

1. DESIGNER AND WATER SERVICES COORDINATOR:
DAVID J. P. MURPHY (REGISTERED 062689)
7/2000 (REVISED 2015)
PH. NO. (02) 4722 8181

FOR:
NEW & RSL PTY LTD
C/- BULLERY NSW PTY LTD
ATTN: ANDREW FLAHERTY
SUITE 4, LEVEL 1, 8-10 CASTLEBAGH STREET, PENRITH NSW 2750
PH. NO.: 0419 474 960

- THE WORKS AND MATERIALS WERE IN ACCORDANCE WITH THE WATER RETICULATION CODE OF AUSTRALIA (NSA 03-2011-3.1) INCLUDING THE STONEY WATER SUPPLY AND APPENDICES (2014).
- MAN LID AS SHOWN ON PLAN WITH STANDARD COVER.
- ALL EXCAVATION, SHORING EXCAVATION AND STABILITY OF ADJACENT STRUCTURES/SERVICES/DEWELINGS WAS THE RESPONSIBILITY OF THE CONSTRUCTOR.
- ALL INFORMATION TAKEN FROM THE FOLLOWING PLANS SUPPLIED BY NEW: DRAINING BASE, 3D AND SMD: REDBANK-SEP3 MW-REB-W & U/LT DRG DTM STRINGS 1904.10 (SUPPLIED 13/04/2015) CIVIL SET POF (954); REDBANK-SEP3 MW-C&R 1768 CC U/LT CIVIL PLANS-150410 (SUPPLIED 13/04/2015) DETAILS ALONG GROSE VALE ROAD BASED ON: NTH RICH - DETAILED SURVEY UPDATE 230414 (SUPPLIED 2014) ENGINEERING PLANS GROSE VALE ROAD: 8464CC PERMANENT BASE (SUPPLIED 2013)
- THE MINIMUM NUMBER OF FIELD COMPACTION TESTS CONDUCTED TO SANSYR THE WATER SUPPLY CODE OF AUSTRALIA ARE:
PIPE EMBEDMENT ZONE: 18 TESTS CONDUCTED
TRENCH FILL ZONE (TREATABLE): (SEE NOTE A)
- TRENCH FILL ZONE (NON TREATABLE): 18 TESTS CONDUCTED
- TRENCH FILL ZONE (INCLUDING PROPERTY SERVICES) - TOTAL: 48 TESTS CONDUCTED
- THE WORKS ARE CONSTRUCTED IN ACCORDANCE WITH STONEY WATERS DEEMED TO COMPLY DRAWINGS:
- FOR HORIZONTAL BENDS TYPE 1/TYPE 2 DTC-1110 (REVA 31.01.13) OR DTC-1111 (REVA 29.02.12) (TYPE DEPENDING ON GROUND CONDITIONS AND DISTANCE TO SERVICES)
- FOR TAPERED DTC-1112 (REVA 29.02.12)
- FOR TEES DTC-1113 (REVA 29.02.12) (THROUST BLOCK TYPE DEPENDING ON GROUND CONDITIONS AND DISTANCE TO OTHER SERVICES)
- FOR CROSSING UNDER SMD (4"R) DTC-1124 (REVA 31.01.12)
- ALL ROAD CROSSINGS OF PROPOSED AND FUTURE ROADS WERE BACKFILLED WITH SAND/CEMENT (THE SAND/CEMENT RATIO IS TO BE 20:1).
- ALL PROPERTY (MAN TO METER) SERVICES WERE CONSTRUCTED TO STONEY WATERS INSTALLATION REQUIREMENTS BY A LICENSED PLUMBER AND ACCREDITED DRAFTER. THE WORKS MUST BE INSTALLED IN ACCORDANCE WITH THE CURRENT STONEY WATER PROPERTY SERVICE (MAN TO METER) INSTALLATIONS TECHNICAL REQUIREMENTS, NSW CODE OF PRACTICE FOR PLUMBING AND DRAINAGE, AND AS/NZ 3500.
- TRENCHSTOPS TO MAT-1209 WERE PLACED AT 16m CENTERS BETWEEN '1'-'2' ON DN200 MAN WHERE '1' IS THE END OF THE DEVIATION AROUND THE MS AND AND '2' IS THE PROPOSED TEE. TRENCHSTOPS PLACED DUE TO STEEP GRADE OF ROAD, APPROX. 85m OF MAN TO BE SUPPORTED.
- TRENCHSTOPS TO MAT-1209 WERE PLACED AT 11m CENTERS BETWEEN '3'-'4' ON DN100 MAN WHERE '3' IS THE PROPOSED BEND AND '4' IS THE PROPOSED TEE. TRENCHSTOPS PLACED DUE TO STEEP GRADE OF ROAD, APPROX. 157m OF MAN WAS SUPPORTED.
- TRENCHSTOPS TO MAT-1209 WERE PLACED AT 13m CENTERS BETWEEN '5'-'6' ON DN100 MAN WHERE '5' & '6' ARE PROPOSED TEES. TRENCHSTOPS PLACED DUE TO STEEP GRADE OF ROAD, APPROX. 116m OF MAN WAS SUPPORTED.
- TRENCHSTOPS TO MAT-1209 WERE PLACED AT 7m CENTERS BETWEEN '7'-'8' ON DN100 MAN WHERE '7' & '8' ARE PROPOSED TEES. TRENCHSTOPS PLACED DUE TO STEEP GRADE OF ROAD, APPROX. 79m OF MAN WAS SUPPORTED.
- TRENCHSTOPS TO MAT-1209 WERE PLACED AT 7m CENTERS BETWEEN '9'-'10' ON DN200 MAN WHERE '9' IS THE PROPOSED TEE AND '10' IS THE PROPOSED BEND. TRENCHSTOPS PLACED DUE TO STEEP GRADE OF ROAD, APPROX. 81m OF MAN WAS SUPPORTED.
- BULKHEADS REQUIRED AT EACH KERB CROSSING TO MAT-1209.
- ALL FITTINGS AND INDICATOR PLATES WERE RECOVERED.

LOCALITY SKETCH
(NOT TO SCALE)

F	BOOSTER PUMP AND FITTINGS REMOVED	AP.	21.12.15
F	BOOSTER PUMP AND FITTINGS REMOVED	AP.	21.12.15
E	BOOSTER PUMP AND RELUX VALVES ADDED	J.F.	02.12.15
D	DN200 MAIN STOPPED SHORT OF EXISTING MAIN	AP.	05.11.15
C	REISSUED FOR STONEY WATER APPROVAL	AP.	02.11.15
B	ISSUED FOR STONEY WATER APPROVAL	AP.	26.10.15
A	ISSUED FOR REVIEW AND COMMENT	AP.	22.10.15
Am	AMENDMENT DESCRIPTION	BR	DATE
		G	ROAD 19 ALIGNMENT CHANGED

UTILITIES	TYPE	DATE	REF.
SEWER	S	19.04.15	W.C.
PROP SEWER	S	19.04.15	DESIGN
STORMWATER	SMD	13.04.14	ENG.
PROP STORMWATER	SMD	13.04.15	ENG.
PROP STORMWATER	SMD	13.04.15	ENG.
TELESTR.	TEL	23.04.14	DBTD
TELESTR.	TEL	23.04.14	DBTD
PROP TELESTR.	TEL	23.04.14	DBTD
PROP TELESTR.	TEL	23.04.14	DBTD
PROP TELESTR.	TEL	23.04.14	DBTD

PIPE SCHEDULE	SIZE	TYPE	CLASS	LENGTH	UNIT	REMARKS
	200	OPVC	PN16	262.73	SEE NOTE 20	
	150	OPVC	PN16	43.0	SEE NOTE 20	
	100	OPVC	PN16	507.0	SEE NOTE 20	
				1149.0	SEE NOTE 20	
				TOTAL	1933.73	

PLAN TO BE READ IN CONJUNCTION WITH CURRENT STONEY WATER STANDARDS

PRIOR TO COMMENCEMENT OF EXCAVATION FOR PROPOSED WORKS, CONTRACTORS MUST:
 CONSULT WITH STONEY WATER FOR THE LOCATION OF ALL EXISTING SERVICES AND UTILITIES.
 ELECTRICAL: BULLERY ENERGY Ph. 1300 880 908
 GAS: JENICA GAS Ph. 1300 880 908
 TELECOMMUNICATIONS: TELSTRA Ph. 1800 114 918
 STONEY WATER Ph. 132 092
 GIVING AT LEAST 48 HOURS NOTICE.

WORKS AS CONSTRUCTED CERTIFICATION

DESIGNER	DAVID J. P. MURPHY	DATE	05.07.16
DESIGNED BY	DAVID J. P. MURPHY	DATE	05.07.16
CHECKED BY	DAVID J. P. MURPHY	DATE	05.07.16
APPROVED BY	DAVID J. P. MURPHY	DATE	05.07.16

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

AUSTRALIAN HEIGHT DATUM

PLAN 1:500 SECTION HOR. VERT. CROSS SECTIONS NATURAL

NO AMENDMENTS ARE TO BE MADE TO THIS PLAN WITHOUT REFERENCE TO STONEY WATER. THIS PLAN IS NOT NECESSARILY UP TO DATE OR CORRECT AND STONEY WATER ACCEPTS NO RESPONSIBILITY.

U/L DIRECTOR MAP 63/48A 158/16 46th EDITION

SHEET 1 OF 5 File No. N/A

Sydney WATER STONEY WATER CORPORATION
Case No. 149283PW
WATERMAIN EXTENSION
OFF GROSE VALE ROAD
NORTH RICHMOND HAWKESBURY

DESIGNED: F.J. DRAFTER: ST. VERIFIED: CT. REVIEWED: C.T. APPROVED: C.T. ISSUED: 05.07.16

DEVELOPER CONTRACT PLAN
STAGE MWG
WORK-AS-CONSTRUCTED



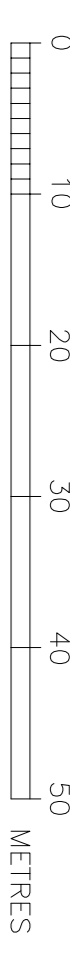
SEE SHEET '3' FOR CONTINUATION

SEE SHEET '4' FOR CONTINUATION

F	BOOSTER PUMP AND FITTINGS REMOVED	A.P.	21.12.15
E	BOOSTER PUMP AND REFLEX VALVES ADDED	J.F.	02.12.15
D	DN200 MAIN STOPPED SHORT OF EXISTING MAIN	A.P.	05.11.15
C	RESERVED FOR STONEY WATER APPROVAL	A.P.	02.11.15
B	ISSUED FOR STONEY WATER APPROVAL	A.P.	26.10.15
A	ISSUED FOR REVIEW AND COMMENT	A.P.	22.10.15
No.	AMENDMENT DESCRIPTION	BY	DATE
		C	ROAD 19 ALIGNMENT CHANGED
		J.F.	16.02.16

- 1.5m WIDE EASEMENT FOR DRAINAGE (EXISTING)
- 1.5m WIDE EASEMENT FOR DRAINAGE (PROPOSED)
- 1.2m WIDE EASEMENT FOR DRAINAGE (PROPOSED)
- 3m WIDE EASEMENT FOR DRAINAGE (PROPOSED)
- 1m WIDE EASEMENT FOR ELECTRICITY (PROPOSED)
- 5m WIDE EASEMENT FOR BATTER (PROPOSED)
- 3m WIDE DRAINAGE EASEMENT EXISTING
- SUBSTATION EASEMENT

SEE SHEET 5 FOR SERVICES CROSSINGS



WORK AS CONSTRUCTED CERTIFICATION

DEVELOPER	NEW + RSJ PTY LTD
W.S.C.	OLCHECK PTY LTD
CONTRACTOR	CJ DOWLE CONTRACTING
COMPLETED	28.06.16
W.A.C. PREPARED	05.07.16
DESIGNER	OLCHECK 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	

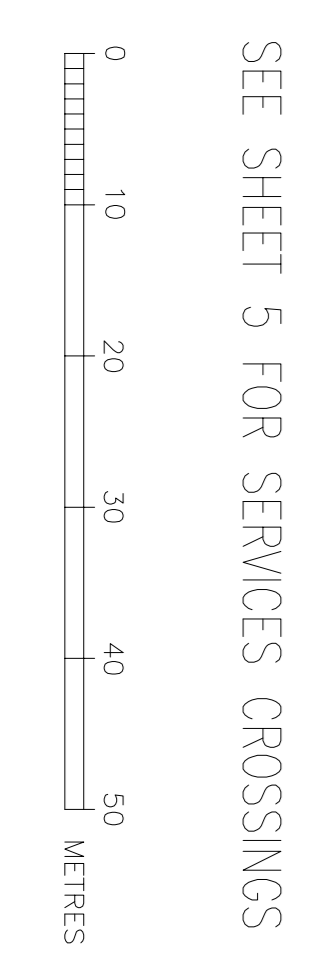


SEE SHEET '2' FOR CONTINUATION

SEE SHEET '4' FOR CONTINUATION

- 1.5m WIDE EASEMENT FOR DRAINAGE (EXISTING)
- ⊕ 1.5m WIDE EASEMENT FOR DRAINAGE (PROPOSED)
- * 1.2m WIDE EASEMENT FOR DRAINAGE (PROPOSED)
- 5m WIDE EASEMENT FOR DRAINAGE (PROPOSED)
- 1m WIDE EASEMENT FOR ELECTRICITY (PROPOSED)
- 5m WIDE EASEMENT FOR BATTER (PROPOSED)
- 5m WIDE DRAINAGE EASEMENT EXISTING
- 5m WIDE DRAINAGE EASEMENT EXISTING
- SUBSTATION EASEMENT

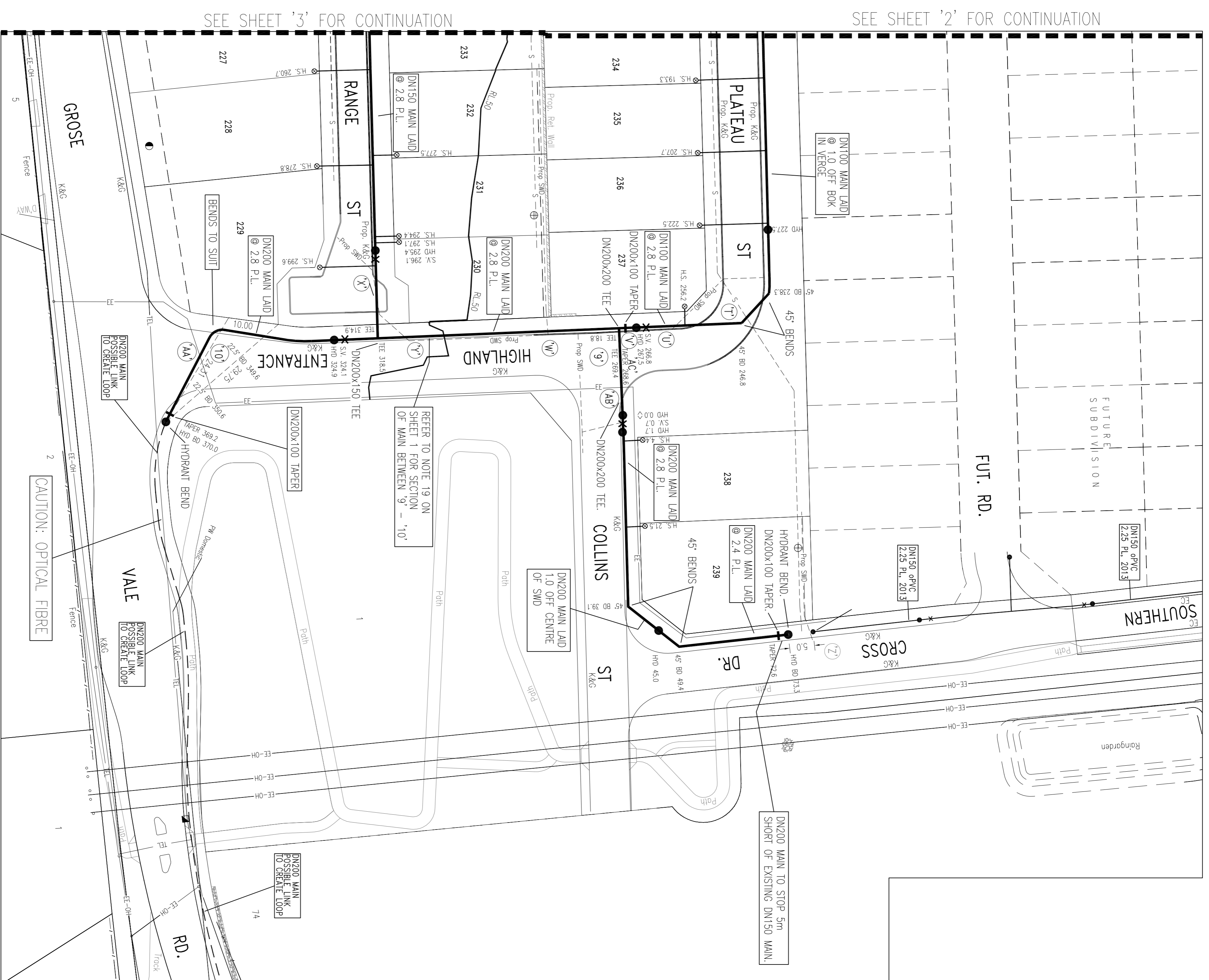
No.	AMENDMENT DESCRIPTION	BY	DATE	0	ST	J.F.
A	ISSUED FOR REVIEW AND COMMENT	A.P.	22.10.15	0	ST	05.07.16
B	ISSUED FOR STONEY WATER APPROVAL	A.P.	26.10.15			
C	RESUBMITTED FOR STONEY WATER APPROVAL	A.P.	02.11.15			
D	DWG200 MAIN STOPPED SHORT OF EXISTING MAIN	A.P.	05.11.15			
E	BOOSTER PUMP AND RETURN VALVES ADDED	J.F.	02.12.15			
F	BOOSTER PUMP AND FITTINGS REMOVED	A.P.	21.12.15			



FILE LOCATION: PM15555PW-0
DESIGNED: F.L.
DRAFTED: ST
VERIFIED: CT
REVIEWED: C.T.
APPROVED: C.T.
ISSUED: 05.07.16

WORKS AS CONSTRUCTED CERTIFICATION	
DEVELOPER	M&U / A ESU PTY LTD
W.A.C.	QUALCHEK PTY LTD
CONSTRUCTOR	CJ DOYLE CONTRACTING
COMPLETED	28.06.16
W.A.C. PREPARED	05.07.16
DESIGNER	QUALCHEK PTY LTD
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORKS AS CONSTRUCTED DRAWINGS	
Case No. 149283PW	SHT 3 OF 5 SHTS.
SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	

DEVELOPER CONTRACT PLAN
STAGE MVG
WORKS-AS-CONSTRUCTED



SEE SHEET '3' FOR CONTINUATION

SEE SHEET '2' FOR CONTINUATION

No.	AMENDMENT DESCRIPTION	BY	DATE	0	1	2	3	4	5	6	7	8	9	10
A	ISSUED FOR REVIEW AND COMMENT	A.P.	22.10.15											
B	ISSUED FOR STONEY WATER APPROVAL	A.P.	26.10.15											
C	RESUBMITTED FOR STONEY WATER APPROVAL	A.P.	02.11.15											
D	DN200 MAIN STOPPED SHORT OF EXISTING MAIN	A.P.	05.11.15											
E	BOOSTER PUMP AND RELUX VALVES ADDED	J.F.	02.12.15											
F	BOOSTER PUMP AND FITTINGS REMOVED	A.P.	21.12.15											

No.	AMENDMENT DESCRIPTION	BY	DATE	0	1	2	3	4	5	6	7	8	9	10
A	ISSUED FOR REVIEW AND COMMENT	A.P.	22.10.15											
B	ISSUED FOR STONEY WATER APPROVAL	A.P.	26.10.15											
C	RESUBMITTED FOR STONEY WATER APPROVAL	A.P.	02.11.15											
D	DN200 MAIN STOPPED SHORT OF EXISTING MAIN	A.P.	05.11.15											
E	BOOSTER PUMP AND RELUX VALVES ADDED	J.F.	02.12.15											
F	BOOSTER PUMP AND FITTINGS REMOVED	A.P.	21.12.15											

SEE SHEET 5 FOR SERVICES CROSSINGS

WORKS AS CONSTRUCTED CERTIFICATION	
DEVELOPER	MRU / A ESU PTY LTD
W.S.C. QUOTER	QUOTER PTY LTD
CONTRACTOR	CJ DOYLE CONTRACTING
COMPLETED	28.06.16
W.A.C. PREPARED	05.07.16
DESIGNER	QUOTER PTY LTD
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORKS AS CONSTRUCTED DRAWINGS	
VERIFIED:	CT
REVIEWED:	CT
APPROVED:	CT

Sydney WATER
Case No. 149283PW SH 4 OF 5 SHTS.
SYDNEY WATER CORPORATION
FOR DETAILS OF SERVICES SEE SHEET 1

SERVICES CROSSING TABLE

MAIN LAND OVER ALL SERVICES UNLESS INDICATED OTHERWISE

CROSSING SERVICE	SERVICE SIZE	PW SIZE	SERVICE COVER (m)	PW COVER (m)	* CLEARANCE (m)	REFER TO DTC DRAWING No.	COMMENTS
A	SMD DN375	DN100	2.695	0.60	1.99	--	--
B	SMD DN375	DN100	2.36	0.60	1.66	--	--
C	SMD DN750	DN100	3.31	0.60	2.61	--	--
D	Sewer DN150	DN100	4.54	0.60	3.84	--	--
E	SMD DN375	DN100	2.12	0.60	1.42	--	--
F	Sewer DN150	DN150	1.77	0.60	1.02	--	--
G	SMD DN450	DN150	2.42	0.60	1.67	--	--
H	SMD DN750	DN150	3.18	0.60	2.43	--	--
I	SMD DN750	DN100	3.16	0.60	2.46	--	--
J	Sewer DN150	DN150	3.37	0.60	2.62	--	--
K	Sewer DN150	DN150	2.93	0.60	2.18	--	--
L	Sewer DN150	DN150	2.60	0.60	1.85	--	--
M	SMD DN375	DN100	1.79	0.60	1.09	--	--
N	Sewer DN150	DN100	2.55	0.60	1.85	--	--
O	SMD DN450	DN100	1.88	0.60	1.18	--	--
P	SMD DN375	DN100	1.91	0.60	1.21	--	--
Q	SMD DN450	DN100	1.99	0.60	1.29	--	--
R	Sewer DN150	DN150	4.70	0.60	3.95	--	--
S	SMD DN375	DN100	2.06	0.60	1.36	--	--
T	Sewer DN150	DN100	3.65	0.60	2.95	--	--
U	SMD DN375	DN200	1.77	0.60	0.975	--	Ease PW main over proposed SMD
V	SMD DN375	DN200	0.55	0.60	0.15	1124	Ease PW main under prop. DN375 SMD
Y	SMD DN375	DN150	2.09	0.60	1.34	--	--
Z	SMD DN375	DN200	2.81	0.60	2.01	--	--
AA	SMD DN375	DN200	2.96	0.60	2.16	--	--
AB	EE 4x DN150	DN200	0.70	1.225	0.225	--	Ease PW main under existing EE
AB	EE 4x DN150	DN200	0.70	1.225	0.225	--	Ease PW main under existing EE

* FOR COVER 600mm IS ASSUMED FOR ANY PW MAIN IN FOOTPATH OR ROAD.
IF PW MAIN IS TO GO OVER OR UNDER A SERVICE AMENDED COVER IS GIVEN

A^F

READ IN CONJUNCTION WITH DTC-1124 DIMENSION (mm)
D ^F
R ^F
Z ^F
L ^F
W ^F
X ^F

A^V

READ IN CONJUNCTION WITH DTC-1124 DIMENSION (mm)
D ^V
R ^V
Z ^V
L ^V
W ^V
X ^V

No.	AMENDMENT DESCRIPTION	BY	DATE	0	WORK AS CONSTRUCTED ROAD 19 ALIGNMENT CHANGED	ST	J.F.
F	BOOSTER PUMP AND FITTINGS REMOVED	A.P.	21.12.15				
E	BOOSTER PUMP AND RETURN VALVES ADDED	J.F.	02.12.15				
D	DN200 MAIN STOPPED SHORT OF EXISTING MAN	A.P.	05.11.15				
C	RESSUED FOR STONEY WATER APPROVAL	A.P.	02.11.15				
B	ISSUED FOR STONEY WATER APPROVAL	A.P.	26.10.15				
A	ISSUED FOR REVIEW AND COMMENT	A.P.	22.10.15				
	AMENDMENT DESCRIPTION	BY	DATE	0	WORK AS CONSTRUCTED ROAD 19 ALIGNMENT CHANGED	ST	J.F.

WORK AS CONSTRUCTED CERTIFICATION

DEVELOPER: MRU / A ESU PTY. LTD
W.S.C. OALCHECK PTY. LTD
CONSTRUCTOR: CJ DOYLE CONTRACTING
COMPLETED: 28.06.16
W.A.C. PREPARED: 05.07.16

DESIGNER: OALCHECK PTY LTD
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS

Sydney WATER
SYDNEY WATER CORPORATION

Case No. 149283PW / SH 5 OF 5 SHTS.

FOR DETAILS OF SERVICES SEE SHEET 1