

THE GABLES

BOX HILL

PRECINCT F

STAGE 1

PRESSURE SEWER & RECYCLED WATER



LOCALITY PLAN
(NOT TO SCALE)

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No.	REVISION DESCRIPTION	BY	DATE
04	WORK-AS-CONSTRUCTED	K.G.	23/1/26
03	HORSEWORLD UPDATES INCORPORATED	D.S.	25/2/25
02	VARIOUS ENSPIRE/STOCKLAND UPDATES	D.S.	2/10/24
01	ISSUE FOR APPROVAL	D.S.	22/4/24
00	ORIGINAL ISSUE FOR TENDER PURPOSES	D.S.	6/3/23

SERVICE	DATE	REF.	WORK-AS-CONSTRUCTED CERTIFICATION	ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd. RAR WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT SHOP 7 & 8 'M CENTRE' 40 STERLING ROAD, MINCHINBURY NSW 2770 PH: (02) 9853 0200 FAX: (02) 9671 7399			PLAN OF PROPOSED WATER INFRASTRUCTURE SERVICES THE GABLES DEVELOPMENT - PRECINCT F (STAGE 1) CHADWICK DRIVE & OTHERS, GABLES L.G.A. THE HILLS	COVER SHEET DRAWN: D.SHEATHER CHECKED: D.SHEATHER REVISIONS: K.GAO VERIFIED: K.GAO SCALE: - DATE: - H.A.S. REFERENCE: 88 N14-Q15 DATE OF ISSUE: 23/1/2026	SHEET 1 OF 20 WAC 4/23645/F1
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SEWER NOTES

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER GROUP SUPPLEMENTARY MANUAL TO W.S.A.A., PRESSURE SEWERAGE CODE OF AUSTRALIA WSA 07-2007 VERSION 1.1 & POLYETHYLENE PIPELINE CODE WSA 01-2004.
- ALL EQUIPMENT, MATERIALS & ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW & SHALL COMPLY WITH ALTOGETHER GROUP REQUIREMENTS. BUTT FUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE GEORG FISCHER PIPING SYSTEMS BUTT FUSION PRODUCT RANGE. ELECTROFUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE PLASSON POLYETHYLENE PIPING SYSTEMS PRODUCT RANGE.
- ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH & SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS & LOCATIONS EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 07-2007 & ALTOGETHER GROUP SUPPLEMENTARY MANUAL TO W.S.A.A.
- ALL POLYETHYLENE MAINS ≤DN200 SHALL BE JOINED BY ELECTROFUSION TECHNIQUES IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS. ALL POLYETHYLENE MAINS >DN200 SHALL BE JOINED BY BUTTWELD TECHNIQUES IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS
- MAIN TO BE LAID GENERALLY AS INDICATED IN SERVICE ALLOCATION DIAGRAMS. INSTRUCTION NOTES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE PROVIDED. 600mm HORIZONTAL CLEARANCE TO BE MAINTAINED BETWEEN ALL SEWER & WATER MAINS. MINIMUM PIPE COVER SHALL BE 800mm IN FOOTWAYS & FOR ROADWAYS. MAXIMUM PIPE COVER SHALL GENERALLY BE 15m. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 15m, BUT LESS THAN 25m, THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL PRESSURE SEWER & RECYCLED WATER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- MAINS CROSSING UNDER EXISTING DRIVEWAYS (SEALED, PAVED OR DECORATIVE) SHALL BE CONDUCTED BY UNDER BORING ONLY UNLESS PERMISSION IS GRANTED BY THE AFFECTED PROPERTY OWNER.
- MAINS WITHIN 2m OF ELECTRICITY OR POWER POLES SHALL BE CONDUCTED BY BORING TECHNOLOGY (UNLESS AGREED TO BY THE ALTOGETHER GROUP REPRESENTATIVE).
- ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION WSA-PS350 & WSA-PS351.
- ALL BENDS SHALL BE ELECTROFUSION OR BUTTWELD SWEEP BENDS. FABRICATED BENDS SHALL NOT BE USED IN LIEU. KNUCKLE ELBOWS ARE NOT PERMITTED.
- MINIMUM BENDING RADIUS FOR PN16 PE100 (SDR11) SHALL BE 20 x DN (ie. DN400:R8.0m, DN250:R5.0m, DN200: R4.0m, DN160:R3.2m, DN125:R2.5m, DN90:R1.8m, DN75:R1.5m, DN63:R1.3m, DN50: R1.0m, DN40: R0.8m
- ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16).
- FLUSHING PITS SHALL CONFORM WITH ALTOGETHER GROUP STANDARD DRAWINGS. REFER TO WEBSITE FOR CURRENT VERSION. SMALL MAINS (< DN110) https://information.altogethergroup.com.au/governance/Land_Housing/PSS-1017A-FS.pdf LARGE MAINS (> DN110) https://information.altogethergroup.com.au/governance/Land_Housing/PSS-1017B-FS.pdf
- LOCALISED DEEPENING OF MAINS MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION. THE CONTRACTOR SHALL ENSURE THAT THE AIR VALVE OFFTAKE IS LOCATED AT A HIGH POINT (NATURAL OR ARTIFICIAL) IN THE MAIN (i.e. MAIN SHALL GRADE DOWNWARDS EITHER SIDE OF THE AIR VALVE).
- DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING & CONNECTED TO SURFACE VALVES.
- ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ie ROADWAYS, PATHS etc) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- ALL VALVES SHALL BE RESILIENT SEATED SLUICE VALVES (CLOCKWISE CLOSING), SHALL BE RESTRAINED IN ACCORDANCE WITH WAT-1207 & SHALL COMPLY WITH ALTOGETHER GROUP STANDARD DRAWING PSS-1015-FS.
- ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 07-2007 Version 1.1.
- FOR LOTS WITH TANKS IN THE REAR: 1 x 25mm INSTRUMENTATION CONDUIT (ORANGE) AND 1 x 25mm ELECTRICAL CONDUIT (ORANGE) (WITH DRAW WIRES) SHALL BE INSTALLED FROM THE COLLECTION TANK TO WATER METERS. THE CONDUITS SHALL BE LAID IN A COMMON TRENCH WITH THE SEWERAGE AND MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 400mm.
- THE CONSTRUCTOR SHALL PROVIDE ALTOGETHER GROUP WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED & CONFIRMATION IS PROVIDED BY THE ALTOGETHER GROUP REPRESENTATIVE.
- UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORK.
- PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED & APPROVAL FOR BACKFILLING GIVEN BY THE ALTOGETHER GROUP REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CO-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.
- THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 213.4) ARE:
TRAFFICABLE:
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / CROSSING (17 Tests)
NON-TRAFFICABLE:
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / 100m (35 Tests)
- BOUNDARY KITS (COMPLETE) SHALL BE @ONE SUPPLIED. COLLECTION TANKS SHALL BE INSTALLED WITH BOUNDARY KIT (REFER ALTOGETHER GROUP STANDARD DRAWINGS PSS-1112-FS & PSS-1113-FS). PUMP TO BE INSTALLED BY OTHERS.
- ALL MAINS (UP TO THE BOUNDARY KIT) SHALL BE PRESSURE TESTED TO 1600 kPa.
- ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER GROUP REQUIREMENTS.
- ROPE OFF ALL PRESSURE SEWER UNITS & FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.
- PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER GROUP REQUIREMENTS.
- WORK-AS-CO-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER GROUP Q.A. SUBMISSION CHECKLIST.

RECYCLED WATER NOTES

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER GROUP SUPPLEMENTARY MANUAL TO W.S.A.A. & WSA 03-2011-3.1 (SYDNEY WATER WATER EDITION - 2014).
- POTABLE WATER SHALL BE UTILISED FOR FIRE FIGHTING PURPOSES.
- ALL EQUIPMENT, MATERIALS & ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW, SHALL CONFORM WITH THE APPROPRIATE CURRENT AUSTRALIAN STANDARDS & SHALL COMPLY WITH ALTOGETHER GROUP REQUIREMENTS.
- ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH & SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS & LOCATIONS EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- THE CONSTRUCTOR SHALL VERIFY WITH THE SITE SURVEYOR THE POSITION & LEVEL OF ALL EXISTING & PROPOSED BOUNDARIES PERTINENT TO THE INFRASTRUCTURE INSTALLATIONS.
- MAINS TO BE LAID GENERALLY AS INDICATED IN SERVICE ALLOCATION DIAGRAMS. INSTRUCTION NOTES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE PROVIDED. 600mm HORIZONTAL CLEARANCE TO BE MAINTAINED BETWEEN ALL SEWER & WATER MAINS. MINIMUM PIPE COVER SHALL BE 600mm IN FOOTWAYS (TYPE B EMBEDMENT: WAT-1202-VI) & FOR ROADWAYS (TYPE L EMBEDMENT: WAT-1204-VI). MAXIMUM PIPE COVER SHALL GENERALLY BE 15m. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 15m, BUT IS LESS THAN 25m, THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL RECYCLED WATER & PRESSURE SEWER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- ALL RECYCLED WATER MAINS SHALL BE LILAC mPVC (PN16). DIFFERENTIATION OF POTABLE & RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS WATERMAINS. RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER & RECYCLED WATER MAINS SHALL BE PROVIDED.
- MAXIMUM JOINT DEFLECTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- LOCALLY LOWER PIPEWORK IN VICINITY OF STOP VALVES TO ENSURE SUFFICIENT COVER IS MAINTAINED OVER VALVES. LOWERING OF PIPEWORK SHALL ACHIEVED OVER A NUMBER OF PIPE LENGTHS EITHER SIDE OF VALVES TO ELIMINATE ANY SHARP DEFLECTIONS.
- ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION PS-350, 368 & 369. GEOTECHNICAL CONDITIONS SHOULD BE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH THE ALTOGETHER GROUP REPRESENTATIVE TO DETERMINE THE NEED TO MODIFY EMBEDMENT/TRENCHFILL TYPE & THE ROAD FOR TRENCH DRAINAGE/BULKHEADS.
- DURING CONSTRUCTION, ALL OPEN ENDS OF PIPES SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- HYDRANTS, STOP VALVES & ALL OTHER FITTINGS SHALL BE THE SAME SIZE AS THROUGH WATER MAIN & ANTICLOCKWISE CLOSING.
- HYDRANTS MUST NOT BE INSTALLED IN POTENTIAL DRIVEWAY LOCATIONS. HYDRANTS & WATER SERVICES SHALL BE NOMINALLY AT LEAST 5m FROM EACH BOUNDARY OR ON BOUNDARIES. WHERE POSSIBLE, FITTINGS SHALL BE LOCATED BEHIND KERB INLET PITS.
- THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH WAT-1205.
- ALL PROPERTY (MAIN TO METER) SERVICE CONNECTIONS SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE ALTOGETHER GROUP REQUIREMENTS. REFER TO ALTOGETHER GROUP WEBSITE FOR CURRENT VERSIONS.
SINGLE SERVICE https://information.altogethergroup.com.au/governance/Land_Housing/WAT-1854-FS.pdf
DUAL SERVICE https://information.altogethergroup.com.au/governance/Land_Housing/WAT-1855-FS.pdf
- PROPERTY SERVICE CONNECTIONS SHALL BE FLUSHED & LOCKED (BY THE ALTOGETHER GROUP REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE TESTING.
- SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ie ROADWAYS, PATHS etc) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION - 2014).
- ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- WATER QUALITY TESTING SHALL BE IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION - 2014. CLAUSE 19.7).
- THE CONSTRUCTOR SHALL PROVIDE ALTOGETHER GROUP WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED & CONFIRMATION IS PROVIDED BY THE ALTOGETHER GROUP REPRESENTATIVE.
- UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORK.
- PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED & APPROVAL FOR BACKFILLING GIVEN BY THE ALTOGETHER GROUP REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CO-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.
- THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE WATER SUPPLY CODE OF AUSTRALIA ARE:
TRAFFICABLE:
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / CROSSING (17 Tests)
NON-TRAFFICABLE:
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / 100m (35 Tests)

TESTING SHALL BE IN ACCORDANCE WITH TABLE 16.1 & 17.1 OF THE WATER SUPPLY CODE OF AUSTRALIA
- SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER GROUP REQUIREMENTS.
- PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER GROUP REQUIREMENTS.
- WORK-AS-CO-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER GROUP Q.A. SUBMISSION CHECKLIST.

ALTOGETHER GROUP STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS:

<https://askus.altogethergroup.com.au/hc/en-us/articles/900004827263-Standard-drawings-for-land-developers->

WORK-AS-CO-CONSTRUCTED

GENERAL NOTES

- THIS DRAWING SET SHALL BE READ IN CONJUNCTION WITH THE HILLS SHIRE COUNCIL STANDARDS, ALTOGETHER GROUP SUPPLEMENTARY MANUAL TO W.S.A.A. & OTHER ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS.
- ALL PRESSURE SEWER LATERALS & RECYCLED WATER PROPERTY SERVICE CONNECTIONS CROSSING CARRIAGEWAYS SHALL BE INSTALLED WITHIN INDIVIDUAL SERVICE CONDUITS.
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS AND SHALL REPAIR ANY DAMAGE CAUSED TO SUCH SERVICES DURING THE COURSE OF WORKS. ANY SERVICE LOCATIONS ON THE FOLLOWING DRAWINGS ARE INDICATIVE ONLY.
- MAKE SMOOTH TRANSITION TO EXISTING WORKS (i.e. ROAD PAVEMENTS AND FOOTPATHS TO P.C.A. AND SUPERINTENDENTS REQUIREMENTS).
- SUITABLE PROTECTION OF EXISTING ROAD PAVEMENT, KERB AND GUTTER, FOOTPATHS AND ANY EXISTING FEATURES SHALL BE PROVIDED UNTIL THE CONSTRUCTION WORKS ARE COMPLETED.

CLEARANCES BETWEEN PIPELINES & UNDERGROUND SERVICES

Utility (Existing or proposed service)	Minimum horizontal clearance mm		Minimum vertical clearance ¹ mm
	New main size		
	<DN200	>DN200	
Water mains ¹ > DN375	600	600	300
Water mains ¹ < DN375	300*	600	150
Gas mains	300*	600	150
Telecommunication conduits and cables	300*	600	150
Electricity conduits and cables	500	1000	225*
Stormwater drains	300*	600	150*
Sewers - gravity	1000*/ 600	1000*/ 600	500*
Sewers - pressure and vacuum	600	600	300*
Kerbs	150	600*	150 (where possible)

- NOTES:
- Vertical clearances apply where pipelines cross other utility services, except in the case of water/sewer mains when a vertical separation shall always be maintained, even when the pressure sewer and water main are parallel. The pressure sewer should always be located below the water main to minimise the possibility of backflow contamination in the event of a pressure main break.
 - Water mains includes mains supplying both potable and recycled water.
 - For areas with existing water reticulation, clearances can be further reduced to 600mm with the approval of the water authority.
 - Clearances can be further reduced to 150mm for distances up to 2m when passing installations such as poles, pits, and small structures, providing the structures is not destabilised in the process.
 - Clearances from kerbs shall be measured from the nearest point of the kerb. For water/sewer <DN375, clearances from kerbs can be progressively reduced until the minimum of 150mm is reached for water/sewer <DN200.
 - Where a parallel sewer is of minimum vertical clearance (lower than the water main (500mm), maintain a minimum horizontal of 1000mm. This minimum clearance can be progressively reduced to 600mm as the vertical clearance is increased to 750mm.
 - For pressure sewer laterals, minimum vertical clearances may be reduced to 150mm providing there is no joint in the lateral within 500mm of either side of the service being crossed.
 - An additional clearance from high voltage electrical installations should be maintained above the conduits or cables to allow for a protective barrier and marking to be provided.
 - Water mains should always cross over sewers and stormwater drains. For cases where this is not alternative and the main must cross under the sewer, the design shall nominate an appropriate protection treatment (joint-free in the vicinity of the sewer).

* SHOULD THE RECOMMENDED CLEARANCES NOT BE ACHIEVED, NOTIFICATION SHALL BE CONVEYED TO THE ALTOGETHER GROUP REPRESENTATIVE IN WRITING.

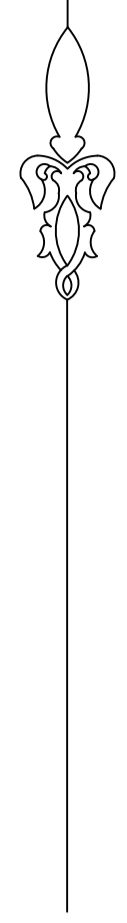
RECYCLED WATER PIPE SCHEDULE

SIZE	TYPE	CLASS	LENGTH
DN200	m.P.V.C.	PN16	964.5
DN150	m.P.V.C.	PN16	911.1
DN100	m.P.V.C.	PN16	1,817.7
		TOTAL	3,693.3

PRESSURE SEWER PIPE SCHEDULE

SIZE	TYPE	CLASS	LENGTH
DN160	PE100	PN16	256.5
DN110	PE100	PN16	832.2
DN75	PE100	PN16	282.3
DN63	PE100	PN16	586.1
DN50	PE100	PN16	1,506.3
DN40	PE100	PN16	2,159.8
		TOTAL	5,623.2

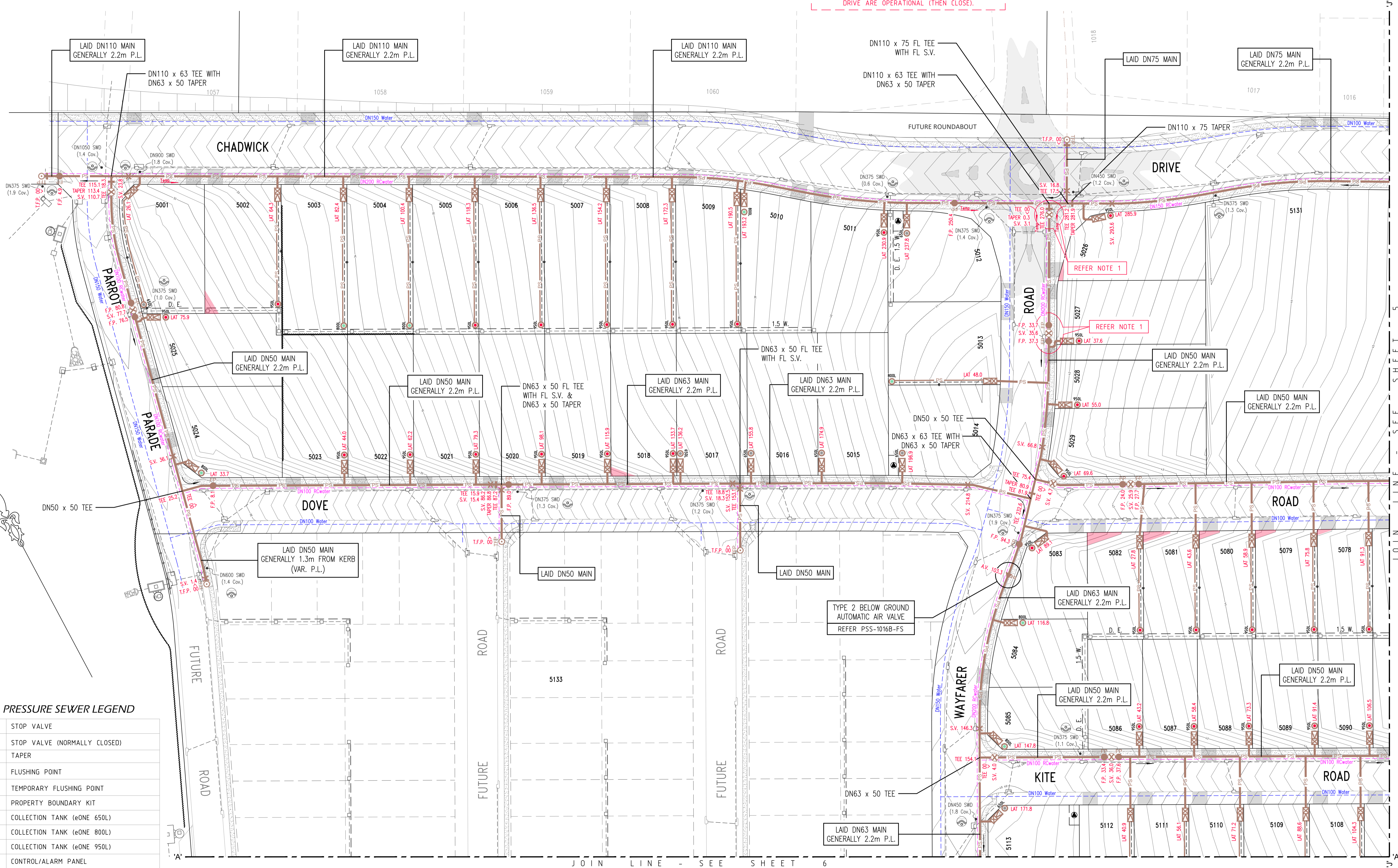
 WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT SHOP 7 & 8 'M CENTRE' 40 STERLING ROAD, MINCHBURY NSW 2770 PH: (02) 9853 0200 FAX: (02) 9671 7399		GENERAL NOTES				SHEET 2 OF 20	VERSION: WAC
		DRAFTED: D.SHEATHER SCALE: -	DESIGNED: D.SHEATHER DATE: -	REVIEWED: K.GAO DATE: -	VERIFIED: K.GAO DATE OF ISSUE: 23/11/2026	4/23645/F1	



Precinct F Development Stages

- Stage 1
- Stage 2

NOTE 1: VALVES SHALL NORMALLY BE CLOSED. VALVES TO BE OPENED TEMPORARILY TO FACILITATE AN INTERIM CHANGE IN FLOW DIRECTION UNTIL DOWNSTREAM MAINS IN CHADWICK DRIVE & FONTANA DRIVE ARE OPERATIONAL (THEN CLOSE).



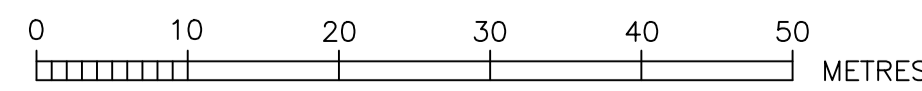
PRESSURE SEWER LEGEND

	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	TAPER
	FLUSHING POINT
	TEMPORARY FLUSHING POINT
	PROPERTY BOUNDARY KIT
	COLLECTION TANK (eONE 650L)
	COLLECTION TANK (eONE 800L)
	COLLECTION TANK (eONE 950L)
	CONTROL/ALARM PANEL
	ELECTRICAL CABLES
	FLOW METER
	AIR VALVE
	PRESSURE MONITORING POINT
	REMOTE MONITORED PRESSURE TRANSDUCER
	VERTICAL DEFLECTION

⊙ DENOTES LAY MAIN UNDER SERVICE
⊙ DENOTES LAY MAIN OVER SERVICE

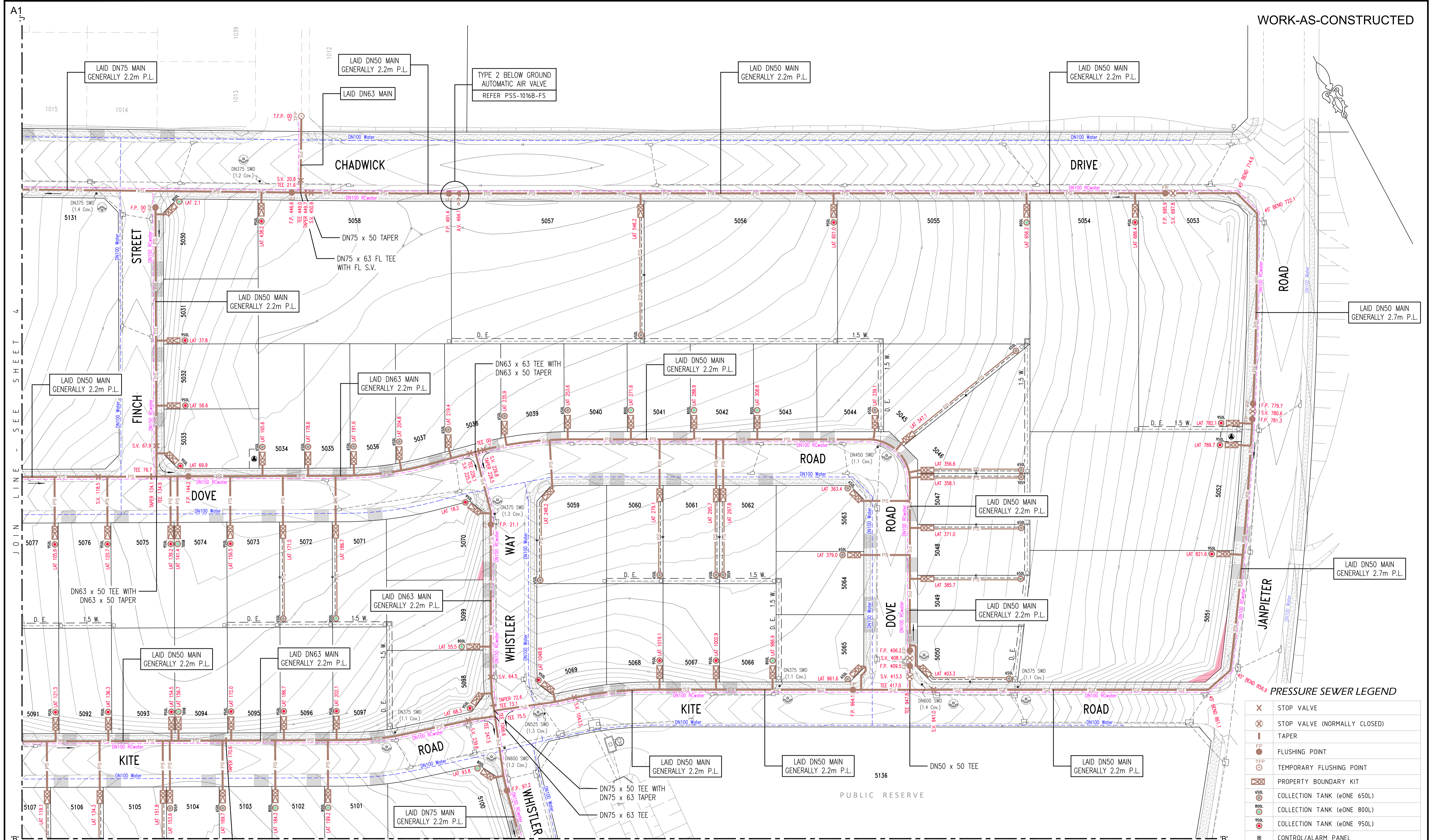
AREAS HATCHED THUS NOT DRAINED.

⊙ DENOTES ESMT FOR PADMOUNT SUBSTATION 2.75 W.



ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
 WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
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 SHOP 7 & 8 'M CENTRE'
 40 STERLING ROAD, MINCHBURY NSW 2770
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PRESSURE SEWER DETAIL PLAN 1				SHEET 4 OF 20		WAC
DESIGNED BY	D.SHEATHER	REVIEWED BY	K.GAO	DATE	23/11/2026	AS No.
SCALE	1:500	DRAWN BY	A.H.D.	DATE OF ISSUE	88 N14-Q15	4/23645/F1



JOIN LINE - SEE SHEET 4

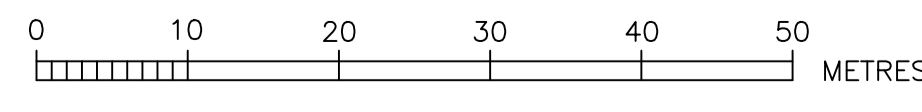
JOIN LINE - SEE SHEET 7

PRESSURE SEWER LEGEND

⊗	STOP VALVE
⊗	STOP VALVE (NORMALLY CLOSED)
⊏	TAPER
FP	FLUSHING POINT
TFP	TEMPORARY FLUSHING POINT
⊗	PROPERTY BOUNDARY KIT
⊗	COLLECTION TANK (eONE 650L)
⊗	COLLECTION TANK (eONE 800L)
⊗	COLLECTION TANK (eONE 950L)
⊗	CONTROL/ALARM PANEL
—	ELECTRICAL CABLES
⊏	FLOW METER
⊏	AIR VALVE
⊗	PRESSURE MONITORING POINT
⊗	REMOTE MONITORED PRESSURE TRANSDUCER
⊏	VERTICAL DEFLECTION

AREAS HATCHED THUS NOT DRAINED.

⊗ DENOTES ESMT FOR PADMOUNT SUBSTATION 2.75 W.

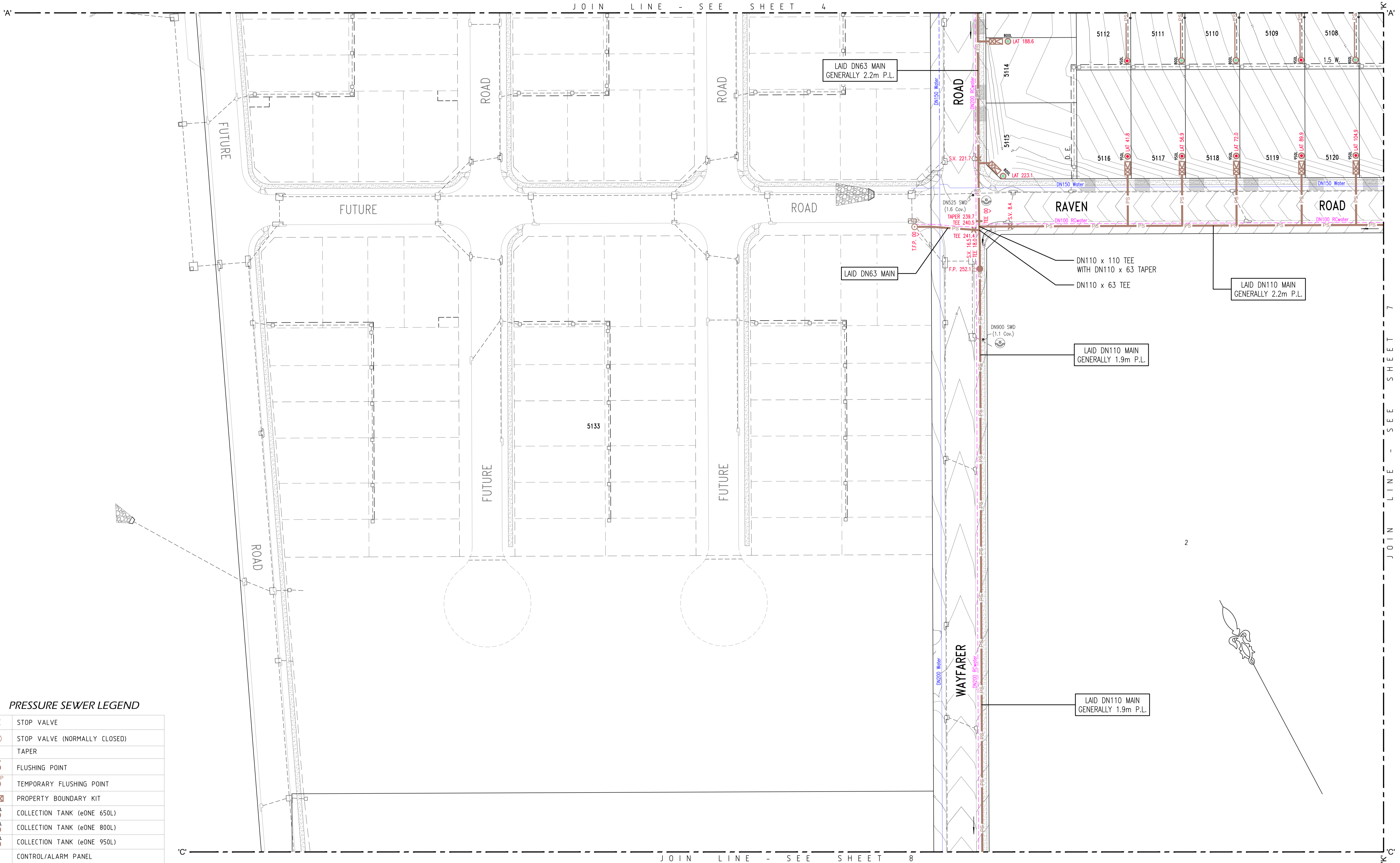


⊗ DENOTES LAY MAIN UNDER SERVICE
 ⊗ DENOTES LAY MAIN OVER SERVICE

ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
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PRESSURE SEWER DETAIL PLAN 2				SHEET 5 OF 20	WAC
DESIGNED BY	D.SHEATHER	REVIEWED BY	K.GAO	DATE	23/1/2026
DRAWN BY	D.SHEATHER	CHECKED BY	K.GAO	DATE	23/1/2026
SCALE	1:500	A.H.D.	88 N14-Q15	DATE OF ISSUE	23/1/2026
JOB NO.					4/23645/F1

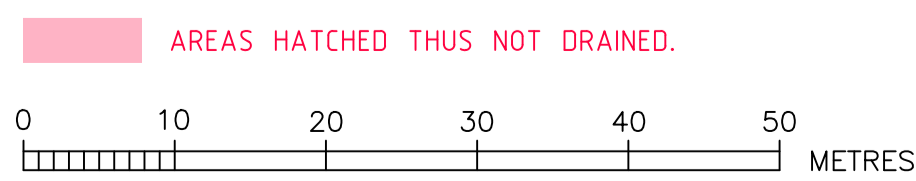
JOIN LINE - SEE SHEET 4



PRESSURE SEWER LEGEND

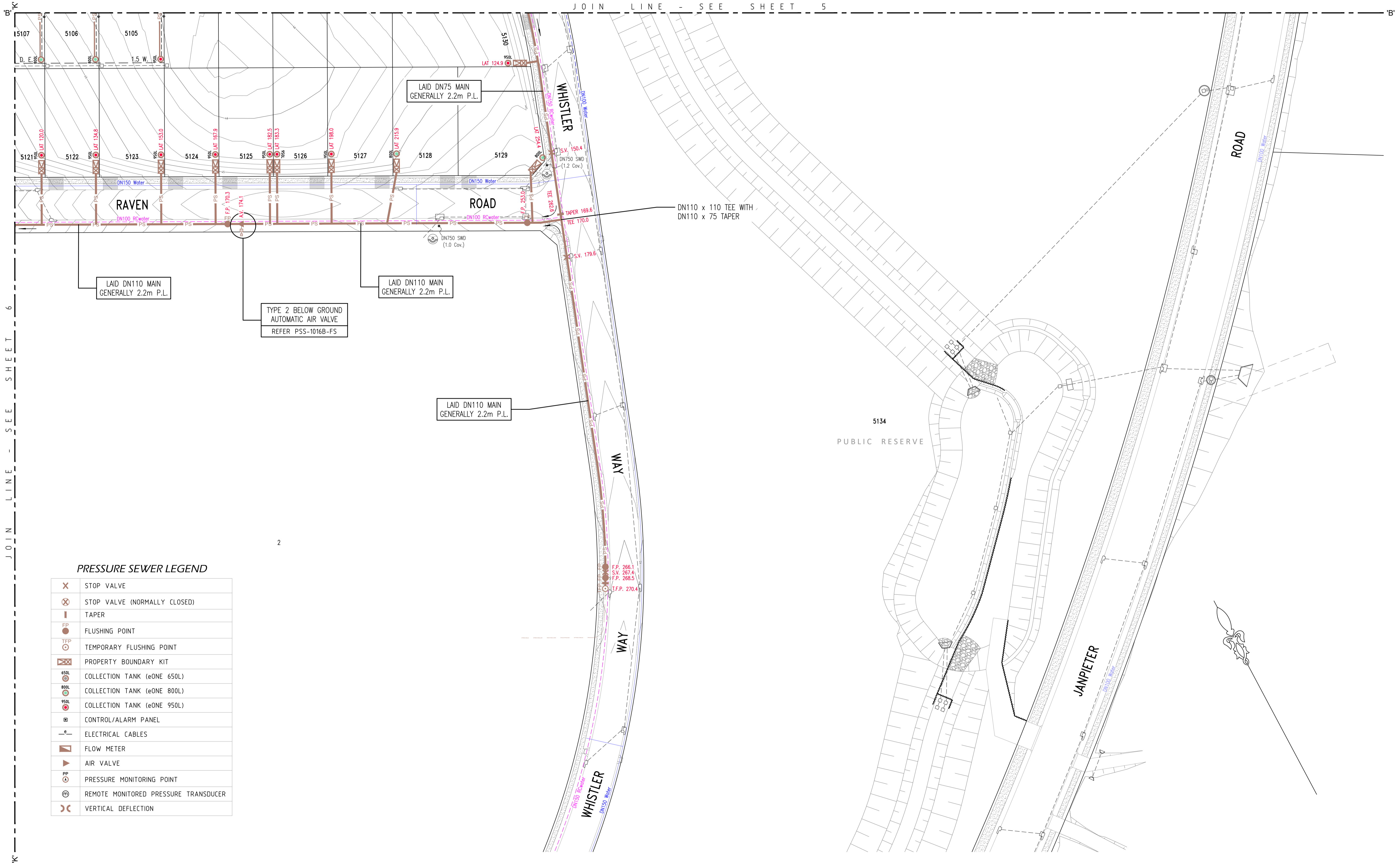
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	TAPER
	FLUSHING POINT
	TEMPORARY FLUSHING POINT
	PROPERTY BOUNDARY KIT
	COLLECTION TANK (eONE 650L)
	COLLECTION TANK (eONE 800L)
	COLLECTION TANK (eONE 950L)
	CONTROL/ALARM PANEL
	ELECTRICAL CABLES
	FLOW METER
	AIR VALVE
	PRESSURE MONITORING POINT
	REMOTE MONITORED PRESSURE TRANSDUCER
	VERTICAL DEFLECTION

DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE



ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd. WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT SHOP 7 & 8 'M CENTRE' 40 STERLING ROAD, MINCHBURY NSW 2770 PH: (02) 9853 0200 FAX: (02) 9671 7399		PRESSURE SEWER DETAIL PLAN 3 DRAWN: D.SHEATHER DESIGNED: D.SHEATHER REVIEWED: K.GAO VERIFIED: K.GAO SCALE: 1:500 DATE: A.H.D. H.A. REFERENCE: 88 N14-Q15 DATE OF ISSUE: 23/1/2026		SHEET 6 OF 20 WAC 4/23645/F1
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JOIN LINE - SEE SHEET 5



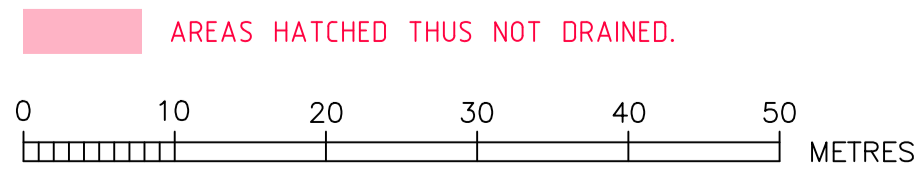
PRESSURE SEWER LEGEND

	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	TAPER
	FLUSHING POINT
	TEMPORARY FLUSHING POINT
	PROPERTY BOUNDARY KIT
	COLLECTION TANK (eONE 650L)
	COLLECTION TANK (eONE 800L)
	COLLECTION TANK (eONE 950L)
	CONTROL/ALARM PANEL
	ELECTRICAL CABLES
	FLOW METER
	AIR VALVE
	PRESSURE MONITORING POINT
	REMOTE MONITORED PRESSURE TRANSDUCER
	VERTICAL DEFLECTION

2

JOIN LINE - SEE SHEET 6

DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE

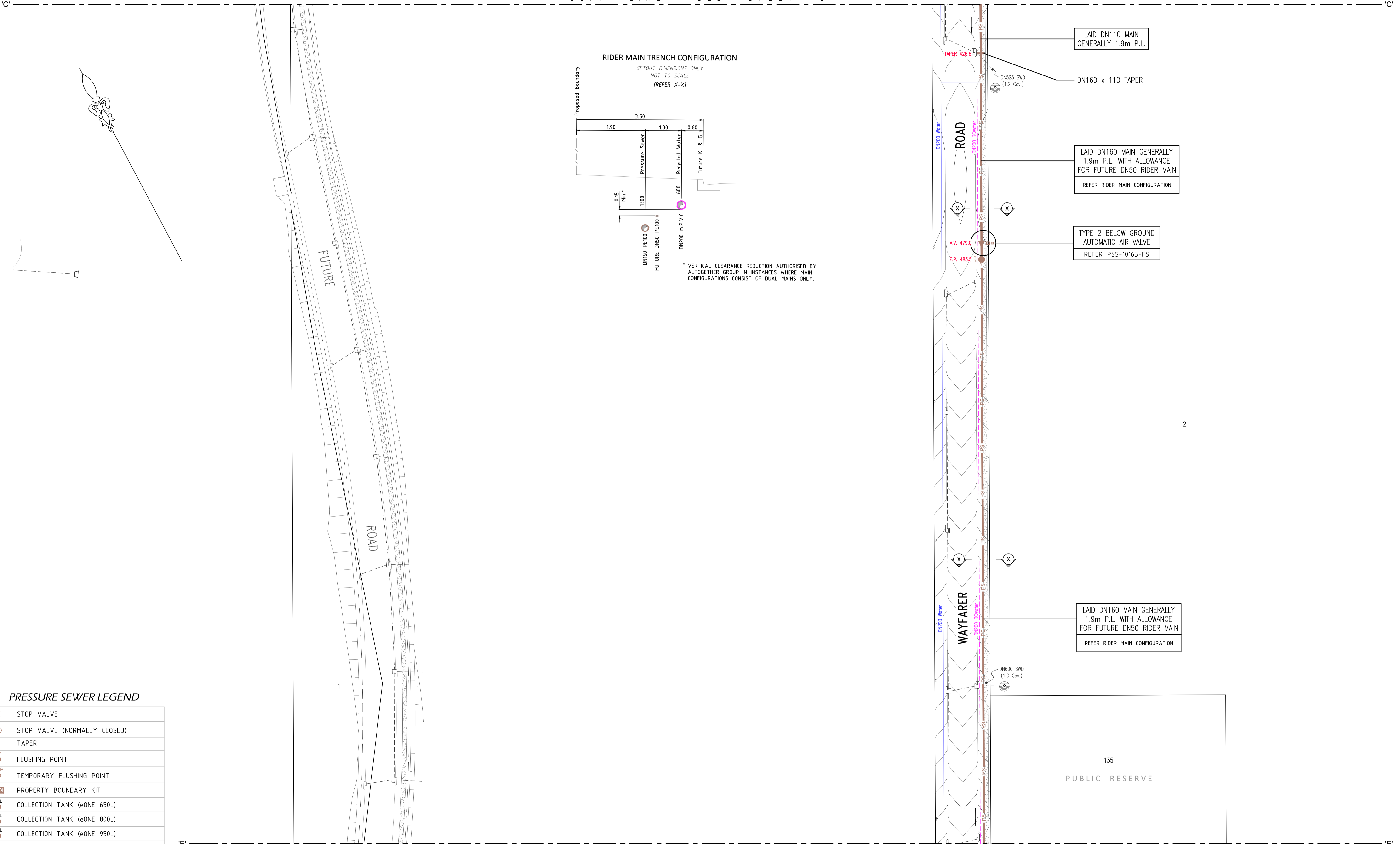
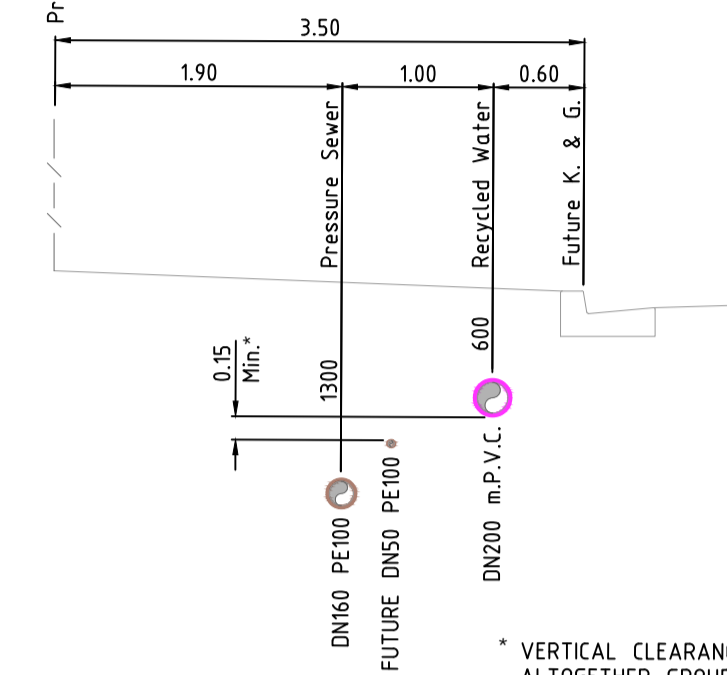


ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd. WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT SHOP 7 & 8 'M CENTRE' 40 STERLING ROAD, MINCHBURY NSW 2770 PH: (02) 9853 0200 FAX: (02) 9671 7399	PRESSURE SEWER DETAIL PLAN 4				SHEET 7 OF 20	WAC
	DRAWN: D.SHEATHER SCALE: 1:500	DESIGNED: D.SHEATHER DATE: A.H.D.	REVIEWED: K.GAO REFERENCE: 88 N14-Q15	VERIFIED: K.GAO DATE OF ISSUE: 23/1/2026	JOB NO. 4/23645/F1	VERSION

JOIN LINE - SEE SHEET 6

RIDER MAIN TRENCH CONFIGURATION

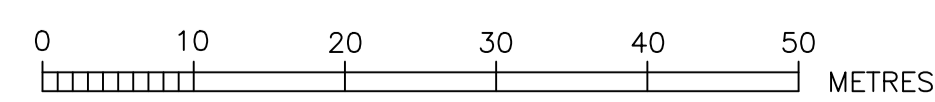
SETOUT DIMENSIONS ONLY
NOT TO SCALE
(REFER X-X)



PRESSURE SEWER LEGEND

	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	TAPER
	FLUSHING POINT
	TEMPORARY FLUSHING POINT
	PROPERTY BOUNDARY KIT
	COLLECTION TANK (eONE 650L)
	COLLECTION TANK (eONE 800L)
	COLLECTION TANK (eONE 950L)
	CONTROL/ALARM PANEL
	ELECTRICAL CABLES
	FLOW METER
	AIR VALVE
	PRESSURE MONITORING POINT
	REMOTE MONITORED PRESSURE TRANSDUCER
	VERTICAL DEFLECTION

DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE



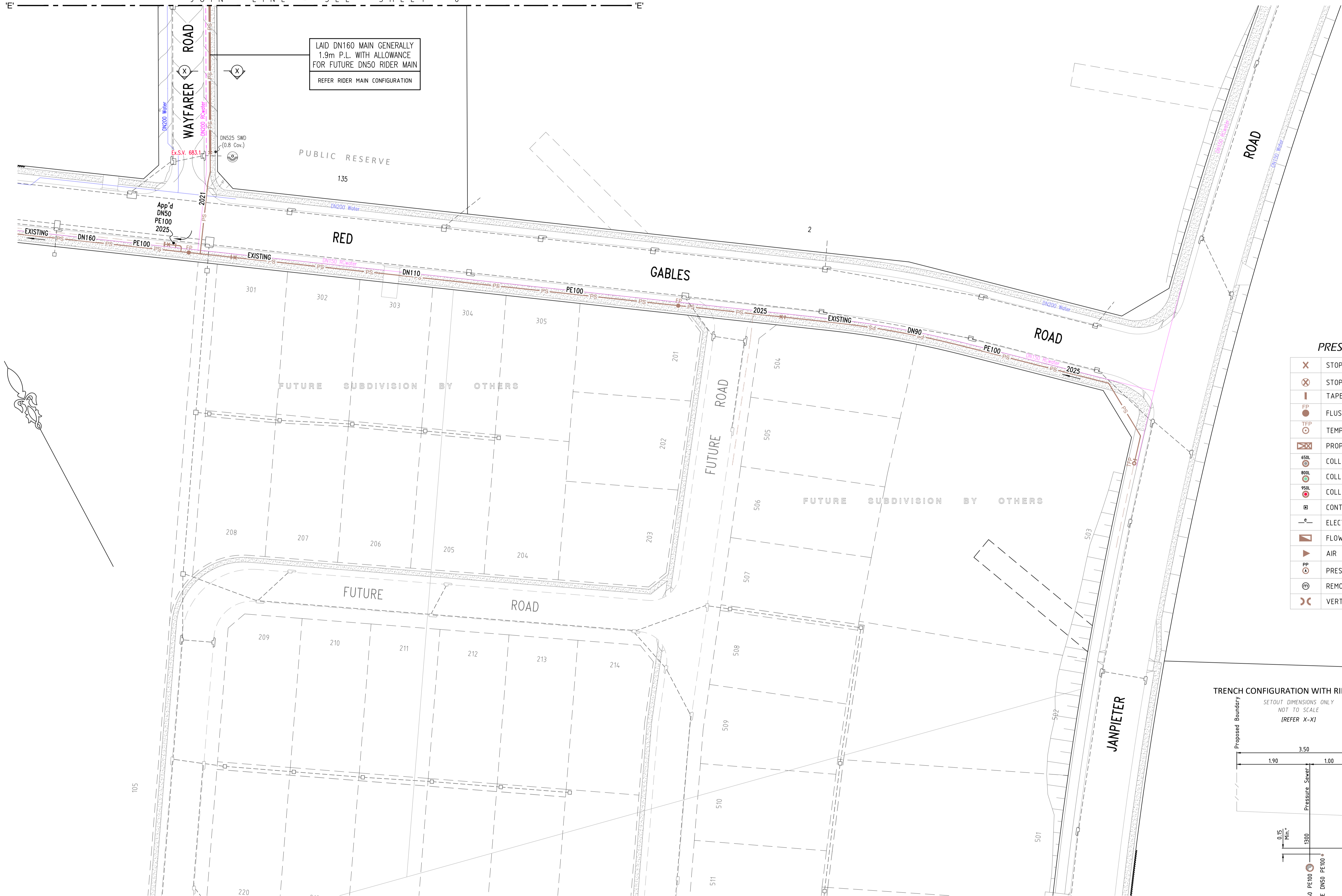
ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.

 WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
 SHOP 7 & 8 'M CENTRE'
 40 STERLING ROAD, MINCHINBURY NSW 2770
 PH: (02) 9853 0200 FAX: (02) 9671 7399

PRESSURE SEWER DETAIL PLAN 5				SHEET 8 OF 20	VERSION: WAC
DRAWN: D.SHEATHER	DESIGNED: D.SHEATHER	REVISED: K.GAO	VERIFIED: K.GAO	JOB No. 4/23645/F1	
SCALE: 1:500	DATUM: A.H.D.	DRAWN REFERENCE: 88 N14-Q15	DATE OF ISSUE: 23/1/2026		

JOIN LINE - SEE SHEET 8

LAI'D DN160 MAIN GENERALLY
1.9m P.L. WITH ALLOWANCE
FOR FUTURE DN50 RIDER MAIN
REFER RIDER MAIN CONFIGURATION

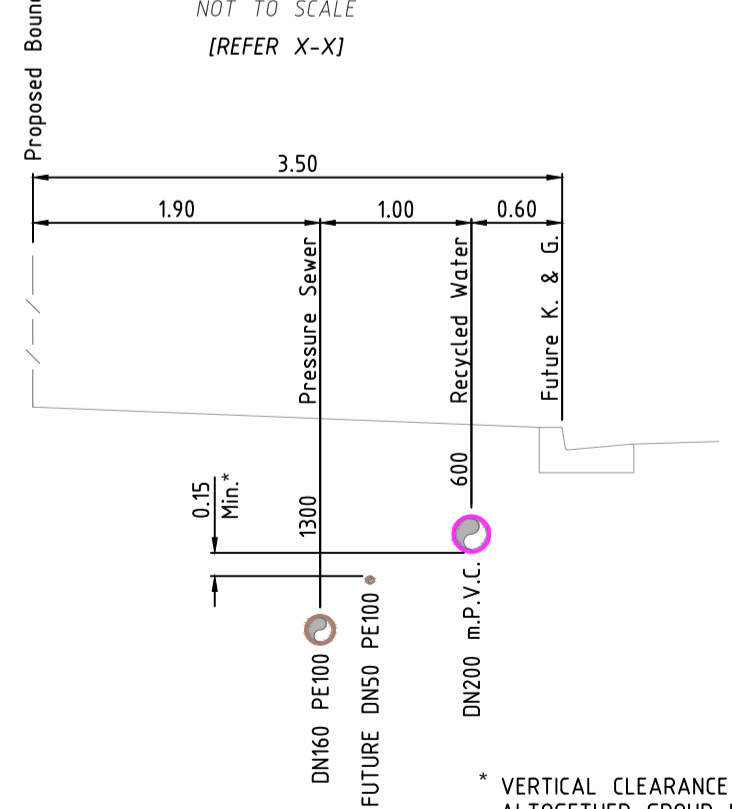


PRESSURE SEWER LEGEND

X	STOP VALVE
⊗	STOP VALVE (NORMALLY CLOSED)
	TAPER
●	FLUSHING POINT
○	TEMPORARY FLUSHING POINT
⊠	PROPERTY BOUNDARY KIT
⊙	COLLECTION TANK (eONE 650L)
⊙	COLLECTION TANK (eONE 800L)
⊙	COLLECTION TANK (eONE 950L)
⊠	CONTROL/ALARM PANEL
—	ELECTRICAL CABLES
▭	FLOW METER
▲	AIR VALVE
⊙	PRESSURE MONITORING POINT
⊙	REMOTE MONITORED PRESSURE TRANSDUCER
⌒	VERTICAL DEFLECTION

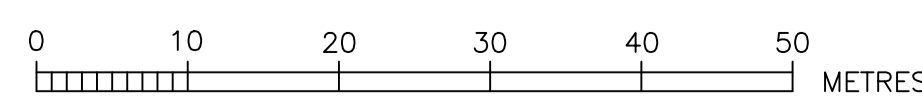
TRENCH CONFIGURATION WITH RIDER MAINS

SETOUT DIMENSIONS ONLY
NOT TO SCALE
(REFER X-X)



* VERTICAL CLEARANCE REDUCTION AUTHORISED BY
ALTOGETHER GROUP IN INSTANCES WHERE MAIN
CONFIGURATIONS CONSIST OF DUAL MAINS ONLY.

⊙ DENOTES LAY MAIN UNDER SERVICE
⊙ DENOTES LAY MAIN OVER SERVICE

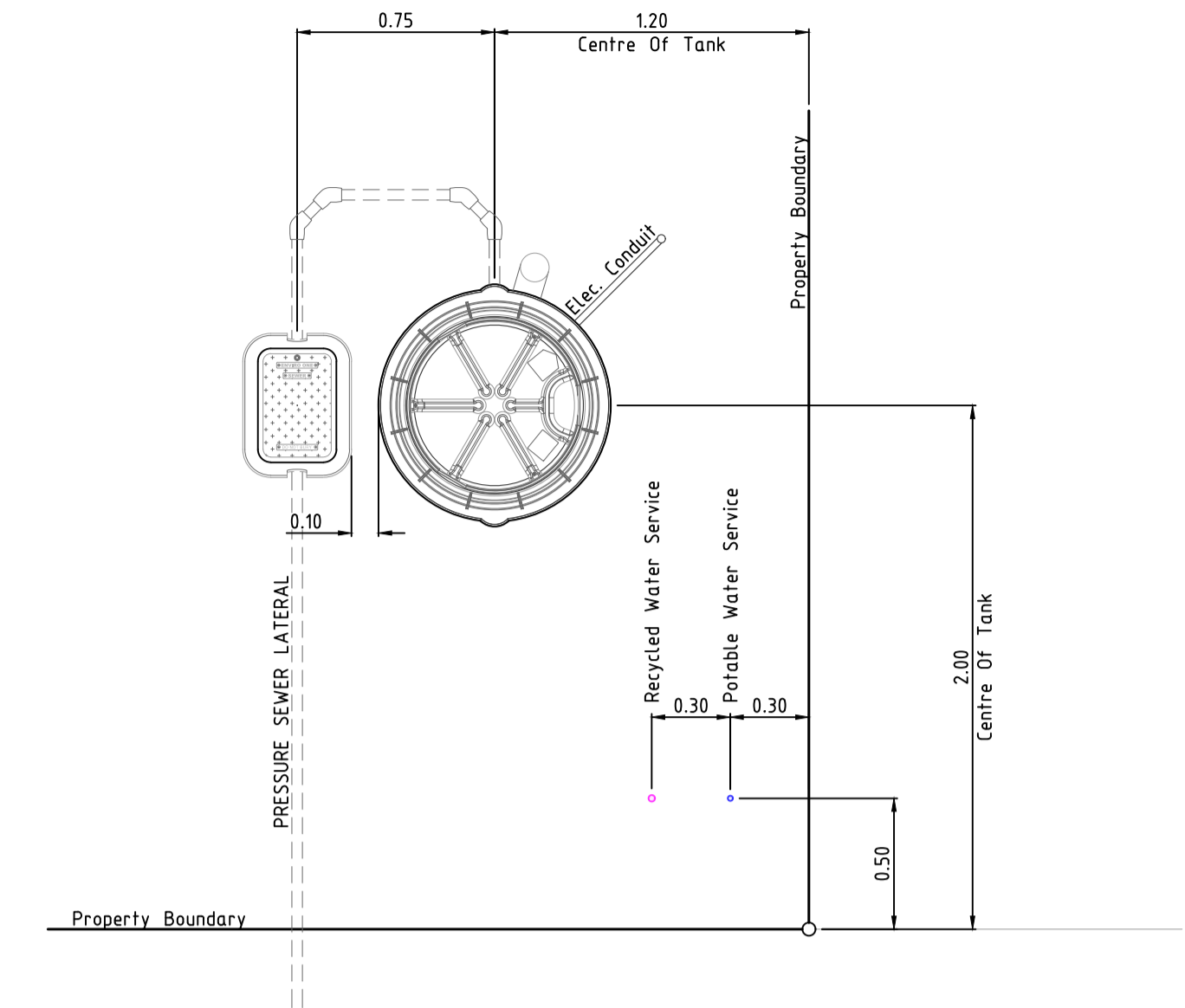


ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
RAR WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
 SHOP 7 & 8 'M CENTRE'
 40 STERLING ROAD, MINCHINBURY NSW 2770
 PH: (02) 9853 0200 FAX: (02) 9671 7399



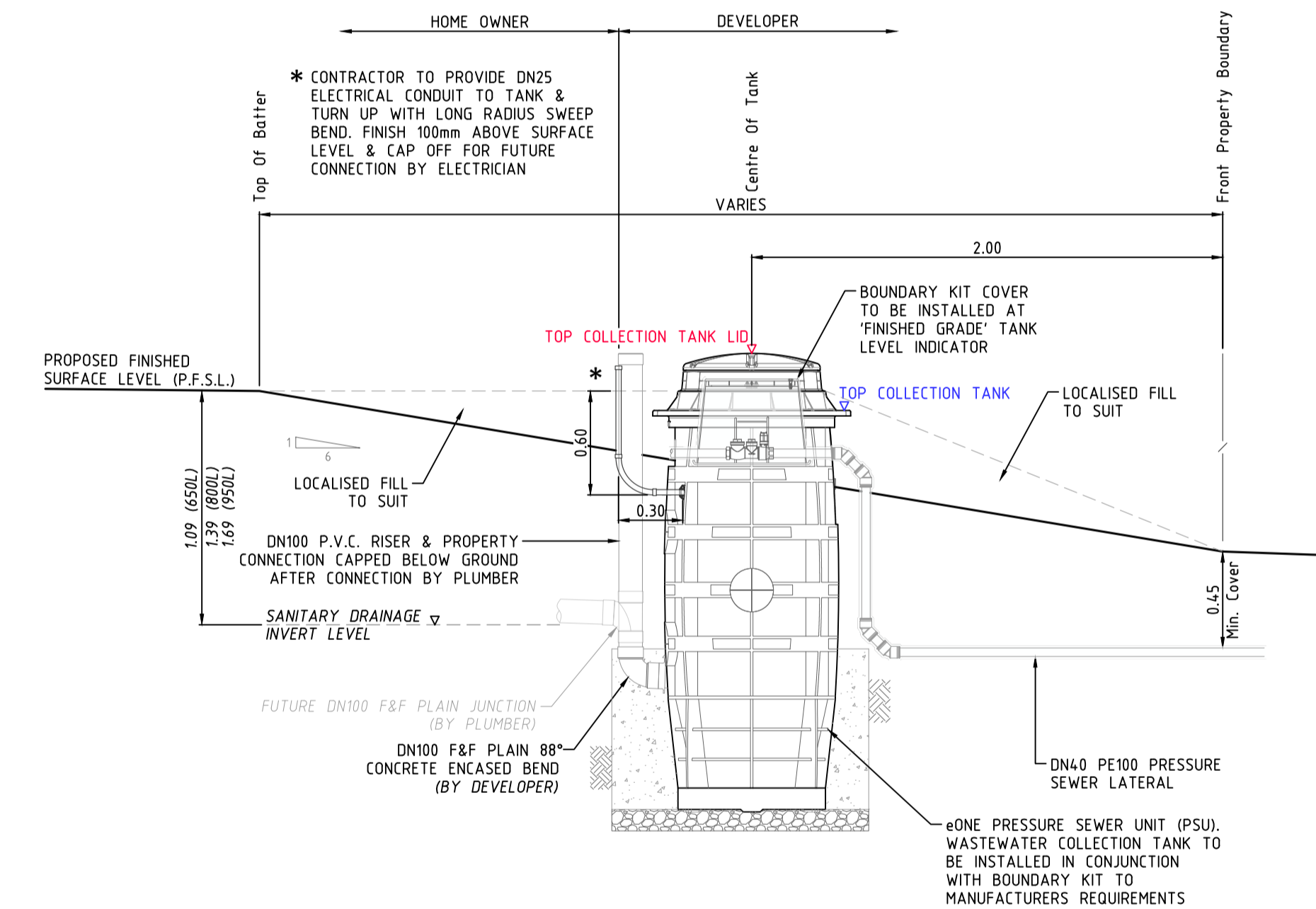
PRESSURE SEWER DETAIL PLAN 6			
DRAWN	DESIGNED	REVIEWED	VERIFIED
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO
SCALE	DRAWN	DATE	DATE OF ISSUE
1:500	A.H.D.	88 N14-Q15	23/1/2026

SHEET 9 OF 20	VERSION: WAC
JOB No. 4/23645/F1	



TYPICAL INFRASTRUCTURE SETOUT DIMENSIONS

SCALE 1:25



COLLECTION TANK SECTIONAL ELEVATION

SCALE 1:25

COLLECTION TANK NOTES

- DESIGN SURFACE LEVELS WERE ELECTRONICALLY EXTRACTED FROM DIGITAL DATA SUPPLIED BY ENSPIRE DATED 20/12/23 (231204-TheGablesPrecinctFOverall-DesignTIN.12da).
- DESIGN LEVELS CAN ONLY BE ASSUMED AS CURRENT AT TIME OF EXTRACTION. ALL LEVELS SHALL BE CONFIRMED WITH THE SITE SUPERINTENDENT PRIOR TO INSTALLATION OF TANKS. SHOULD THE PROPOSED FINISHED SURFACE LEVEL (P.F.S.L.) DIFFER FROM DESIGN BY MORE THAN 100mm, THE CONSTRUCTOR SHALL CONTACT THE DESIGNER IMMEDIATELY.
- COLLECTION TANK SETOUT SHALL BE COMPLIANT WITH *FSI-1000-FS* & *FSI-SK03A-FS*. COLLECTION TANK INSTALLATION LEVELS DOCUMENTED ADJACENT SHALL SUPERSEDE ANY LEVELS ADVISED ON DRAWING *FSI-SK03A-FS*.
- R.A.R. ACCEPT NO RESPONSIBILITY FOR INCONSISTENCIES IN EXTRACTED LEVELS RESULTING FROM CHANGES TO THE MODEL (SURFACE LEVEL) INFORMATION POST DATA EXTRACTION DATE.

PRESSURE SEWER COLLECTION TANK LEVEL DETAILS								
THE GABLES DEVELOPMENT - PRECINCT F [STAGE 1]								
LOT NUMBER	COLLECTION TANK LOCATION [FRONT / REAR]	TANK SIZE [650L / 800L / 950L]	PFSL AT TANK LOCATION	TOP OF COLLECTION TANK [Design R.L.]	DESIGN SANITARY DRAINAGE INVERT LEVEL [Design R.L.]	TOP OF COLLECTION TANK LID * [Work-As-Constructed]	CALCULATED SANITARY DRAINAGE INVERT LEVEL [Work-As-Constructed]	WAC v's DESIGN INVERT LEVEL COMPARISON [- LOWER / + HIGHER]
5001	REAR	650L	30.35	30.31	29.31	30.55	29.28	-0.03
5002	REAR	950L	32.40	32.36	30.76	32.64	30.77	0.01
5003	REAR	800L	33.82	33.78	32.48	34.01	32.44	-0.04
5004	REAR	800L	34.43	34.39	33.09	34.63	33.06	-0.03
5005	REAR	950L	35.21	35.17	33.57	35.41	33.54	-0.03
5006	REAR	950L	36.09	36.05	34.45	36.31	34.44	-0.01
5007	REAR	950L	36.98	36.94	35.34	37.20	35.33	-0.01
5008	REAR	950L	37.90	37.86	36.26	38.09	36.22	-0.04
5009	REAR	950L	38.78	38.74	37.14	39.00	37.13	-0.01
5010	FRONT FLAT	800L	38.84	38.80	37.50	39.19	37.62	0.12
5011	FRONT FLAT	950L	40.18	40.14	38.54	40.39	38.52	-0.02
5012	FRONT FLAT	650L	40.40	40.36	39.36	40.55	39.28	-0.08
5013	REAR	800L	40.90	40.86	39.56	41.15	39.58	0.02
5014	FRONT FLAT	650L	40.69	40.65	39.65	40.89	39.62	-0.03
5015	FRONT FLAT	650L	39.41	39.37	38.37	39.64	38.37	0.00
5016	FRONT FLAT	650L	38.28	38.24	37.24	38.50	37.23	-0.01
5017	FRONT FLAT	650L	37.19	37.15	36.15	37.41	36.14	-0.01
5018	FRONT FLAT	950L	37.07	37.03	35.43	37.26	35.39	-0.04
5019	FRONT BATTER	950L	36.14	36.32	34.72	36.57	34.70	-0.02
5020	FRONT BATTER	950L	35.08	35.26	33.66	35.48	33.61	-0.05
5021	FRONT BATTER	950L	34.02	34.20	32.60	34.42	32.55	-0.05
5022	FRONT BATTER	950L	32.96	33.13	31.53	33.39	31.52	-0.01
5023	FRONT BATTER	950L	31.90	32.07	30.47	32.33	30.46	-0.01
5024	FRONT BATTER	800L	30.00	30.00	28.70	30.28	28.71	0.01
5025	FRONT BATTER	950L	30.48	30.63	29.03	30.86	28.99	-0.04
5026	FRONT FLAT	950L	42.17	42.13	40.53	42.42	40.55	0.02
5027	FRONT BATTER	950L	41.65	41.82	40.22	42.12	40.25	0.03
5028	FRONT BATTER	950L	41.85	42.02	40.42	42.28	40.41	-0.01
5029	FRONT BATTER	950L	41.76	42.10	40.50	42.38	40.51	0.01
5030	FRONT BATTER	800L	46.10	46.16	44.86	46.36	44.79	-0.07
5031	FRONT BATTER	950L	46.50	46.67	45.07	46.93	45.06	-0.01
5032	FRONT BATTER	950L	46.77	46.94	45.34	47.22	45.35	0.01
5033	FRONT BATTER	950L	47.12	47.06	45.46	47.32	45.45	-0.01
5034	FRONT FLAT	650L	47.67	47.63	46.63	47.90	46.63	0.00
5035	FRONT FLAT	650L	47.63	47.59	46.59	47.85	46.58	-0.01
5036	FRONT FLAT	650L	47.47	47.43	46.43	47.72	46.45	0.02
5037	FRONT FLAT	650L	47.26	47.22	46.22	47.51	46.24	0.02
5038	FRONT FLAT	650L	47.04	47.00	46.00	47.31	46.04	0.04
5039	FRONT FLAT	650L	46.81	46.77	45.77	47.04	45.77	0.00
5040	FRONT FLAT	650L	46.57	46.53	45.53	46.78	45.51	-0.02
5041	FRONT FLAT	800L	46.43	46.39	45.09	46.65	45.08	-0.01
5042	FRONT FLAT	800L	46.21	46.17	44.87	46.19	44.62	-0.25
5043	FRONT FLAT	800L	45.94	45.90	44.60	46.06	44.49	-0.11
5044	FRONT FLAT	650L	45.41	45.37	44.37	45.47	44.20	-0.17
5045	REAR	650L	44.71	44.67	43.67	44.95	43.68	0.01
5046	REAR	650L	44.20	44.16	43.16	44.43	43.16	0.00
5047	REAR	650L	44.19	44.15	43.15	44.42	43.15	0.00
5048	REAR	650L	44.14	44.10	43.10	44.37	43.10	0.00
5049	REAR	650L	44.08	44.04	43.04	44.38	43.11	0.07
5050	REAR	650L	44.01	43.97	42.97	44.28	43.01	0.04
5051	FRONT BATTER	950L	41.22	41.21	39.61	41.40	39.53	-0.08
5052	FRONT BATTER	950L	41.45	41.41	39.81	41.64	39.77	-0.04
5053	FRONT BATTER	950L	41.50	41.41	39.81	41.54	39.67	-0.14
5054	FRONT FLAT	950L	43.06	43.02	41.42	43.19	41.32	-0.10
5055	FRONT FLAT	800L	44.63	44.59	43.29	44.70	43.13	-0.16
5056	FRONT FLAT	950L	46.83	46.79	45.19	46.89	45.02	-0.17
5057	REAR	650L	47.02	46.98	45.98	47.23	45.96	-0.02
5058	FRONT FLAT	950L	47.29	47.25	45.65	47.34	45.47	-0.18
5059	REAR	650L	45.48	45.44	44.44	45.67	44.40	-0.04
5060	REAR	650L	45.28	45.24	44.24	45.48	44.21	-0.03
5061	REAR	650L	45.26	45.22	44.22	45.47	44.20	-0.02
5062	REAR	650L	45.26	45.22	44.22	45.48	44.21	-0.01
5063	FRONT FLAT	650L	45.14	45.10	44.10	45.36	44.09	-0.01
5064	FRONT FLAT	650L	44.93	44.89	43.89	45.13	43.86	-0.03
5065	FRONT FLAT	650L	44.77	44.73	43.73	44.84	43.57	-0.16

* COLLECTION TANK LEVEL PROVIDED TO G.P.S. ACCURACY ONLY. THE BUILDER IS REQUIRED TO CONFIRM DRAINAGE CONSTRAINTS PRIOR TO MAKING CONNECTION TO TANK.

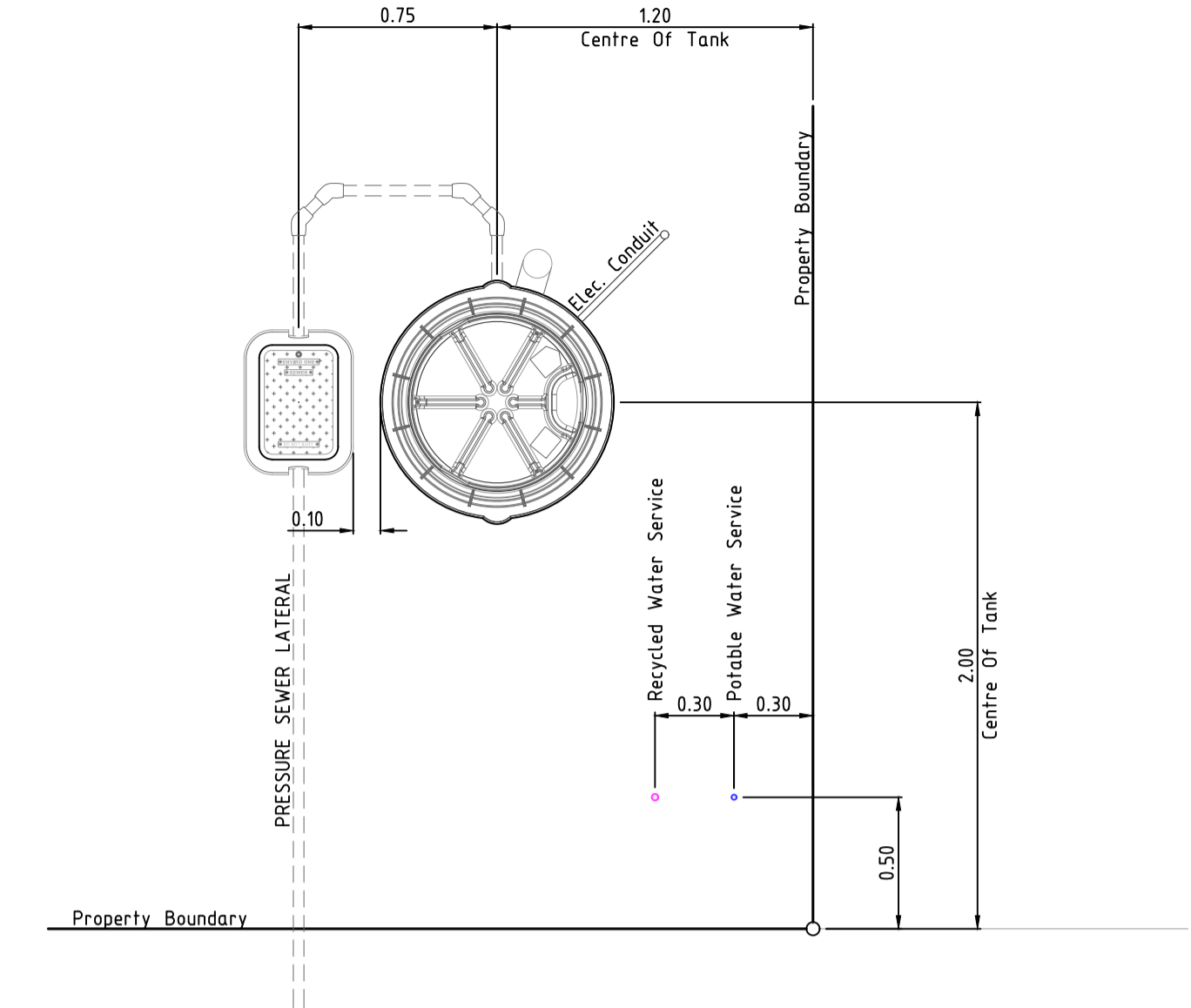
ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.		COLLECTION TANK LEVEL DETAILS 1		SHEET 10 OF 20	WAC
WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT		DESIGNED BY	D.SHEATHER	REVIEWED BY	K.GAO
SHOP 7 & 8 'M CENTRE' 40 STERLING ROAD, MINCHBURY NSW 2770 PH: (02) 9853 0200 FAX: (02) 9671 7399		DATE		DATE OF ISSUE	23/1/2026
Incorporated in New South Wales		SCALE		DATE OF ISSUE	23/1/2026
Quality Endorsed Company		88 N14-Q15		4/23645/F1	

PRESSURE SEWER COLLECTION TANK LEVEL DETAILS

THE GABLES DEVELOPMENT - PRECINCT F [STAGE 1]

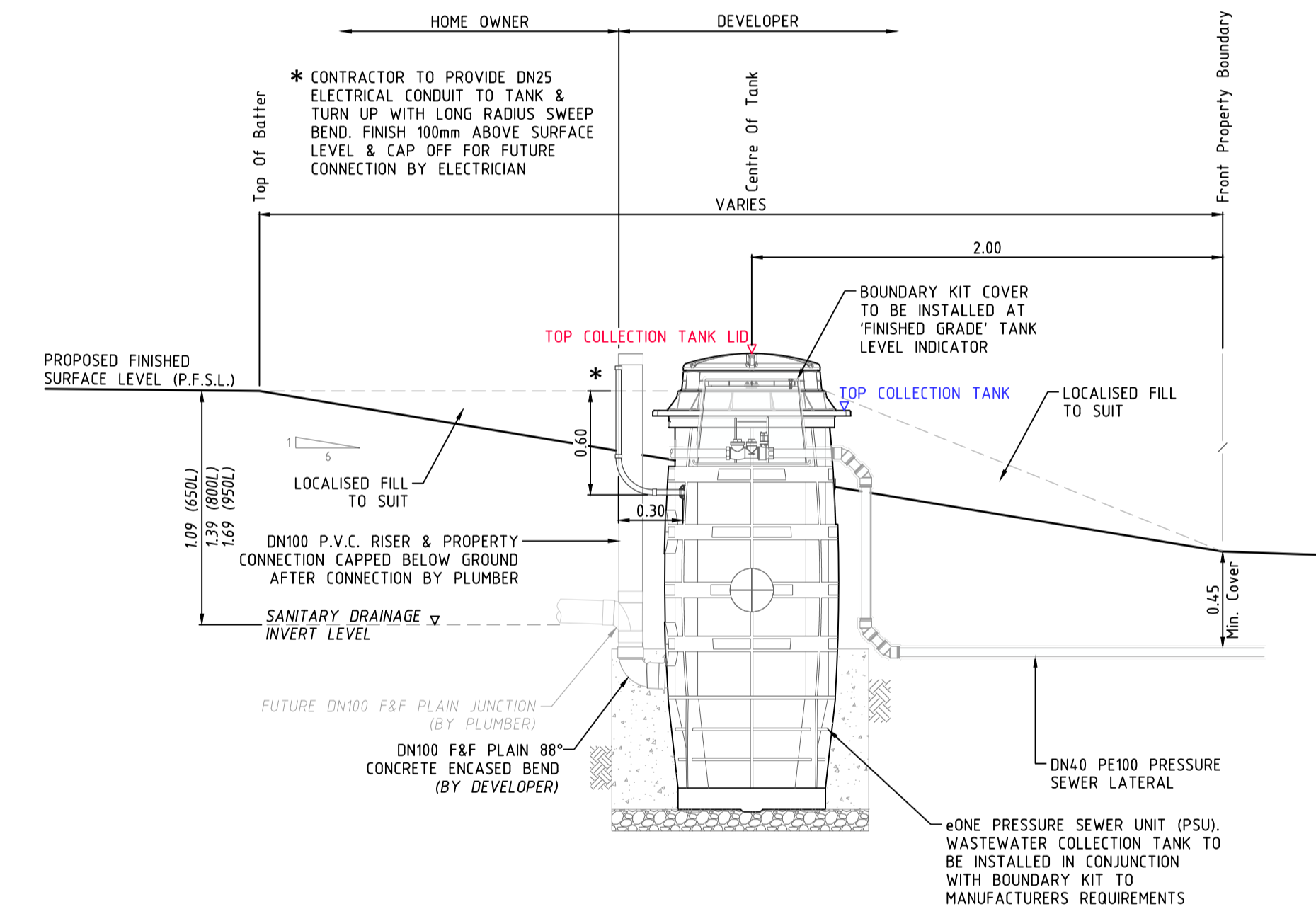
LOT NUMBER	COLLECTION TANK LOCATION [FRONT / REAR]	TANK SIZE [650L / 800L / 950L]	PSFL AT TANK LOCATION	TOP OF COLLECTION TANK [Design R.L.]	DESIGN SANITARY DRAINAGE INVERT LEVEL [Design R.L.]	TOP OF COLLECTION TANK LID * [Work-As-Constructed]	CALCULATED SANITARY DRAINAGE INVERT LEVEL [Work-As-Constructed]	WAC v's DESIGN INVERT LEVEL COMPARISON [- LOWER / + HIGHER]
5066	FRONT FLAT	800L	44.73	44.69	43.39	44.91	43.34	-0.05
5067	FRONT BATTER	950L	44.41	44.59	42.99	44.78	42.91	-0.08
5068	FRONT BATTER	950L	43.93	44.10	42.50	44.25	42.38	-0.12
5069	FRONT BATTER	950L	43.74	43.77	42.17	44.10	42.23	0.06
5070	FRONT BATTER	950L	46.66	46.61	45.01	46.86	44.99	-0.02
5071	REAR	800L	46.77	46.73	45.43	46.93	45.36	-0.07
5072	REAR	650L	47.02	46.98	45.98	47.23	45.96	-0.02
5073	FRONT FLAT	950L	47.61	47.57	45.97	47.79	45.92	-0.05
5074	FRONT FLAT	800L	47.43	47.39	46.09	47.67	46.10	0.01
5075	FRONT FLAT	950L	47.38	47.34	45.74	47.52	45.65	-0.09
5076	FRONT FLAT	950L	46.93	46.89	45.29	47.06	45.19	-0.10
5077	FRONT FLAT	950L	46.41	46.37	44.77	46.51	44.64	-0.13
5078	REAR	950L	45.75	45.71	44.11	45.92	44.05	-0.06
5079	REAR	950L	45.06	45.02	43.42	45.22	43.35	-0.07
5080	REAR	950L	44.27	44.23	42.63	44.52	42.65	0.02
5081	REAR	950L	43.57	43.53	41.93	43.72	41.85	-0.08
5082	REAR	950L	42.86	42.82	41.22	42.86	40.99	-0.23
5083	FRONT FLAT	950L	41.71	41.67	40.07	41.74	39.87	-0.20
5084	FRONT FLAT	800L	41.33	41.29	39.99	41.56	39.99	0.00
5085	FRONT FLAT	800L	40.66	40.62	39.32	40.65	39.08	-0.24
5086	FRONT BATTER	950L	41.93	42.11	40.51	42.19	40.32	-0.19
5087	FRONT BATTER	950L	42.68	42.86	41.26	43.04	41.17	-0.09
5088	FRONT BATTER	950L	43.43	43.61	42.01	43.77	41.90	-0.11
5089	FRONT BATTER	950L	44.33	44.51	42.91	44.66	42.79	-0.12
5090	FRONT BATTER	950L	45.07	45.25	43.65	45.38	43.51	-0.14
5091	FRONT BATTER	950L	45.66	45.83	44.23	45.94	44.07	-0.16
5092	FRONT BATTER	950L	46.05	46.22	44.62	46.37	44.50	-0.12
5093	FRONT BATTER	950L	46.27	46.44	44.84	46.64	44.77	-0.07
5094	FRONT BATTER	800L	46.28	46.45	45.15	46.74	45.17	0.02
5095	FRONT BATTER	950L	46.23	46.40	44.80	46.60	44.73	-0.07
5096	FRONT BATTER	950L	45.99	46.16	44.56	46.47	44.60	0.04
5097	FRONT BATTER	950L	45.56	45.71	44.11	46.04	44.17	0.06
5098	FRONT BATTER	950L	44.24	44.42	42.82	44.72	42.85	0.03
5099	FRONT BATTER	800L	44.89	45.05	43.75	45.33	43.76	0.01
5100	FRONT BATTER	800L	43.72	44.03	42.73	44.29	42.72	-0.01
5101	FRONT FLAT	800L	45.36	45.32	44.02	45.60	44.03	0.01
5102	FRONT FLAT	800L	45.83	45.79	44.49	46.00	44.43	-0.06
5103	FRONT FLAT	650L	46.04	46.00	45.00	46.23	44.96	-0.04
5104	FRONT FLAT	650L	46.03	45.99	44.99	46.24	44.97	-0.02
5105	REAR	950L	45.90	45.86	44.26	46.12	44.25	-0.01
5106	REAR	800L	45.21	45.17	43.87	45.38	43.81	-0.06
5107	REAR	800L	44.62	44.58	43.28	44.81	43.24	-0.04
5108	REAR	800L	44.01	43.97	42.67	44.21	42.64	-0.03
5109	REAR	950L	43.40	43.36	41.76	43.61	41.74	-0.02
5110	REAR	800L	42.65	42.61	41.31	42.89	41.32	0.01
5111	REAR	800L	42.04	42.00	40.70	42.30	40.73	0.03
5112	REAR	950L	41.42	41.38	39.78	41.69	39.82	0.04
5113	FRONT FLAT	650L	40.22	40.18	39.18	40.44	39.17	-0.01
5114	FRONT FLAT	800L	40.22	40.18	38.88	40.27	38.70	-0.18
5115	FRONT BATTER	800L	39.34	39.26	37.96	39.46	37.89	-0.07
5116	FRONT BATTER	950L	40.41	40.51	38.91	40.65	38.78	-0.13
5117	FRONT BATTER	950L	41.01	41.10	39.50	41.27	39.40	-0.10
5118	FRONT BATTER	950L	41.61	41.70	40.10	41.82	39.95	-0.15
5119	FRONT BATTER	950L	42.33	42.43	40.83	42.56	40.69	-0.14
5120	FRONT BATTER	950L	42.93	43.02	41.42	43.13	41.26	-0.16
5121	FRONT BATTER	950L	43.54	43.62	42.02	43.72	41.85	-0.17
5122	FRONT BATTER	950L	44.14	44.23	42.63	44.34	42.47	-0.16
5123	FRONT BATTER	950L	44.75	44.86	43.26	44.95	43.08	-0.18
5124	FRONT BATTER	950L	45.07	45.11	43.51	45.46	43.59	0.08
5125	FRONT BATTER	950L	45.21	45.34	43.74	45.37	43.50	-0.24
5126	FRONT BATTER	950L	45.21	45.35	43.75	45.51	43.64	-0.11
5127	FRONT BATTER	950L	45.14	45.27	43.67	45.49	43.62	-0.05
5128	FRONT FLAT	800L	44.81	44.77	43.47	45.00	43.43	-0.04
5129	FRONT FLAT	800L	44.00	43.96	42.66	44.18	42.61	-0.05
5130	FRONT BATTER	950L	44.10	44.27	42.67	44.56	42.69	0.02

* COLLECTION TANK LEVEL PROVIDED TO G.P.S. ACCURACY ONLY. THE BUILDER IS REQUIRED TO CONFIRM DRAINAGE CONSTRAINTS PRIOR TO MAKING CONNECTION TO TANK.



TYPICAL INFRASTRUCTURE SETOUT DIMENSIONS

SCALE 1:25

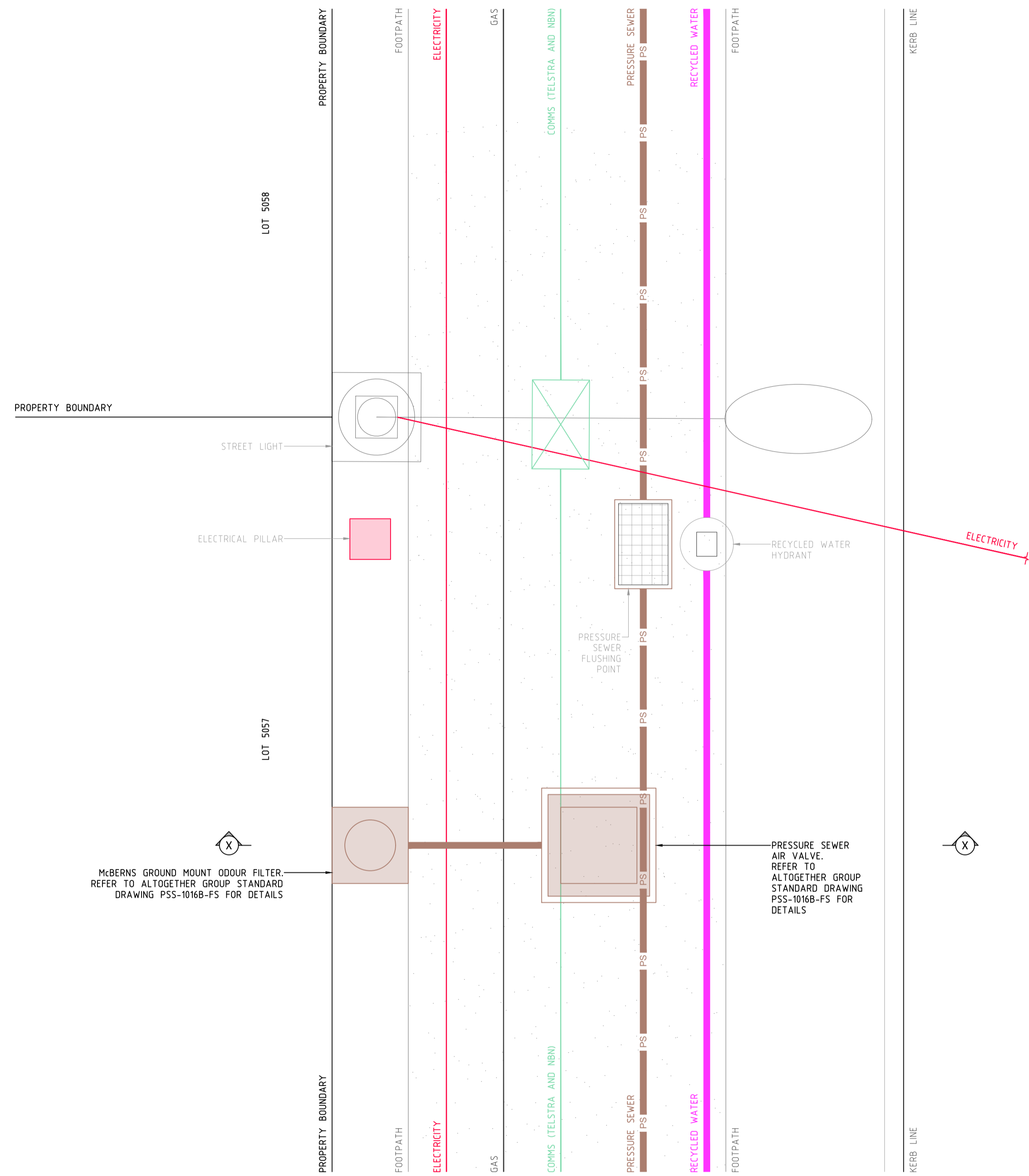


COLLECTION TANK SECTIONAL ELEVATION

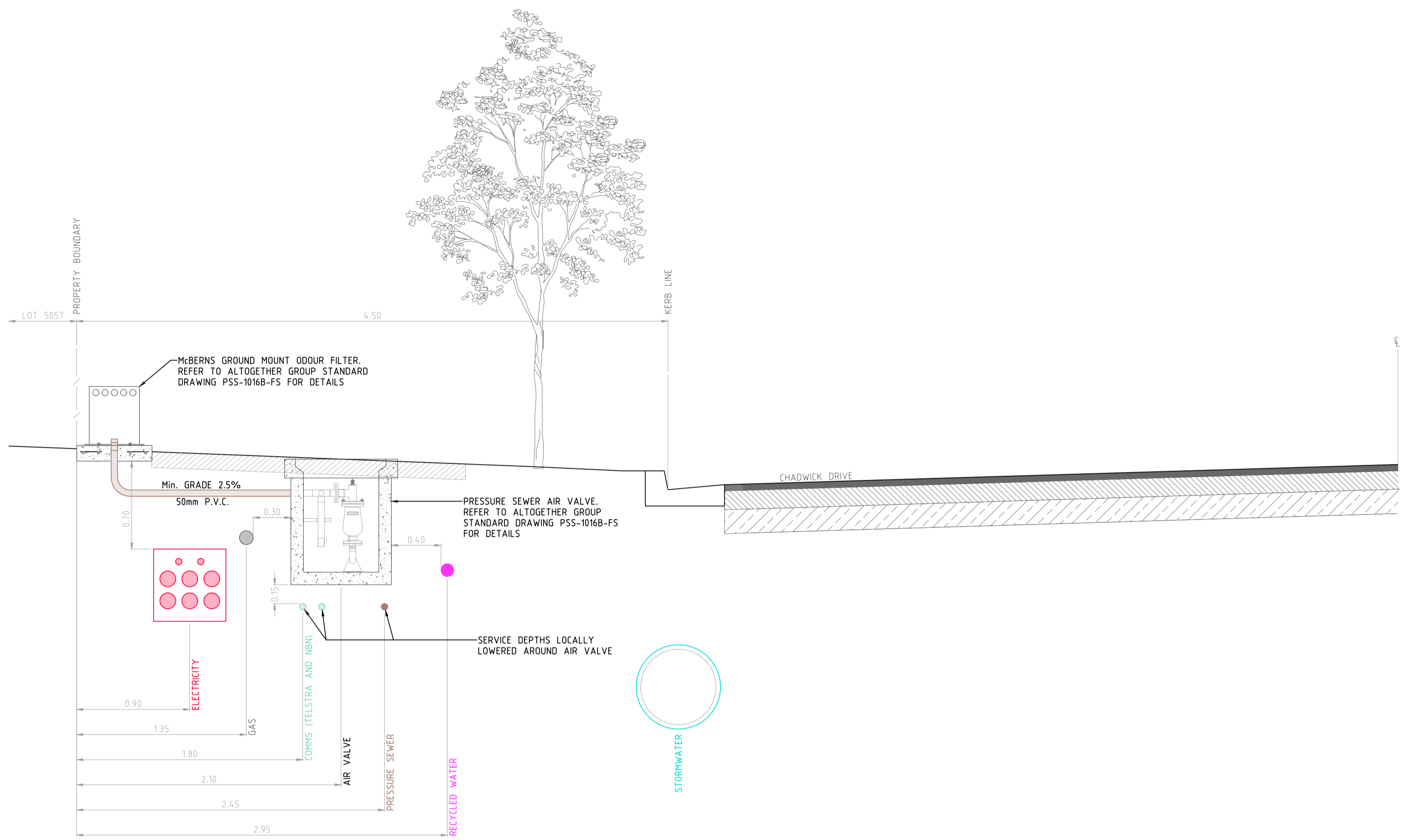
SCALE 1:25

COLLECTION TANK NOTES

- DESIGN SURFACE LEVELS WERE ELECTRONICALLY EXTRACTED FROM DIGITAL DATA SUPPLIED BY ENSPIRE DATED 20/12/23 (231204-TheGablesPrecinctFOverall-DesignTIN.12da).
- DESIGN LEVELS CAN ONLY BE ASSUMED AS CURRENT AT TIME OF EXTRACTION. ALL LEVELS SHALL BE CONFIRMED WITH THE SITE SUPERINTENDENT PRIOR TO INSTALLATION OF TANKS. SHOULD THE PROPOSED FINISHED SURFACE LEVEL (P.F.S.L.) DIFFER FROM DESIGN BY MORE THAN 100mm, THE CONSTRUCTOR SHALL CONTACT THE DESIGNER IMMEDIATELY.
- COLLECTION TANK SETOUT SHALL BE COMPLIANT WITH FSI-1000-FS & FSI-SK03A-FS. COLLECTION TANK INSTALLATION LEVELS DOCUMENTED ADJACENT SHALL SUPERSEDE ANY LEVELS ADVISED ON DRAWING FSI-SK03A-FS.
- R.A.R. ACCEPT NO RESPONSIBILITY FOR INCONSISTENCIES IN EXTRACTED LEVELS RESULTING FROM CHANGES TO THE MODEL (SURFACE LEVEL) INFORMATION POST DATA EXTRACTION DATE.



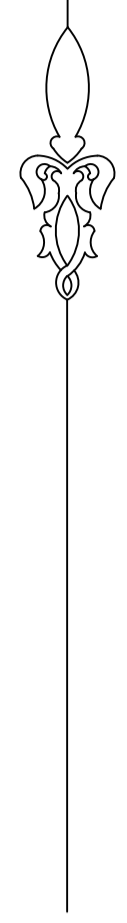
CHADWICK DRIVE UTILITIES ARRANGEMENT AROUND AIR VALVE - PLAN
SCALE 1:25



CHADWICK DRIVE UTILITIES ARRANGEMENT AROUND AIR VALVE - SECTION X-X
SCALE 1:25

ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
RAR WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
 SHOP 7 & 8 'M CENTRE'
 40 STERLING ROAD, MINCHBURY NSW 2770
 PH: (02) 9853 0200 FAX: (02) 9671 7399

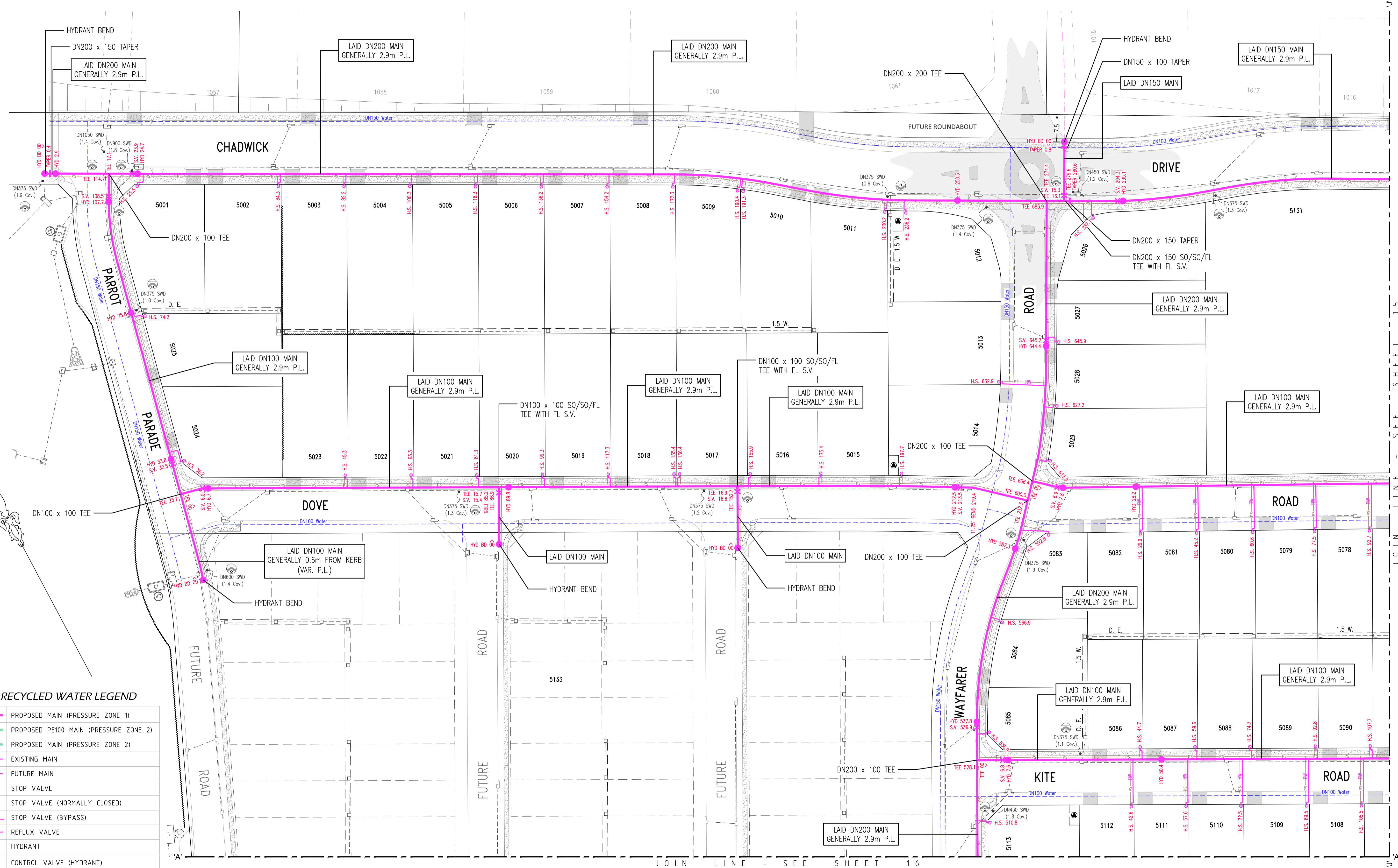
AIR VALVE INSTALLATION DETAIL				SHEET 12 OF 20	WAC
DRAWN: D.SHEATHER	DESIGNED: D.SHEATHER	REVIEWED: K.GAO	VERIFIED: K.GAO	JOB No.	4/23645/F1
SCALE: -	DATE: -	DWG. REFERENCE: 88 N14-Q15	DATE OF ISSUE: 23/1/2026		



Precinct F Development Stages

- Stage 1
- Stage 2

<p>ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd. <small>WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT</small> RAR <small>Incorporated in New South Wales</small></p>		RECYCLED WATER GENERAL ARRANGEMENT				SHEET 13 OF 20	WAC
		DRAWN: D.SHEATHER	DESIGNED: D.SHEATHER	REVISED: K.GAO	VIEWED: K.GAO	JOB No.	4/23645/F1
		SCALE: -	DATE: -	W.A.S. REFERENCE: 88 N14-Q15	DATE OF ISSUE: 23/1/2026	VERSION:	

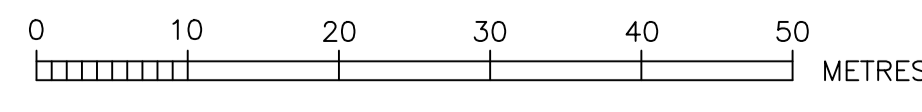


RECYCLED WATER LEGEND

	PROPOSED MAIN (PRESSURE ZONE 1)
	PROPOSED PE100 MAIN (PRESSURE ZONE 2)
	PROPOSED MAIN (PRESSURE ZONE 2)
	EXISTING MAIN
	FUTURE MAIN
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	STOP VALVE (BYPASS)
	REFLUX VALVE
	HYDRANT
	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
	REMOTE MONITORED PRESSURE TRANSDUCER

DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE

DENOTES ESMT FOR PADMOUNT SUBSTATION 2.75 W.

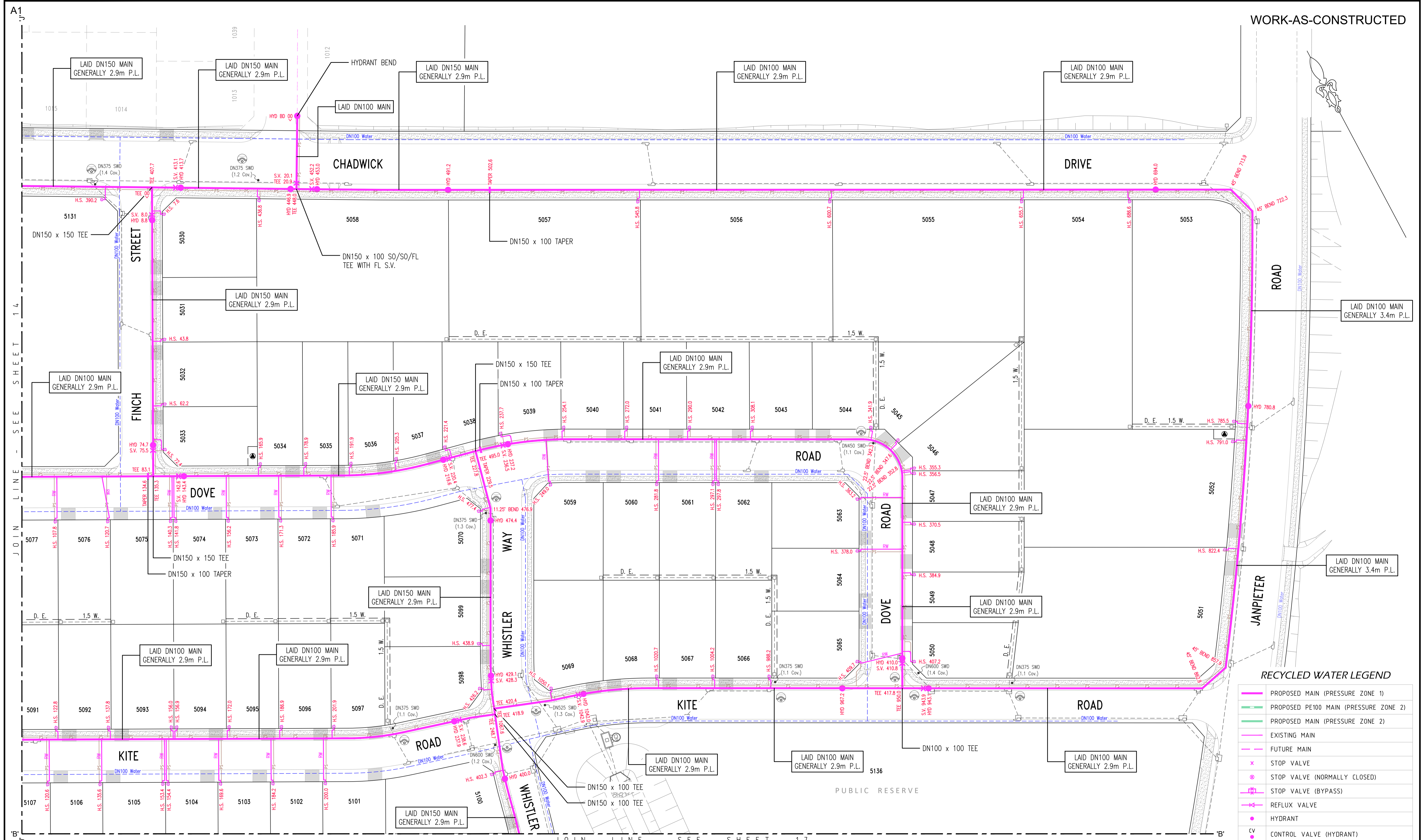


ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
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RECYCLED WATER DETAIL PLAN 1				SHEET 14 OF 20		WAC
DESIGNED	D.SHEATHER	REVIEWED	K.GAO	VERIFIED	K.GAO	DATE
SCALE	1:500	DRAWN		DATE OF ISSUE		4/23645/F1
			88 N14-Q15	23/11/2026		

JOIN LINE - SEE SHEET 15

JOIN LINE - SEE SHEET 16

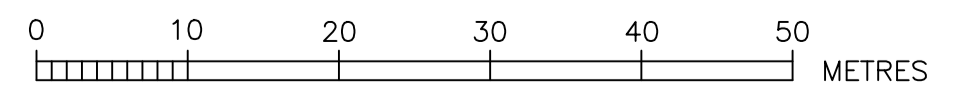


RECYCLED WATER LEGEND

	PROPOSED MAIN (PRESSURE ZONE 1)
	PROPOSED PE100 MAIN (PRESSURE ZONE 2)
	PROPOSED MAIN (PRESSURE ZONE 2)
	EXISTING MAIN
	FUTURE MAIN
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	STOP VALVE (BYPASS)
	REFLUX VALVE
	HYDRANT
	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
	REMOTE MONITORED PRESSURE TRANSDUCER

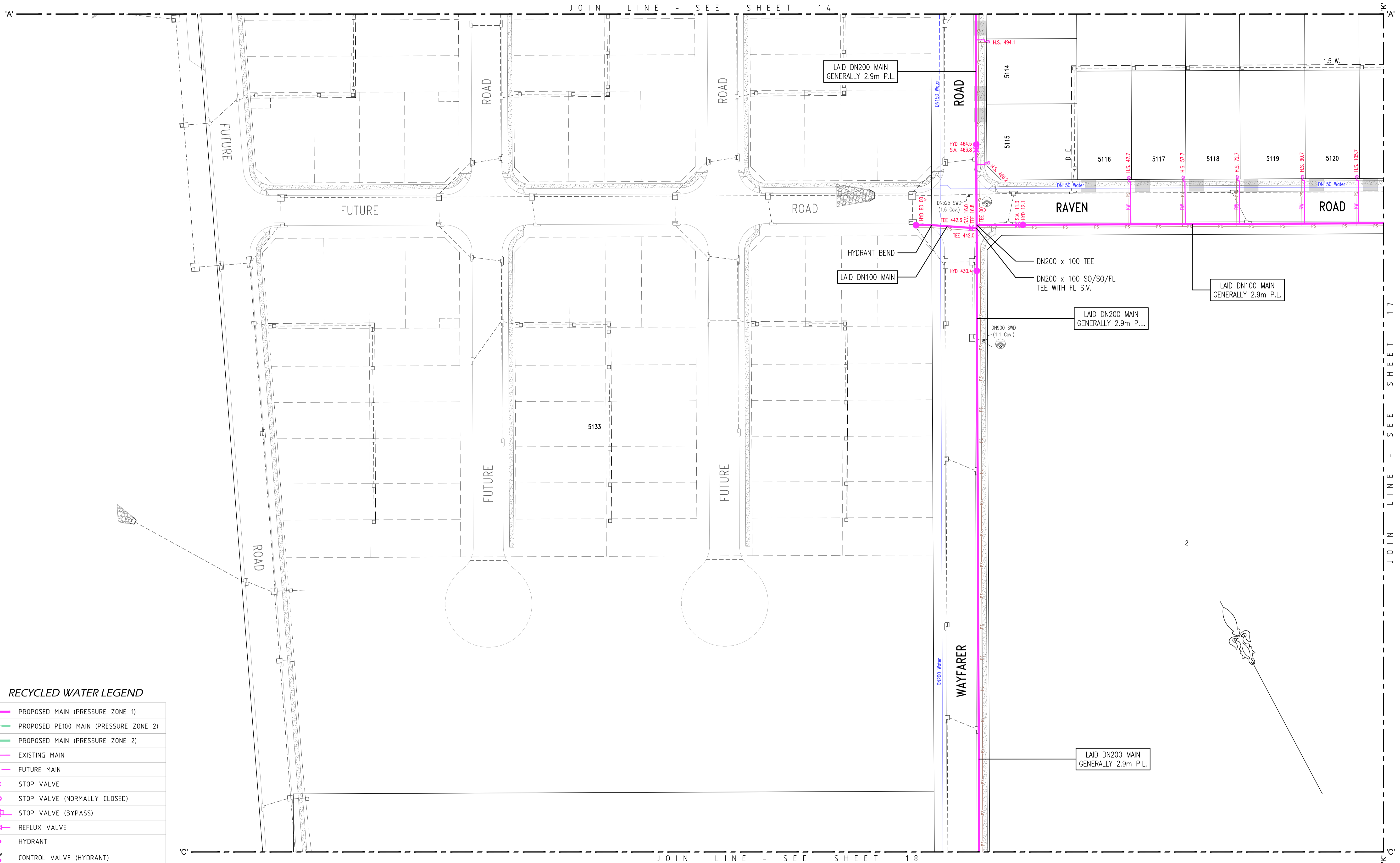
DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE

DENOTES ESMT FOR PADMOUNT SUBSTATION 2.75 W.



ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
 WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
RAR
 SHOP 7 & 8 'M CENTRE'
 40 STERLING ROAD, MINCHBURY NSW 2770
 PH: (02) 9853 0200 FAX: (02) 9671 7399

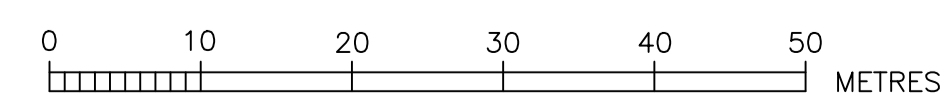
RECYCLED WATER DETAIL PLAN 2				SHEET 15 OF 20	WAC
DESIGNED BY	D.SHEATHER	REVIEWED BY	K.GAO	DATE	23/11/2026
SCALE	1:500	DRAWN BY	D.SHEATHER	DATE OF ISSUE	88 N14-Q15
PROJECT NO.				4/23645/F1	



RECYCLED WATER LEGEND

	PROPOSED MAIN (PRESSURE ZONE 1)
	PROPOSED PE100 MAIN (PRESSURE ZONE 2)
	PROPOSED MAIN (PRESSURE ZONE 2)
	EXISTING MAIN
	FUTURE MAIN
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	STOP VALVE (BYPASS)
	REFLUX VALVE
	HYDRANT
	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
	REMOTE MONITORED PRESSURE TRANSDUCER

DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE

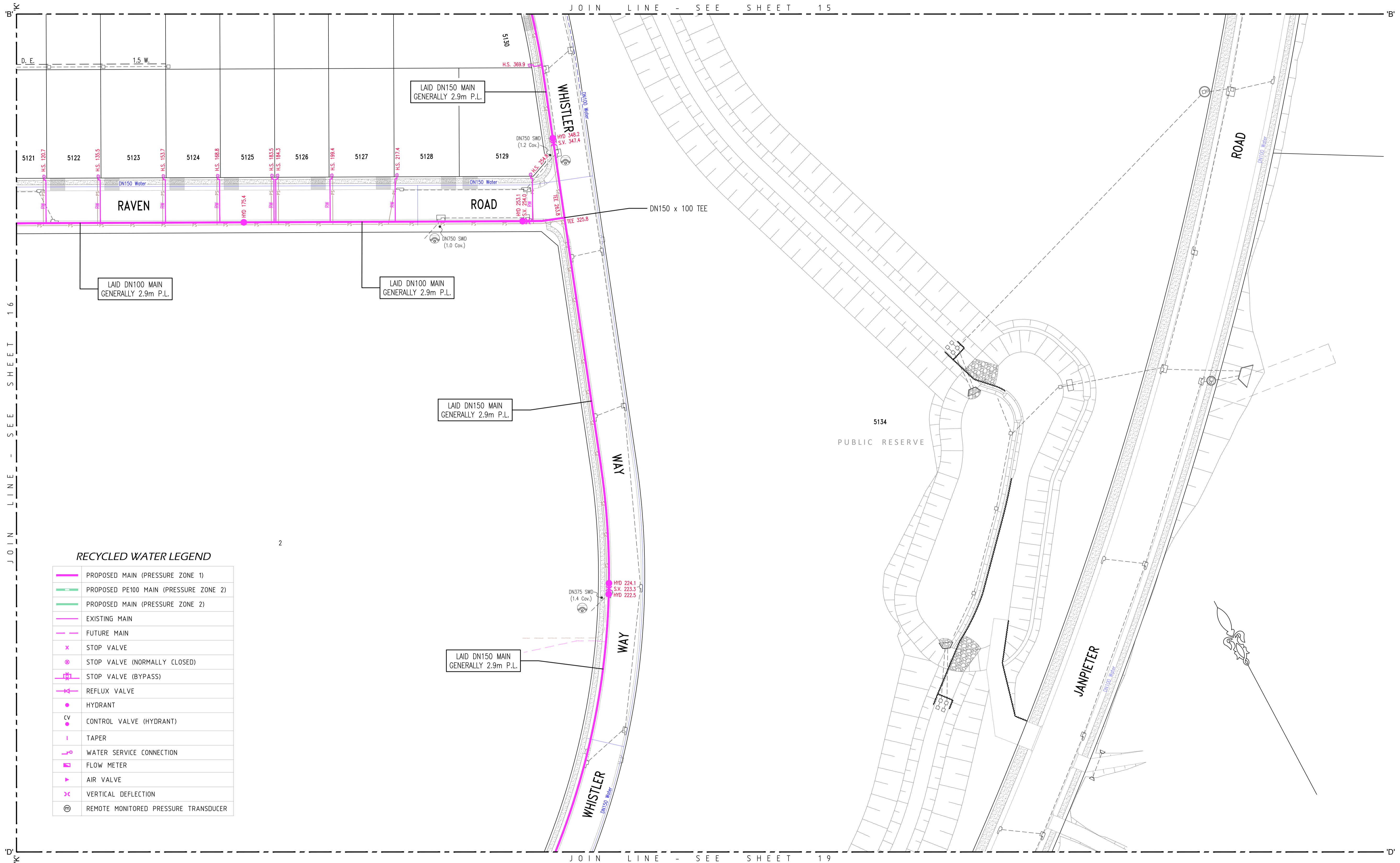


ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
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 40 STERLING ROAD, MINCHBURY NSW 2770
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RECYCLED WATER DETAIL PLAN 3			
DRAWN	DESIGNED	REVIEWED	VERIFIED
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO
SCALE: 1:500	DATE:	WAL. REFERENCE: 88 N14-Q15	DATE OF ISSUE: 23/1/2026

SHEET 16 OF 20	VERSION: WAC
4/23645/F1	

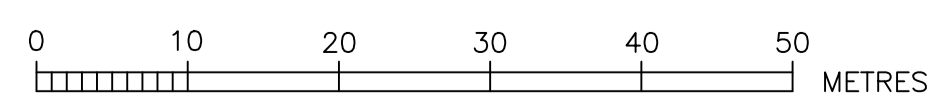


RECYCLED WATER LEGEND

	PROPOSED MAIN (PRESSURE ZONE 1)
	PROPOSED PE100 MAIN (PRESSURE ZONE 2)
	PROPOSED MAIN (PRESSURE ZONE 2)
	EXISTING MAIN
	FUTURE MAIN
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	STOP VALVE (BYPASS)
	REFLUX VALVE
	HYDRANT
	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
	REMOTE MONITORED PRESSURE TRANSDUCER

2

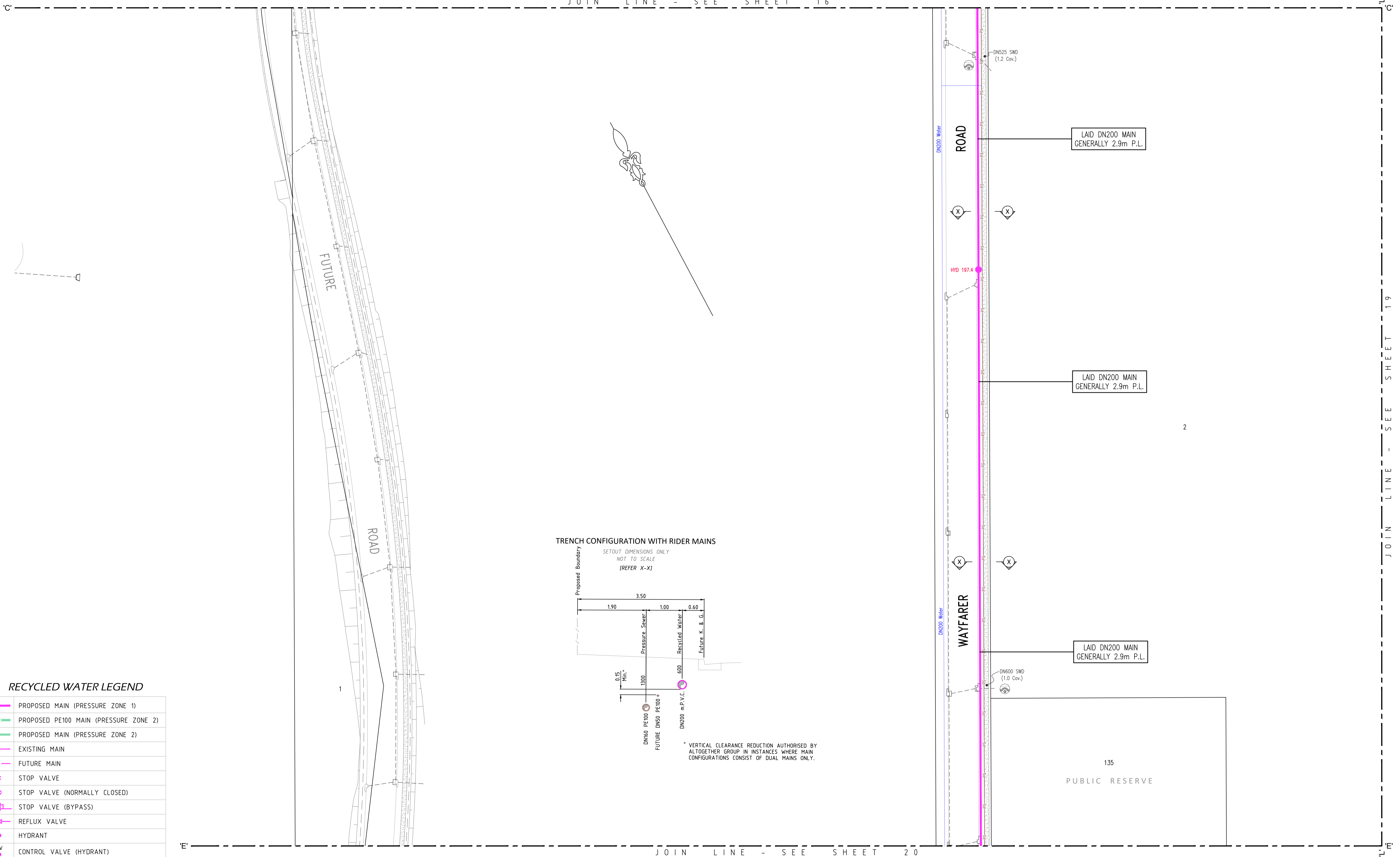
DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE



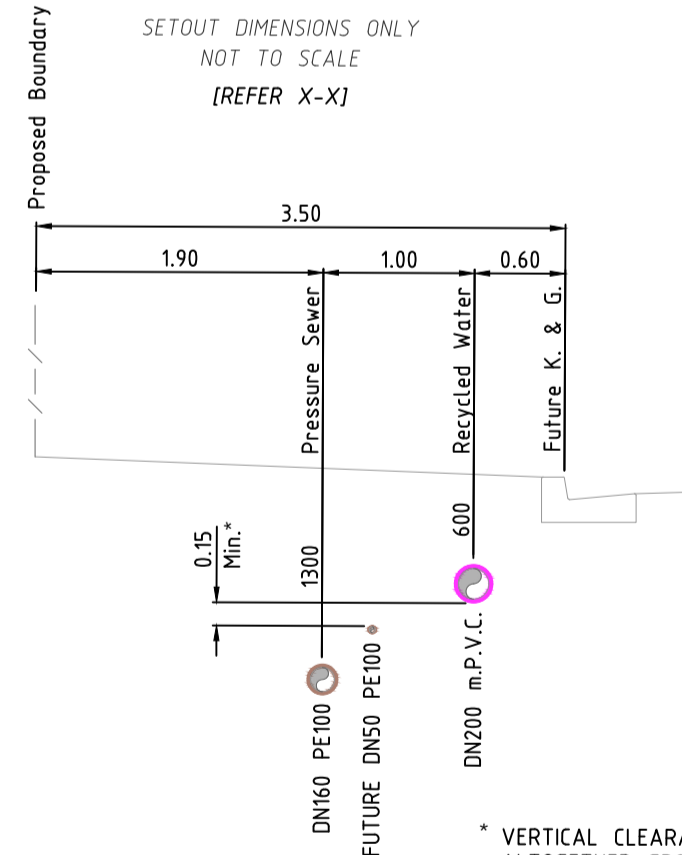
ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
RAR WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
 SHOP 7 & 8 'M CENTRE'
 40 STERLING ROAD, MINCHBURY NSW 2770
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RECYCLED WATER DETAIL PLAN 4				SHEET 17 OF 20	WAC
DESIGNED BY	D.SHEATHER	REVIEWED BY	K.GAO	VERIFIED BY	K.GAO
SCALE	1:500	DATE	88 N14-Q15	DATE OF ISSUE	23/1/2026
4/23645/F1					

JOIN LINE - SEE SHEET 16



TRENCH CONFIGURATION WITH RIDER MAINS

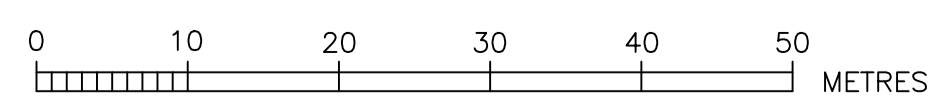


* VERTICAL CLEARANCE REDUCTION AUTHORISED BY ALTOGETHER GROUP IN INSTANCES WHERE MAIN CONFIGURATIONS CONSIST OF DUAL MAINS ONLY.

RECYCLED WATER LEGEND

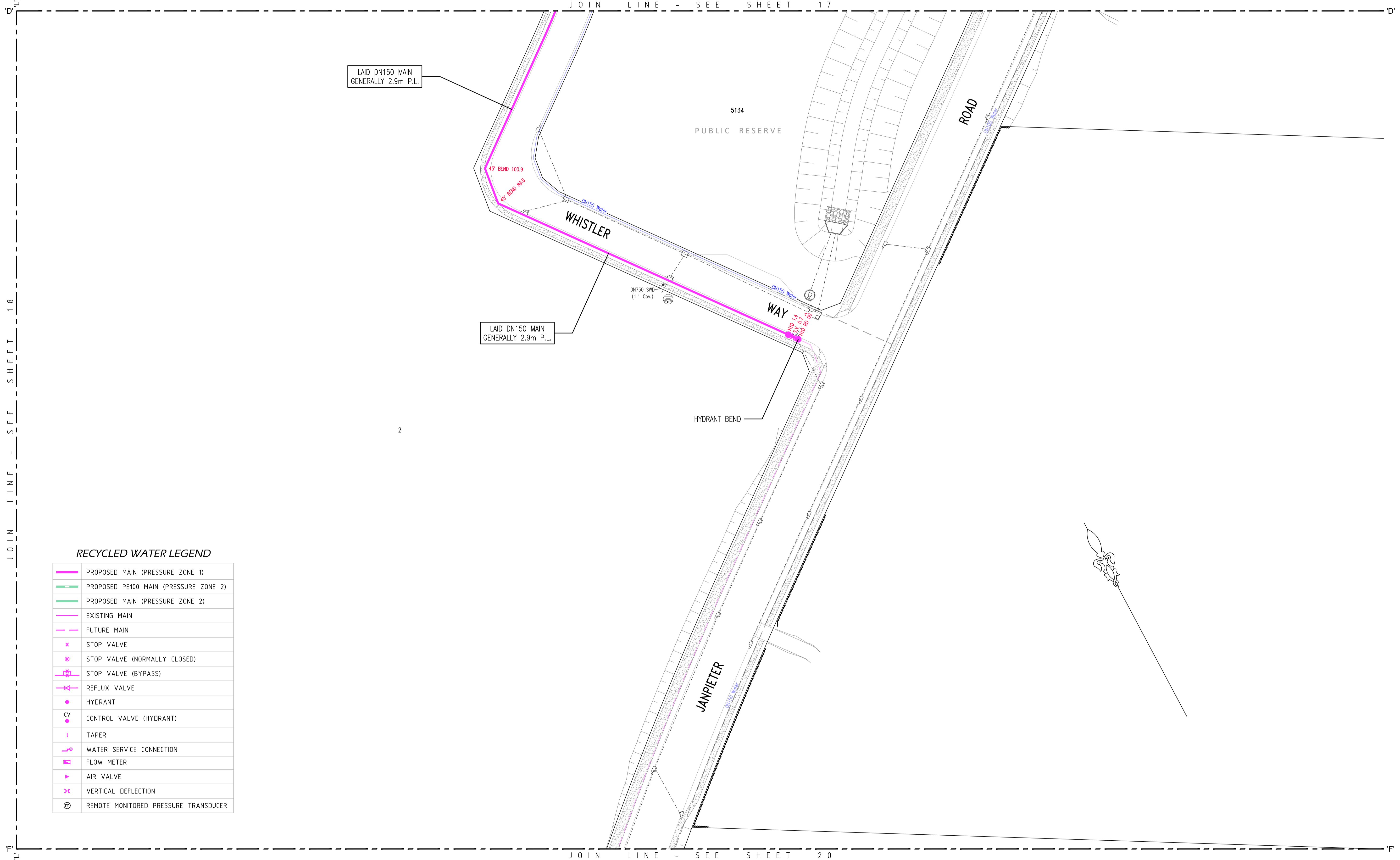
	PROPOSED MAIN (PRESSURE ZONE 1)
	PROPOSED PE100 MAIN (PRESSURE ZONE 2)
	PROPOSED MAIN (PRESSURE ZONE 2)
	EXISTING MAIN
	FUTURE MAIN
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	STOP VALVE (BYPASS)
	REFLUX VALVE
	HYDRANT
	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
	REMOTE MONITORED PRESSURE TRANSDUCER

	DENOTES LAY MAIN UNDER SERVICE
	DENOTES LAY MAIN OVER SERVICE



ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
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 PH: (02) 9853 0200 FAX: (02) 9671 7399

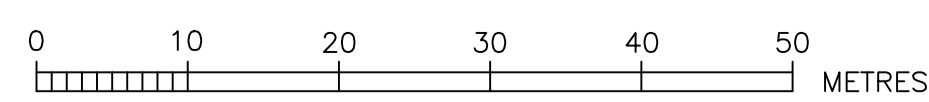
RECYCLED WATER DETAIL PLAN 5				SHEET 18 OF 20	VERSION: WAC
DRAWN: D.SHEATHER	DESIGNED: D.SHEATHER	REVISED: K.GAO	VERIFIED: K.GAO	JOB No. 4/23645/F1	
SCALE: 1:500	DATE: -	WAL. REFERENCE: 88 N14-Q15	DATE OF ISSUE: 23/1/2026		



RECYCLED WATER LEGEND

	PROPOSED MAIN (PRESSURE ZONE 1)
	PROPOSED PE100 MAIN (PRESSURE ZONE 2)
	PROPOSED MAIN (PRESSURE ZONE 2)
	EXISTING MAIN
	FUTURE MAIN
	STOP VALVE
	STOP VALVE (NORMALLY CLOSED)
	STOP VALVE (BYPASS)
	REFLUX VALVE
	HYDRANT
	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
	REMOTE MONITORED PRESSURE TRANSDUCER

DENOTES LAY MAIN UNDER SERVICE
 DENOTES LAY MAIN OVER SERVICE



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RECYCLED WATER DETAIL PLAN 6			
DRAWN	DESIGNED	REVIEWED	VERIFIED
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO
SCALE: 1:500	DATE:	WAL REFERENCE: 88 N14-Q15	DATE OF ISSUE: 23/1/2026

SHEET 19 OF 20	VERSION: WAC
4/23645/F1	

