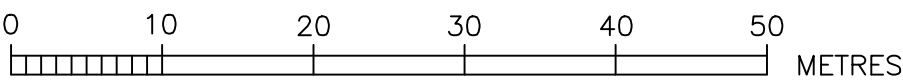


LOCALITY PLAN

(NOT TO SCALE)
(SEE BENCH MARK ORIGIN ON SHEET 17)



DEVELOPER CONTRACT PLAN WORK-AS-CONSTRUCTED

- DESIGNER AND WATER SERVICING COORDINATOR:
QALCHEK PTY LTD (CERTIFIED No.289)
77 UNION RD. PENRITH NSW 2750
PH. No. (02) 4722 8181
FOR:
WOORONG PARK PTY LTD
c/o J WYNNDHAM PRINCE
580 HIGH STREET, PENRITH, NSW 2750
PH. 02 4720 3300
- THE WORKS AND MATERIALS ARE IN ACCORDANCE WITH THE SEWERAGE CODE OF AUSTRALIA (WSA 02-2002-2.2 VERSION 3) INCLUDING THE SYDNEY WATER SUPPLEMENT AND APPENDICES AND THE TECHNICAL SPECIFICATION FOR LEAK TIGHT SEWER SYSTEMS (VERSION 8 - 17/12/14).
- ALL STRUCTURES CONSTRUCTED TO FINISHED SURFACE LEVELS. ALL LEVELS REFER TO FINISHED SURFACE LEVEL.
- ALL BUILDING LAYOUTS, FINISHED SURFACE LEVELS, STORMWATER INFORMATION, AND GENERAL CIVIL ENGINEERING DETAILS TAKEN FROM:
STORMWATER: 998506CC NEWPARK DRAINAGE LONG SECTION BASE.DWG (PROVIDED BY JWP 13.04.2017)
CIVIL ENGINEERING: 998506CCBASE.DWG (PROVIDED BY JWP 13.04.2017)
LOT LAYOUT: 998506CCBASE.DWG (PROVIDED BY JWP 13.04.2017)
SURFACE INFORMATION: 998506CCDTM-NEWPARK.DWG (PROVIDED BY JWP 13.04.2017)
- THE MINIMUM NUMBER OF FIELD COMPACTION TESTS CONDUCTED TO SATISFY THE SEWERAGE CODE OF AUSTRALIA ARE:
PIPE EMBEDMENT ZONE: 0 TESTS CONDUCTED (LETTER PROVIDED) SEE NOTE 11
TRENCH FILL ZONE (NON TRAFFICABLE): 180 TESTS CONDUCTED
TRENCH FILL ZONE (TRAFFICABLE): 0 TESTS CONDUCTED (LETTER PROVIDED)
TRENCH FILL ZONE (MAINTENANCE STRUCTURES): 277 TESTS CONDUCTED
TRENCH FILL ZONE - TOTAL: 457 TESTS CONDUCTED
- BUILDING OVER/ADJACENT TO SEWER - CONDITIONS MAY APPLY. REFER TO QALCHEK FOR DETAILS.
- ALL EXCAVATION, SHORING EXCAVATION AND STABILITY OF ADJACENT STRUCTURES/SERVICES/DWELLINGS WAS THE RESPONSIBILITY OF THE CONSTRUCTOR.
- ALL PSC CONNECTIONS TO I.S. ARE AT 0.7m & 45° TO MAIN UNLESS OTHERWISE INDICATED.
DENOTES STANDARD PCS CONNECTION (REFER DTC-2120 ISSUE A DATE 18.03.15)
DENOTES STANDARD PCS CONNECTION (REFER DTC-2120 ISSUE A DATE 18.03.15) 90° TO MAIN
- CONSTRUCTOR ENSURED THAT WORKS ARE CONSTRUCTED IN ACCORDANCE WITH SYDNEY WATER'S DEEMED TO COMPLY DRAWINGS:
FOR ALL MH'S DTC-2000 (ISSUE C 18.03.15), DTC-2200 (ISSUE F 18.03.15), DTC-2203 (ISSUE B 18.03.15), DTC-2220 (ISSUE D 18.03.15), DTC-2221 (ISSUE B 01.03.13), DTC-2222 (ISSUE C 18.03.15), DTC-2223 (18.03.15)
- PIPES CONCRETE ENCASED SHOWN ACCORDINGLY:- REFER TO SEW-1205-V
- EMBEDMENT FOR PIPES WITH A DEPTH GREATER THAN 6.0m TO INVERT TO CONSIST OF SINGLE SIZE MATERIAL OF EITHER 7mm OR 10mm.
- FOR ANY EXTERNAL DROPS IN EXCESS OF 1.5m REFER TO SHEET 16 FOR CONSTRUCTION DETAIL
- BULKHEADS CONDUCTED AT ROAD CROSSINGS TO SEW-1206
- W.A.C. PREPARED FROM INFORMATION SUPPLIED (IN PART BY QALCHEK) & BY DARACON PTY LTD

0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
C	ISSUE FOR TENDER	F.J.	18.04.17
B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

PLAN TO BE READ IN CONJUNCTION WITH CURRENT SYDNEY WATER STANDARDS SYDNEY WATER CORPORATION
PRIOR TO COMMENCEMENT OF EXCAVATION FOR PROPOSED AND EXISTING SERVICES CONTACT :- DIAL BEFORE YOU DIG Ph. 1100 . . . ELECTRICITY Ph. GAS Ph. TELECOMMUNICATIONS Ph. STONEY WATER Ph. 132 092 . . . GIVING AT LEAST 48 HOURS NOTICE.

UTILITIES							
TYPE	DATE	REF.	TYPE	DATE	REF.		
STORMWATER: SWD --- SWD	14.04.17	ENG. DES.					
WATER: DN100 Water ---	24.05.17	DESIGN					

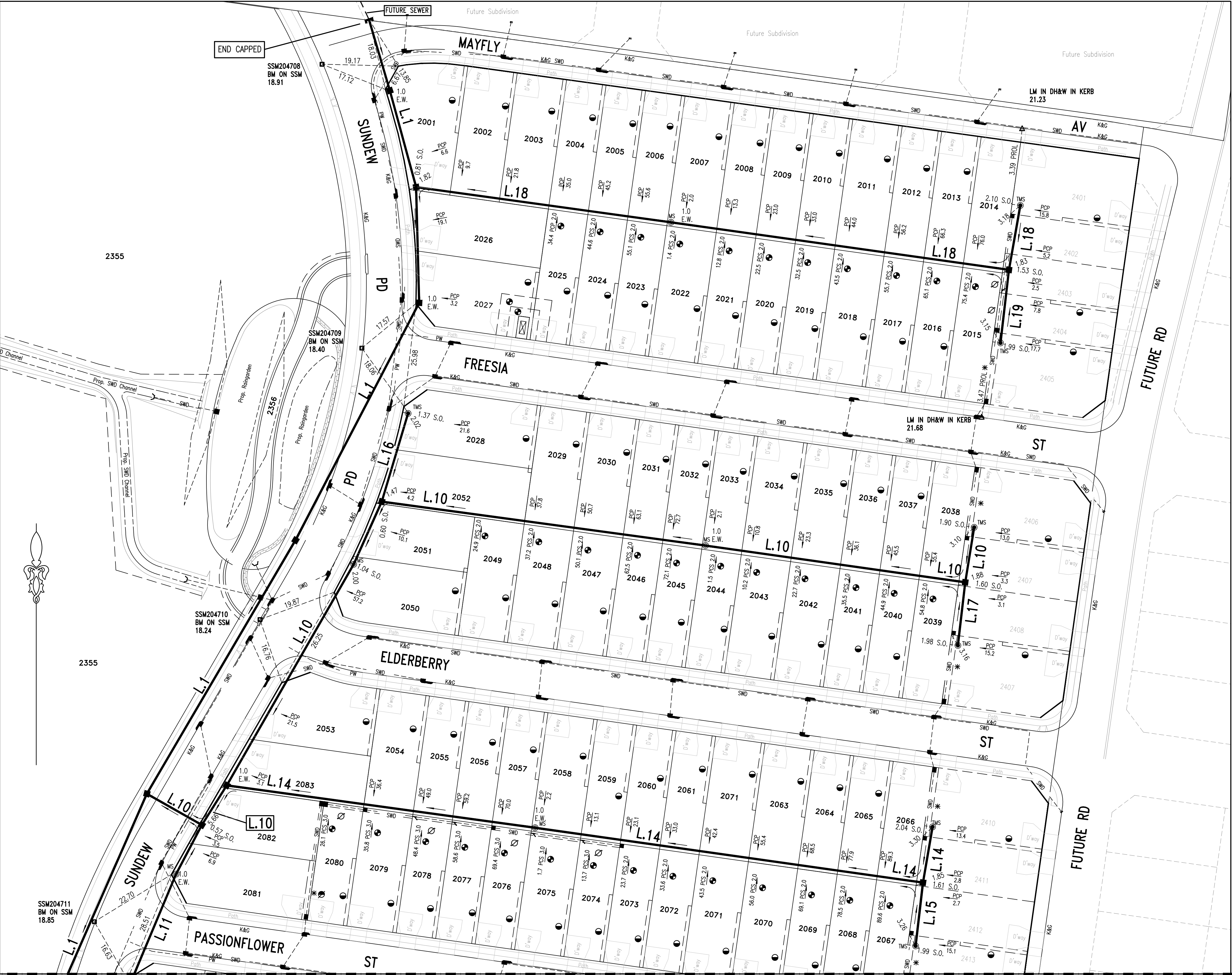
WORK AS CONSTRUCTED CERTIFICATION			
DEVELOPER	WOORONG PARK PTY LTD		
WATER SERVICE CO-ORDINATOR	QALCHEK PTY LTD		
CONSTRUCTOR	CJ DOYLE PTY LTD		
COMPLETED	09.05.18	W.A.C. PREPARED	15.05.18
DESIGNER	QALCHEK PTY LTD		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS.			

PIPE SCHEDULE					
SIZE DN	TYPE	CLASS	LENGTH	PIPE JOINING METHOD / NOTES	
300	P.P.	SN10	3.73	BUTT WELDED	
225	P.P.	SN10	276.16	BUTT WELDED	
225	U.P.V.C.	SN8	145.10	RRJ	
150	U.P.V.C.	SN8	4095.78	RRJ	
100	U.P.V.C.	SN10	434.2	SWJ (NOTE 8)	
DESIGN HEAD . . . m			NO BOUNDARY TRAPS REQUIRED.		

AUSTRALIAN HEIGHT DATUM
SCALES
PLAN . 1:500 . SECTION { HOR. . 1:500 . VERT. . 1:125 .
CROSS SECTIONS NATURAL
LENGTHS, DEPTHS & LEVELS ARE IN METRES.

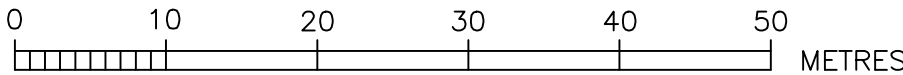
NO AMENDMENTS ARE TO BE MADE TO THIS PLAN WITHOUT REFERENCE TO SYDNEY WATER. THIS PLAN IS NOT NECESSARILY UP TO DATE OR CORRECT AND SYDNEY WATER ACCEPTS NO RESPONSIBILITY.	
U.B. DIRECTORY . . . MAP.126/C13 45th Edition . .	
SHEET . 1 . OF . 18 .	File No. N/A

Sydney WATER	Sydney WATER CORPORATION
Case No. 161560WW	
BLACKTOWN SEWERAGE DRAINS TO RICHMOND RD. CARRIER VIA SP1160 RIVERSTONE ST0042	



0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
C	ISSUE FOR TENDER	F.J.	18.04.17
B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

SEE SHEET '3' FOR CONTINUATION



SEE SHEET '3' FOR CONTINUATION

- EASEMENT FOR ACCESS AND MAINTENANCE 0.9 WIDE
- EASEMENT FOR ACCESS AND MAINTENANCE 1.5 WIDE
- EASEMENT TO DRAIN WATER 0.9 WIDE
- EASEMENT TO DRAIN WATER 1.5 WIDE
- EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
- RESTRICTION ON THE USE OF LAND

WORK AS CONSTRUCTED CERTIFICATION	
DEVELOPER	WOORONG PARK PTY LTD.
W.S.C.	QALCHEK PTY LTD.
CONSTRUCTOR	C.J. DOYLE PTY LTD.
COMPLETED	09.05.18
W.A.C. PREPARED	15.05.18
DESIGNER	QALCHEK PTY LTD.
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	

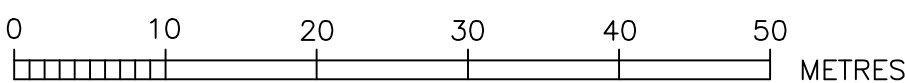
SYDNEY WATER CORPORATION	
Sydney WATER	
Case No. 161560 WW	SHT 2 OF 18 SHTS.
SYDNEY WATER CORPORATION	
FOR DETAILS OF SERVICES SEE SHEET 1	



0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
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B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

SEE SHEET '4' FOR CONTINUATION

SEE SHEET '4' FOR CONTINUATION



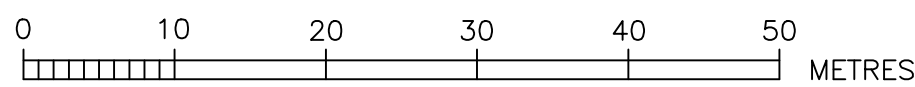
- EASEMENT FOR ACCESS AND MAINTENANCE 0.9 WIDE
- EASEMENT FOR ACCESS AND MAINTENANCE 1.5 WIDE
- EASEMENT TO DRAIN WATER 0.9 WIDE
- EASEMENT TO DRAIN WATER 1.5 WIDE
- EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
- RESTRICTION TO THE USE OF LAND

WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER	
DEVELOPER	WOORONG PARK PTY LTD	SYDNEY WATER CORPORATION	
W.S.C.	QALCHEK PTY LTD	Case No. 161560 WW SHT 3 OF 18 SHTS.	
CONSTRUCTOR	C.J. DOYLE PTY LTD		
COMPLETED	09.05.18		
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	



E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
C	ISSUE FOR TENDER	F.J.	18.04.17
B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

0	WORK AS CONSTRUCTED	R.B.	15.05.18
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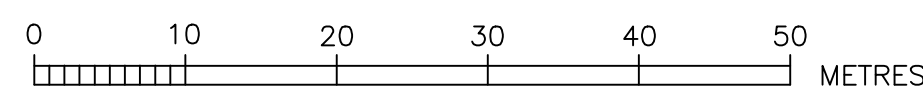


- EASEMENT FOR ACCESS AND MAINTENANCE 0.9 WIDE
- EASEMENT FOR ACCESS AND MAINTENANCE 1.5 WIDE
- EASEMENT TO DRAIN WATER 0.9 WIDE
- EASEMENT TO DRAIN WATER 1.5 WIDE
- EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
- RESTRICTION ON THE USE OF LAND

WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER	
DEVELOPER	WOORONG PARK PTY LTD	Case No. 161560 WW SHT 4 OF 18 SHTS.	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J. DOYLE PTY LTD		
COMPLETED	09.05.18		
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	

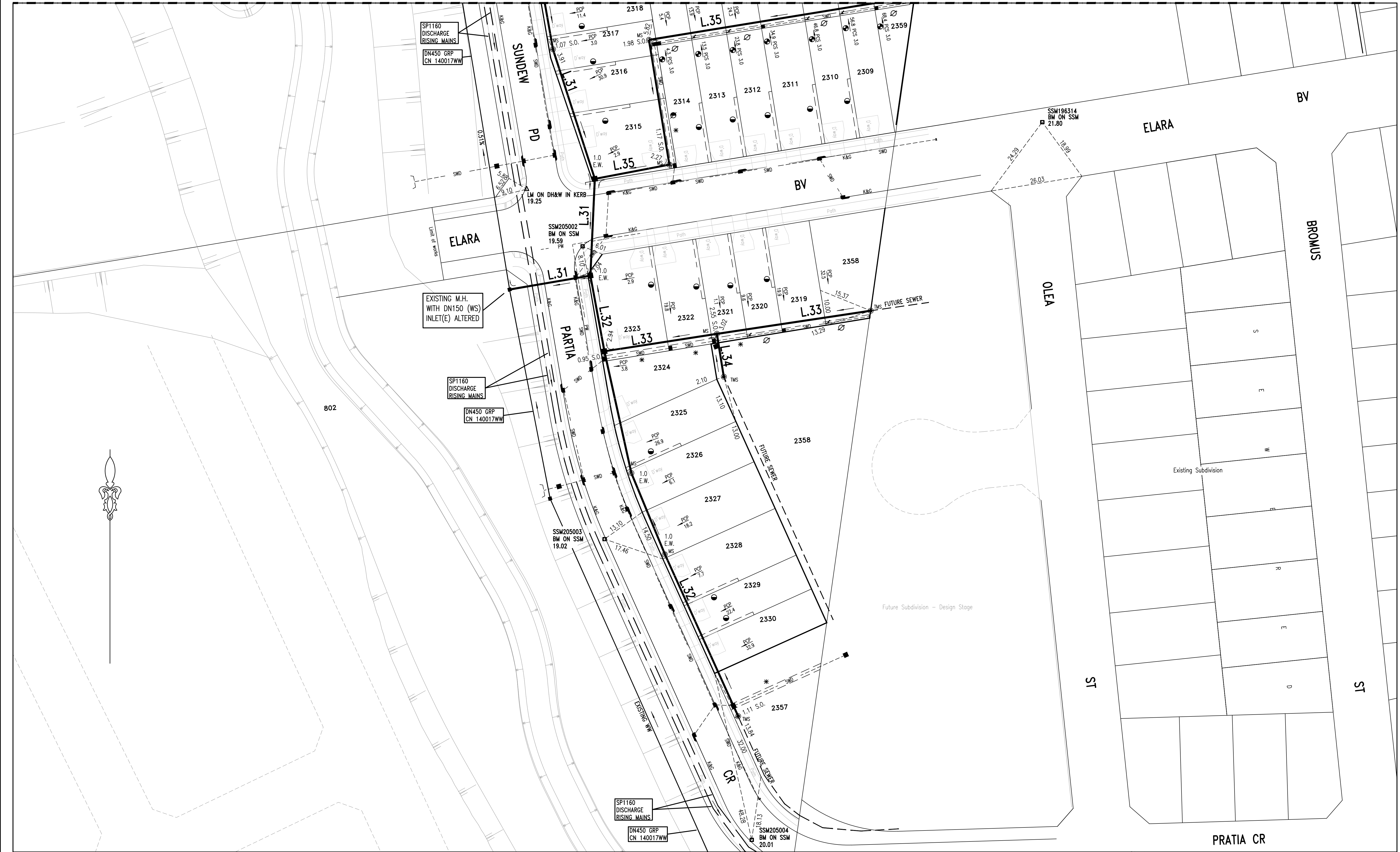


SEE SHEET '6' FOR CONTINUATION

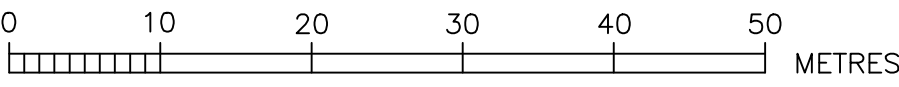


SEE SHEET '6' FOR CONTINUATION

WORK AS CONSTRUCTED CERTIFICATION		Sydney <u>WATER</u>		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD.	Case No. 161560 WW	SHT	5	OF 18
W.S.C.	QALCHEK PTY LTD.				
CONSTRUCTOR	C.J. DOYLE PTY LTD				
COMPLETED	09.05.18				
W.A.C. PREPARED	15.05.18				
DESIGNER	QALCHEK PTY LTD.	SYDNEY WATER CORPORATION			
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORKS AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1			

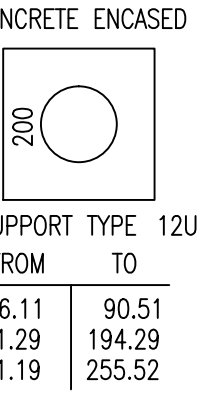
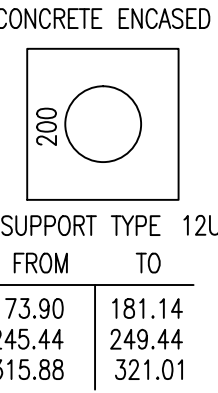


E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
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B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE
0	WORK AS CONSTRUCTED	R.B.	15.05.18

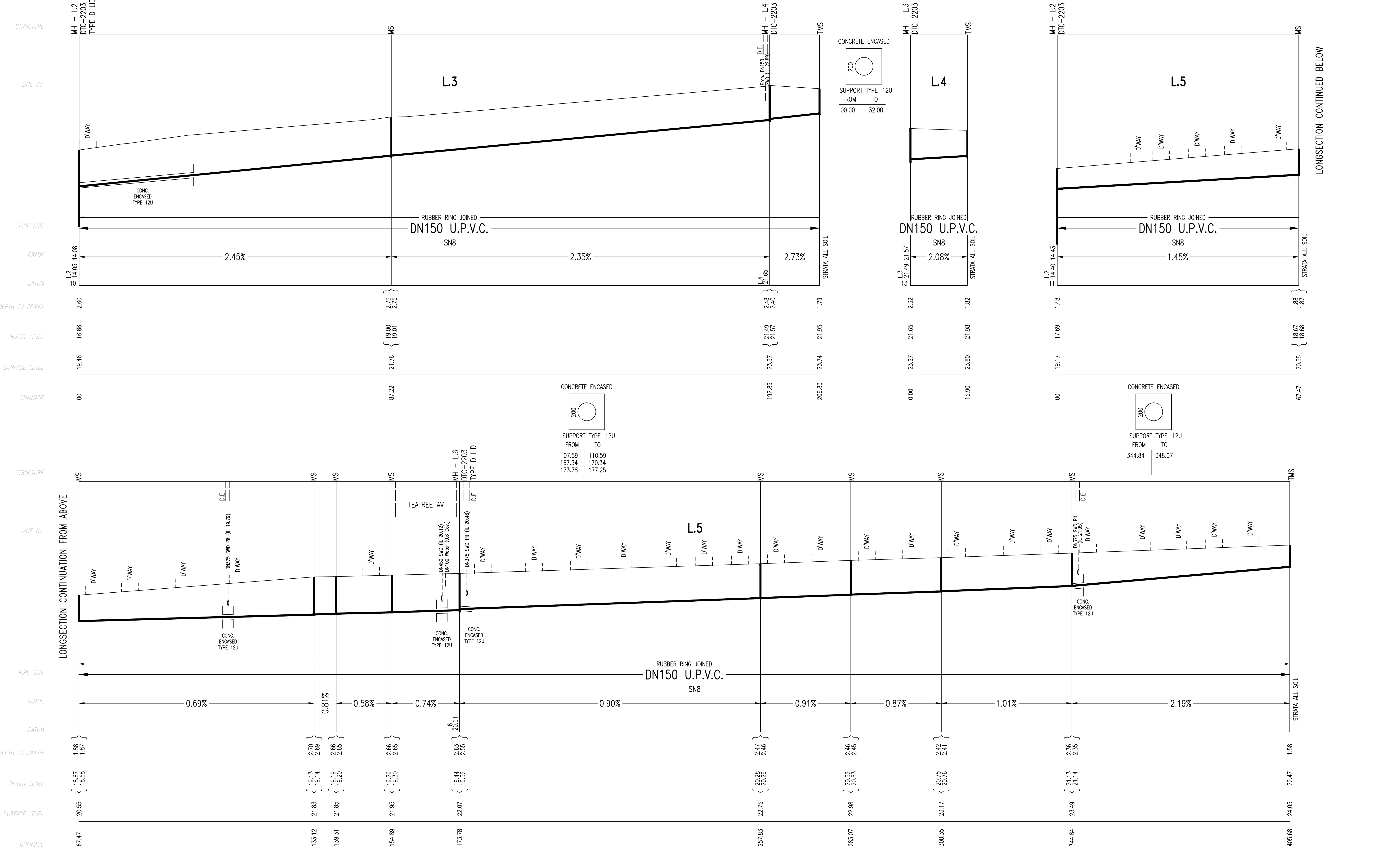


- EASEMENT FOR ACCESS AND MAINTENANCE 0.9 WIDE
- EASEMENT FOR ACCESS AND MAINTENANCE 1.5 WIDE
- EASEMENT TO DRAIN WATER 0.9 WIDE
- EASEMENT TO DRAIN WATER 1.5 WIDE
- EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
- RESTRICTION ON THE USE OF LAND

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	Sydney WATER	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J. DOYLE PTY LTD	Case No. 161560 WW SHT 6 OF 18 SHTS.	
COMPLETED	09.05.18	SYDNEY WATER CORPORATION	
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD	FOR DETAILS OF SERVICES SEE SHEET 1	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			

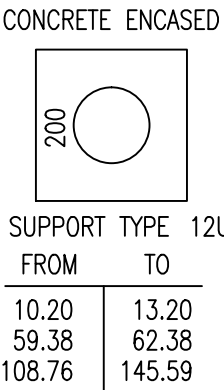
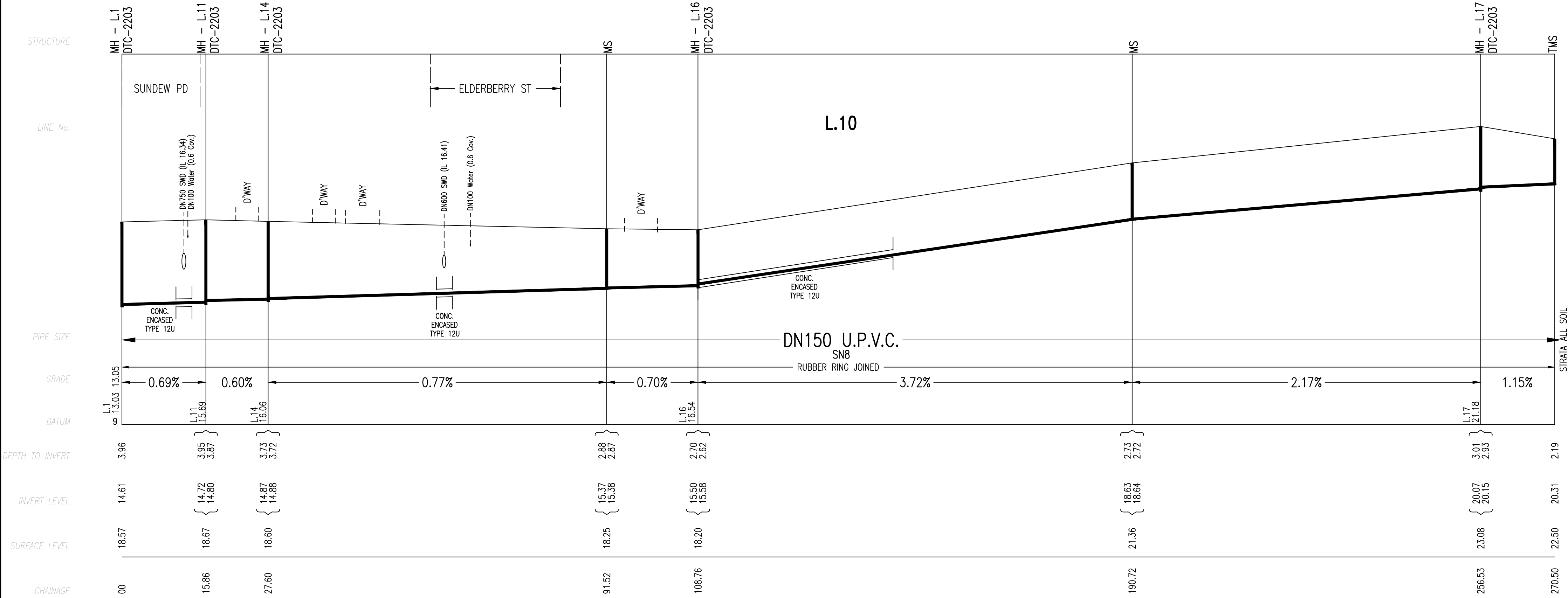
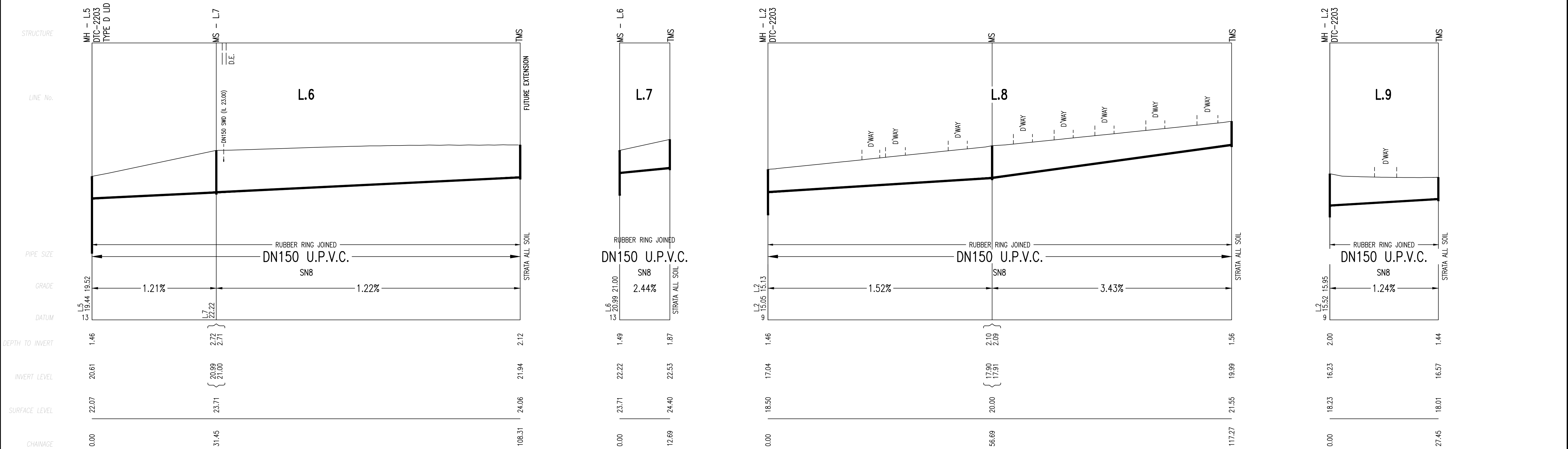


WORK AS CONSTRUCTED CERTIFICATION		<div> <div>Sydney</div> <div>WATER</div> </div>		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	<div>Case No. 161560WW</div> <div>SHT 7 OF 18 SHTS.</div>	<div>SYDNEY WATER CORPORATION</div> <div>FOR DETAILS OF SERVICES SEE SHEET 1</div>		
W.S.C.	QALCHEK PTY LTD				
CONSTRUCTOR	C.J. DOYLE PTY LTD				
COMPLETED	09.05.18				
W.A.C. PREPARED	15.05.18				
DESIGNER	QALCHEK PTY LTD				
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS					



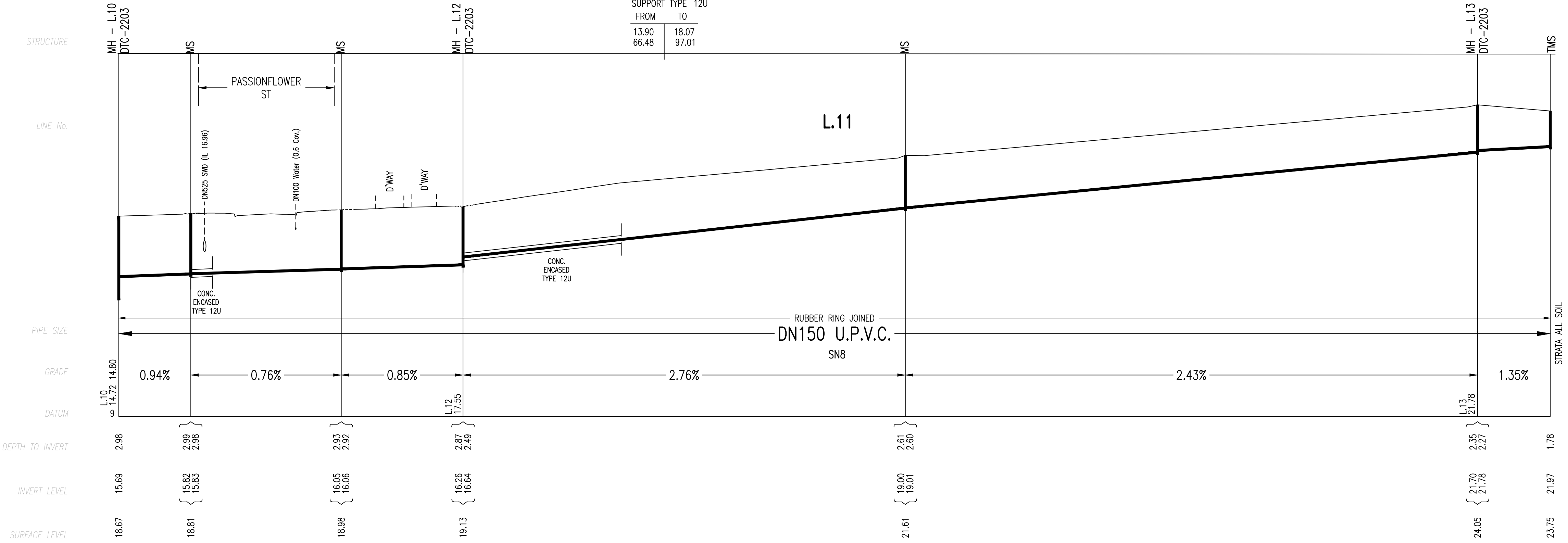
0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
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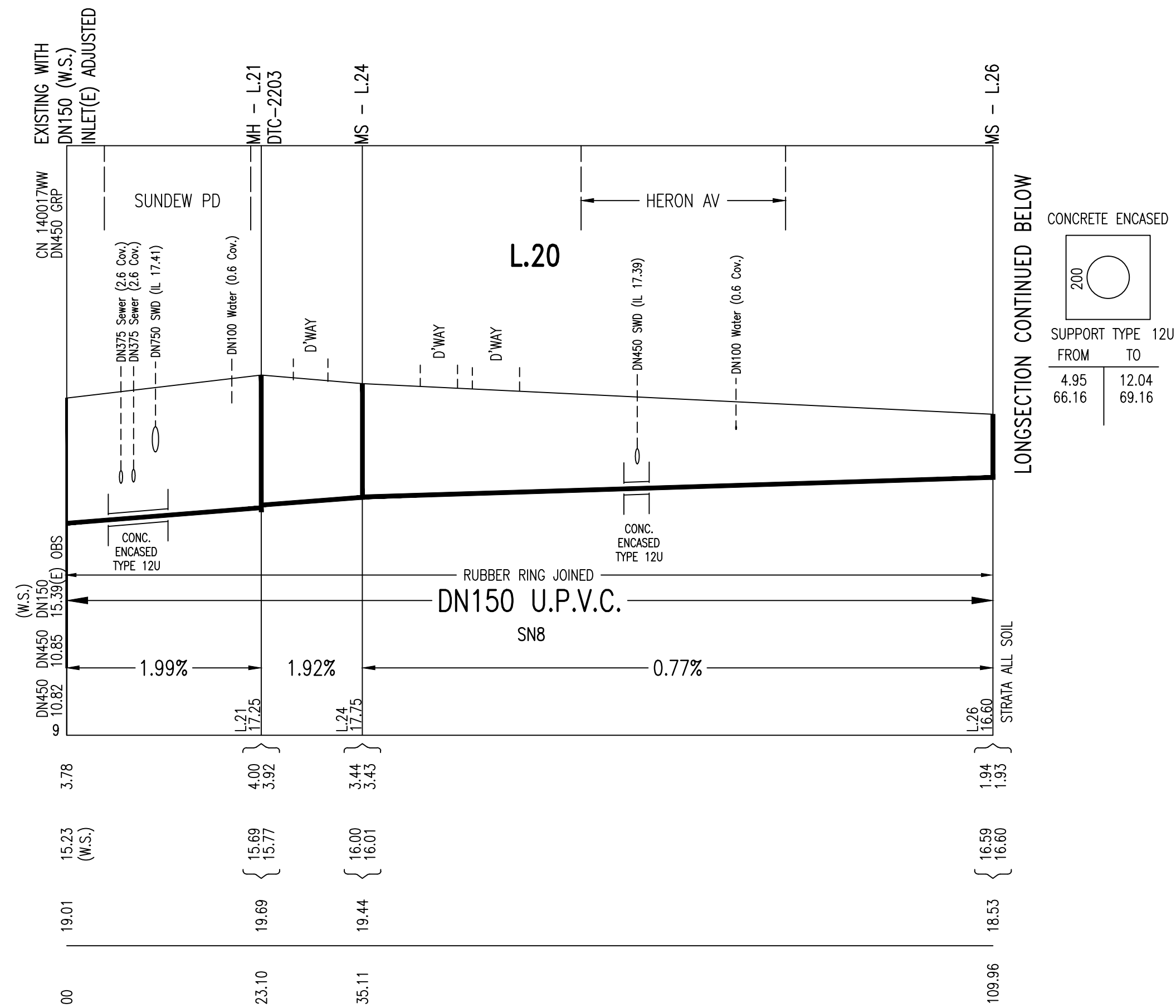
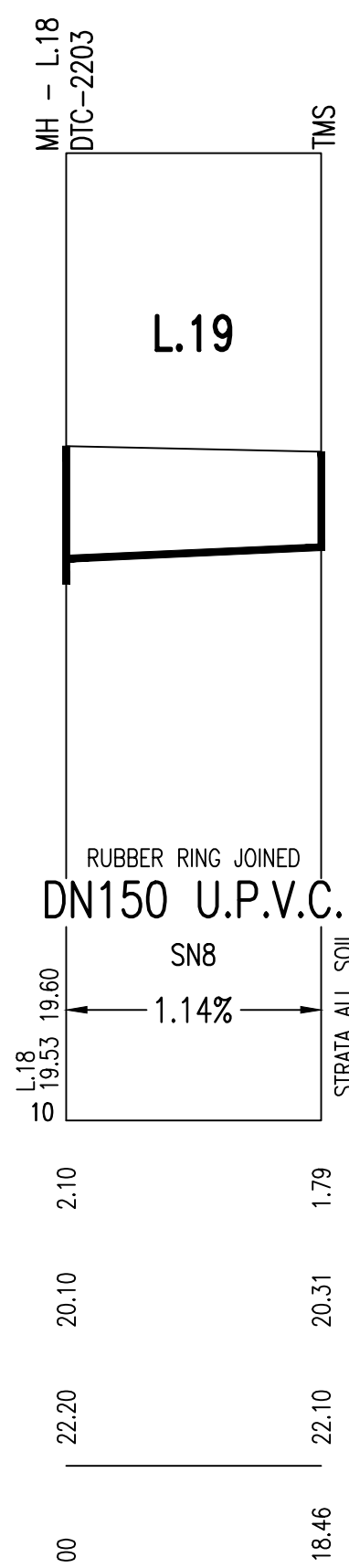
WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	Sydney WATER	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J. DOYLE PTY LTD	Case No. 161560WW SHT 8 OF 18 SHTS.	
COMPLETED	09.05.18	SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			



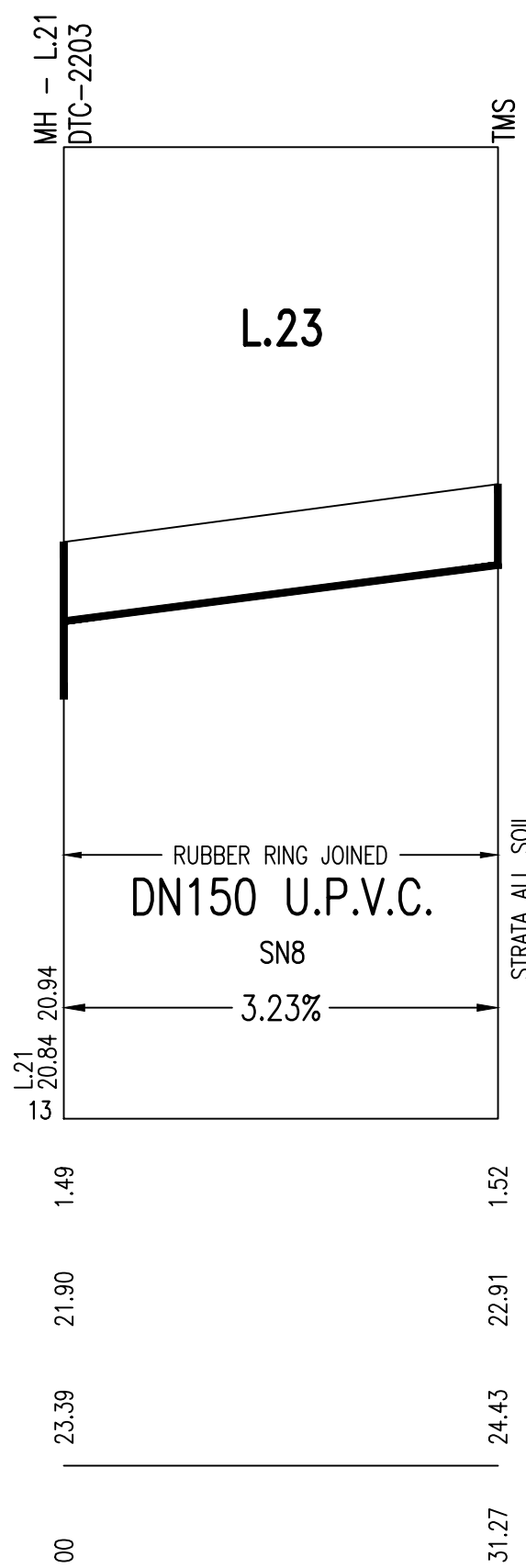
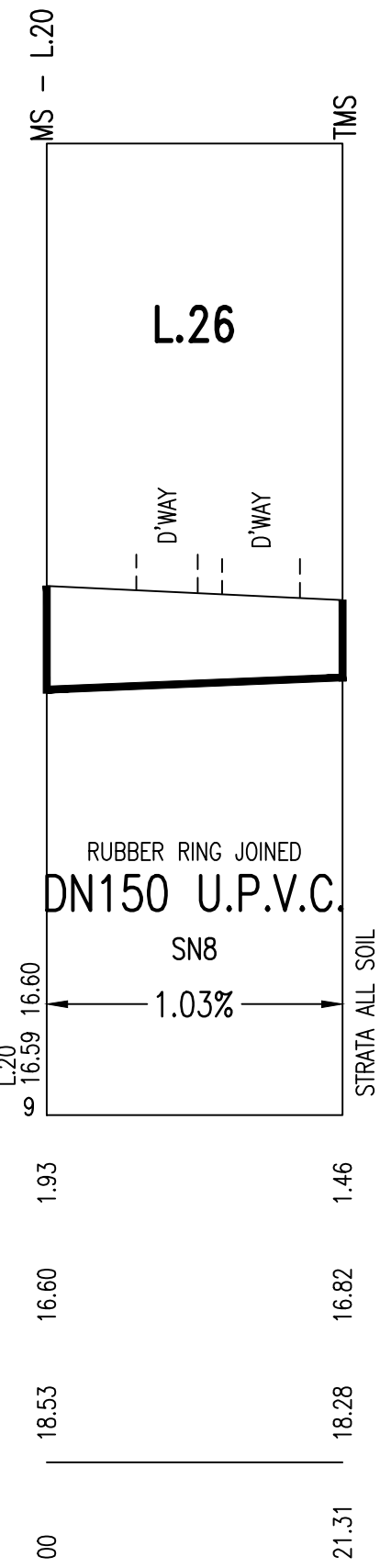
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WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	Sydney WATER	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J. DOYLE PTY LTD	Case No. 161560WW SHT 9 OF 18 SHTS.	
COMPLETED	09.05.18	SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD	I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	





WORK AS CONSTRUCTED CERTIFICATION		Sydney <i>WATER</i> WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD.	Case No. 161560WWW	SHT 11 OF 18 SHTS.
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J., DOYLE PTY LTD		
COMPLETED	09.05.18		
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD.	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	



WORK AS CONSTRUCTED CERTIFICATION		 SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD.	Case No. 161560WW	SHT 12 OF 18 SHTS.
W.S.C.	QALCHEK PTY LTD.		
CONSTRUCTOR	C.J., DOYLE PTY LTD		
COMPLETED	09.05.18.		
W.A.C. PREPARED	15.05.18.		
DESIGNER	QALCHEK PTY LTD.	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	

A1F

STRUCTURE

LINE No.

PIPE SIZE

GRADE

DATUM

DEPTH TO INVERT

INVERT LEVEL

SURFACE LEVEL

CHAINAGE

STRUCTURE

LINE No.

PIPE SIZE

GRADE

DATUM

DEPTH TO INVERT

INVERT LEVEL

SURFACE LEVEL

CHAINAGE

0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
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A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION

DEVELOPER
WOORONG PARK PTY LTD

W.S.C.
QALCHECK PTY LTD

CONSTRUCTOR
C.J. DOYLE PTY LTD

COMPLETED
09.05.18

W.A.C. PREPARED
15.05.18

Sydney
WATER

SYDNEY WATER CORPORATION

Case No. 161560WW

SHT 13 OF 18 SHTS.

DESIGNER
QALCHECK PTY LTD

I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS

SYDNEY WATER CORPORATION

FOR DETAILS OF SERVICES SEE SHEET 1

FILE LOCATION: PM18613WW-0

DESIGNED: F.J.

DRAFTED: R.B.

VERIFIED: C.T.

REVIEWED: C.T.

APPROVED: C.T.

ISSUED: 15.05.2018

A1F

STRUCTURE

LINE No.

PIPE SIZE

GRADE

DATUM

DEPTH TO INVERT

INVERT LEVEL

SURFACE LEVEL

CHAINAGE

STRUCTURE

LINE No.

PIPE SIZE

GRADE

DATUM

DEPTH TO INVERT

INVERT LEVEL

SURFACE LEVEL

CHAINAGE

0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
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No.	AMENDMENT DESCRIPTION	BY	DATE

Profile view of sewer line L.27. The structure is a concrete encased pipe with a diameter of 200mm. The pipe is DN150 U.P.V.C. and is rubber ring joined. The grade is 1.18% from chainage 00 to 23.69, 1.17% from 23.69 to 104.39, and 2.53% from 104.39 to 163.49. The datum is 11.16.92. The depth to invert is 4.60m at chainage 00. The invert level is 15.90 (W.S.) at chainage 00. The surface level is 20.50 at chainage 00. The chainage is 00 to 163.49.

Profile view of sewer line L.28. The structure is a concrete encased pipe with a diameter of 200mm. The pipe is DN150 U.P.V.C. and is rubber ring joined. The grade is 0.98% from chainage 00 to 22.41, 1.31% from 22.41 to 53.79, 2.05% from 53.79 to 80.63, 1.04% from 80.63 to 173.78, 3.23% from 173.78 to 189.95, and 1.48% from 189.95 to 200.00. The datum is 11.16.92. The depth to invert is 2.55m at chainage 00. The invert level is 18.31 (W.S.) at chainage 00. The surface level is 20.86 at chainage 00. The chainage is 00 to 189.95.

Profile view of sewer line L.29. The structure is a concrete encased pipe with a diameter of 200mm. The pipe is DN150 U.P.V.C. and is rubber ring joined. The grade is 1.19% from chainage 00 to 21.00. The datum is 11.16.92. The depth to invert is 1.77m at chainage 00. The invert level is 18.96 (W.S.) at chainage 00. The surface level is 20.73 at chainage 00. The chainage is 00 to 21.00.

Profile view of sewer line L.30. The structure is a concrete encased pipe with a diameter of 200mm. The pipe is DN150 U.P.V.C. and is rubber ring joined. The grade is 1.17% from chainage 00 to 17.93. The datum is 11.16.92. The depth to invert is 1.94m at chainage 00. The invert level is 23.30 (W.S.) at chainage 00. The surface level is 25.24 at chainage 00. The chainage is 00 to 17.93.

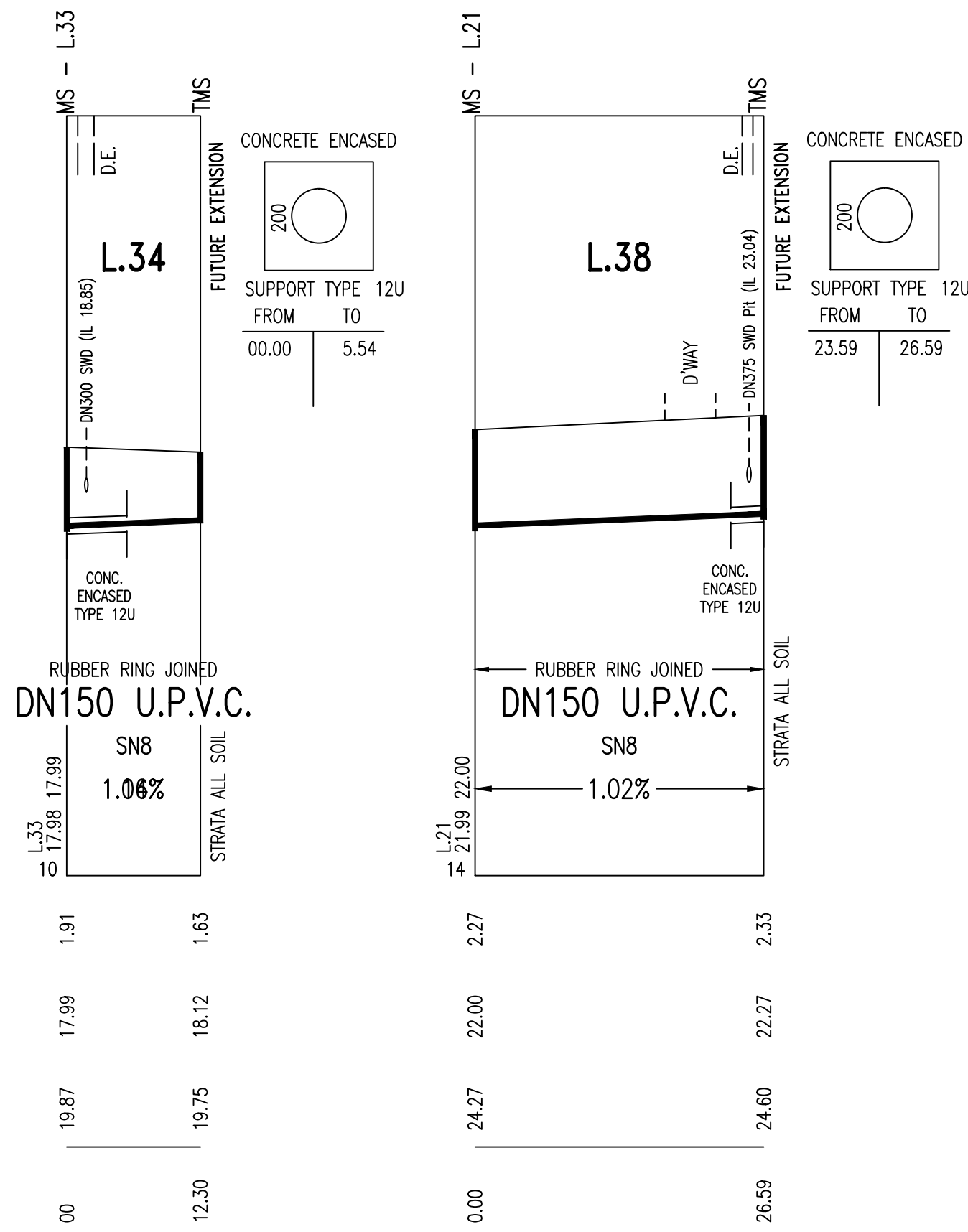
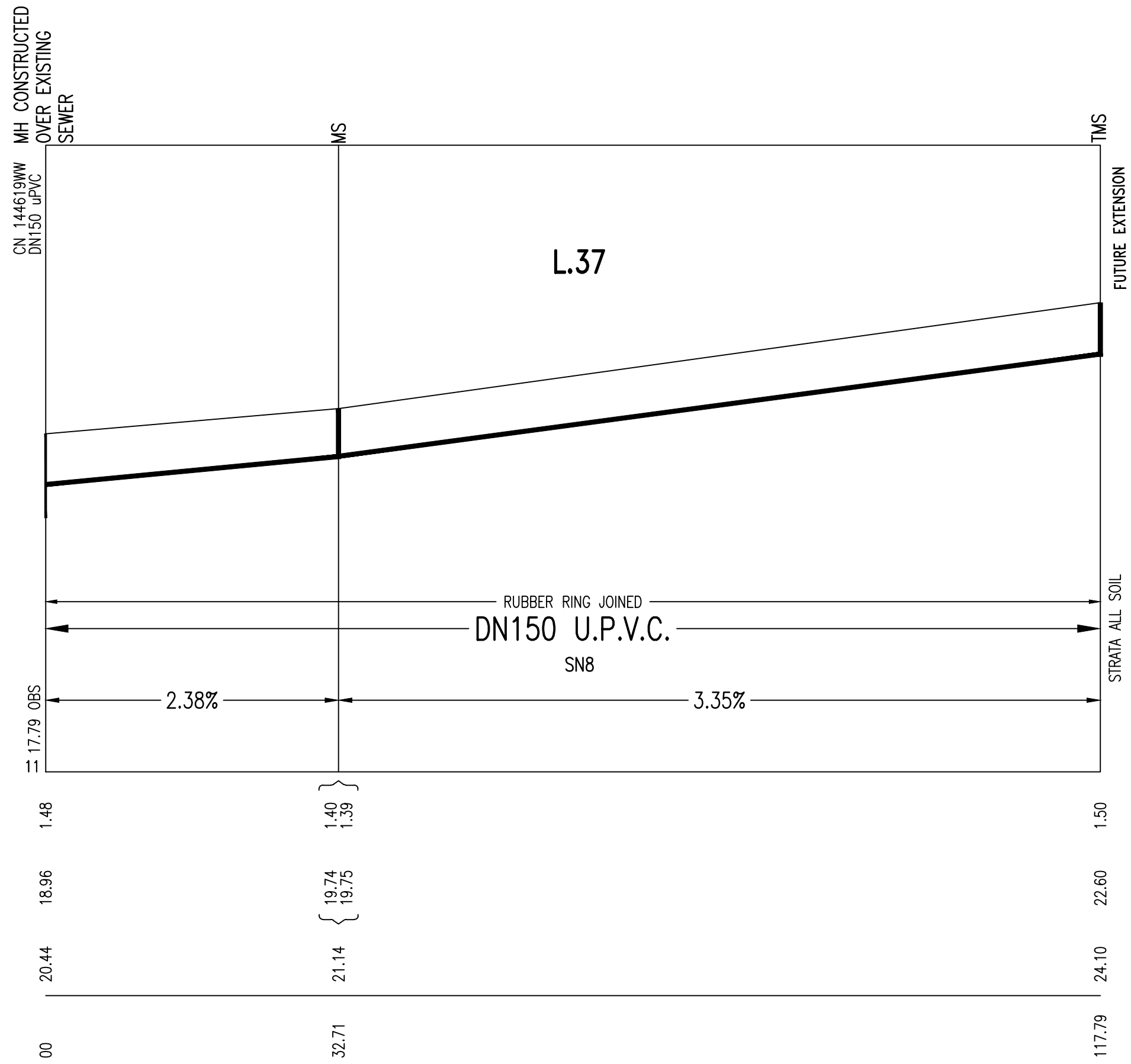
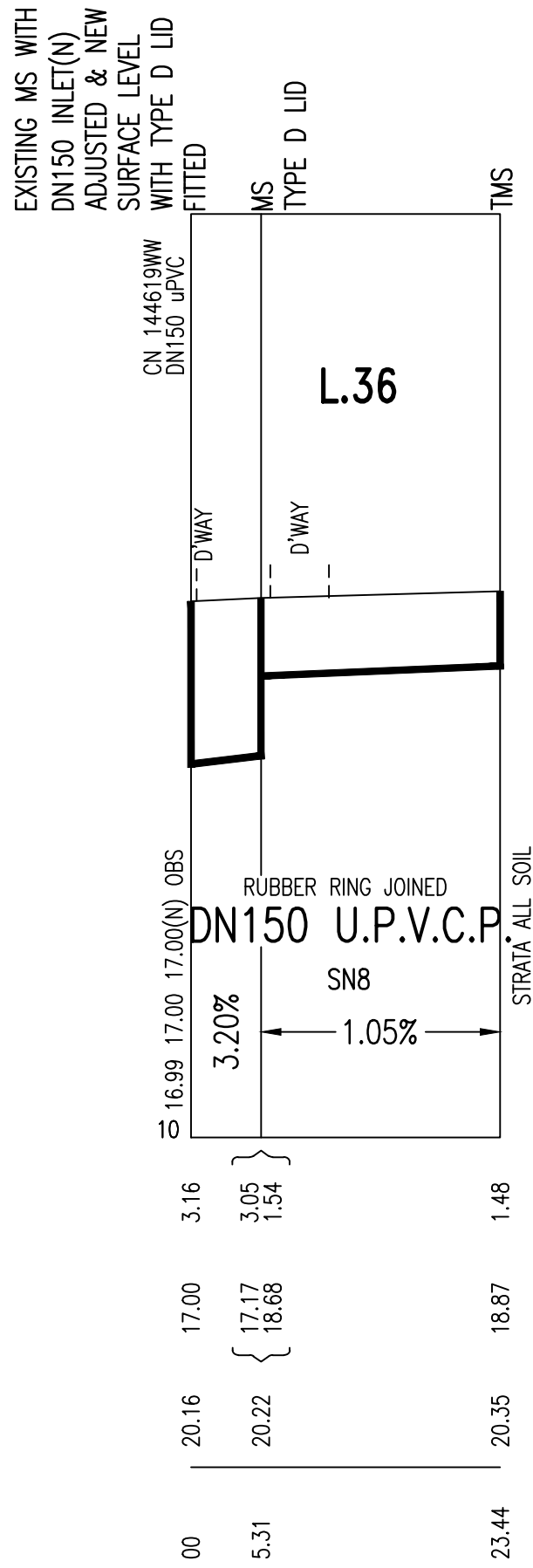
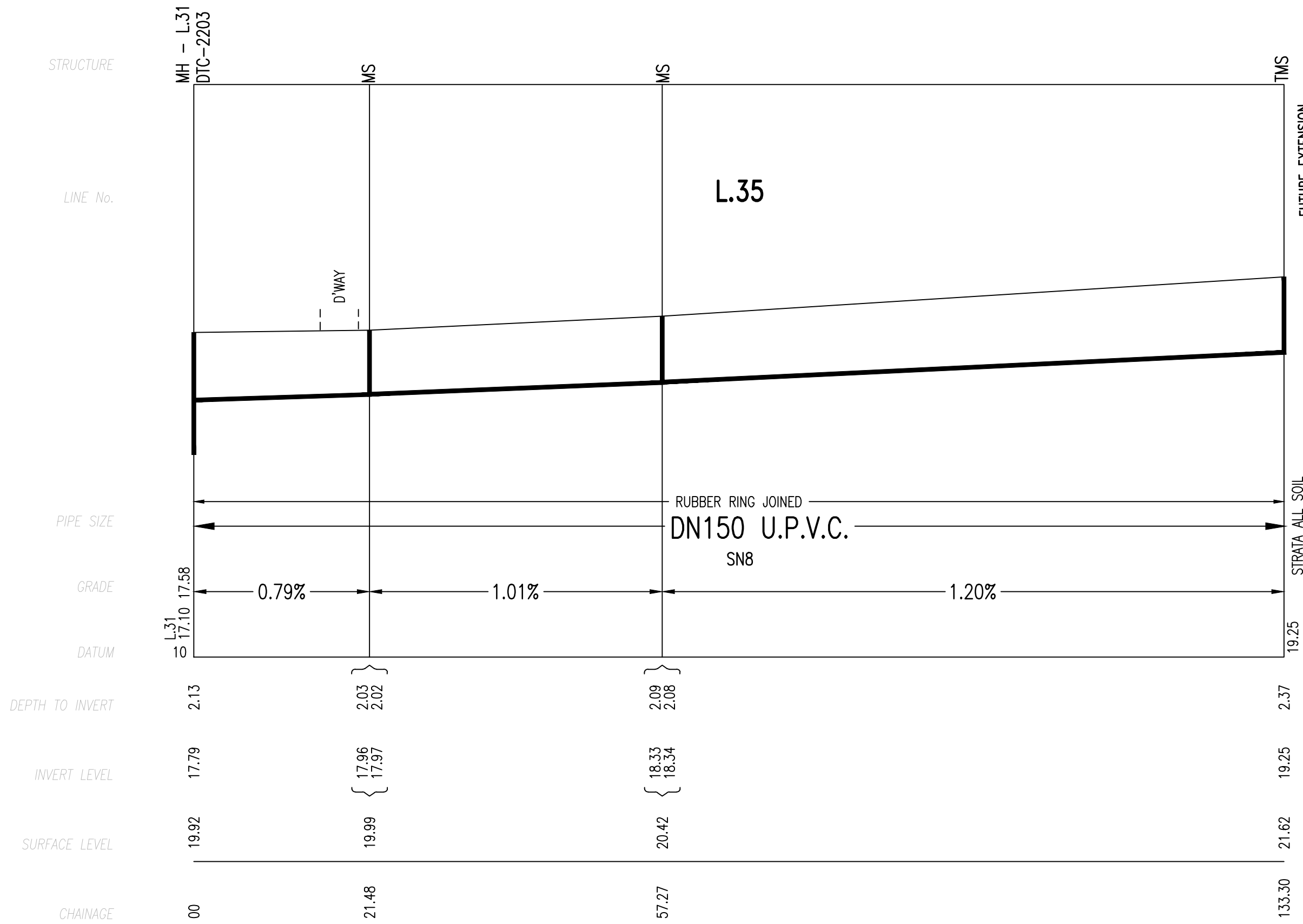
Profile view of sewer line L.31. The structure is a concrete encased pipe with a diameter of 200mm. The pipe is DN150 U.P.V.C. and is rubber ring joined. The grade is 0.73% from chainage 00 to 23.21, 0.91% from 23.21 to 50.62, 1.12% from 50.62 to 89.15, and 1.08% from 89.15 to 111.39. The datum is 11.16.92. The depth to invert is 12.52m at chainage 00. The invert level is 15.92 (W.S.) at chainage 00. The surface level is 19.27 at chainage 00. The chainage is 00 to 111.39.

DEVELOPER CONTRACT PLAN
WORK-AS-CONSTRUCTED

PLAN DRAWN DATE: 15.05.2018 VERSION: 0 SHEET 13 OF 18 SHEETS

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	Sydney WATER	
W.S.C.	QALCHECK PTY LTD		
CONSTRUCTOR	C.J. DOYLE PTY LTD	Case No. 161560WW	SHT 13 OF 18 SHTS.
COMPLETED	09.05.18		
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHECK PTY LTD	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	

FILE LOCATION: PM18613WW-0 DESIGNED: F.J. DRAFTED: R.B. VERIFIED: C.T. REVIEWED: C.T. APPROVED: C.T. ISSUED: 15.05.2018



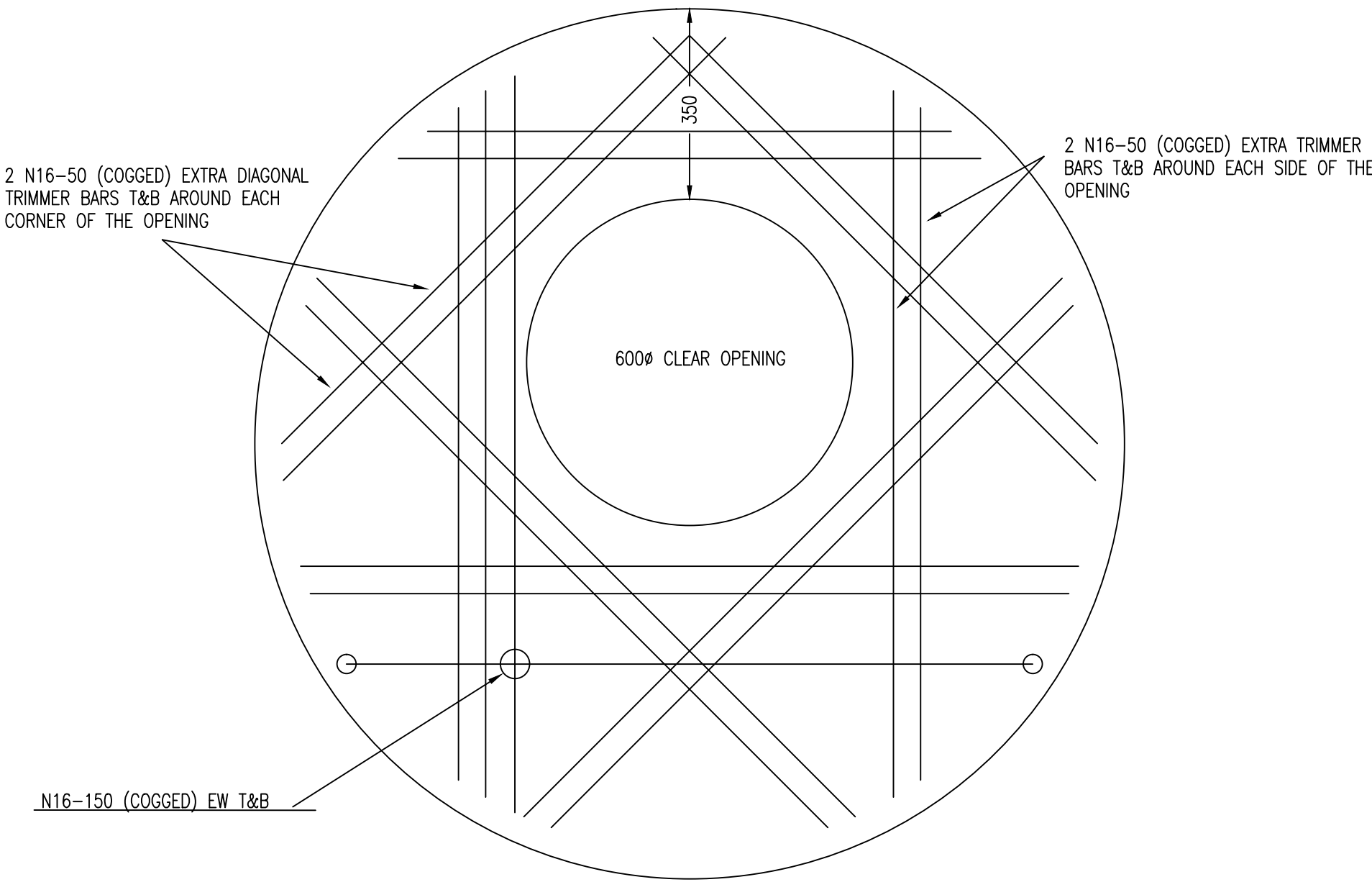
O	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
C	ISSUE FOR TENDER	F.J.	18.04.17
B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION		Sydney <i>WATER</i> WATER CORPORATION	
DEVELOPER WOORONG PARK PTY LTD. W.S.C. QALCHEK PTY LTD		Case No. 161560WW SHT 14 OF 18 SHTS.	
CONSTRUCTOR C.J. DOYLE PTY LTD COMPLETED 09.05.18			
W.A.C. PREPARED 15.05.18			
DESIGNER QALCHEK PTY LTD			
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	

CONSTRUCTION NOTES (APPLYING FOR SHEET 15)

1. MINIMUM ALLOWABLE BEARING PRESSURE FOR MH's WAS 100kPa (FOR 0-6m DEEP MH) AND 180kPa (FOR 6-10m DEEP MH).
2. ANY OVER-EXCAVATION OR VOIDS OF FOUNDATION MATERIALS WAS FILLED WITH NORMAL CLASS N15 MASS CONCRETE TO AS 1379.
3. CONCRETE EXPOSURED WAS TO CLASSIFICATION D (AS 3735)
4. FORMWORK AND CONCRETE FINISHES WAS IN ACCORDANCE WITH AS 3610 SURFACE EXPOSED TO VIEW - CLASS 2, SURFACE NOT EXPOSED TO VIEW - CLASS 4
5. CONCRETE HAS ACHIEVED A MINIMUM COMPRESSIVE STRENGTH OF 25MPa PRIOR TO STRIPPING OF FORMWORK
6. CONCRETE DIMENSIONS SHOWN DO NOT INCLUDE THICKNESS OF APPLIED FINISHES
7. MINIMUM CLEAR COVER TO REINFORCEMENT WAS 75mm UNO
8. CONCRETE (INCL. FOR ROOF SLAB) WAS SPECIAL CLASS SCC40 TO WSA 114-2002
9. CURING OF ALL CONCRETE WAS ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 7 DAYS. POLYETHYLENE SHEETING OR WET HESSIAN WAS USED. POLYETHYLENE AND HESSIAN WAS ADEQUATELY SECURED TO RESIST WIND AND TRAFFIC FORCES. ALTERNATIVE CURING WAS ACHIEVED BY APPLYING SIKA ANTISOL WB CURING COMPOUND OR APPROVED EQUIVALENT TO ALL SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR A PERIOD OF 14 DAYS.
10. CONCRETE HAS ACHIEVED A MINIMUM COMPRESSIVE STRENGTH OF 32MPa PRIOR TO BACKFILLING AND TESTING OF STRUCTURES. BACKFILL WAS PLACED AND COMPACTED EVENLY AROUND MAINTENANCE HOLES IN LAYERS NOT EXCEEDING 300mm LOOSE THICKNESS.
11. STEEL REINFORCING MATERIAL WAS TO AS/ZS 4671: SHAPE = D, STRENGTH GRADE = 500MPa, DUCTILITY CLASS = N
12. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION
13. SPLICE REINFORCEMENT ONLY AT LOCATIONS SHOWN ON DRAWINGS. LAP LENGTHS TO COMPLY WITH THE FOLLOWING UNO:
N12 - 400 LAP
N16 - 500 LAP
N20 - 650 LAP
14. WELDING OF REINFORCEMENT WAS NOT PERMITTED.
15. ALL DIMENSIONS IN mm UNO
16. DIMENSIONS WAS NOT SCALED OFF THE PLAN.

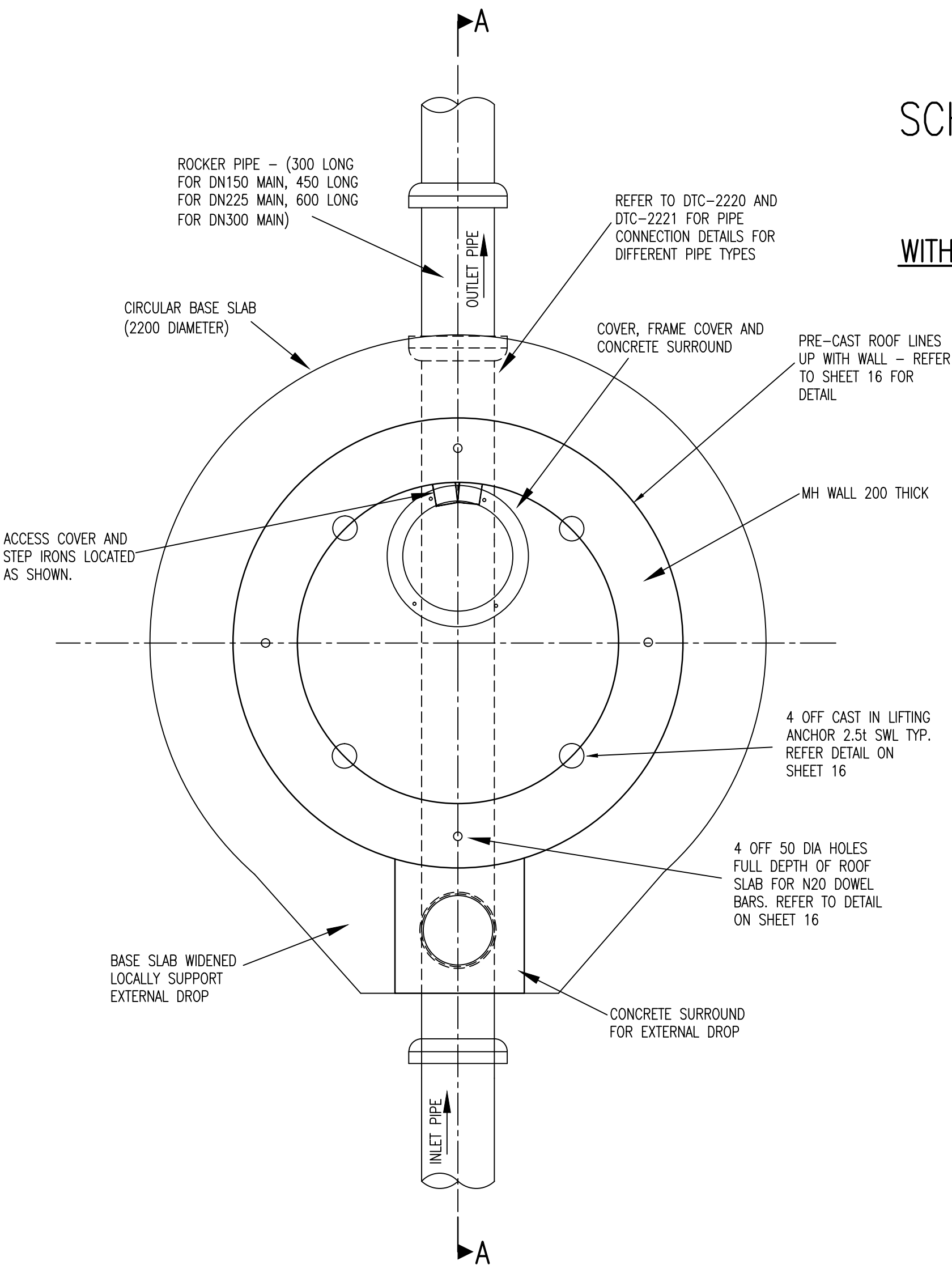
DEVELOPER CONTRACT PLAN
WORK-AS-CONSTRUCTED



- NOTES:
1. COVER FOR REINFORCEMENT WAS 50mm TO ROOFSLAB OUTSIDE AND 75mm TO OPENING
 2. CONCRETE WAS SPECIAL CLASS SCC40 TO WSA 114-2002

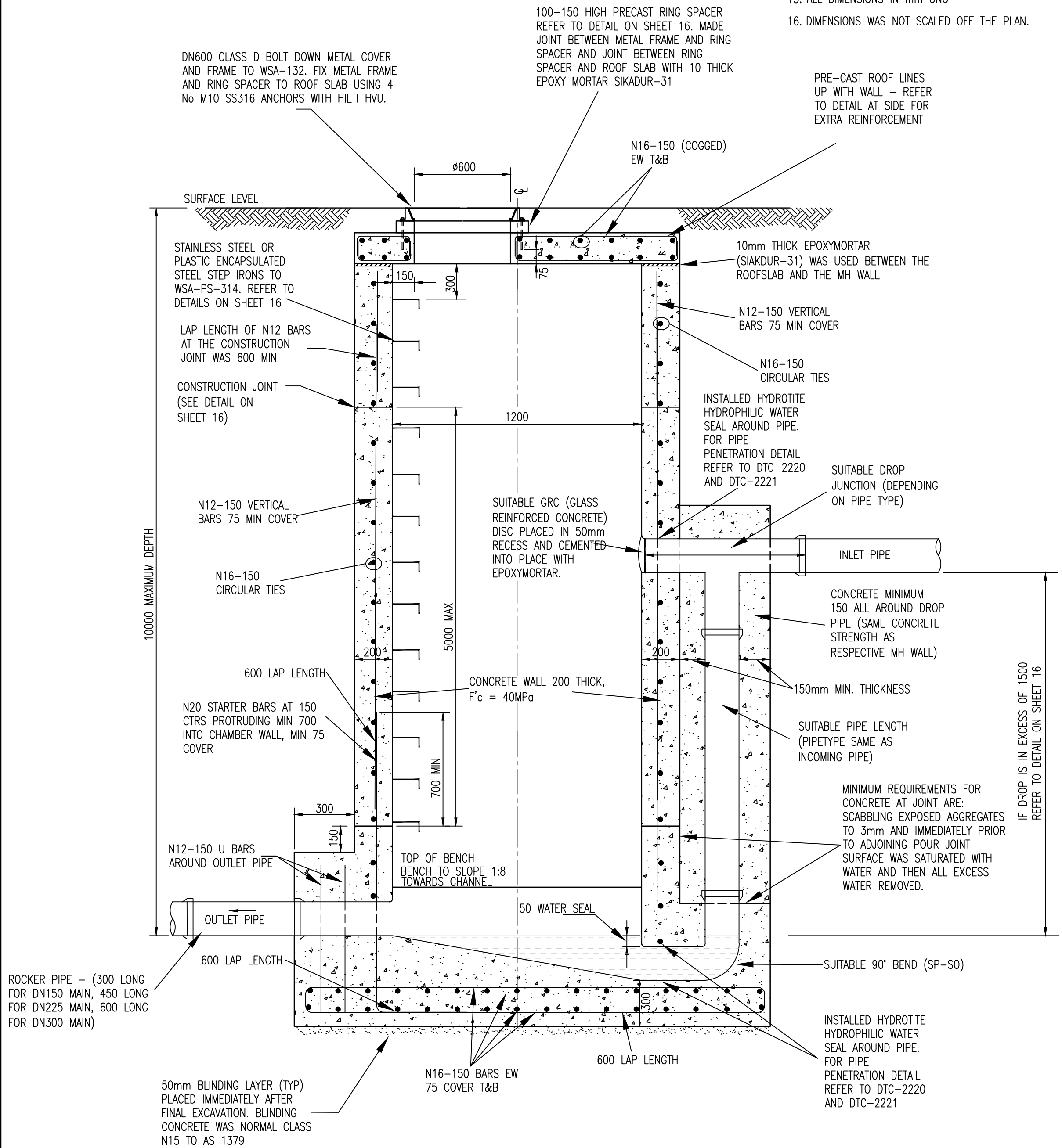
SCHEMATIC PLANVIEW OF CIRCULAR ROOF SLAB
REINFORCEMENT OF ROOFSLAB
APPLICABLE FOR ALL WATERSEALED MH's
WITH AN INTERNAL DIAMETER OF 1200 AND A WALL THICKNESS OF 200

(NOT TO SCALE)
DIMENSIONS IN mm



MAINTENANCE HOLE PLAN
(L.1 CH 65.21 & L.2 CH 18.13)

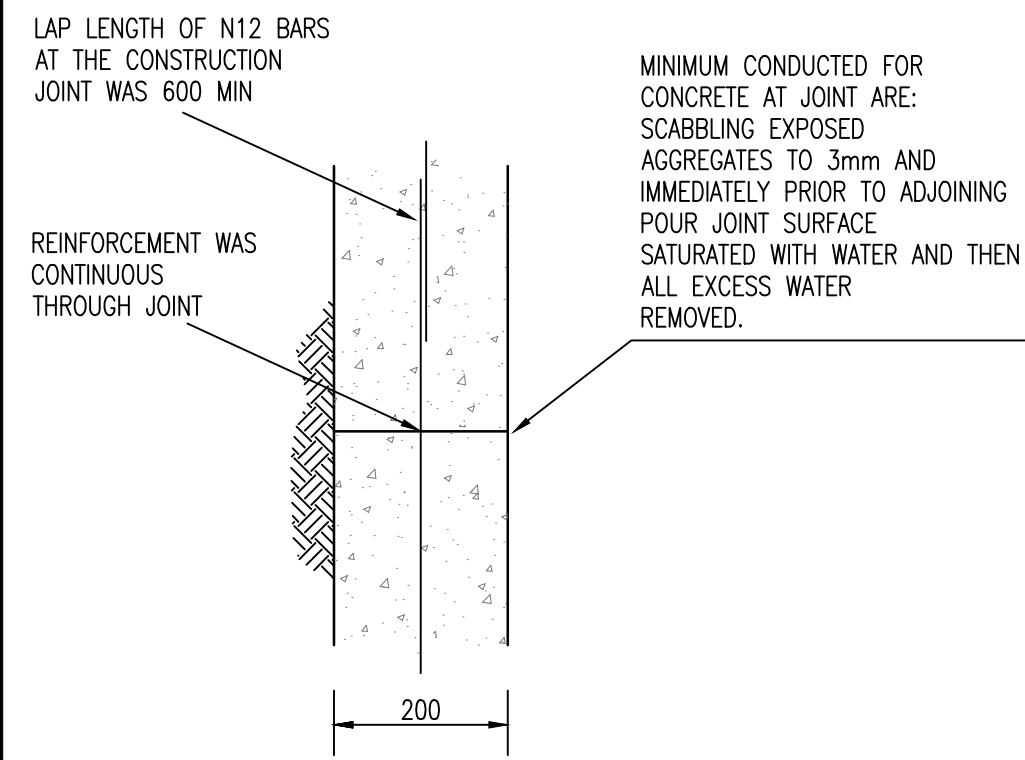
(NOT TO SCALE)
DIMENSIONS IN mm



SECTION A-A
(NOT TO SCALE)
DIMENSIONS IN mm

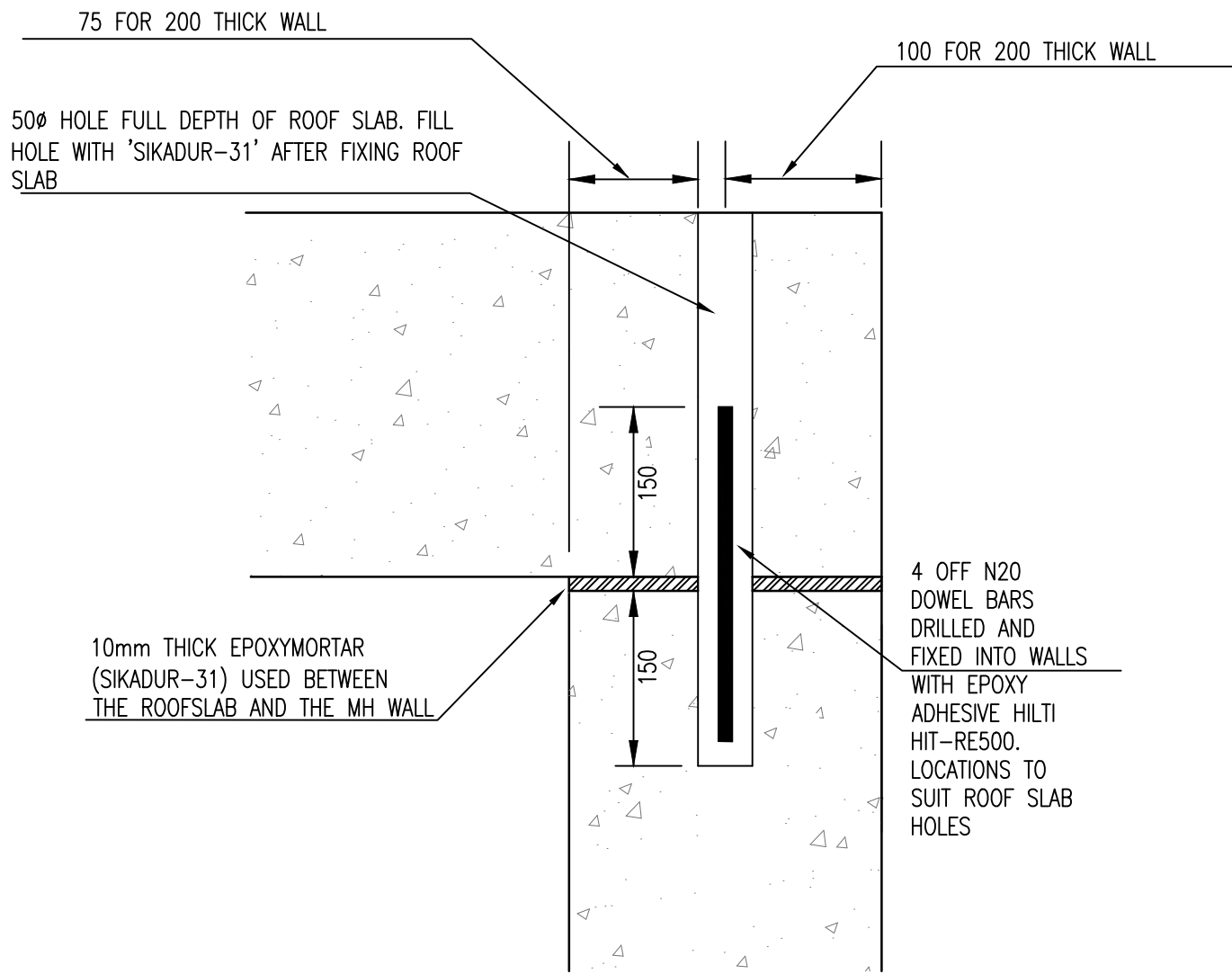
0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
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B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD.	Sydney WATER	
W.S.C.	QALCHEK PTY LTD.		
CONSTRUCTOR	C.J. DOYLE PTY LTD.	Case No. 161560WW SHT 15 OF 18 SHTS.	
COMPLETED	09.05.18	SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD.		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			



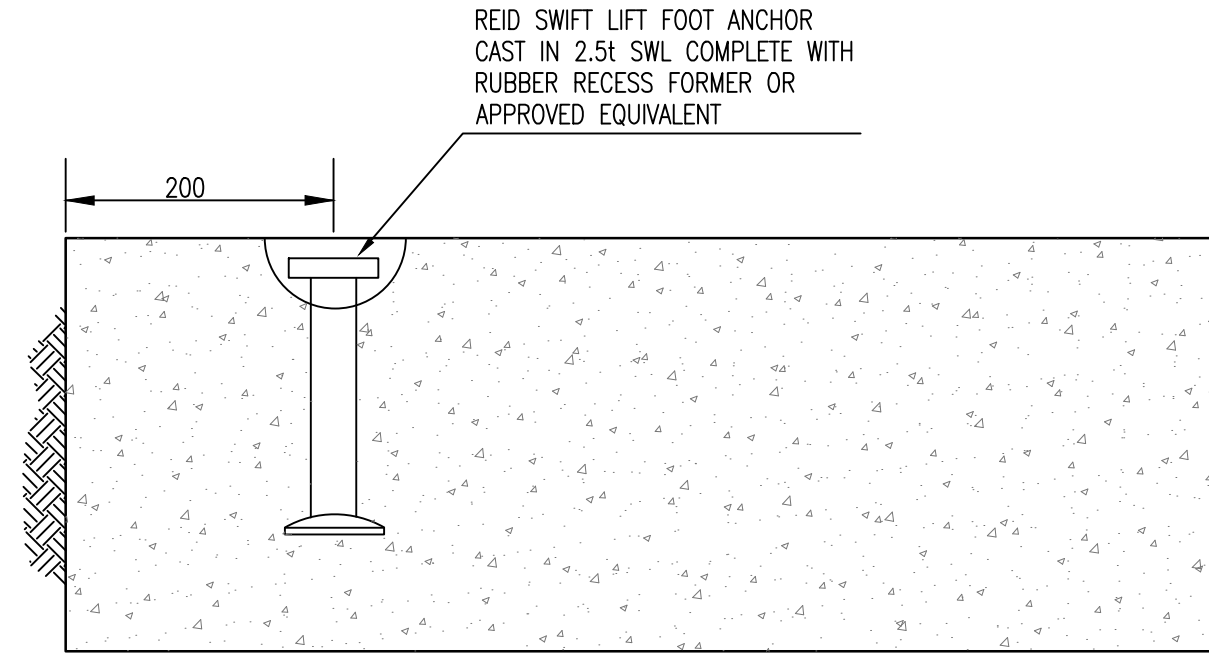
CONSTRUCTION JOINT DETAIL
(AT MAX 5.0m SPACING)
300 THICK WALL SHOWN
FOR 200 THICK WALL ONLY
ONE LAYER OF
REINFORCEMENT APPLIES

NOT TO SCALE
DIMENSIONS IN mm



ROOFSLAB-WALL CONNECTION
DETAIL

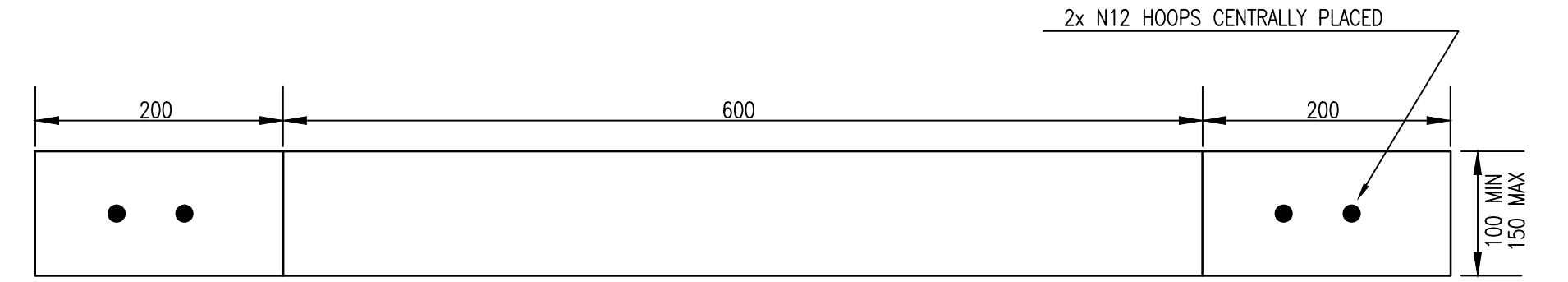
NOT TO SCALE
DIMENSIONS IN mm



DETAIL OF ANCHOR CAST INTO
ROOF SLAB

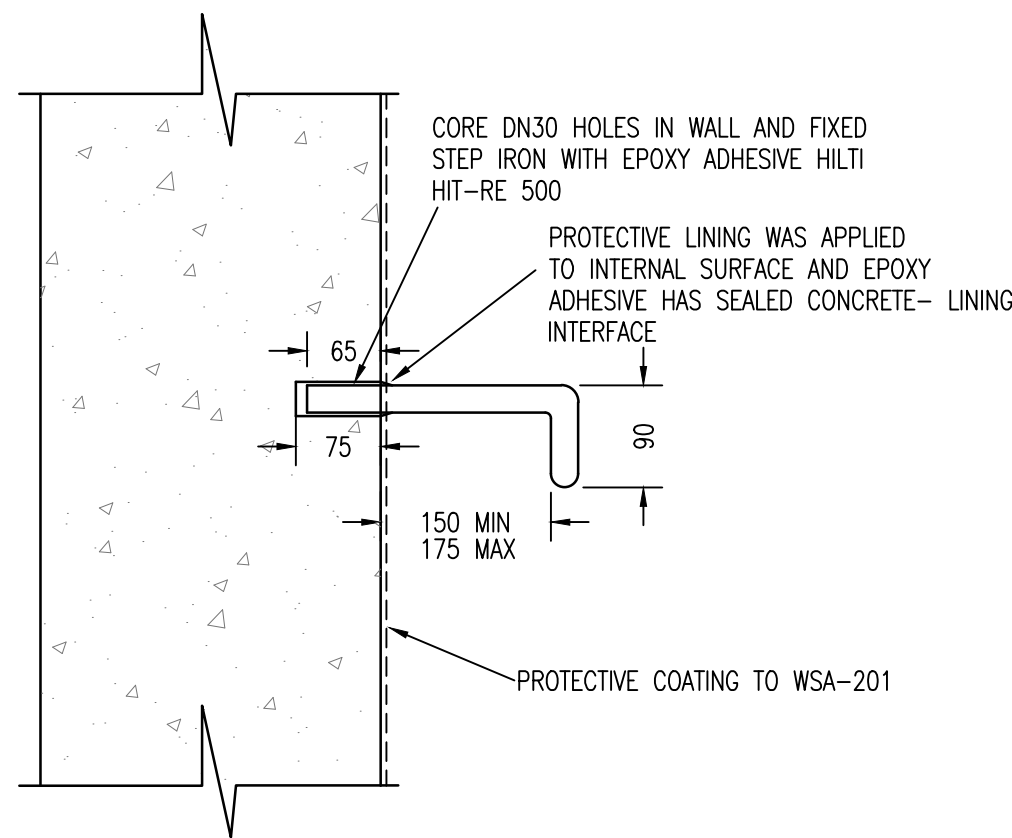
NOT TO SCALE
DIMENSIONS IN mm

- NOTES:
1. PRE CAST ROOFSLAB HAS MINIMUM STRENGTH OF 32MPa AT LIFTING
 2. SPREADER BARS WAS USED DURING LIFTING TO ENSURE VERTICAL LIFT FORCE



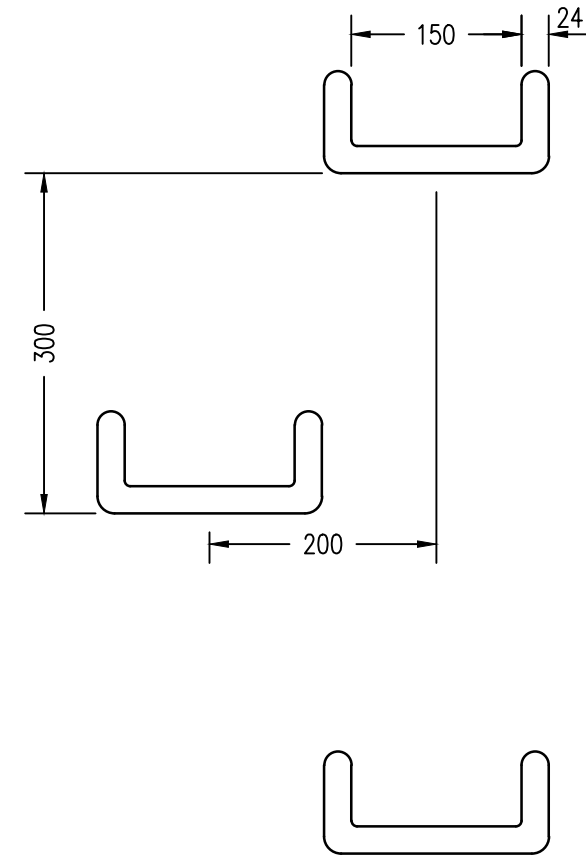
DETAIL OF PRE-CAST RING SPACER

NOT TO SCALE
DIMENSIONS IN mm



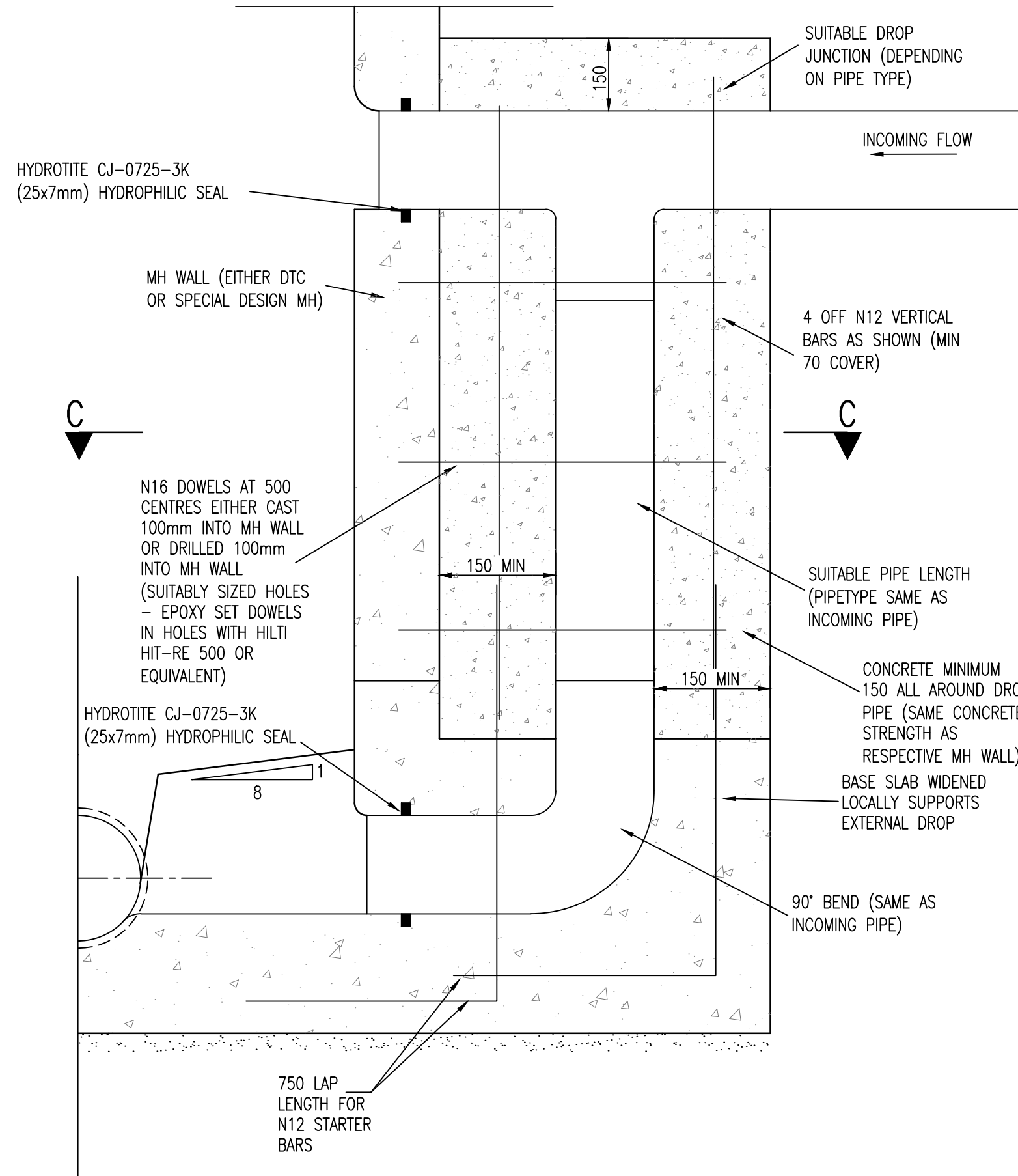
STEP IRON FIXING DETAIL

NOT TO SCALE
DIMENSIONS IN mm



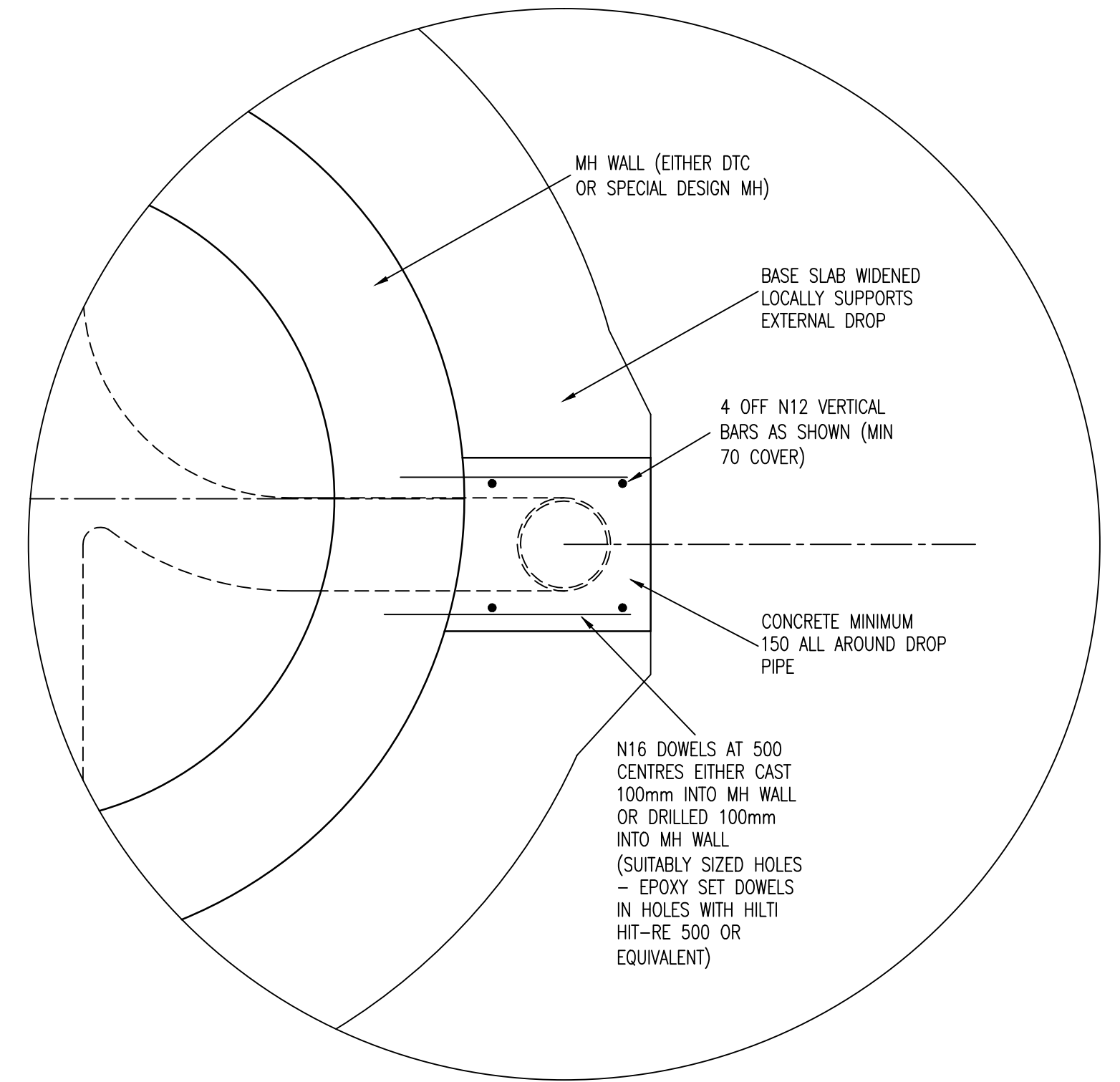
STEP IRON SETOUT DETAIL

NOT TO SCALE
DIMENSIONS IN mm



SCHEMATIC EXTERNAL DROP (DROPS IN EXCESS OF 1.5m)
REINFORCEMENT IN MH WALL AND BASE NOT SHOWN FOR CLARITY REASONS

NOT TO SCALE
DIMENSIONS IN mm



SECTION C-C
PLANVIEW OF MH SECTION WITH EXTERNAL DROP
SCHEMATIC ONLY

NOT TO SCALE
DIMENSIONS IN mm

0	WORK AS CONSTRUCTED	R.B.	15.05.18
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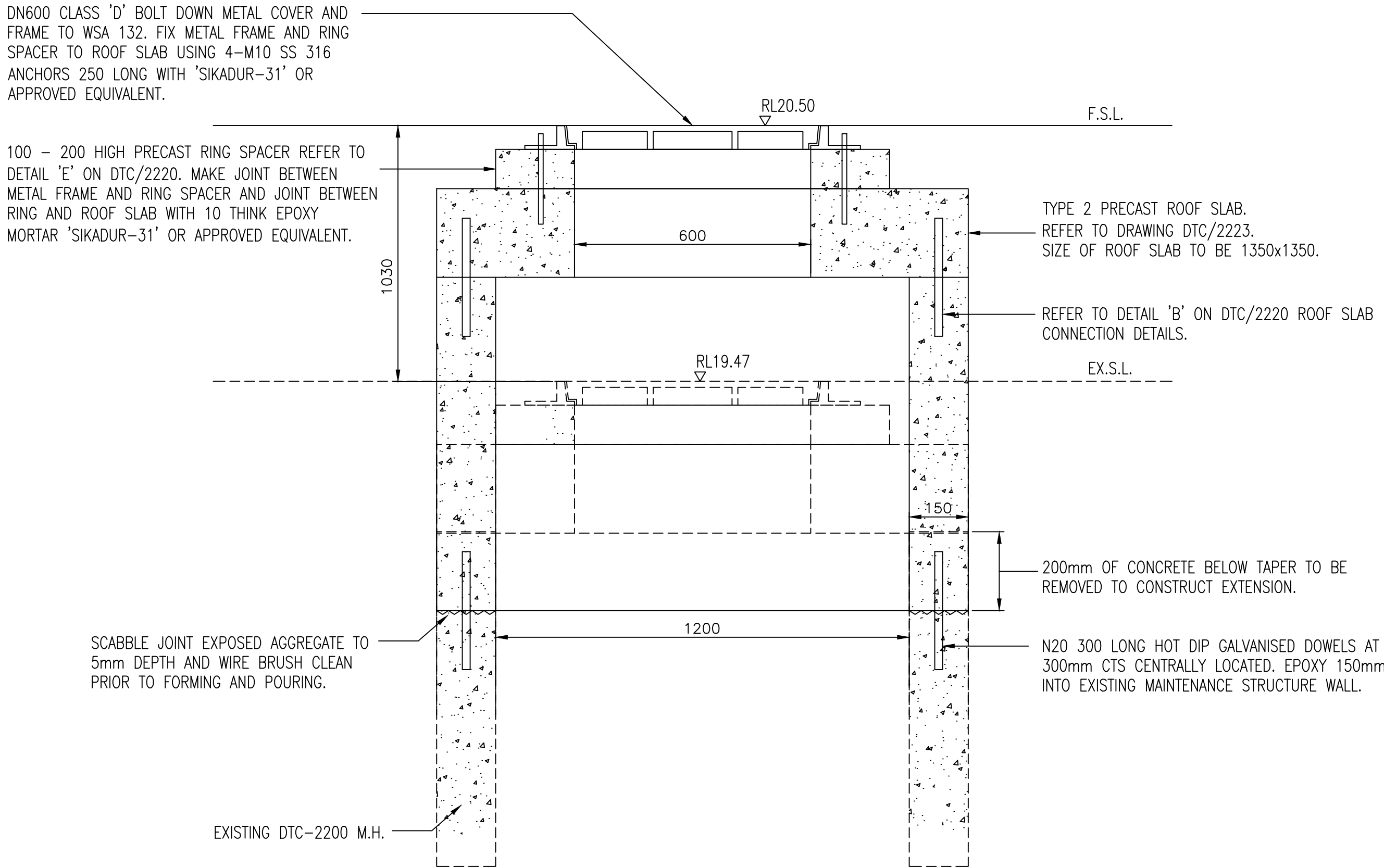
WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD.	Sydney WATER	
W.S.C.	QALCHEK PTY LTD.		
CONSTRUCTOR	C.J. DOYLE PTY LTD.	Case No. 161560WW SHT 16 OF 18 SHTS.	
COMPLETED	09.05.18	SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
W.A.C. PREPARED	15.05.18		
DESIGNER	QALCHEK PTY LTD.		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			



OVERALL DEVELOPMENT AREA & ORIGIN OF BENCHMARK SKETCH
(NOT TO SCALE)

0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
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No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	Case No. 161560WW SHT 17 OF 18 SHTS.	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J. DOYLE PTY LTD		
COMPLETED	09.05.18		
W.A.C. PREPARED	15.05.18	SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
DESIGNER	QALCHEK PTY LTD		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			



DETAIL 'B'
MAINTENANCE STRUCTURE ADJUSTMENT
(NOT TO SCALE)

0	WORK AS CONSTRUCTED	R.B.	15.05.18
E	CHANGES ON L.31, 36, AND 37 DUE TO EXISTING SEWER LAID UNDER	F.J.	13.09.17
D	ISSUE FOR APPROVAL	J.F.	24.05.17
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B	AMENDMENTS AS PER CLIENT REQUEST	F.J.	08.03.17
A	MASTERPLAN FOR CLIENT REVIEW	F.J.	03.03.17
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION				SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD.			Sydney WATER	
W.S.C.	QALCHEK PTY LTD				
CONSTRUCTOR	C.J. DOYLE PTY LTD			Case No. 161560WWW	SHT 18 OF 18 SHTS.
COMPLETED	09.05.18				
W.A.C. PREPARED	15.05.18			SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
DESIGNER	QALCHEK PTY LTD				
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS					