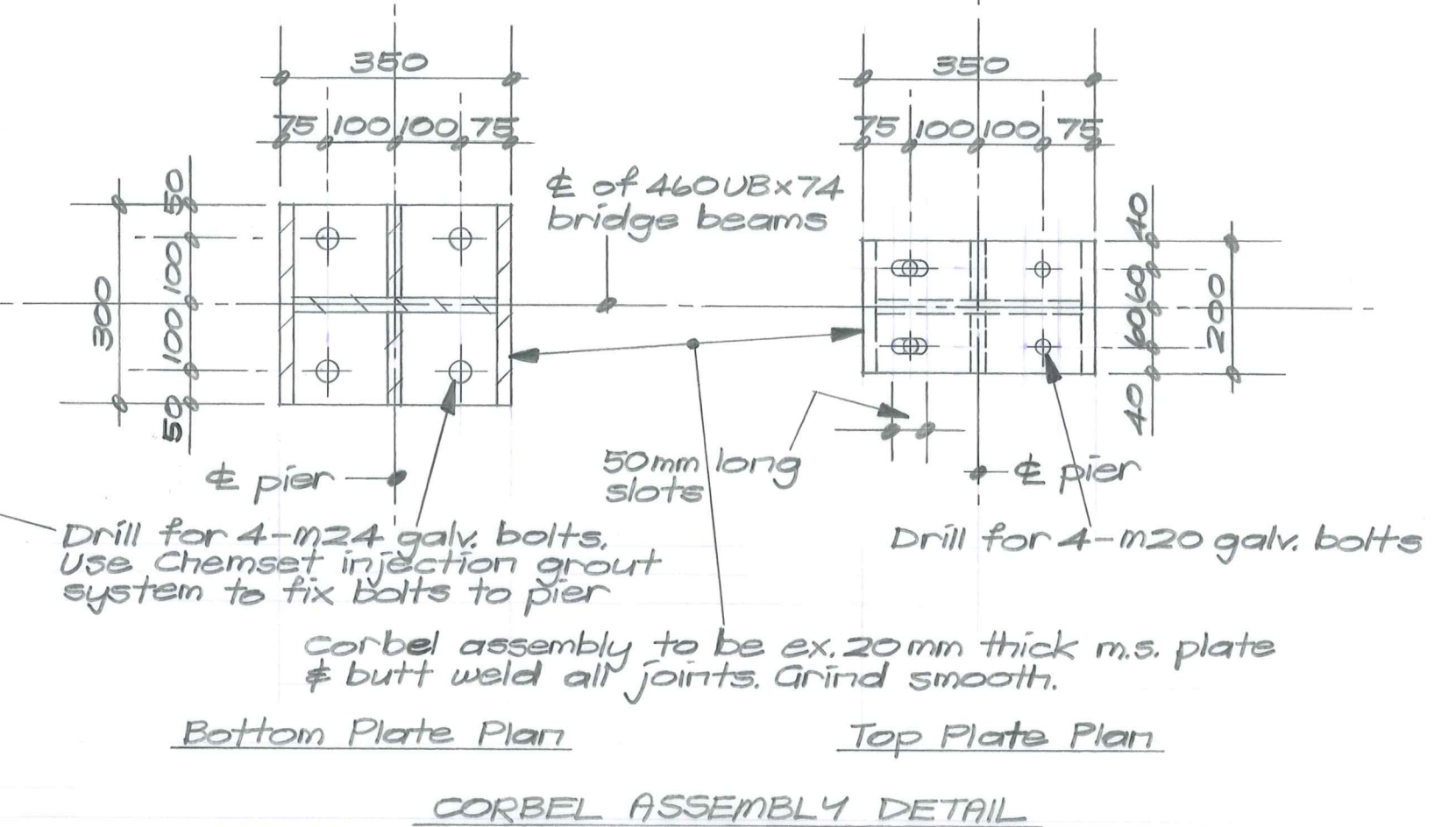
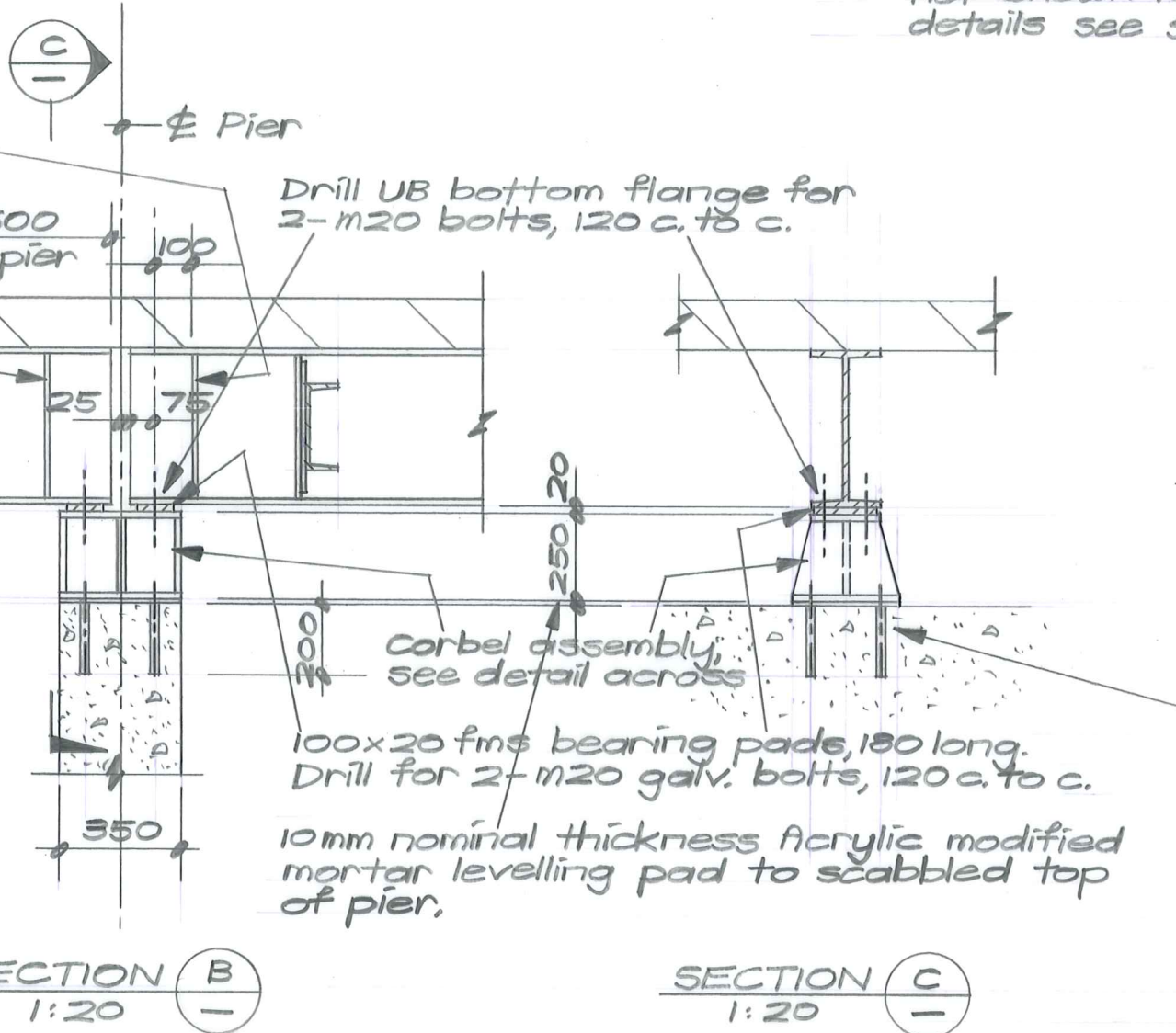
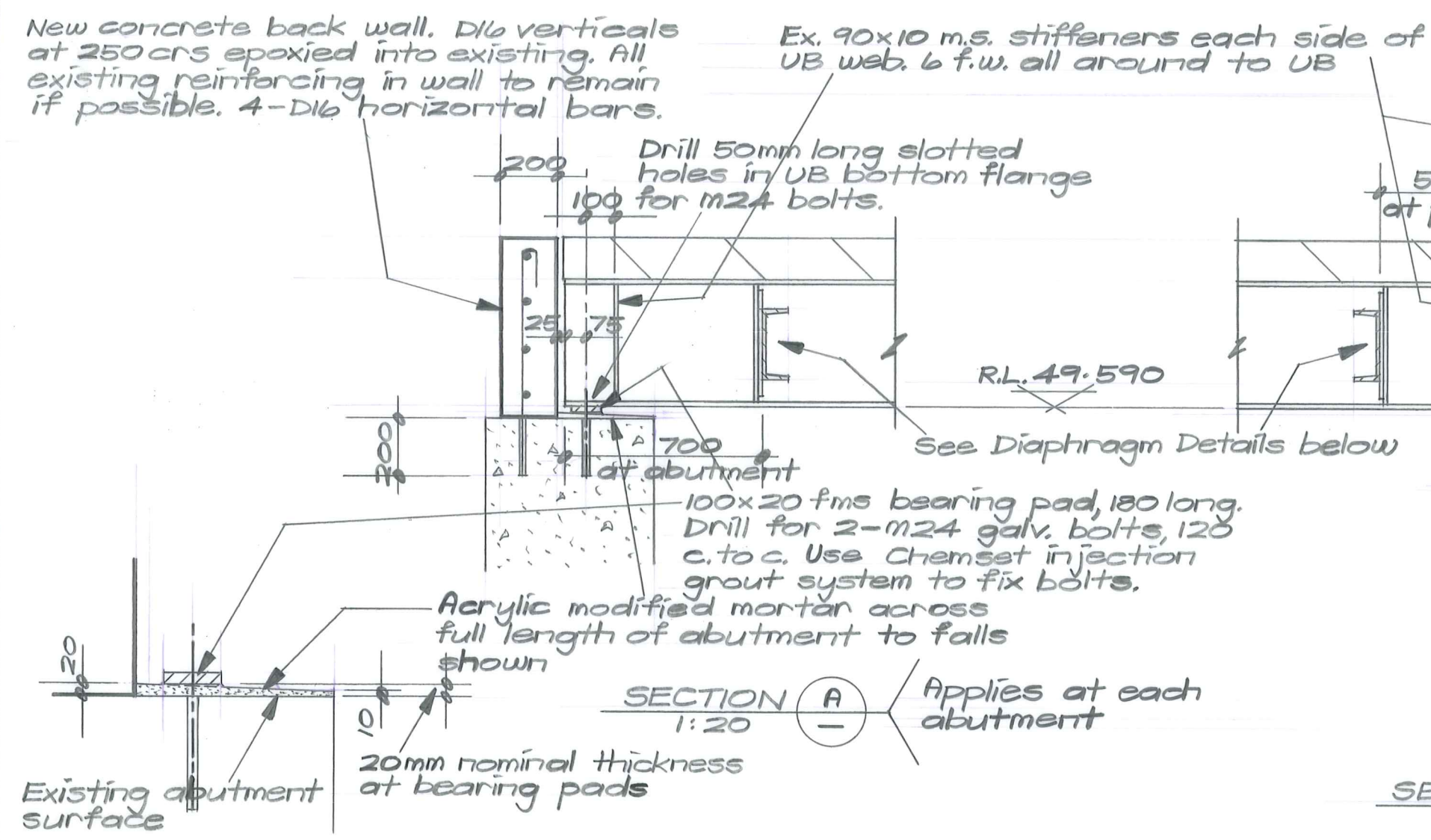
Sheet Title
GENERAL ARRANGEMENT

Job No. 14142	Sheet No. 1	Revision of shts
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- Notes
- All dimensions to be verified on site.
 - Timber used shall be Radiata Pine treated to NZTPA Specification M4.
 - All bolts, rods, nuts, & washers shall be hot dipped galvanised after fabrication.
 - All bolt recesses in timber to be filled with a pourable sealant after installation of bolts.
 - Deck Panels:
 - Nails to be 150mm x 6.0mm dia. hot dipped galvanised. Zinc electroplated nails are not acceptable.
 - Nail heads shall be punched just below the surface of the timber, to ensure even bearing between laminates.
 - The surfaces of the laminations shall be clean and free from any matter that will restrict even contact between surfaces.
 - Panels shall be progressively installed from one end. Final panel widths to be determined on site.
 - All bearing pads & corbel assemblies shall be hot dipped galvanised after fabrication.
 - Set out dimensions for deck/beam fixing approximate only. Adjust set out to avoid diaphragm fixing cleats & beam ends over piers. Ensure that holes are drilled in centre of timber lamination & not at a joint.



No.	Revisions	Date	Appvd
Designed by	D. Kensington	Date 4/92	Print Date
Drawn by	M. Ferguson	April 1992	
Checked by			
Approved by		5/5/92	
File	225/16/6/4	Ref	

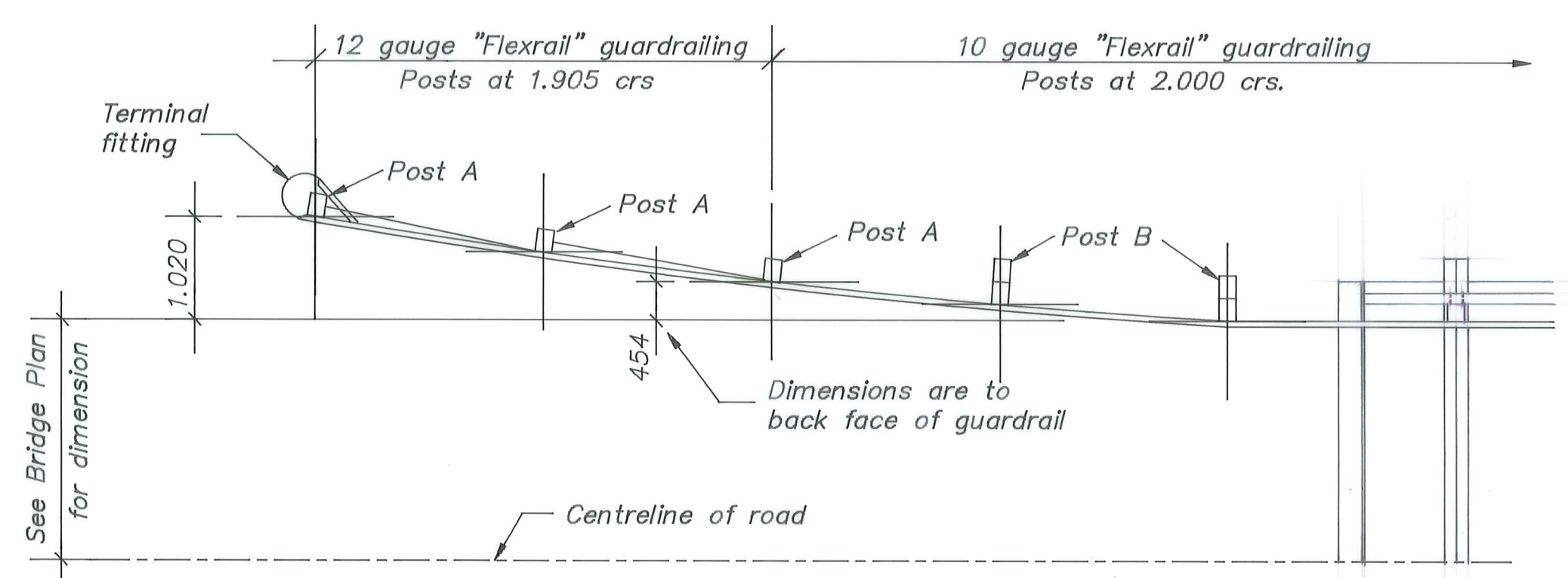
Client
CENTRAL OTAGO DISTRICT COUNCIL
 Project
 UPGRADING HORE'S BRIDGE SUPERSTRUCTURE
 BRIDGE N° 152
 Sheet Title
 SUPERSTRUCTURE UPGRADING DETAILS

Job No.	14142	Sheet No.	2	Revision
		of	shs	

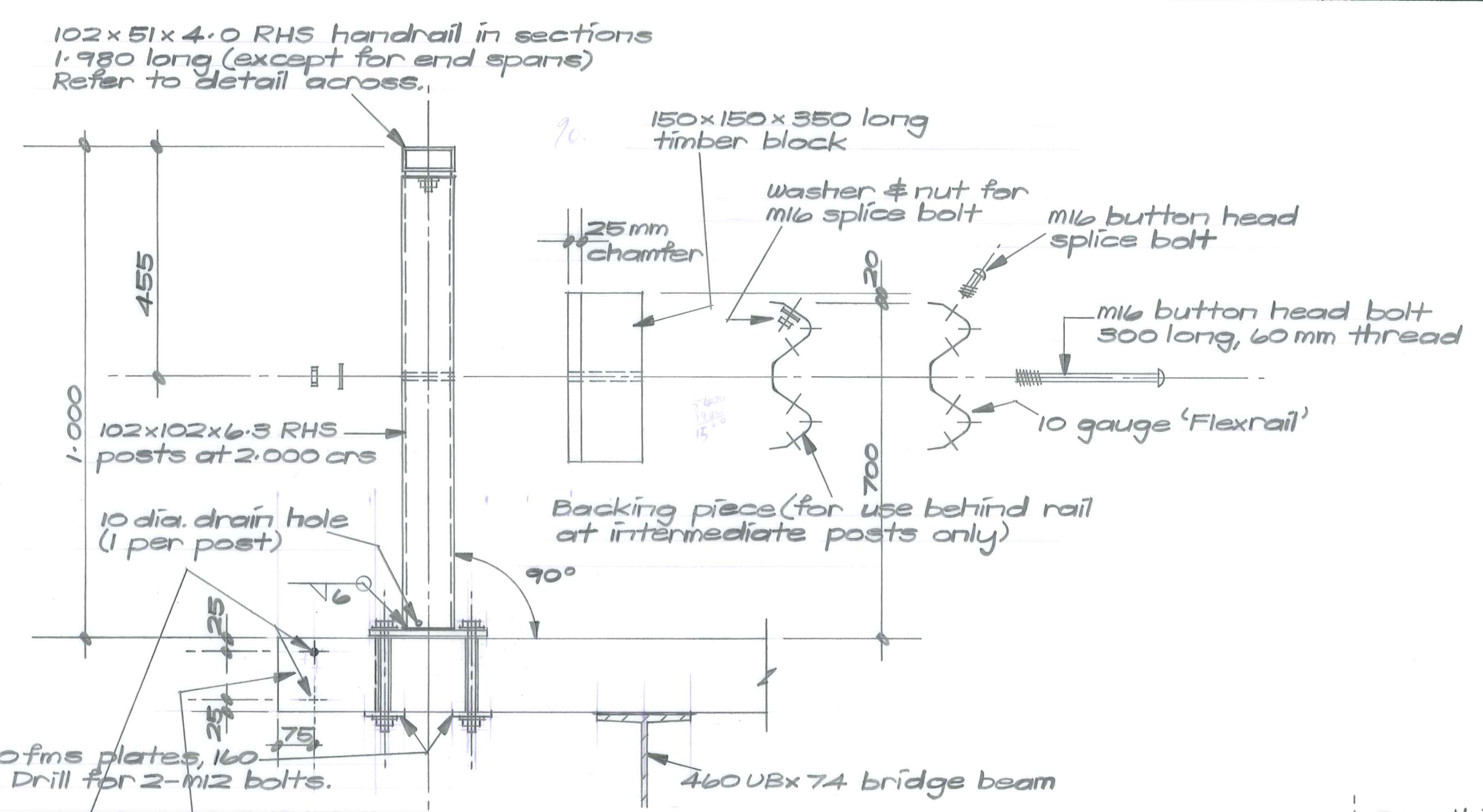
Duffill Watts & King Ltd
 CONSULTING ENGINEERS

ORIGINAL SIZE mm

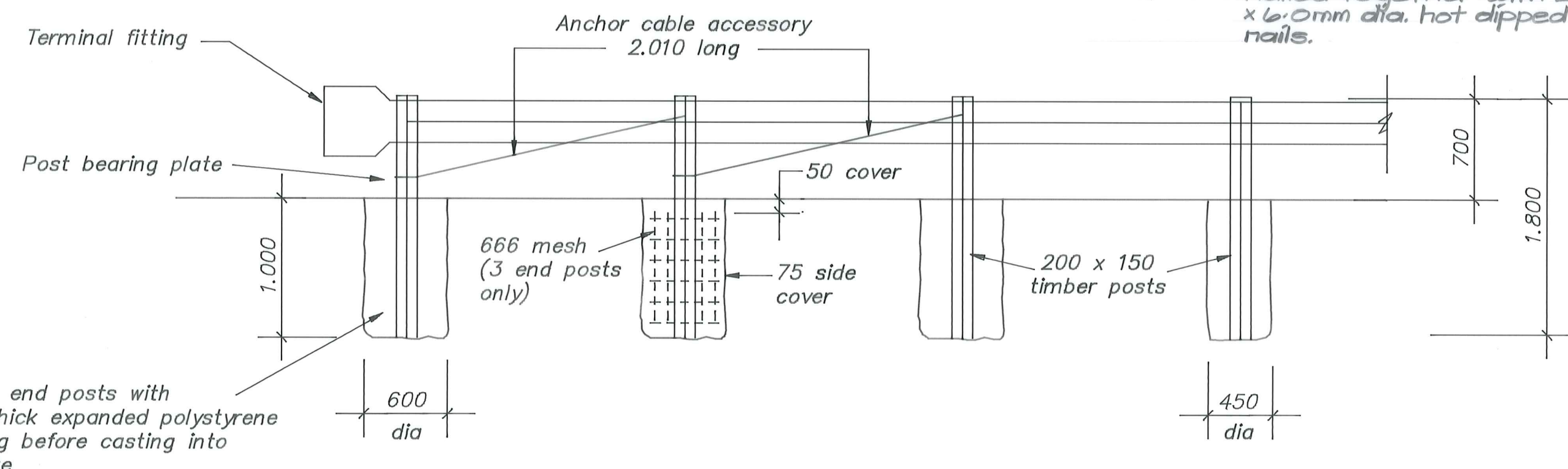
Notes
 All steelwork to be hot dipped galvanised after fabrication including guardrail, bolts, nuts & washers.
 All timber posts & blocks to be Pinus Radiata merchantable grade cut to size, drilled & then preservative to the Timber Preservation Authority Specification H4.



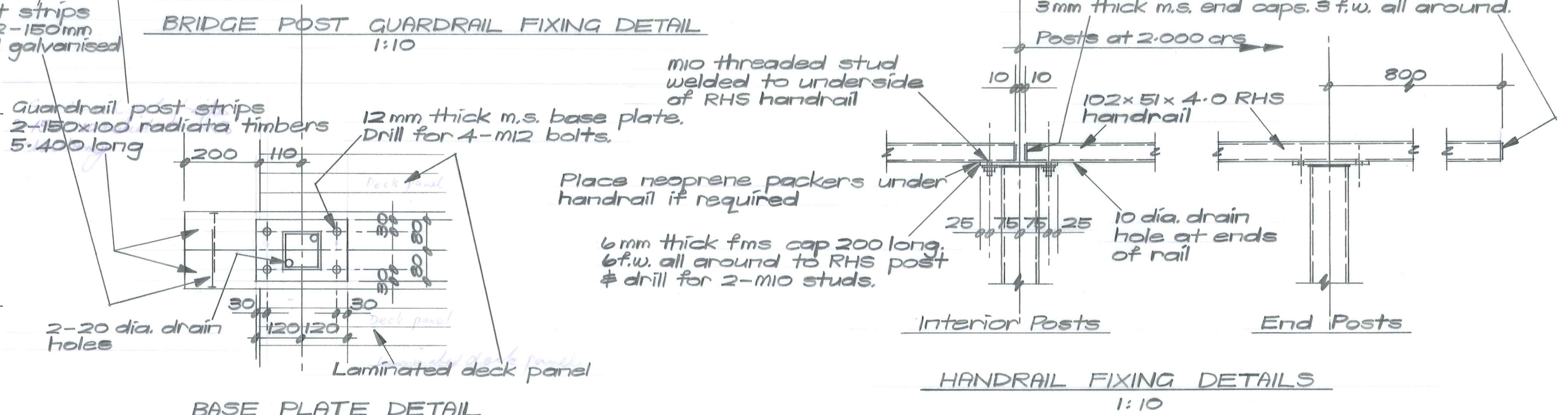
TYPICAL GUARDRAIL LAYOUT PLAN
1:50



BRIDGE POST GUARDRAIL FIXING DETAIL
1:10

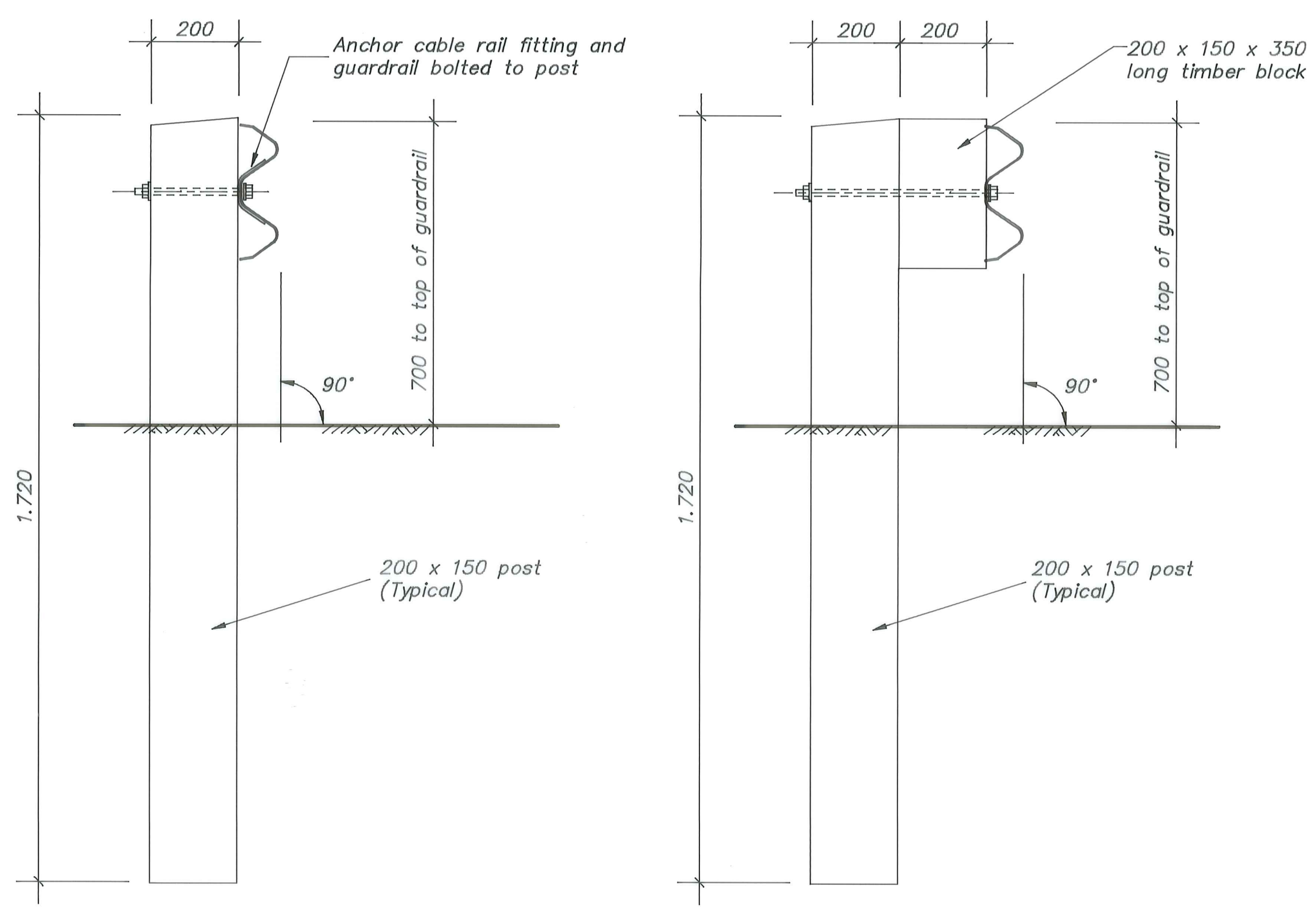


ELEVATION OF B.C.T.
N.T.S.



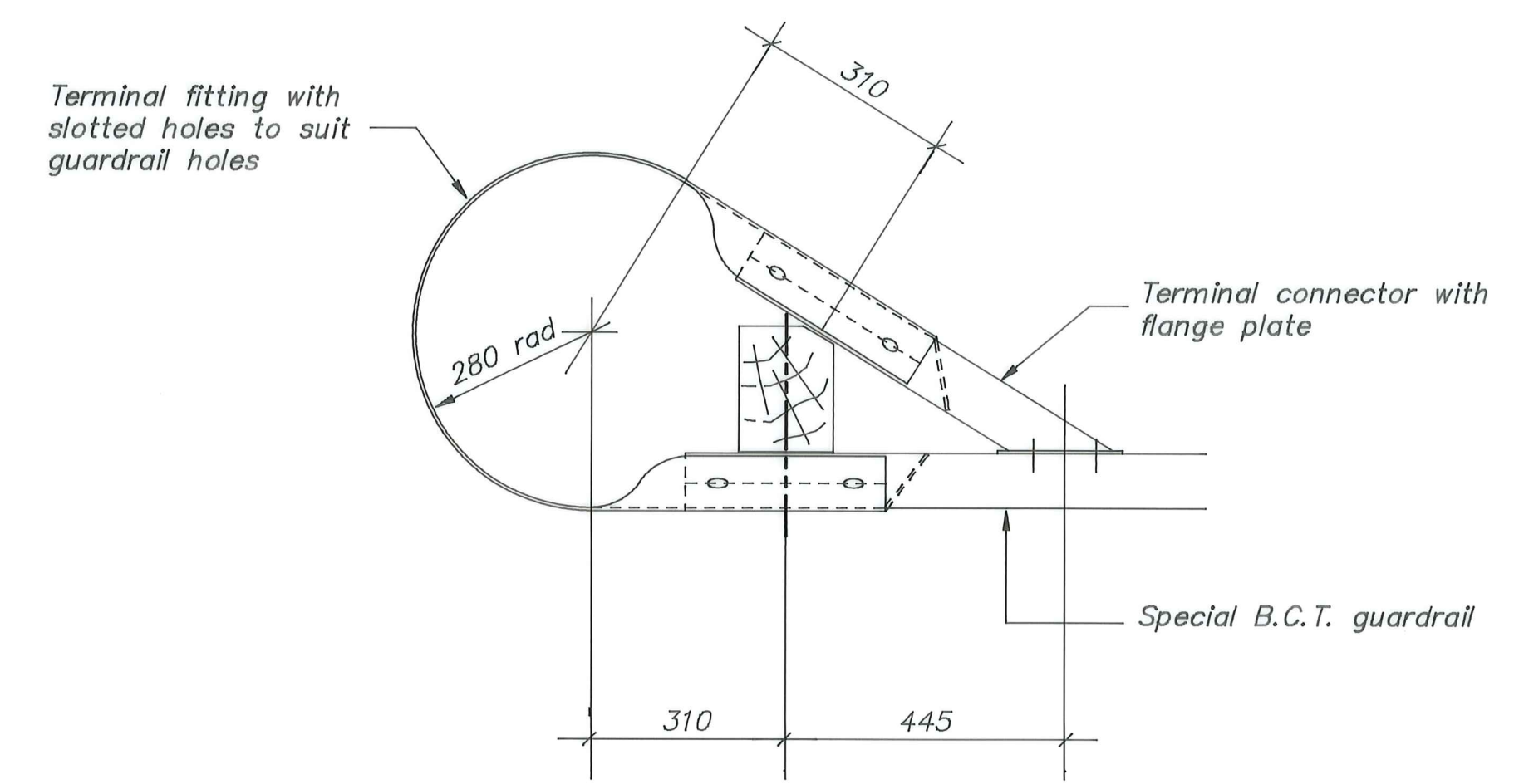
BASE PLATE DETAIL
1:10

HANDRAIL 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	D. Kensington	Date 4/92	Print Date
Drawn	M. Ferguson	April 1992	
Checked	IK	"	
Approved	Paulie	5/5/92	
File	225/16/6/4	Ref	

Client
CENTRAL OTAGO DISTRICT COUNCIL

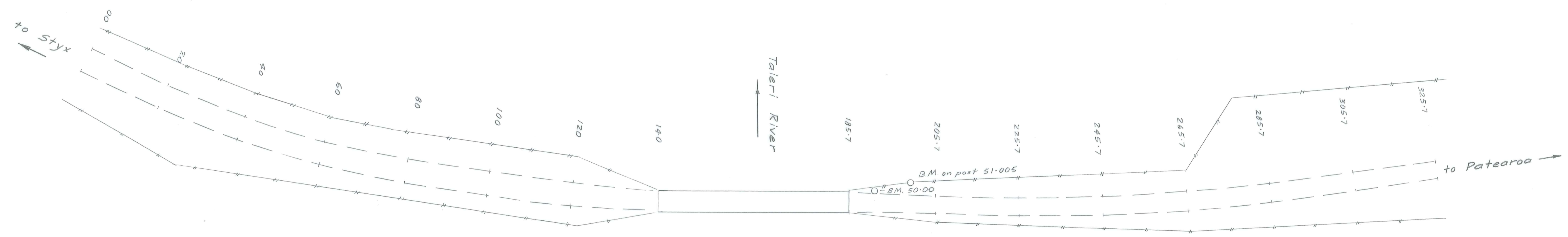
Project
 UPGRADING HORE'S
 BRIDGE SUPERSTRUCTURE
 BRIDGE N° 152

Sheet Title
 GUARDRAIL DETAILS

Job No.	Sheet No.	Revision
14142	3	
	of	shts

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300
200
150
100
50
30
10
0
ORIGINAL SIZE mm



PLAN
Scale 1:500

Overlay in 100mm minimum m/4 AP40
Key in 50mm minimum
New bridge deck level
1st Coat Seal Grade 4 chip
overlay in 100mm minimum m/4 AP40
Key in 50mm minimum

		Bridge Deck														Patearoa →			
																H.A.D. 48.00			
Distances	0	20	40	60	80	100	120	140	185.7	205.7	225.7	245.7	265.7	285.7	305.7	325.7	48.80	48.81	525.7
Left hand edge of seal	49.87	49.68	49.59	49.76	49.90	49.77	50.05	50.10	50.10	50.03	50.03	50.03	49.81	49.54	49.15	48.96	48.81	48.81	525.7
Right hand edge of seal	50.10	50.01	49.96	49.98	49.90	50.06	50.07	50.07	50.10	50.06	50.00	49.89	49.63	49.21	48.95	48.80	48.80	48.80	525.7

LONGITUDINAL SECTION
Scales: Horiz. 1:500
Vert. 1:50

ORIGINAL SIZE mm

No.	Revisions	Date	Appvd
Designed	D. Kensington	Date 4/92	Print Date
Drawn	M. Ferguson	April 1992	
Checked	OK		
Approved	B. [Signature]	5/5/92	
File	225/10/94	Ref	

Client
CENTRAL OTAGO DISTRICT COUNCIL

Project
**UPGRADING HORE'S
BRIDGE SUPERSTRUCTURE
BRIDGE N° 152**

Sheet Title
**LONGITUDINAL SECTION
≠ PLAN**

Job No. 14142	Sheet No. 4	Revision
	of	shts

Ward PATEAROA
 Roadway name ... STYX-PATEAROA ROAD
 Waterway name ... TAIERI RIVER (HORES BRIDGE)
 Map reference ...
 H42 713 380
 Drawing ref DWK 14142

STRUCTURAL DETAILS

Bridge type T/S Single lane, laminated timber deck,
 steel beams, concrete piles and pile
 caps

Overall length 46.200 m

Number of spans 6

Span betwn supports .. 7.0

Beam size & spacing ..

150 laminated timber panels.

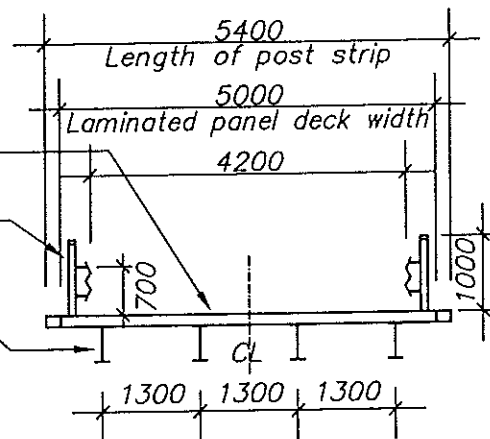
75x50 RHS posts & top rail
 with steel guardrails.

460x190 UB beams.

Overall deck width .. 5.000 m

Carriageway width ... 3.700 m

(Distance between kerb or guard rail faces)



CONSTRUCTION MATERIALS

Deck Nail laminated radiata pine strips
 Beams 4 No. 760 UB 74 steel beams
 Abutment walls . Reinforced concrete
 Wing walls None
 Piers Reinforced concrete caps on concrete piles
 Foundations Reinforced concrete piles (some square, some oct.)
 Bearings Steel
 Deck joints N/A
 Kerbs N/A
 Guard rails Steel 'Flexrail'
 Hand rails Steel RHS (100x50) on RHS post (100x100)
 Footpaths N/A
 Approaches
 Special comments. New superstructure beams and deck installed in 1992.
 Piles in main channel show significant spalling at
 inspection in March 1996. Major repair recommended.

LOADING INFORMATION

Design loading HN-72
 Gross weight limit Not restricted
 Axle weight limit Not restricted
 Speed restrictn (km/hr) ... Not restricted
 O/load class : Gross class . 100
 : Deck grade . B
 Design Ref/Cnstr year DWK14142 (superstructure only) / 1992

HYDROLOGICAL DATA

Waterway clearance .. 3.200 m
 Known flood data
 Waterway area 110 sq. m

CENTRAL OTAGO DISTRICT - BRIDGE NO. 152

17/01/97

Ward PATEAROA
Roadway name ... STYX-PATEAROA ROAD
Waterway name ... TAIERI RIVER (HORES BRIDGE)

MAINTENANCE REPORT

Priority for replacement ...
Last painted / /
(above date applies to beams only)
Timber last repaired / /
Concrete last repaired / /

Last Inspection.. 27/03/96 Rem. Life.. 40 yrs Next Inspection.. 27/03/97

MINOR MAINTENANCE - NEEDED

1. Remove build-up of debris around abutment bearings of beams.
2. A number of deck fixing plates have worked loose and some have dropped off. Check all deck fixing plates and tighten or replace as necessary.
3. Minor settlement in road surface behind Patearao abutment. Build up depression with cold mix or hot mix as appropriate.

DWK (Alexandra Office) to issue instruction to Maintenance Contractor to execute work detailed in the above items.

MINOR MAINTENANCE - COMPLETED

Nil.

MAJOR MAINTENANCE

Pile repairs required - see 'Special Investigations' below.

MAJOR MAINTENANCE - COMPLETED

Nil.

SPECIAL INVESTIGATION

1. Cover concrete to piles in main channel showing significant degradation and starting to spall. In worst cases main reinforcing is now visible. Repairs should be carried out within next 3 years. To be programmed in next NLTP for 1997/98. DWK to action.
2. Some minor stripping of chip seal on deck surface. To be repaired when road next resealed. DWK to action.

WATERWAY CONDITION

Satisfactory.



Project Name: Bridge 152, Styx - Patearoa Road, Taieri River.



Description: Typical decking fixing



Description: View under at TL abutment