

- NOTES :
- WATER SERVICING COORDINATOR & DESIGNER
CALIBRE PROFESSIONAL SERVICES PTY LTD
P.O. BOX 8300 NORWEST BC NSW 2153
Ph: (02) 8808 5000
 - FOR:
REDBANK COMMUNITIES
76 ARTHUR PHILLIP DRIVE
NORTH RICHMOND NSW 2754
 - THE WORKS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE SEWERAGE CODE OF AUSTRALIA (WSA 02-2002-2.2 SYDNEY WATER EDITION VERSION 4-2017).
 - ALL LOTS WERE VACANT AT TIME OF SURVEY.
 - ALL STRUCTURES TO BE CONSTRUCTED TO PROPOSED FINISHED SURFACE LEVELS. AS THE P.F.S.L.'S SHOWN ON THIS PLAN MAY BE SUBJECT TO CHANGE, THE CONSTRUCTOR IS TO LIAISE WITH THE SITE SUPERINTENDENT TO VERIFY ALL FINAL LEVELS AT TIME OF CONSTRUCTION.
 - PIPES TO BE CONCRETE ENCASED SHOWN ACCORDINGLY: ALL ENCASED SUPPORT TYPE 12U
 - AREAS HATCHED THUS NOT DRAINED:
 - DRAINAGE LIMITS ARE TO PROPOSED FINISHED SURFACE LEVELS.

- ALL LEVELS ELECTRONICALLY GENERATED. NO LEVEL BOOK AVAILABLE.
- ALL MAINS LAID IN EXISTING, PROPOSED OR FUTURE ROAD CARRIAGEWAYS - SEE SITE SPECIFIC COMPACTION SPECIFICATION (SHEET 2).
- CONCRETE BULKHEADS TO BE CONSTRUCTED AT REAR OF KERB FOR ALL ROAD CROSSINGS. REFER STD DWG SEW-1206 & SEW-1207-V.
- EXISTING AND PROPOSED SERVICES ARE INDICATIVE ONLY. CURRENT SERVICES SEARCH & SITE CHECK OF ALL EXISTING & PROPOSED SERVICES WILL BE NECESSARY PRIOR TO THE COMMENCEMENT OF WORK & APPROPRIATE PROCEDURES, PRECAUTIONS AND CARE NEED TO BE TAKEN BY THE CONSTRUCTOR WHEN WORKING IN CLOSE PROXIMITY TO SERVICES DURING CONSTRUCTION AND ANY DAMAGE TO EXISTING SERVICES IS TO BE RECTIFIED AT THE CONSTRUCTORS EXPENSE.
- THE MINIMUM NUMBER OF FIELD COMPACTION TESTS REQUIRED TO SATISFY THE SEWERAGE CODE OF AUSTRALIA (CLAUSE 22.3.4.4) ARE:
PIPE EMBEDMENT ZONE: - NIL TRENCH FILL ZONE - TRAFFICABLE: NIL (SEE NOTE 9)
TRENCH FILL ZONE - NON-TRAFFICABLE: 28
M.H. & M.S. ZONE: 69
(PLEASE REFER TO SITE SPECIFIC COMPACTION SPECIFICATION - SHEET 2).
- ALL PROPERTY CONNECTION SEWERS TO BE CONSTRUCTED AS DETAILED IN DTC-2120 (ISS. A, 18/03/15).
- PRECAUTIONS ARE NECESSARY IN THE VICINITY OF SUB-STATION & OTHER ELECTRICAL EARTHING.
- CONSTRUCTOR TO PROVIDE WSC WITH CERTIFIED RED MARKED UP WAC DRAWINGS SHOWING ACCURATE DISTANCES OF PCS'S TO CENTRE OF DOWNSTREAM STRUCTURES, ACCURATE DISTANCE OF PCP ALONG PCS AND CHAINAGES OF CONCRETE ENCASED SECTIONS.
- LOCATION OF SEWER LINES TO BE MARKED BY A REGISTERED LAND SURVEYOR PRIOR TO CONSTRUCTION.
- INVERT LEVEL OF EXISTING SEWER AT CH 0.0 (L.1, L.2, L.3, L.5 & L.6) TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCEMENT OF CONSTRUCTION. WSC TO BE ADVISED.
- EMBEDMENT COMPACTION TESTING AS PER SITE SPECIFIC COMPACTION SPECIFICATION (SHEET 2) AND SUBJECT TO CLAUSE 22.3.3.1 OF SEWERAGE CODE OF AUSTRALIA. SELF-COMPACTING METAL GRANULAR EMBEDMENT MAY BE USED.
- WHERE MAINTENANCE SHAFTS HAVE A DEFLECTION GREATER THAN 30 DEGREES, INSTALL 'POO PIT' TYPE OR APPROVED EQUIVALENT. THE DEFLECTION ANGLE (D.A.) FOR EACH MAINTENANCE SHAFT IS SHOWN ON THE MAINTENANCE STRUCTURE SCHEDULE (SHEET 3).
- ALL M.H.'S TO BE CONSTRUCTED IN ACCORDANCE WITH SYDNEY WATER'S DEEMED TO COMPLY DRAWING DTC-2203 (ISS. B, 18/03/15).
- MINIMUM ALLOWABLE BEARING PRESSURE OF FOUNDATION MATERIAL FOR MAINTENANCE HOLES 0-6m DEEP SHALL BE 100KPa. FOUNDATION MATERIAL TO BE INSPECTED BY A SUITABLY EXPERIENCED GEOTECHNICAL ENGINEER PRIOR TO PLACING BLINDING CONCRETE & CERTIFICATION PROVIDED TO WSC.
- A REVIEW OF ENVIRONMENTAL FACTORS (REF/SEE) HAS BEEN PREPARED FOR THE DEVELOPMENT SITE. MEASURES TO PROTECT THE ENVIRONMENT ARE DETAILED IN THE REF REPORT. THE CONSTRUCTOR SHALL COMPLY WITH ALL REQUIREMENTS IN ANY REF AND KEEP A COPY ON SITE AT ALL TIMES.
- ALL MAINTENANCE STRUCTURES LOCATED WITHIN THE ROAD RESERVE & PROPOSED DRIVEWAYS TO BE FITTED WITH CLASS 'D' TRAFFICABLE LID.
- FOR CATCHMENT PLAN AND FLOW DIAGRAM DETAILS, REFER SHEET 3 OF 3 OF CASE186813WW.
- PLAN CO-ORDINATE SYSTEM GDA94, MGA56
- 2.0m OF EXISTING DN150 UPVC SEWER MAIN TO BE DISUSED AND EXHUMED AT 'A'.

* PROPOSED ELECTRICAL SUBSTATION

SITE SPECIFIC CONSTRUCTION NOTE

- IT IS ACKNOWLEDGED THAT THERE IS RECENTLY CONSTRUCTED / COMPLETED INFRASTRUCTURE THROUGHOUT THE AREA OF PROPOSED WORKS, WITH OWNERSHIP SPREAD ACROSS SYDNEY WATER, COUNCIL AND REDBANK COMMUNITIES. THE CONTRACTOR IS AT ALL TIMES, TO UNDERTAKE WHATEVER TASKS NECESSARY TO MINIMISE DISTURBANCE AND DAMAGE TO EXISTING ROAD, KERB & GUTTER, FOOTPATH AND VEGETATION ETC, WITH ALL REPAIR AND RECTIFICATION TO MATCH THAT WHICH EXISTED PRIOR TO THE WORKS BEING UNDERTAKEN. PHOTOS OF EXISTING CONDITION WILL BE SUPPLIED TO BOTH THE PRINCIPLE CIVIL CONTRACTOR, SYDNEY WATER ACCREDITED SUBCONTRACTOR AND SUPERINTENDENT, TO CONFIRM THE PRE-WORKS CONDITION.

- SYDNEY WATER ACCREDITED SUBCONTRACTOR AT ALL TIMES, IS TO CONSULT WITH THE PRINCIPLE CIVIL CONTRACTOR, TO ENSURE THAT THE DEVELOPER, REDBANK COMMUNITIES IS ADVISED AND APPROVES THE EXTENT OF REQUIRED DISTURBANCE PRE-WORKS, IS ADVISED AND APPROVES OF ANY CHANGES TO THIS EXTENT DURING THE WORKS, AND INSPECTS AND ACCEPTS THE COMPLETED WORKS, PRIOR TO THE SYDNEY WATER ACCREDITED SUBCONTRACTOR LODGING THEIR PROJECT COMPLETION PACKAGE (PCP) WITH THE WATER SERVICE CO-ORDINATOR, WITH THIS ROLE UNDERTAKEN BY CALIBRE PROFESSIONAL SERVICES. CALIBRE PROFESSIONAL SERVICES ARE TO ONLY ACCEPT THE PCP FOR PROCESSING, PROVIDED THIS INSPECTION AND ACCEPTANCE BY REDBANK COMMUNITIES HAS BEEN RECEIVED IN WRITING WITH THE PCP.

PLEASE NOTE SITE SPECIFIC
COMPACTION SPECIFICATION - SHEET 2

CONSTRUCTION NOTES

THE PROPOSED WORKS AS DETAILED HEREON MUST BE CONSTRUCTED IN ACCORDANCE WITH:

- THE SEWERAGE CODE OF AUSTRALIA - WSA 02-2002-2.2 SYDNEY WATER EDITION VERSION 4-2017;
- SYDNEY WATER'S DEEMED TO COMPLY DWG DTC-2000 (ISS. C, 18/03/15), DTC-2120 (ISS. A 18/03/15), DTC-2203 (ISS. B 18/03/15), DTC-2220 (ISS. D 18/03/15), DTC-2221 (ISS. B 1/03/13) & DTC-2222 (ISS. C 18/03/15).
- SITE SPECIFIC COMPACTION TESTS - SHEET 2.

THE CONSTRUCTOR MUST HAVE A COPY OF THESE DOCUMENTS ON SITE AT ALL TIMES.

CONTACT DIAL BEFORE YOU DIG

04	WORK AS CONSTRUCTED	A.S.	3/02/23
03	L6 AMENDED TO SUIT UPDATED CIVIL DESIGN	M.W.	26/05/22
02	ISSUE FOR SWC APPROVAL	M.W.	18/02/22
01	FOR FOR CLIENT COMMENT	M.W.	14/07/21
No.	AMENDMENT DESCRIPTION	BY	DATE

UTILITIES		
TYPE	DATE	REF.
STORMWATER: SWD	02/02/22	JWD
PROP STORMWATER: SWD	02/02/22	JWD
WATER: DN100 Water	11/01/22	CALIBRE
PROP WATER: DN100 Water	11/01/22	CALIBRE
PROP ELECTRICITY: E	07/07/21	EPD

WORK AS CONSTRUCTED CERTIFICATION	
DEVELOPER	REDBANK COMMUNITIES
WATER SERVICE CO-ORDINATOR	CALIBRE PROFESSIONAL SERVICES PTY LTD
CONSTRUCTOR	C.J. DOYLE CONTRACTING SERVICES PTY LTD
COMPLETED	14/06/2022
DESIGNER	CALIBRE PROFESSIONAL SERVICES PTY LTD
DESIGNED	3/02/2023

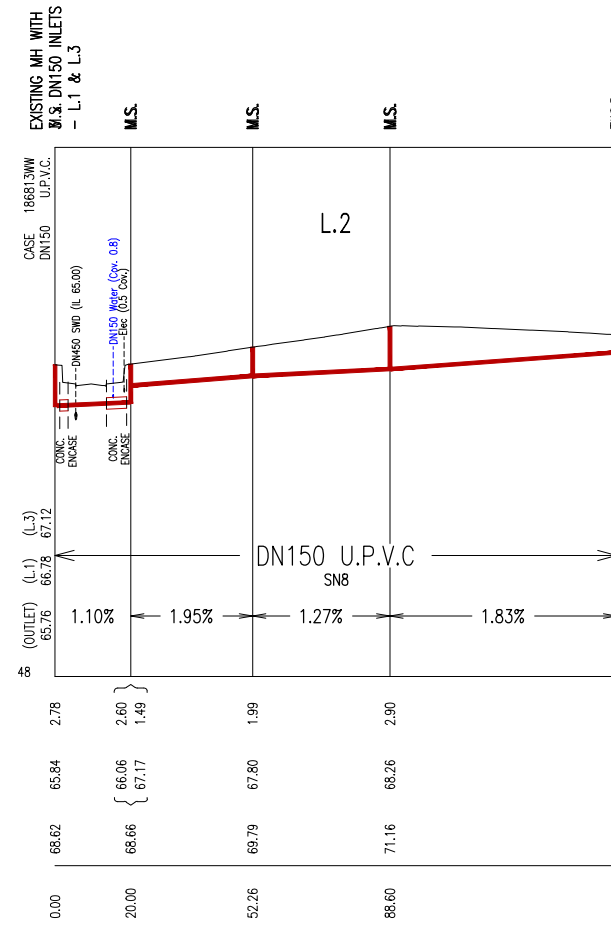
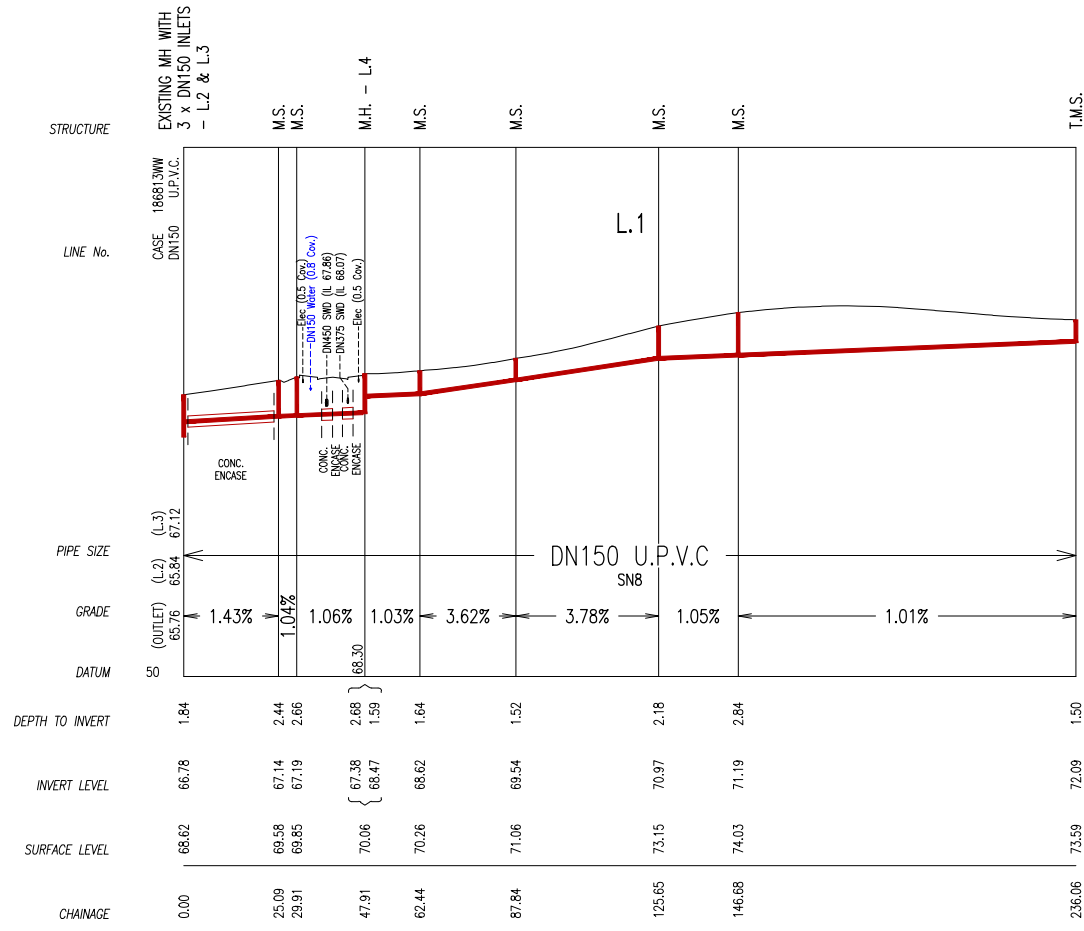
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS.

PIPE SCHEDULE			
SIZE DN	TYPE	CLASS	LENGTH
150	UPVC	SN8	948.54

AUSTRALIAN HEIGHT DATUM	
PLAN	1:1000
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 63, G16 (41st Edition)
SHEET 1 OF 3

SYDNEY WATER CORPORATION Case No. 186815WW HAWKESBURY SEWERAGE DRAINS TO NORTH RICHMOND S.T.W.



SITE SPECIFIC COMPACTION SPECIFICATION

WITHIN FULL WIDTH OF ROAD CARRIAGEWAY PLUS 1.0M EITHER SIDE -

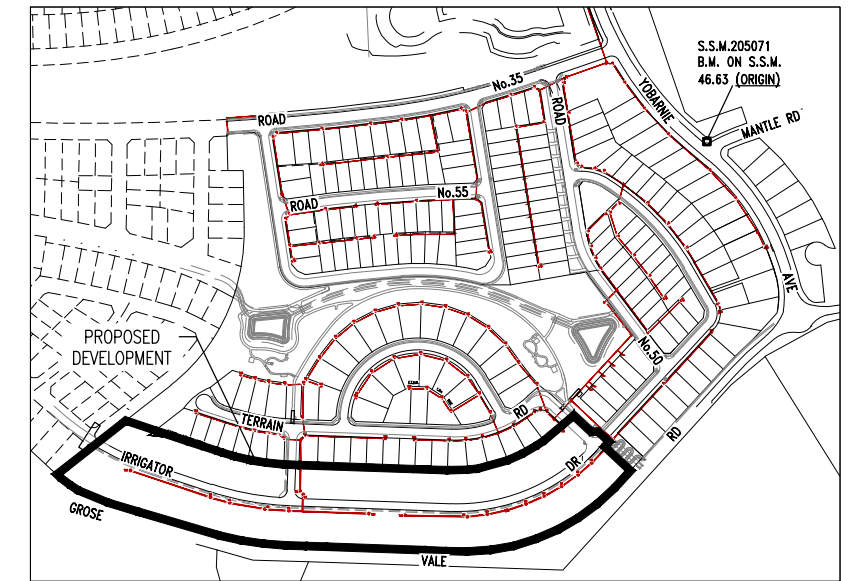
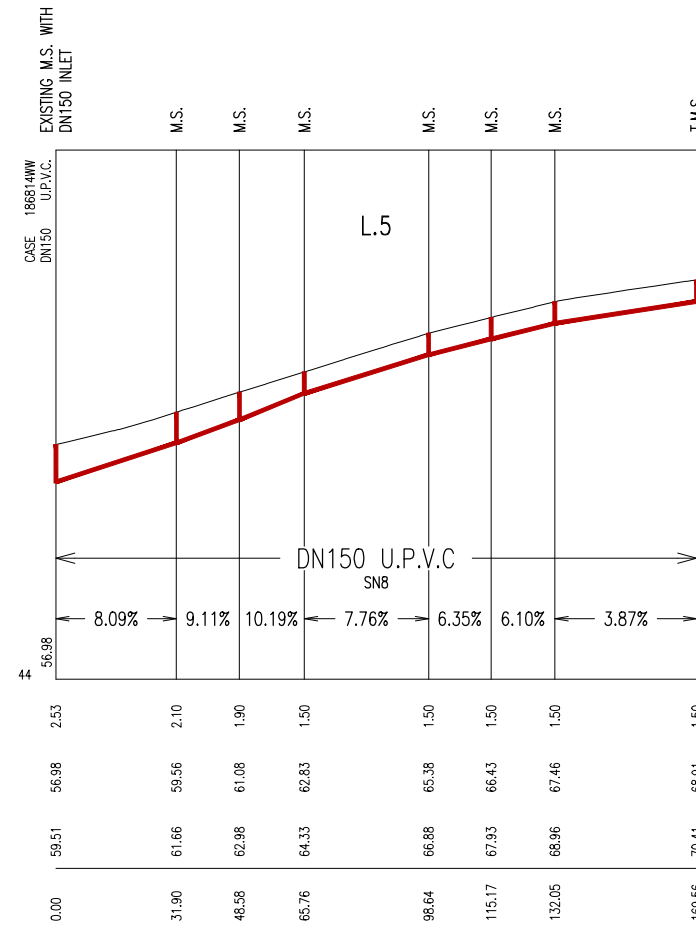
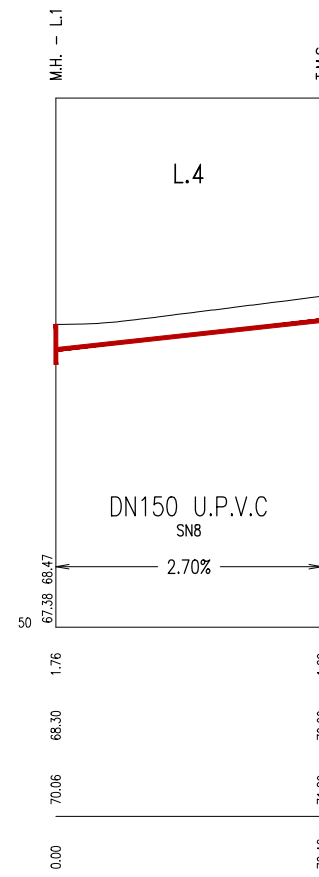
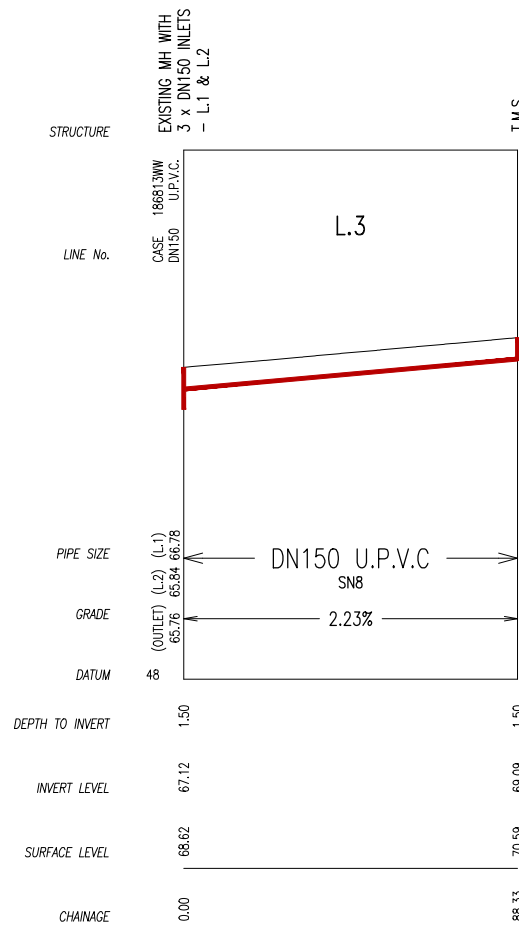
- ALL SUBGRADE SHALL BE CARRIED UP IN HORIZONTAL LAYERS, OF NOT MORE THAN 300MM THICK LOOSE MEASUREMENT, IF REQUIRED, AND SHALL HAVE EACH LAYER COMPACTED TO A 100% STANDARD DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL SUB-BASE COURSE SHALL BE PLACED AND COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL BASE COURSE SHALL BE PLACED AND COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL ROAD CROSSINGS TO BE PROVIDED IN EXISTING ROADS, THE TRENCHES SHALL BE BACKFILLED AND COMPACTED WITH A SAND/CEMENT BLEND 20:1 MIX TO SUBGRADE LEVEL, THEN DG820 TO WITHIN 50MM OF THE ROAD SURFACE, OR IF REQUIRED TO A HIGHER SPECIFICATION BY A SPECIFIC UTILITY AUTHORITY, TO THAT SPECIFICATION AS INSTRUCTED BY THE PROJECT SUPERINTENDENT.
- ALL TESTS TO BE TAKEN EVERY 50 METRE LENGTH OF PAVEMENT, TAKEN 1.0M FROM ALTERNATE SIDES OF PAVEMENT, BY A NATA REGISTERED LABORATORY.
- THESE AND ALL OTHER REQUIREMENTS TO BE COMPLIED WITH, TO BE READ IN CONJUNCTION WITH HAWKESBURY CITY COUNCIL DCP PART II - CONSTRUCTION SPECIFICATION.
- ANY ERRORS, OMISSIONS OR QUERIES TO BE SUBMITTED TO THE PROJECT SUPERINTENDENT FOR INSTRUCTION.

WITHIN FULL WIDTH OF ROAD FOOTPATH / VERGE EXCLUDING 1.0M BESIDE ROAD CARRIAGEWAY EITHER SIDE -

- ALL FILL SHALL BE CARRIED OUT IN HORIZONTAL LAYERS, EXTENDING THE FULL WIDTH OF THE AREA BEING FILLED, OF NOT MORE THAN 300MM CONSOLIDATED THICKNESS. EACH LAYER SHALL BE COMPACTED TO AT LEAST 98% STANDARD DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL TESTS TO BE TAKEN EVERY 50 METRE LENGTH OF ROAD FOOTPATH / VERGE ON CENTRELINE, BY A NATA REGISTERED LABORATORY.
- ALL TRENCHES TO BE BACKFILLED TO HAVE THE SAME COMPACTION AS THE SURROUNDING ROAD FOOTPATH / VERGE.
- ALL TRENCH TESTS TO BE TAKEN IN EACH 300MM LAYER AND EVERY 50 METRES OF TRENCH, BY A NATA REGISTERED LABORATORY.
- THESE AND ALL OTHER REQUIREMENTS TO BE COMPLIED WITH, TO BE READ IN CONJUNCTION WITH HAWKESBURY CITY COUNCIL DCP PART II - CONSTRUCTION SPECIFICATION.
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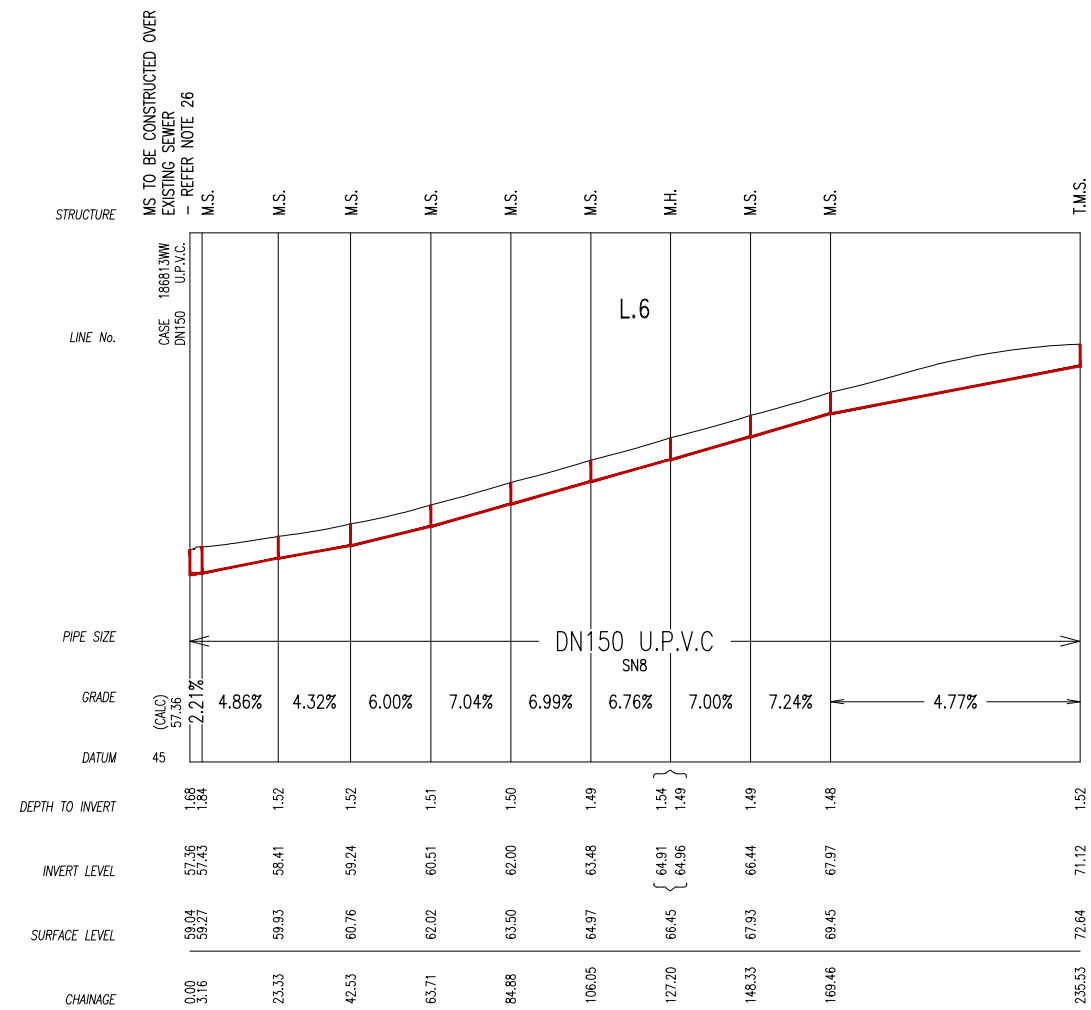
WITHIN LOTS -

- ALL FILL SHALL BE CARRIED OUT IN HORIZONTAL LAYERS, EXTENDING THE FULL WIDTH OF THE AREA BEING FILLED, OF NOT MORE THAN 300MM CONSOLIDATED THICKNESS. EACH LAYER SHALL BE COMPACTED TO A DENSITY OF AT LEAST 98% STANDARD DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'. THE DEPTHS OF FILL AND THE COMPACTION THEREOF ARE TO BE VERIFIED BY THE SUBMISSION OF COMPACTION CERTIFICATES AND A PLAN SHOWING CONTOURED DEPTHS OF FILL IN RELATION TO LOT BOUNDARIES.
- ALL TESTS TO BE A MINIMUM OF TWO COMPACTION TESTS PER LOT PER LAYER ARE TO BE CARRIED OUT, BY A NATA REGISTERED LABORATORY.
- ALL TRENCHES TO BE BACKFILLED TO HAVE THE SAME COMPACTION AS THE SURROUNDING LOTS.
- ALL TRENCH TESTS TO BE TAKEN IN EACH 300MM LAYER AND EVERY 50 METRES OF TRENCH, BY A NATA REGISTERED LABORATORY.
- THESE AND ALL OTHER REQUIREMENTS TO BE COMPLIED WITH, TO BE READ IN CONJUNCTION WITH HAWKESBURY CITY COUNCIL DCP PART II - CONSTRUCTION SPECIFICATION.
- ANY ERRORS, OMISSIONS OR QUERIES TO BE SUBMITTED TO THE PROJECT SUPERINTENDENT FOR INSTRUCTION.



LOCALITY PLAN & BM DIAGRAM
(NOT TO SCALE)

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	REDBANK COMMUNITIES		Case No.186815WW SHT 2 OF 3 SHTS.
W.S.C.	CALIBRE PROFESSIONAL SERVICES PTY LTD.		
CONSTRUCTOR	C.J. DOYLE CONTRACTING SERVICES PTY LTD	COMPLETED 19/10/2022	
DESIGNER	CALIBRE PROFESSIONAL SERVICES PTY LTD.	W.A.C. PREPARED 3/02/2023	
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	



MAINTENANCE STRUCTURE SCHEDULE (MSS)							
LINE NO	CHAINAGE	TYPE	DN RISER	COVER CLASS (REFER NOTE 24)	MATERIAL (PVC, CAST IN-SITU, ETC)	MS DEFLECTION ANGLE	COMMENTS (BRAND, DTC, MS DEF. ANGLE'S, OTHER INFO)
1/2/3	0.00	MH	1.050	B	CAST IN-SITU	N/A	EXISTING MH WITH 3 x DN150 INLETS
1	25.09	MS	0.225	B	UPVC	45	'POD PIT' TYPE OR EQUIV.
1	29.91	MS	0.225	B	UPVC	45	'POD PIT' TYPE OR EQUIV.
1/4	47.91	MH	1.050	B	CAST IN-SITU	N/A	DTC-2203
1	62.44	MS	0.225	B	UPVC	2	'AMYROO' TYPE OR EQUIV.
1	87.84	MS	0.225	B	UPVC	6	'AMYROO' TYPE OR EQUIV.
1	125.65	MS	0.225	B	UPVC	6	'AMYROO' TYPE OR EQUIV.
1	146.68	MS	0.225	B	UPVC	3	'AMYROO' TYPE OR EQUIV.
1	236.06	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
2	20.00	MS	0.300	B	UPVC	4	'AMYROO' TYPE OR EQUIV. WITH HIGH LEVEL INLET
2	52.26	MS	0.225	B	UPVC	9	'AMYROO' TYPE OR EQUIV.
2	88.60	MS	0.225	B	UPVC	3	'AMYROO' TYPE OR EQUIV.
2	148.60	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
3	88.33	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
4	70.46	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
5	0.00	MS	0.225	B	UPVC	N/A	EXISTING M.S. WITH DN150 INLET
5	31.90	MS	0.225	B	UPVC	10	'AMYROO' TYPE OR EQUIV.
5	48.58	MS	0.225	B	UPVC	4	'AMYROO' TYPE OR EQUIV.
5	65.76	MS	0.225	B	UPVC	9	'AMYROO' TYPE OR EQUIV.
5	98.64	MS	0.225	B	UPVC	10	'AMYROO' TYPE OR EQUIV.
5	115.17	MS	0.225	B	UPVC	5	'AMYROO' TYPE OR EQUIV.
5	132.05	MS	0.225	B	UPVC	3	'AMYROO' TYPE OR EQUIV.
5	169.56	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
6	0.00	MS	0.225	B	UPVC	N/A	MS TO BE CONSTRUCTED OVER EXISTING SEWER
6	3.16	MS	0.225	B	UPVC	20	'AMYROO' TYPE OR EQUIV.
6	23.33	MS	0.225	B	UPVC	5	'AMYROO' TYPE OR EQUIV.
6	42.53	MS	0.225	B	UPVC	6	'AMYROO' TYPE OR EQUIV.
6	63.71	MS	0.225	B	UPVC	6	'AMYROO' TYPE OR EQUIV.
6	84.88	MS	0.225	B	UPVC	6	'AMYROO' TYPE OR EQUIV.
6	106.05	MS	0.225	B	UPVC	6	'AMYROO' TYPE OR EQUIV.
6	127.20	MH	1.050	B	CAST IN-SITU	N/A	DTC-2203
6	148.33	MS	0.225	B	UPVC	5	'AMYROO' TYPE OR EQUIV.
6	169.46	MS	0.225	B	UPVC	8	'AMYROO' TYPE OR EQUIV.
6	235.53	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.

PLAN DRAWN DATE: 3/02/2023 VERSION: 04 SHEET 3 OF 3 SHEETS

REDBANK RIDGETOPS II

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	REDBANK COMMUNITIES		Case No.186815WW SHT 3 OF 3 SHTS.
W.S.C.	CALIBRE PROFESSIONAL SERVICES PTY LTD		
CONSTRUCTOR	C.J. DOYLE CONTRACTING SERVICES PTY LTD	DESIGNER: CALIBRE PROFESSIONAL SERVICES PTY LTD	
COMPLETED	19/10/2022	I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	
W.A.C. PREPARED	3/02/2023	FOR DETAILS OF SERVICES SEE SHEET 1	