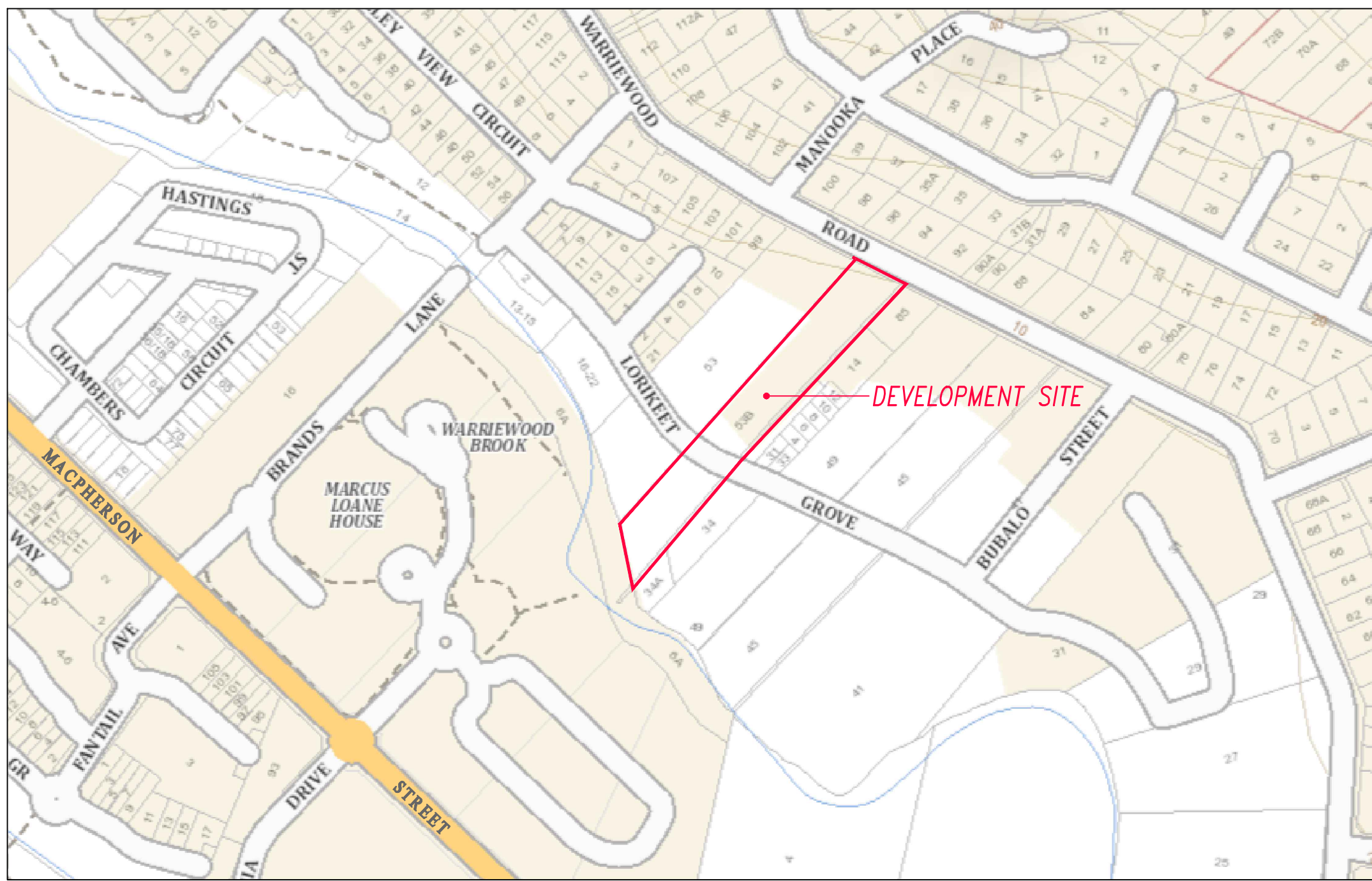


DRAWING LIST			
DWG. No.	TITLE	REVISION	DATE
1-X	COVER SHEET	01	
2-X	GENERAL LAYOUT 1 OF 1	01	
3-X	LONGITUDINAL SECTION 1, 2 & 3	01	

MAINTENANCE STRUCTURE SCHEDULE						
LINE No.	CHAINAGE	TYPE	DN RISER	CLASS OF COVER	MATERIAL	COMMENTS
1	0.00	M.H.	1200	B	CONC.	DTC-2202 ISSUE E 18-MAR-15
1	30.77	T.M.S.	300	B	PVC	AYMR00 TERMINAL ELBOW OR APP'D EQUIV.
1	49.03	M.S.	225	B	PVC	AYMR00 CENTRAL ACCESS M.S. OR APP'D EQUIV.
1	57.88	M.S.	225	B	PVC	AYMR00 CENTRAL ACCESS M.S. OR APP'D EQUIV.
1	143.38	T.M.S.	225	B	PVC	AYMR00 TERMINAL ELBOW OR APP'D EQUIV.
2	12.23	T.M.S.	225	B	PVC	AYMR00 TERMINAL ELBOW OR APP'D EQUIV.
3	0.00	M.S.	225	B	PVC	AYMR00 CENTRAL ACCESS M.S. OR APP'D EQUIV.
3	7.82	M.S.	225	B	PVC	AYMR00 CENTRAL ACCESS M.S. OR APP'D EQUIV.
3	22.36	T.M.S.	225	B	PVC	AYMR00 TERMINAL ELBOW OR APP'D EQUIV.



LOCALITY PLAN

(NOT TO SCALE)

NOTES :-

WATER SERVICING CO-ORDINATOR,
SURVEY, DESIGN & FINAL PLANS PREPARED BY:
MetroWater MANAGEMENT
P.O. BOX 3220, RHODES NSW 2138
PH. 9876-8395 FAX 9869-2341

FOR: XX PTY LTD
XX
PH. XX


2. ALL LOTS WERE VACANT AT TIME OF SURVEY.
3. ALL STRUCTURES TO BE CONSTRUCTED TO PROPOSED FINISHED SURFACE LEVELS. THE CONSTRUCTOR IS TO LIAISE WITH THE SITE SUPERINTENDENT/CIVIL CONTRACTOR TO VERIFY ALL FINAL LEVELS.
4. PIPES TO BE CONCRETE ENCASED SHOWN ACCORDINGLY:
5. ALL LEVELS ELECTRONICALLY GENERATED. NO LEVEL BOOK AVAILABLE.
6. SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE NECESSARY PRIOR TO COMMENCEMENT OF THE WORK AND APPROPRIATE PROCEDURES, PRECAUTIONS AND CARE NEEDS TO BE TAKEN WHEN WORKING WITHIN CLOSE PROXIMITY OF ANY SERVICES. ANY DAMAGE TO EXISTING SERVICES TO BE RECTIFIED AT THE CONTRACTOR'S EXPENSE.
7. THE CONSTRUCTOR IS TO DETERMINE LEVELS & LOCATIONS OF SERVICES PRIOR TO CONSTRUCTION.
8. THE PROPOSED WORKS DETAILED HERE ON TO BE CONSTRUCTED IN ACCORDANCE WITH THE: WATER SERVICES ASSOCIATION OF AUSTRALIA – SEWERAGE CODE OF AUSTRALIA WS 02-2002-2.2 – SYDNEY WATER EDITION – VERSION 4 – 2017. THE CONTRACTOR MUST HAVE A COPY OF THIS DOCUMENT ON SITE AT ALL TIMES.
9. THE MINIMUM NUMBER OF FIELD COMPACTION TESTS REQUIRED TO SATISFY THE SEWERAGE CODE OF AUSTRALIA – SYDNEY WATER EDITION – VERSION 4 ARE:
 - i) PIPE EMBEDMENT ZONE: NIL
(USING 7mm/10mm/14mm SINGLE SIZE AGGREGATES)
 - ii) TRENCH FILL ZONE – NON-TRAFFICABLE:
(1 TEST PER 300mm LAYER PER 50m OF SEWER MAIN)
TOTAL NO. OF TESTS: NIL (USING 14:1 SAND/CEMENT STABILISER)
 - iii) TRENCH FILL ZONE – NON-TRAFFICABLE:
(1 TEST PER 900mm LAYER PER 100m OF SEWER MAIN)
TOTAL NO. OF TESTS: **XX**
 - iv) FOR M.S.s & M.H.s: (1 TEST PER 1m DEPTH AT ONE LOCATION WITHIN 300mm OF EACH M.S. & M.H.)
TOTAL NO. OF TESTS: **XX**

**NOT FOR
CONSTRUCTION**


9. PROPERTY CONNECTION SEWERS (P.C.S.) ARE TO BE CONSTRUCTED IN ACCORDANCE WITH SYDNEY WATER STANDARD DRAWING SEW-1151-S. REFER TO WATER SERVICES ASSOCIATION OF AUSTRALIA – SEWERAGE CODE OF AUSTRALIA WSA 02-2002-2.2 – SYDNEY WATER EDITION – VERSION 4 – 2017.
10. AREAS DOWNSLOPE OF CONSTRUCTION ACTIVITY TO BE ADEQUATELY PROTECTED FROM SEDIMENT POLLUTION ETC. SILT TRAP DEVICES TO BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY, EFFECTIVELY MAINTAINED AND TO BE REMOVED ONLY AFTER THE AREA HAS BEEN SATISFACTORILY REVEGETATED
11. SILTATION CONTROLS, SITE RESTORATION AND ENVIRONMENTAL REQUIREMENTS TO BE CARRIED OUT TO THE SATISFACTION OF THE WATER SERVICES CO-ORDINATOR OR THEIR FIELD REPRESENTATIVE.
12. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OUTLINED IN THE REVIEW OF ENVIRONMENTAL FACTORS (R.E.F.), PROJECT SAFETY PLAN (P.S.P.) AND THE INSPECTION TEST PLAN (I.T.P.) ASSOCIATED WITH THIS DESIGN.
13. UNLESS NOTED OTHERWISE, ALL M.H.'S TO BE CONSTRUCTED IN ACCORDANCE WITH DEEMED-TO-COMPLY DRAWING DTC-2202 ISSUE B 18-MAR-15, READ IN CONJUNCTION WITH:
 - * DTC-2000 ISSUE C DATED 18-MAR-15
 - * DTC-2220 ISSUE D DATED 18-MAR-15
 - * DTC-2221 ISSUE B DATED 01-MAR-13
 - * DTC-2222 ISSUE C DATED 18-MAR-15
14. ALL M.S. DEFLECTION ANGLES ARE MEASURED FROM THE DOWNSTREAM IN A CLOCKWISE DIRECTION.
15. P.C.S. DENOTES P.C.S. CONNECTION (REFER SEW-1151-S).
16. M.H. AT CH.0+00 LINE 1 TO BE DN1200, CONSTRUCTED IN ACCORDANCE WITH DEEMED-TO-COMPLY DRAWING DTC-2202 ISSUE E 18-MAR-15, READ IN CONJUNCTION WITH:
 - * DTC-2000 ISSUE C DATED 18-MAR-15
 - * DTC-2220 ISSUE D DATED 18-MAR-15
 - * DTC-2221 ISSUE B DATED 01-MAR-13
 - * DTC-2222 ISSUE C DATED 18-MAR-15
 - * DTC-2223 ISSUE B DATED 18-MAR-15

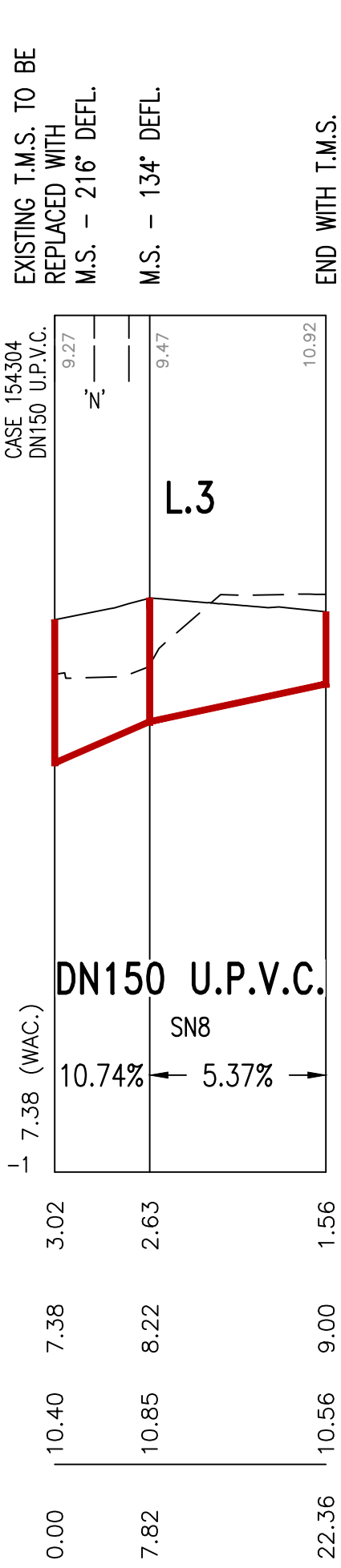
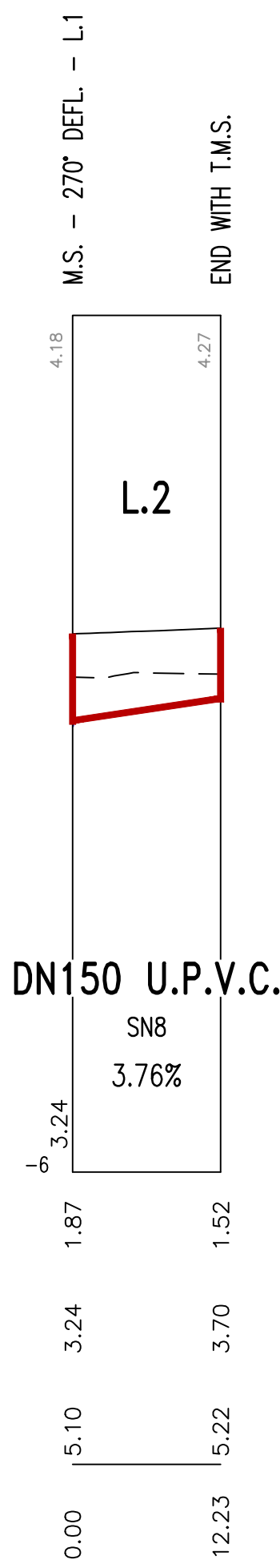
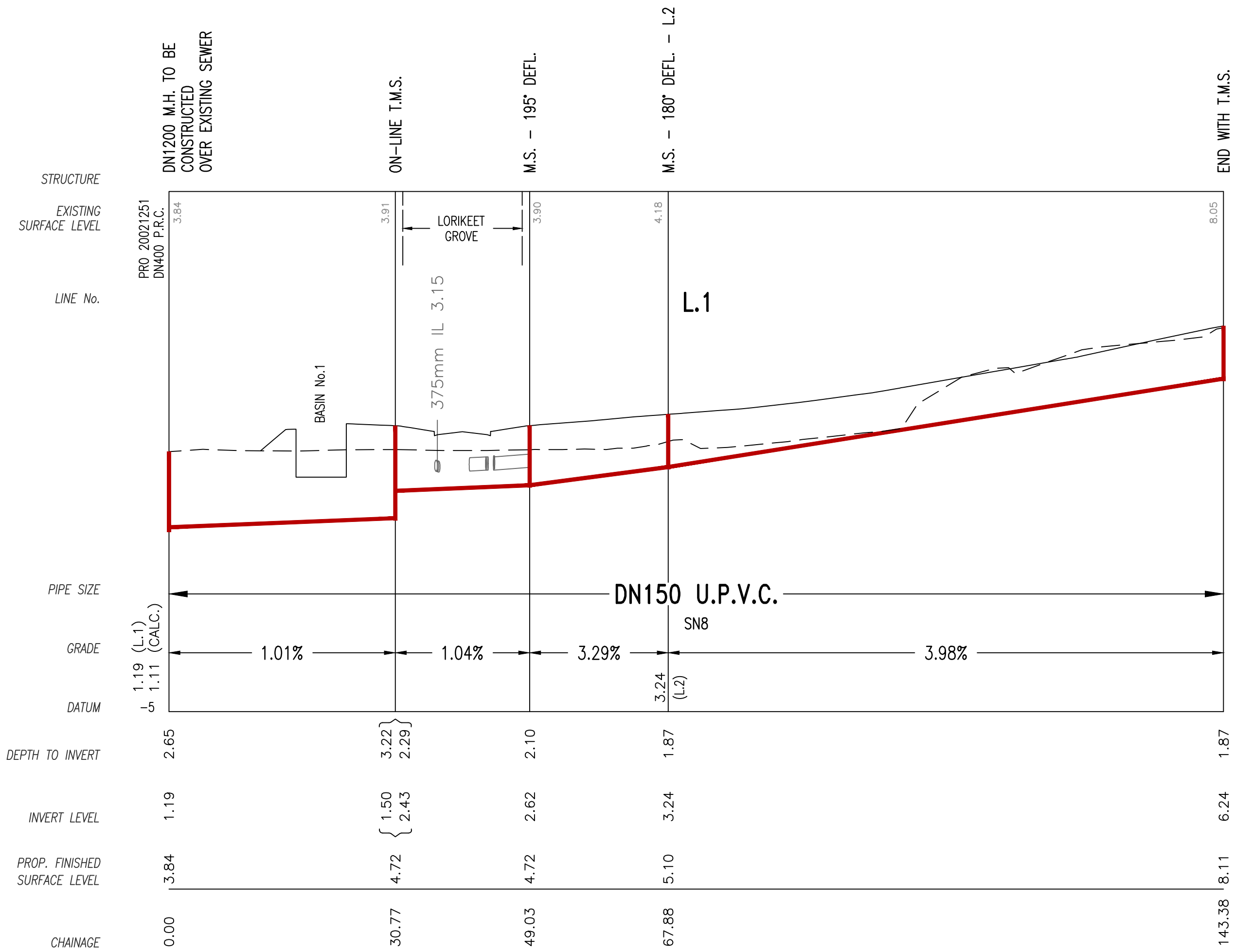
01	ORIGINAL ISSUE	R.C.	
No.	AMENDMENT DESCRIPTION	BY	DATE

REF: 076-18

PLAN TO BE READ IN CONJUNCTION WITH CURRENT SYDNEY WATER STANDARDS SYDNEY WATER CORPORATION	UTILITIES					WORK AS CONSTRUCTED CERTIFICATION					PIPE SCHEDULE				ALL LEVELS REFER TO A PLANE 20m BELOW AUSTRALIAN HEIGHT DATUM	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.	 SYDNEY WATER CORPORATION
	TYPE WATER: DN100 Water PROP. WATER: DN100 STORMWATER: SWD PROP. STORMWATER: SWD GAS: COMMS: AUSGRID:	DATE FEB/2019 FEB/2019 FEB/2019 FEB/2019 FEB/2019 FEB/2019 FEB/2019	REF. HYDRA MetWat SURVEY ENG SURVEY SURVEY SURVEY	TYPE 	DATE 	REF. 	DEVELOPER WATER SERVICE CO-ORDINATOR CONSTRUCTOR COMPLETED DESIGNER I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS.	SIZE DN 150	TYPE U.P.V.C.	CLASS SN8	LENGTH 177.97	PIPE JOINING METHOD / NOTES 	SCALES PLAN 1:500 SECTION { HOR. 1:500 VERT. 1:125	U.B. DIRECTORY 138, F8 (41st ED)			PITTTWATER SEWERAGE NARRABEEN CREEK CARRIER DRAINS TO WARREWOOD S.T.W.



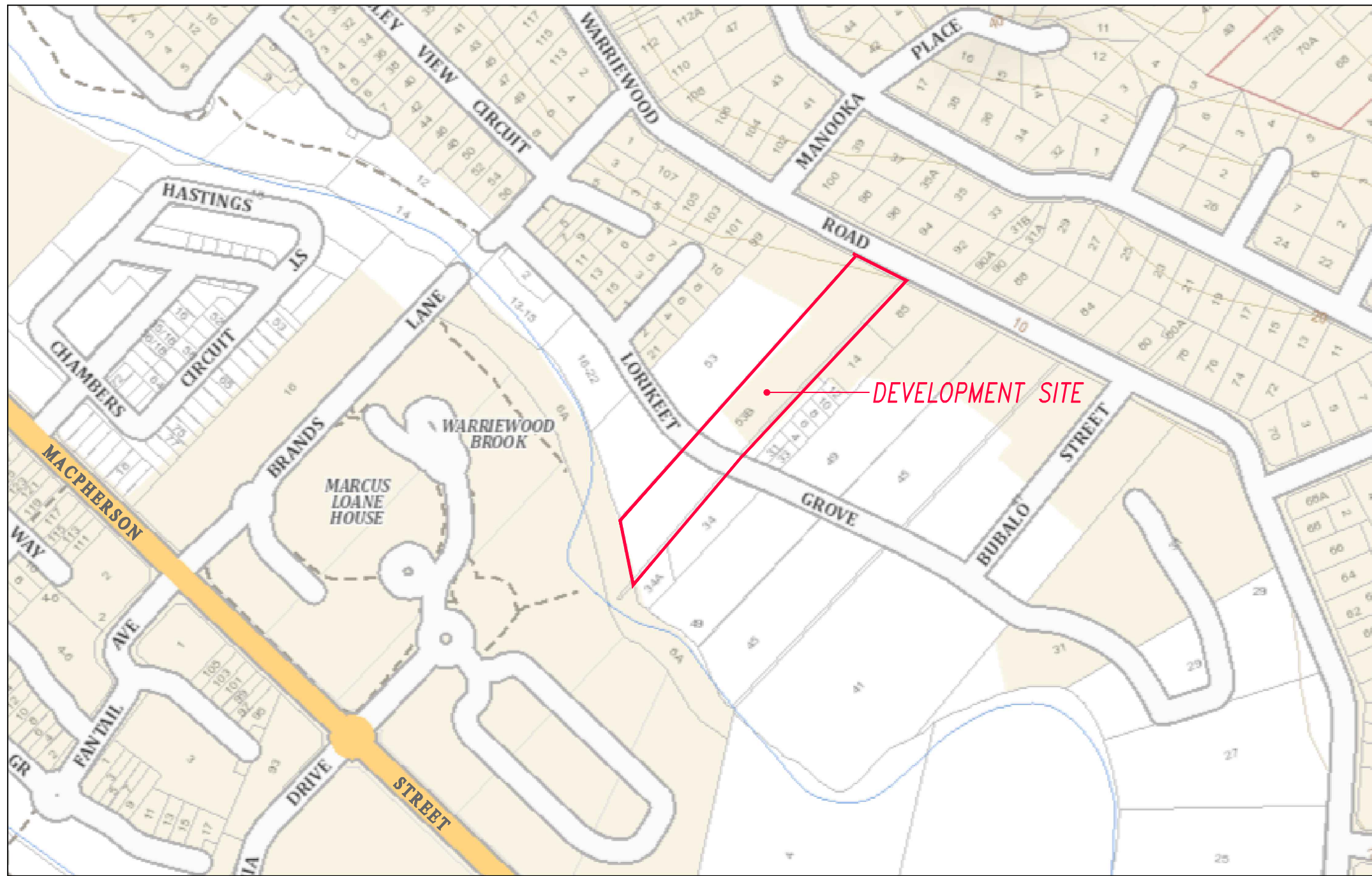
WORK AS CONSTRUCTED CERTIFICATION		 SYDNEY WATER CORPORATION	
DEVELOPER		Case No.172797WW	SHT 2 OF 3 SHTS.
W.S.C.			
CONSTRUCTOR			
COMPLETED			
W.A.C. PREPARED			
DESIGNER		SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED ACCORDANCE WITH THE WORK AS DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	



NOT FOR
CONSTRUCTION

REF: 076-18

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	W.S.C.	Sydney WATER	
CONSTRUCTOR	COMPLETED	Case No.172797WW	SHT 3 OF 3 SHTS.
DESIGNER	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	



LOCALITY PLAN

(NOT TO SCALE)

NOTES :-

WATER SERVICING CO-ORDINATOR
SURVEY, DESIGN & FINAL PLANS PREPARED BY:
MetroWater MANAGEMENT
P.O. BOX 3220, RHODES NSW 2138
PH. 9876-8395 FAX 9869-2341

FOR: XX PTY LTD
XX
PH. XX

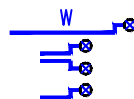
1. P.V.C. MAIN TO BE LAID GENERALLY 3.0 P.L. AT STANDARD DEPTH BELOW TOP OF KERB EXCEPT WHERE OTHERWISE INDICATED.
2. THE PROPOSED WORKS DETAILED HERE ON TO BE CONSTRUCTED IN ACCORDANCE WITH THE: WATER SERVICES ASSOCIATION OF AUSTRALIA – WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1 SYDNEY WATER EDITION – 2014. THE CONTRACTOR MUST HAVE A COPY OF THIS DOCUMENT ON SITE AT ALL TIMES.
3. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OUTLINED IN THE REVIEW OF ENVIRONMENTAL FACTORS (R.E.F.) ASSOCIATED WITH THIS DESIGN.
4. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS IN THE PROJECT SAFETY PLAN (P.S.P.) ASSOCIATED WITH THIS DESIGN.
5. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS IN THE INSPECTION TEST PLAN (I.T.P.) ASSOCIATED WITH THIS DESIGN.
6. THE CONTRACTOR TO SUBMIT A CONSTRUCTION PROGRAM TO THE PROJECT MANAGER PRIOR TO COMMENCEMENT OF WORKS INCLUDING:
 - a. ENVIRONMENTAL MANAGEMENT PLAN (EMP)
 - b. PROJECT SAFETY PLAN
 - c. FLOW MANAGEMENT PLAN (IF APPLICABLE)
7. SILTATION CONTROLS, SITE RESTORATION AND ENVIRONMENTAL REQUIREMENTS TO BE CARRIED OUT TO THE SATISFACTION OF THE WATER SERVICES CO-ORDINATOR OR THEIR FIELD REPRESENTATIVE.
8. MAIN LAYING NOT TO PROCEED PRIOR TO THE FORMATION OF FOOTWAYS TO FINISHED SURFACE LEVELS.
9. JOINT USE OF UTILITY SERVICES TRENCH IN THIS AREA.
10. THE MINIMUM NUMBER OF FIELD COMPACTION TESTS REQUIRED TO SATISFY STANDARDS IS AS FOLLOWS:
 - (i) TRENCHES IN ROADWAY:--
TRENCH FILL ZONE TO BE BACKFILLED USING
14:1 SAND/CEMENT MIX TO ROADBASE LEVEL,
NO COMPACTION REQUIRED.
 - (ii) TRENCHES NOT IN ROADWAY:--
TRENCH FILL ZONE: (1 TEST PER 900mm LAYER/100m) = XX
(iii) EMBEDMENT ZONE:-- NIL
(USING 7mm/10mm/14mm SINGLE-SIZED AGGREGATES)

11. MAIN TO METER WATER SERVICE CONNECTION POSITIONS SHOWN THIS:-

PROPOSED ROAD CROSSINGS

PROPOSED TWIN WATER SERVICES

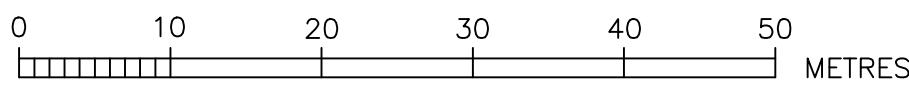
PROPOSED SINGLE WATER SERVICE


12. ALL WATER MAINS TO BE CONSTRUCTED OVER STORMWATER DRAINS UNLESS NOTED OTHERWISE.
13. ALL VALVES AND FITTINGS TO BE RESTRAINED IN ACCORDANCE WITH REQUIREMENTS DEEMED-TO-COMPLY DRAWINGS (REFER TO TABLE 1).
14. SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE NECESSARY PRIOR TO COMMENCEMENT OF THE WORK AND APPROPRIATE PROCEDURES, PRECAUTIONS AND CARE NEED TO BE TAKEN WHEN WORKING WITHIN CLOSE PROXIMITY OF ANY SERVICES. ANY DAMAGE TO EXISTING SERVICES TO BE RECTIFIED AT THE CONTRACTOR'S EXPENSE.
15. ALL PROPERTY (MAIN TO METER) SERVICES MUST BE CONSTRUCTED TO SYDNEY WATER'S INSTALLATION REQUIREMENTS BY A LICENSED PLUMBER. THE WORKS MUST BE INSTALLED IN ACCORDANCE WITH THE CURRENT SYDNEY WATER PROPERTY (MAIN TO METER) SERVICE INSTALLATIONS TECHNICAL REQUIREMENTS, NSW CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZS3500.
16. \oplus DENOTES WHERE THE NEW MAIN CROSSES A ROADWAY, A MINIMUM OF 750mm COVER SHALL BE MAINTAINED BELOW THE ROAD PAVEMENT.
17. DEFLECTIONS MAY BE ACHIEVED BY EASING MAIN AT PIPE JOINTS. PIPE DEFLECTIONS SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATION.
18. CONTRACTOR TO INVESTIGATE MAIN CONNECTION LOCATION PRIOR TO MAINLAYING, WHICH COULD INCLUDE POTHOLES ADJACENT SERVICES THAT MAY IMPACT THE CONNECTION.

DRAWING LIST			
DWG. No.	TITLE	REVISION	DATE
1-X	COVER SHEET	01	
2-X	GENERAL LAYOUT 1 OF 2	01	
3-X	GENERAL LAYOUT 2 OF 2	01	

CAUTION
EXISTING SERVICES ALLOCATED IN FOOTPATH RESERVE ARE
SUBJECT TO VARIABLE PLACEMENT. THE CONTRACTOR IS
REQUIRED TO ACQUIRE THE LATEST SEARCH INFORMATION
& FIELD CHECK AT THE TIME OF WORKS.

⚡ CAUTION
OVERHEAD POWERLINES & TELSTRA CABLES
EXIST IN THE VICINITY OF WORKS



No.	DESCRIPTION	DRAWING No.
1	HORIZONTAL BENDS	DTC-1110
2	TAPERS	DTC-1112
3	TEES	DTC-1113
4	VERTICAL BENDS & HYDRANT BENDS	DTC-1114

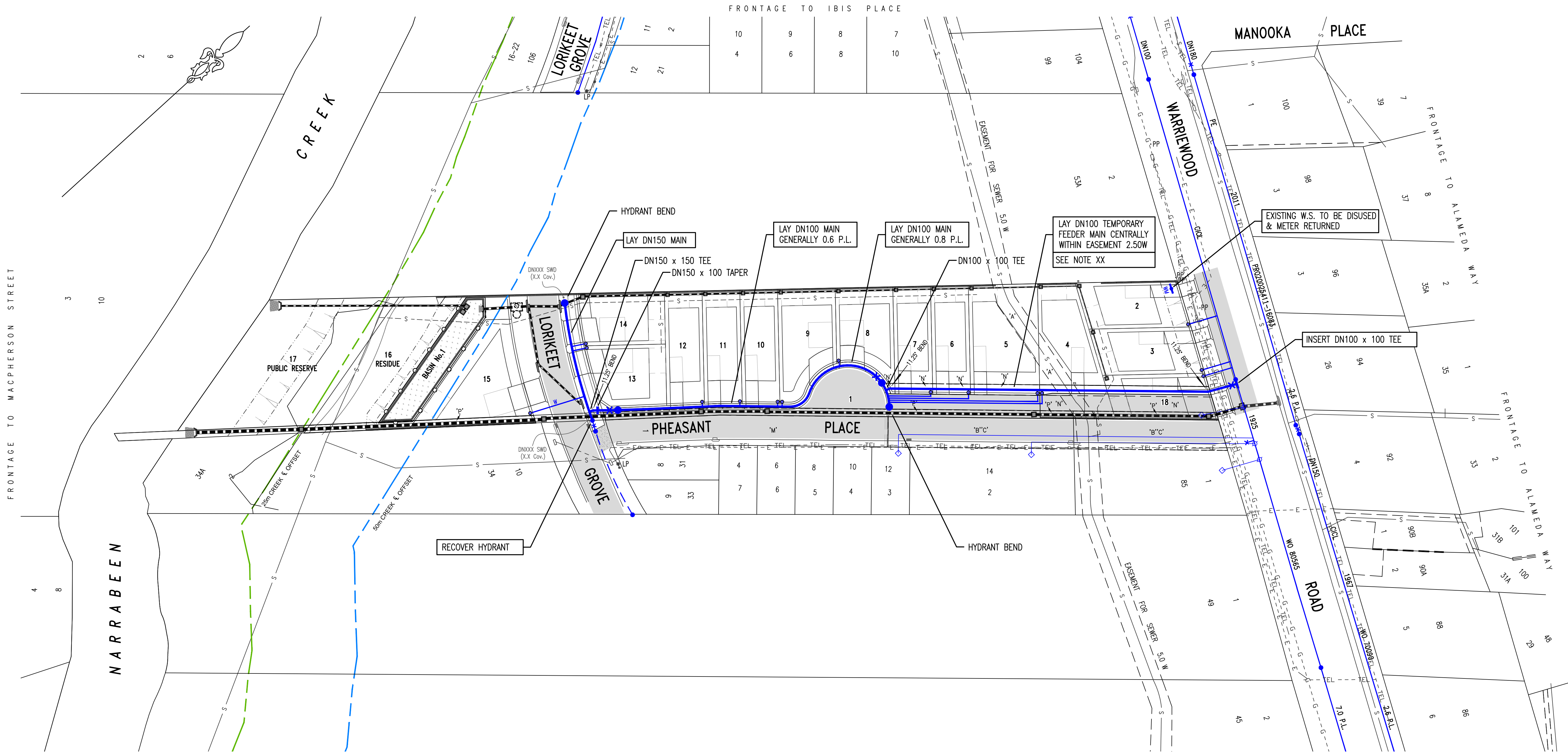
TABLE 1: APPLICABLE DEEMED-TO-COMPLY DRAWINGS

**NOT FOR
CONSTRUCTION**

01	ORIGINAL ISSUE	R.C.	
No.	AMENDMENT DESCRIPTION	BY	DATE

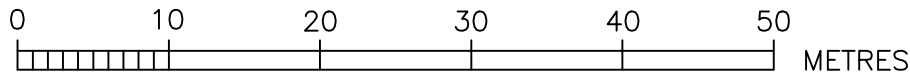
PLAN TO BE READ IN CONJUNCTION WITH CURRENT SYDNEY WATER STANDARDS SYDNEY WATER CORPORATION	UTILITIES						WORK AS CONSTRUCTED CERTIFICATION						PIPE SCHEDULE				<div>AUSTRALIAN HEIGHT DATUM</div> <div>SCALES</div> <div>PLAN 1:500 SECTION { HOR. : VERT. : CROSS SECTIONS : NATURAL</div> <div>LENGTHS, DEPTHS & LEVELS ARE IN METRES.</div>	<div>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.</div>	<div><div>Sydney WATER</div><div>SYDNEY WATER CORPORATION</div></div>
	<div>SEWER: S </div>																		

REF: 076-18



NOT FOR
CONSTRUCTION

'A' - EASEMENT FOR SEWAGE PURPOSES 5 WIDE VIDE 6771995
'B' - EASEMENT FOR ACCESS 7.2 WIDE VIDE D.P.1214859
'C' - EASEMENT FOR ACCESS 7.2 WIDE VIDE D.P.1214859
'M' - RIGHT OF ACCESS (WHOLE LOT) VIDE D.P.270946
'N' - PROPOSED RIGHT OF ACCESS 8 WIDE & VARIABLE (TEMPORARY)
'P' - PROPOSED EASEMENT TO DRAIN WATER 1.825 WIDE



REF: 076-18

WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER	
DEVELOPER	W.S.C.	SYDNEY WATER CORPORATION	
CONSTRUCTOR	COMPLETED	Case No.172797PW SHT 2 OF 2 SHTS.	
DESIGNER	W.A.C. PREPARED	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	