225,150mm Ø A.C. FOUL SEWER LINES K-K, L-L, M-M,

TO MILTON

STATE HIGHWAY 8

GOLF COURSE

PUMPING STATION N°3

EXISTING FOUL SEWER TO BE REUSED AS EMERGENCY OVERFLOW

150mm Ø A.C PUMPING MAIN

150mm Ø A.C FOUL SEWER LINE H-H

150mm Ø U.P.V.C FOUL SEWER LINE G-G

NEW 150mm Ø A.C PUMPING MAIN

PUMPING STATION N° 1

EMERGENCY OVERFLOW

150mm Ø FOUL SEWER LINES E-E & F-F

TO ALEXANDRA

BANNOCKBURN ST

BRANXHOLM ST

EDINBURGH ST

HAWICK ST

ARGYLE ST

MELROSE ST

ARTHUR ST

SCOTLAND ST

TEVIOT ST

ANCRUM ST

CHEVIOT ST

RIVER

PLANTATION

CLUTHA

PUMPING STATION N°2 (Not in contract.)

OUTFALL

TEVIOT RIVER

BRIDGE

OXIDATION PONDS

TAILINGS AREA

M.O.W. YARD

KEY

- NEW FOUL SEWER
- NEW MANHOLE ON FOUL SEWER
- NEW PUMPING MAIN
- EXISTING FOUL SEWER
- EXISTING MANHOLE ON EXISTING FOUL SEWER
- (11) NEW MANHOLE N°

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

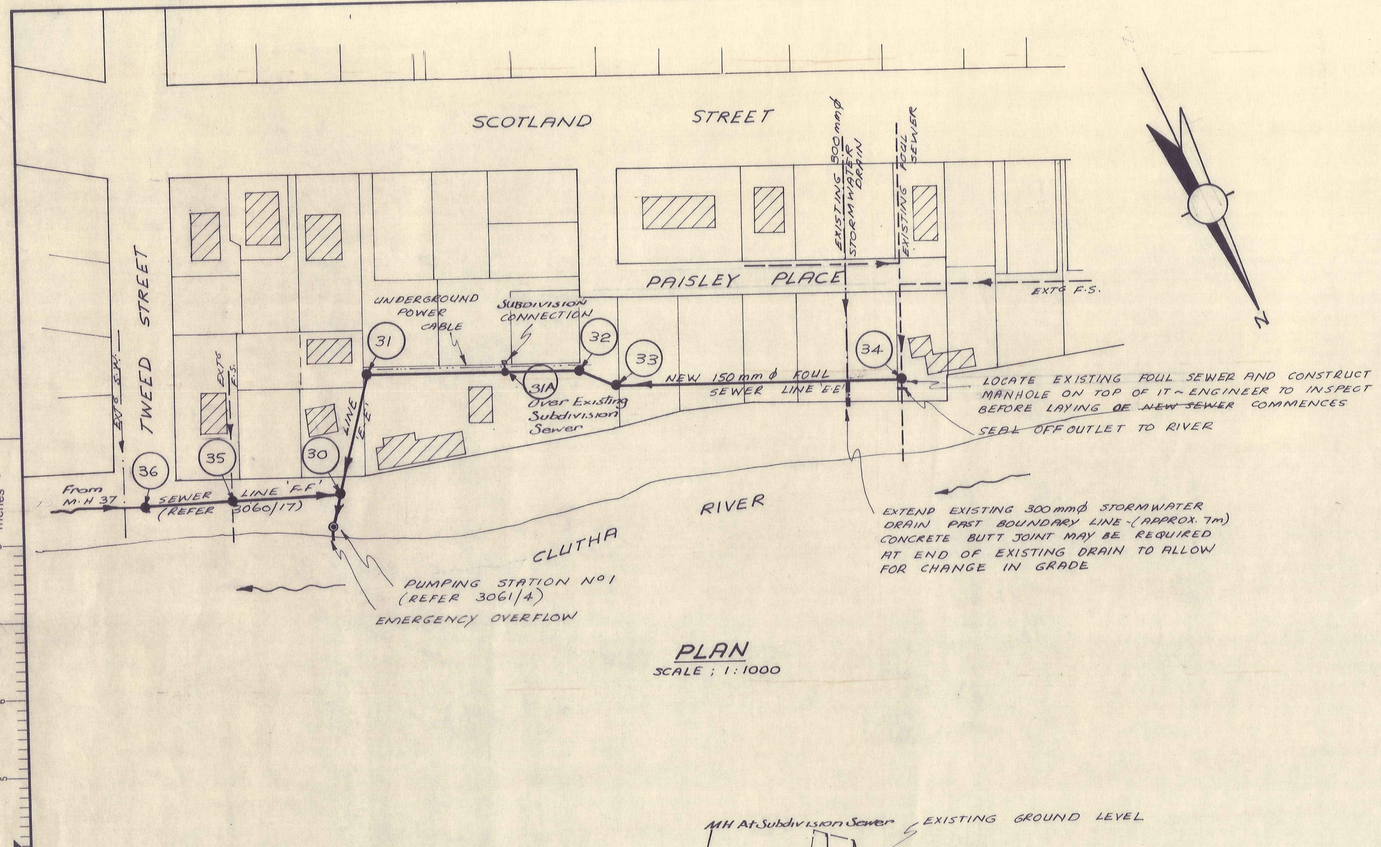
Designed	G.E.W	Date	NOV '78	Scale	1" = 225' (1:2700)
Drawn	J.W.C	Job No.	3061		
Traced	J.W.C	Checked		Survey Ref:	
Approved					

SEWERAGE 1978 – CONTRACT N°3

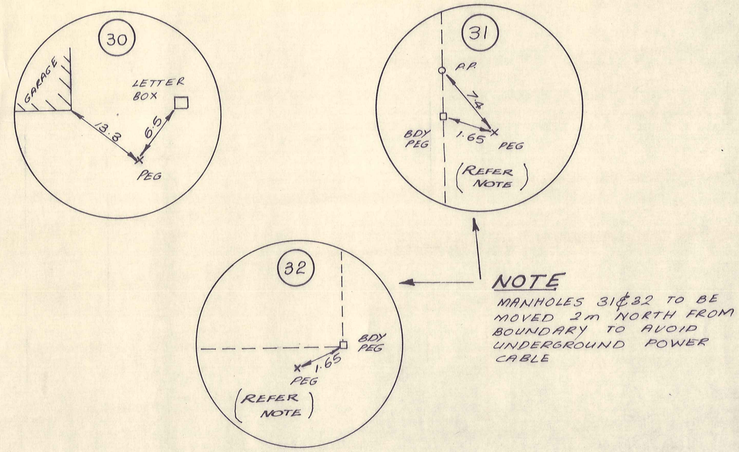
LAYOUT PLAN

DRG No. 3060 / 28

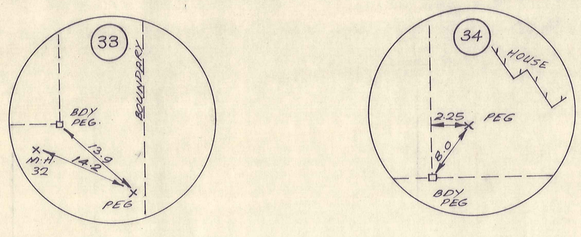
Amendment



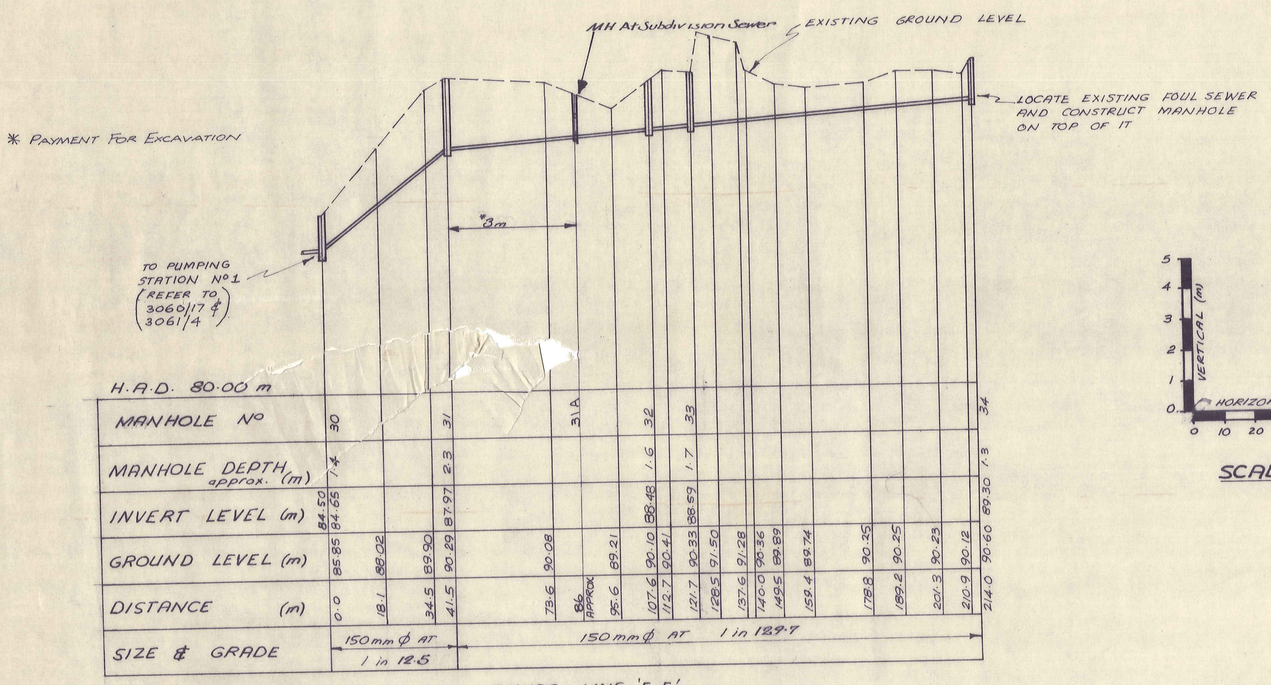
PLAN
SCALE ; 1:1000



NOTE
MANHOLES 31 & 32 TO BE MOVED 2m NORTH FROM BOUNDARY TO AVOID UNDERGROUND POWER CABLE



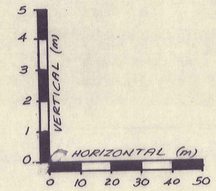
MANHOLE LOCATION DETAILS
N.T.S.



MANHOLE No	30			31			31A			32		33													34
MANHOLE DEPTH approx. (m)	1.4			2.3						1.6		1.7													1.3
INVERT LEVEL (m)	84.50	84.65								88.48		88.69													89.30
GROUND LEVEL (m)	85.85		88.02		89.90	87.97	92.29		90.08		89.21		90.10	90.41	90.33	91.50	91.28	90.36	89.89	89.74		90.35	90.25	90.23	90.12	90.60
DISTANCE (m)	0.0		18.1		34.5	41.5			73.6		86 APPROX	95.6	107.6	112.7	121.7	128.5	137.6	140.0	149.5	159.4		178.8	189.2	201.3	210.9	214.0
SIZE & GRADE	150mm Ø AT 1 in 12.5						150mm Ø AT 1 in 129.7																			

SEWER LINE 'E-E'

LONGITUDINAL SECTION
SCALE; HORZ. 1:1000
VERT 1:100



SCALE

NOTES

- NEW FOUL SEWER
- NEW MANHOLE ON FOUL SEWER
- NEW PUMPING MAIN
- EXISTING FOUL SEWER
- EXISTING STORMWATER DRAIN
- P&T CABLES

* PAYMENT FOR EXCAVATION WILL BE AT THE RATE FOR 0-2m, EXCEPT WHERE SHOWN OTHERWISE ON LONGITUDINAL SECTION REFER SPECIFICATION CLAUSE C9

2/ REFER TO RECORD PLANS DRAWING No's R1014 FOR EXISTING FOUL SEWER & WATERMAIN POSITIONS

3/ THIS DRAWING SUPERSEDES DRAWING No 2897/2

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

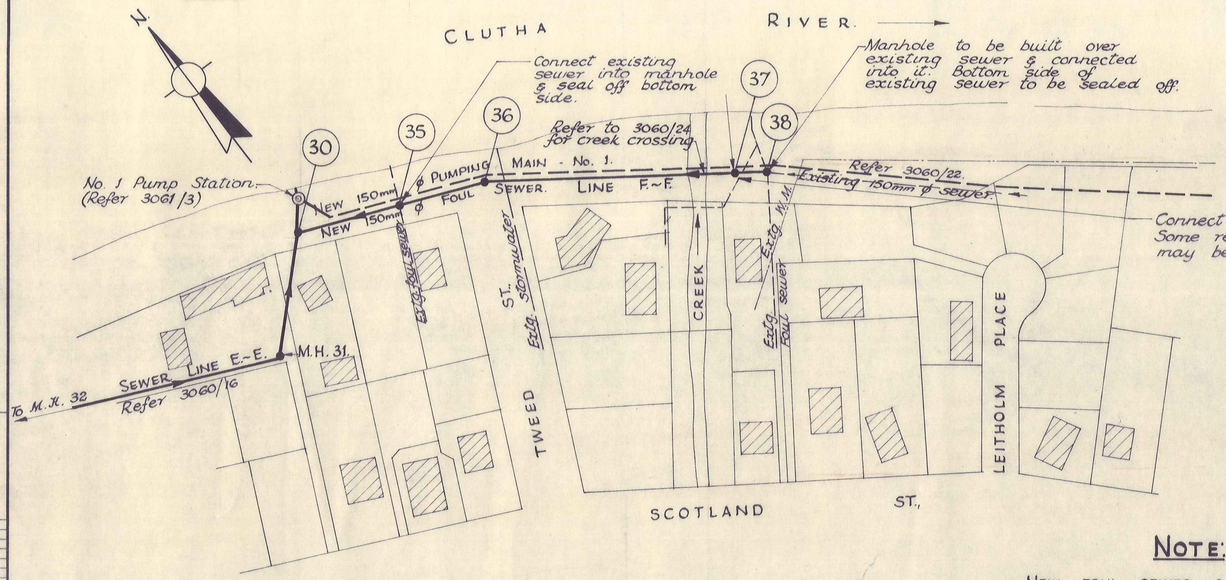
AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	G.R/SWB	Date	FEB'78	Scale:	AS SHOWN
Drawn	G.R	Job No.	3060		
Traced	G.R	Checked		Survey Ref:	L.B.~136
Approved					

SEWERAGE 1978 — CONTRACT No 3
SEWER LINE 'E E' PLAN AND LONG — SECTION
DRG No. 3060/16
Amendment

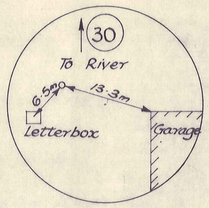


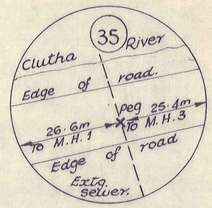
PLAN.

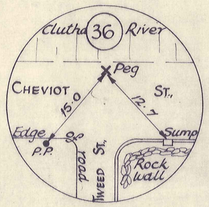
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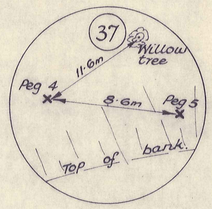
NOTE:

NEW FOUL SEWER & PUMPING MAIN MAY BE LAID IN SAME TRENCH AS SHOWN ON 3060/14, MANHOLE Nos. 35, 36, 37, 38 TO BE DETAILED AS ON 3060/13 & 3060/14





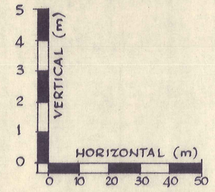




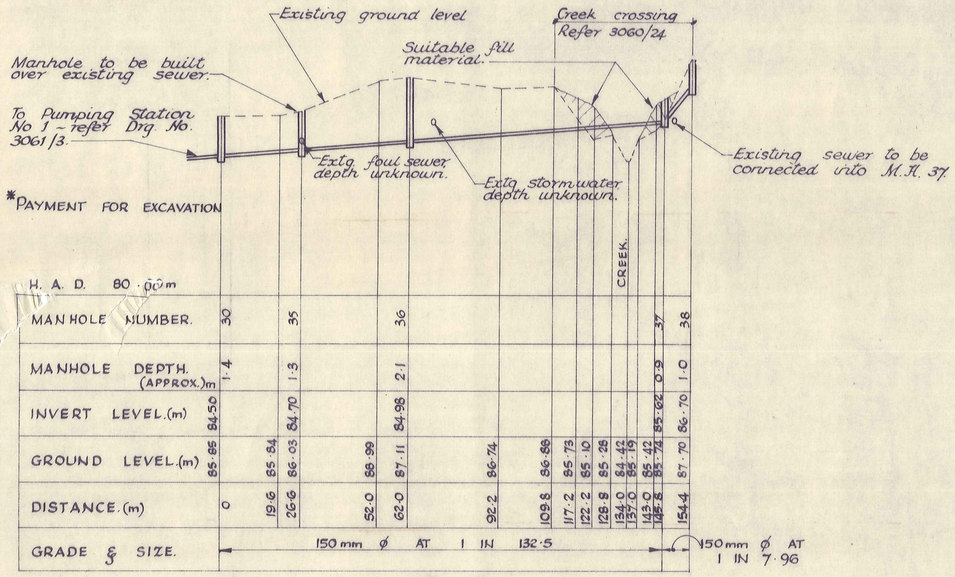


MANHOLE LOCATION DETAILS.

N. T. S.



SCALE:



SEWER LINE F~F. LONGITUDINAL SECTION.

SCALE: HORIZ. 1 : 1000.
VERT. 1 : 100.

NOTES:

* PAYMENT FOR EXCAVATION WILL BE AT THE RATE FOR 0-2m, EXCEPT WHERE SHOWN ON LONGITUDINAL SECTION ~ REFER SCHEDULE.

- NEW FOUL SEWER
- NEW MANHOLE ON FOUL SEWER.
- NEW RODDING EYE ON FOUL SEWER.
- EXISTING FOUL SEWER.
- NEW PUMPING MAIN.
- P. & T. CABLES.
- EXISTING WATERMAIN.
- EXISTING STORMWATER.

REFER TO RECORD PLAN, DRG. No. R1014 FOR EXISTING FOUL SEWER & WATERMAIN POSITIONS.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

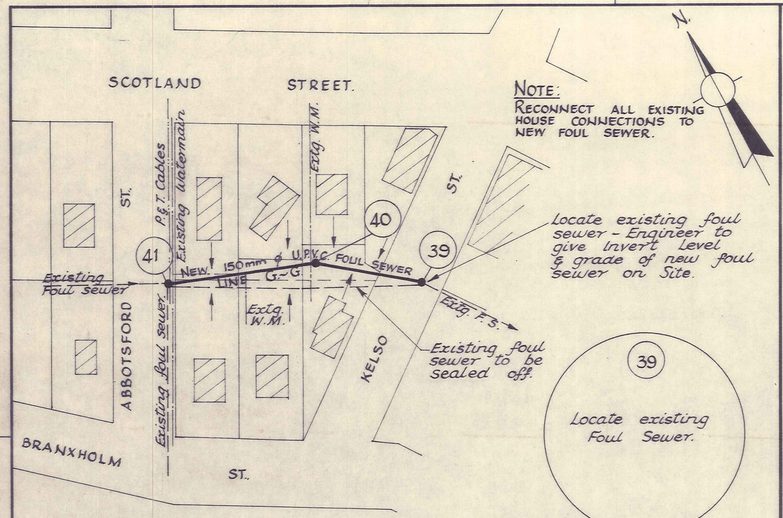
AMENDMENTS

3060/22, 24 & 14
RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	J.W.B./G.R.	Date	FEB '78	Scale:	AS SHOWN
Drawn	G.R.	Job No.	3060		
Traced	B.M.	Checked		Survey Ref:	
Approved				LB.~170	F.B.~B.I.

SEWERAGE 1978 —— CONTRACT N° 3
SEWER LINE F-F —— PLAN AND LONG 'SECTION
DRG No. 3060/17
Amendment



NOTE:
RECONNECT ALL EXISTING HOUSE CONJECTIONS TO NEW FOUL SEWER.

Locate existing foul sewer - Engineer to give invert level & grade of new foul sewer on Site.

Existing foul sewer to be sealed off.

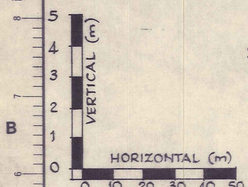
39
Locate existing Foul Sewer.

PLAN.

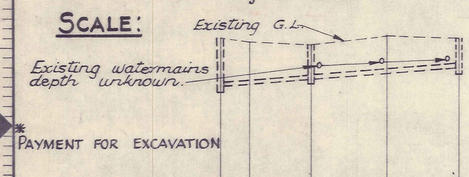
SCALE: 1 : 1000

NOTE:

NO LAYING TO COMMENCE ON THIS LINE UNTIL EXISTING FOUL SEWER AT M.H. 39 HAS BEEN EXPOSED & ENGINEER HAS ESTABLISHED THE INVERT LEVEL OF THAT MANHOLE & THE GRADE.



SCALE:

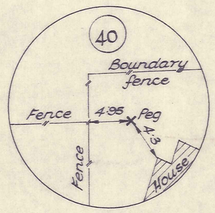


PAYMENT FOR EXCAVATION

	LOCATE EXISTING SEWER.					LOCATE EXISTING SEWER.
H. A. D. 85·00m						
MANHOLE NUMBER.	39		40			41
MANHOLE DEPTH. (APPROX.)m						1·0 APPROX.
INVERT LEVEL. (m)						96·25
GROUND LEVEL.(m)	97·24	97·20	96·98	97·25		97·20
DISTANCE. (m)	0·0	9·8	30·0	54·2		78·0
GRADE & SIZE.	150mm ϕ U.P.V.C. GRADE TO BE GIVEN ON SITE.					

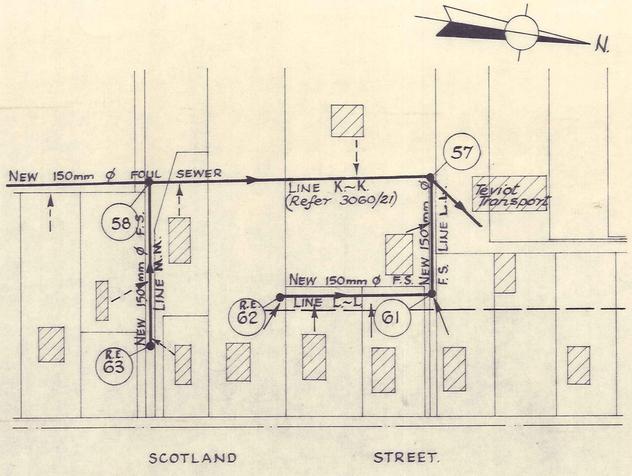
SEWER LINE G.~G. LONGITUDINAL SECTION.

SCALE: HORIZ. 1 : 1000
VERT. 1 : 100.



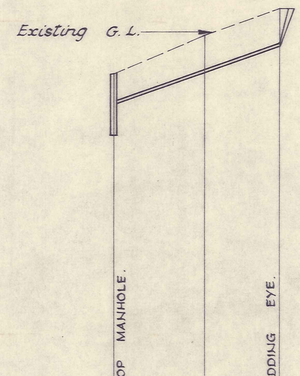
MANHOLE LOCATION DETAILS.

N. T. S.

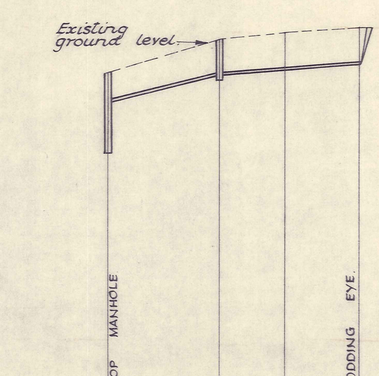


PLAN.

SCALE: 1 : 1000

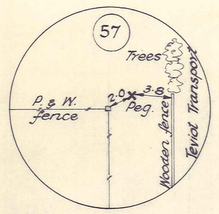


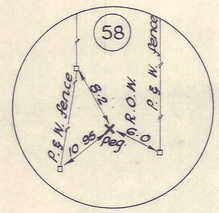
SEWER LINE M.~M. LONGITUDINAL SECTIONS.

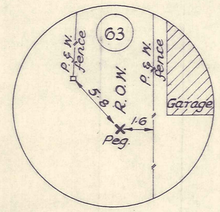


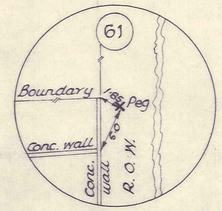
SEWER LINE L.~L. LONGITUDINAL SECTIONS.

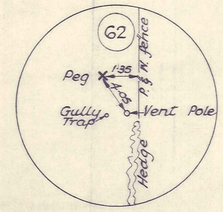
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VERT. 1 : 100.





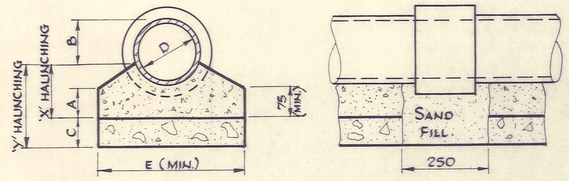






MANHOLE LOCATION DETAILS.

N. T. S.



	mm	mm	mm	mm
D	100	150	225	300
A	75	75	75	75
B	75	125	200	250
C	75	75	75	75
E	300	380	500	610
'X' HAUNCHING LENGTH /m³CONC.	31900	21930	15950	11960
'Y' HAUNCHING LENGTH /m³CONC.	17940	11960	9970	7970

(Approx)

HAUNCHING DETAIL.

N. T. S.

NOTES:

* PAYMENT FOR EXCAVATION WILL BE AT THE RATE FOR 0-2m EXCEPT WHERE SHOWN ON LONGITUDINAL SECTION ~ REFER SCHEDULE.

- NEW FOUL SEWER
- NEW MANHOLE ON FOUL SEWER.
- EXISTING SEWER & MANHOLE.
- EXISTING STORMWATER.
- EXISTING WATERMAIN.
- P. & T. CABLES.
- EXTG. HOUSE CONNECTION TO BE CONNECTED TO NEW SEWER.
- NEW HOUSE CONNECTION TO BOUNDARY ONLY.

REFER TO RECORD PLAN, DRAWING NUMBER, R.1014 FOR EXISTING FOUL SEWER & WATERMAIN POSITIONS.

- NEW RODDING EYE ON FOUL SEWER.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

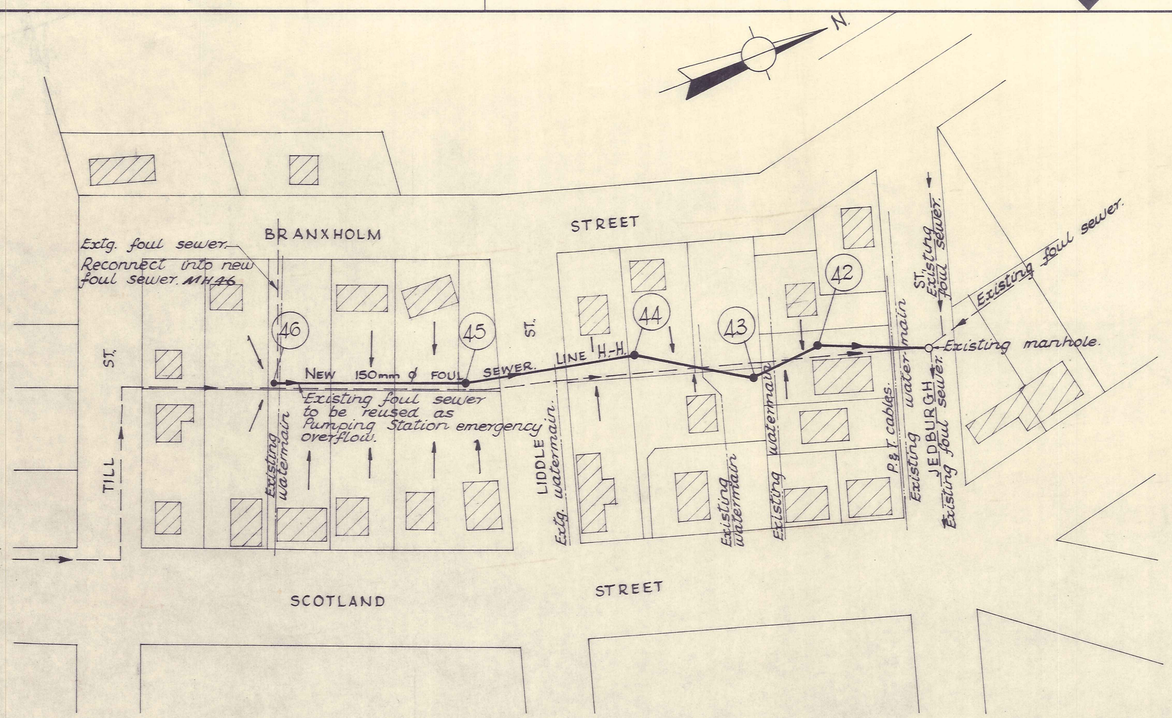
AMENDMENTS

3060/21
RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

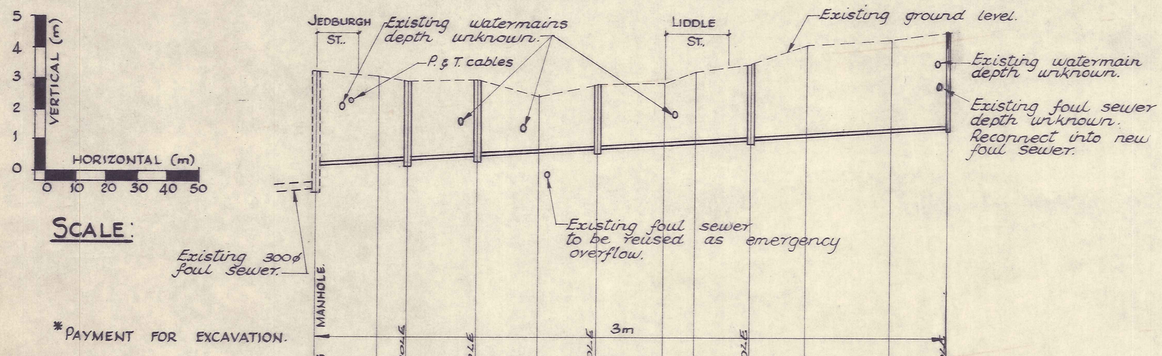
Designed	J.W.B. G.R.	Date	FEB '78	Scale:	AS SHOWN
Drawn	G.R.	Job No.	3060		
Traced	B.M.	Checked		Survey Ref:	L.B.~137 & 170 F.B.~B.I.
Approved					

SEWERAGE 1978 — CONTRACT Nº 3
SEWER LINES G-G, L-L & M-M — PLAN & LONG 'SECTION
DRG No. 3060/18
Amendment



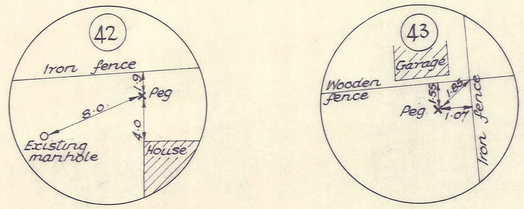
PLAN.

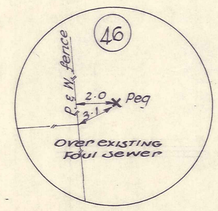
SCALE: 1 : 1000.



SEWER LINE H.~H. LONGITUDINAL SECTION.

SCALE: HORIZ. 1 : 1000.
VERT. 1 : 100.





MANHOLE LOCATION DETAILS.

N. T. S.

NOTES:

* PAYMENT FOR EXCAVATION WILL BE AT THE RATE FOR 0-2m, EXCEPT WHERE SHOWN ON LONGITUDINAL SECTION ~ REFER SCHEDULE.

- NEW FOUL SEWER.
- NEW MANHOLE ON FOUL SEWER.
- NEW RODDING EYE ON FOUL SEWER.
- EXISTING FOUL SEWER REUSED AS OVERFLOW.
- EXISTING FOUL SEWER.
- EXISTING WATERMAIN.
- P & T. CABLES.
- EXISTING HOUSE CONNECTION TO BE CONNECTED TO NEW SEWER

NOTES

REFER TO RECORD DRAWING NUMBER R1014 FOR EXISTING FOUL SEWER & WATERMAIN POSITIONS

ALL SEWER CONNECTIONS INTO EXISTING FOUL SEWER (RE-USED AS OVERFLOW) TO BE DISCONNECTED & RECONNECTED INTO NEW FOUL SEWER.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

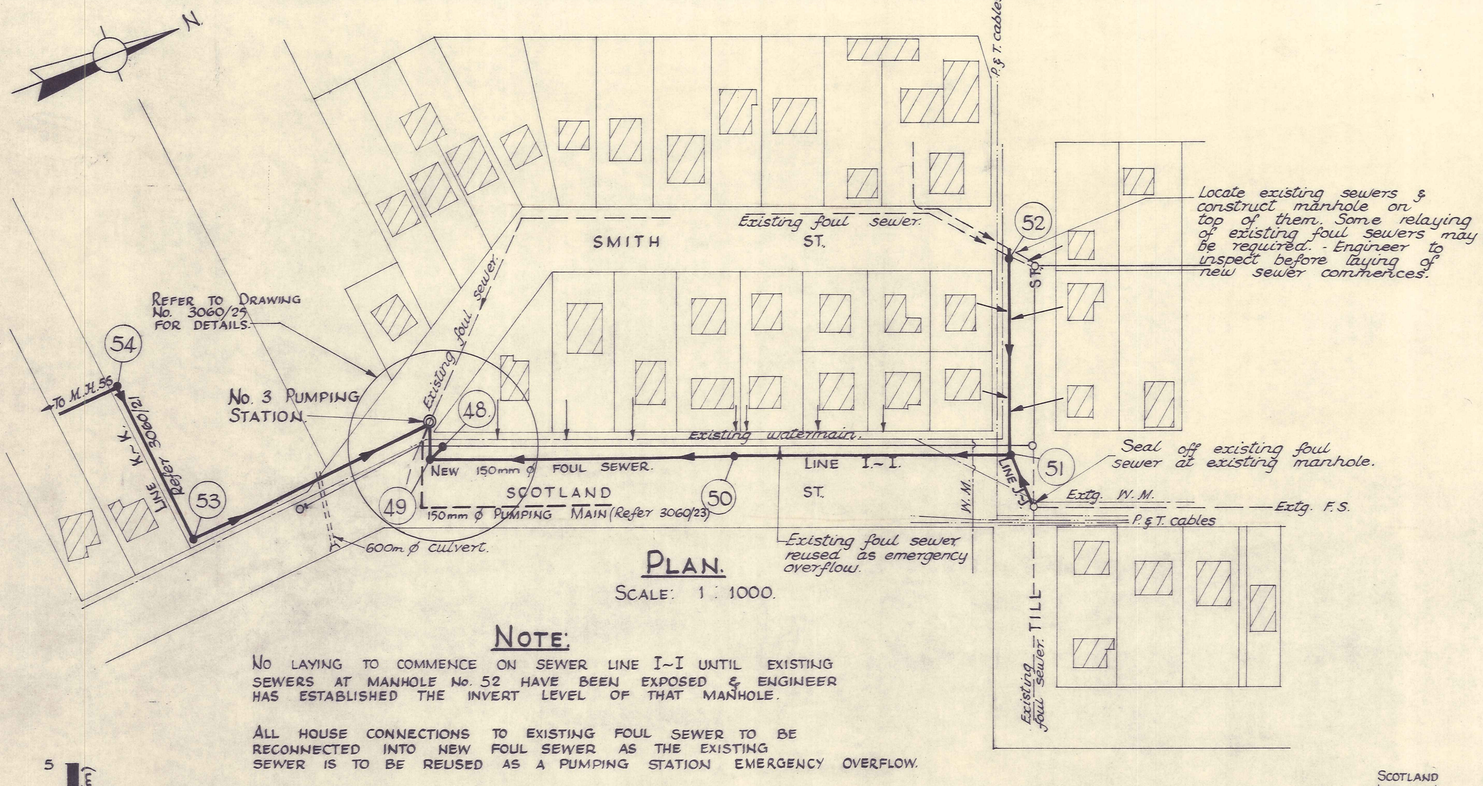
AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	J.W.B./G.R.	Date	FEB '78	Scale:	AS SHOWN
Drawn	G.R.	Job No.	3060		
Traced	B.M.	Checked		Survey Ref:	
Approved				L.B.-170	F.B.-B.I.

SEWERAGE 1978 — CONTRACT N° 3
SEWER LINE H-H — PLAN AND LONG 'SECTION
DRG No. 3060/19
Amendment



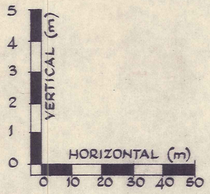
PLAN.

SCALE: 1 : 1000.

NOTE:

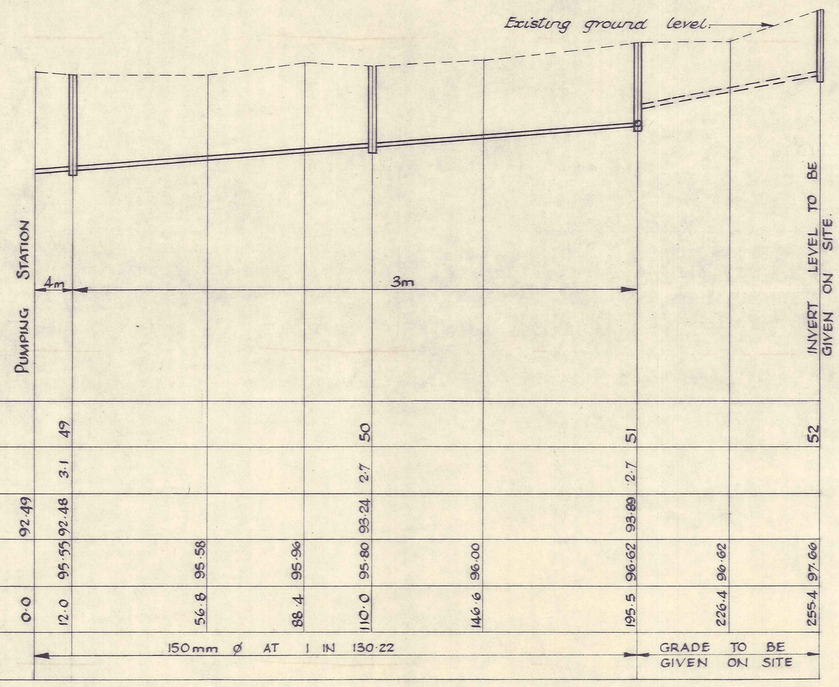
NO LAYING TO COMMENCE ON SEWER LINE I~I UNTIL EXISTING SEWERS AT MANHOLE No. 52 HAVE BEEN EXPOSED & ENGINEER HAS ESTABLISHED THE INVERT LEVEL OF THAT MANHOLE.

ALL HOUSE CONNECTIONS TO EXISTING FOUL SEWER TO BE RECONNECTED INTO NEW FOUL SEWER AS THE EXISTING SEWER IS TO BE REUSED AS A PUMPING STATION EMERGENCY OVERFLOW.



SCALE:

*PAYMENT FOR EXCAVATION.

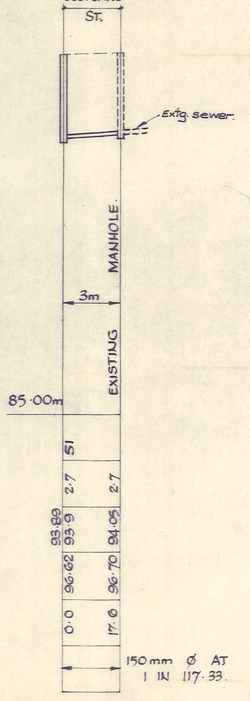


H. A. D. 85·00m									
MANHOLE NUMBER		49			50		51		52
MANHOLE DEPTH (m) (APPROX.)		3.1			2.7		2.7		
INVERT LEVEL (m)	92.49	92.48			93.24		93.89		
GROUND LEVEL (m)		95.55	95.58	95.96	95.80	96.00	96.62	96.62	97.66
DISTANCE (m)	0·0	12.0	56.8	88.4	110·0	146.6	195.5	226.4	255.4
GRADE & SIZE.	150mm ø AT 1 IN 130·22						GRADE TO BE GIVEN ON SITE		

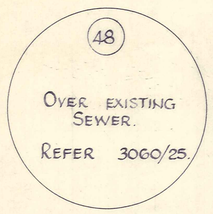
LONGITUDINAL SECTION.

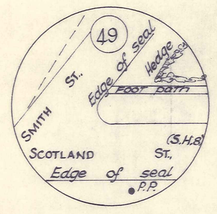
SCALE: HORIZ. 1 : 1000.
VERT. 1 : 100.

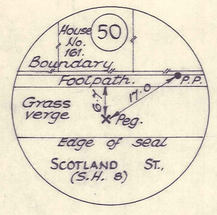
SEWER LINE I.~I.

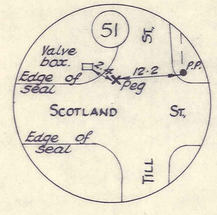


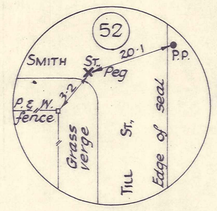
J.~J.











APPROX. POSITION ONLY. (OVER EXISTING SEWER)

MANHOLE LOCATION DETAILS.

N. T. S.

NOTES:

* PAYMENT FOR EXCAVATION WILL BE AT THE RATE FOR 0-2m. EXCEPT WHERE SHOWN ON LONGITUDINAL SECTION ~ REFER SCHEDULE.

- NEW FOUL SEWER.
- NEW MANHOLE ON FOUL SEWER.
- NEW RODDING EYE ON FOUL SEWER.
- EXISTING FOUL SEWER & MANHOLE.
- EXISTING FOUL SEWER REUSED AS STORMWATER.
- EXISTING FOUL SEWER REUSED AS EMERGENCY OVERFLOW.
- NEW 100mm ø WATERMAIN.
- EXISTING WATERMAIN.
- EXTG. 100mm ø HOUSE CONNECTION TO BE CONNECTED TO NEW SEWER.
- P. & T. CABLES.

REFER TO RECORD PLAN, DRAWING NUMBER R. 1014 FOR EXISTING FOUL SEWER & WATERMAIN POSITIONS.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

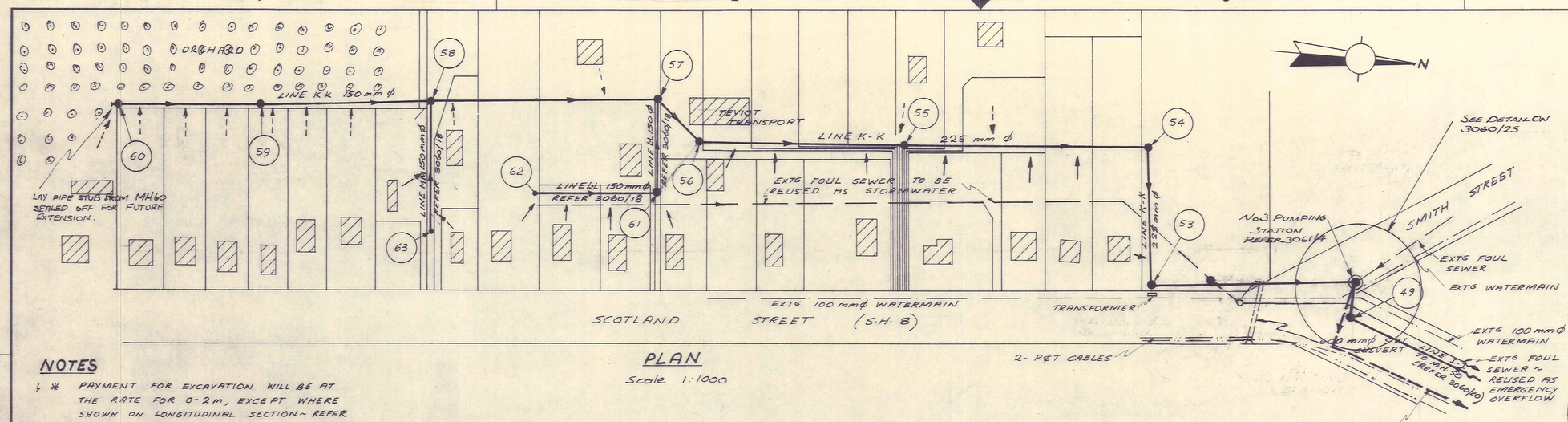
AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	J.WB./G.R.	Date	FEB 78	Scale:	AS SHOWN
Drawn	G.R.	Job No.	3060		
Traced	B.M.	Checked		Survey Ref:	L.B.~137 & 170 F.B.~81.
Approved					

SEWERAGE 1978 — CONTRACT N° 3
SEWER LINES I-I & J-J — PLAN AND LONG 'SECTION
DRG No. 3060/20
Amendment



PLAN

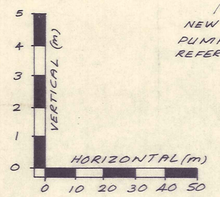
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NOTES

1. * PAYMENT FOR EXCAVATION WILL BE AT THE RATE FOR 0-2 m, EXCEPT WHERE SHOWN ON LONGITUDINAL SECTION~ REFER SCHEDULE

- NEW FOUL SEWER
- NEW MANHOLE ON FOUL SEWER
- NEW RODDING EYE ON FOUL SEWER
- EXISTING FOUL SEWER & MANHOLE
- EXISTING FOUL SEWER REUSED AS STORMWATER
- EXISTING FOUL SEWER REUSED AS EMERGENCY OVERFLOW
- NEW PUMPING MAIN
- NEW 100 mm ϕ WATERMAIN
- EXISTING WATERMAIN
- EXTG 100 mm ϕ HOUSE CONNECTION TO BE CONNECTED TO NEW SEWER
- NEW 100 mm ϕ HOUSE CONNECTION TO BOUNDARY ONLY
- P & T CABLES

2. REFER TO RECORD DRAWING N°s R1014 FOR EXISTING FOUL SEWER AND WATERMAIN POSITIONS
3. ALL HOUSE CONNECTIONS INTO EXISTING FOUL SEWER TO BE RECONNECTED INTO NEW FOUL SEWER
4. ALL OLD SEWER CONNECTIONS ARE TO BE LEFT TO BE USED AS STORMWATER CONNECTIONS FOR HOUSES.

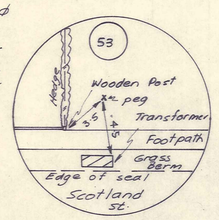


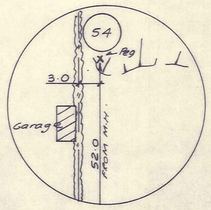
SCALE

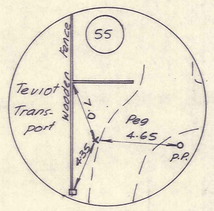
SEWER LINE K-K

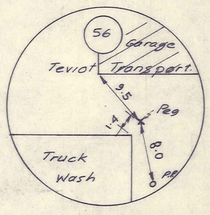
LONGITUDINAL SECTION

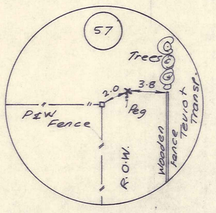
Scale; Horiz. 1:1000
Vert 1:100

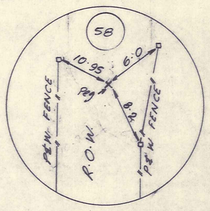


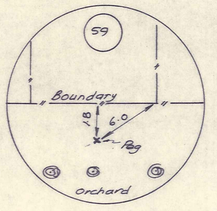


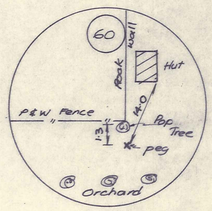








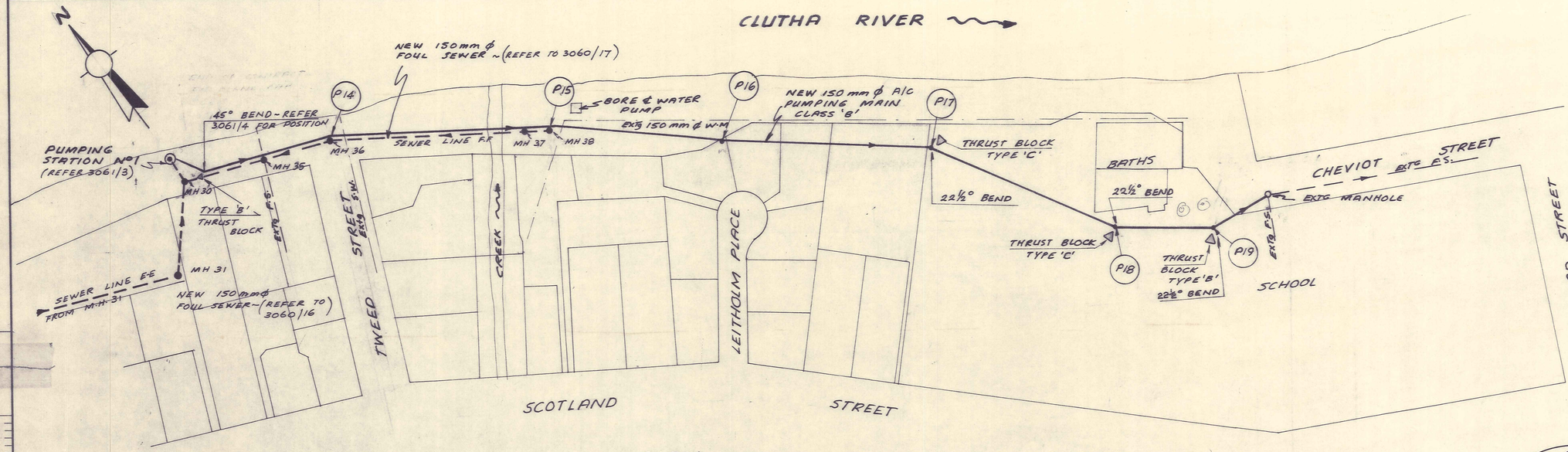




MANHOLE LOCATION DETAILS

N.T.S.

E. R. GARDEN & PARTNERS CONSULTING ENGINEERS DUNEDIN & INVERCARGILL	AMENDMENTS	RELEVANT DRAWINGS ETC.	ROXBURGH BOROUGH COUNCIL	SEWERAGE 1978 — CONTRACT N° 3	
			Designed JWB/GR Date FEB'78 Scale: AS SHOWN	SEWER LINE K-K — PLAN AND	
			Drawn G.R. Job No. 3060	LONG 'SECTION	DRG No. 3060/21
			Traced G.R. Checked	Survey Ref: L.B.-136 & 170, F.B.-B.I.	
			Approved	Amendment	



PLAN

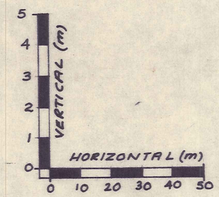
Scale; 1:1000

NOTE

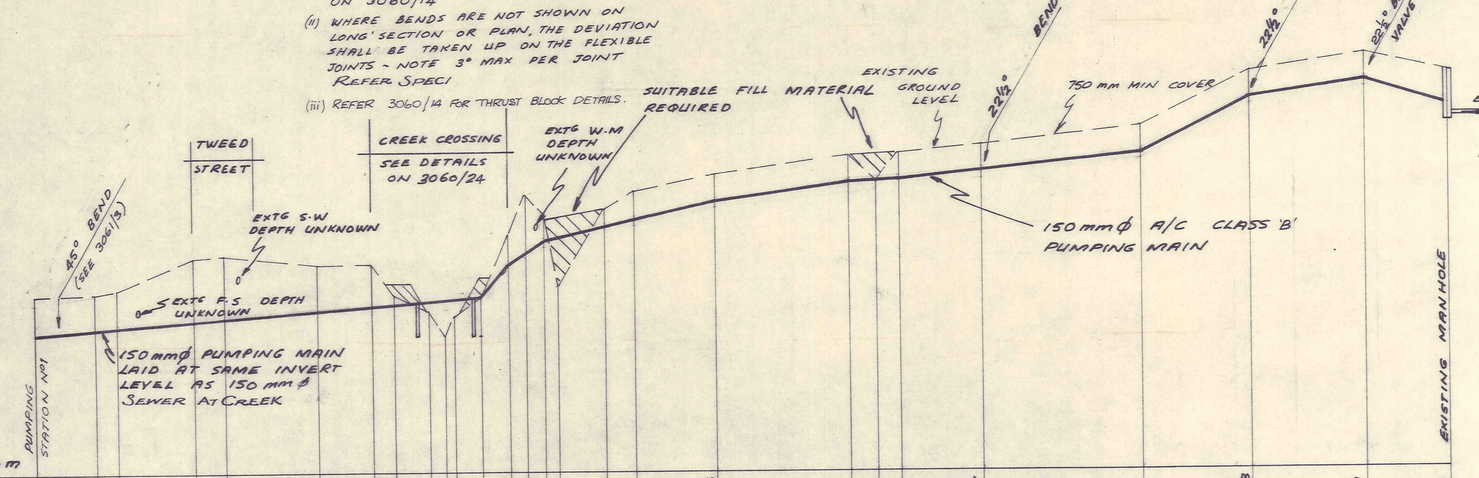
(i) MANHOLE No's 35, 36, 37 & 36 MAY BE POSITIONED AS SHOWN ON 3060/14

(ii) WHERE BENDS ARE NOT SHOWN ON LONG' SECTION OR PLAN, THE DEVIATION SHALL BE TAKEN UP ON THE FLEXIBLE JOINTS - NOTE 3° MAX PER JOINT REFER SPECI

(iii) REFER 3060/14 FOR THRUST BLOCK DETAILS.



SCALE

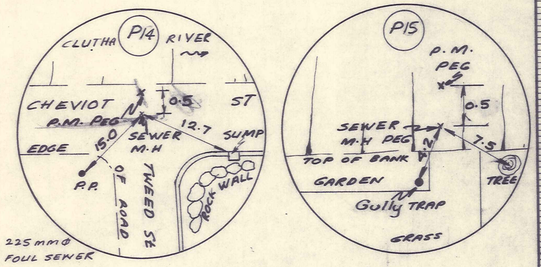


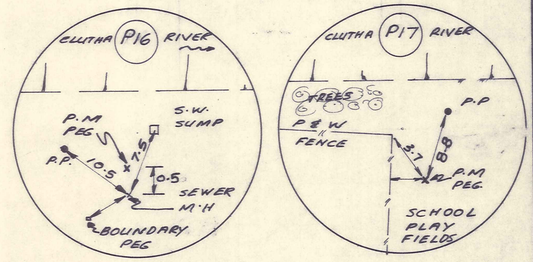
H.A.D. 80.00 m

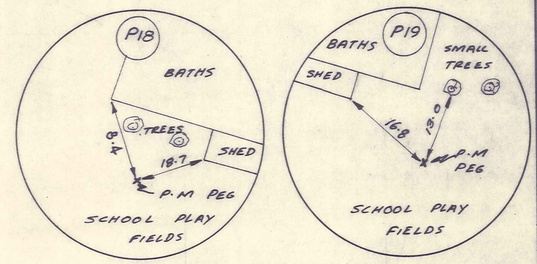
PEG No						P14							P15				P16				P17				P18		P19	
CUT TO INVERT APPR. (m)	1.1					2.1							1.0	0.9			0.9				0.9				0.9		0.9	1.0 1.5
INVERT LEVEL (m)	84.42					84.98							86.70				89.72				89.65				91.96		92.51	91.85 91.35
GROUND LEVEL APPR. (m)	85.50	85.94	86.03		87.00	87.11		86.74	86.68	86.73	85.88	85.88	87.70	89.00	88.40	86.00	88.50			89.62	90.21	90.46	90.29		91.55	91.25	92.86	93.41	92.85
DISTANCE (m) APPR.	0.0	19.6	26.6		52.0	62.0		109.8	117.2	122.2	128.8	134.0	137.0	143.0	145.8	152.5	166.0	170.5	185.5	195.5	221.5	265.0	274.5	281.5	308.5	360.5	395.6	433.5	459.5

LONGITUDINAL SECTION

Scale; Horiz. 1:1000
Vert. 1:100



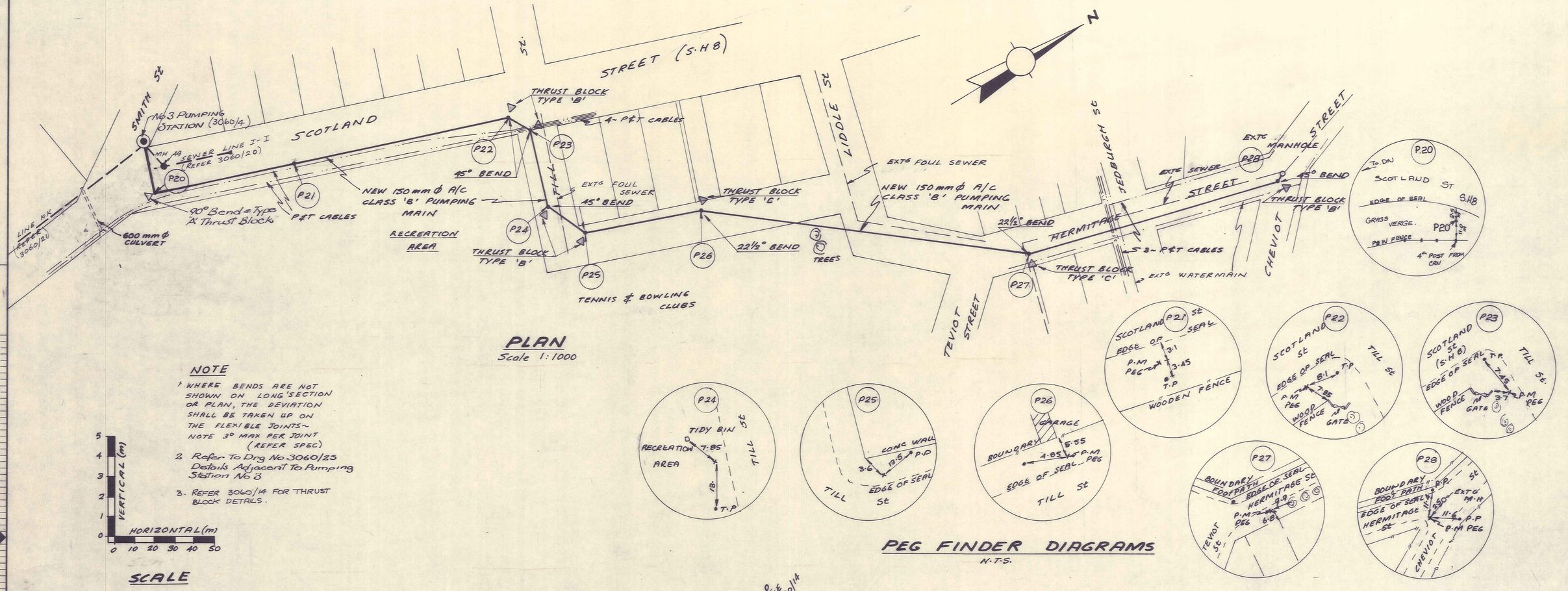




PEG FINDER DIAGRAMS

N.T.S.

E. R. GARDEN & PARTNERS CONSULTING ENGINEERS, DUNEDIN & INVERCARGILL	AMENDMENTS	3060/14 &24 3061/3 RELEVANT DRAWINGS ETC.	ROXBURGH BOROUGH COUNCIL Designed G.R. Date FEB '78 Scale: AS SHOWN Drawn G.R. Job No. 3060 Traced G.R. Checked Approved J.W. Bradley Survey Ref: L.B.-170 F.B.-B.I.	SEWERAGE 1978 — CONTRACT N° 3 PUMPING MAIN N°1 — PLAN AND LONG 'SECTION DRG No. 3060/22 Amendment



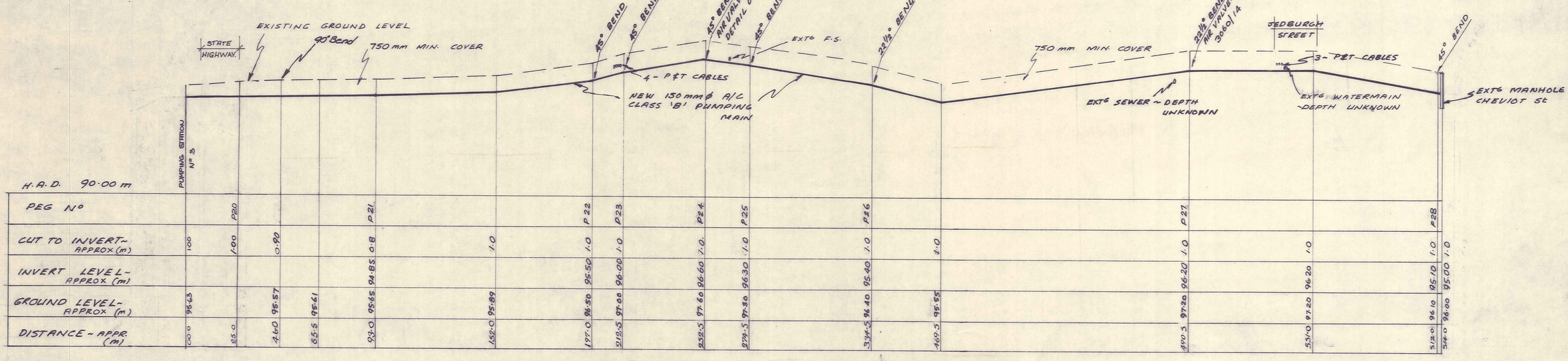
PLAN
Scale 1:1000

NOTE

1. WHERE BENDS ARE NOT SHOWN ON LONG'SECTION OR PLAN, THE DEVIATION SHALL BE TAKEN UP ON THE FLEXIBLE JOINTS~ NOTE 3° MAX PER JOINT (REFER SPEC)
2. Refer To Drg No.3060/23 Details Adjacent To Pumping Station No 3
3. REFER 3060/14 FOR THRUST BLOCK DETAILS.

SCALE

PEG FINDER DIAGRAMS
N.T.S.

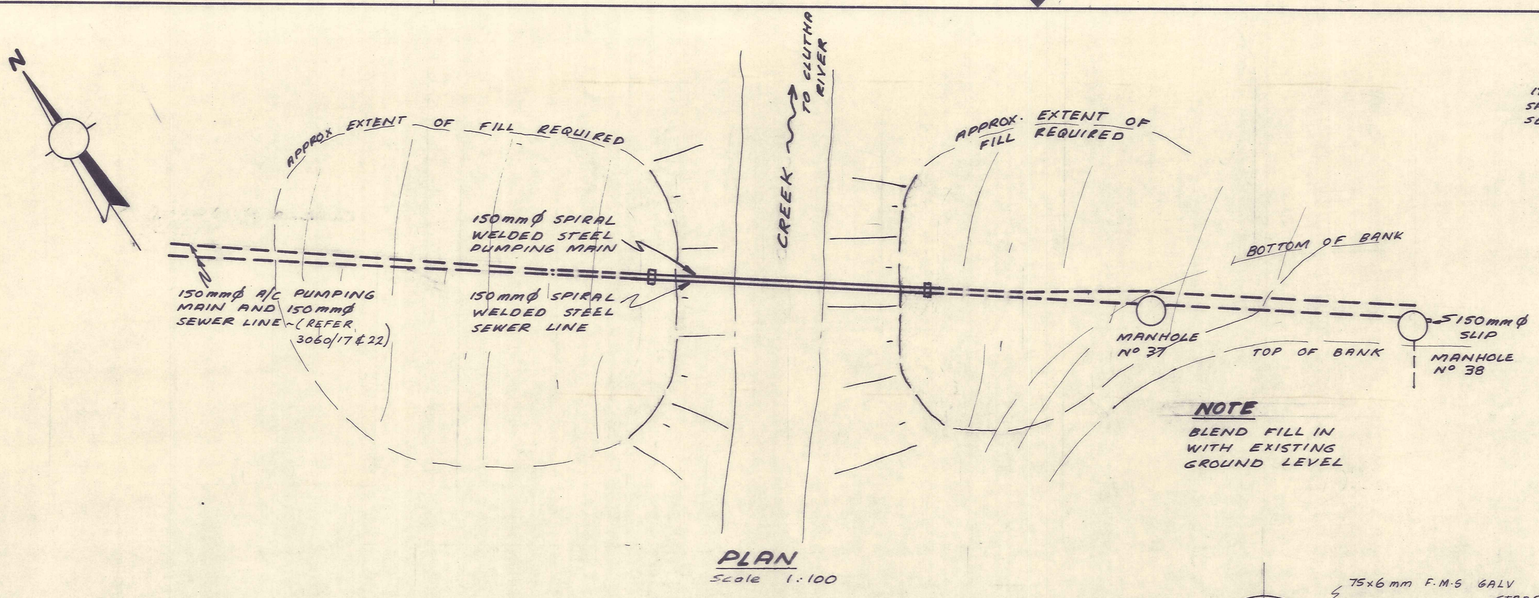


H.A.D. 90·00 m

PEG N°			P20				P21				P22	P23		P24	P25		P26			P27				P28		
CUT TO INVERT~ APPROX (m)	1·00		1·00		0·90		0·8		1·0		1·0	1·0		1·0	1·0		1·0	1·0		1·0			1·0	1·0		1·0	1·0
INVERT LEVEL~ APPROX (m)																											
GROUND LEVEL~ APPROX (m)	96·63				95·57		96·61		95·89		95·50	96·00		96·60	96·30		95·40	95·55		96·20			96·10	95·10		96·00	95·00
DISTANCE~ APPR. (m)	00·0		15·0		46·0		65·5		93·0		152·0	197·0	218·5	252·5	274·5	334·5	469·5			490·3			512·0	534·0		

LONGITUDINAL SECTION
Scale; HORIZ. 1:1000
VERT 1:100

E. R. GARDEN & PARTNERS CONSULTING ENGINEERS DUNEDIN & INVERCARGILL		AMENDMENTS	3060/14 3061/4 RELEVANT DRAWINGS ETC.	ROXBURGH BOROUGH COUNCIL	SEWERAGE 1978 CONTRACT N° 3
				Designed G.R. Date FEB'78 Scale: AS SHOWN	PUMPING MAIN N° 3 PLAN AND
				Drawn G.R. Job No. 3060	LONG 'SECTION DRG No. 3060/23
				Traced G.R. Checked	
				Approved J.W. Bradley M.I.P.E.N.Z. Survey Ref: L.B.~170 F.B.~B·I.	Amendment

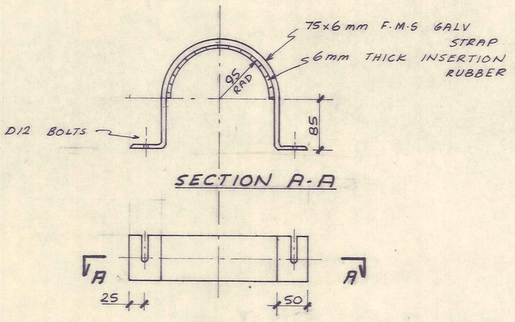


PLAN
Scale 1:100

NOTE
BLEND FILL IN WITH EXISTING GROUND LEVEL

NOTES

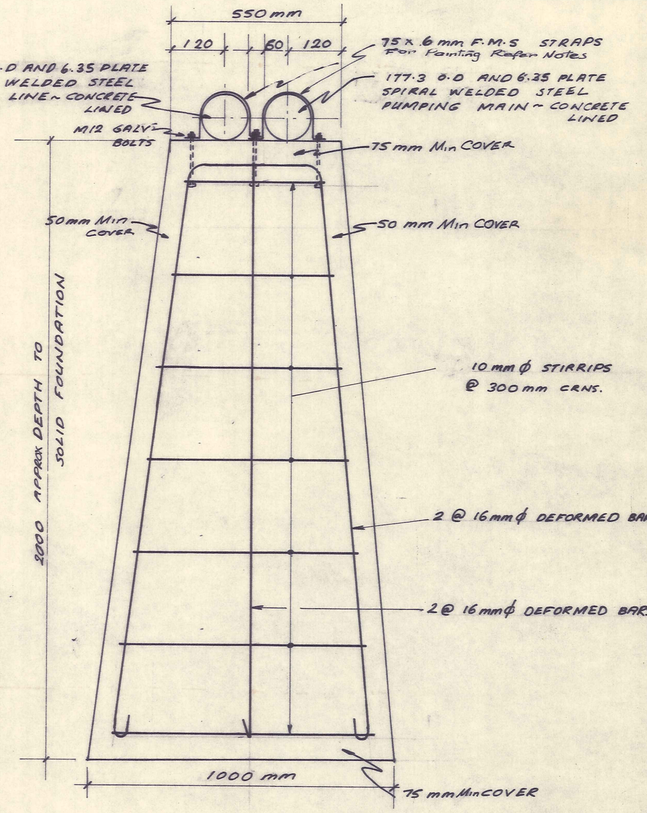
1. THE SPIRAL WELDED STEEL PIPE SHALL BE 177.3 O.D AND 6.35 mm PLATE CONCRETE LINED AND PAINTED WITH DIMETCOTE 5 ~ INORGANIC ZINC
2. REFER TO SPECIFICATION CL 14 FOR PAINTING PROCESS
3. Some Rock Protection Work may be Required in the Area Around the Creek Crossing.
4. Proposed Creek Alignment Work May Necessitate Some Change in this Area.

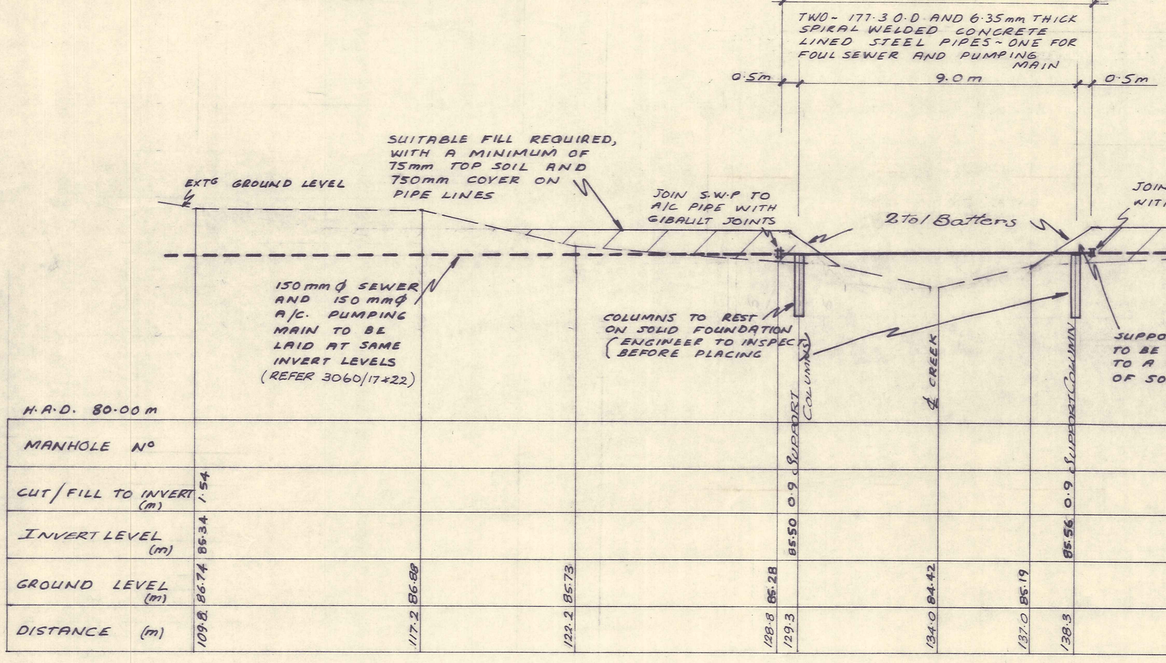


SECTION A-A

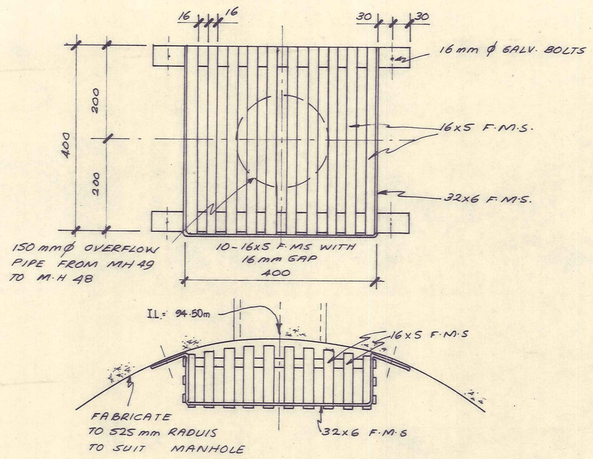
PLAN

BRACKET DETAIL
Scale 1:5
(4 OFF)



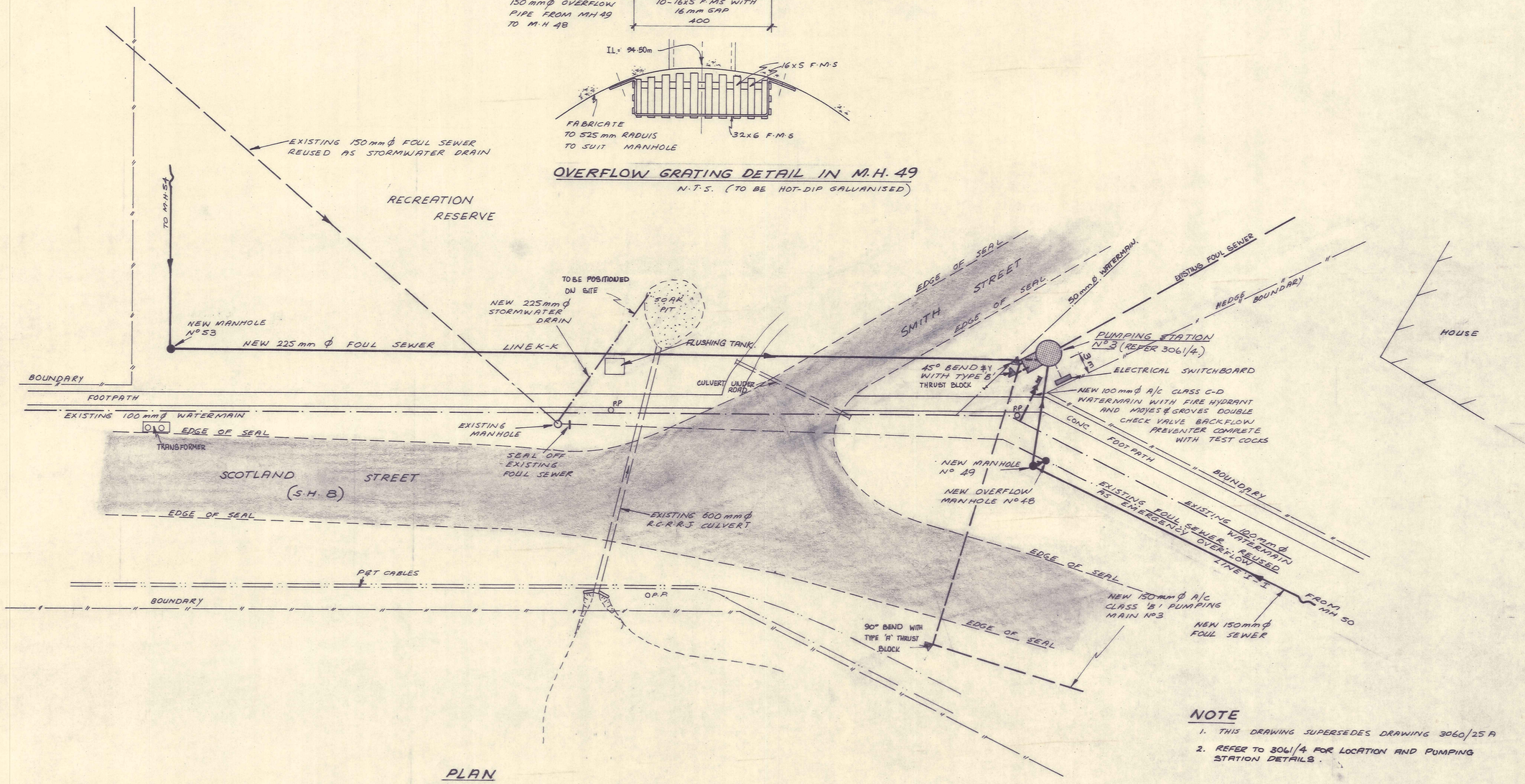


| | | |



OVERFLOW GRATING DETAIL IN M.H. 49

N.T.S. (TO BE HOT-DIP GALVANISED)



PLAN

Scale 1:200

NOTE

1. THIS DRAWING SUPERSEDES DRAWING 3060/25 A
2. REFER TO 3061/4 FOR LOCATION AND PUMPING STATION DETAILS.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

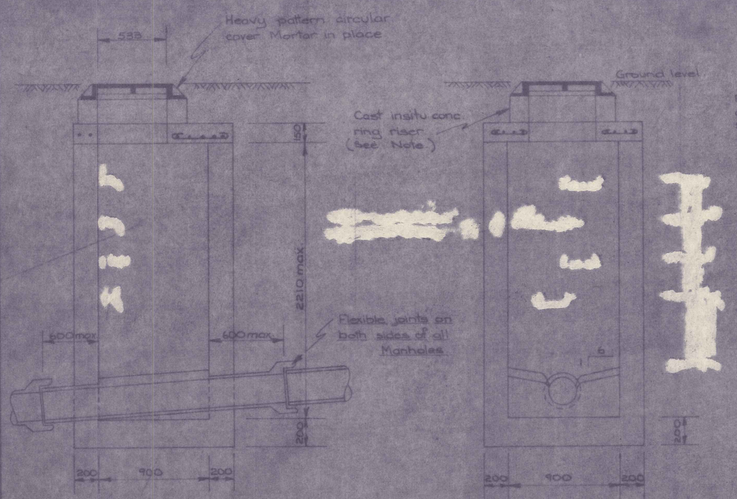
AMENDMENTS

3060/20 & 21
3061/4
RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

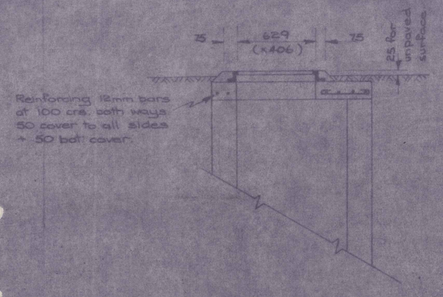
Designed	G.R. J.W.B.	Date	APR 78	Scale:	AS SHOWN
Drawn	G.R.	Job No.	3060		
Traced	G.R.	Checked		Survey Ref:	
Approved					

SEWERAGE 1978 CONTRACT N°3
ARRANGEMENT AROUND PUMPING STATION N°3
DRG No. 3060/25
Amendment

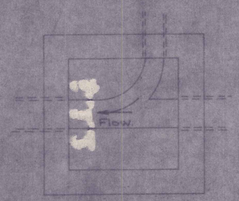


LONGITUDINAL SECTION.

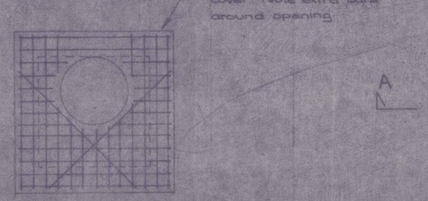
CROSS SECTION.



SECTION A-A.

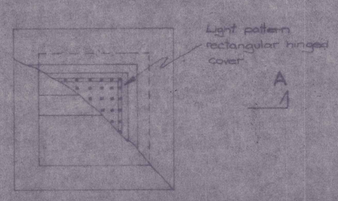


PLAN AT SEWER INTERSECTION.



PLAN REINFORCED COVER SLAB.

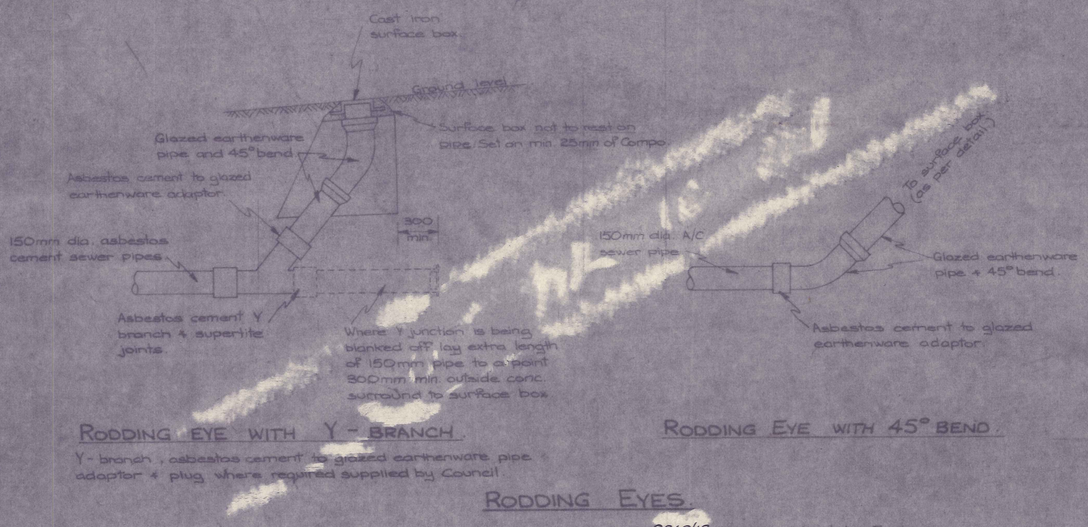
N.B. Cover may be precast.



ALTERNATIVE LIGHT PATTERN PLAN.

NOTE: DETAIL OF COVER OF MANHOLE NOT IN ROAD OR FOOTPATH AND ALSO NOT OVER 1·5m TO INVERT.

CAST INSITU MANHOLES.



RODDING EYE WITH Y-BRANCH

RODDING EYE WITH 45° BEND

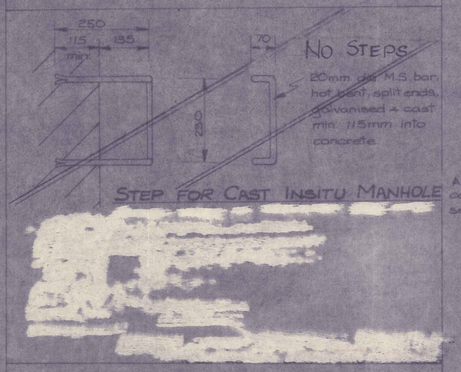
Y-branch, asbestos cement to glazed earthenware pipe adaptor & plug where required supplied by Council.

RODDING EYES.

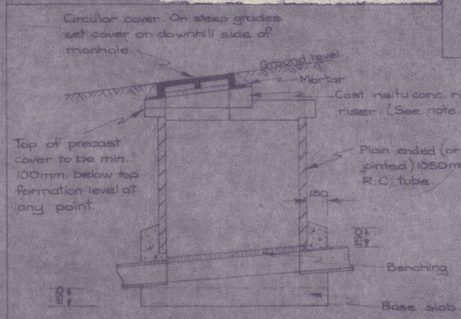
Haunching under pipes as detailed on Drg. No. 3060/18 where required by Engineer.

NOTES:

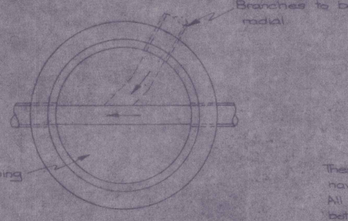
1. R.C. tubes to be 1050mm dia. Class 'S' or precast manholes supplied by an approved supplier.
2. Cast insitu conc. ring risers 150 wide + max. of 260mm high. Mortar manhole cover on top. (Use steel forms or similar for forming ring riser.)



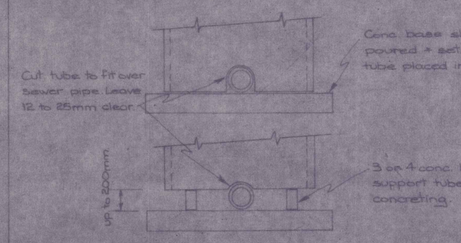
STEP FOR CAST INSITU MANHOLE



LONGITUDINAL SECTION.

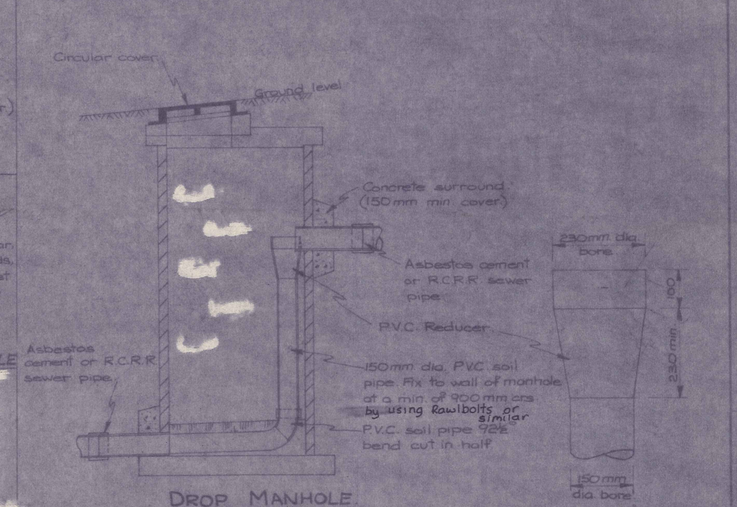


PLAN PRECAST MANHOLE.



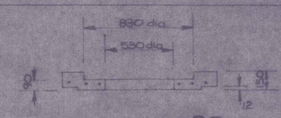
ELEVATION FROM DOWNSTREAM OF ALTERNATIVE POSITIONS OF TUBE FOR PRECAST MANHOLES.

Benching and concrete surround not shown. Alternative positions allow adjustment of tube to prevent cutting tube shorter in length.

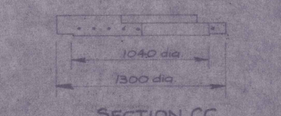


DROP MANHOLE.

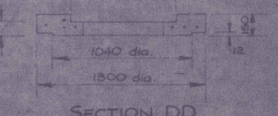
Base, walls & cover for drop manhole to be constructed as detailed for ordinary precast manhole or alternatively constructed insitu as detailed on this drawing.



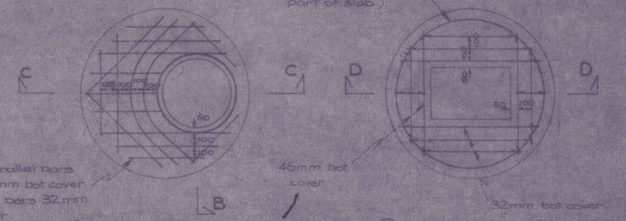
SECTION BB.



SECTION CC

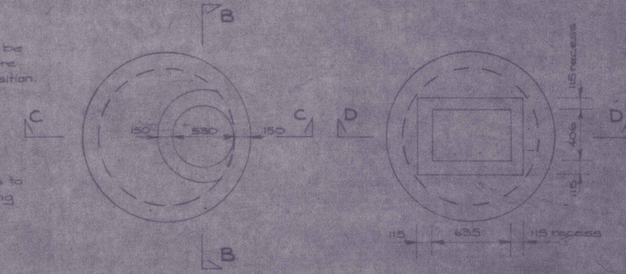


SECTION DD



REINFORCEMENT FOR HEAVY CIRCULAR COVER.

REINFORCEMENT FOR HINGED COVER.



PLAN HEAVY CIRCULAR COVER.

PLAN HINGED COVER.

PRECAST MANHOLES.

N.B. Commercially made manhole covers may be used if approved by Engineer.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

AMENDMENTS

RELEVANT DRAWINGS ETC

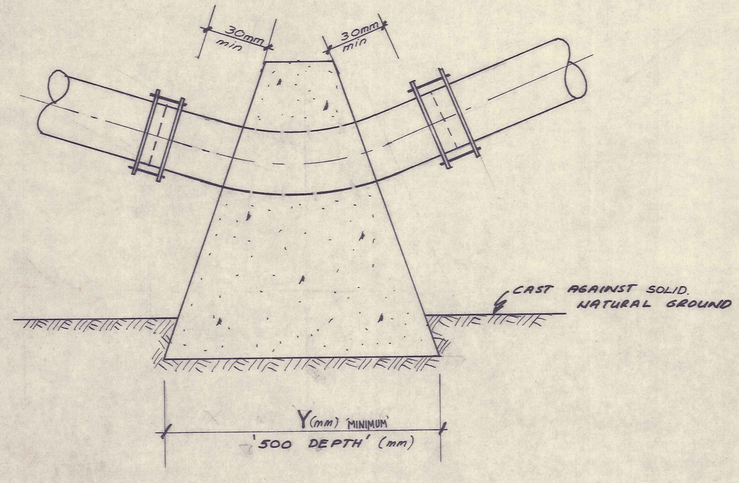
ROXBURGH BOROUGH COUNCIL

Designed	Date JAN 76	Scale	1:25
Drawn	Job No. 3060		
Traced	Checked	Survey Ref.	
Approved		Amendment	

SEWERAGE 1978 — CONTRACT N° 3

MANHOLE & RODDING EYE DETAILS STANDARD

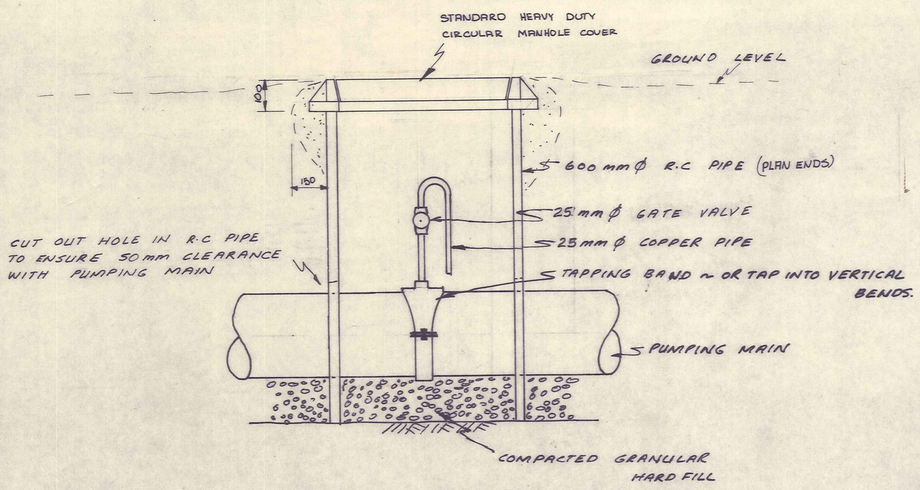
DRG NO. 3062/13



TYPE	DESCRIPTION	'MINIMUM' Y(mm)
'A'	200 mm ϕ 45° BEND 150mm ϕ 90° BEND.	1000
'B'	200 mm ϕ 22½° BEND 150 mm ϕ 45° BEND 150 mm ϕ 30° BEND	600
'C'	200 mm ϕ 11¼° BEND 150 mm ϕ 22½° BEND 150 mm ϕ 11¼° BEND	400

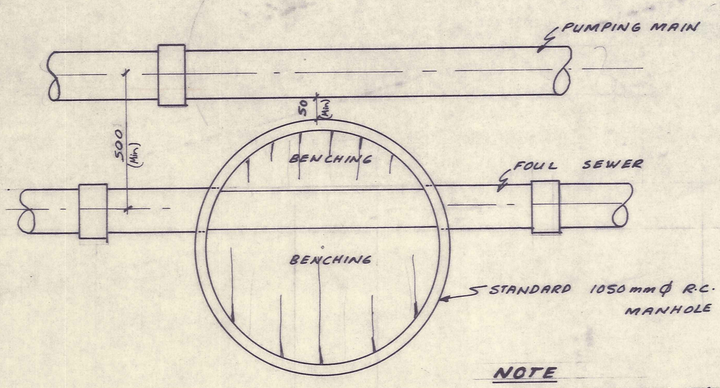
THRUST BLOCK DETAILS

NOTE
FABRICATED STEEL FITTINGS MAY BE SUBSTITUTED FOR CAST IRON BENDS ~ REFER SPECIFICATION



AIR RELEASE VALVE DETAIL ~ N.T.S.

(REFER TO 3060/22 & 23 FOR POSITION)



NOTE
REFER TO DWG No 3060/13 FOR STANDARD MANHOLE DESIGN

NEW MANHOLE DETAIL ~ ADJACENT TO PUMPING MAIN ONLY ~ N.T.S.

INCLUDES MH No's 35, 36, 37 & 38. ON LINE FF

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DUNEDIN & INVERCARGILL

A	COVER ON AIR VALVE CHAMBER CHANGED	NOV '78

AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	G. R.	Date	DEC'77	Scale:	N.T.S.
Drawn	G. R.	Job No.	3060		
Traced	G. R.	Checked		Survey Ref:	
Approved					

SEWERAGE 1978 — CONTRACT No 1

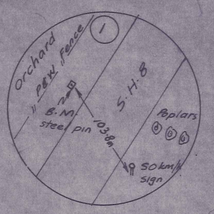
THRUST BLOCK, AIR VALVE & MANHOLE DETAILS

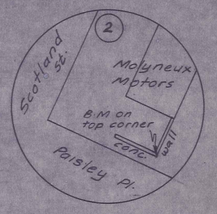
DRG No. 3060/14

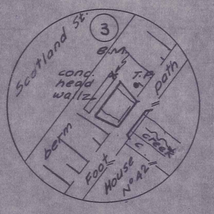
Amendment A

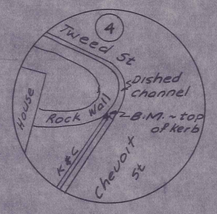
B.M. No	R.L (m)	REMARKS
1	96.602	L & S - WW 78
2	94.231	
3	99.257	
4	86.810	
5	97.378	
6	96.564	
~~7~~	~~97.162~~	DELETED
8	98.949	
9	93.480	
10	92.779	
11	92.891	
12	94.939	
13	90.591	
14	101.107	
15	97.813	
16	97.010	L & S - WW 77
17	96.554	
18	97.808	
19	98.317	
20	97.351	
21	98.992	L & S - WW 76
22	96.021	
23	95.963	

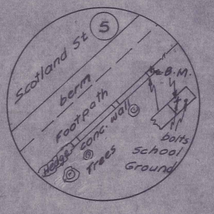


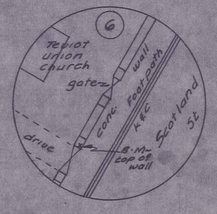


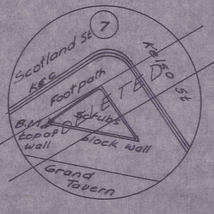


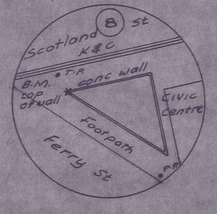


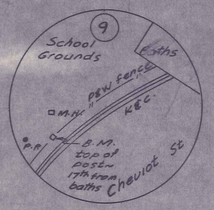


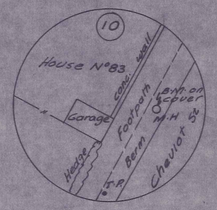


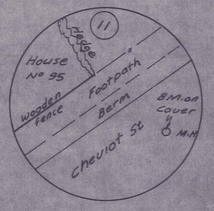


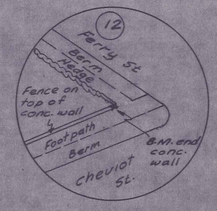


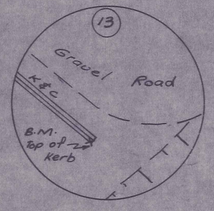












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CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

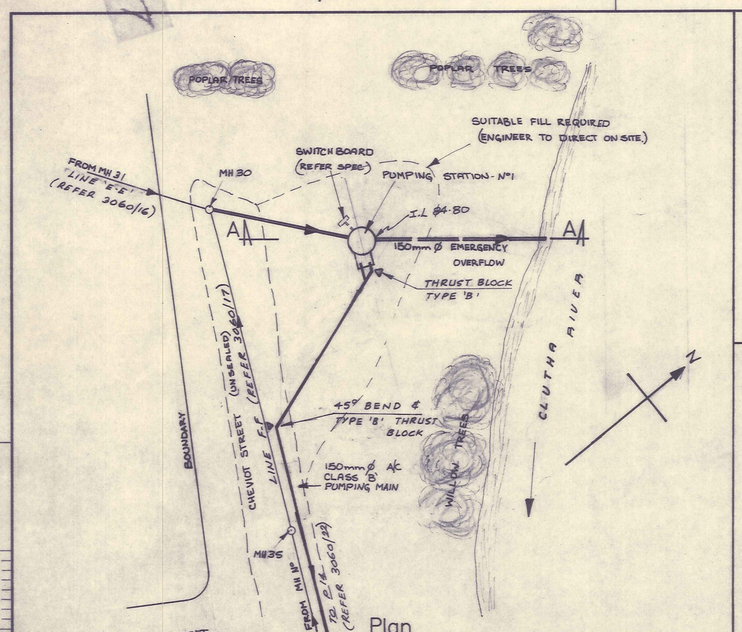
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Drawn	G.R.	Job No.	3060		
Traced	G.R.	Checked	G.E.G.	Survey Ref:	
Approved	J.W. Bradley MNZIE			L.B-136 & 170, F.B.-BI.	

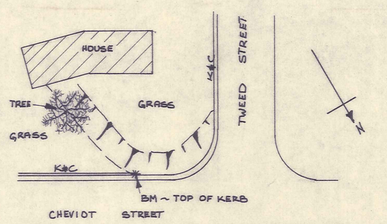
SEWERAGE 1978 — CONTRACT No 1

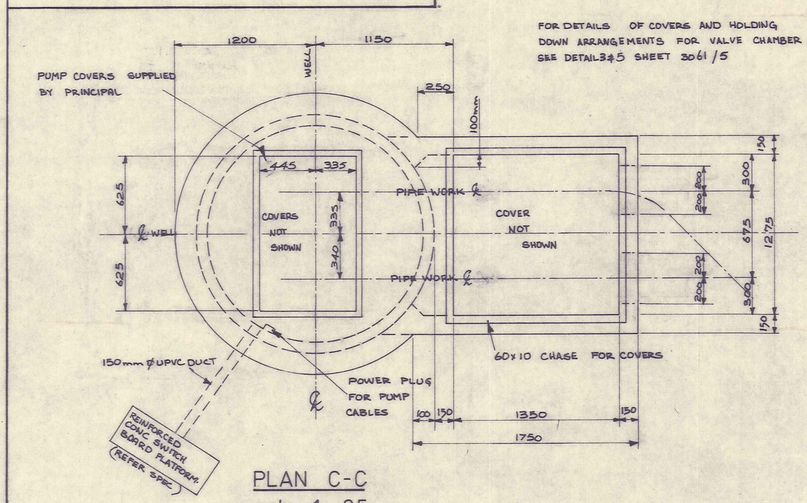
BENCH MARK FINDER DIAGRAMS

DRG No. 3060/15

Amendment

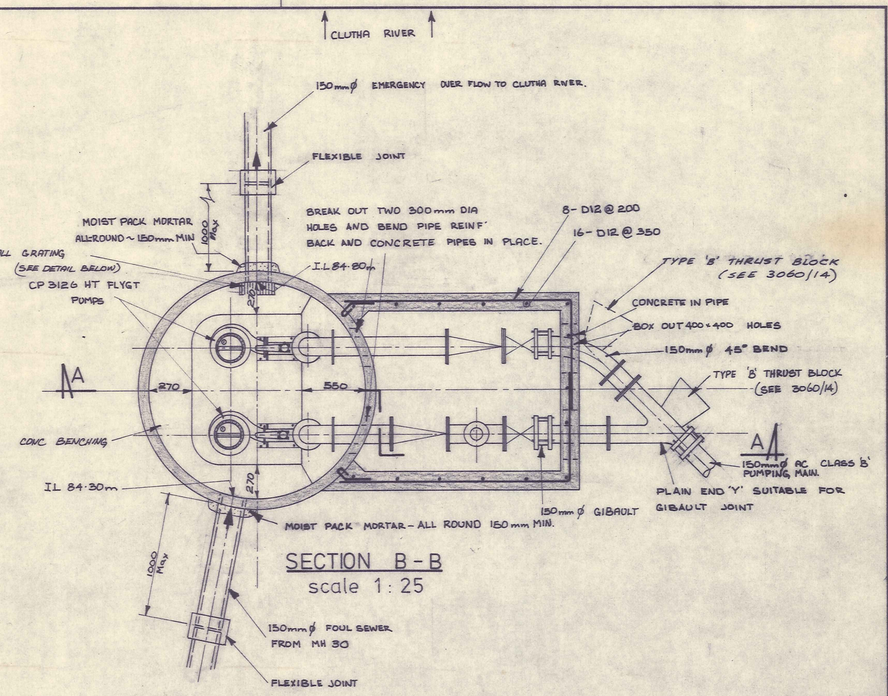






PLAN C-C
scale 1:25

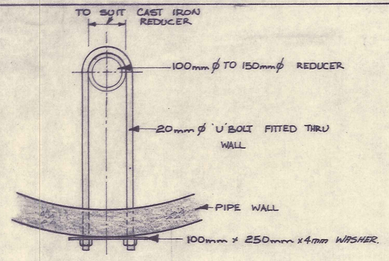
FOR DETAILS OF COVERS AND HOLDING DOWN ARRANGEMENTS FOR VALVE CHAMBER SEE DETAIL 3&5 SHEET 3061/5



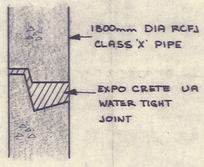
SECTION B-B
scale 1:25

SECTION A-A
scale 1:25

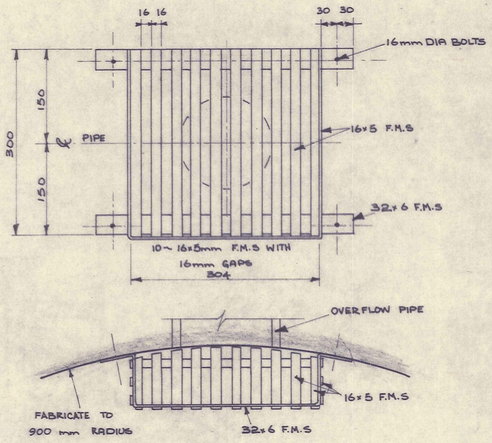
NOTES :-
1. SEE SPECIFICATION CLAUSE 3.3 FOR ALTERNATIVE BASE CONSTRUCTION
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
3. ALL LEVELS ARE IN METRES.
4. ALL REINFORCING IS TO BE OF GRADE 275 DEFORMED BARS.
5. REFER SHEET 3061/5 FOR PUMP STATION DETAILS.
6. SUPPLY OF PUMPS & PUMPWELL COVER ARE NOT IN CONTRACT. ~ INSTALLATION ONLY



DETAIL OF 'U' BOLT
scale 1:10

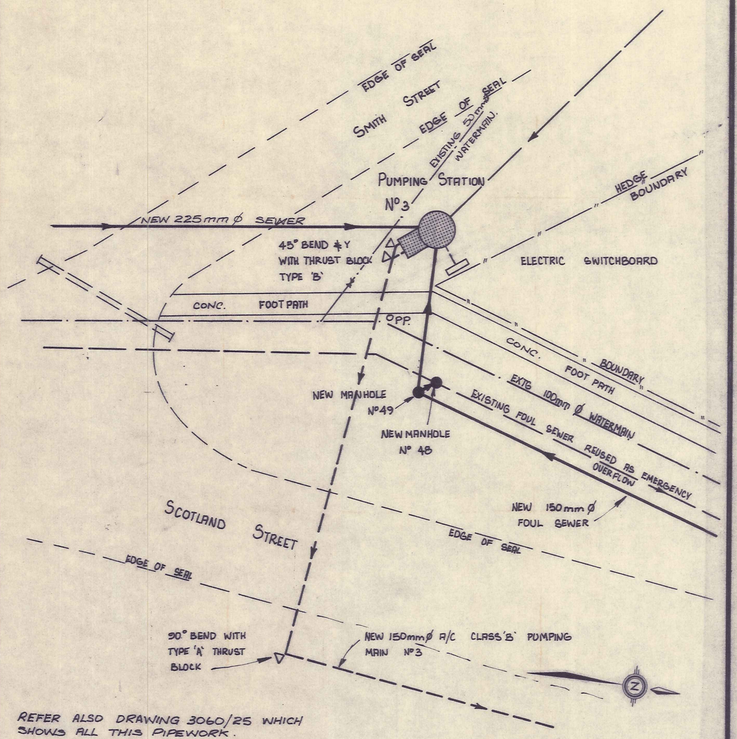


DETAIL OF PUMPWELL PIPE JOINT
scale 1:5



PLAN & ELEVATION OF OVERFLOW GRATING
TO BE HOT DIP GALVANISED
scale 1:5

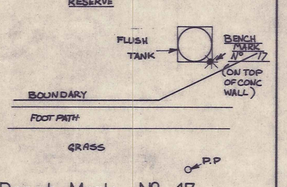
E. R. GARDEN & PARTNERS CONSULTING ENGINEERS DUNEDIN & INVERCARGILL		AMENDMENTS	3061/5 3060/16,17 & 22	RELEVANT DRAWINGS ETC.	ROXBURGH BOROUGH COUNCIL		SEWERAGE 1978 CONTRACT N° 3 PUMPING STATION N°1
					Designed JWB/G.R. Date FEB 78 Scale: AS SHOWN Drawn J.W.C Job No. 3061 Traced J.W.C Checked Approved		DRG No. 3061/3 Amendment
						Survey Ref: L.B.~170 F.B.~B.I.	



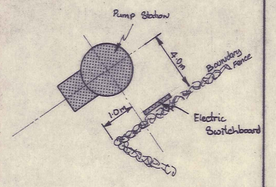
REFER ALSO DRAWING 3060/25 WHICH SHOWS ALL THIS PIPEWORK.

Site Plan

Scale 1:200



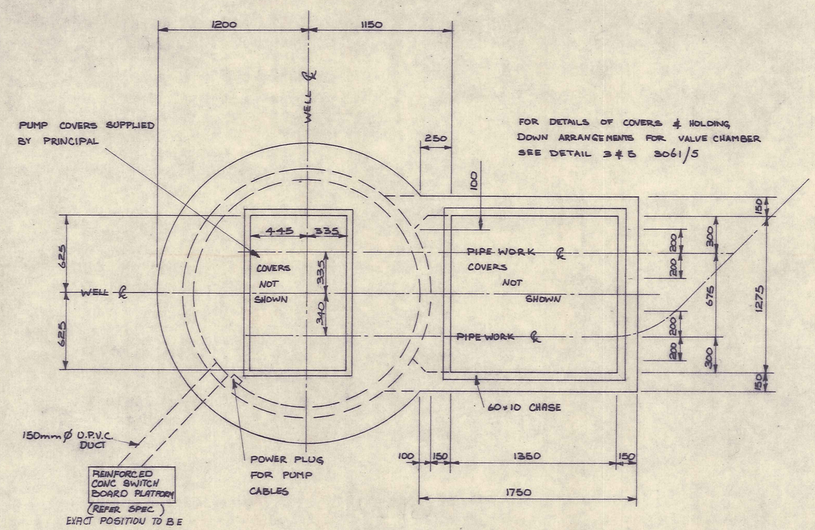
Bench Mark Nº 17
RL=96.554



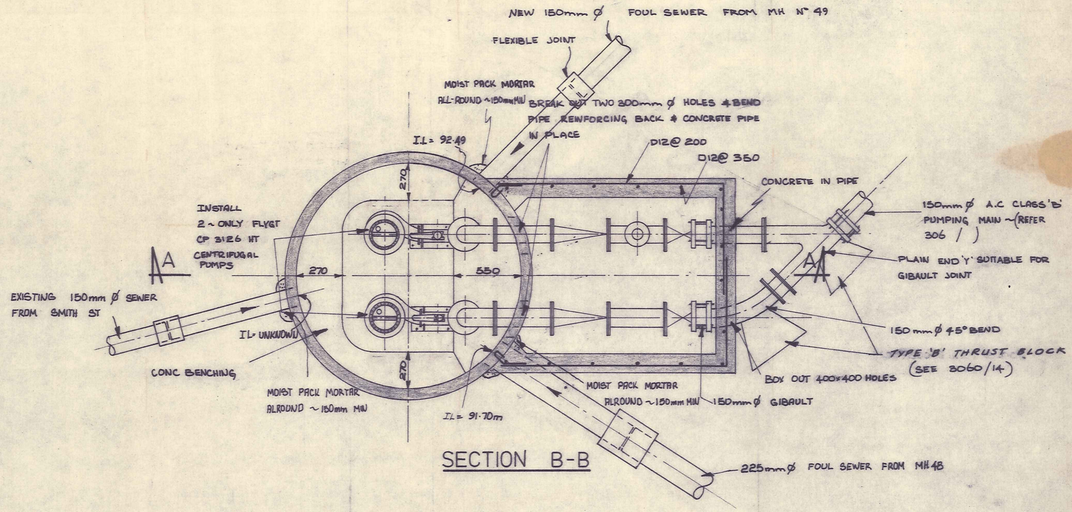
PUMPING STATION LOCATION DIAGRAM

NOTES:-

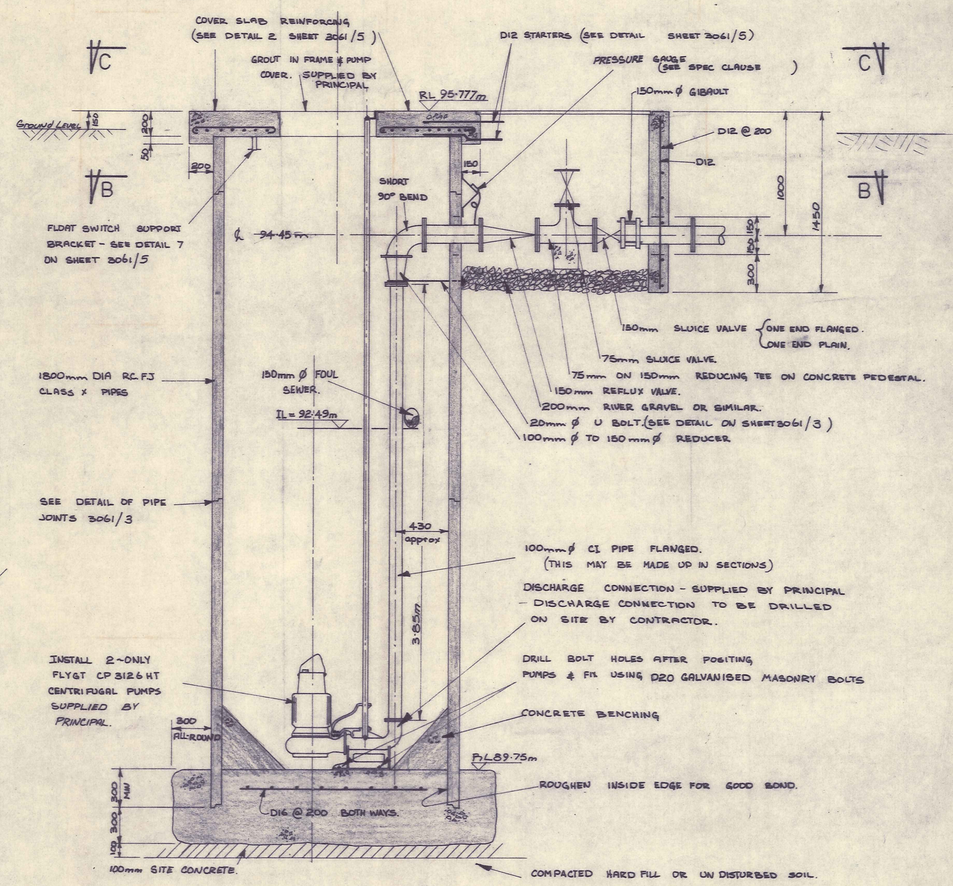
1. SEE SPECIFICATION FOR ALTERNATIVE BASE CONSTRUCTIONS
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED
3. ALL LEVELS IN METRES
4. ALL REINFORCEMENT IS OF GRADE 275 DEFORMED BARS
5. REFER 3061/3 & 5 FOR PUMP STATION DETAILS
6. SUPPLY OF PUMPS & PUMPWELL COVERS IS NOT IN CONTRACT.
7. REFER TO 3060/25 & 26 FOR DETAILS ADJACENT TO PUMPING STATION.



PLAN C-C



SECTION B-B



SECTION A-A

SCALE 1:25

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

AMENDMENTS

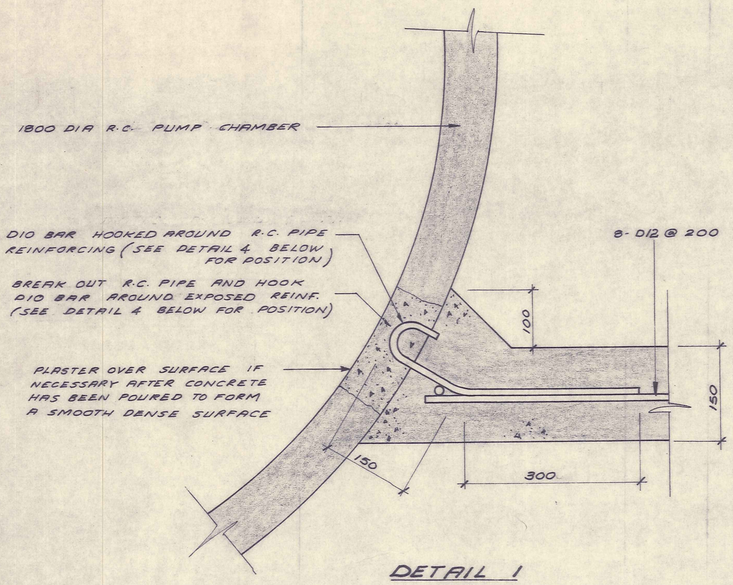
3061/3 & 5
3060/20, 21 & 23

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	J.W.B/G.R.	Date	FEB 78	Scale:	AS SHOWN
Drawn	J.W.C.	Job No.	3061		
Traced	J.W.C.	Checked		Survey Ref:	
Approved					

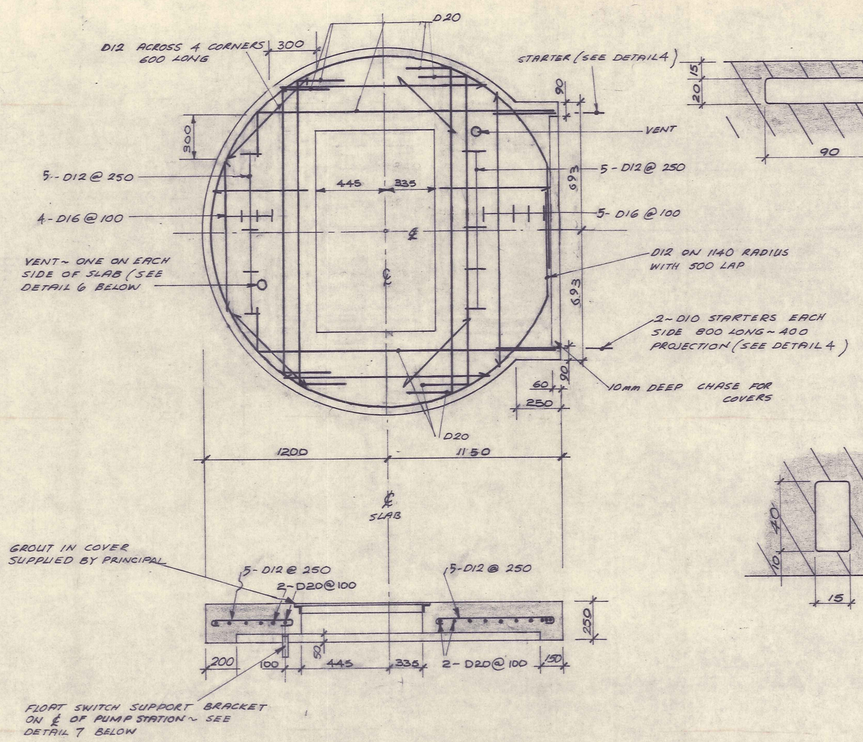
SEWERAGE 1978 CONTRACT Nº 3
PUMPING STATION Nº 3
DRG No. 3061/4
Amendment



DETAIL 1

REINFORCING TIES FROM VALVE CHAMBER TO PUMP CHAMBER

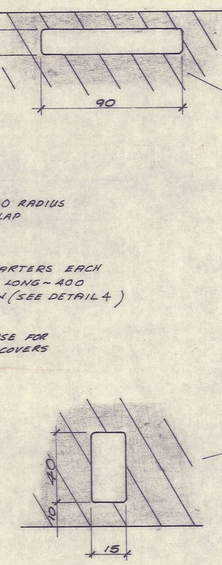
Scale 1:5

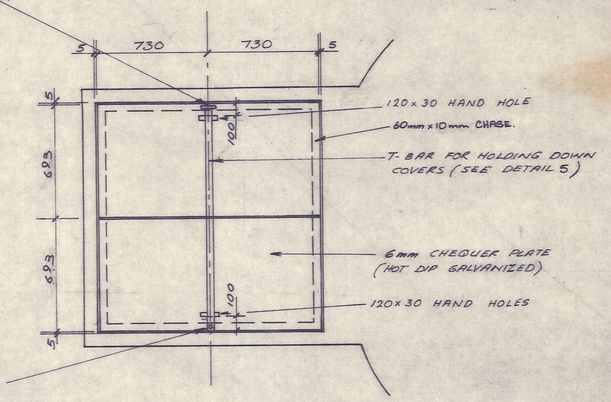


DETAIL 2

PLAN & ELEVATION ON ℄ OF COVER SLAB REINFORCEMENT

Scale 1:20

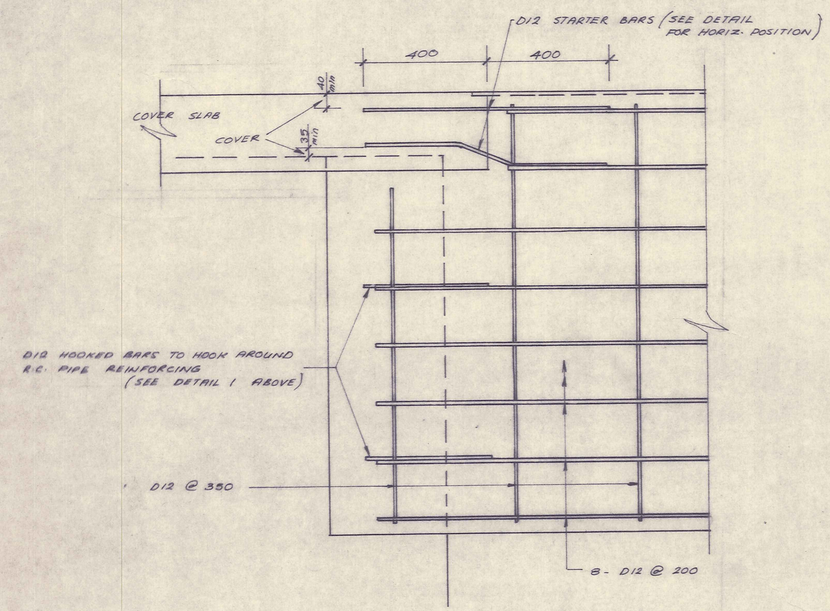




DETAIL 3

VALVE CHAMBER COVERS

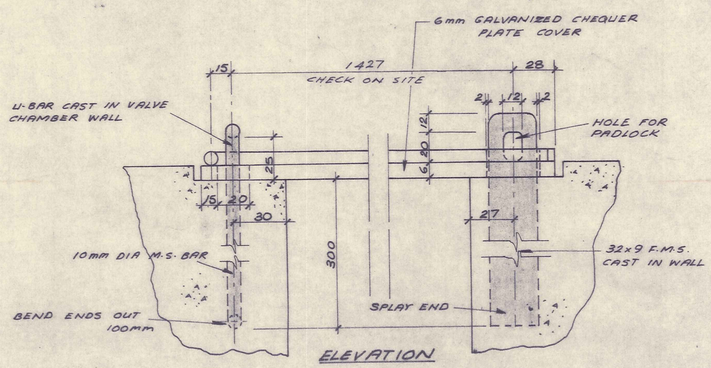
Scale N.T.S.



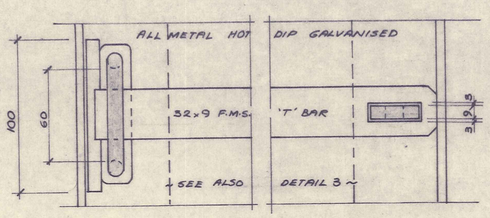
DETAIL 4

STARTERS FROM COVER SLAB AND POSITIONS OF HOOKED TIES TO PUMP CHAMBER

Scale 1:10



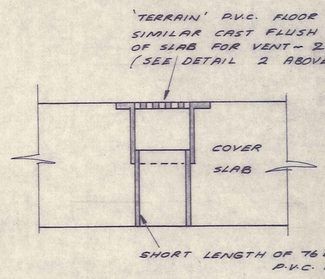
ELEVATION



PLAN

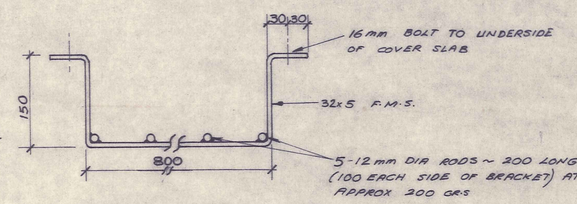
DETAIL 5

'T' BAR FOR HOLDING DOWN COVERS - Scale 1:2



DETAIL 6

VENT - N.T.S.



DETAIL 7

SUPPORT BRACKET FOR FLOAT SWITCHES

Scale 1:5 (HOT DIP GALVANIZED)

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

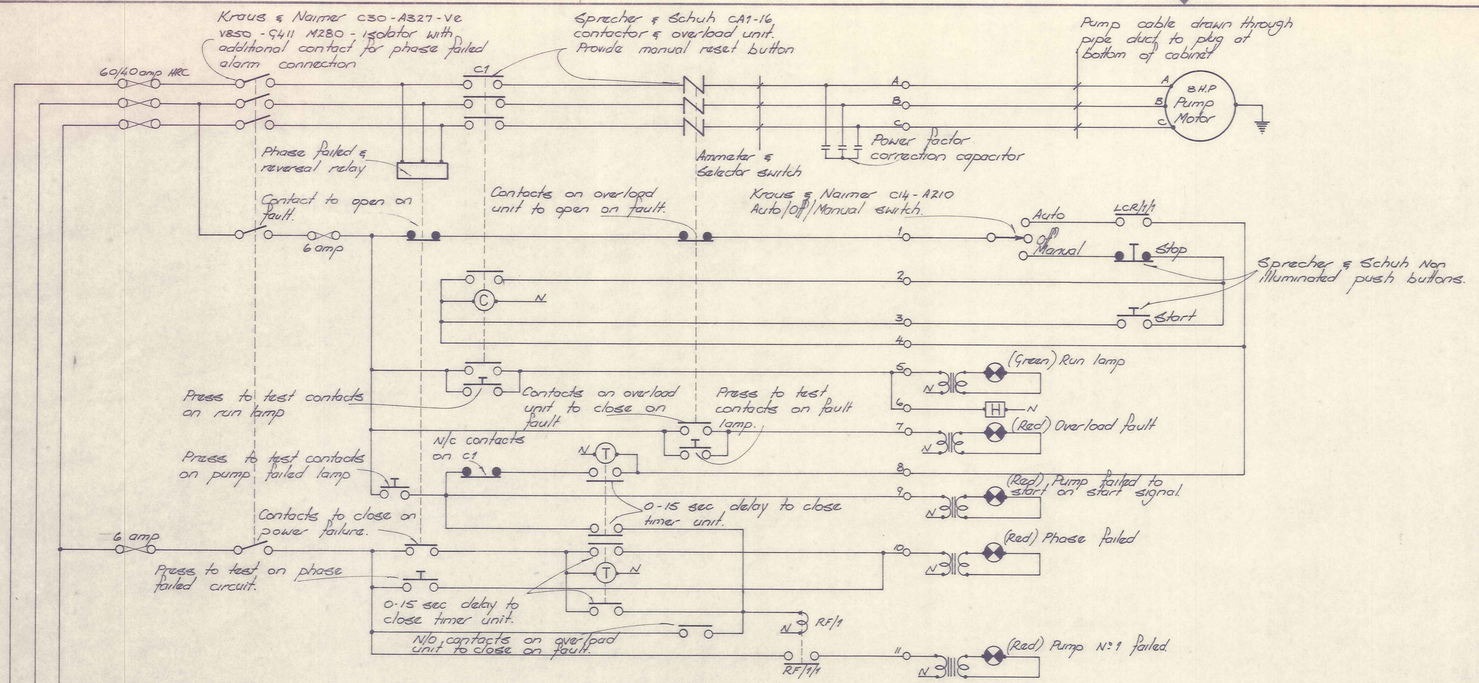
AMENDMENTS

3061/3&4
RELEVANT DRAWINGS ETC.

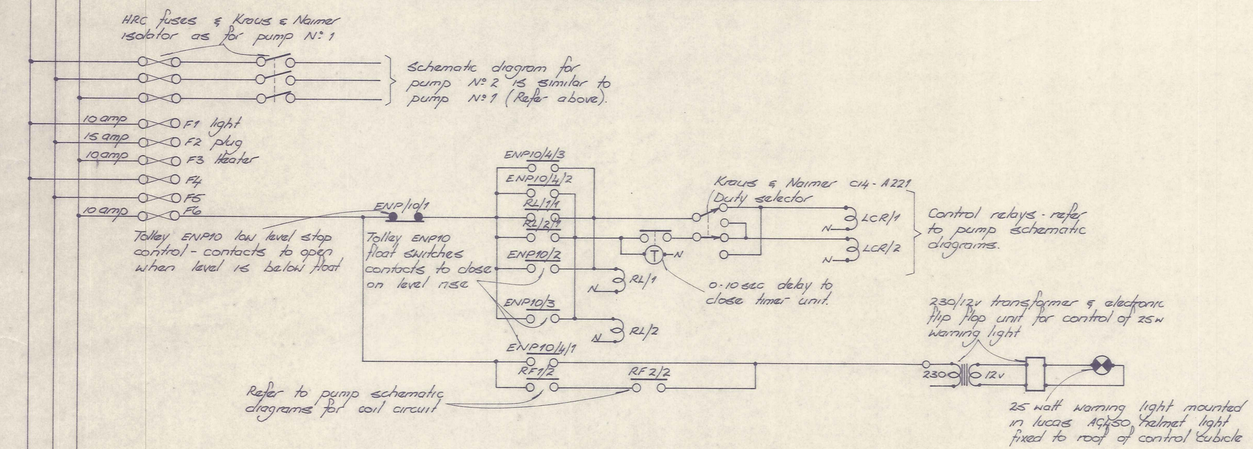
ROXBURGH BOROUGH COUNCIL

Designed	JWB/GR	Date	FEB'78	Scale:	AS SHOWN
Drawn	G.R.	Job No.	3061		
Traced	G.R.	Checked		Survey Ref:	
Approved					

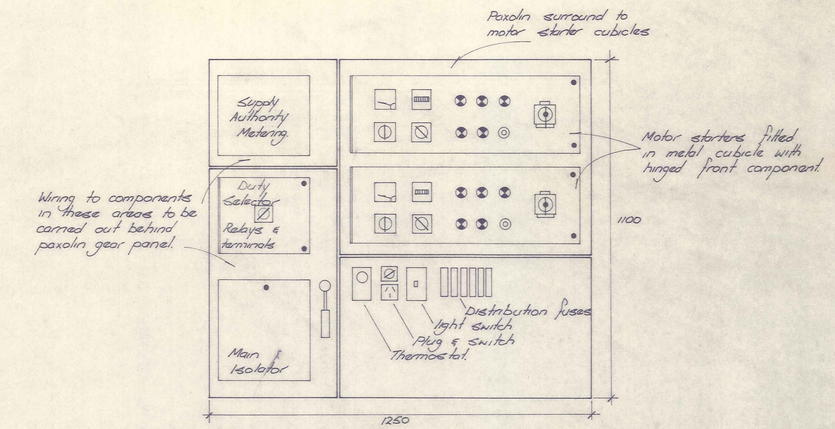
SEWERAGE 1978 — CONTRACT N°3
PUMPING STATION N°s 1 & 3
DETAILS
DRG No. 3061/5
Amendment



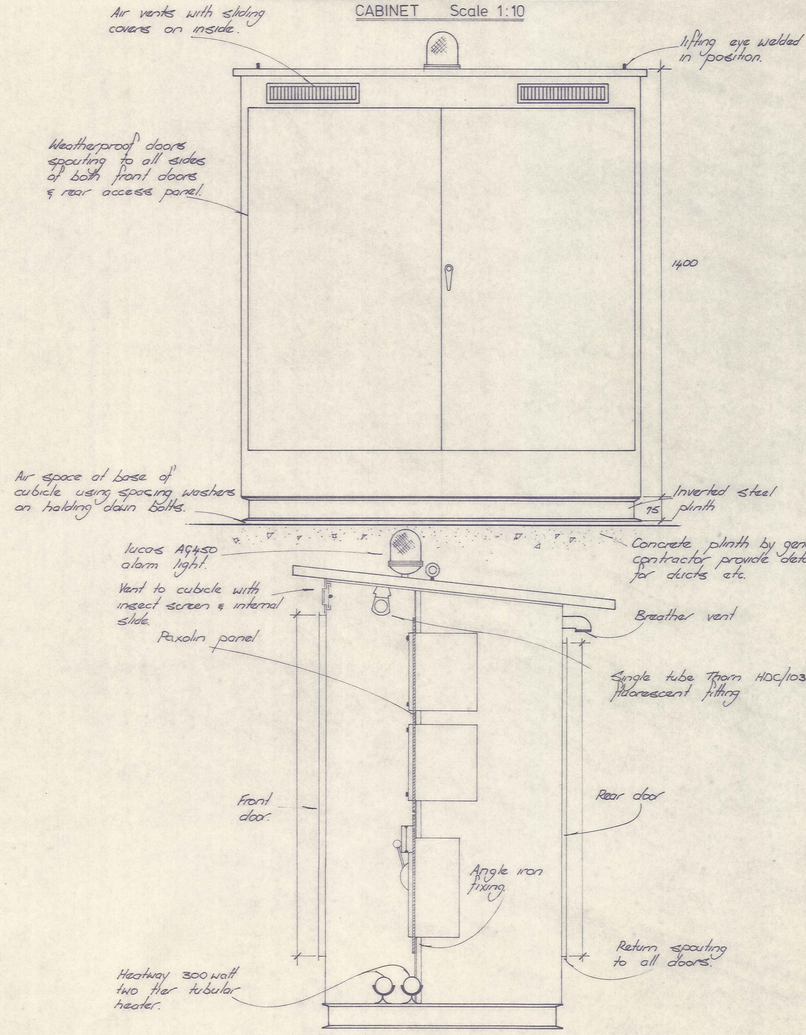
SCHEMATIC CONTROL DIAGRAM FOR PUMP Nº 1 – PUMP Nº 2 IS SIMILAR



DIAGRAMATIC LAYOUT OF ENP10 LEVEL SWITCHES IN WELL



INTERNAL FRONT VIEW OF SWITCHBOARD CABINET Scale 1:10



E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS
DUNEDIN & INVERCARGILL

PEDERSEN & PARTNERS
CONSULTING ELECTRICAL ENGINEERS
P.O BOX 5258 DUNEDIN

AMENDMENTS

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	[signature]	Date	Nov 1978	Scale:	N.T.S. & 1:100
Drawn	D. Clearwater	Job No.	390		
Traced	D. Clearwater	Checked	[signature]	Survey Ref:	
Approved					

SEWAGE 1978 CONTRACT Nº 3
PUMPING STATIONS Nº 1 (Nº 3 is Similar)
ELECTRICAL — Schematic Control Diagrams & Control Cubicle Elevations
DRG No. E 1
Amendment

- 1 DEC 1978

CLUTHA RIVER

CHEVIOT ST

SCOTLAND ST

TWEED ST

EDNAM ST

MELROSE ST

ABBOTSFORD ST

KELSO ST

HAWICK ST

JEDBURGH ST

FERRY RD

BRANXHOLM ST

TAIEVIOT JUNIOR PUBLIC

OTAGO EDUCATION BOARD

SCHOOL

HOSPITAL

Anglican Vicarage

Surgery

Library

Post Office

Grand Tavern

Commercial Tavern

Alternative Hotel

Bakery

Garage

Dairy

Cafe

Motor Mart

Fire Station

Police Station

Public Rest Rooms

Bowling Club

Tennis Courts

Swimming Baths

E. Jetty

W. Jetty

SCHOOL HOSTEL C.E.B.

KNEWSTUBB.

RECLAIMED STREET S.O. 12170

GAZ 1956

D.P. 7955

D.P. 8812L

Boys Institute

Footpath

Fence

Hedge

Edge of Bank

Water Course

Inundation

Boundary

Building

Contour

Trees

Power Pole

Telephone Pole

Light

Gate

Steps

Ramp

Kerb

Channel

Manhole

Hydrant

Valve

Sewers

Watermains

RES

SHEET Nº 1

NOTE PLAN TO BE READ IN CONJUNCTION WITH 3346/2.

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS & SURVEYORS
DUNEDIN INVERCARGILL

A	Property owners names	Sept '71.	
B	8" LINE DOWN TWEED ST & ALONG SCOTLAND ST TO PUMP-STATION. NEW 4" FOUL SEWER IN EDINBURGH ST		WATER CONNECTION MADE TO HOUSES IN SCOTLAND ST FROM 4" WATER MAIN. DELETION OF VALVES BY RESERVOIR CREEK & ASSOCIATED PIPEWORK. Nov/1976

AMENDMENTS

Note: this dwg is a direct tracing of an untitled print held by Roxburgh Borough Council

RELEVANT DRAWINGS ETC.

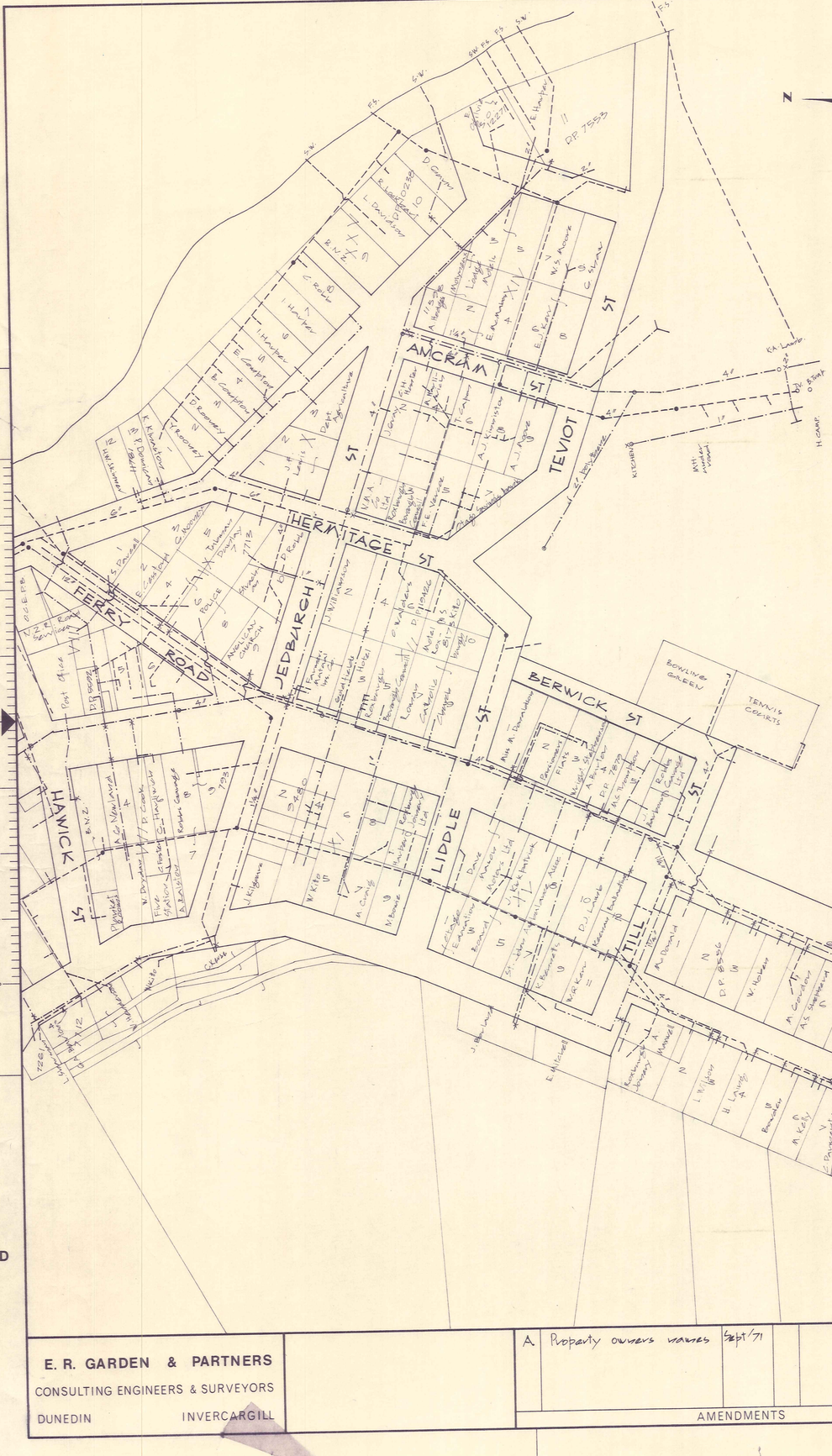
ROXBURGH BOROUGH COUNCIL

Designed		Date	July 71	Scale:	2 chs to 1 in
Drawn	[illegible]	Job No.	7020		
Traced	DJM	Checked		Survey Ref:	
Approved					

EXISTING SEWERS & WATERMAINS
RECORD PLAN

No. of Sheets	2	Sheet No.	1	DRG No.	R 1014
Amendment	A				

See sheet two



SHEET Nº 2

E. R. GARDEN & PARTNERS
CONSULTING ENGINEERS & SURVEYORS
DUNEDIN INVERCARGILL

A	Property owners names	Sept/71

AMENDMENTS

Note: this dwg is a direct tracing of untitled prints held by Roxburgh Borough Council.

RELEVANT DRAWINGS ETC.

ROXBURGH BOROUGH COUNCIL

Designed	[illegible]	Date	July 71	Scale:	2 chs to 1 in
Drawn	I	Job No.	7020		
Traced	[illegible]	Checked		Survey Ref:	
Approved					

EXISTING SEWERS & WATERMAINS
RECORD PLAN

No. of Sheets	2	Sheet No.	2
Amendment	A	DRG No.	R 1014