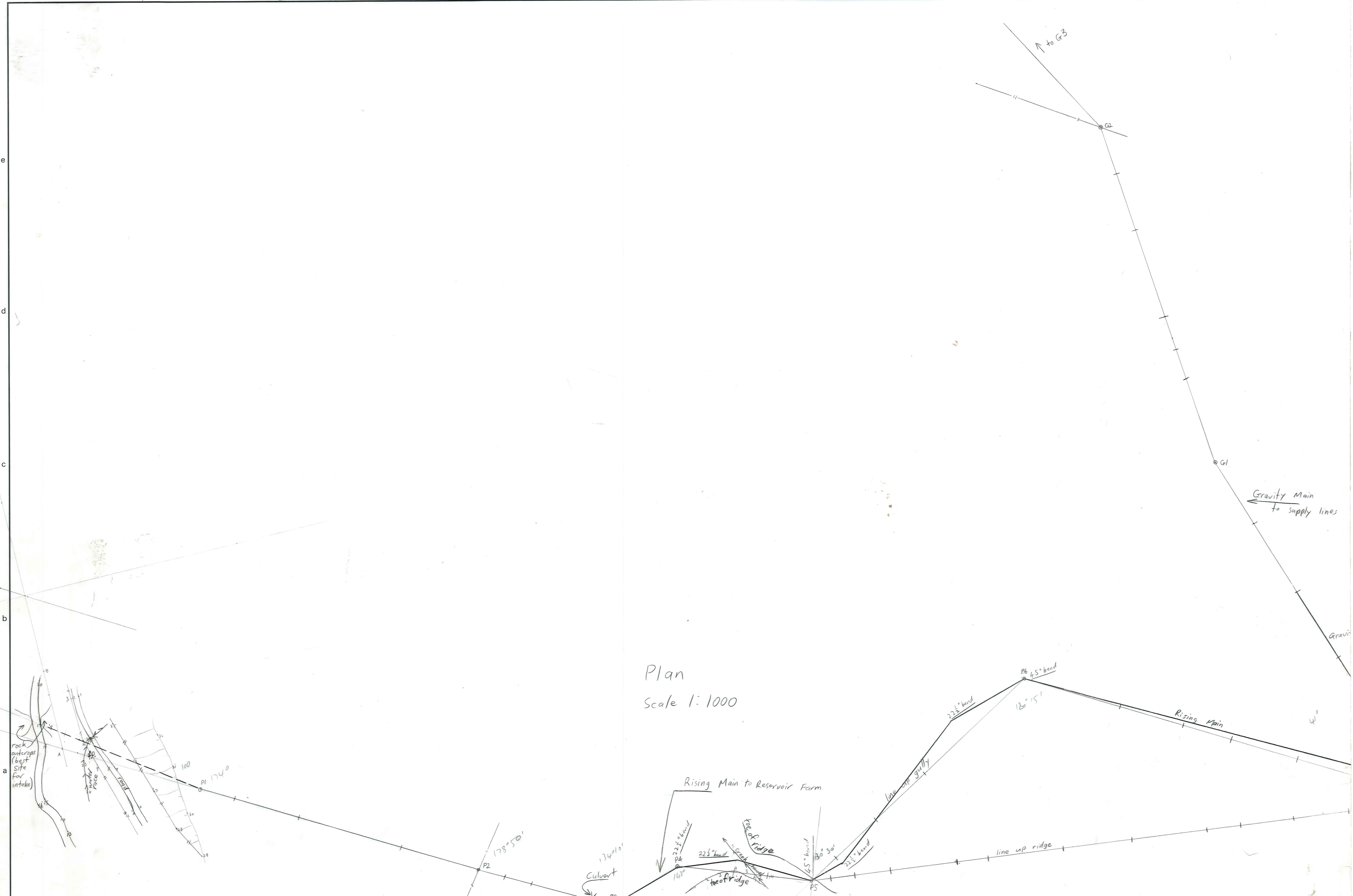


ORIGINAL SIZE
mm INCHES
300
200
100
50
30
10
0



Plan
Scale 1:1000

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
Balclutha P.O. Box 220 Phone 1425

MANIOTOTO
COUNTY
COUNCIL

PATEAROA RURAL WATER SUPPLY
RISING MAIN

AMENDMENTS			NAME	DATE
NO.	BY	DATE		
			RTKinson	Dec '76
			"	Feb '77

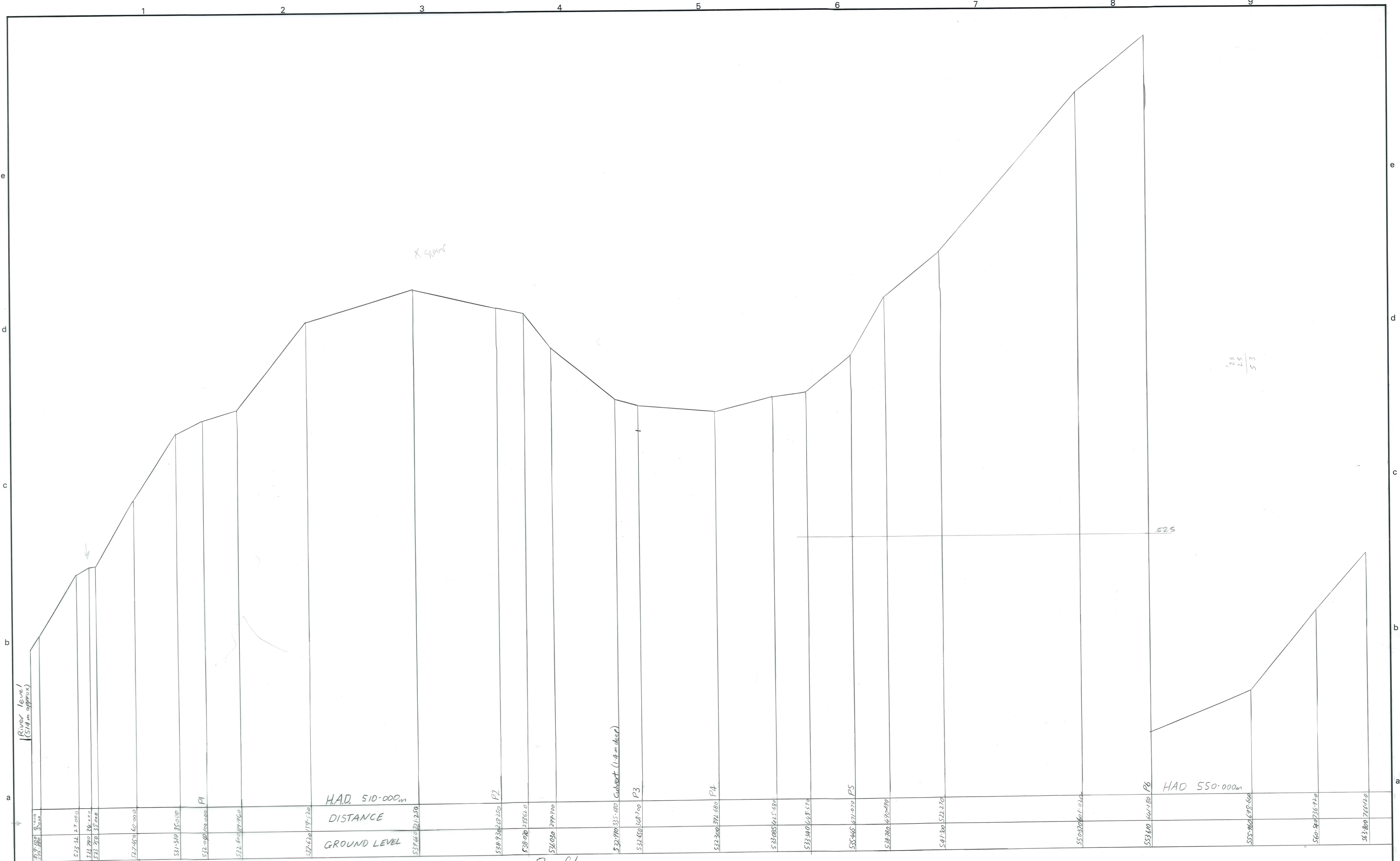
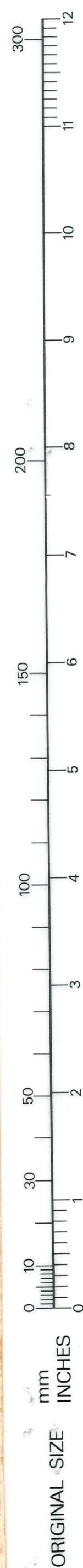
Appvd.	Surveyed	RTKinson	Dec '76
	Drawn	"	Feb '77
	Calculations		
	Traced		
	Checked		
	Approved		

JOB NO.
9422
8030
1R
of 3
F.B.
File 6/14/4 L.B. 366

M.C.C. Pateaara Rural Water Supply
Rising Main

Order Filmaster "D" SELF-ADHESIVE PLAN HANGER

Number 137841



Profile
Scales Horiz 1:1000
Vert 1:100

1.28
2.5
5.3

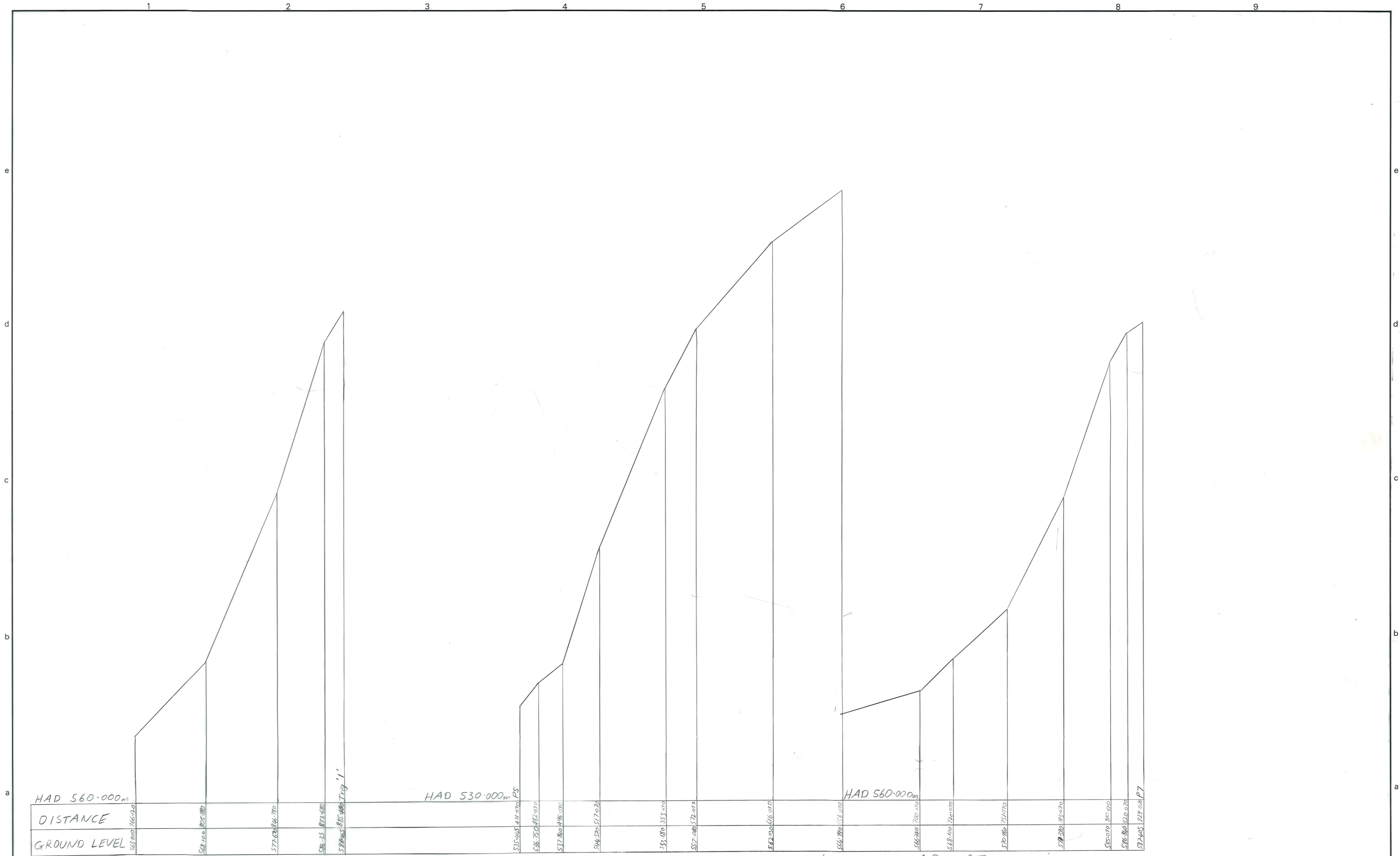
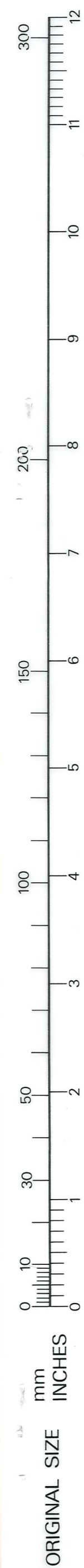
DUFFILL WATTS & KING LTD CONSULTING CIVIL & STRUCTURAL ENGINEERS Dunedin P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83048 Balclutha P.O. Box 220 Phone 1425	MANIOTOTO COUNTY COUNCIL	PATEAROA RURAL WATER SUPPLY RISING MAIN	AMENDMENTS			NAME	DATE	JOB NO.	Sheet No
			NO.	BY	DATE	Appvd.	Surveyed	8TK/moston	Dec '76
					Drawn	"	Feb '77	8038	of 3 sheets
					Calculations				
					Traced				
					Checked				
					Approved				
							File 4/14/4	L.B. 366	F.B. —

M.C.C. Patearoa Rural Water Supply
Rising Main

Order Filemaster "D"

SELF-ADHESIVE PLAN HANGER

Number 137841



Scales Horiz 1:1000
Vert 1:100

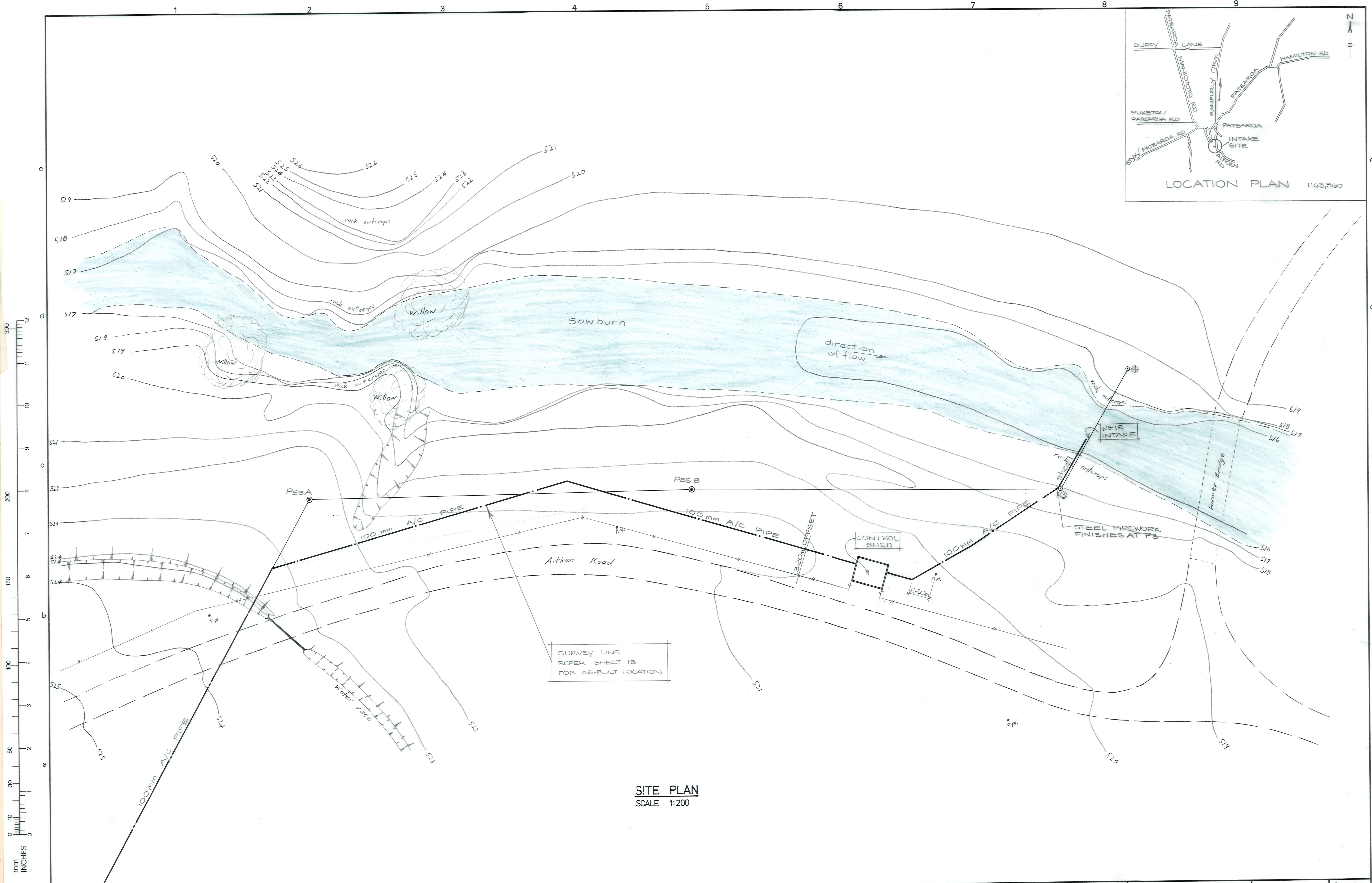
DUFFILL WATTS & KING LTD CONSULTING CIVIL & STRUCTURAL ENGINEERS Dunedin P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049 Balclutha P.O. Box 220 Phone 1425	MANIOTOTO COUNTY COUNCIL	PATEAROA RURAL WATER SUPPLY RISING MAIN	AMENDMENTS			NAME	DATE	JOB NO.	Sheet No
			NO.	BY	DATE	Appvd.	Surveyed	BT Kingston	Dec '76
					Drawn	"	Feb '77	8038	of 3 shts
					Traced				
					Checked				
					Approved			File 6/14/4	L.B. 366

PATEAROA RURAL WATER SUPPLY SCHEME

Order Formmaster "D"

SELF-ADHESIVE PLAN HANGER

Number 37841



SITE PLAN
SCALE 1:200

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83049
Cromwell P.O. Box 82 Ph. 50391

**MANIOTOTO
COUNTY COUNCIL**

**PATEAROA RURAL WATER SUPPLY SCHEME
SITE LOCATION - INTAKE WEIR & CONTROL SHED**

AMENDMENTS			NAME	DATE	JOB NO.	Sheet No
NO.	BY	DATE	Appvd.	Surveyed	PGC/BTK	1980
				Drawn	BT Kingston	1980
				Calculations	W.F.B.	July 1980
				Traced	BT Kingston	July 1980
				Checked	W.F.B.	Oct 1980
				Approved	[Signature]	Oct 1980

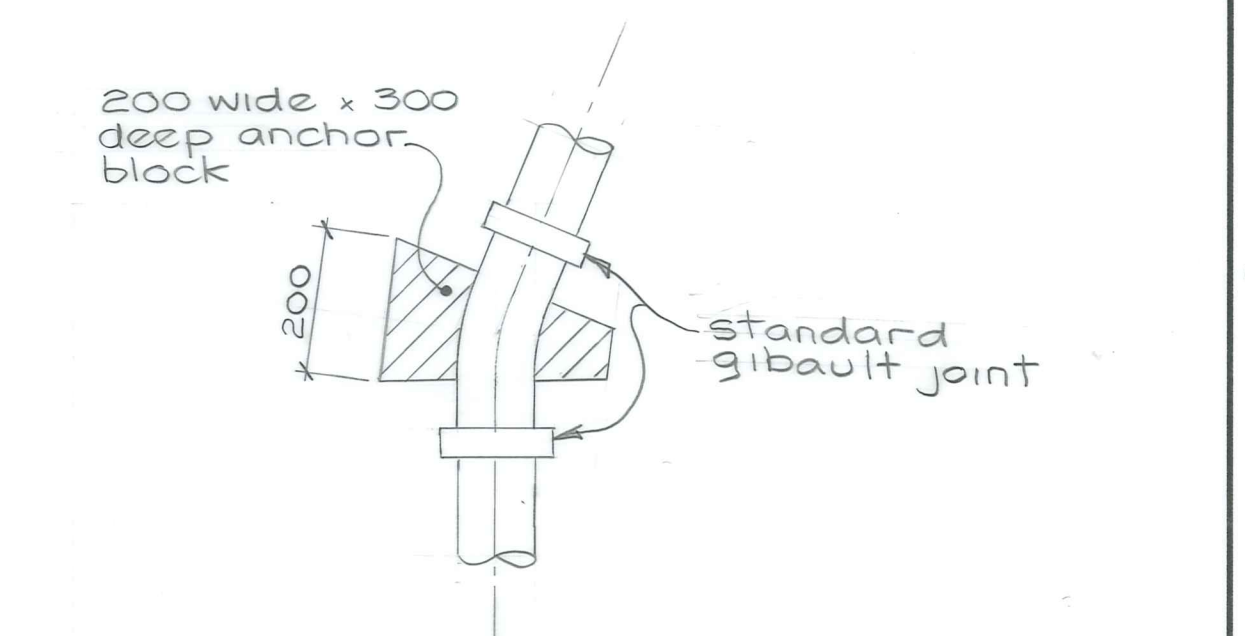
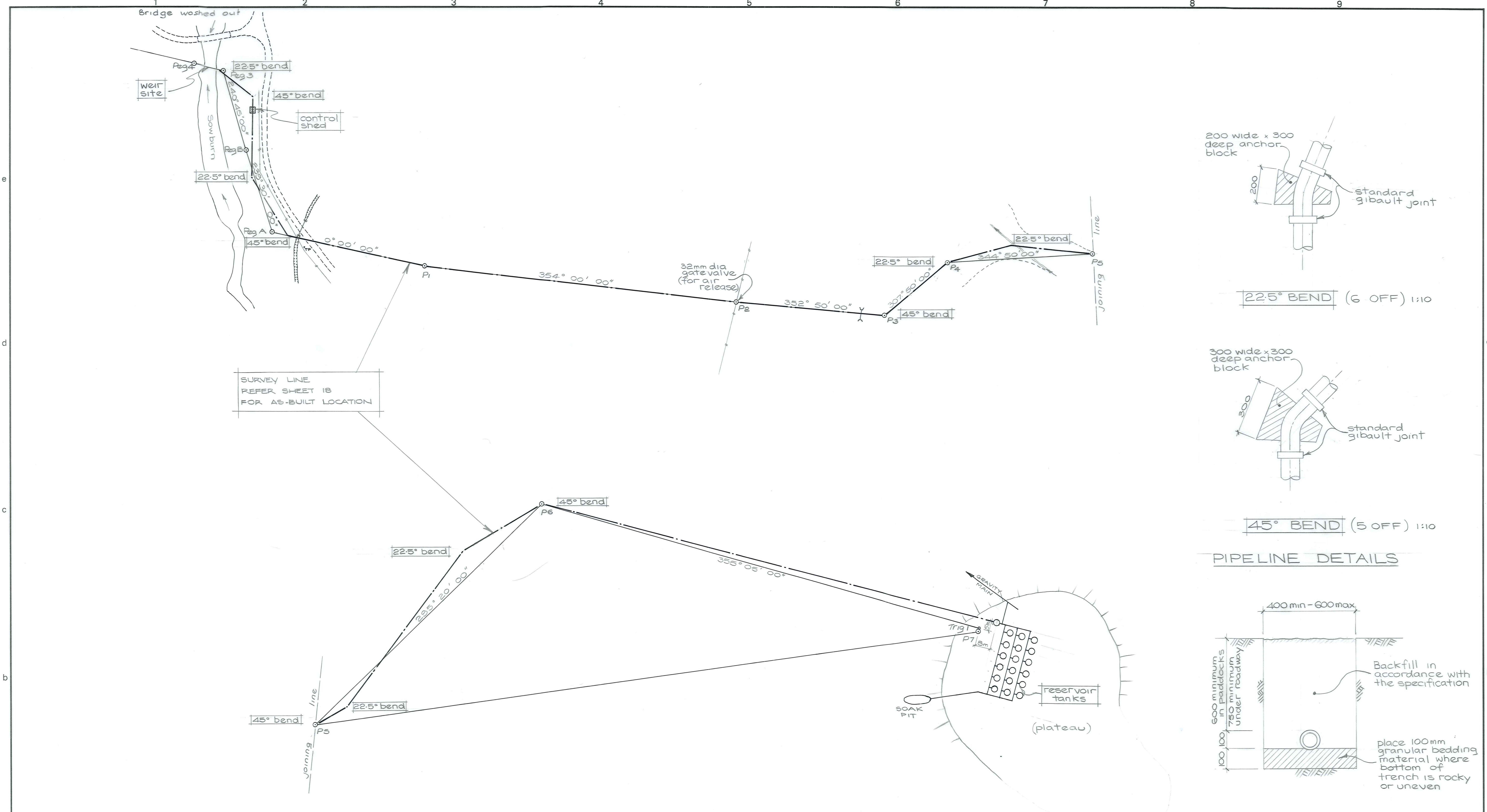
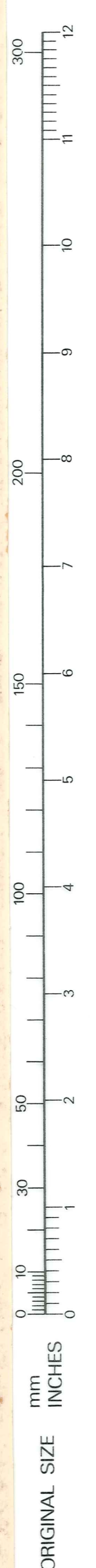
9422	1	of 1 shts
File 14/5	L.B. 315 424	F.B. -

PATEAROA RURAL WATER SUPPLY SCHEME

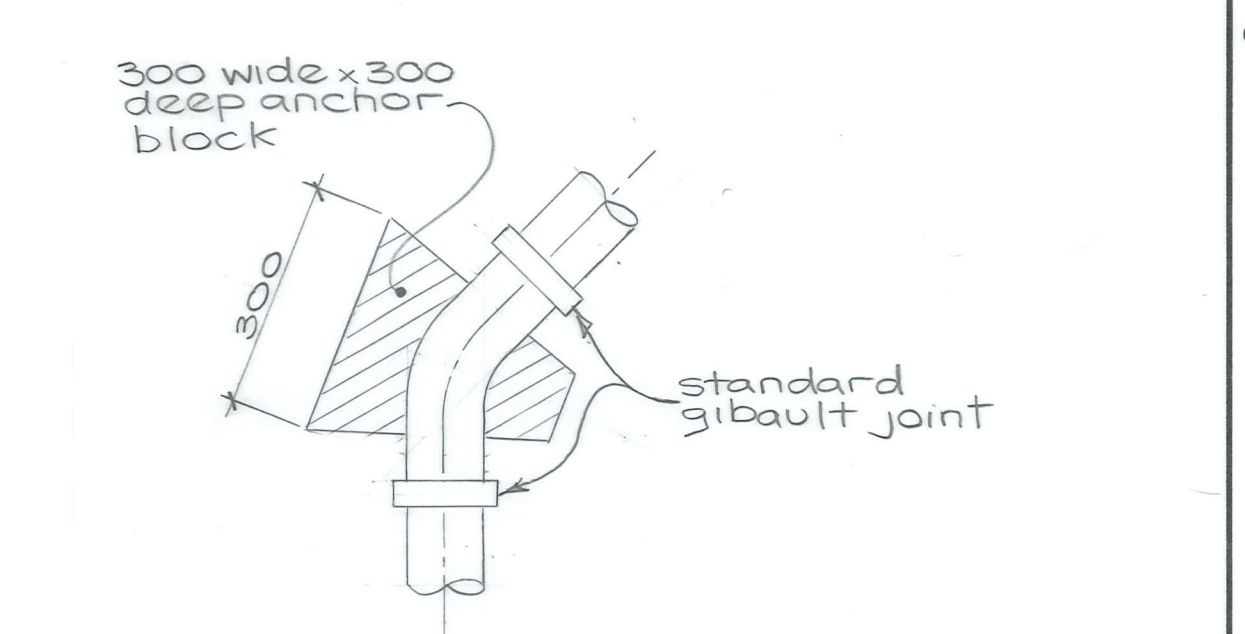
Re-Order Filemaster "D"

SELF-ADHESIVE PLAN HANGER

Patent Number 137841

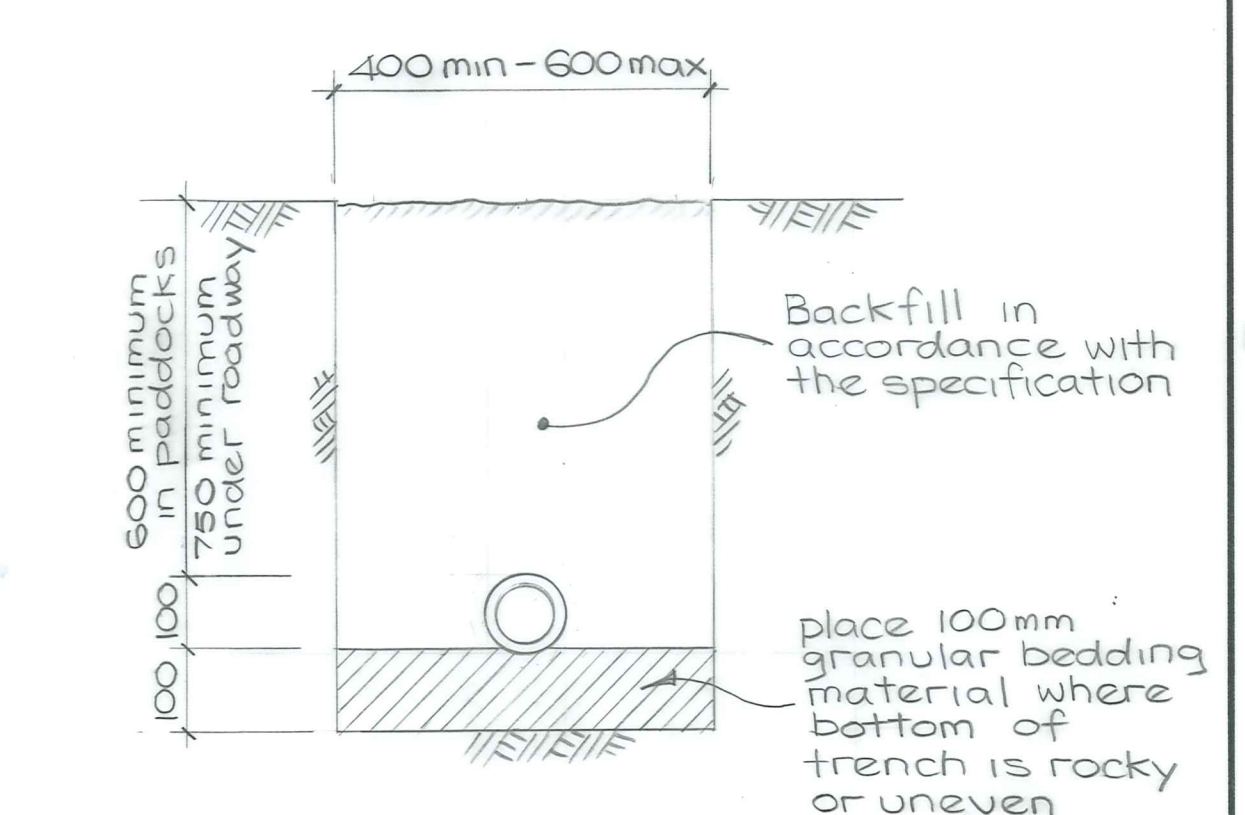


22.5° BEND (6 OFF) 1:10



45° BEND (5 OFF) 1:10

PIPELINE DETAILS



TYPICAL TRENCH DETAIL SCALE 1:10

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83049
Cromwell P.O. Box 82 Ph. 50-391

MANIOTOTO COUNTY COUNCIL

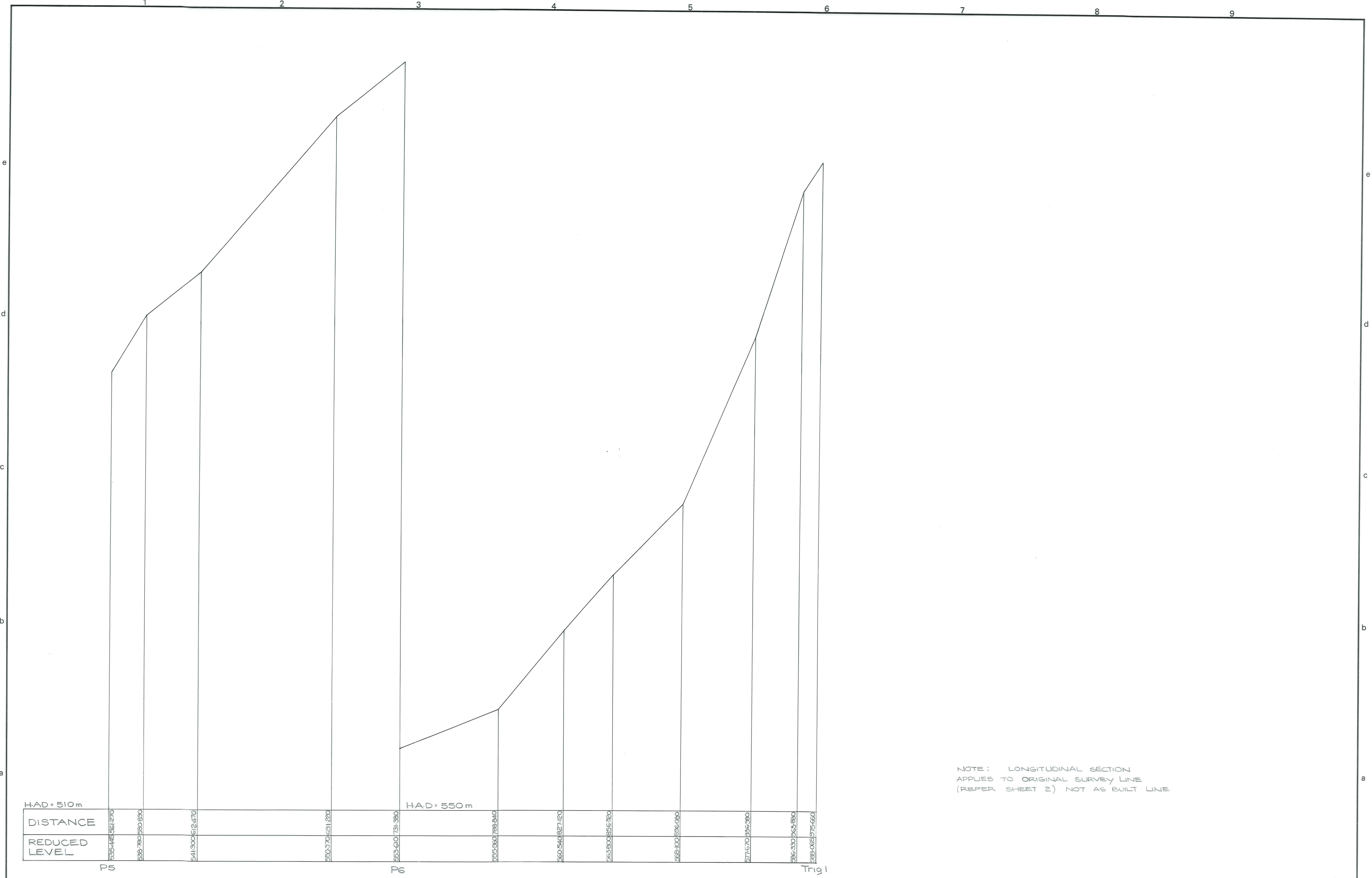
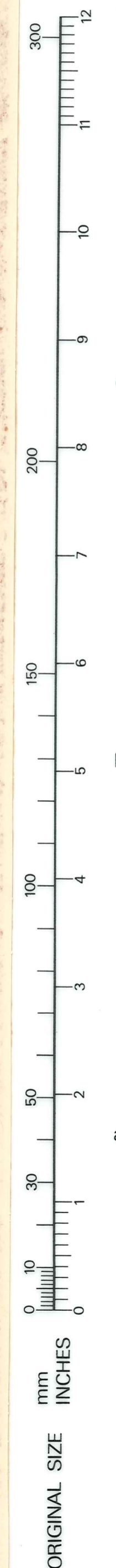
PATEAROA RURAL WATER SUPPLY SCHEME
RIISING MAIN LAYOUT & RESERVOIR LOCATION

AMENDMENTS			NAME	DATE
NO.	BY	DATE		
			B. KINASTON	AUGUST 80
			J. KNOX	JULY 1980
			W. J. B.	AUGUST 80
			J. KNOX	AUGUST 80
			W. J. B.	OCT. 1980
				OCT. 80

JOB NO.	9422	Sheet No	2
		of sheets	
File	G/A/5	L.B. 4/13	F.B. -

PATEAROA RURAL WATER SUPPLY SCHEME

Re-Order Filemaster "D" SELF-ADHESIVE PLAN HANGER



NOTE: LONGITUDINAL SECTION APPLIES TO ORIGINAL SURVEY LINE (REFER SHEET 2) NOT AS BUILT LINE

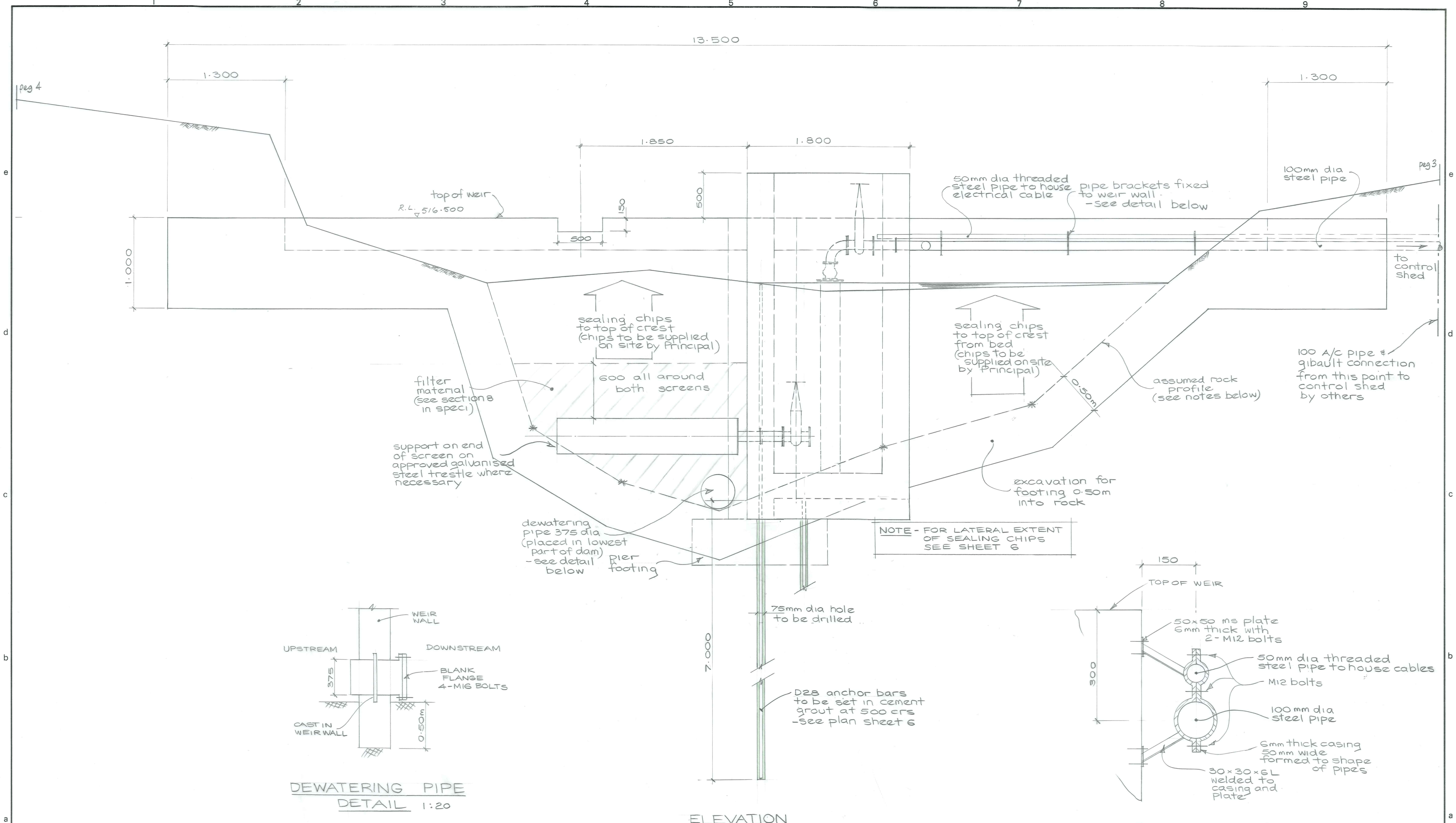
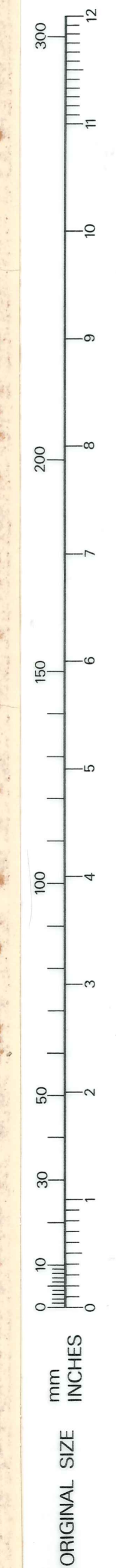
DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83 049
Cromwell P.O. Box 82 Ph. 50-391

MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY SCHEME
LONGITUDINAL SECTION - GROUND SURFACE ALONG
LINE OF RISING MAIN

AMENDMENTS				NAME	DATE	JOB NO.	Sheet No
NO.	BY	DATE	Appvd.				
				Surveyed	J. KNOX	AUGUST 80	9422
				Drawn	W. J. B.	July 1980	
				Calculations	J. KNOX	AUGUST 80	
				Traced	J. KNOX	AUGUST 80	
				Checked	W. J. B.	Oct. 1980	
				Approved	[Signature]	Oct 80	

File 6/14/85
LB 418
424
F.B. —



NOTES:-
 ROCK LEVEL PROVED BY PROBING AT POINTS MARKED THUS *
 TENDERERS ARE TO NOTE AND MAKE DUE ALLOWANCE FOR THE POSSIBILITY OF CONSIDERABLE IRREGULARITY WHICH MAY OCCUR IN THE ROCK PROFILE BETWEEN THESE POINTS.

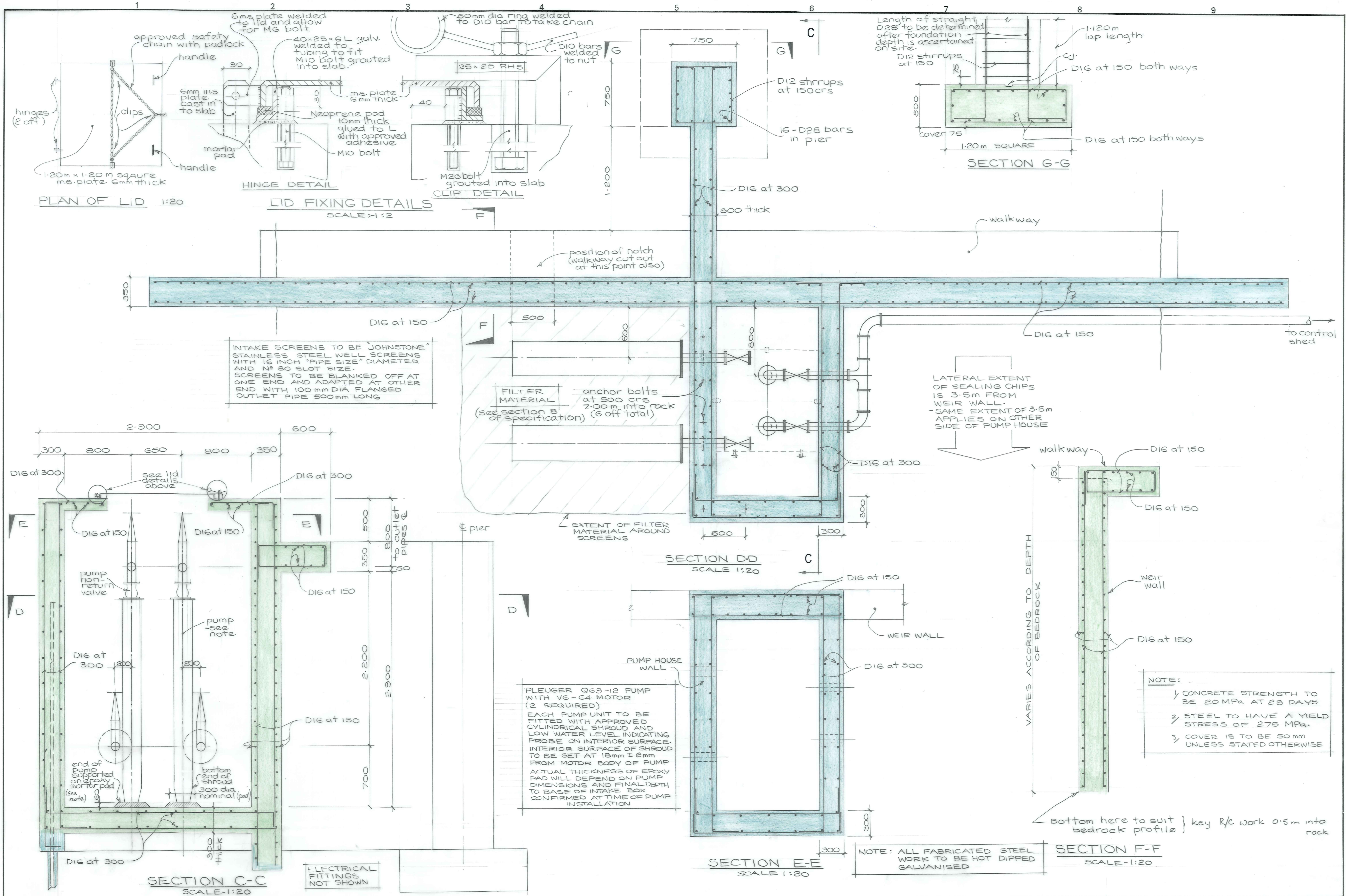
DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049
 Cromwell P.O. Box 82 Ph. 50-991

MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY SCHEME
INTAKE WEIR ELEVATION

AMENDMENTS		NAME	DATE
NO.	BY	DATE	
A	W.S.B.	FEB 81	FISH PASS NOTCH ADDED
B	W.S.B.	JUNE 82	WEIR CREST RL ADDED

JOB NO.	9422	Sheet No	5B
of		shts	
File	G/14/5	L.B.	F.B.



ORIGINAL SIZE
mm INCHES
300 12
200 8
150 6
100 4
50 2
30 1
10 0

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049
Cromwell P.O. Box 82 Ph. 50-991

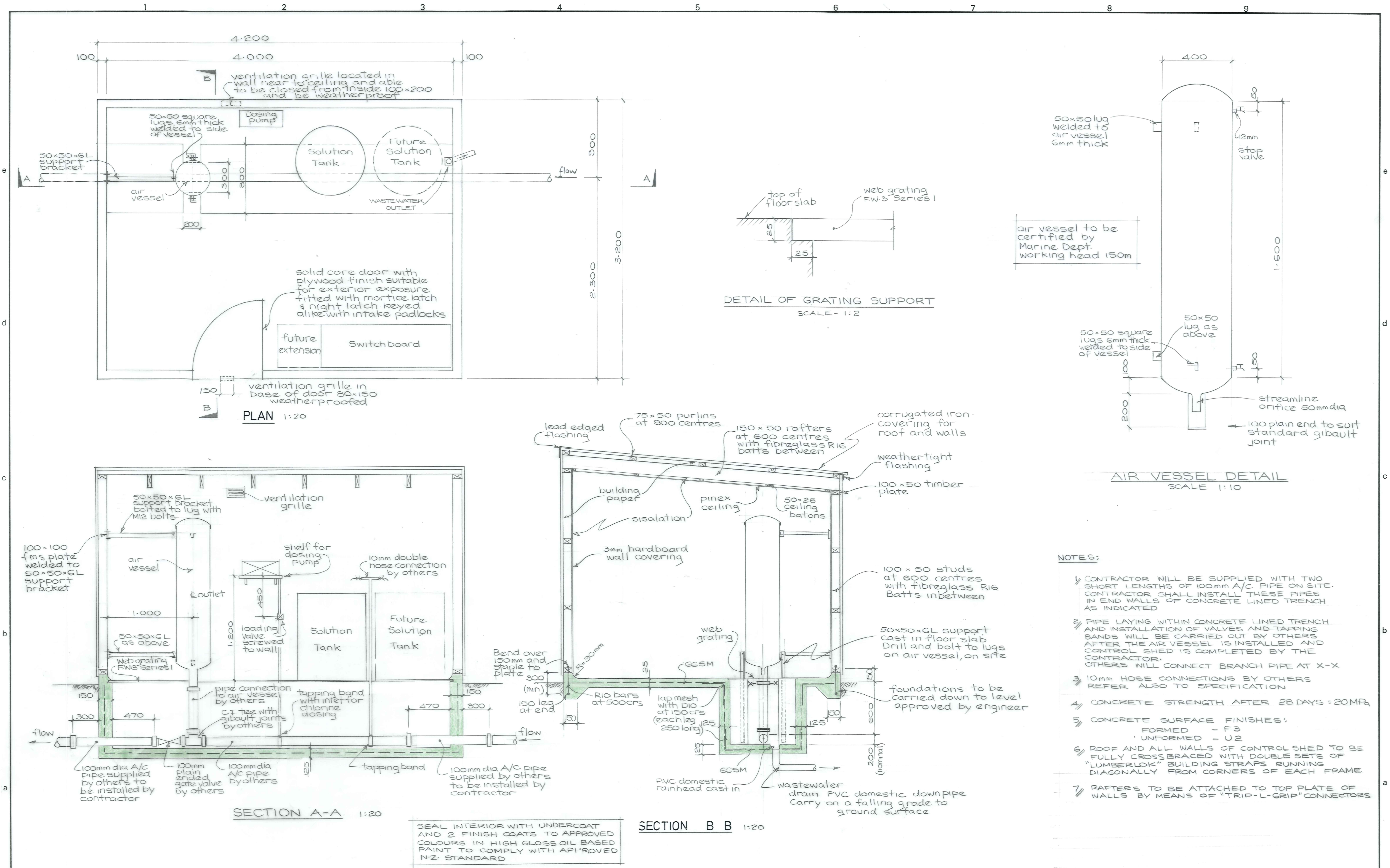
MANIOTOTO COUNTY COUNCIL

**PATEAROA RURAL WATER SUPPLY SCHEME
REINFORCING OF WEIR & PUMP HOUSE**

AMENDMENTS			NAME DATE		JOB NO.	Sheet No		
NO.	BY	DATE	Appvd.	Surveyed	9422	6C		
A	JJK	NOV 80	W.J.B.	Drawn			J. KNOX	AUGUST 80
B	JJK	FEB 81		Calculations			W.J.B.	July 1980
C	DER	NOV 81		Traced			J. KNOX	AUGUST 80
				Checked	W.J.B.	Oct 1980		
				Approved		Oct 80		

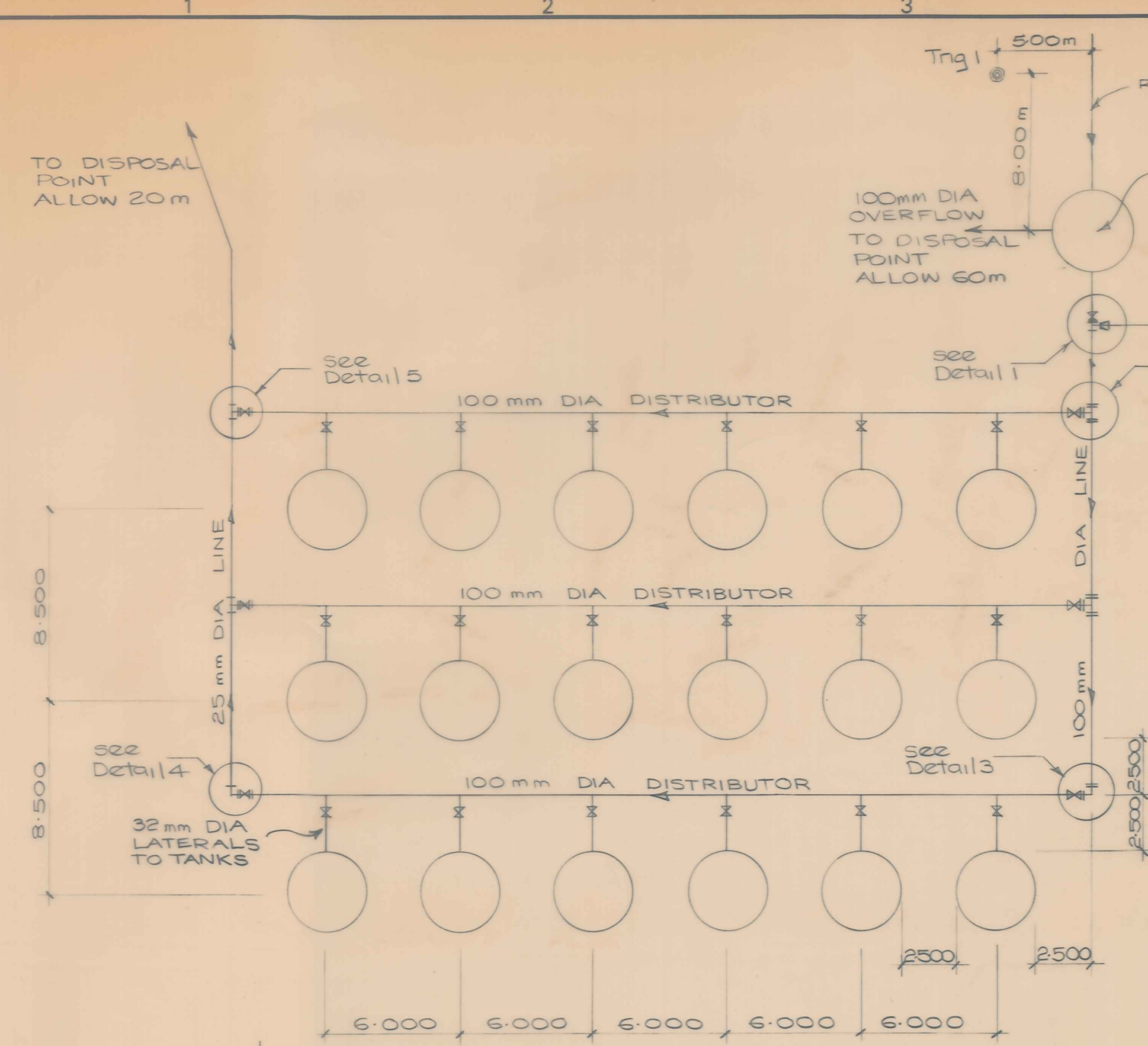
File 9/14/85 L.B. 4/15 422 F.B. -

ORIGINAL SIZE mm INCHES



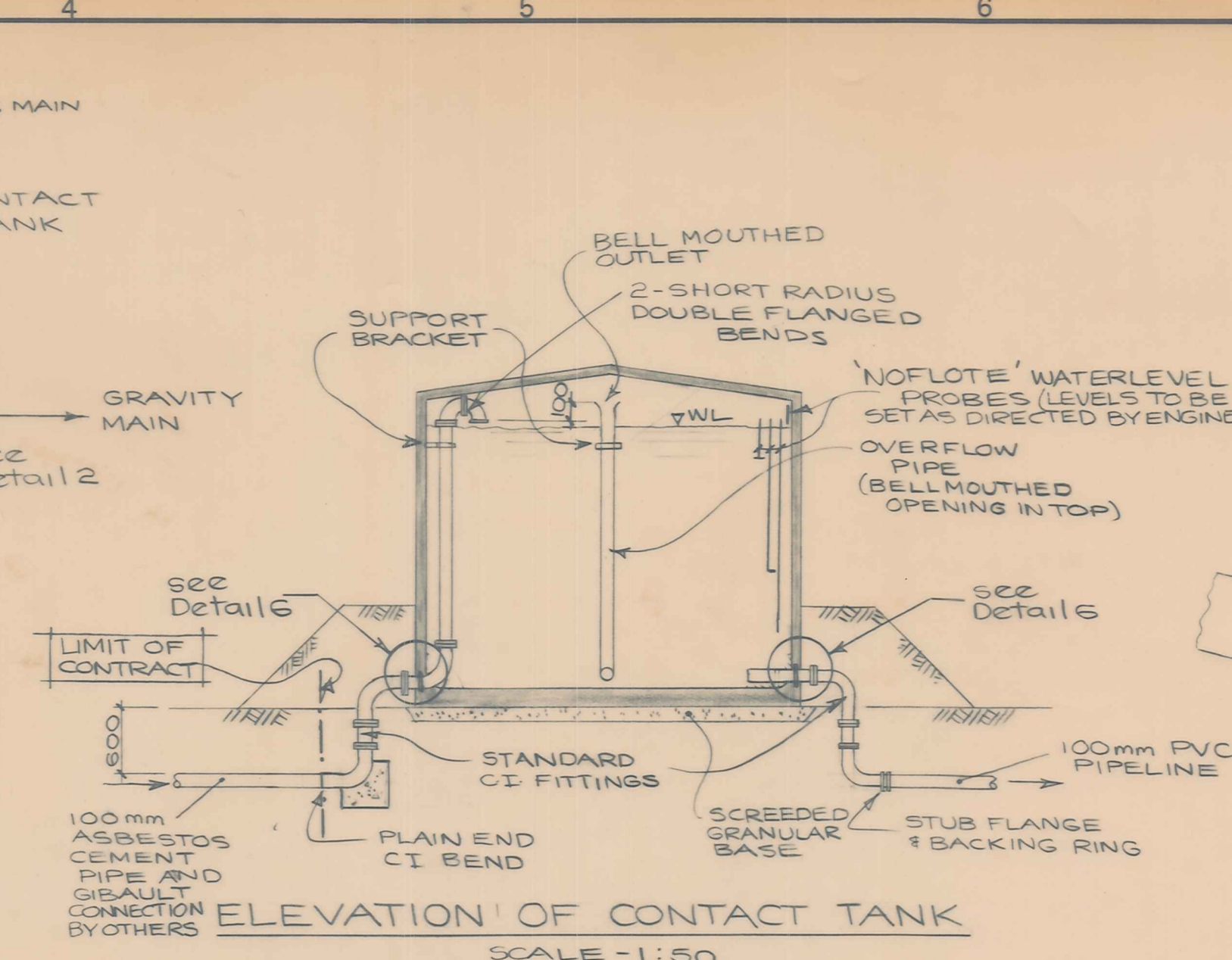
- NOTES:**
- CONTRACTOR WILL BE SUPPLIED WITH TWO SHORT LENGTHS OF 100mm A/C PIPE ON SITE. CONTRACTOR SHALL INSTALL THESE PIPES IN END WALLS OF CONCRETE LINED TRENCH AS INDICATED
 - PIPE LAYING WITHIN CONCRETE LINED TRENCH AND INSTALLATION OF VALVES AND TAPPING BANDS WILL BE CARRIED OUT BY OTHERS AFTER THE AIR VESSEL IS INSTALLED AND CONTROL SHED IS COMPLETED BY THE CONTRACTOR. OTHERS WILL CONNECT BRANCH PIPE AT X-X
 - 10mm HOSE CONNECTIONS BY OTHERS REFER ALSO TO SPECIFICATION
 - CONCRETE STRENGTH AFTER 28 DAYS = 20MPa
 - CONCRETE SURFACE FINISHES:
FORMED - F3
UNFORMED - U2
 - ROOF AND ALL WALLS OF CONTROL SHED TO BE FULLY CROSS BRACED WITH DOUBLE SETS OF "LUMBERLOK" BUILDING STRAPS RUNNING DIAGONALLY FROM CORNERS OF EACH FRAME
 - RAFTERS TO BE ATTACHED TO TOP PLATE OF WALLS BY MEANS OF "TRIP-L-GRIP" CONNECTORS

DUFFILL WATTS & KING LTD CONSULTING CIVIL & STRUCTURAL ENGINEERS Dunedin P.O. Box 5268 Ph. 777-133 Invercargill P.O. Box 576 Ph. 830-049 Cromwell P.O. Box 82 Ph. 50-391		MANIOTOTO COUNTY COUNCIL		PATEAROA RURAL WATER SUPPLY SCHEME CONTROL SHED DETAILS		AMENDMENTS <table border="1"> <thead> <tr> <th>NO.</th> <th>BY</th> <th>DATE</th> <th>Appvd.</th> <th>Surveyed</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>DER</td> <td>NOV '81</td> <td></td> <td>WASTEWATER TANK POSITION ALTERED</td> </tr> </tbody> </table>		NO.	BY	DATE	Appvd.	Surveyed	A	DER	NOV '81		WASTEWATER TANK POSITION ALTERED	<table border="1"> <thead> <tr> <th>NAME</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>J. KNOX</td> <td>AUGUST 80</td> </tr> <tr> <td>W. J. B.</td> <td>July 1980</td> </tr> <tr> <td>J. KNOX</td> <td>AUGUST 80</td> </tr> <tr> <td>W. J. B.</td> <td>Oct 1980</td> </tr> <tr> <td></td> <td>Oct 80</td> </tr> </tbody> </table>		NAME	DATE	J. KNOX	AUGUST 80	W. J. B.	July 1980	J. KNOX	AUGUST 80	W. J. B.	Oct 1980		Oct 80	JOB NO. 9422		Sheet No 7A	
NO.	BY	DATE	Appvd.	Surveyed																															
A	DER	NOV '81		WASTEWATER TANK POSITION ALTERED																															
NAME	DATE																																		
J. KNOX	AUGUST 80																																		
W. J. B.	July 1980																																		
J. KNOX	AUGUST 80																																		
W. J. B.	Oct 1980																																		
	Oct 80																																		
						of shts		File 6/14/85		L.B. 413 224		F.B. --																							

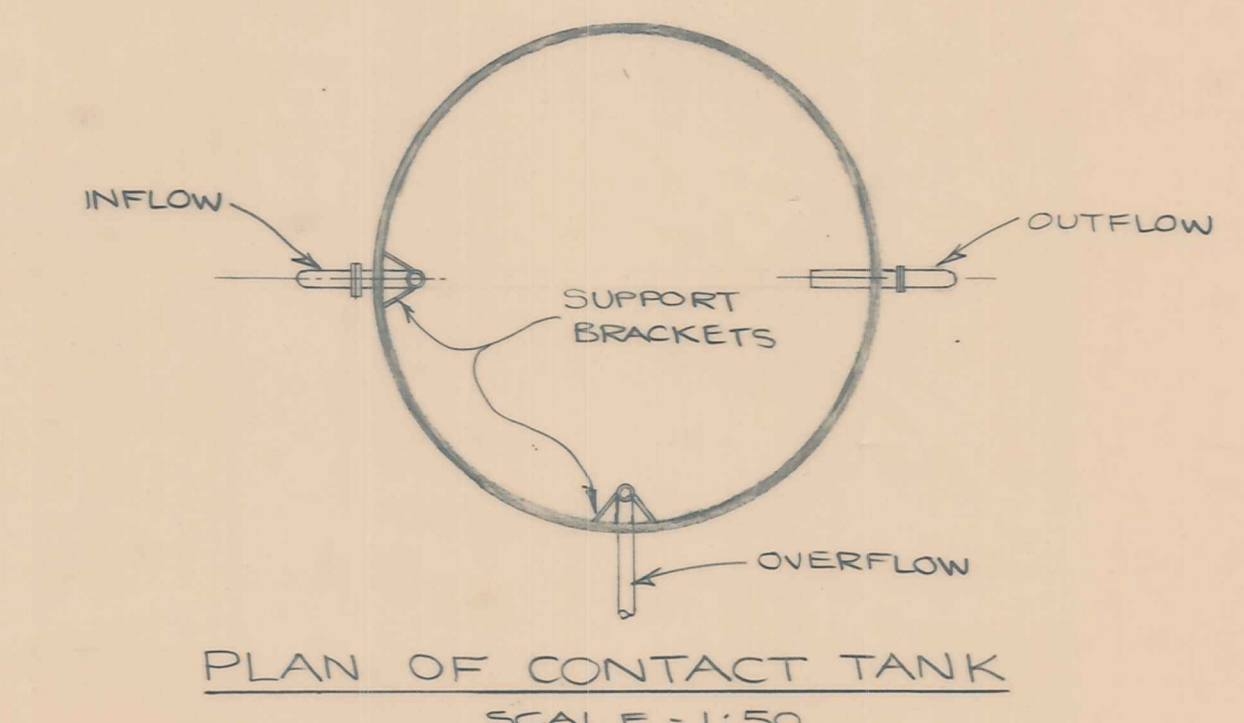


PLAN
SCALE - 1:200

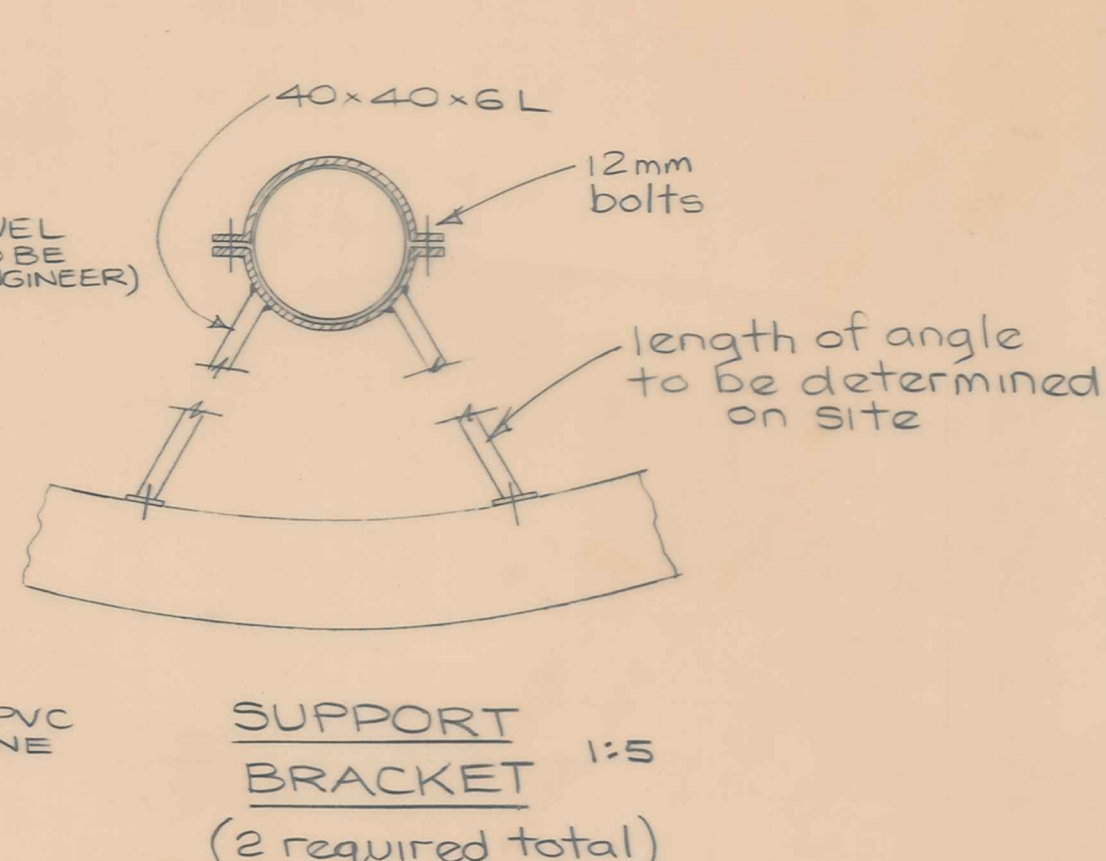
NOTE: ALL TANKS SHOWN ARE 22,700 L TANKS PLACED ON A LEVEL SCREEDED GRANULAR BASE. REFER TO SPECIFICATION



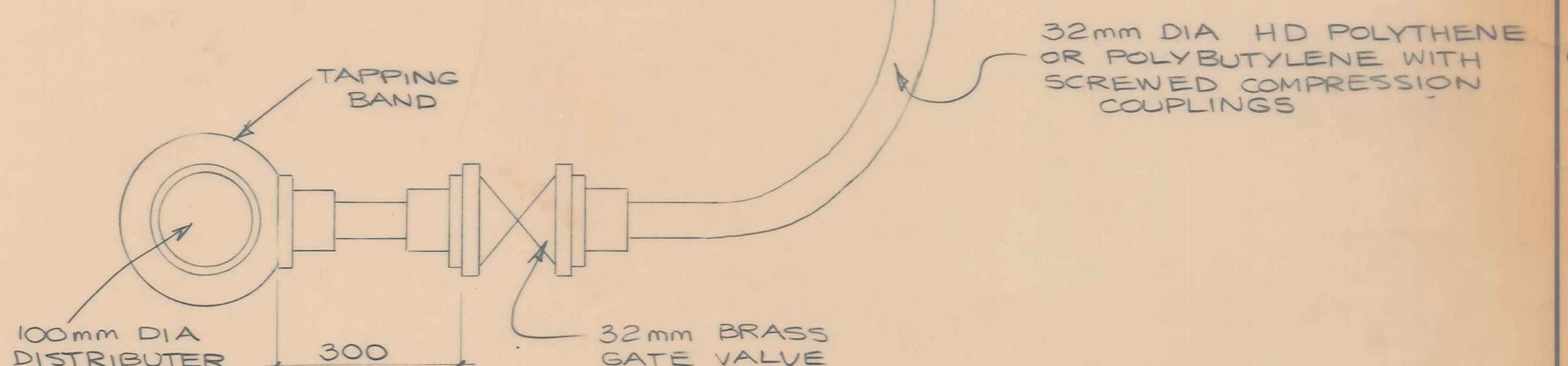
ELEVATION OF CONTACT TANK
SCALE - 1:50



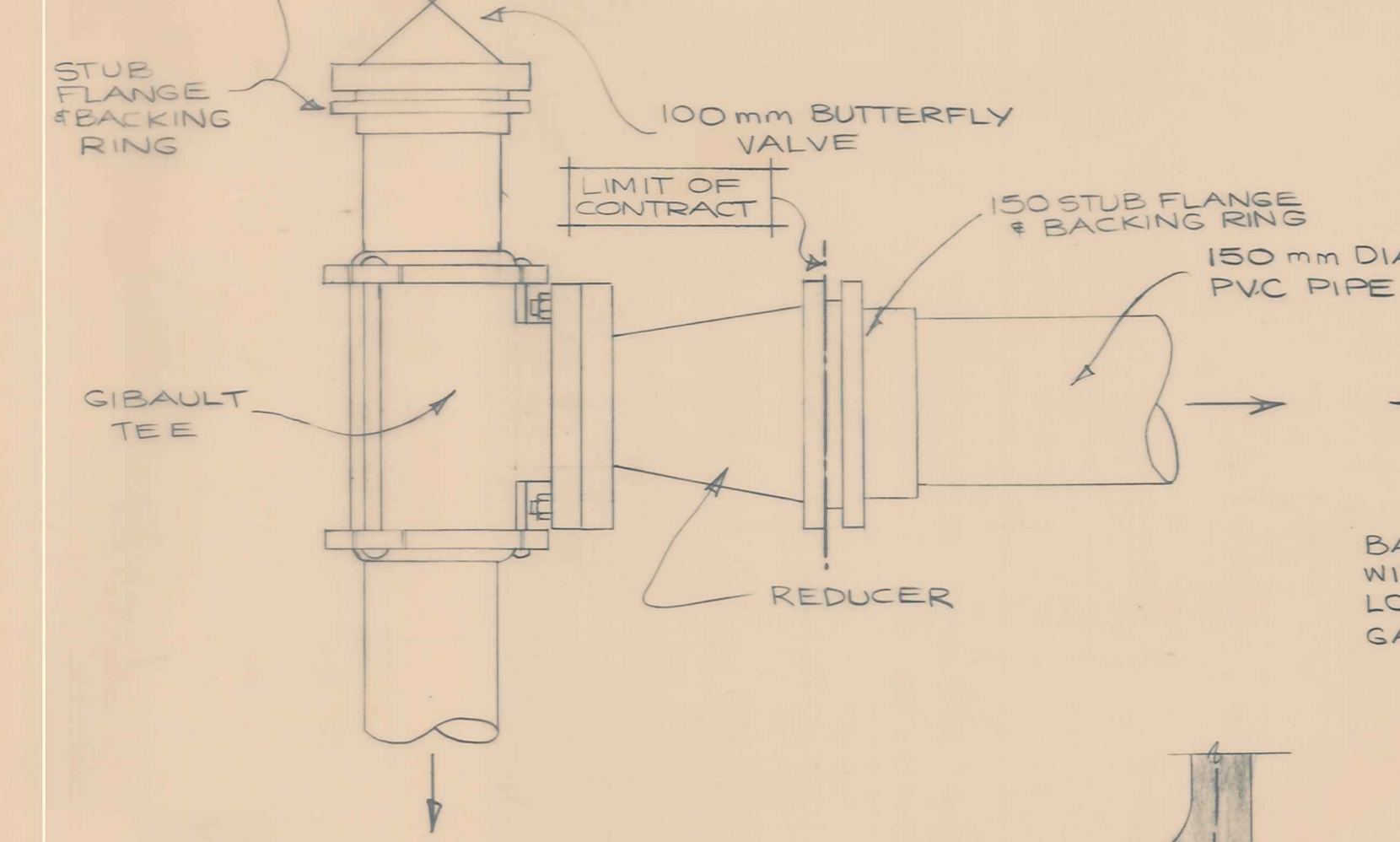
PLAN OF CONTACT TANK
SCALE - 1:50



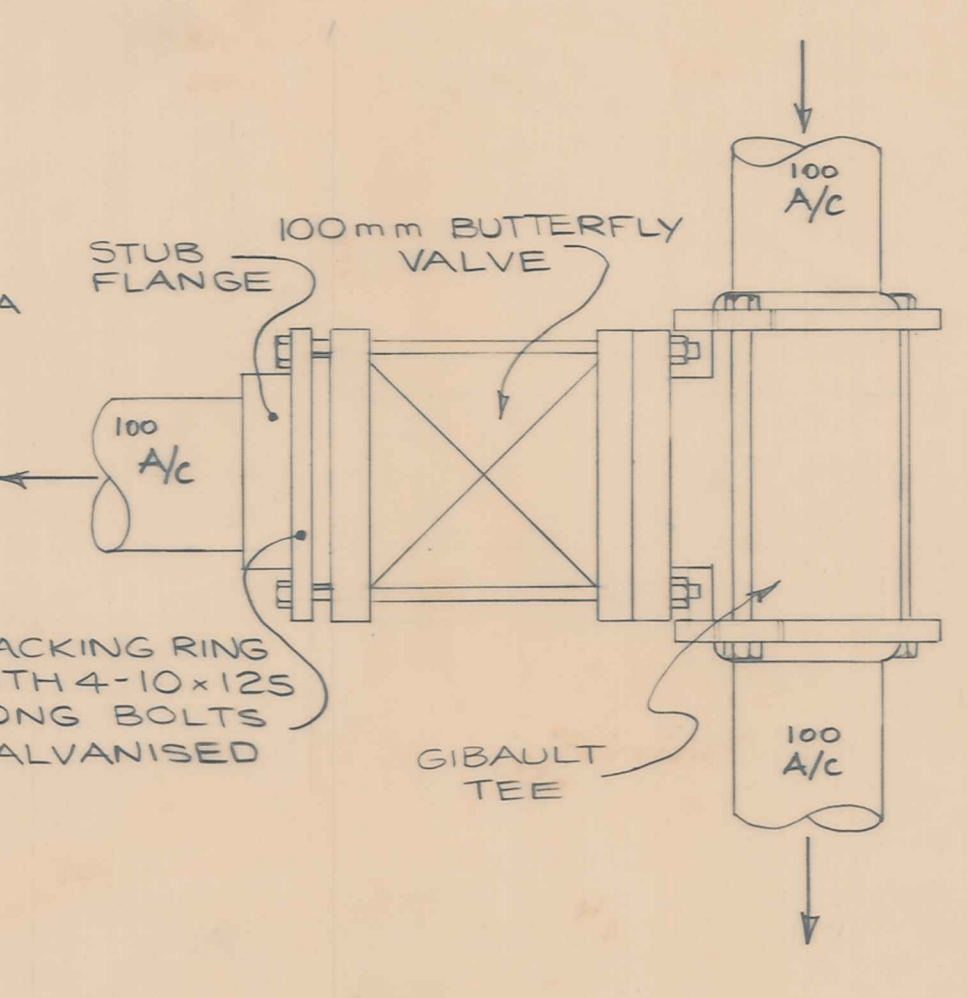
SUPPORT BRACKET 1:5
(2 required total)



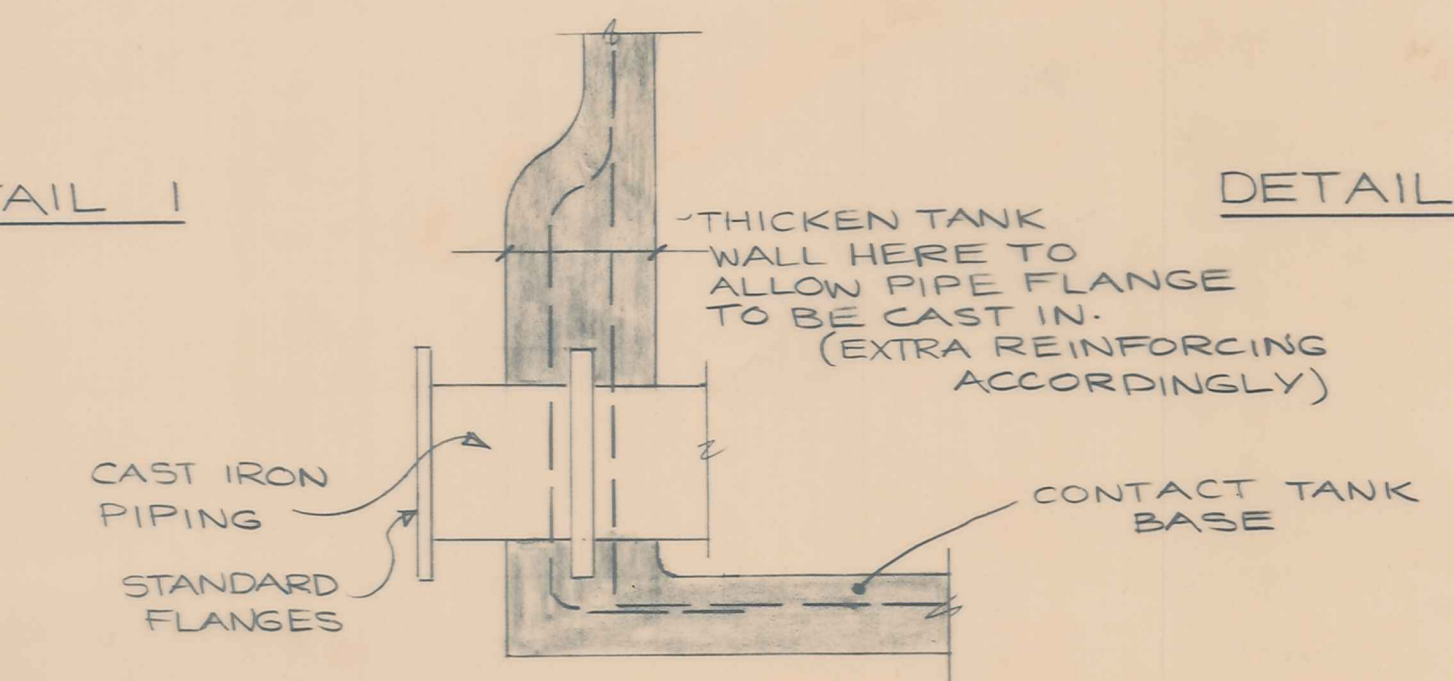
ELEVATION OF 32mm LATERAL FROM 100mm DISTRIBUTOR TO TANK



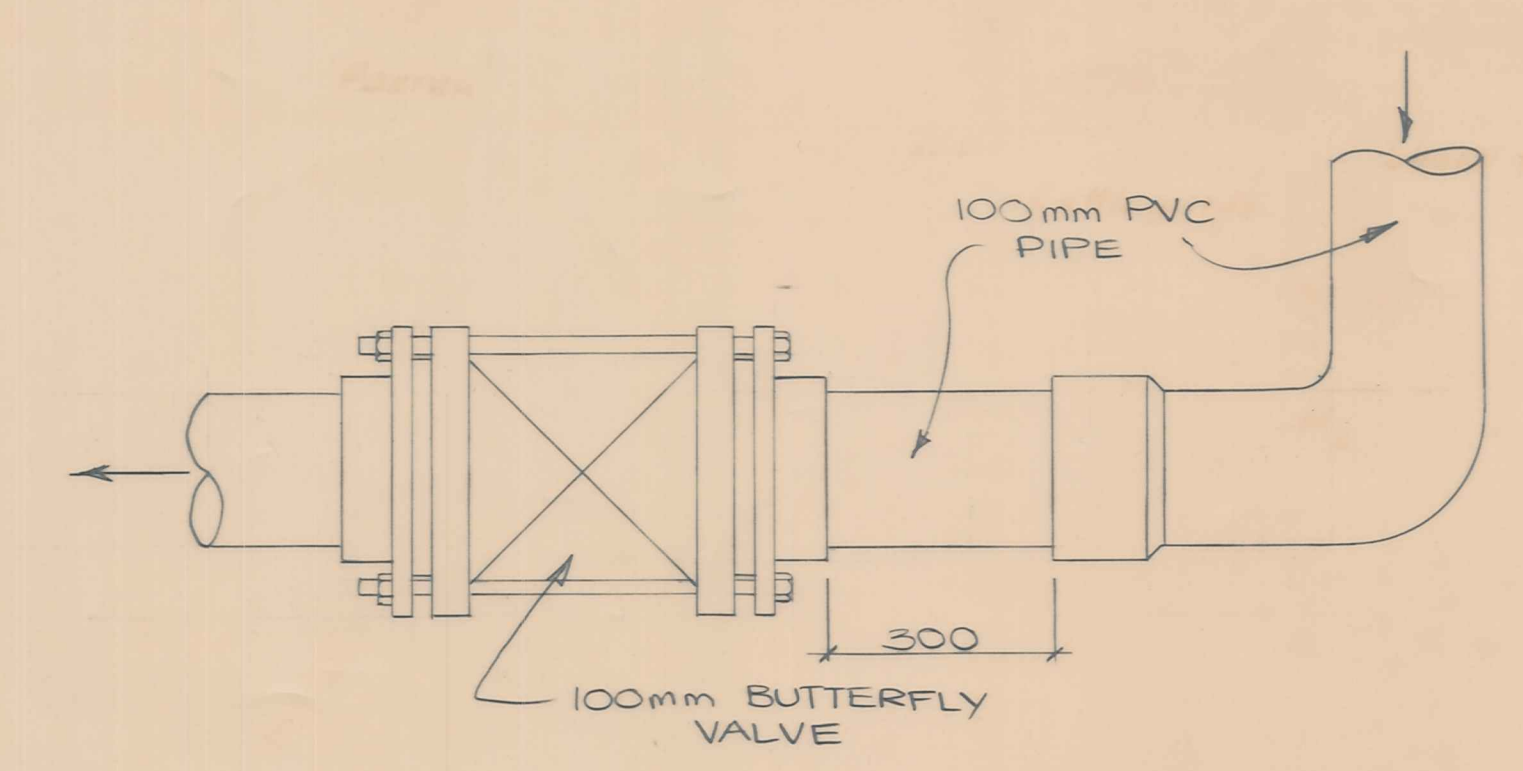
DETAIL 1



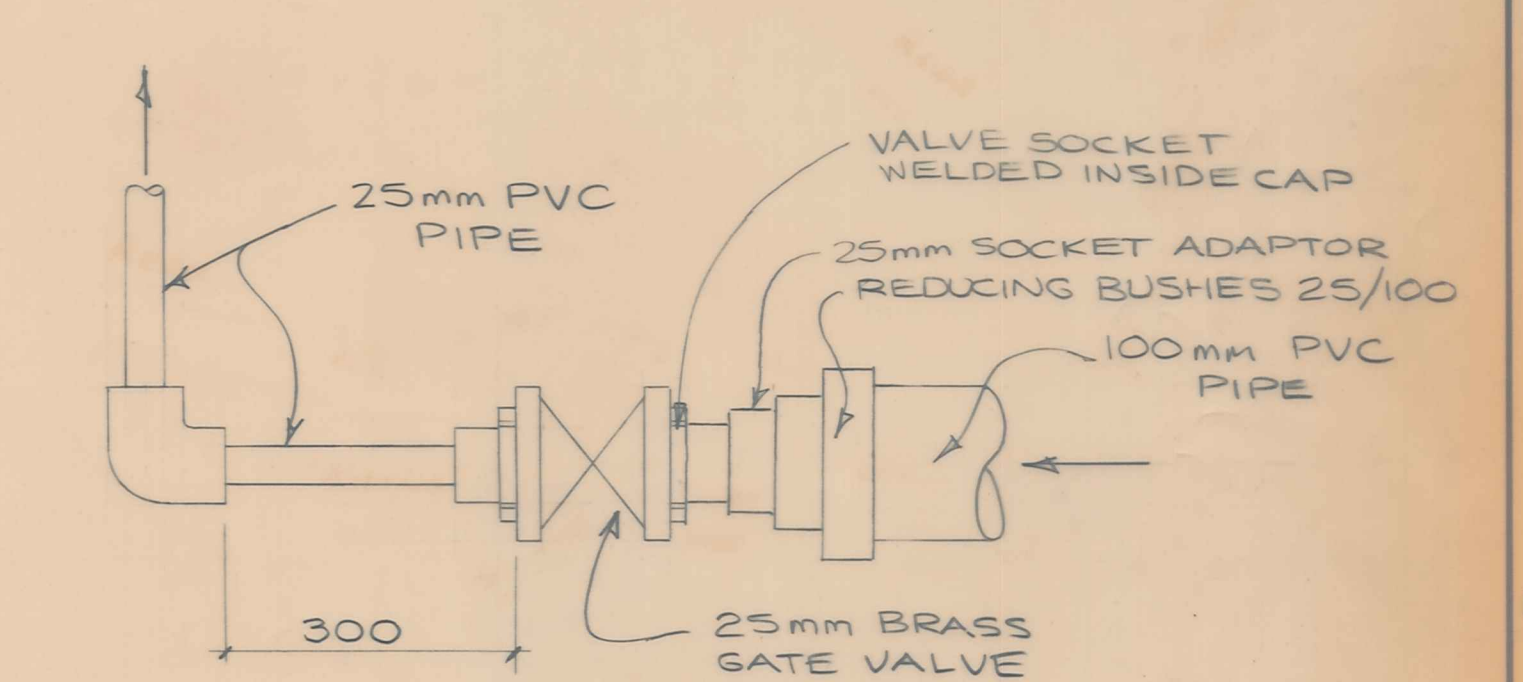
DETAIL 2



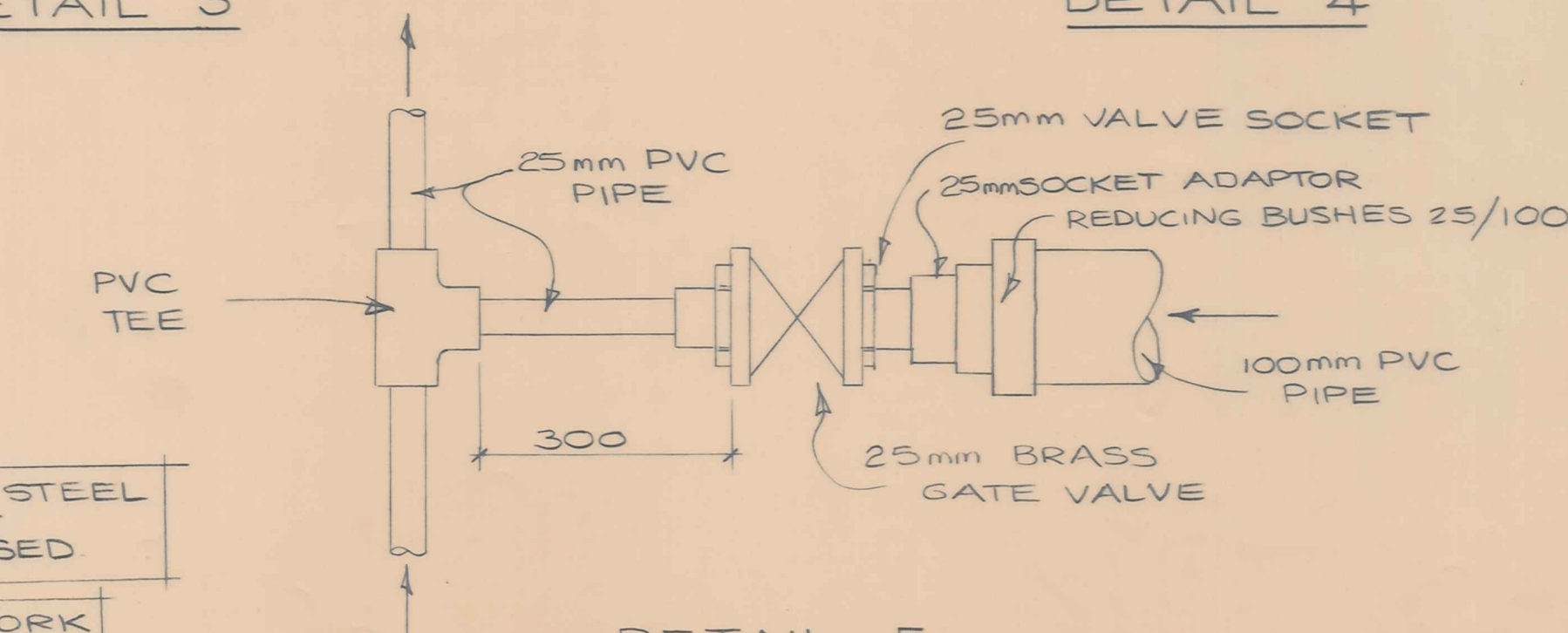
DETAIL 6



DETAIL 3



DETAIL 4



DETAIL 5

NOTE: ALL FABRICATED STEEL WORK TO BE HOT DIPPED GALVANISED

DEPTH TO ALL PIPEWORK SHALL BE 600mm

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin PO Box 5269 Ph 777-133 Invercargill PO Box 576 Ph 83-049
Cromwell PO Box 82 Ph 50-391

MANIOTOTO COUNTY COUNCIL

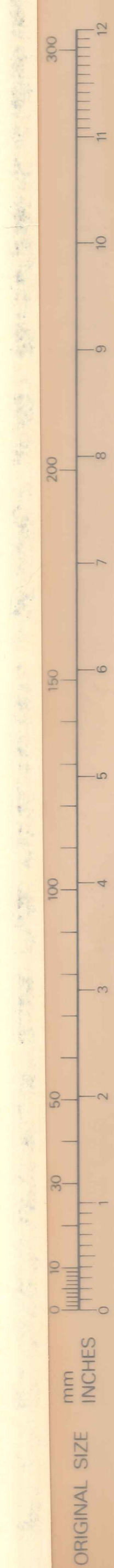
PATEAROA RURAL WATER SUPPLY SCHEME
RESERVOIR DETAILS

AMENDMENTS			NAME		DATE	JOB NO.	Sheet No	
NO.	BY	DATE	Appvd.	Surveyed		9422	8	
				Drawn	J. KNOX			AUGUST 80
				Calculations	W. J. B.			JULY 1980
				Traced	J. KNOX			AUGUST 80
				Checked	J. KNOX			OCT. 1980
				Approved				

File: 6/14/5 L.B. F.B.

PATEAROA RURAL WATER SUPPLY SCHEME

e-Order Filemaster "D" SELF-ADHESIVE PLAN HANGER



ORIGINAL SIZE INCHES
 12
11
10
9
8
7
6
5
4
3
2
1
0
 mm
 SELF-ADHESIVE PLAN HANGER
 Patent Number 137641



DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5289 Ph 777-133 Invercargill P.O. Box 576 Ph 83-049
 Balclutha P.O. Box 220 Ph 81-664 Cromwell P.O. Box 82 Ph 50-391

MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
PIPELINE LAYOUT - OFF FARM RETICULATION

AMENDMENTS			NAME		DATE	JOB NO.	Sheet No	
NO. BY	DATE	Appvd.	Surveyed	BT Kinaston	Nov. 1976	9422	9 of 9 shts	
A. DER. MONY	AS BUILT DETAILS		Drawn	BT Kinaston	Apr. 1980			
			Calculations	DW Jack	Apr. 1980			
			Traced	BT Kinaston	Apr. 1980			
			Checked	BT Kinaston	20/10/80			
			Approved			File 6/10/8	L.B. 366/1541	F.B. -

PATEAROA RURAL WATER SUPPLY.

ORIGINAL SIZE INCHES
 mm
 0 1 2 3 4 5 6 7 8 9 10 11 12

e-Order Filemaster "D"
 SELF-ADHESIVE PLAN HANGER
 Form Number 13784



- KEY
- x MAIN VALVE
 - VALVE/RESTRICTOR LOCATION
 - o AIR VALVE

AS BUILT

Scale 1:10 000

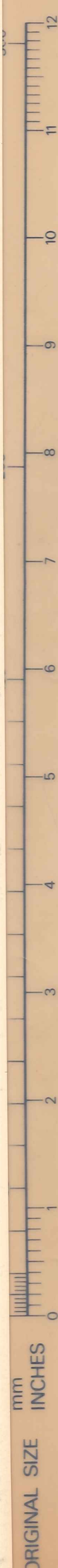
Note:
 Where pipeline runs parallel to fence lines, pipe is to be laid 2-3m off fence inside paddocks, except through Patearoa Township and along Patearoa Road to beyond 'Alnwick' (E.C. Carr) and the full length of Maniototo Road.

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 3269 Ph 777-133 Invercargill P.O. Box 576 Ph 83-049
 Balclutha P.O. Box 220 Ph 81-664 Cromwell P.O. Box 82 Ph 50-391

MANIOTOTO
COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
PIPELINE LAYOUT - OFF FARM RETICULATION

AMENDMENTS				NAME	DATE	JOB NO.	Sheet No
NO.	BY	DATE	AS BUILT DETAILS	Appvd.	BT Kinaston	Nov. 1976	9422
A	DER. MBY				BT Kinaston	Apr. 1980	
					Dw Jack	Mar. 1980	
					BT Kinaston	Apr. 1980	
					BT Kinaston	20/10/80	
				Checked		File 6/14/5	10 ^{ASB}
				Approved		LB 344/1391	of 10 sheets
							F.B. -



- KEY
- MAIN VALVE
 - VALVE/RESTRICTOR LOCATION
 - AIR VALVE

AS BUILT

Note: Where pipeline runs parallel to fence lines, pipe is to be laid 2-3m off fence inside paddocks.

Scale 1:10 000

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph 777-133 Invercargill P.O. Box 576 Ph 83-049
 Balclutha P.O. Box 220 Ph 81-664 Cromwell P.O. Box 82 Ph 50-391

MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
PIPELINE LAYOUT - OFF FARM RETICULATION

AMENDMENTS		NAME	DATE	JOB NO.	Sheet No
NO. BY	DATE			9422	11 ^{As B}
A DER	NOV '81	AS BUILT DETAILS			
Appvd.	Surveyed	BT Kingston	Nov. 1976		
	Drawn	BT Kingston	Apr. 1980		
	Calculations	DW Jack	Mar. 1980		
	Traced	BT Kingston	Apr. 1980		
	Checked	BT Kingston	20/10/80		
	Approved			File 6/14/5	L.B. 366/307

ORIGINAL SIZE
mm INCHES
300
200
150
100
50
0
1 2 3 4 5 6 7 8 9 10 11 12



LEGEND

- TERMINAL WATER TANK (Not included in off-farm works)
- ┌ TAPPING BAND
- └ THREADED BUSH
- ┘ VALVE SOCKET
- × VALVE
- └ VALVE
- ┘ REDUCING BUSH
- ┌ METAL BACKING RING
- └ STUB FLANGE
- ┘ PLAIN 90° BEND
- └ PLAIN CROSS
- VFM UNIT (MARIC INSERT STD SIZE)
- ⊙ VFM UNIT (MARIC INSERT NON STD SIZE)
- VFM UNIT (FIXED ORIFICE NON STD SIZE)
- mu/day METRIC UNITS PER DAY (m³/day)
- 824.50100 SUPPLIER ORDER REFERENCE NUMBER

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin PO Box 52689 Ph: 777-133 Invercargill PO Box 576 Ph: 833-049
Cromwell PO Box 82 Ph: 50-391

MANIOTOTO
COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
DIAGRAMMATIC LAYOUT OF PIPE FITTINGS
FOR OFF FARM WORK

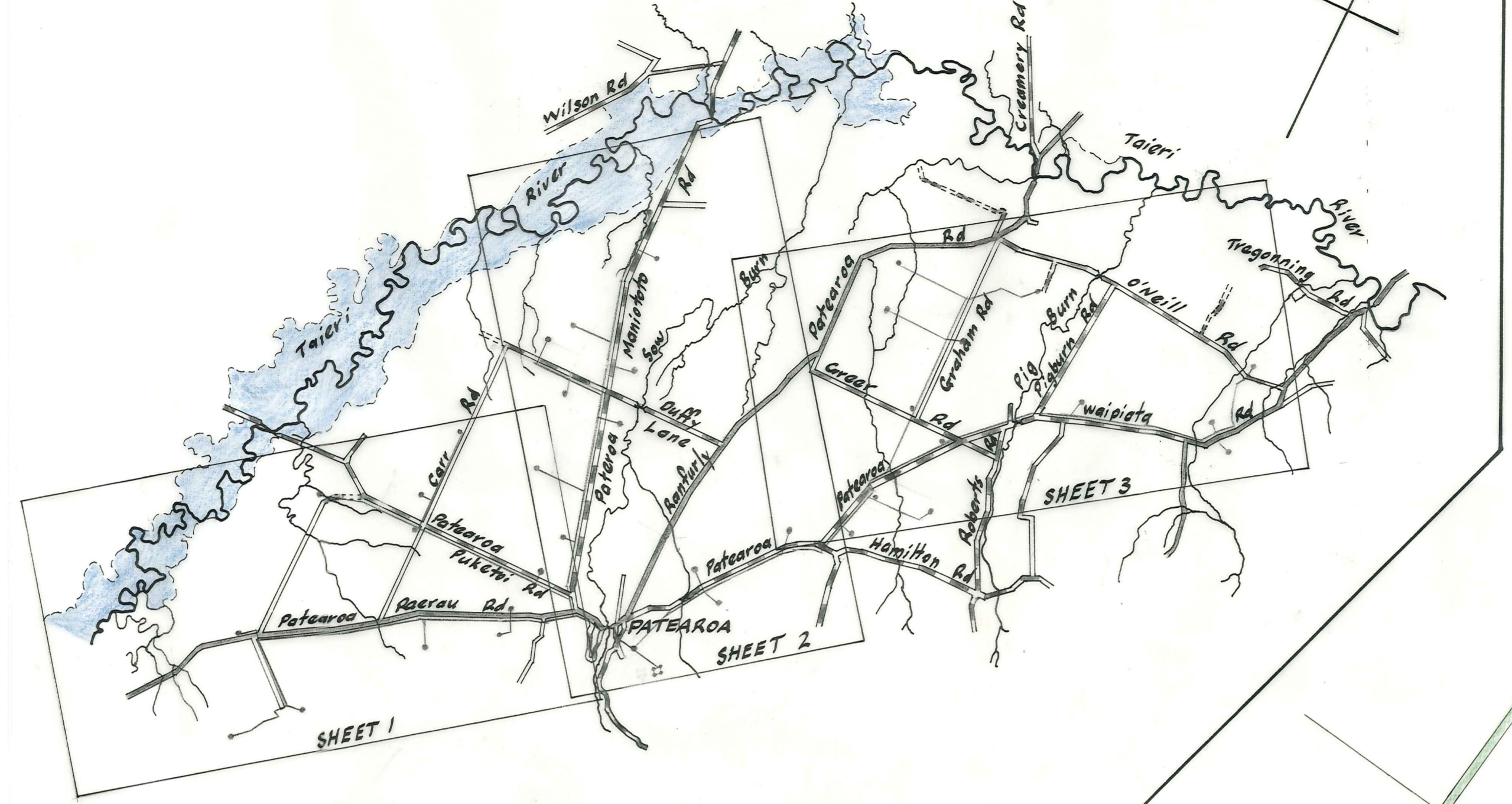
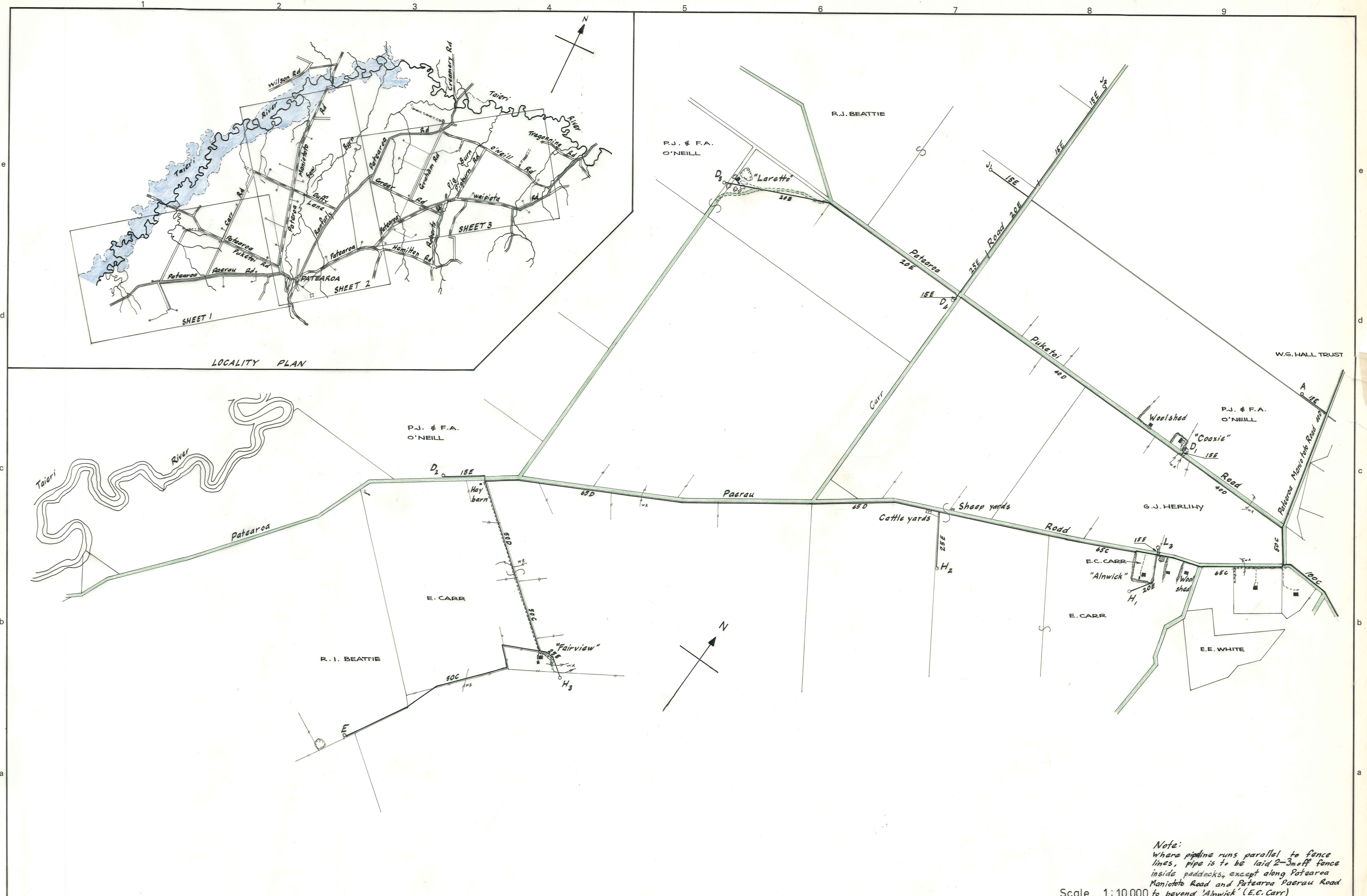
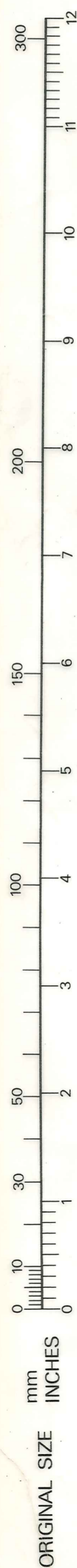
AMENDMENTS			NAME		DATE	JOB NO.	Sheet No
NO	BY	DATE	Drawn	B Kingston	March 1980	9422	12 A+B of 12 shts
A	DWT	10/2/80	Calculations	DWT & POC	May 1980		
			Traced	P Cold cut	Apr 1980		
			Checked		May 1980		
			Approved			File 6/4/5	L.B. F.B.

Patearoa Rural Water Supply (1980)

Order Filemaster "D"

SELF-ADHESIVE PLAN HANGER

Number 137941



Note:
Where pipeline runs parallel to fence lines, pipe is to be laid 2-3m off fence inside paddocks, except along Patearoa Maniototo Road and Patearoa Paerau Road to beyond 'Alnwick' (E.C. Carr)

Scale 1:10 000

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin PO Box 5269 Ph 777-133 Invercargill PO Box 576 Ph 83-049
Balclutha PO Box 220 Ph 61-664 Cromwell PO Box 82 Ph 50-391

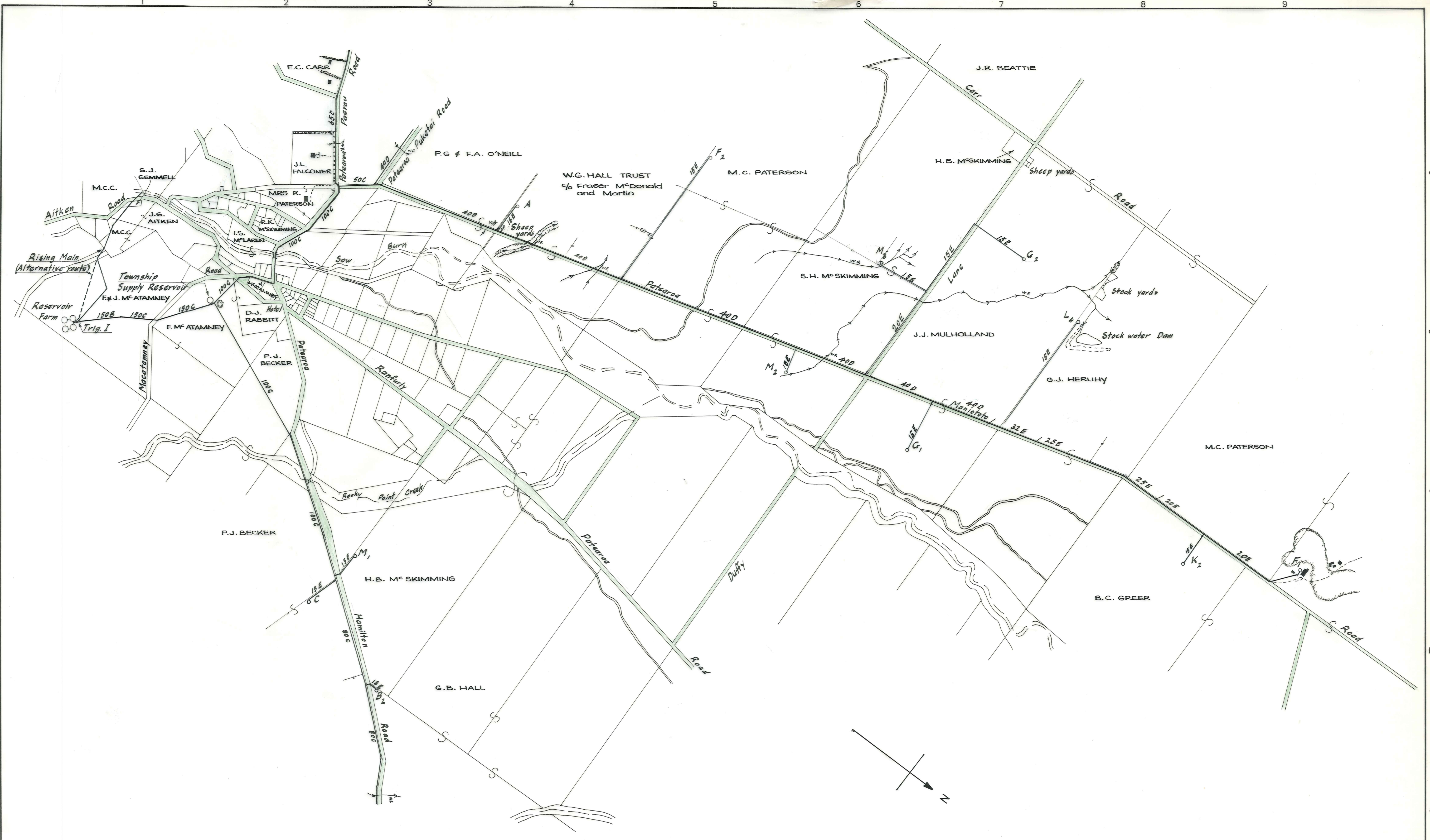
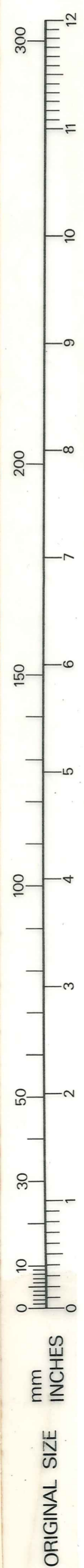
MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
PIPELINE LAYOUT - OFF FARM RETICULATION

AMENDMENTS			NAME		DATE	JOB NO.	Sheet No
NO.	BY	DATE	Appvd.	Surveyed	BT Kinaston	Nov. 1976	9422 of 9 sheets
				Drawn	BT Kinaston	Apr. 1980	
				Calculations	DW Jack	Apr. 1980	
				Traced	BT Kinaston	Apr. 1980	
				Checked	[Signature]	30/10/80	
				Approved	[Signature]		

File 6/12/5 L.B. 366/391 F.B. -

Patearoa Rural Water Supply (1980)



Note:
Where pipeline runs parallel to fence lines, pipe is to be laid 2-3m off fence inside paddocks, except through Patearoa township and along Paerau Road to beyond 'Anwick' (E.C. Carr) and the full length of Maniototo Road.

Scale 1:10 000

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049
Balclutha P.O. Box 220 Ph. 81-664 Cromwell P.O. Box 82 Ph. 56-391

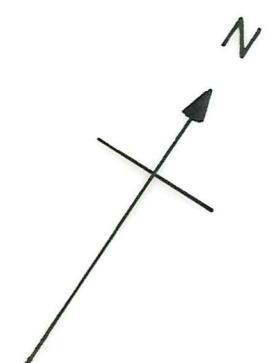
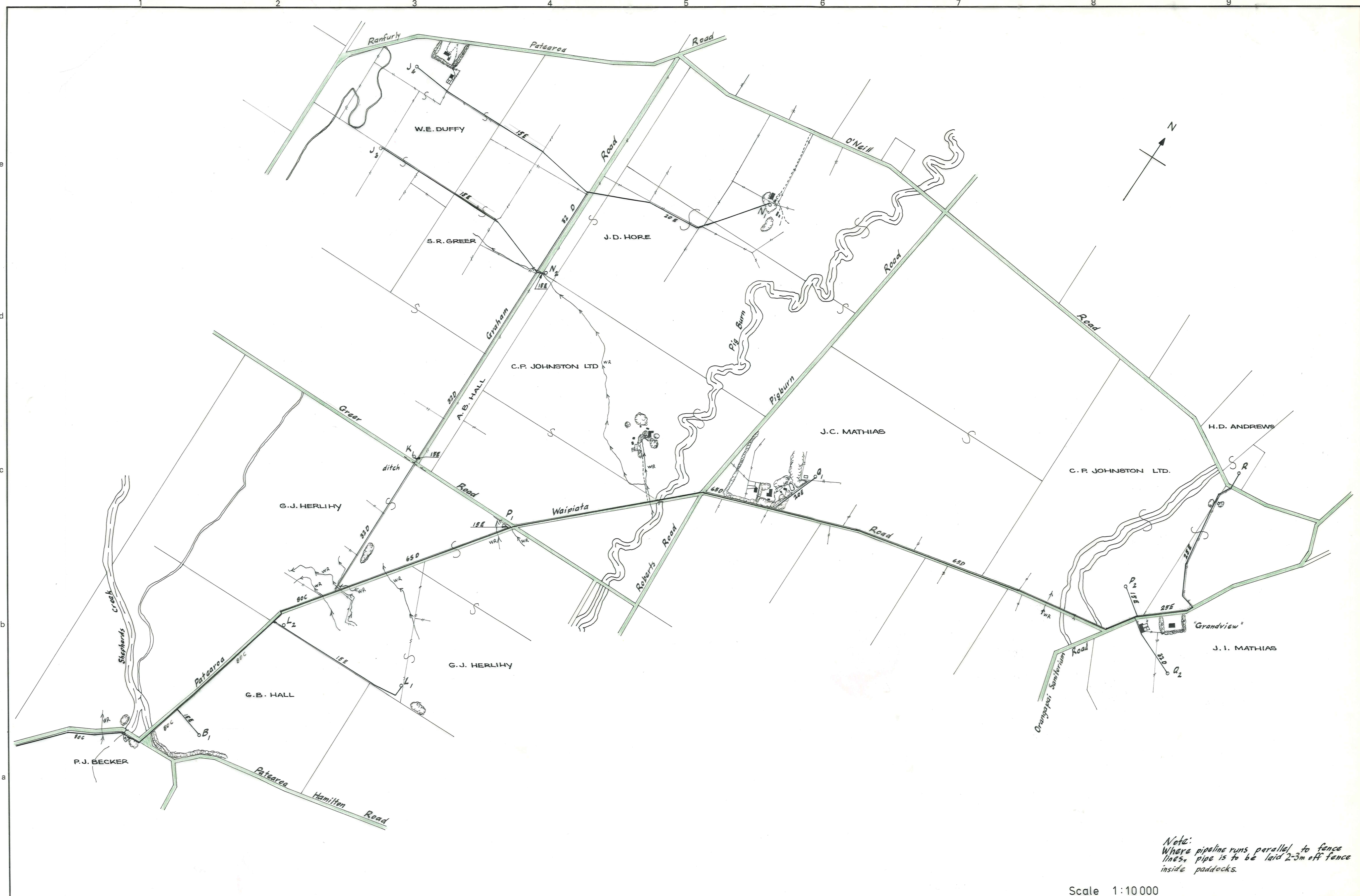
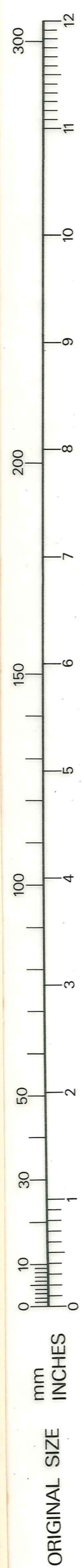
MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
PIPELINE LAYOUT - OFF FARM RETICULATION

AMENDMENTS				NAME	DATE	JOB NO.	Sheet No
NO.	BY	DATE	Appvd.	Surveyed	B.T. Kinaston	Nov. 1976	9422 10 of sheets
				Drawn	B.T. Kinaston	Apr. 1980	
				Calculations	Dw. Jack	Mar. 1980	
				Traced	B.T. Kinaston	Apr. 1980	
				Checked	D. Jack	20/10/80	
				Approved	[Signature]		File 6/14/85

Order Filemaster "D"
SELF-ADHESIVE PLAN HANGER
Number 137841

Patearoa Rural Water Supply (1980)



Note: Where pipeline runs parallel to fence lines, pipe is to be laid 2-3m off fence inside paddocks.

Scale 1:10 000

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O.Box 5269 Ph.777-133 Invercargill P.O.Box 576 Ph.833-049
 Balclutha P.O.Box 220 Ph.81-664 Cromwell P.O.Box 82 Ph.50-391

MANIOTOTO COUNTY COUNCIL

PATEAROA RURAL WATER SUPPLY
PIPELINE LAYOUT - OFF FARM RETICULATION

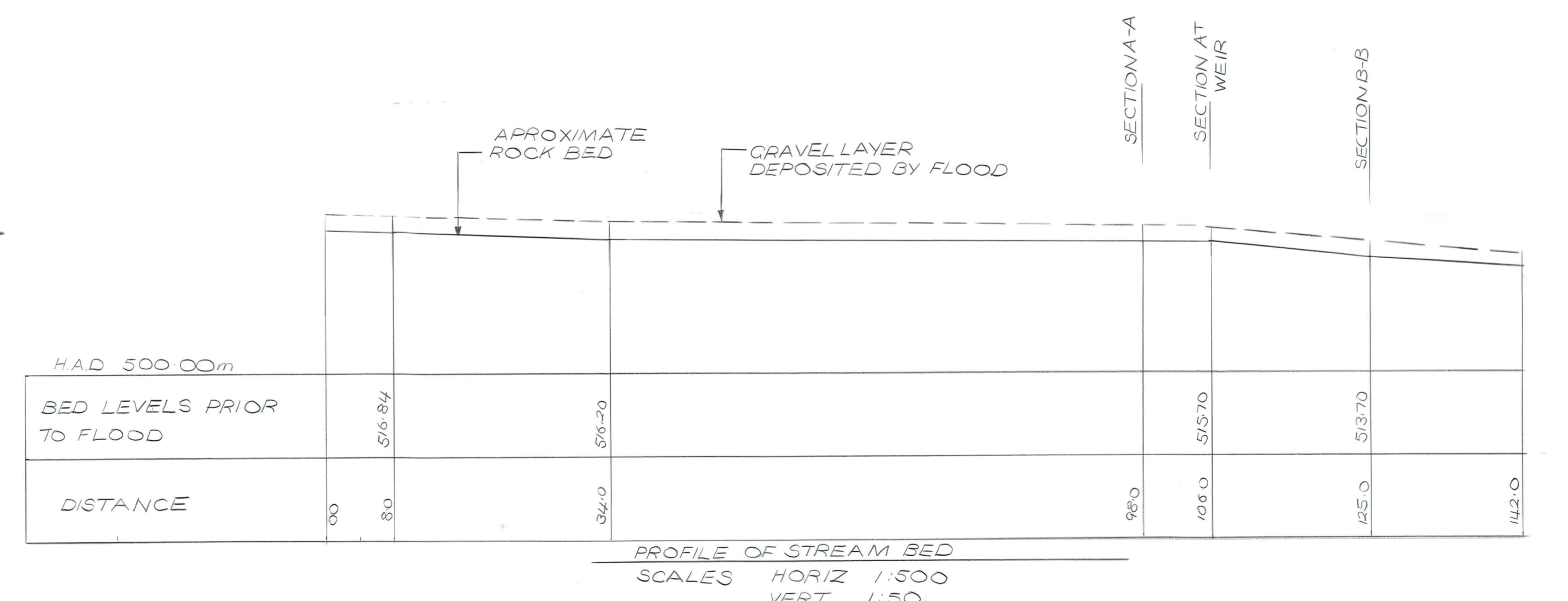
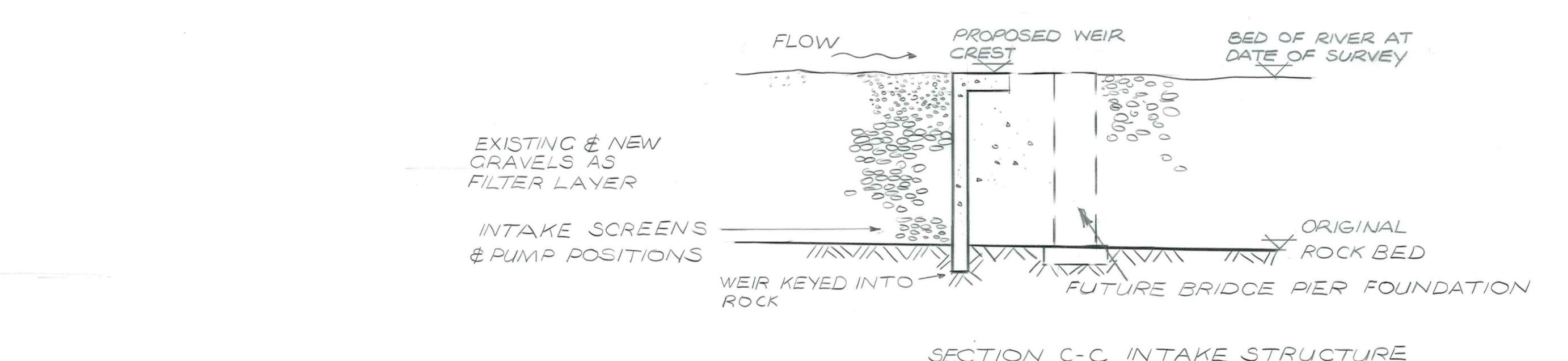
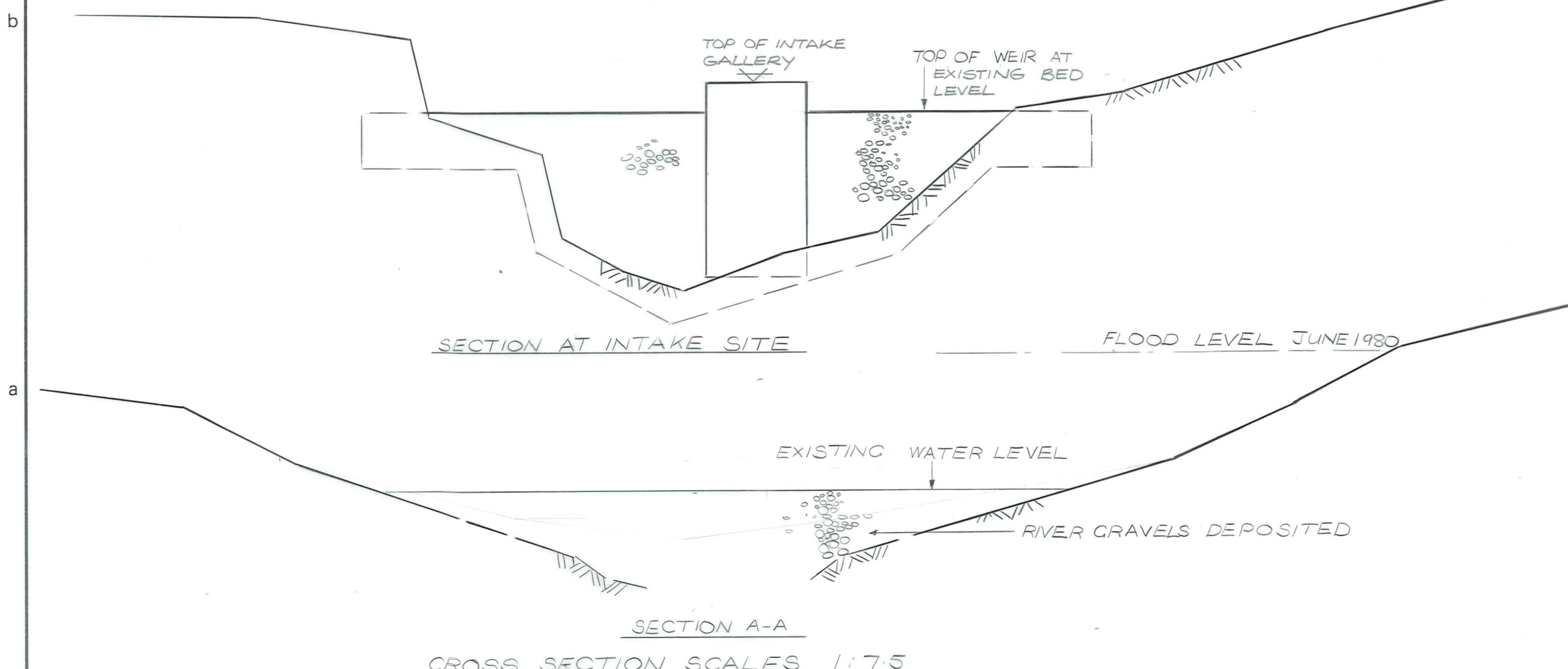
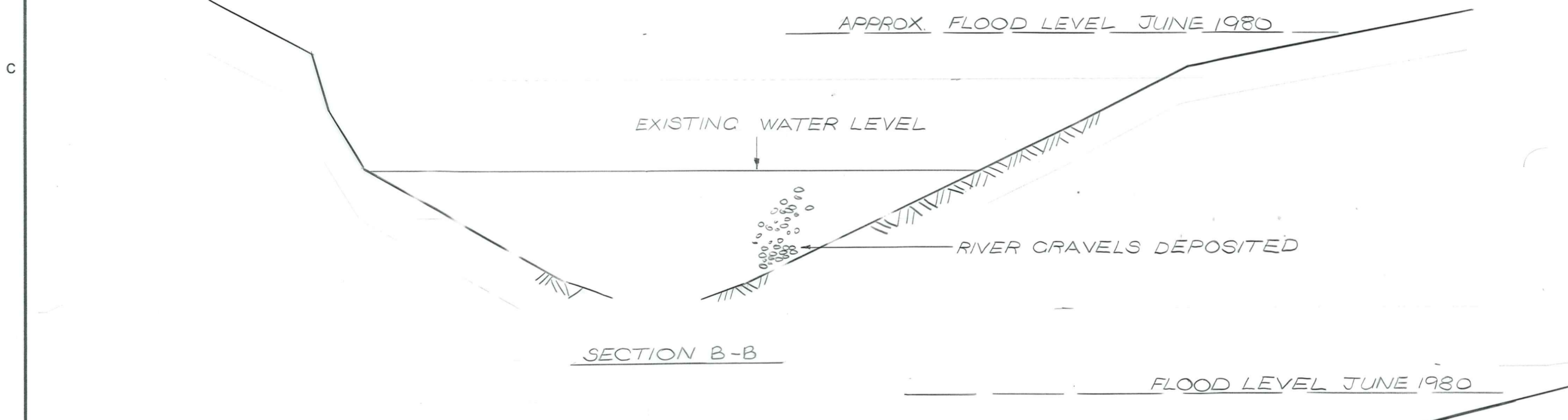
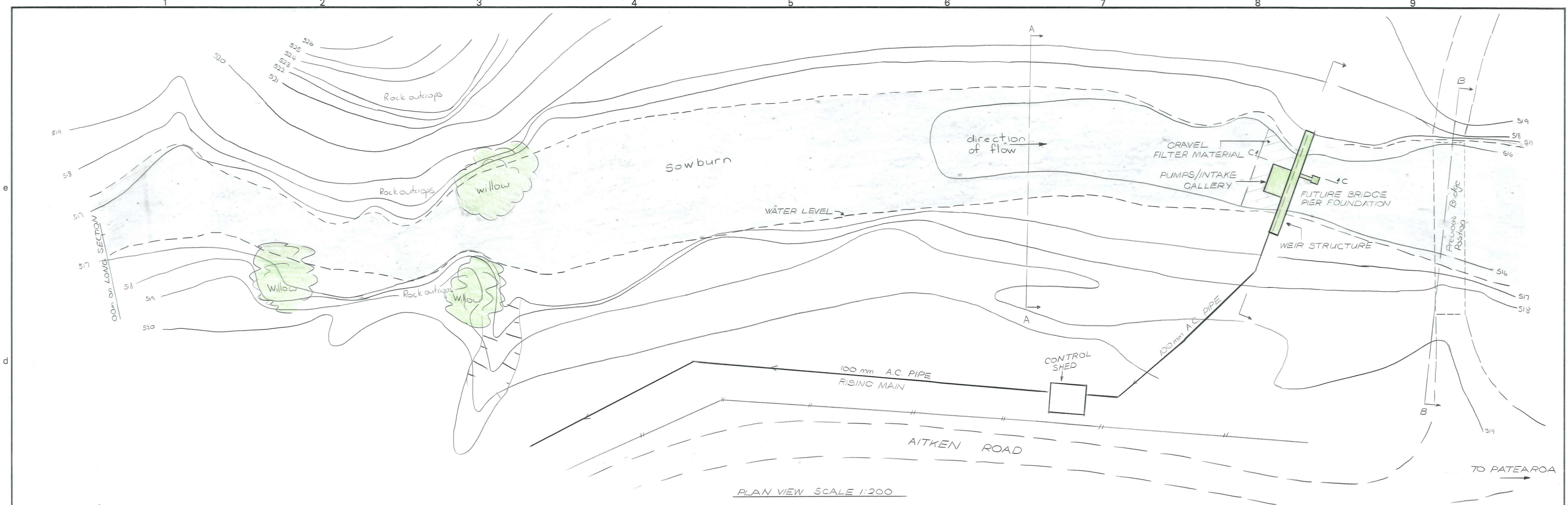
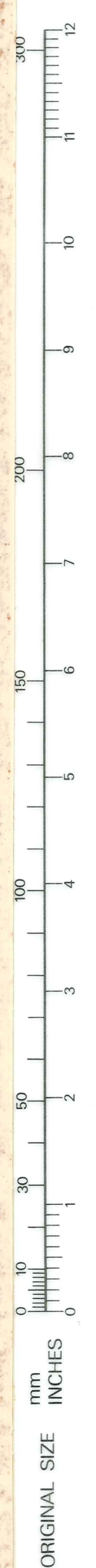
AMENDMENTS				NAME	DATE	JOB NO.	Sheet No
NO.	BY	DATE	Appvd.				of sheets
				BT Kinaston	Nov. 1976	9422	11
				BT Kinaston	Apr. 1980		
				DW Jack	Mar. 1980		
				BT Kinaston	Apr. 1980		
				Checked	20/10/80		
				Approved	20/10/80		

File 6/14/5 L.B. 366/241 F.B. -

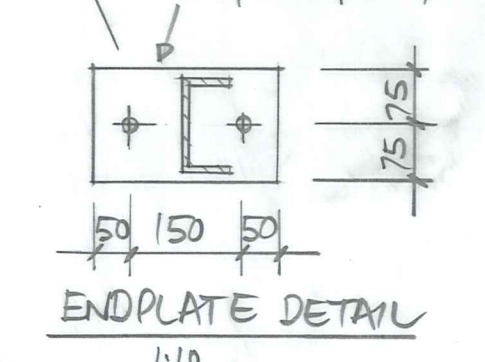
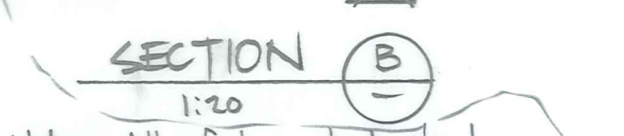
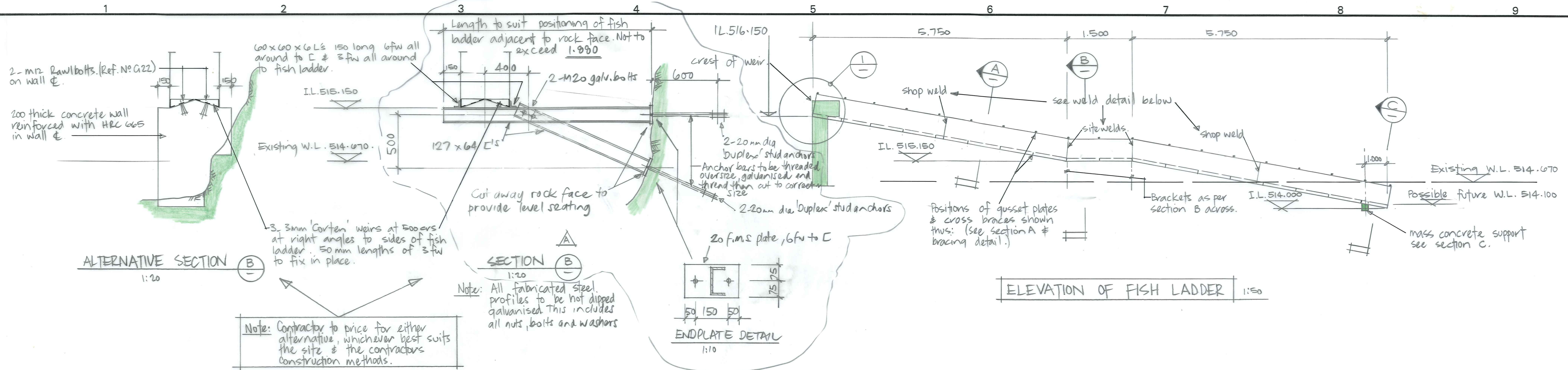
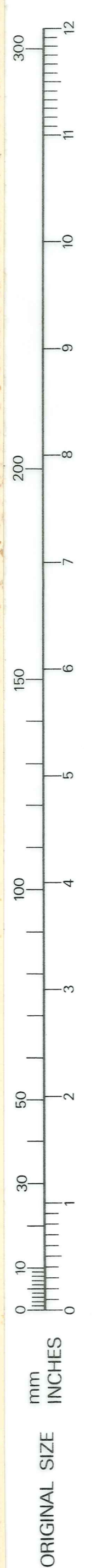
Order Filemaster "D" SELF-ADHESIVE PLAN HANGER Number 137841

9422/13
 M.C.C. - Patearoa Rural Water Supply
 Scheme - Proposed Water Intake
 Structure.

Re-Order Filemaster "D"
 SELF-ADHESIVE PLAN HANGER
 Patent Number 137841

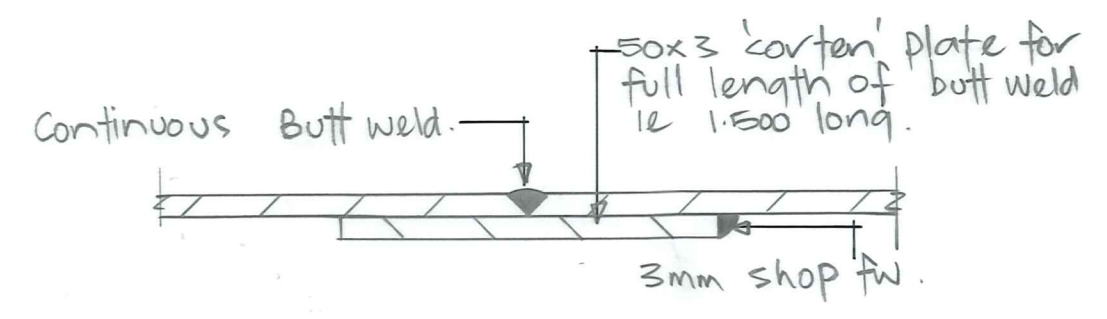
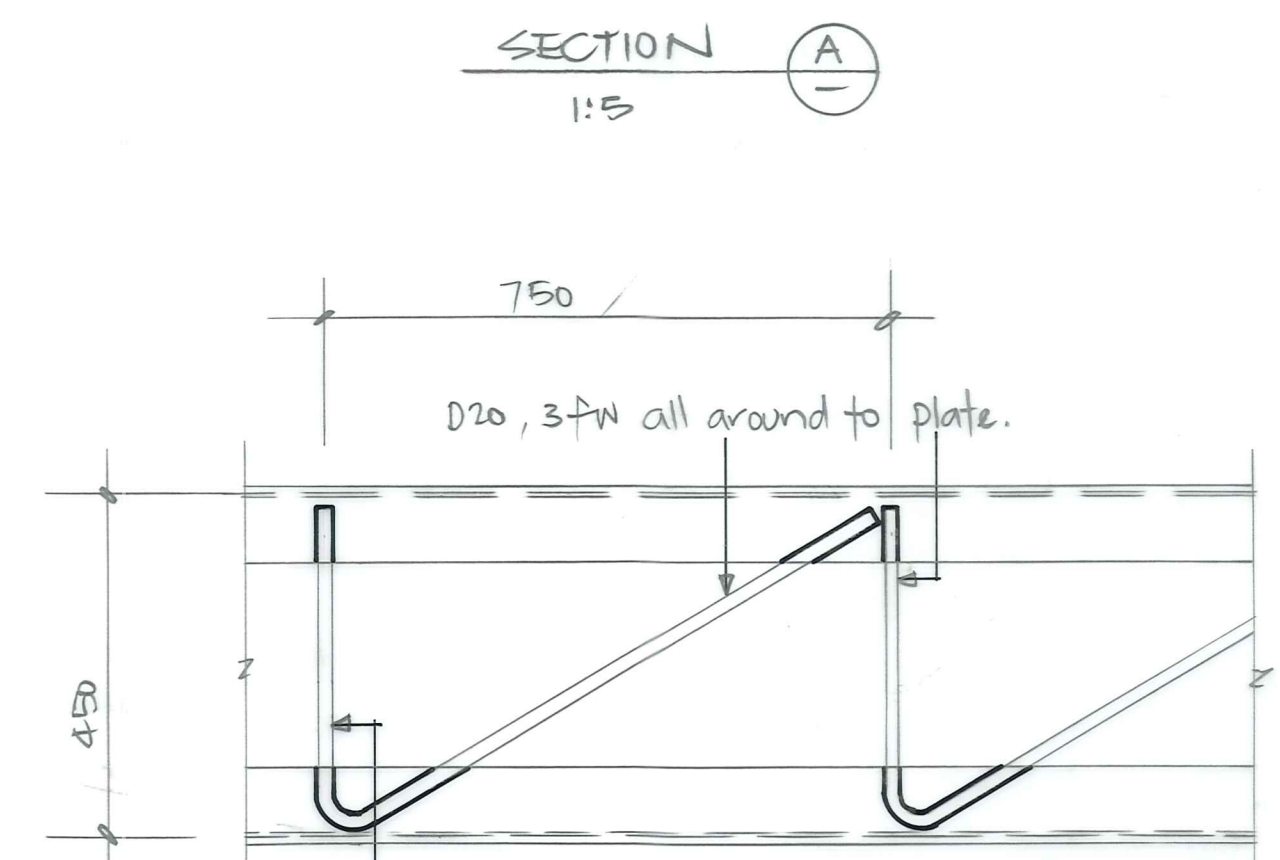
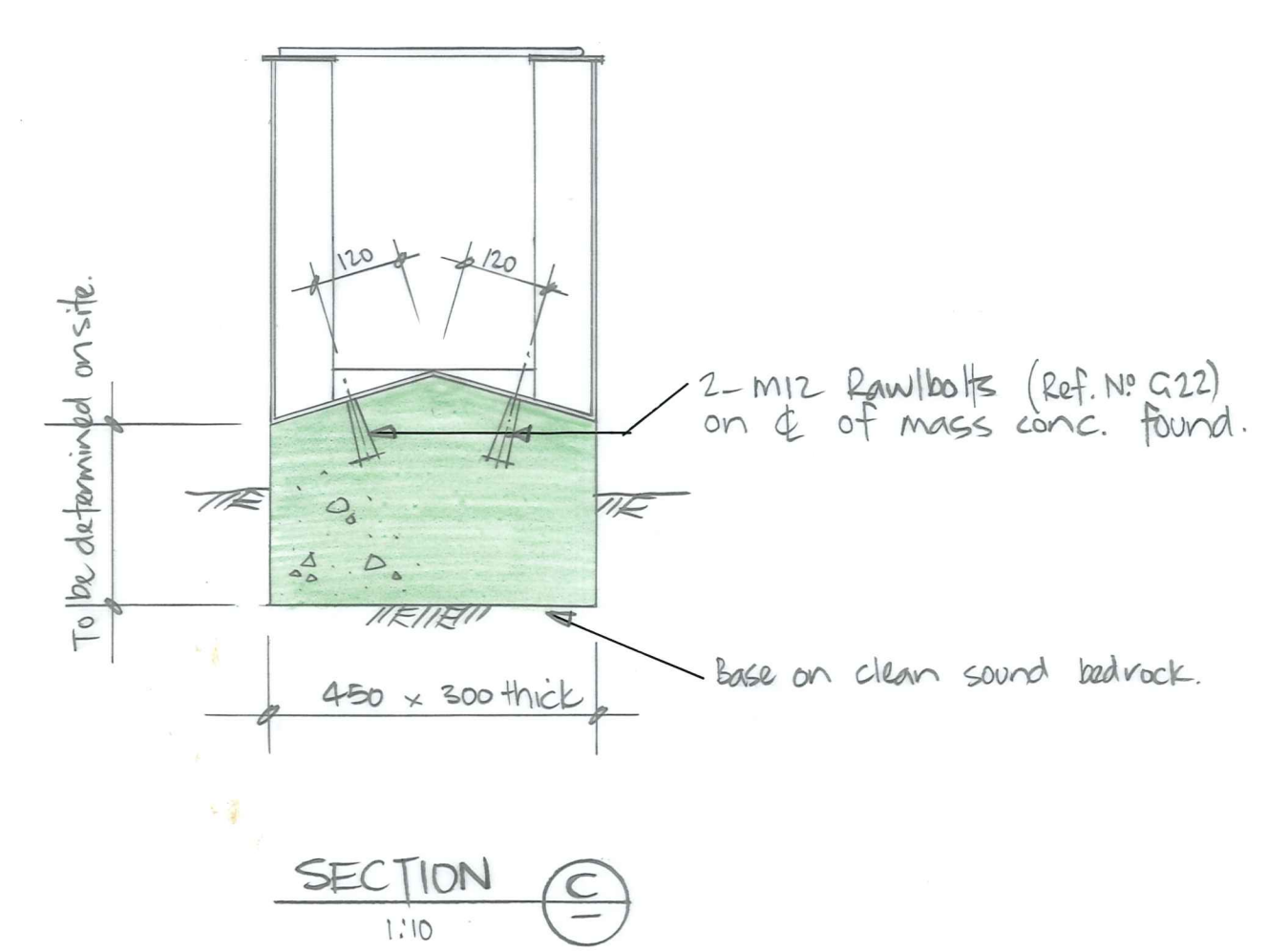
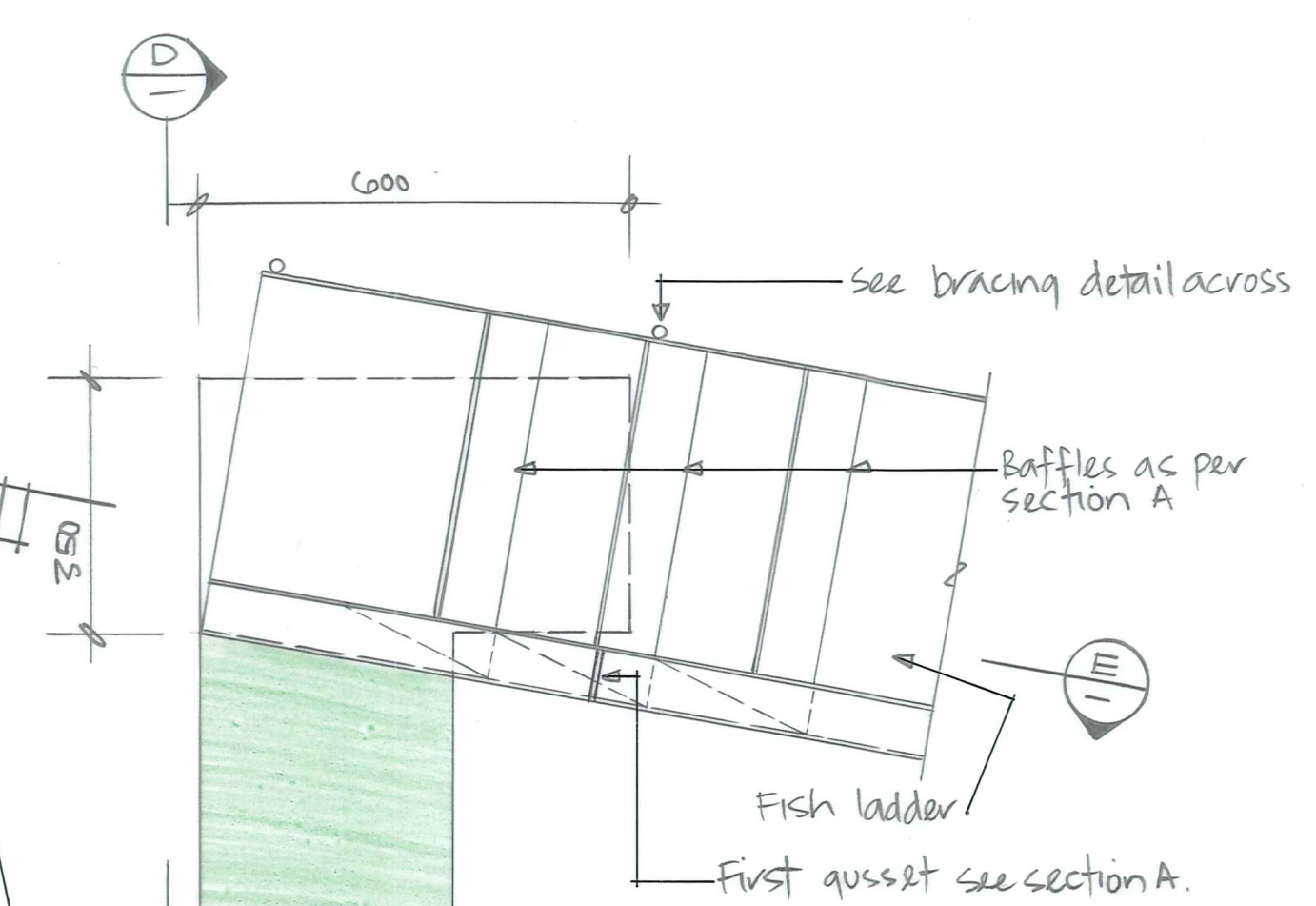
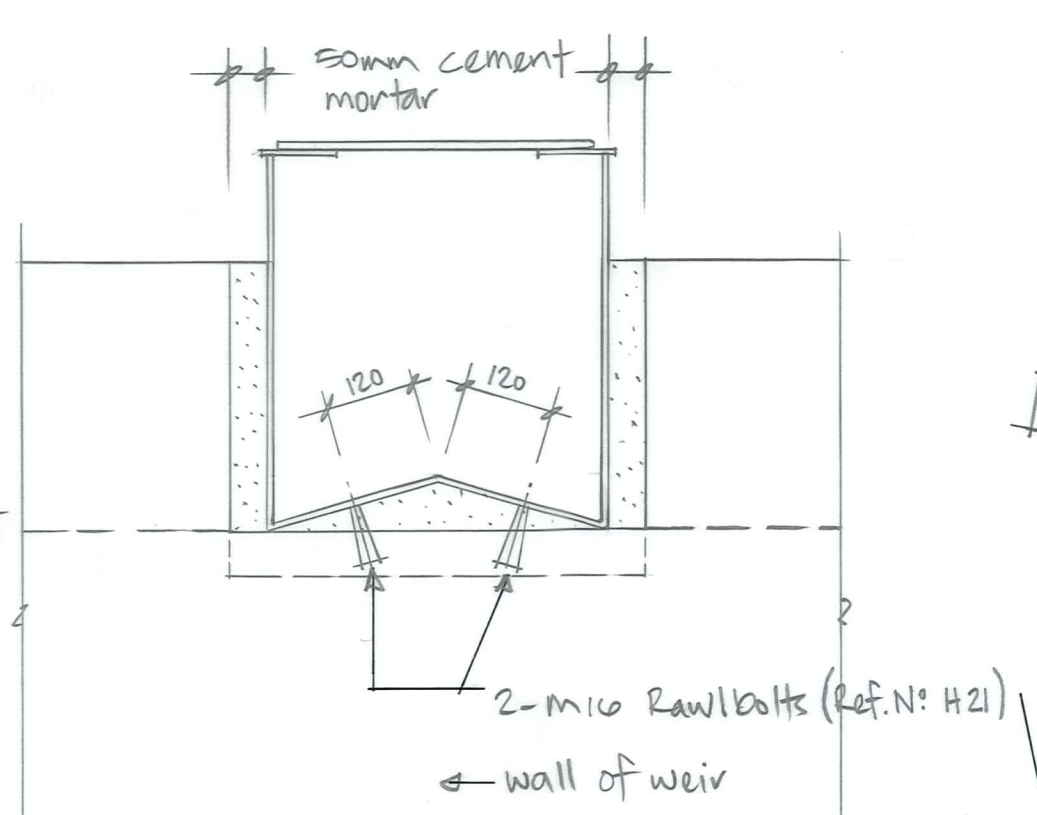
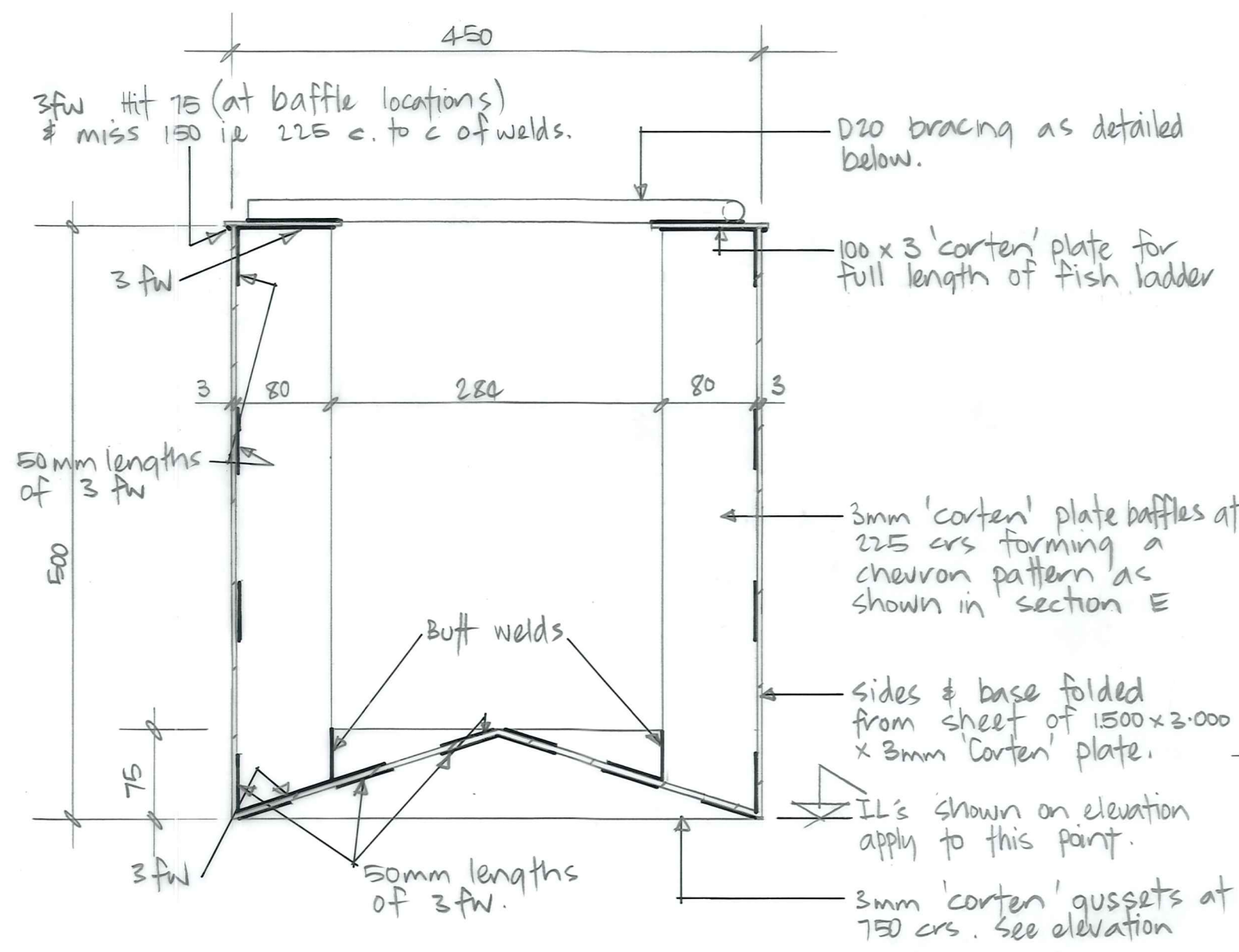


DUFFILL WATTS & KING LTD CONSULTING CIVIL & STRUCTURAL ENGINEERS <small>Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049 Cromwell P.O. Box 82 Ph. 50-391</small>		MANIOTOTO COUNTY COUNCIL		PATEAROA RURAL WATER SUPPLY SCHEME PROPOSED WATER INTAKE STRUCTURE		AMENDMENTS <table border="1"> <thead> <tr> <th>NO.</th> <th>BY</th> <th>DATE</th> <th>Appvd.</th> <th>Surveys</th> <th>NAME</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>PCC & BTK</td> <td></td> <td>1980</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Calculations</td> <td>P. Coldicott</td> <td>Sept 1980</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Traced</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Checked</td> <td>D. J. King</td> <td>23.11.1980</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Approved</td> <td></td> <td></td> </tr> </tbody> </table>		NO.	BY	DATE	Appvd.	Surveys	NAME	DATE					PCC & BTK		1980					Calculations	P. Coldicott	Sept 1980					Traced							Checked	D. J. King	23.11.1980					Approved			JOB NO. 9422 Sheet No. 13 of 13 shts File 6/4/15 L.B. 413/424 F.B.	
NO.	BY	DATE	Appvd.	Surveys	NAME	DATE																																													
				PCC & BTK		1980																																													
				Calculations	P. Coldicott	Sept 1980																																													
				Traced																																															
				Checked	D. J. King	23.11.1980																																													
				Approved																																															

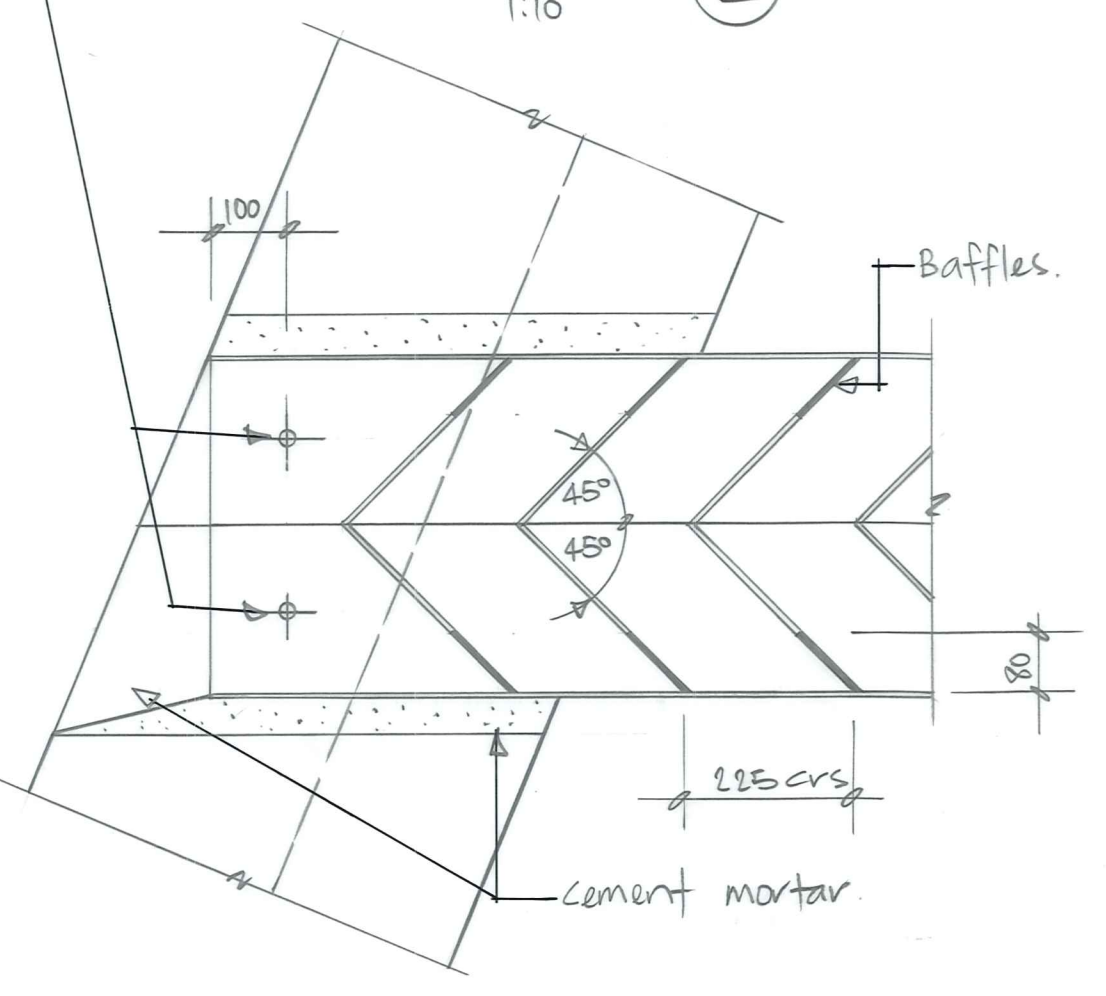


Note: Contractor to price for either alternative, whichever best suits the site & the contractors construction methods.

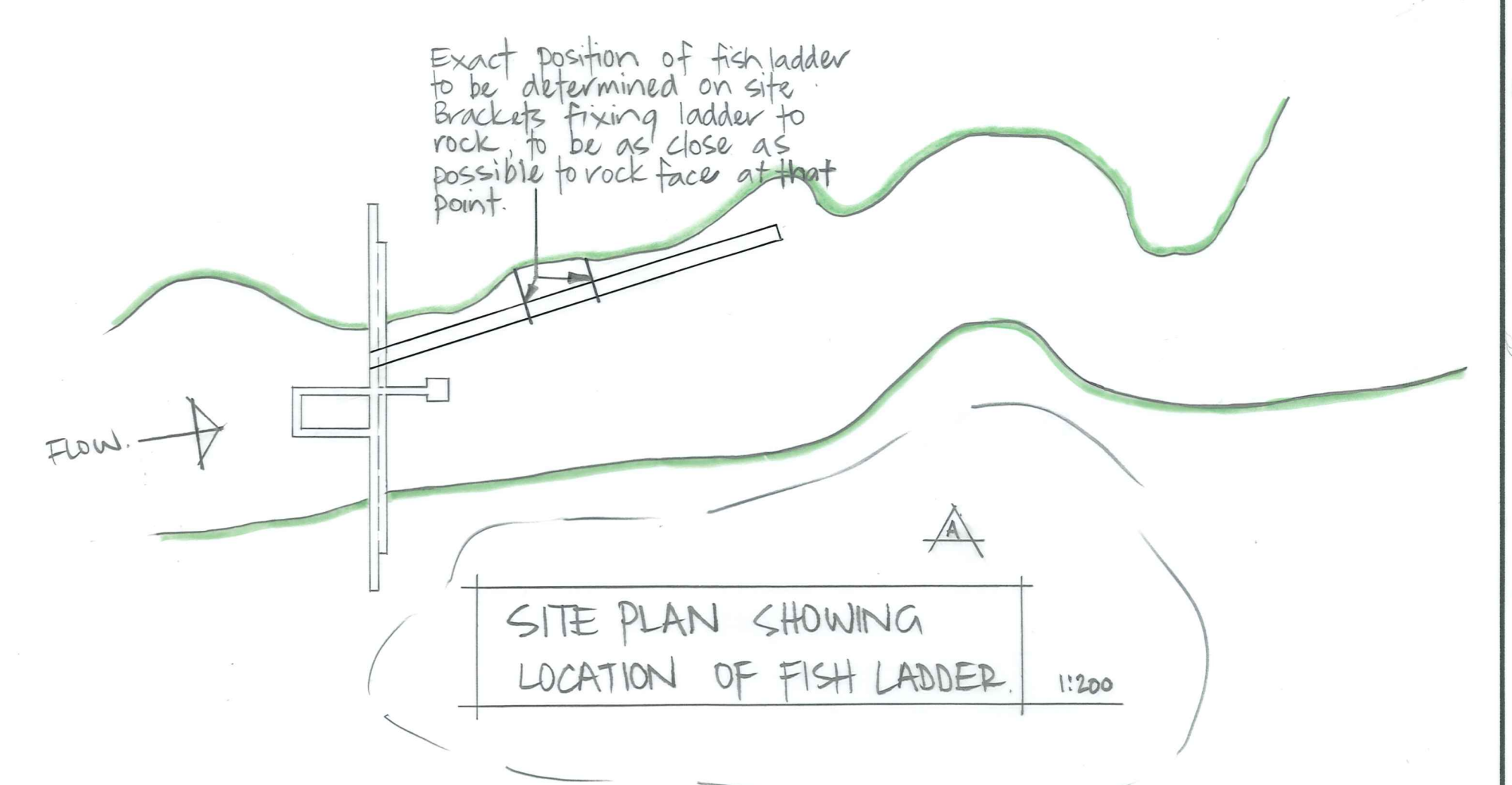
Note: All fabricated steel profiles to be hot dipped galvanised. This includes all nuts, bolts and washers



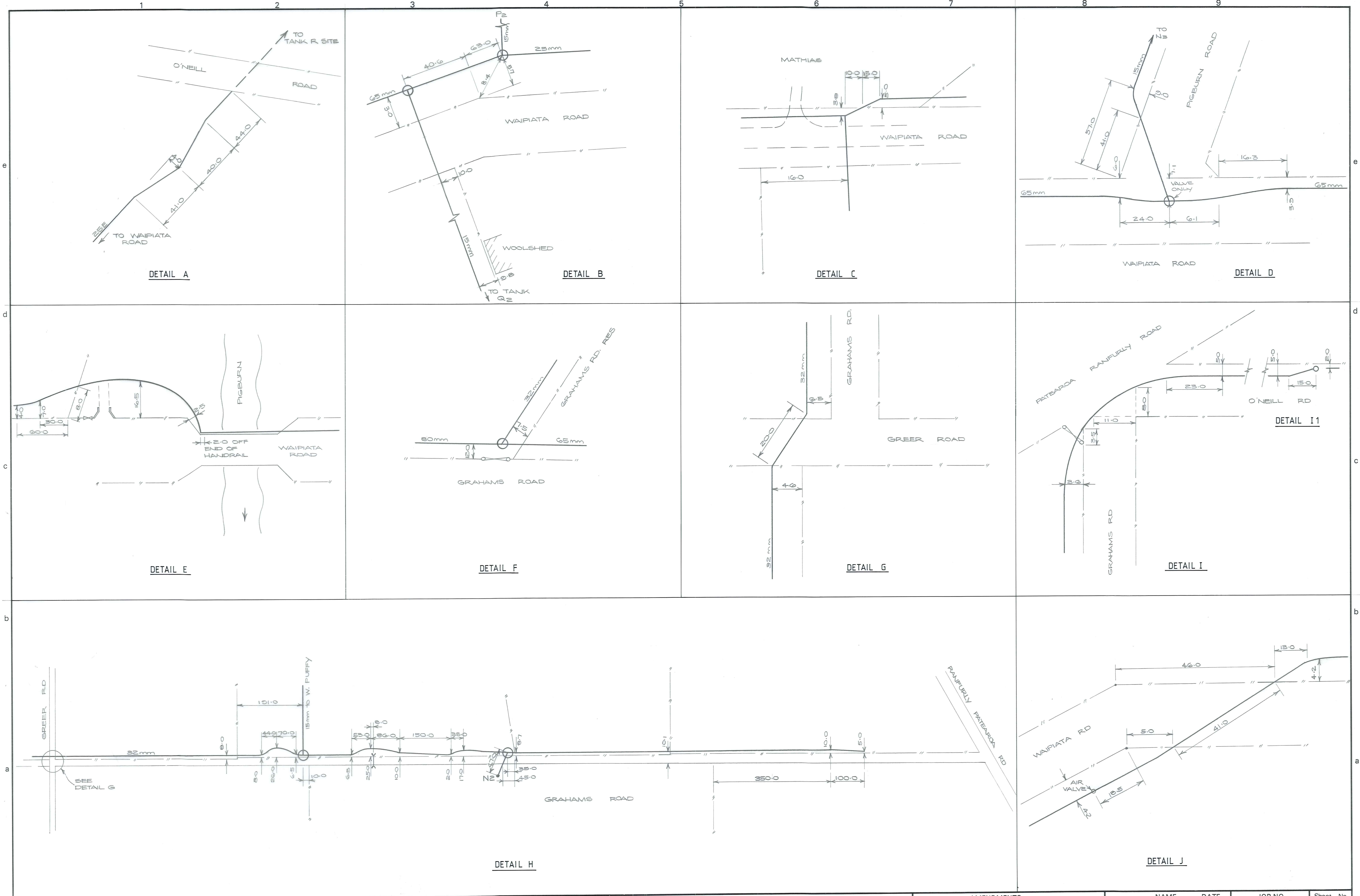
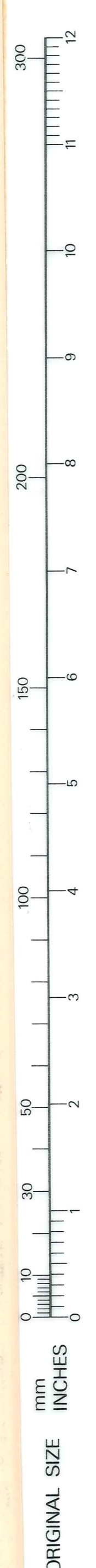
Applies to the joining of 3.000 x 1.500 x 3mm 'corten' plate



Note: The location & angle of notch in weir to be determined on site on the basis that the fish ladder must follow in straight line as close as possible to rock face of true left bank.



9422/15 AS-BUILT
 PATEAROA RURAL WATER SUPPLY



Re-Order Filemaster "D"
 SELF-ADHESIVE PLAN HANGER

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049
 Cromwell P.O. Box 82 Ph. 50-391

**MANIOTOTO
 COUNTY COUNCIL**

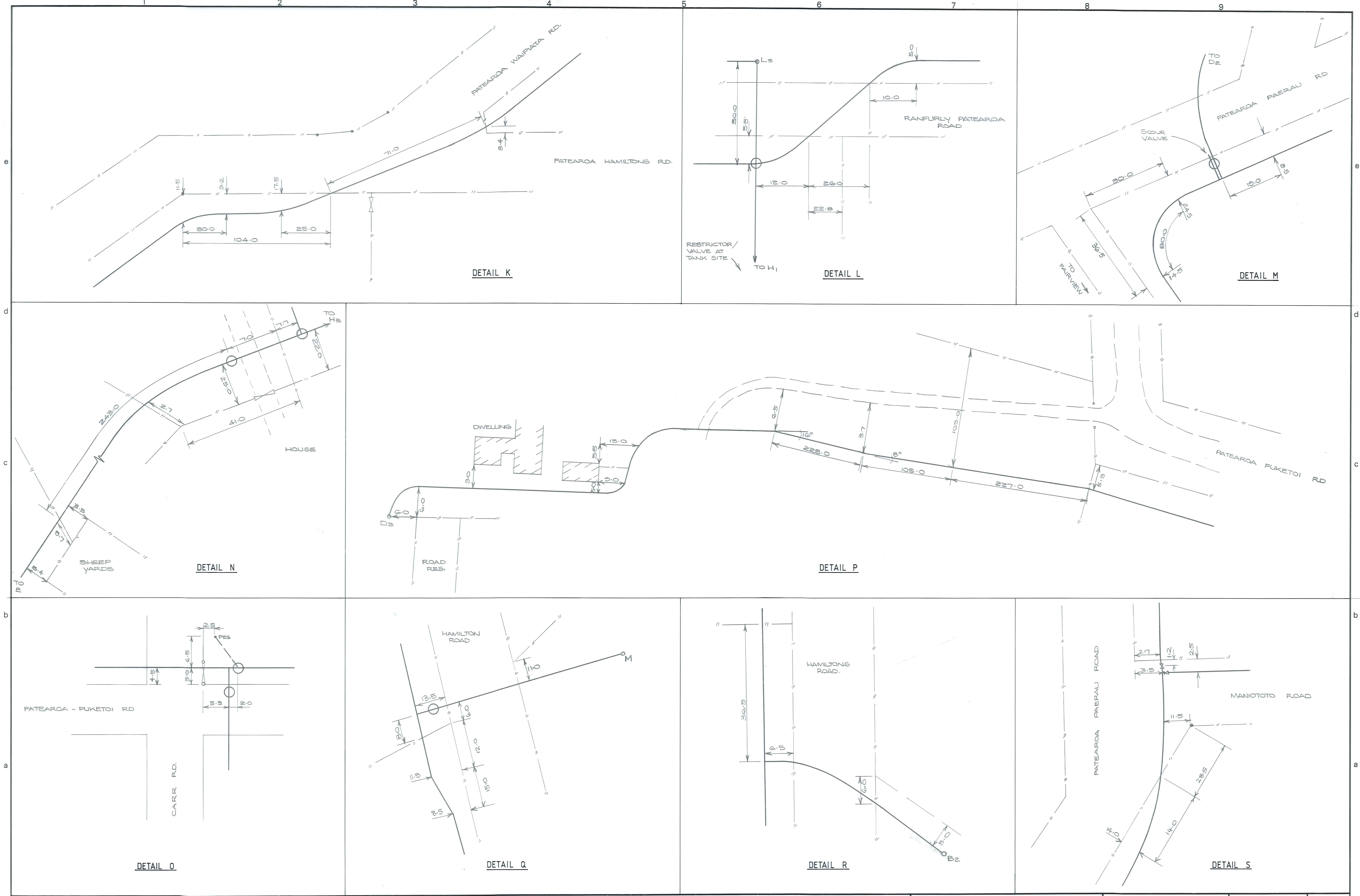
PATEAROA RURAL WATER SUPPLY
As-Built Location Diagrams

AMENDMENTS			NAME	DATE	JOB NO.	Sheet No	
NO.	BY	DATE	Appvd.	Surveyed	9422	15 of 20 shts	
			Drawn				
			Calculations				
			Traced	C. STARKEY OCT. '81			
			Checked				
			Approved		File	L.B.	F.B.

SA 2/16 AS-BUILT
 PATEAROA RURAL WATER
 SUPPLY

ORIGINAL SIZE
 mm INCHES
 0 10 20 30 40 50 100 150 200 300
 0 1 2 3 4 5 6 7 8 9 10 11 12

Order Filemaster "D"
 SELF-ADHESIVE PLAN HANGER
 Number 137641



DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049
 Cromwell P.O. Box 82 Ph. 50-391

**MANIOTOTO
 COUNTY COUNCIL**

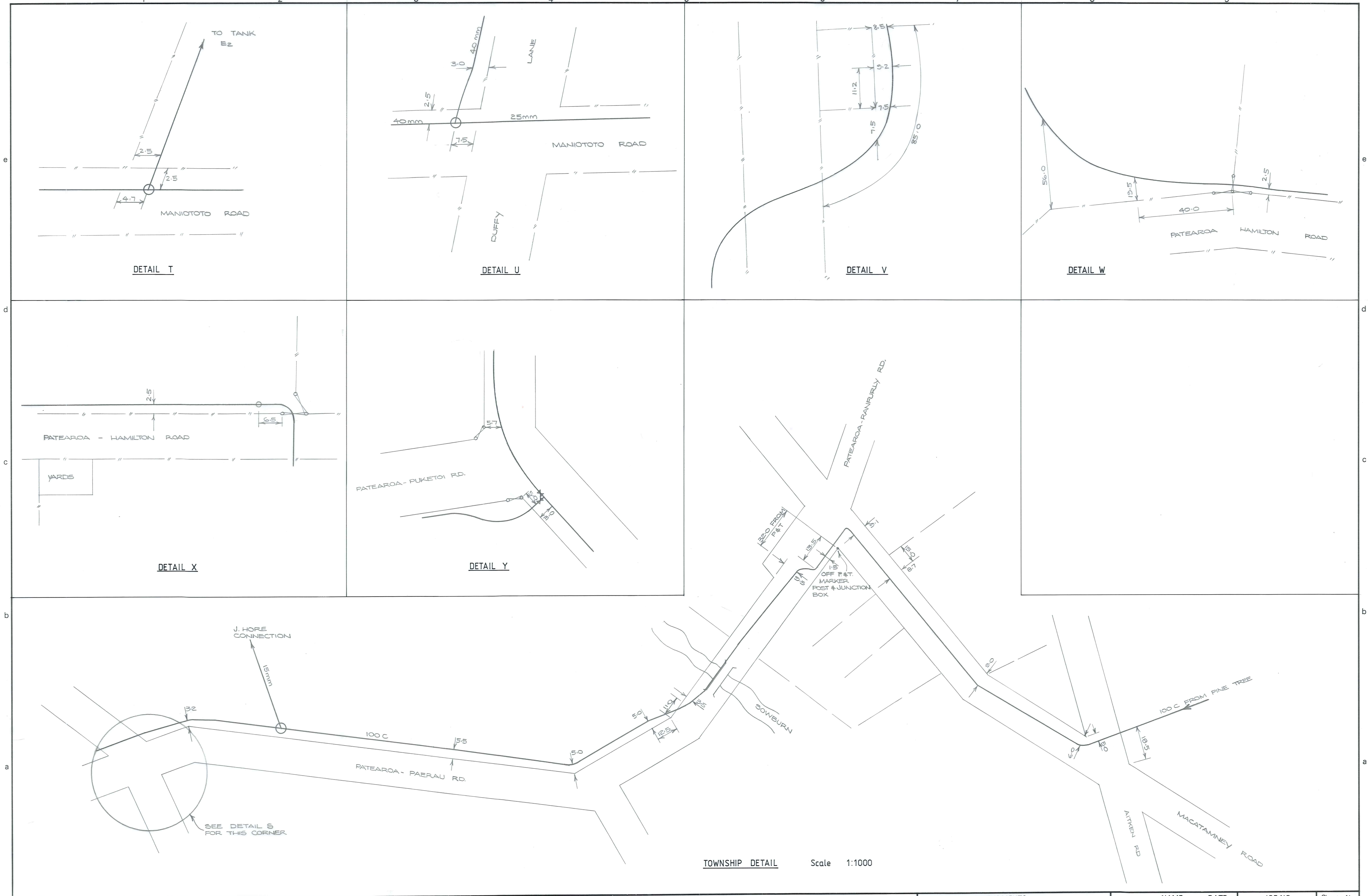
PATEAROA RURAL WATER SUPPLY
As-Built Location Diagrams

AMENDMENTS			NAME DATE	
NO.	BY	DATE	Appvd.	
			Surveyed	
			Drawn	
			Calculations	
			Traced	C. STARKEY OCT. '81
			Checked	
			Approved	

JOB NO.		Sheet No
9422		16 _{AsB}
of		shts
File	L.B.	F.B.

9422/17 AS BUILT
 PATEAROA RURAL WATER
 SUPPLY

300
200
150
100
50
30
10
0
 mm
 INCHES
 12
11
10
9
8
7
6
5
4
3
2
1
0
 ORIGINAL SIZE



DETAIL T

DETAIL U

DETAIL V

DETAIL W

DETAIL X

DETAIL Y

TOWNSHIP DETAIL Scale 1:1000

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph. 777-133 Invercargill P.O. Box 576 Ph. 83-049
 Cromwell P.O. Box 82 Ph. 50-391

**MANIOTOTO
 COUNTY COUNCIL**

PATEAROA RURAL WATER SUPPLY
 As-Built Location Diagrams

AMENDMENTS				NAME		DATE		JOB NO.		Sheet No	
NO.	BY	DATE	Appvd.	Surveyed							
				Drawn							
				Calculations							
				Traced	C. STARKEY	OCT. '81					
				Checked							
				Approved							
								File	L.B.	F.B.	

9422

17
 of
 shts

