

# CROMWELL BOROUGH COUNCIL

## NEIGHBOURHOOD ONE DEVELOPMENT



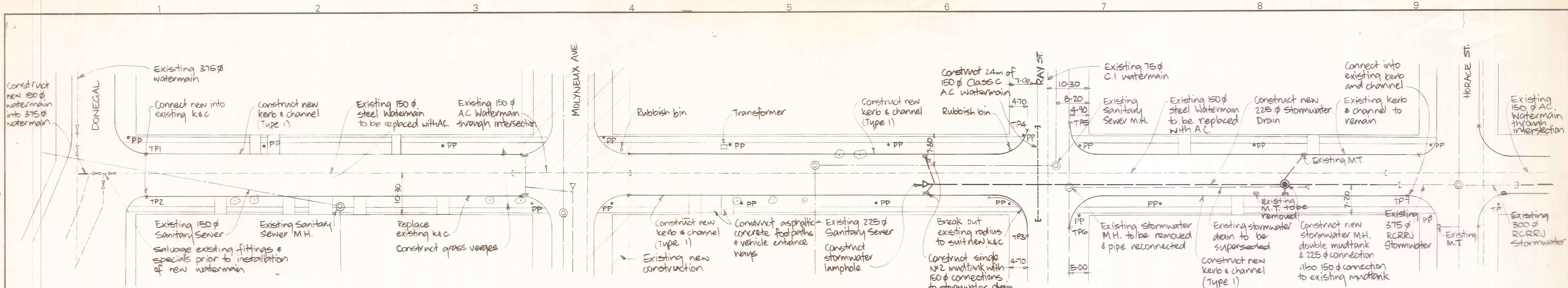
DUFFILL WATTS & KING LTD  
Consulting Engineers

CONTRACT NO 23

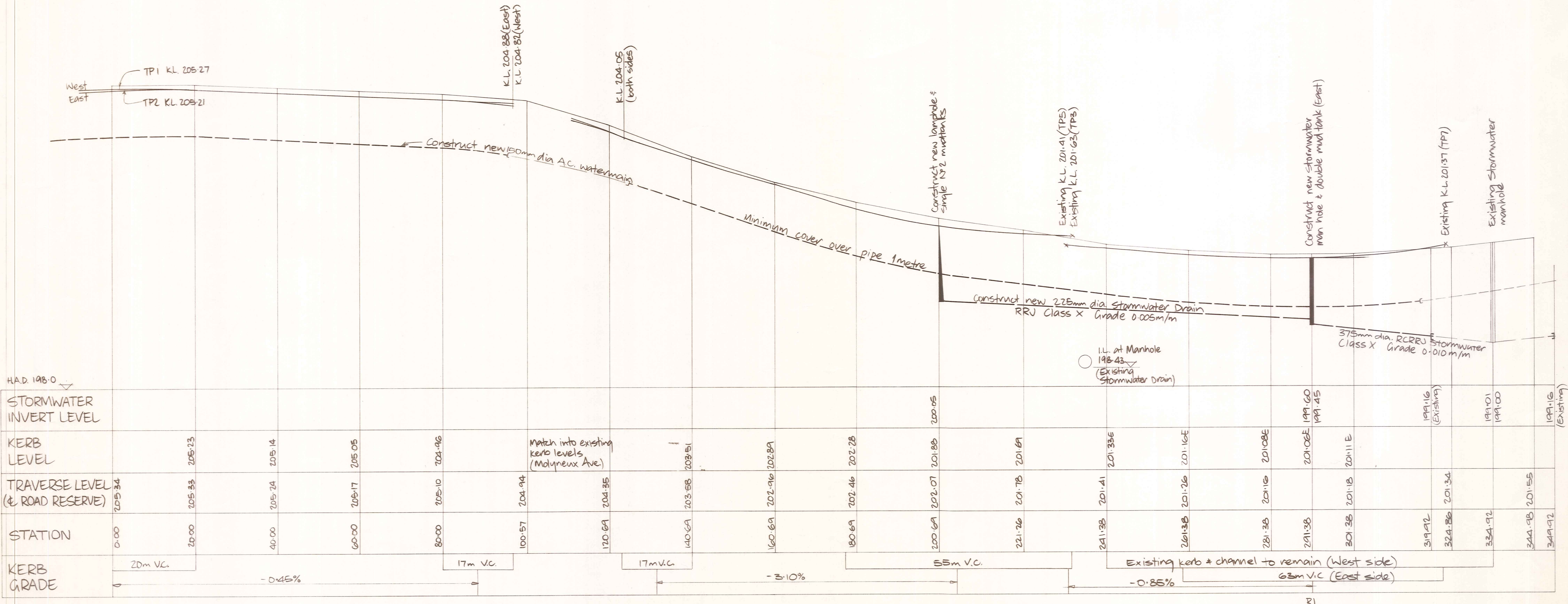
BLYTH ST.

Set No

KEVIN BLAIR CONTRACTORS LTD.  
*Kevin Blair*



PLAN  
1:500



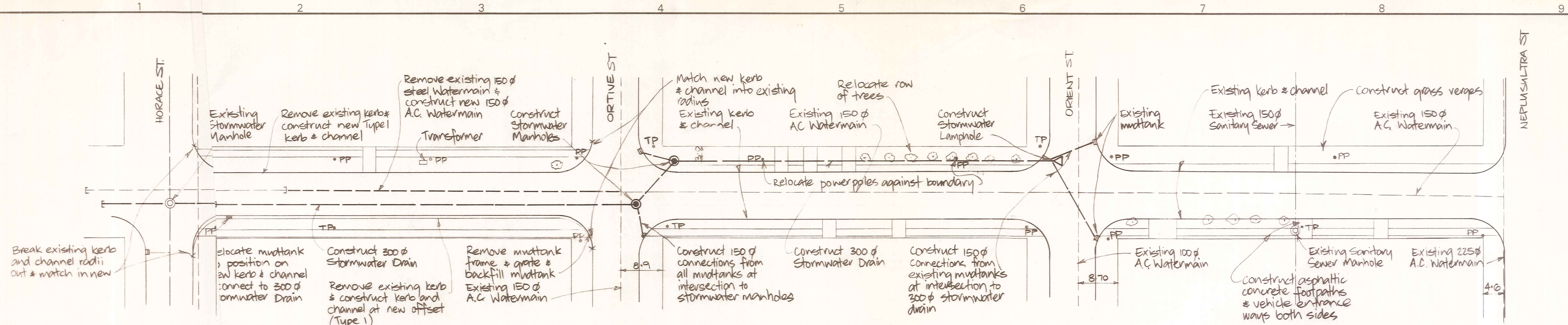
LONGITUDINAL SECTION  
Horizontal 1:500  
Vertical 1:50

ORIGINAL SIZE  
mm INCHES  
0 10 20 30 40 50 60 70 80 90 100 150 200 300

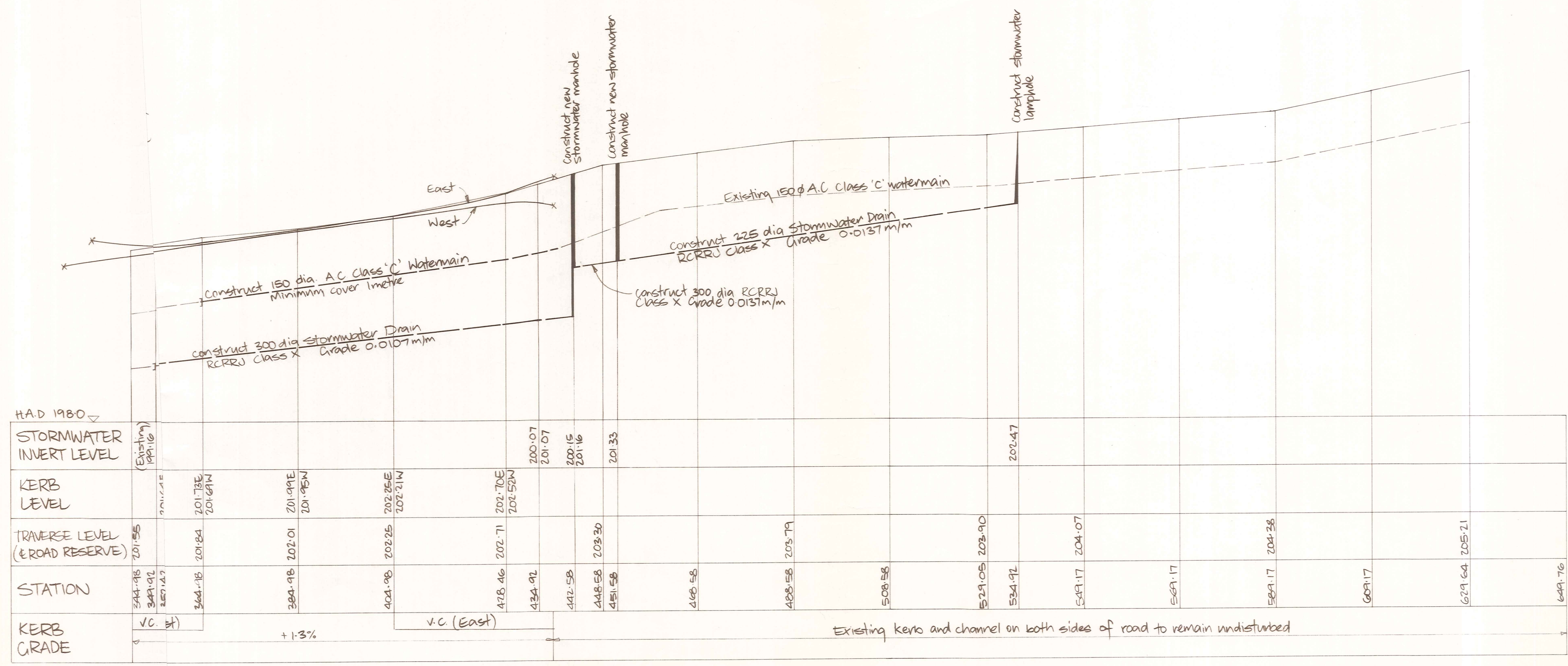
<b>DUFFILL WATTS &amp; KING LTD</b> CONSULTING CIVIL & STRUCTURAL ENGINEERS Dunedin PO Box 5269 Ph 777-133 Invercargill PO Box 576 Ph 83049 Cromwell PO Box 82 Ph 50391	<b>CROMWELL BOROUGH COUNCIL</b>	<b>NEIGHBOURHOOD 1 DEVELOPMENT</b>	CONTRACT NO. 23	<b>BLYTH STREET</b> (DONEGAL ST. - HORACE ST.)	AMENDMENTS		NAME DATE	JOB NO.	Sheet No
			CONSTRUCTION OF STREETWORKS AND ENGINEERING SERVICES		NO. BY DATE	Appvd.	Surveyed Drawn Calculations Traced Checked Approved	P Durstain June 83 N Jelen " " G Murray Aug 83 R.H J West 3/84	10203

*R*

File 9/19/82 L.B. 349 615 F.B. ~



PLAN  
1:500



LONGITUDINAL SECTION  
Horizontal 1:500  
Vertical 1:50

ORIGINAL SIZE mm INCHES  
300  
200  
150  
100  
50  
0

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CROMWELL  
BOROUGH COUNCIL

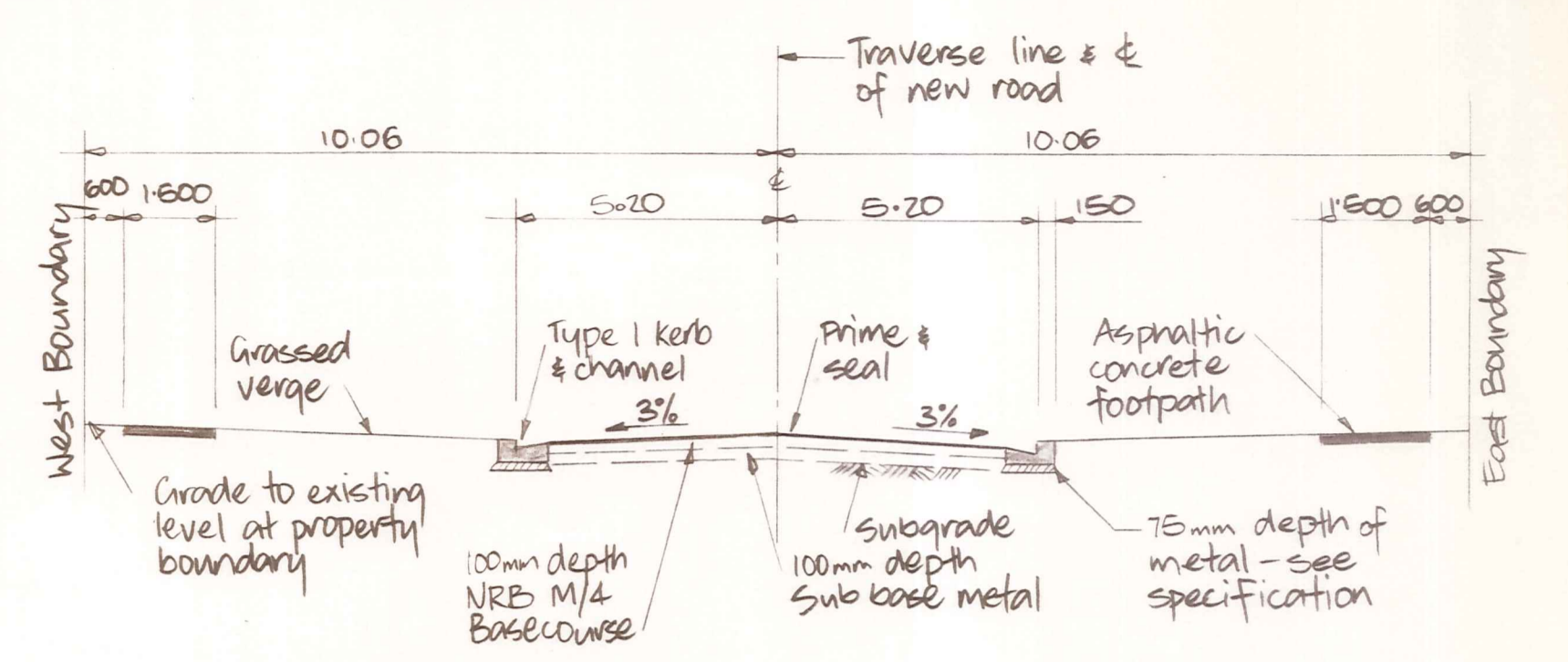
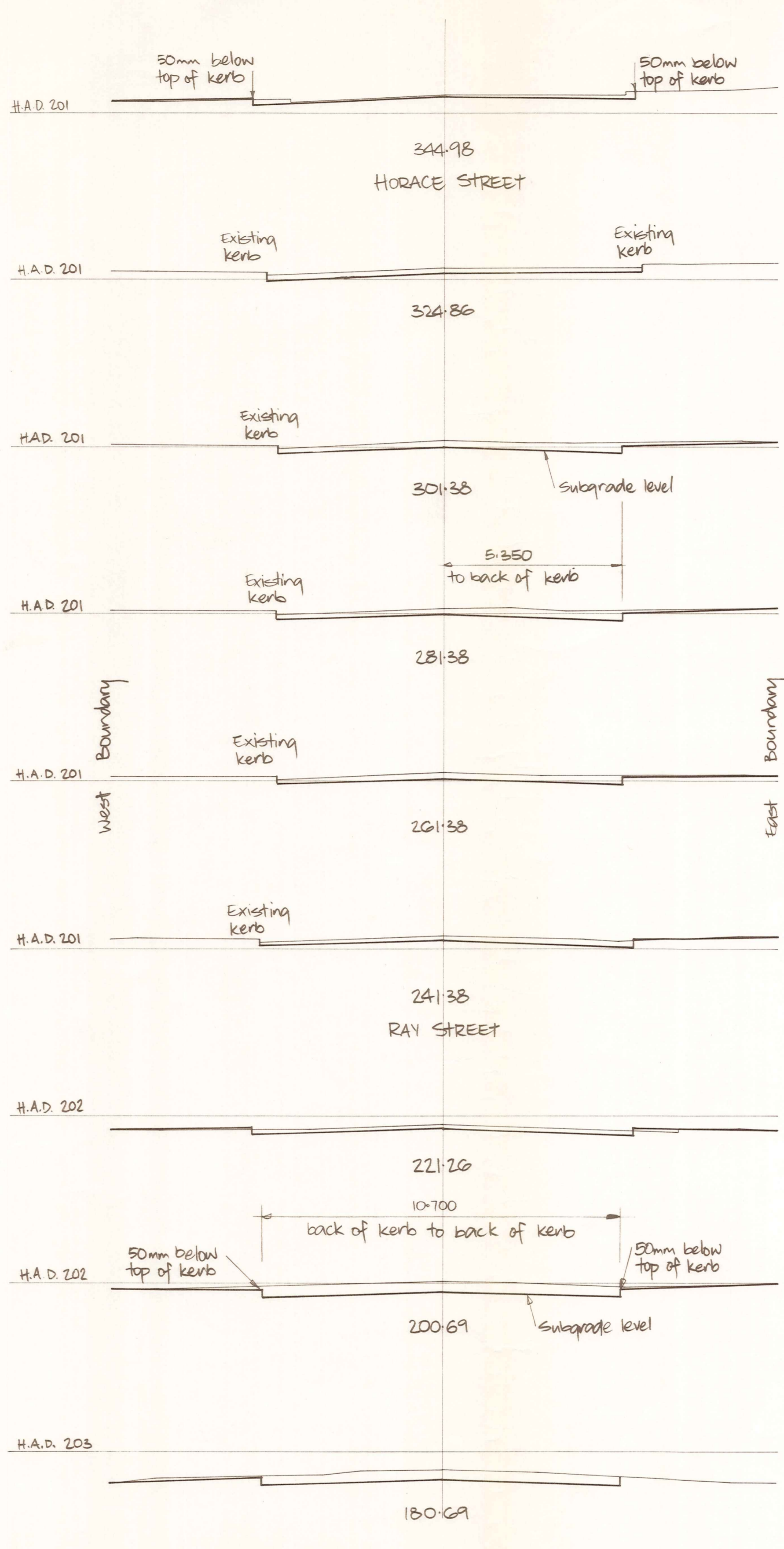
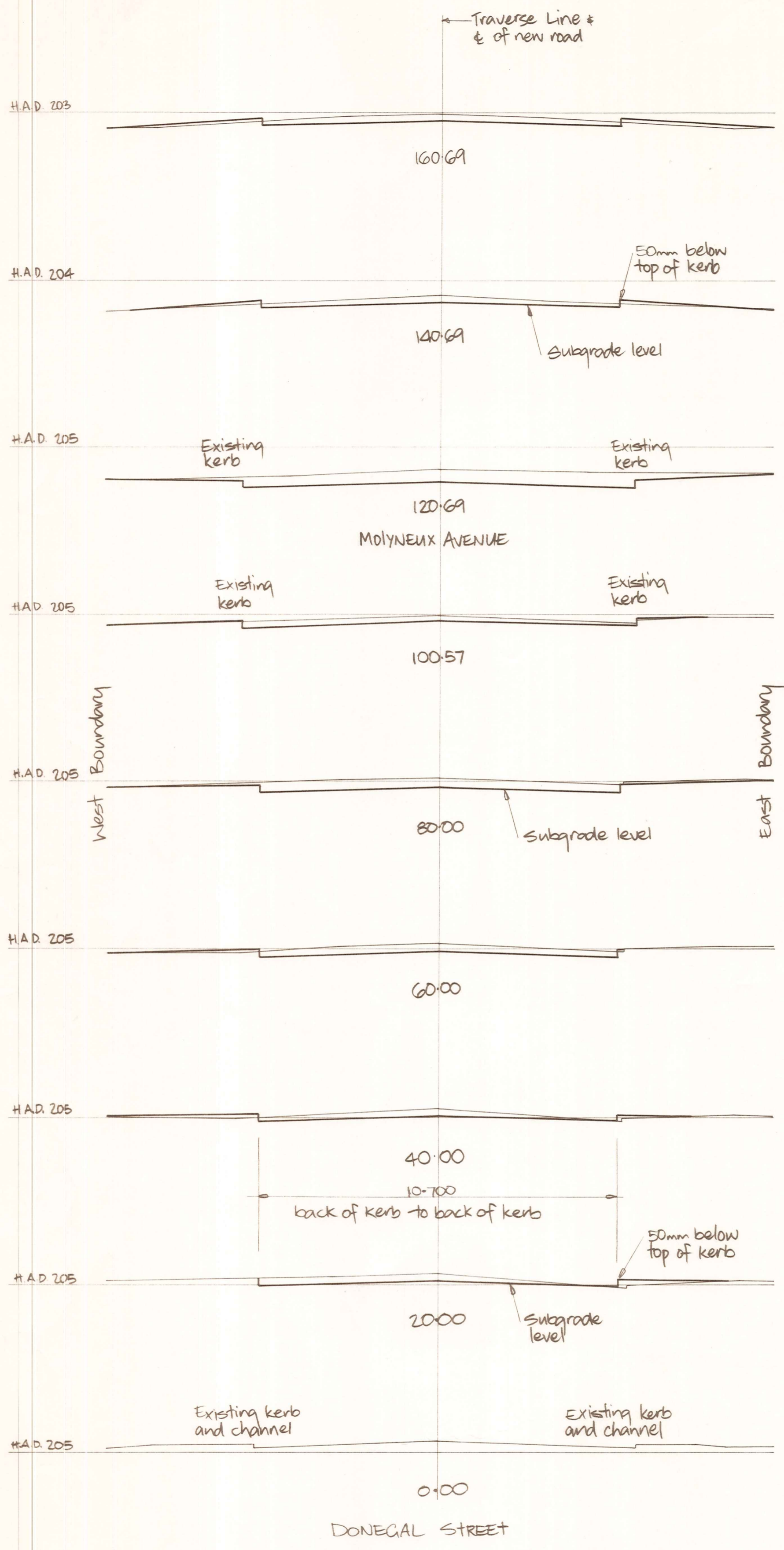
NEIGHBOURHOOD 1  
DEVELOPMENT

CONTRACT No. 23  
CONSTRUCTION OF  
STREETWORKS AND  
ENGINEERING SERVICES

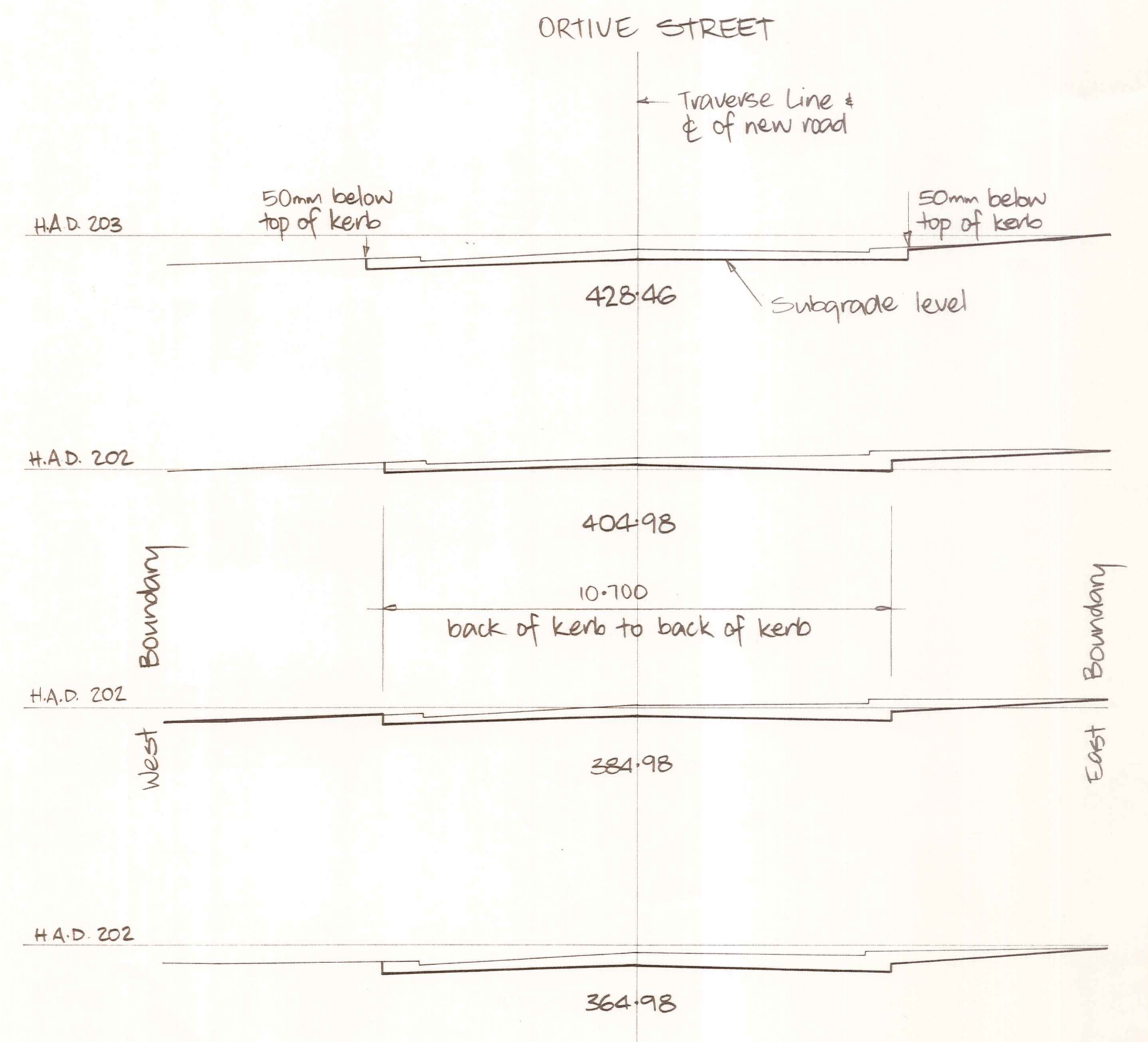
BLYTH STREET  
(HORACE ST. - NEPLUSULTRA ST.)

AMENDMENTS			NAME	DATE
NO.	BY	DATE		
			P. Dunstan	June 1983
			N. Jelley	"
			G. Murray	Aug 1983
			R. H.	
			P. J. King	3/84

JOB NO. 10203  
Sheet No. 2  
of 8 sheets  
F.B.  
File 19/32 LB 399 415



- NOTES:
1. Full carriageway reconstruction required from Donegal Street to Ortive Street (apart from previously reconstructed intersections).
  2. Construction of services footpaths, vehicle entrances and grass verges required between Ortive Street and Neplusultra Street.
  3. Location of footpaths may be altered prior to construction.
  4. Existing kerb and channel on West side of carriageway between Ray Street and Horace Street shall remain in service.



CROSS SECTIONS

1:100

ORIGINAL SIZE

mm INCHES

0 10 20 30 40 50 100 150 200 300

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CROMWELL BOROUGH COUNCIL

NEIGHBOURHOOD 1 DEVELOPMENT

CONTRACT No. 23

CONSTRUCTION OF STREETWORKS AND ENGINEERING SERVICES

BLYTH STREET

CROSS SECTIONS

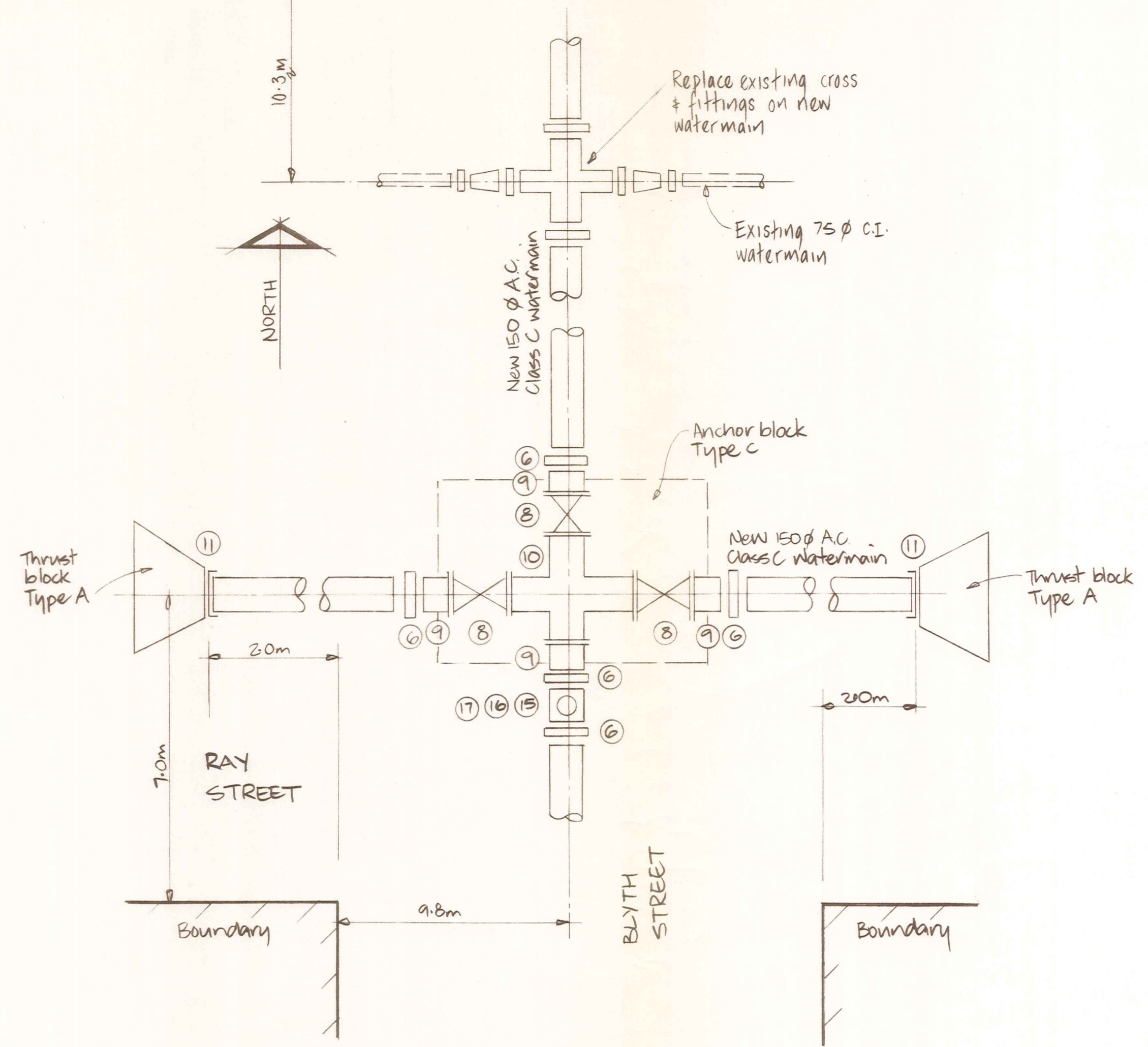
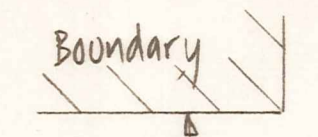
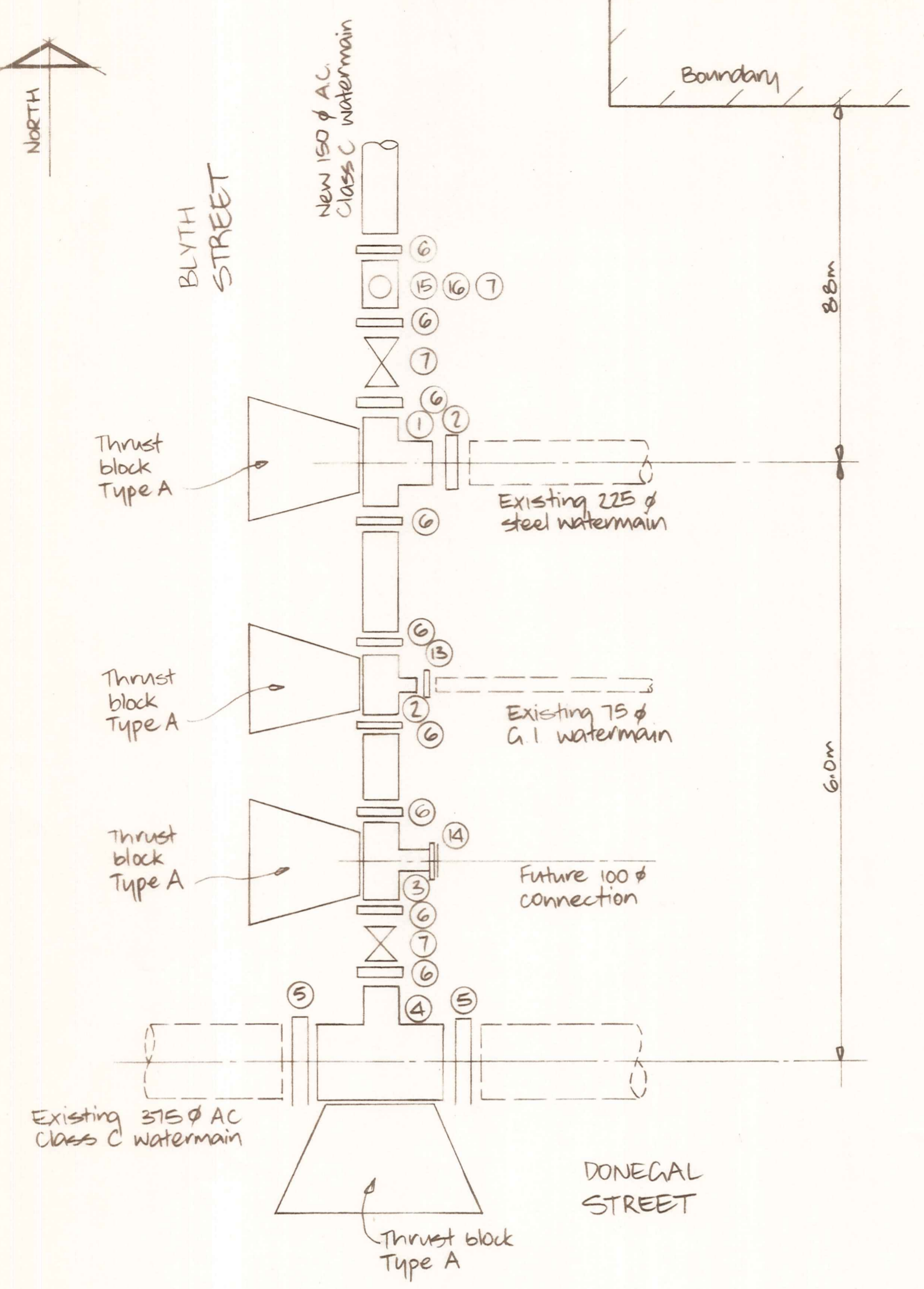
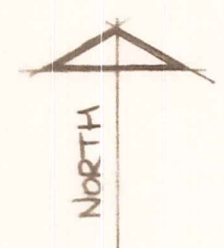
AMENDMENTS			NAME	DATE	JOB NO.	Sheet No		
NO.	BY	DATE			10203	3		
			Appvd.	Surveyed			P. Dunstan	June 1983
				Drawn			N. Jelley	"
				Calculations			"	"
				Traced			A. Murray	Aug 1983
				Checked	R.H.			
				Approved	R. Watts	3/84		

File 19/32

L.B. 349

415

F.B.

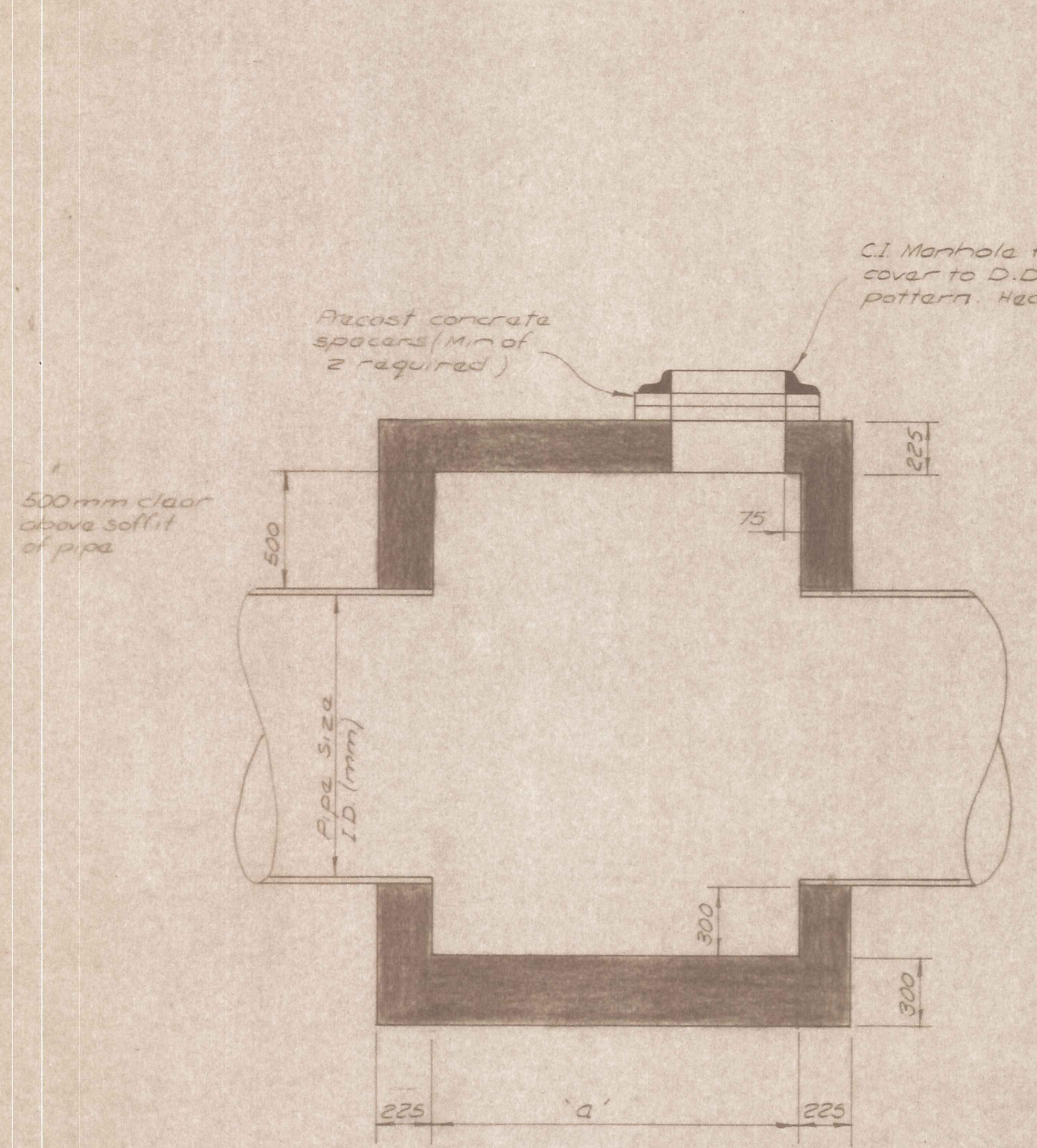


ITEM NO	DESCRIPTION	NO REQD
1	225 on 150 plain ended tee	1
2	75 on 150 plain ended tee	1
3	100 on 150 tee. Mainway plain, branch flanged	1
4	150 on 375 plain ended tee	1
5	375 dia gibault joint	2
6	150 dia gibault joint	14
7	150 dia plain ended sluice valve	2
8	150 dia all flanged sluice valve	3
9	150 dia flanged adaptor	4
10	150 dia all flanged equal cross	1
11	150 dia blank end gibault	2
12	225 dia gibault joint	1
13	75 dia gibault joint	1
14	100 dia blank flange plate	1
15	150 dia hydrant tee plain ended	2
16	Hydrant Riser	2
17	Hydrant	2
18	Thrust block Type A	6
19	Anchor block Type C	1

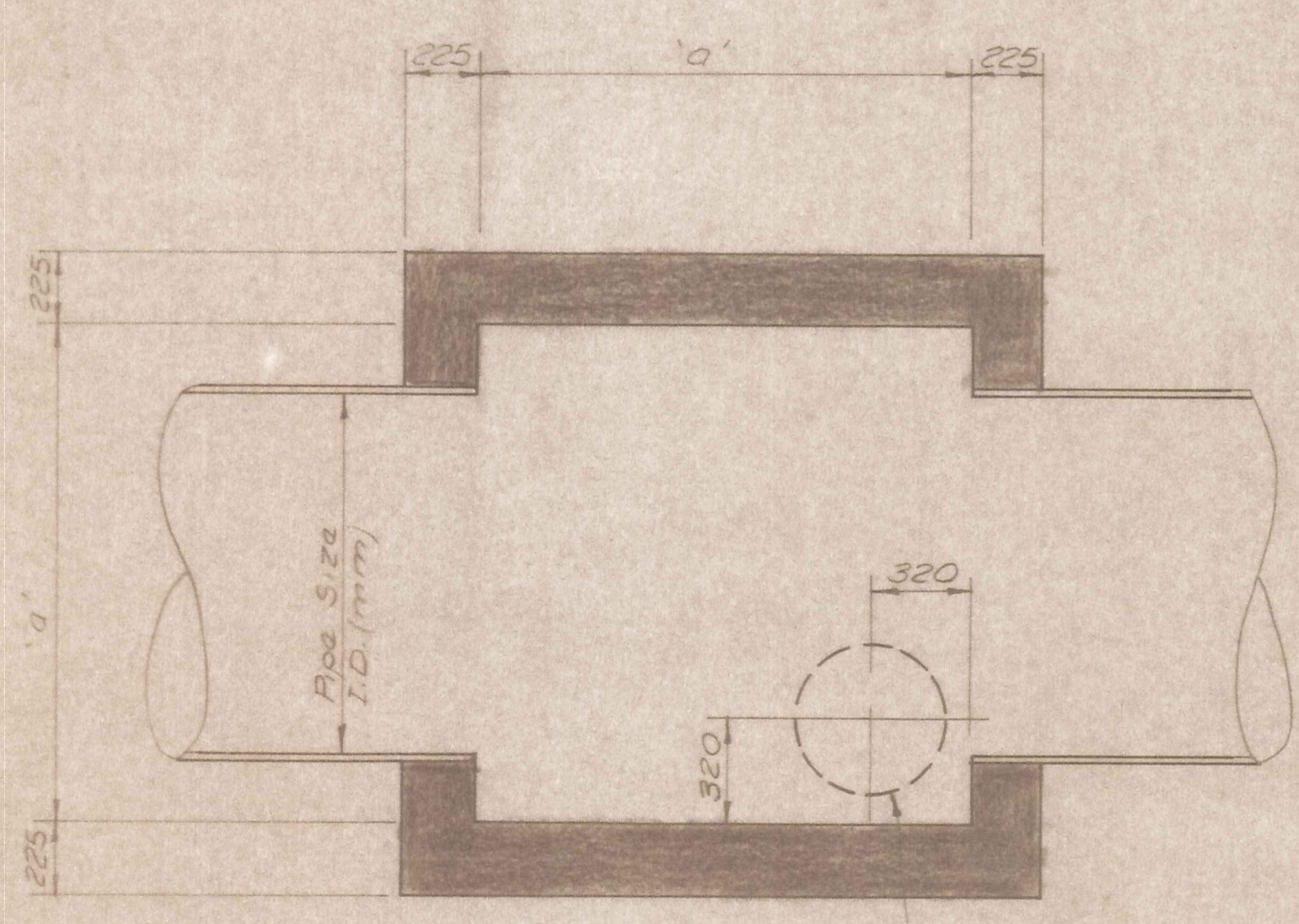
ORIGINAL SIZE INCHES

300  
200  
150  
100  
50  
0

12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0

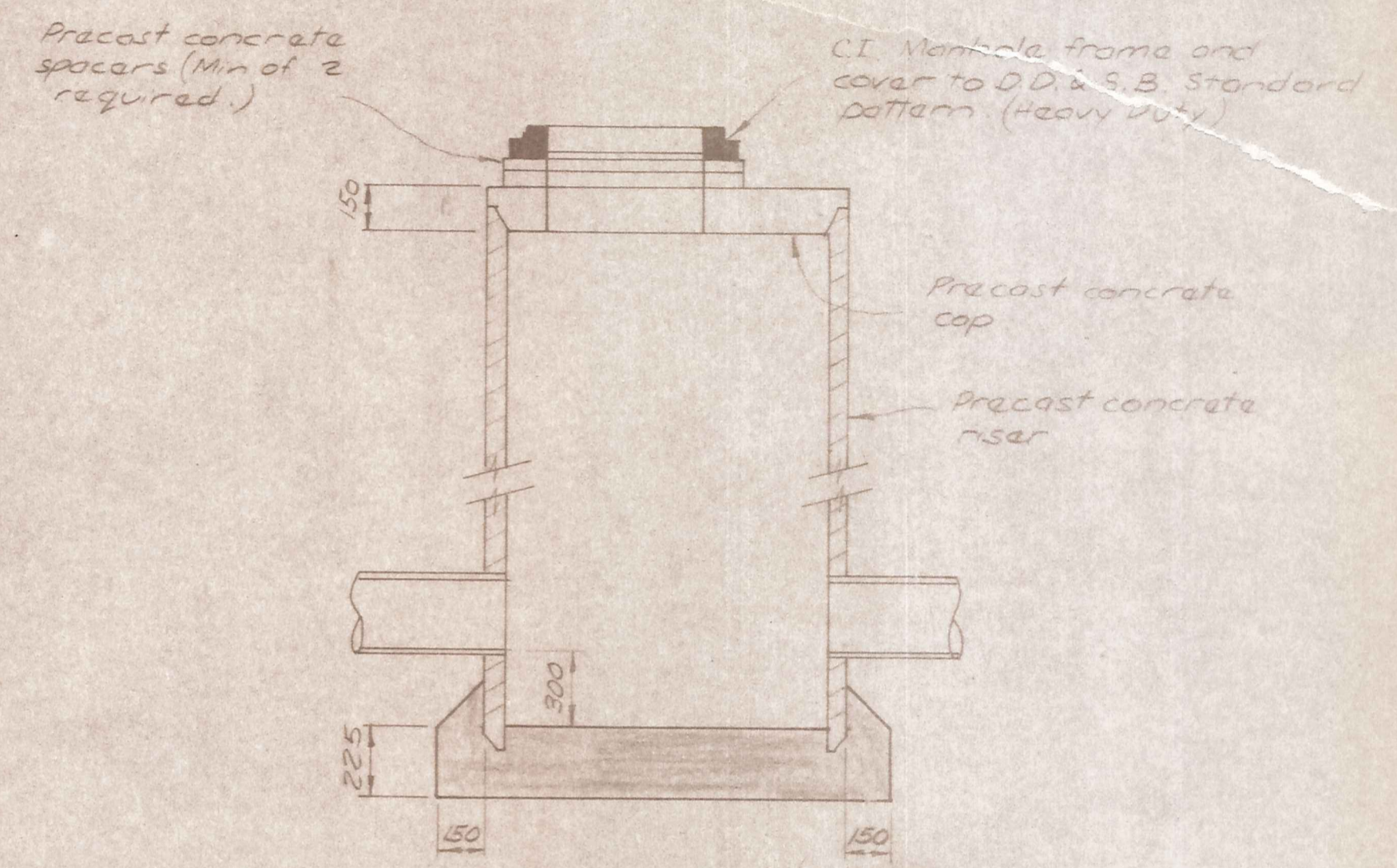
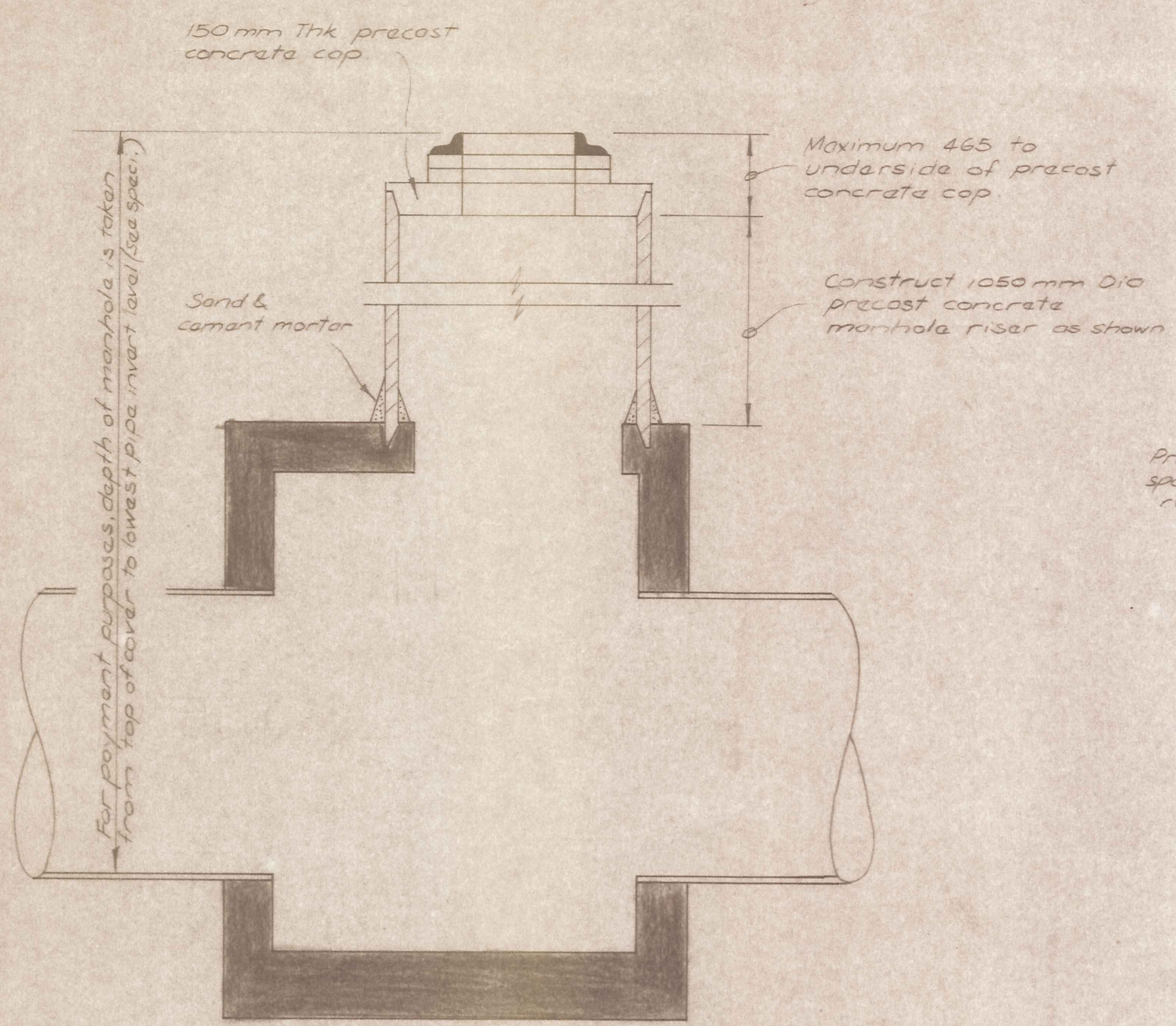


ELEVATION



PLAN

Position of manhole cover



SECTION PRECAST MANHOLE

DIMENSIONS		REINFORCING
Pipe Sizes I.D. (mm)	'a' (mm)	
1350	1750	ROOF: D12 @ 150 cns Eachway (50 cover)
1200	1600	
1050	1600	Walls: D12 @ 300 cns. Horz. D12 @ 450 cns. Vert. (centrally placed)
900	1300	
750	1200	
600	1200	
525	1200	
450	1050	

**NOTE:** Precast riser shaft to be positioned before insitu concrete at base is poured. The riser is to be supported such that a minimum 75mm is embedded into concrete. A sand and cement mortar is to be placed completely around base of riser as shown.

STANDARD STORMWATER DRAIN MANHOLE  
(FOR STORMWATER DRAINS LESS THAN 450 mm Dia)

STANDARD STORMWATER DRAIN MANHOLE  
(FOR STORMWATER DRAINS 450 mm Dia & LARGER)

SCALE 1:20

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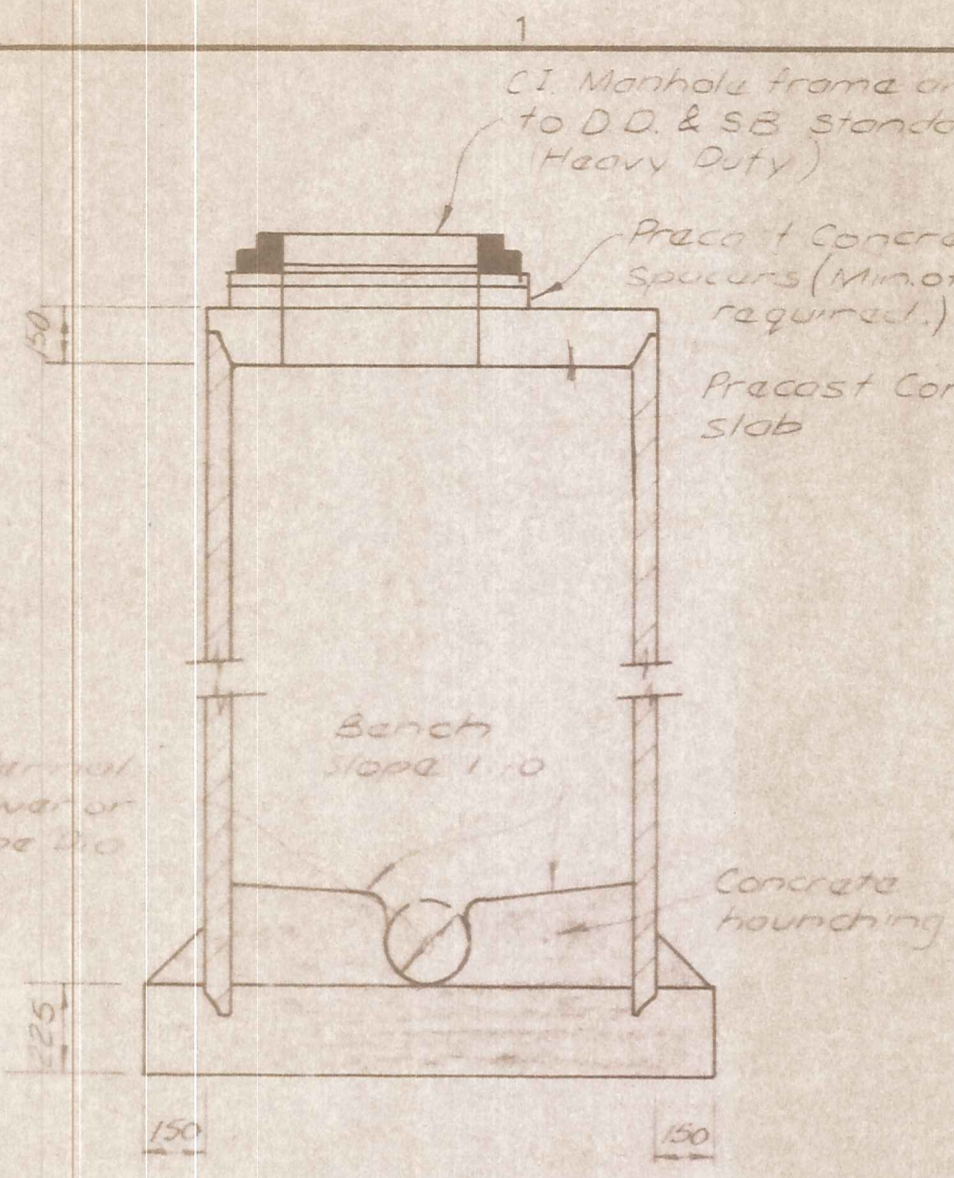
NEIGHBOURHOOD 1  
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CONTRACT No 23  
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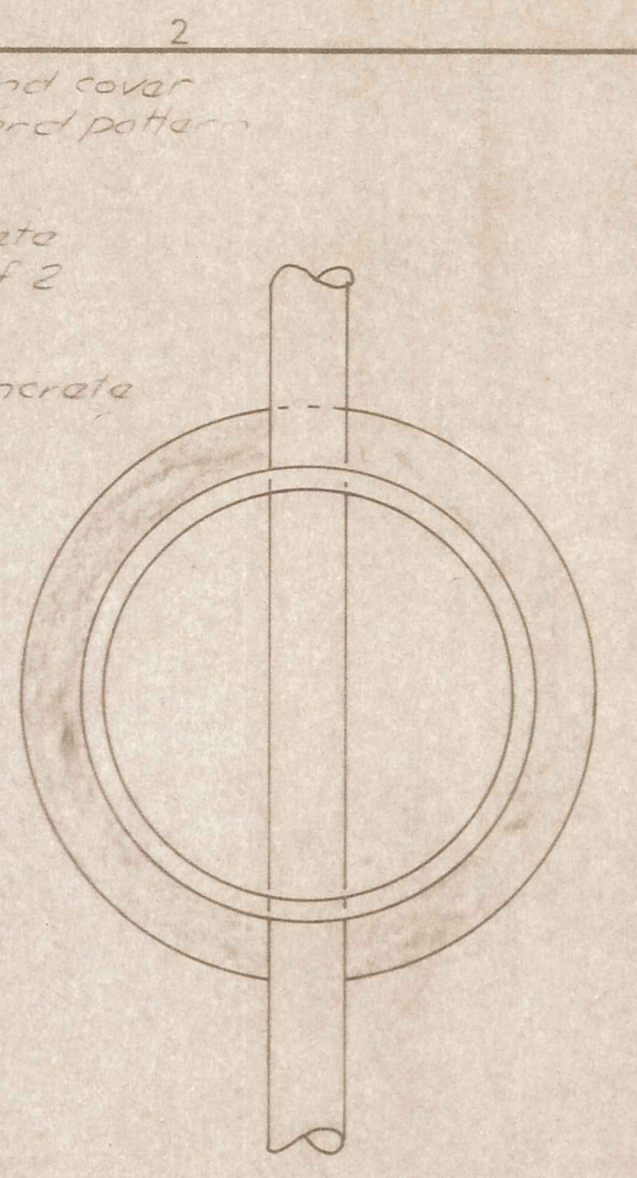
STANDARD DETAILS

AMENDMENTS				NAME		DATE	JOB NO	Sheet No
NO.	BY	DATE	Appvd.	Surveyed	Drawn			
					B. HAWKINS	6-82	10203	5
					M. COOPER	6-82		of 8 sheets
					R.H. [Signature]	5/84	File 9/19/32	L.B. F.B.

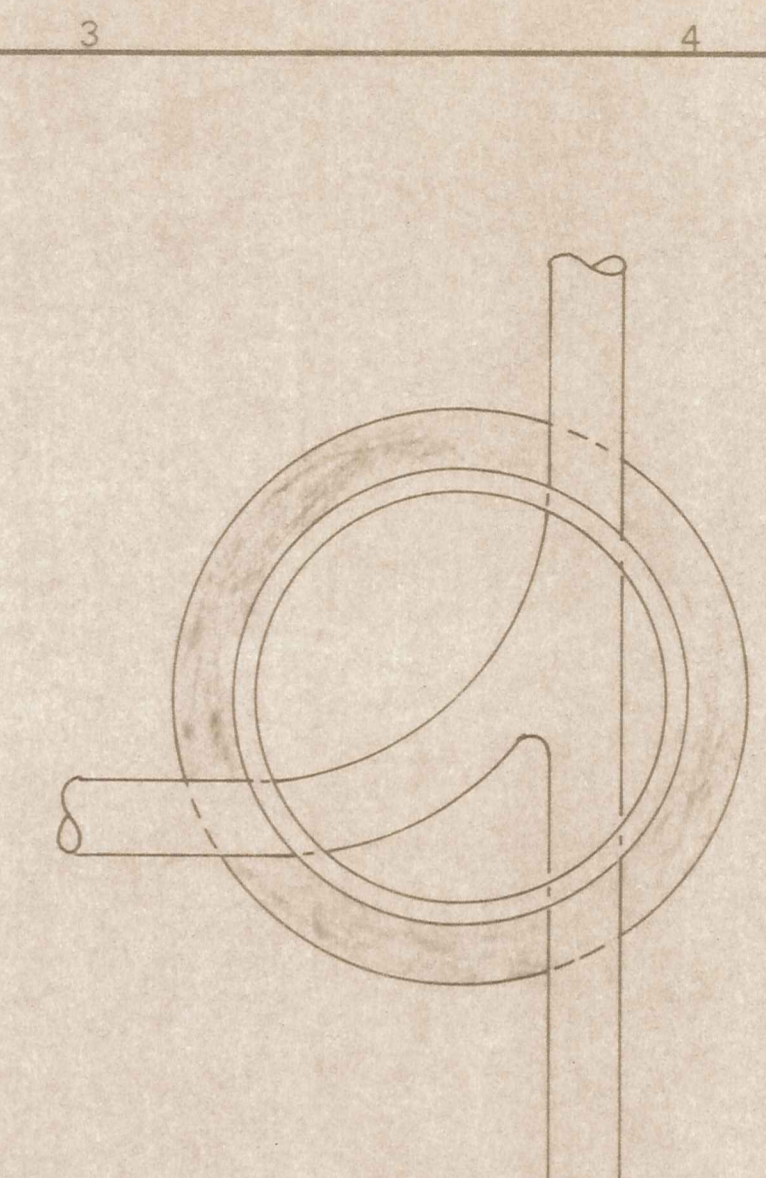
GRAPHICAL SIZE INCHES



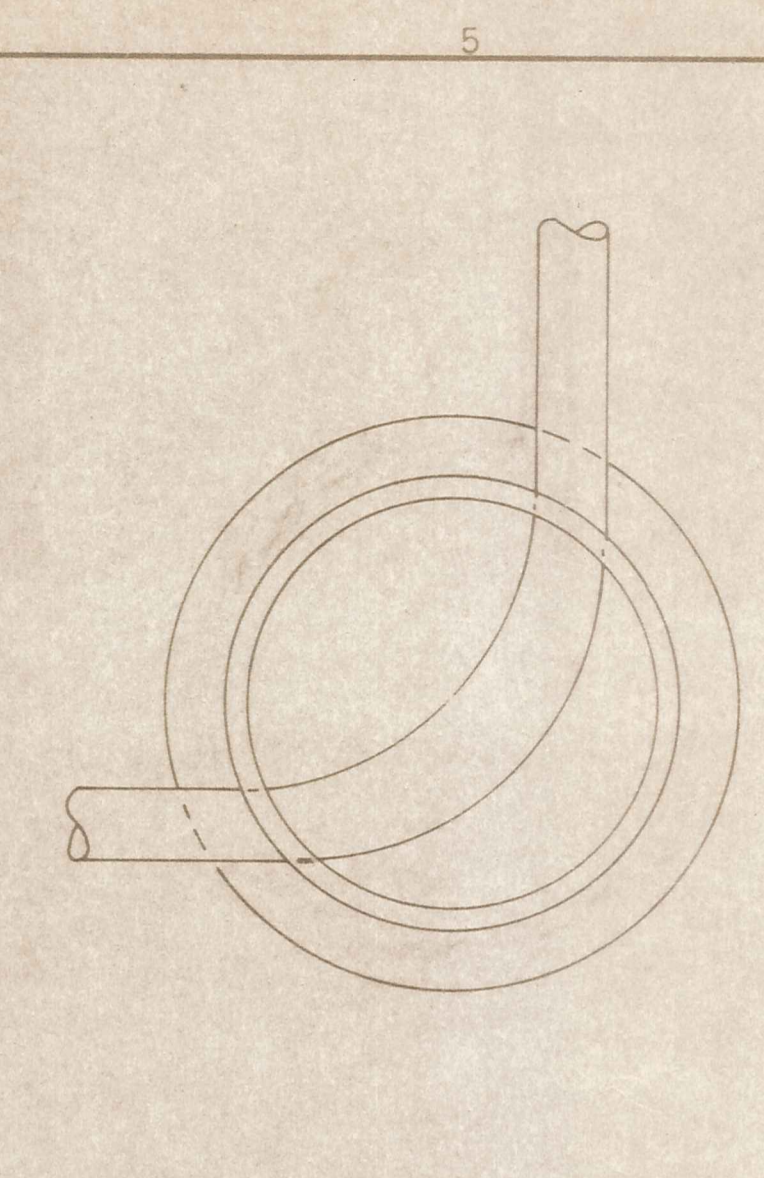
SECTION  
PRECAST MANHOLE



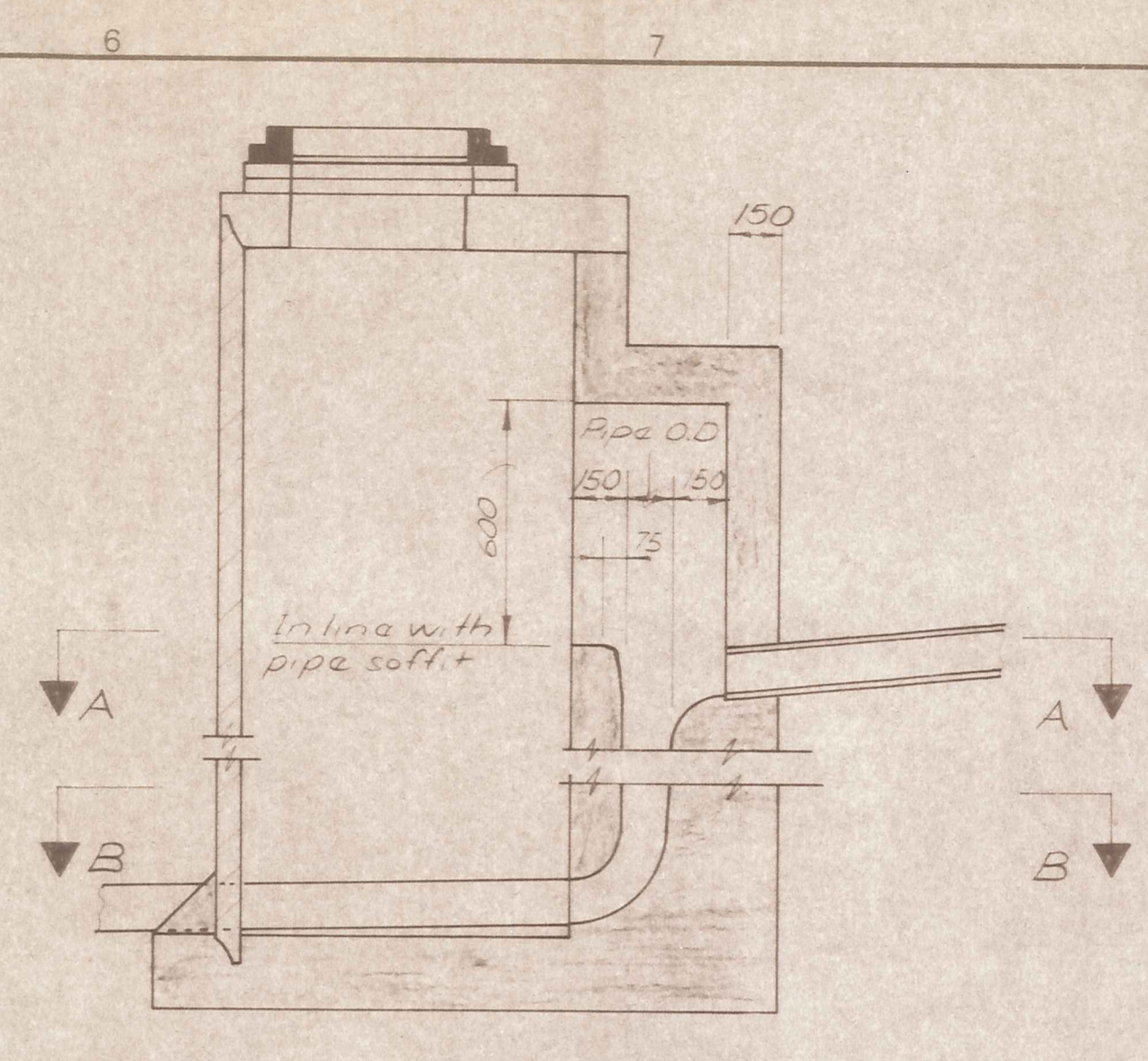
PRECAST  
STRAIGHT THRU MANHOLES



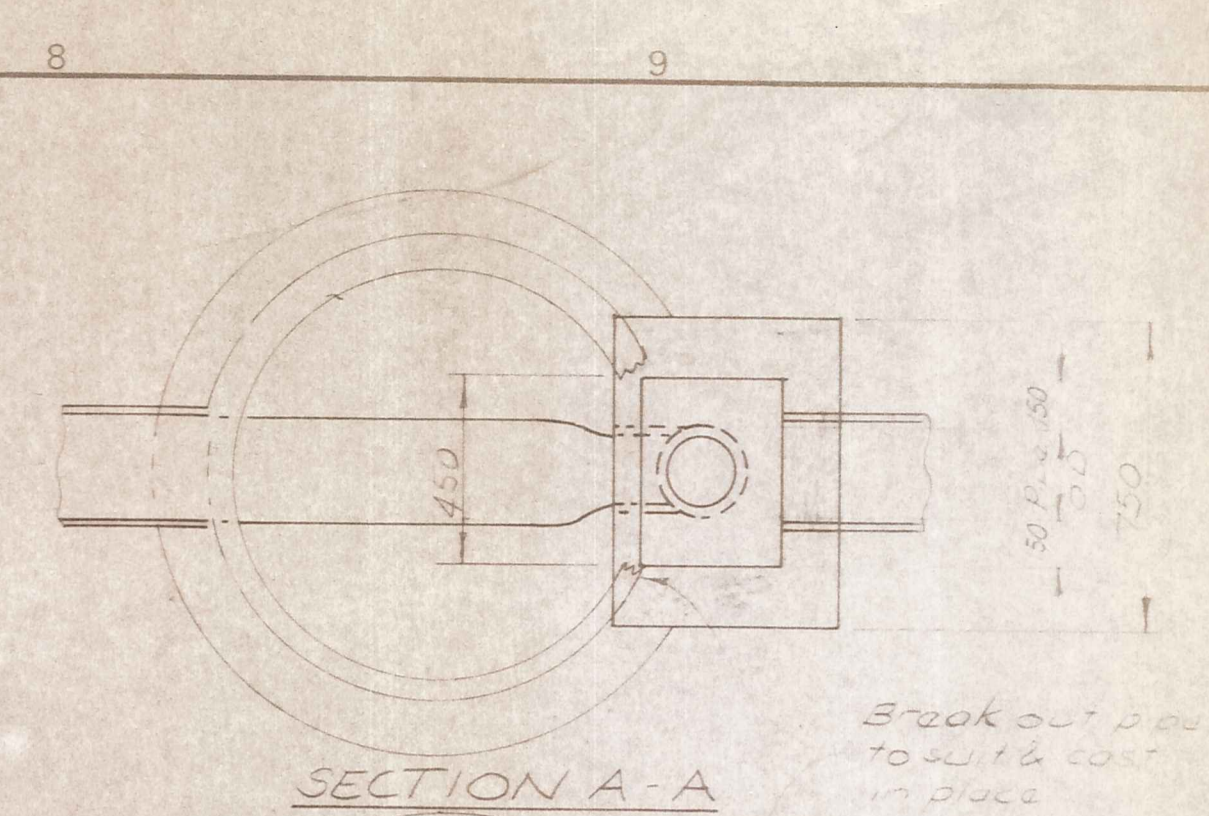
PRECAST  
JUNCTION MANHOLES



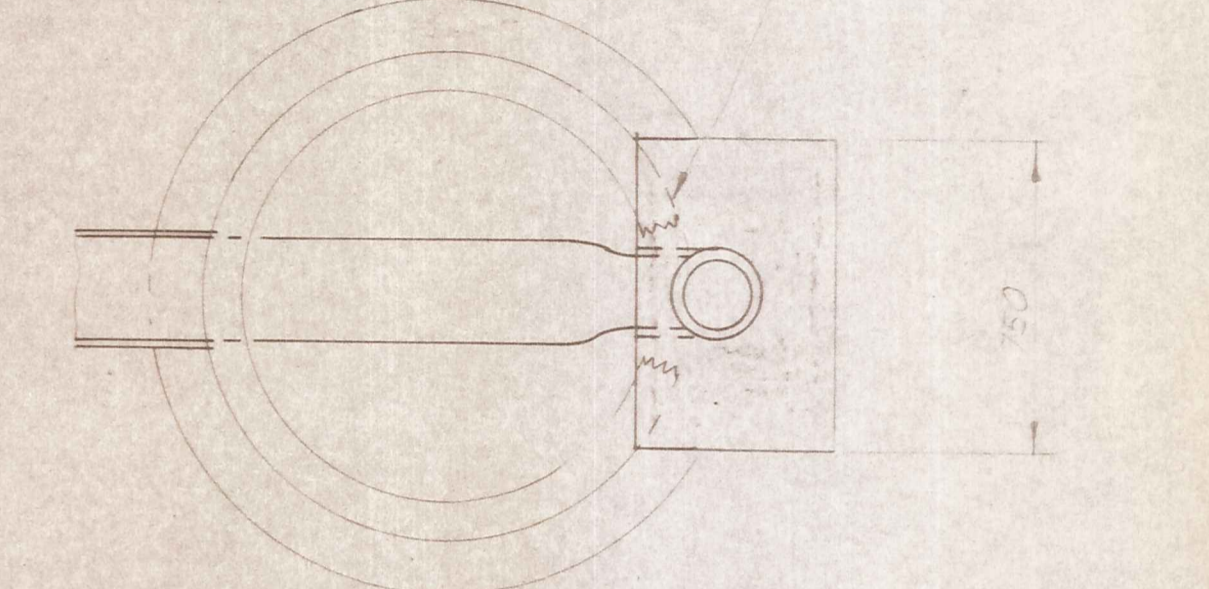
PRECAST  
ANGLE MANHOLES



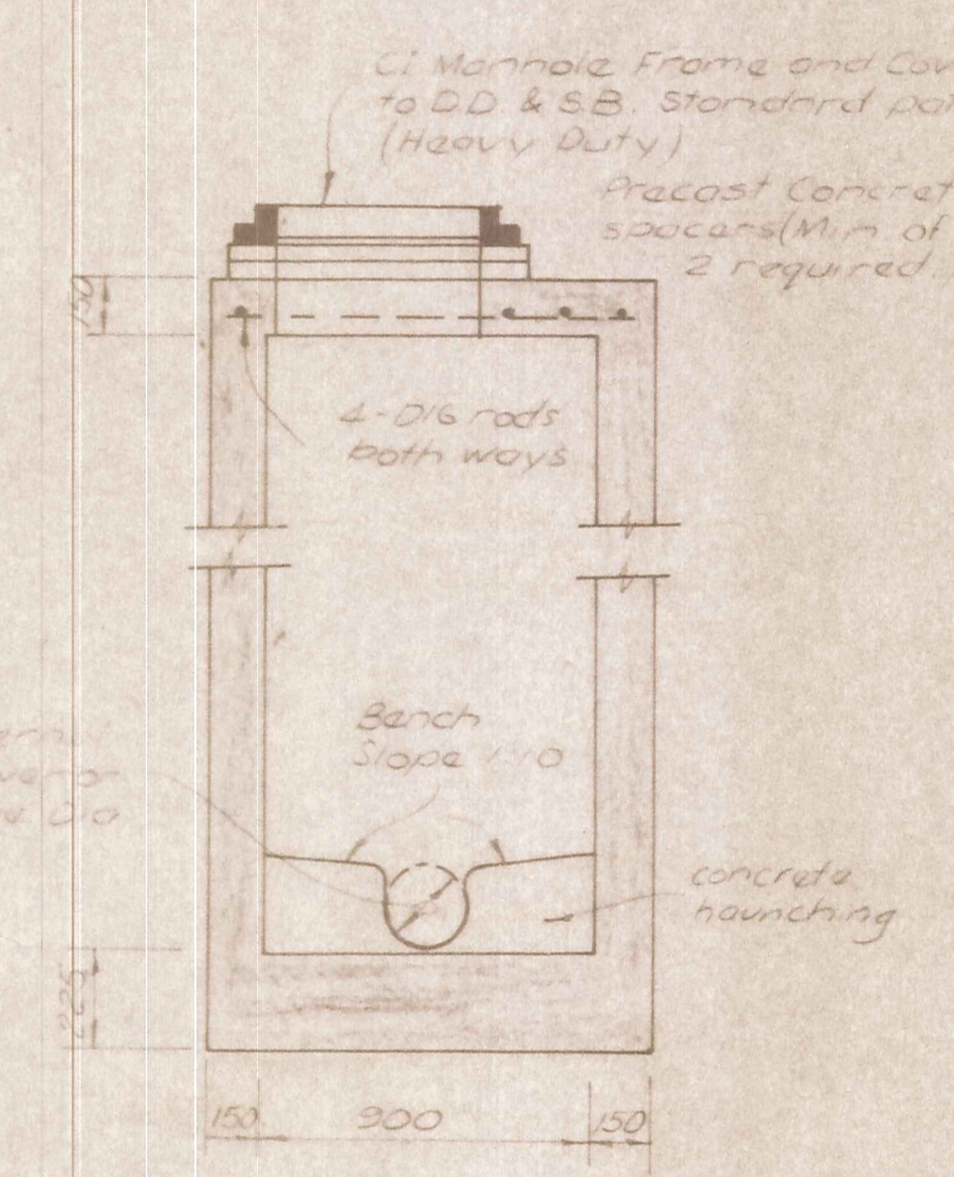
PRECAST  
DROP MANHOLE



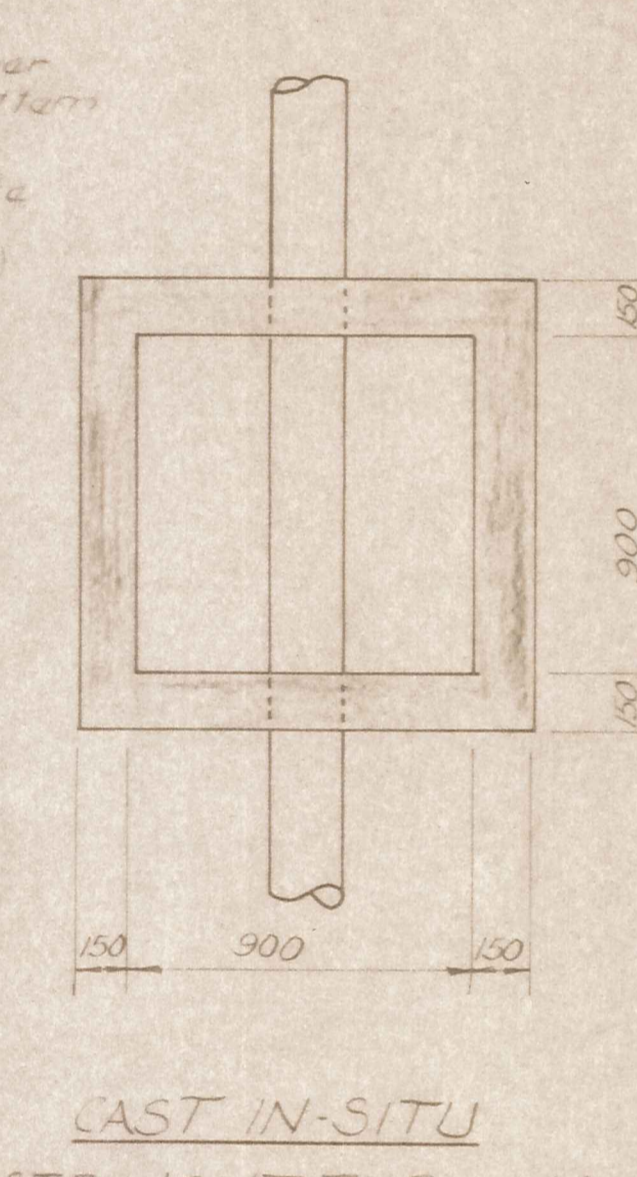
SECTION A-A



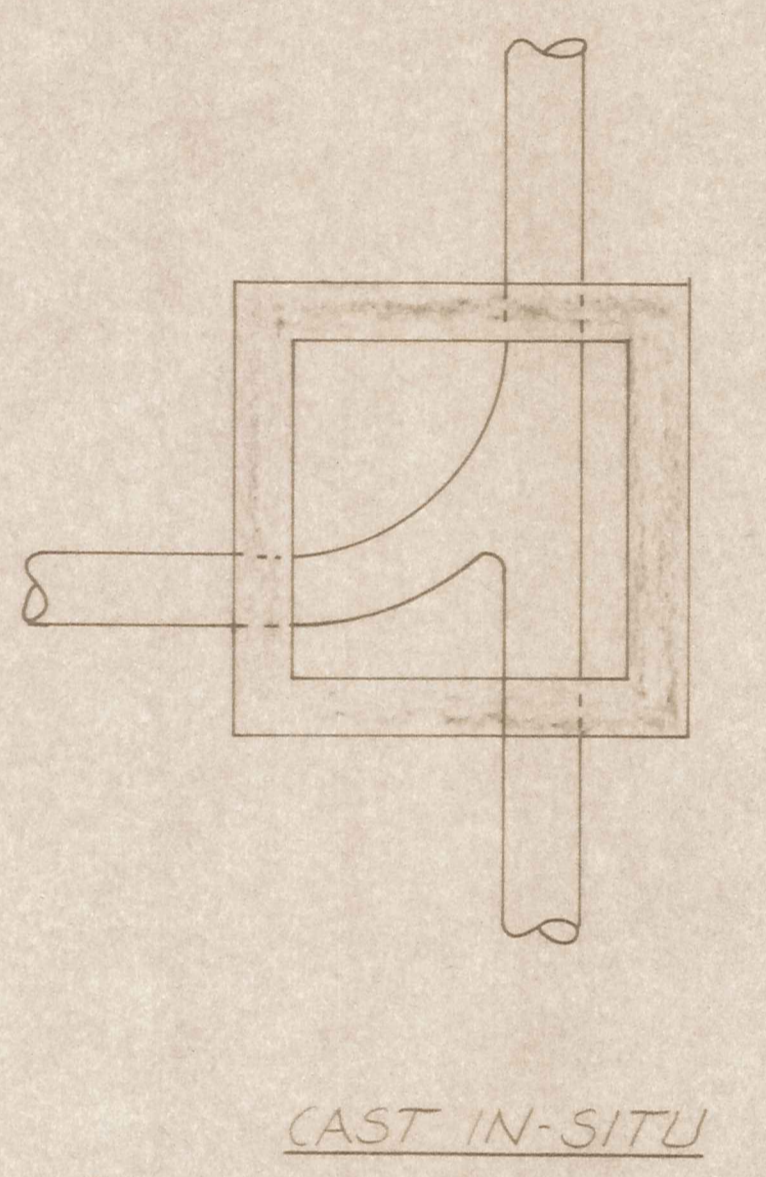
SECTION B-B



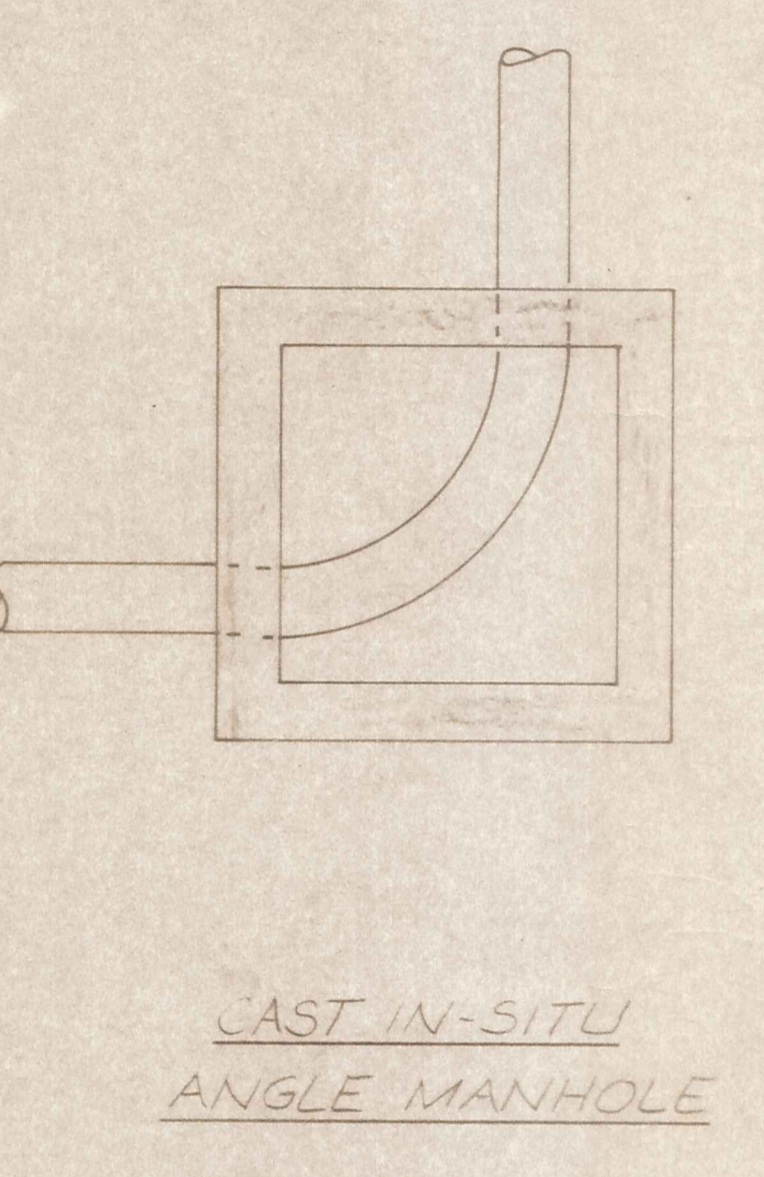
SECTION  
CAST IN-SITU MANHOLE



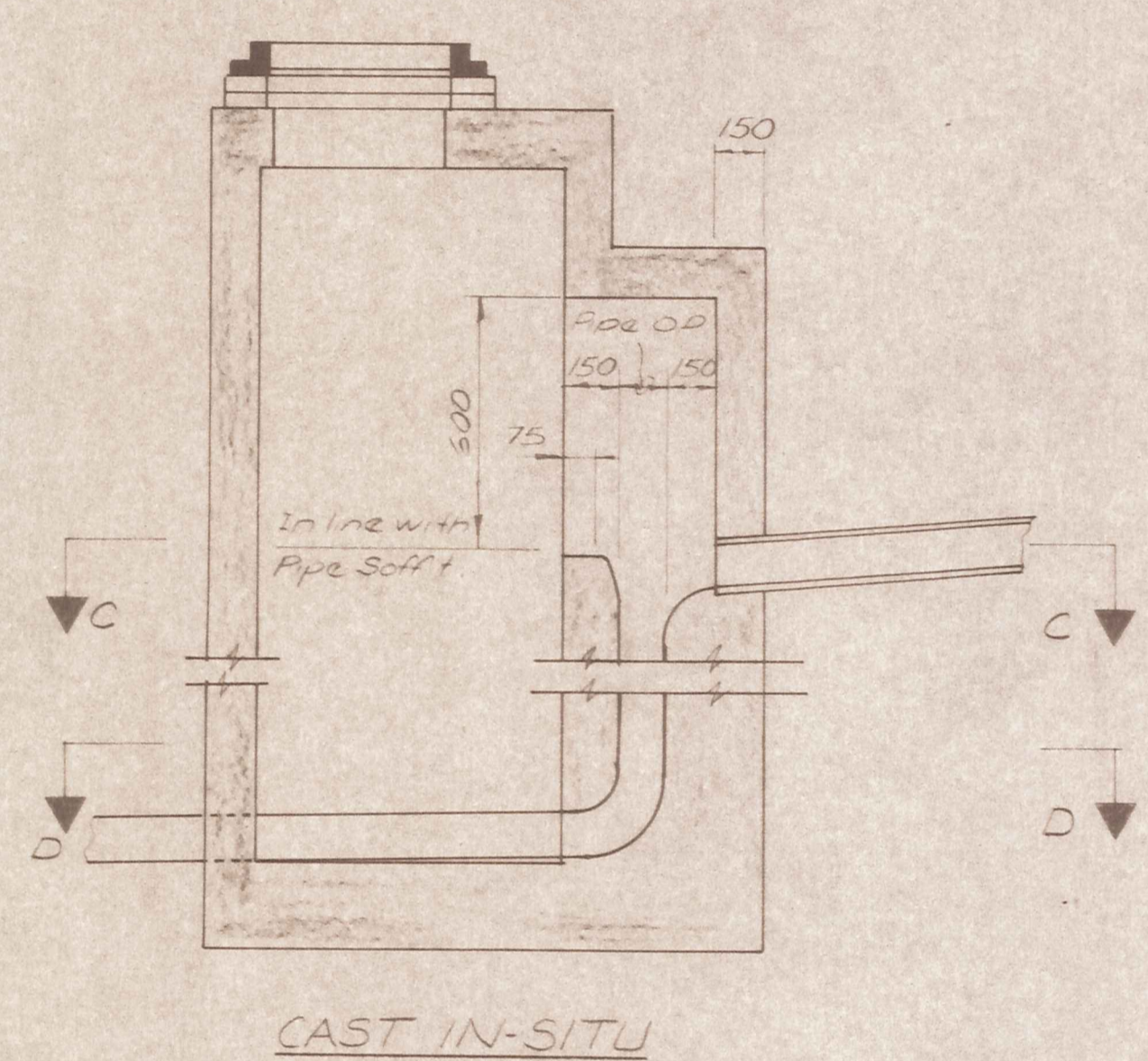
CAST IN-SITU  
STRAIGHT THRU MANHOLES



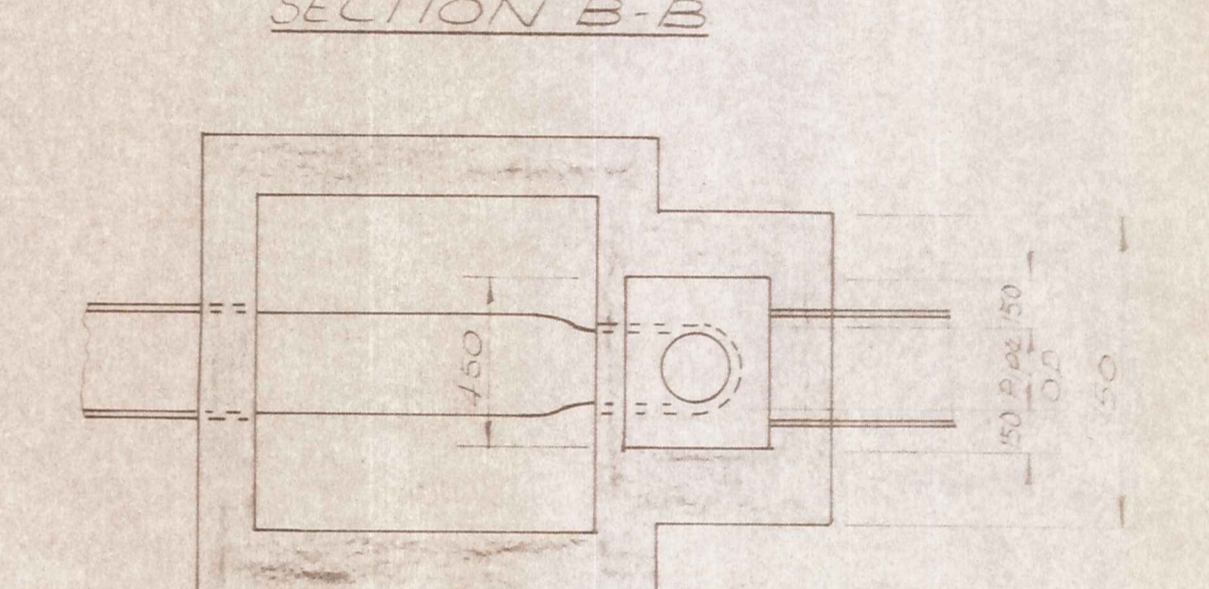
CAST IN-SITU  
JUNCTION MANHOLE



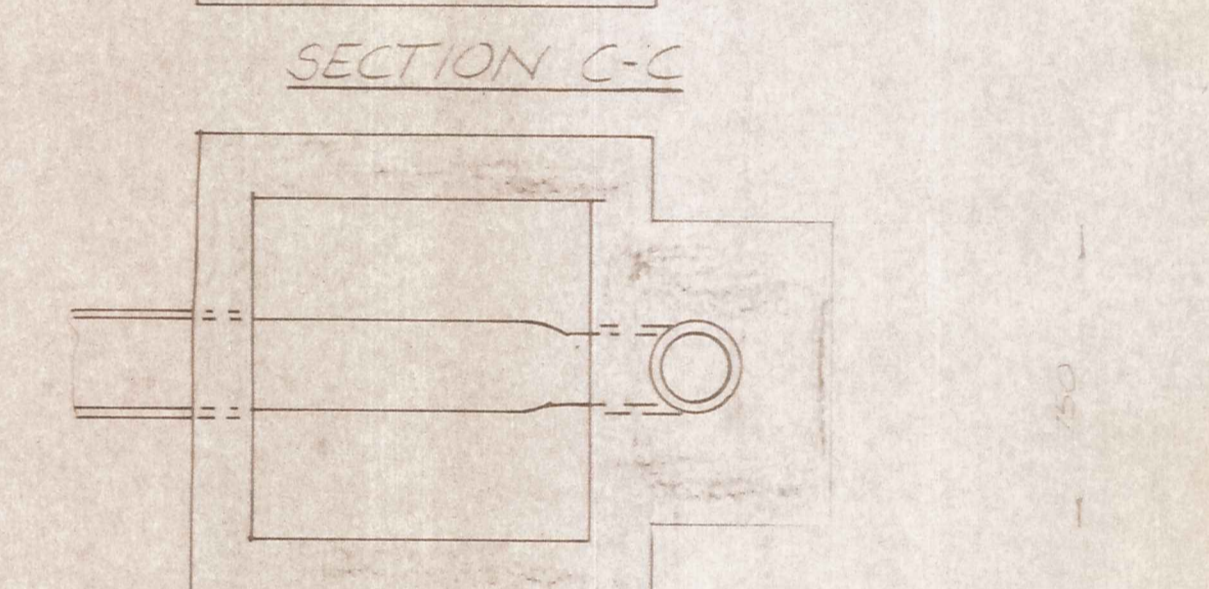
CAST IN-SITU  
ANGLE MANHOLE



CAST IN-SITU  
DROP MANHOLE



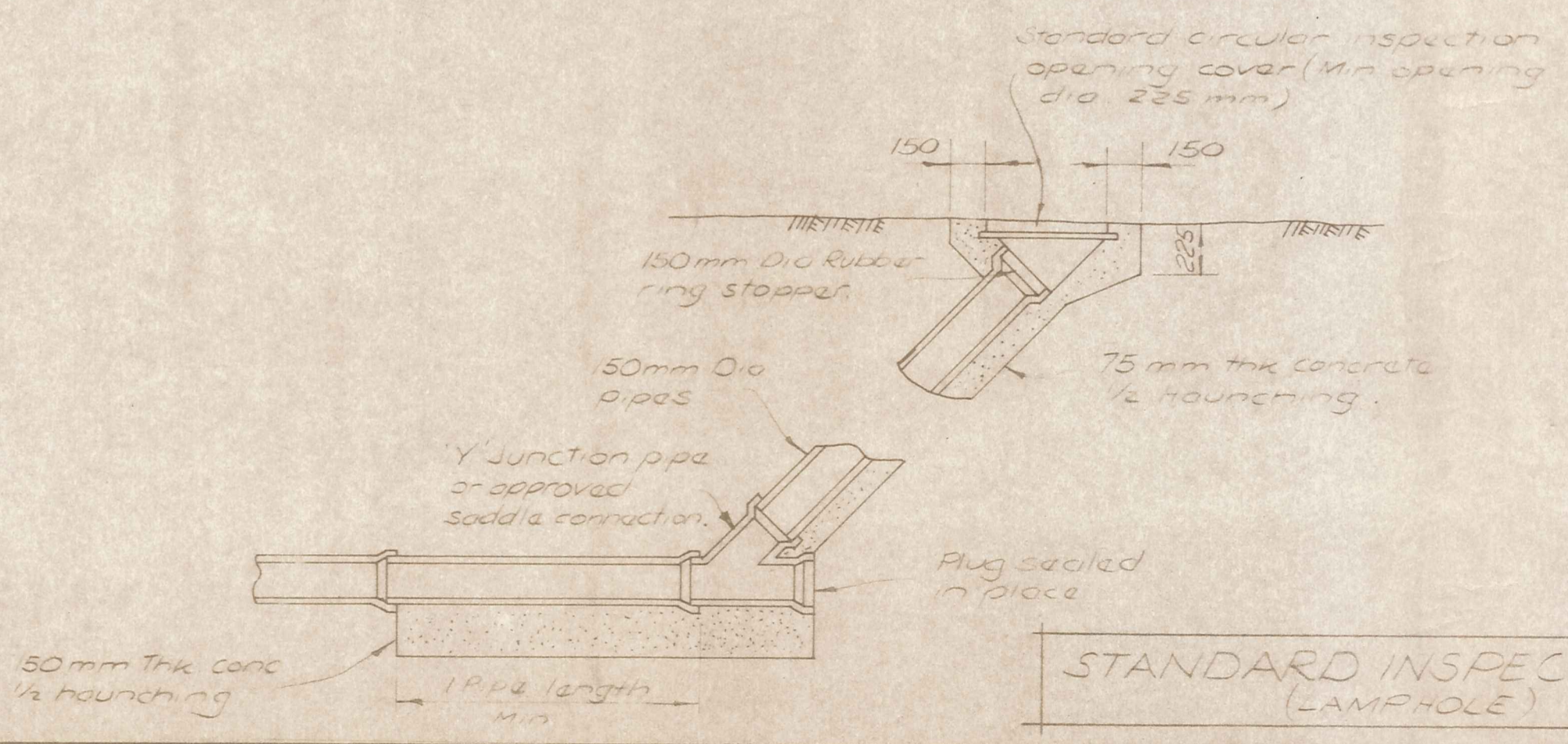
SECTION C-C



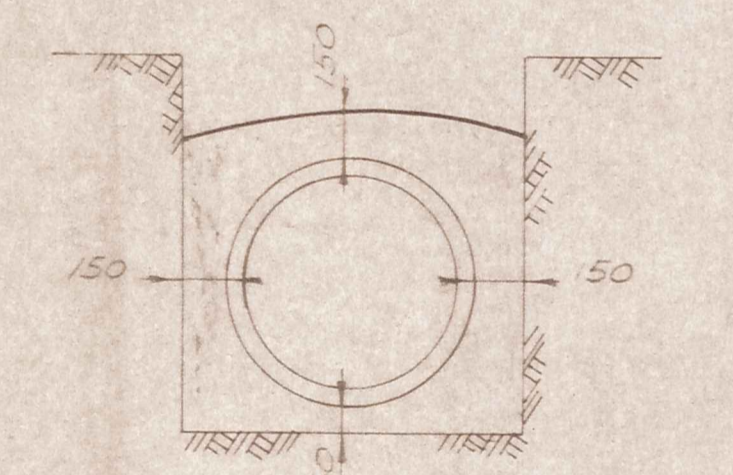
SECTION D-D

NOTE: Wall thickness increases to 225 mm for manholes greater than 3.0 m deep

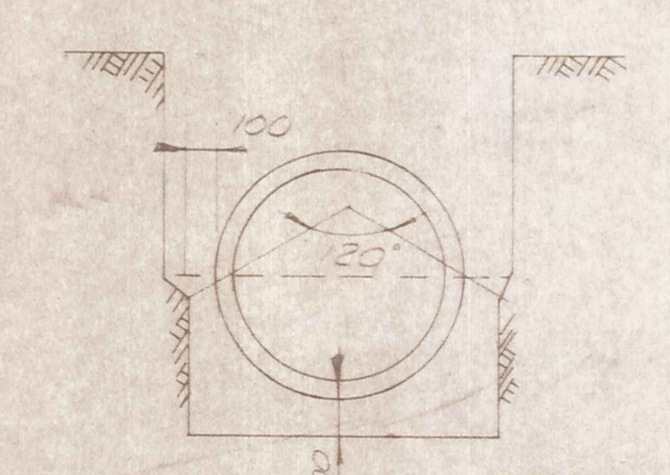
STANDARD SANITARY SEWER MANHOLE DETAILS  
(FOR DIAMETERS LESS THAN 375 mm)



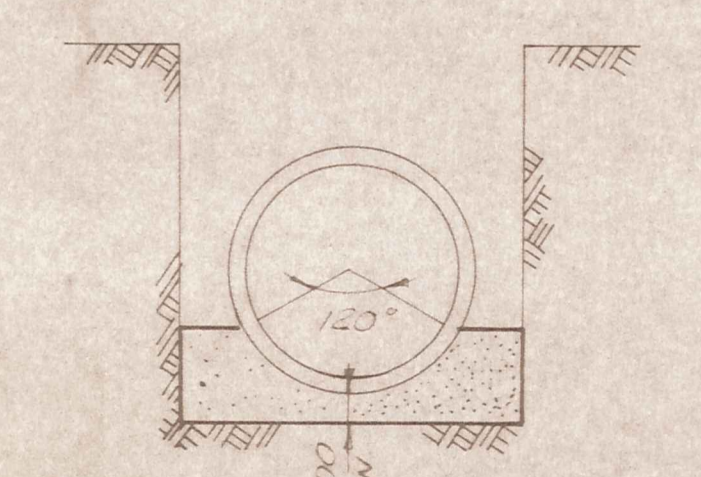
STANDARD INSPECTION OPENING  
(LAMP HOLE)



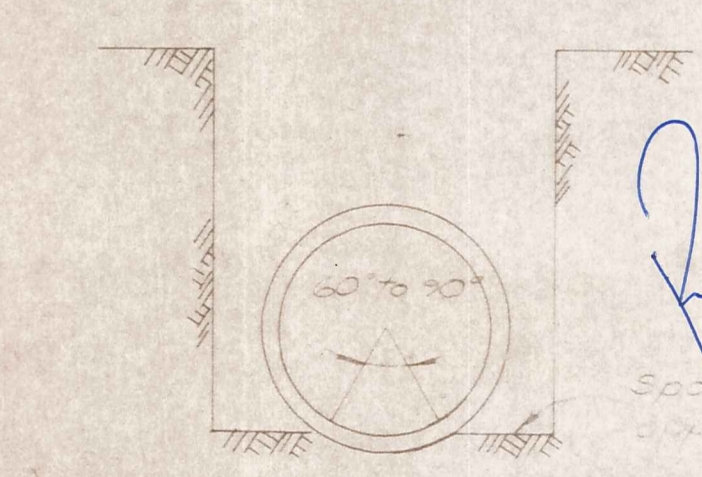
CONCRETE SURROUND



CONCRETE BEDDING



GRAVEL BEDDING



ORDINARY BEDDING

BEDDING OF PIPES NOT TO SCALE

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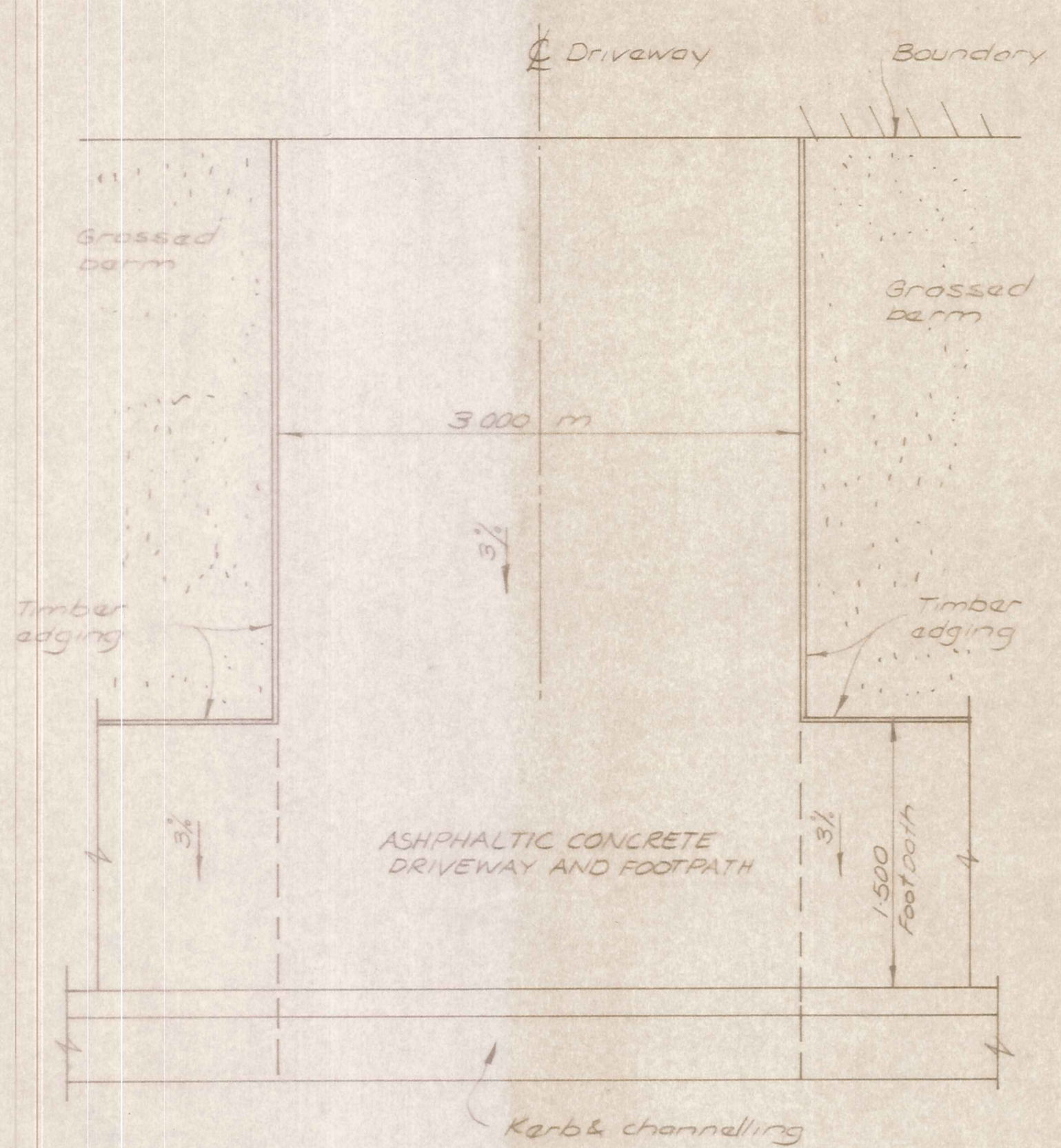
CROMWELL  
BOROUGH COUNCIL

NEIGHBOURHOOD 1  
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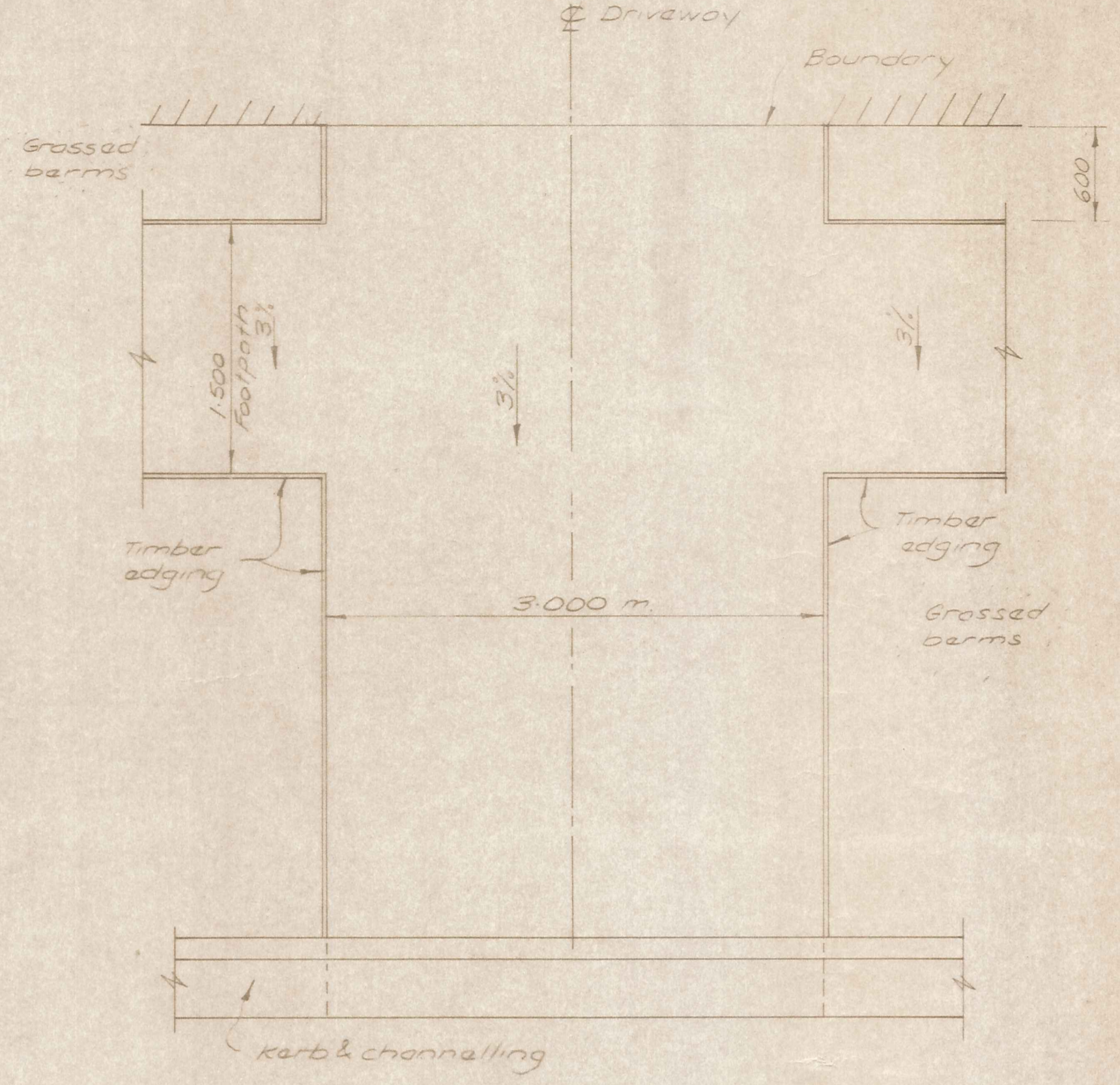
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STANDARD DETAILS

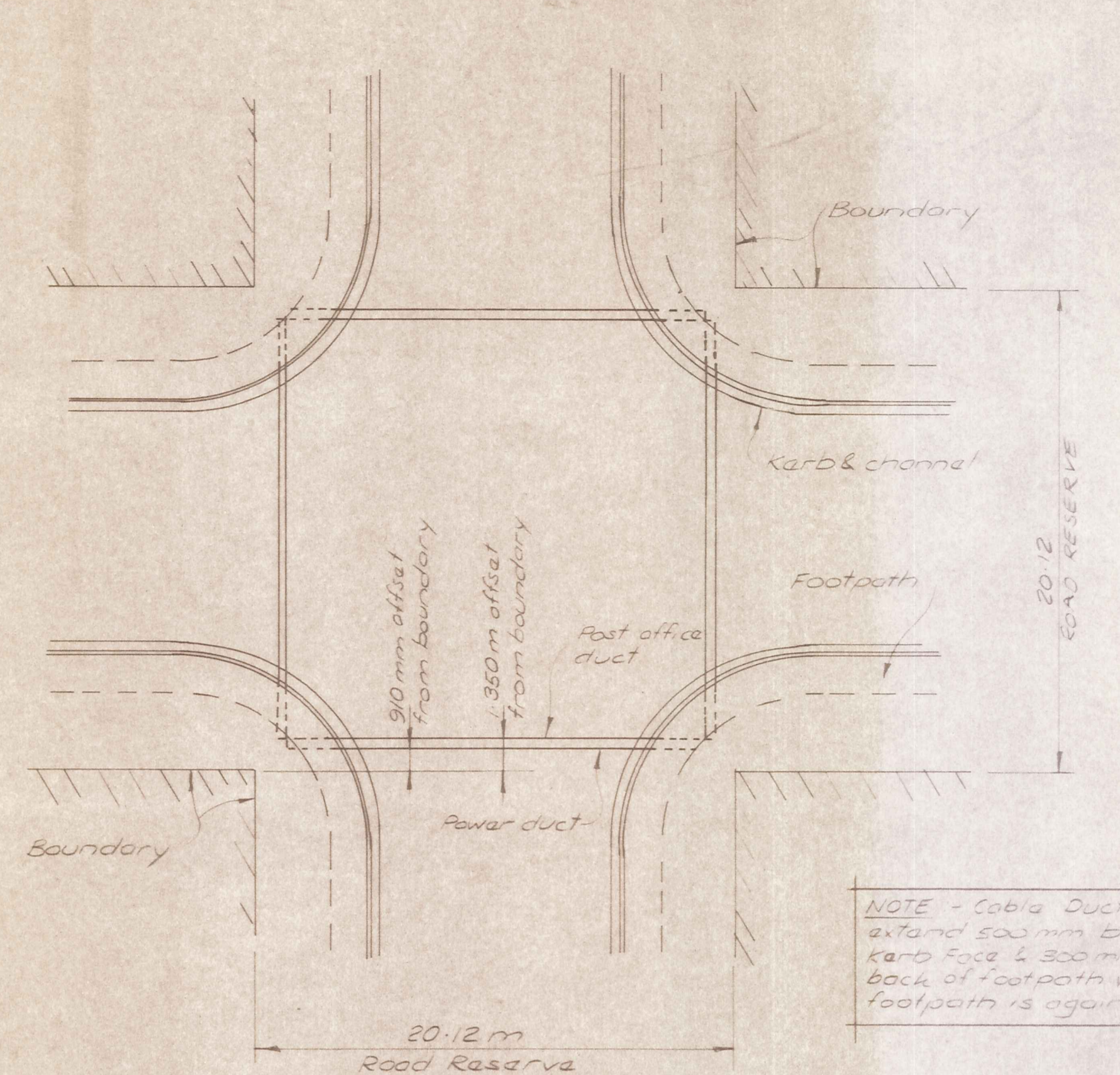
AMENDMENTS				NAME	DATE	JOB NO	Sheet
NO	BY	DATE	Appvd	B HAWKINS	6-82	10203	6
				M COOPER	6-82		of 8 sheets
				R.H. Watts	3/84	File 9/19/32	L.B. F.B.



TYPICAL PLAN OF DRIVEWAY WITH FOOTPATH ADJACENT TO KERB  
N.T.S.

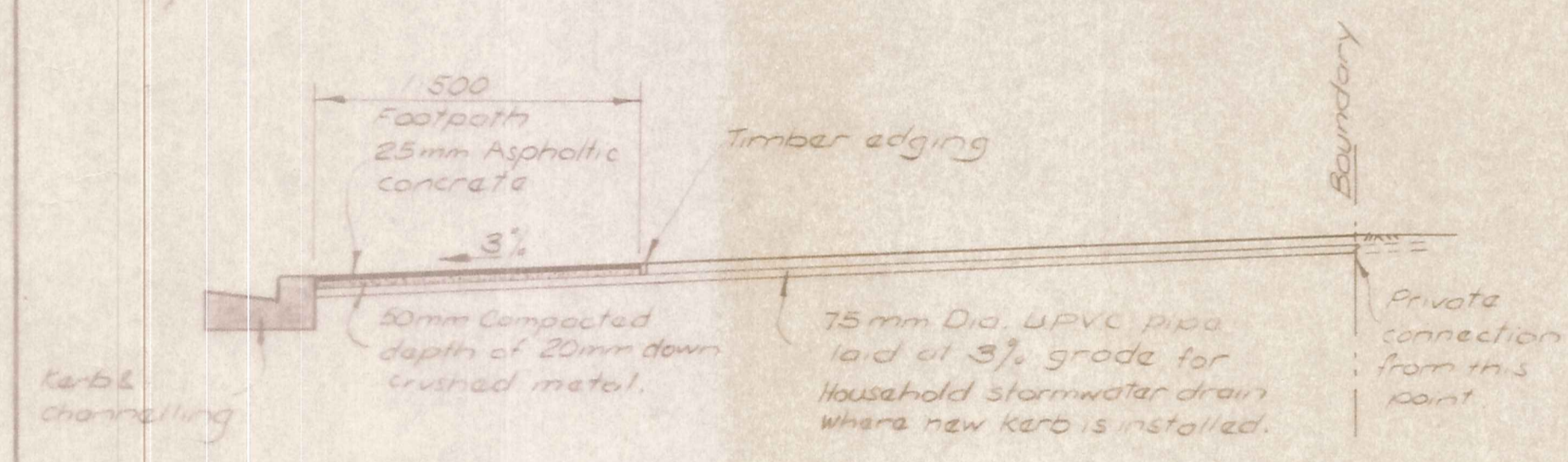


TYPICAL PLAN OF DRIVEWAY WITH FOOTPATH 600 mm OUT FROM THE BOUNDARY  
N.T.S.

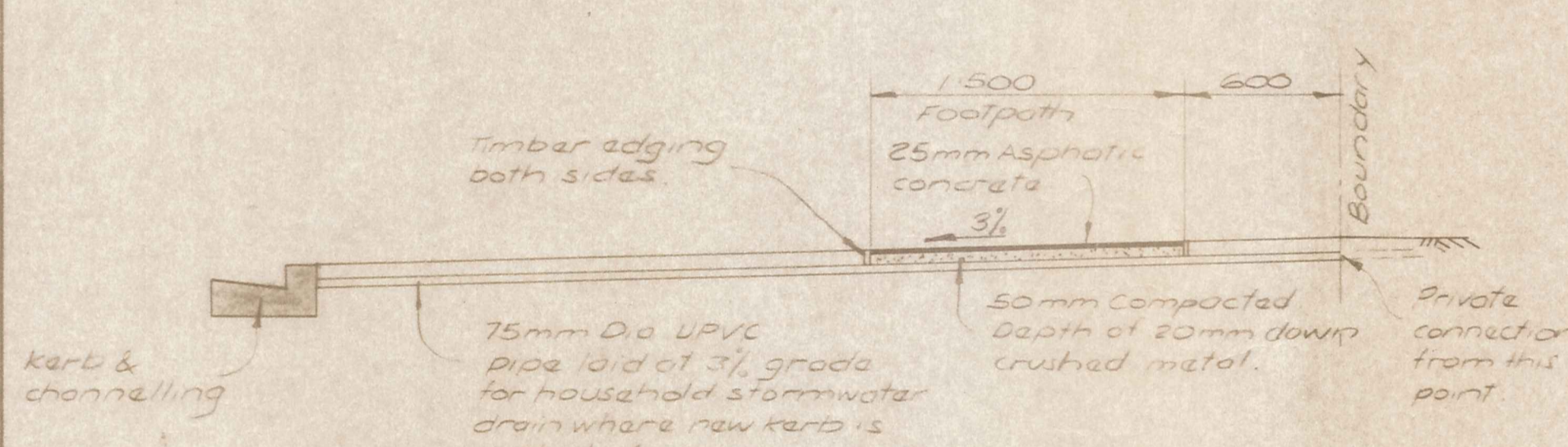


NOTE - Cable Ducts to extend 500 mm behind kerb face & 300 mm from back of footpath where footpath is against kerb

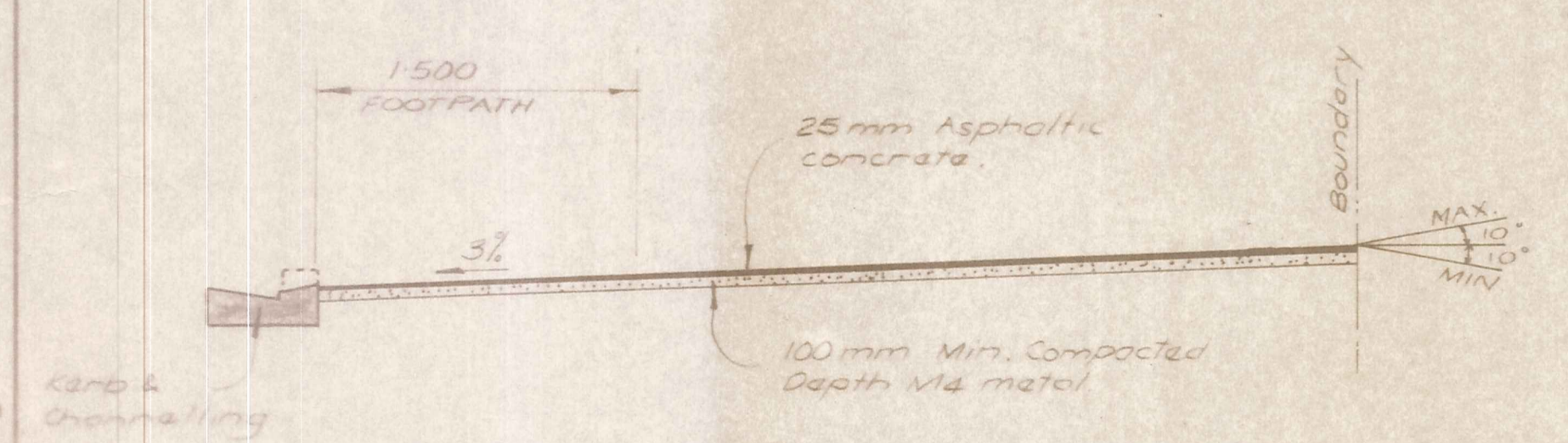
PLAN  
N.T.S.



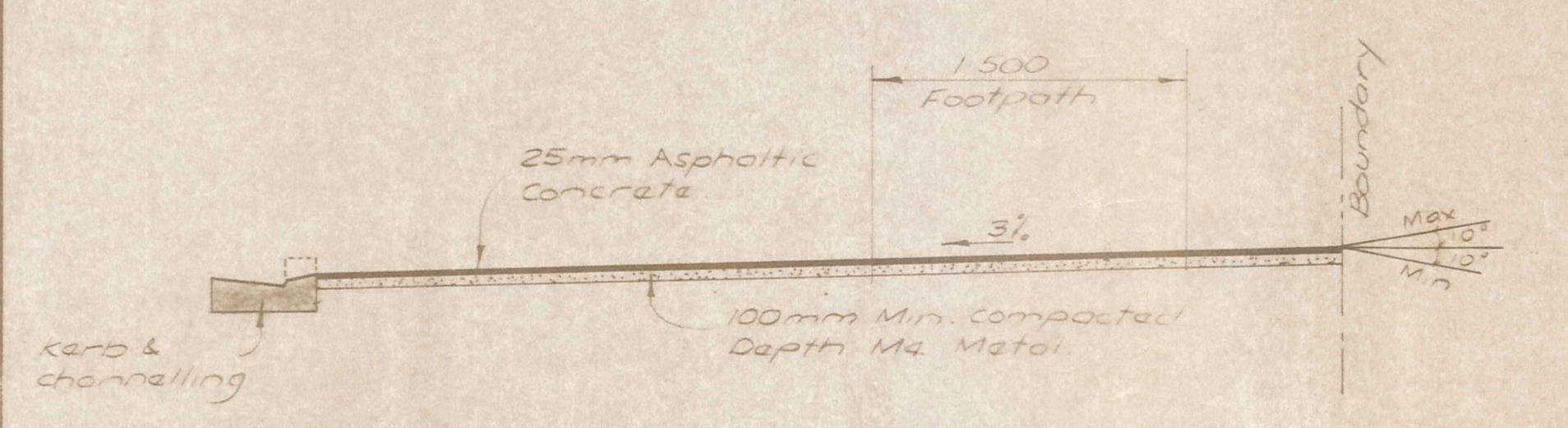
TYPICAL SECTION BETWEEN DRIVEWAYS (SHOWING HOUSEHOLD STORMWATER CONNECTION)



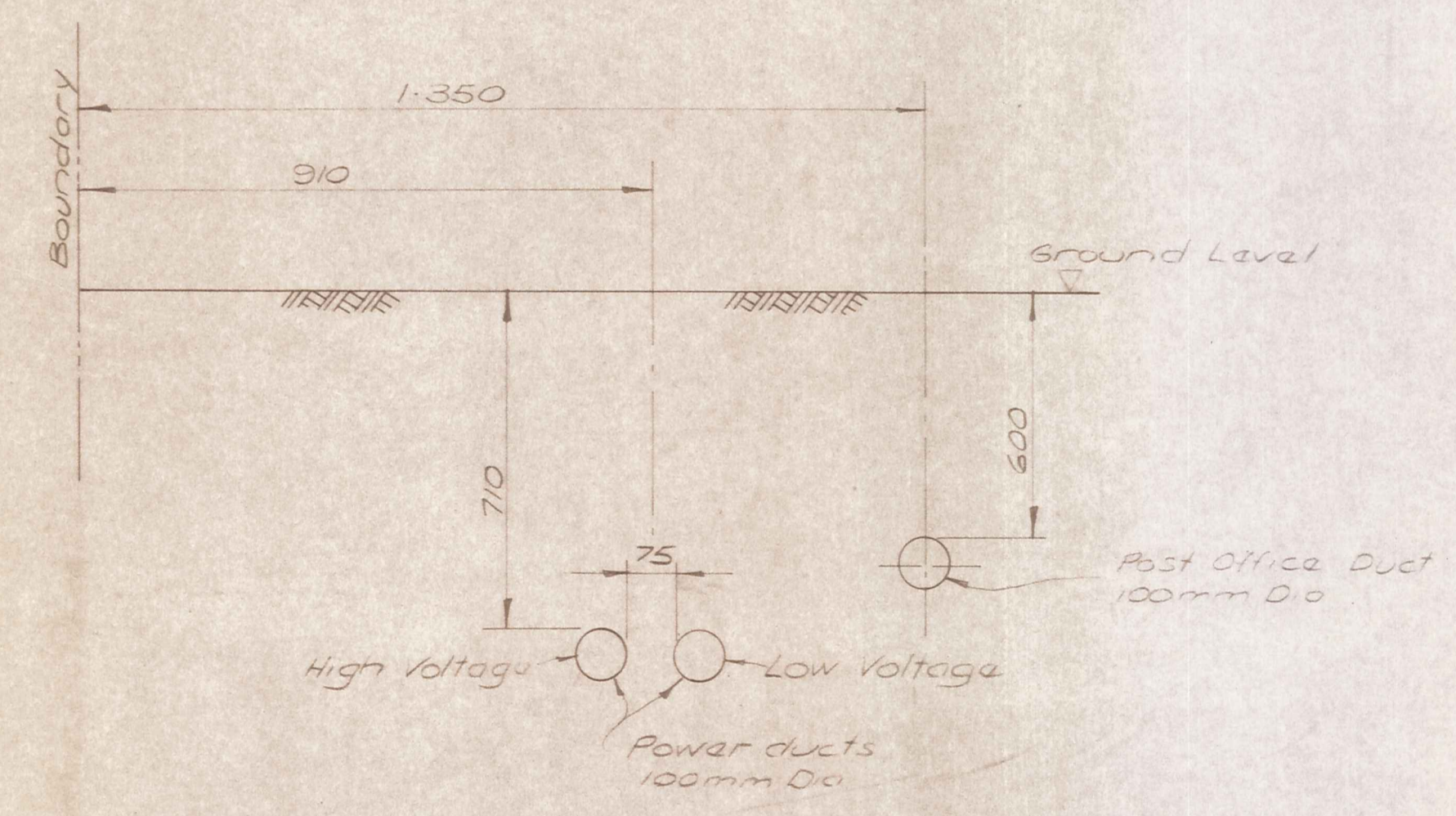
TYPICAL SECTION BETWEEN DRIVEWAYS



TYPICAL SECTION ALONG & DRIVEWAYS



TYPICAL SECTION ALONG & DRIVEWAYS



POWER AND TELEPHONE CABLE DUCTS INTERSECTION DETAILS  
N.T.S.

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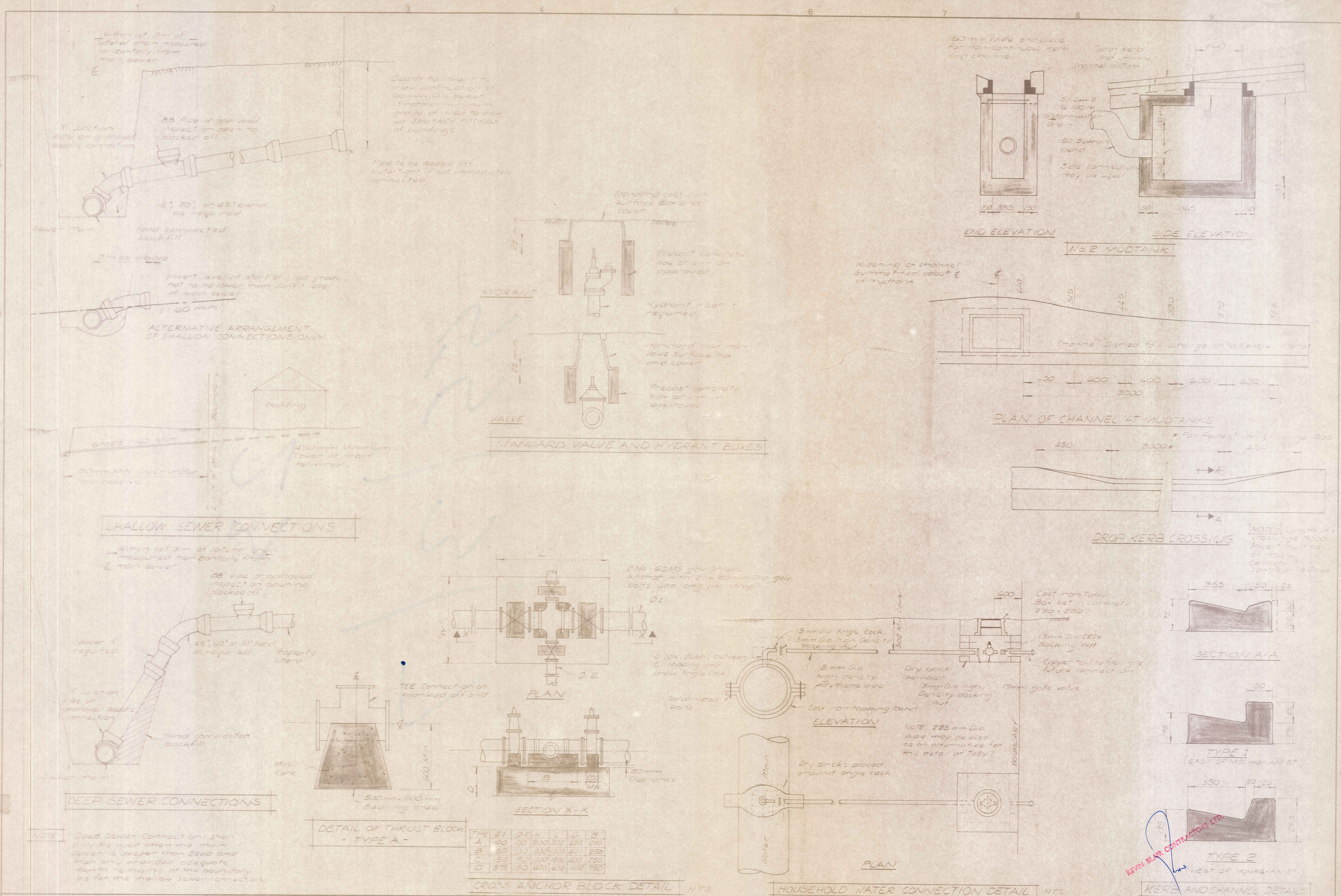
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STANDARD DETAILS

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NO.	BY	DATE			10203	7
			Appvd. Surveyed	B HAWKINS	6-82	
			Drawn	M COOPER	6-82	
			Calculations			
			Traced			
			Checked	R.H.		
			Approved			

File 9/19/32 L.B. F.B.





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				M COOPER	6-82		of 8 sheets
				RH	3/84	File 9/19/32	LB

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