A1

THESE PLANS SHALL ONLY BE REPRODUCED IN COLOUR

WORK-AS-CONSTRUCTED

THE GABLES
BOX HILL

PRECINCT F

STAGE 2A

PRESSURE SEWER & RECYCLED WATER

LOCALITY PLAN
(NOT TO SCALE)

DRAWING LIST	
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No.	REVISION DESCRIPTION	BY	DATE
02	WORK-AS-CONSTRUCTED	K.G.	18/11/25
01	ORIGINAL ISSUE FOR APPROVAL	D.S.	12/12/24

SERVICE	DATE	REF.

WORK-AS-CONSTRUCTED CERTIFICATION

DEVELOPER: STOCKLAND DEVELOPMENT Pty. Ltd.
PROJECT SUPERVISOR: ROSE ATKINS RIMMER (INFRASTRUCTURE) Pty. Ltd.
CONSTRUCTOR: HITECH DRAINAGE (NSW) Pty. Ltd.
COMPLETED: W.A.C. PREPARED: 18/11/2025

ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
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PH: (02) 9853 0200 FAX: (02) 9671 7399
Incorporated in New South Wales

Quality System
Quality Endorsed Company

CLIENT: Stockland altogether.

TITLE: PLAN OF PROPOSED WATER INFRASTRUCTURE SERVICES
THE GABLES DEVELOPMENT - PRECINCT F (STAGE 2A)
LUNETTE STREET & OTHERS, GABLES
L.G.A. THE HILLS

COVER SHEET

SHEET 1 OF 7

VERSION: WAC

DRAFTED:	DESIGNED:	REVIEWED:	VERIFIED:
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO
SCALE: -	DATUM: -	U.B.D. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025

JOB No: 4/23645/F2A

A1

SEWER NOTES

1. 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.

2. 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.*

3. 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.

4. 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.

5. 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

6. 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 1.5m, WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1.5m, BUT LESS THAN 2.5m, 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.*

7. 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.

8. MAINS WITHIN 2m OF ELECTRICITY OR POWER POLES SHALL BE CONDUCTED BY BORING TECHNOLOGY (UNLESS AGREED TO BY THE ALTOGETHER GROUP REPRESENTATIVE).

9. ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION WSA-PS350 & WSA-PS351.

10. ALL BENDS SHALL BE ELECTROFUSION OR BUTTWELD SWEEP BENDS. *FABRICATED BENDS SHALL NOT BE USED IN LIEU.* KNUCKLE ELBOWS ARE NOT PERMITTED.

11. *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*

12. *ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16) .*

13. 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

14. 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).

15. DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING & CONNECTED TO SURFACE VALVES.

16. ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ie ROADWAYS, PATHS etc) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.

17. DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.

18. 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.

19. ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 07-2007 Version 1.1.

20. *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.

21. *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.*

22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORK.

23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.

24. 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-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.*

25. THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 21.3.4) ARE:
    TRAFFICABLE:
    PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / CROSSING (3 Tests)
    NON-TRAFFICABLE:
    PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / 100m (6 Tests)

26. BOUNDARY KITS (COMPLETE) SHALL BE eONE 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.

27. *ALL MAINS (UP TO THE BOUNDARY KIT) SHALL BE PRESSURE TESTED TO 1600 kPa.*

28. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.

29. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER GROUP REQUIREMENTS.

30. ROPE OFF ALL PRESSURE SEWER UNITS & FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.

31. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER GROUP REQUIREMENTS.

32. *WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER GROUP Q.A. SUBMISSION CHECKLIST.*

RECYCLED WATER NOTES

1. 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).

2. POTABLE WATER SHALL BE UTILISED FOR FIRE FIGHTING PURPOSES.

3. 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.

4. 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.

5. THE CONSTRUCTOR SHALL VERIFY WITH THE SITE SURVEYOR THE POSITION & LEVEL OF ALL EXISTING & PROPOSED BOUNDARIES PERTINENT TO THE INFRASTRUCTURE INSTALLATIONS.

6. 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-V) & FOR ROADWAYS (TYPE L EMBEDMENT: WAT-1204-V). MAXIMUM PIPE COVER SHALL GENERALLY BE 1.5m, WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1.5m, BUT IS LESS THAN 2.5m, 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.*

7. ALL RECYCLED WATER MAINS SHALL BE LILAC nPVC (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.

8. MAXIMUM JOINT DEFLECTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

9. 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.

10. 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.

11. DURING CONSTRUCTION, ALL OPEN ENDS OF PIPES SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.

12. HYDRANTS, STOP VALVES & ALL OTHER FITTINGS SHALL BE THE SAME SIZE AS THROUGH WATER MAIN & ANTICLOCKWISE CLOSING.

13. 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.

14. THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH WAT-1205.

15. 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

16. PROPERTY SERVICE CONNECTIONS SHALL BE FLUSHED & LOCKED (BY THE ALTOGETHER GROUP REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE TESTING.

17. SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ie ROADWAYS, PATHS etc) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.

18. ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION - 2014).

19. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.

20. WATER QUALITY TESTING SHALL BE IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION - 2014: CLAUSE 19.7).

21. *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.*

22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORK.

23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.

24. 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-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.*

25. 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 (3 Tests)
    NON-TRAFFICABLE:
    PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / 100m (6 Tests)

    TESTING SHALL BE IN ACCORDANCE WITH TABLE 16.1 & 17.1 OF THE WATER SUPPLY CODE OF AUSTRALIA

26. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER GROUP REQUIREMENTS.

27. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER GROUP REQUIREMENTS.

28. *WORK-AS-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-

GENERAL NOTES

WORK-AS-CONSTRUCTED

1. 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.

2. ALL PRESSURE SEWER LATERALS & RECYCLED WATER PROPERTY SERVICE CONNECTIONS CROSSING CARRIAGEWAYS SHALL BE INSTALLED WITHIN INDIVIDUAL SERVICE CONDUITS.

3. 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.

4. MAKE SMOOTH TRANSITION TO EXISTING WORKS (i.e. ROAD PAVEMENTS AND FOOTPATHS TO P.C.A. AND SUPERINTENDENTS REQUIREMENTS.

5. 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 [2] > DN375	600	600	300
Water mains [2] < DN375	300 [4]	600	150
Gas mains	300 [4]	600	150
Telecommunication conduits and cables	300 [4]	600	150
Electricity conduits and cables	500	1000	225 [8]
Stormwater drains	300 [4]	600	150 [9]
Sewers - gravity	1000 [3] / 600	1000 [3] / 600	500 [9]
Sewers - pressure and vacuum	600	600	300 [9]
Kerbs	150	600 [5]	150 (where possible)

NOTES:
1. *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.*
2. *Water mains includes mains supplying both potable and recycled water.*
3. *For areas with existing water reticulation, clearances can be further reduced to 600mm with the approval of the water authority.*
4. *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.*
5. *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.*
6. *Where a parallel sewer is at 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.*
7. *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.*
8. *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.*
9. *Water mains should always cross over sewers and stormwater drains. For cases where this is no alterative 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
DN100	m.P.V.C.	PN16	624.1

PRESSURE SEWER PIPE SCHEDULE

SIZE	TYPE	CLASS	LENGTH
DN63	PE100	PN16	116.1
DN50	PE100	PN16	507.5
DN40	PE100	PN16	1,371.0
		TOTAL	*1,994.6*

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Quality System
Quality Endorsed Company

GENERAL NOTES

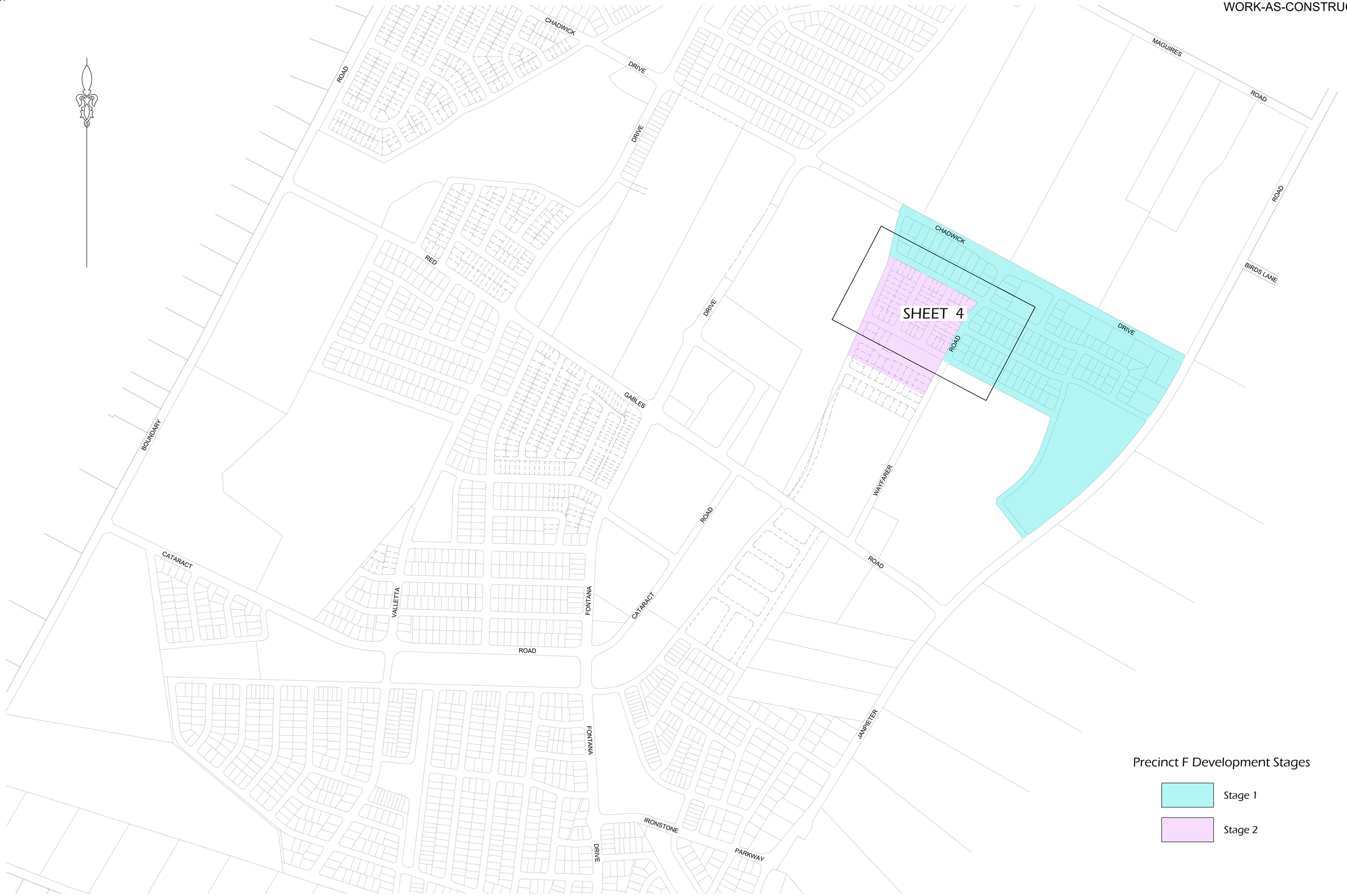
SHEET 2 OF 7

VERSION: WAC

DRAFTED:	DESIGNED:	REVIEWED:	VERIFIED:	JOB No.
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO	4/23645/F2A
SCALE: -	DATUM: -	U.D.S. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025	

A1

WORK-AS-CONSTRUCTED



Precinct F Development Stages

Stage 1

Stage 2

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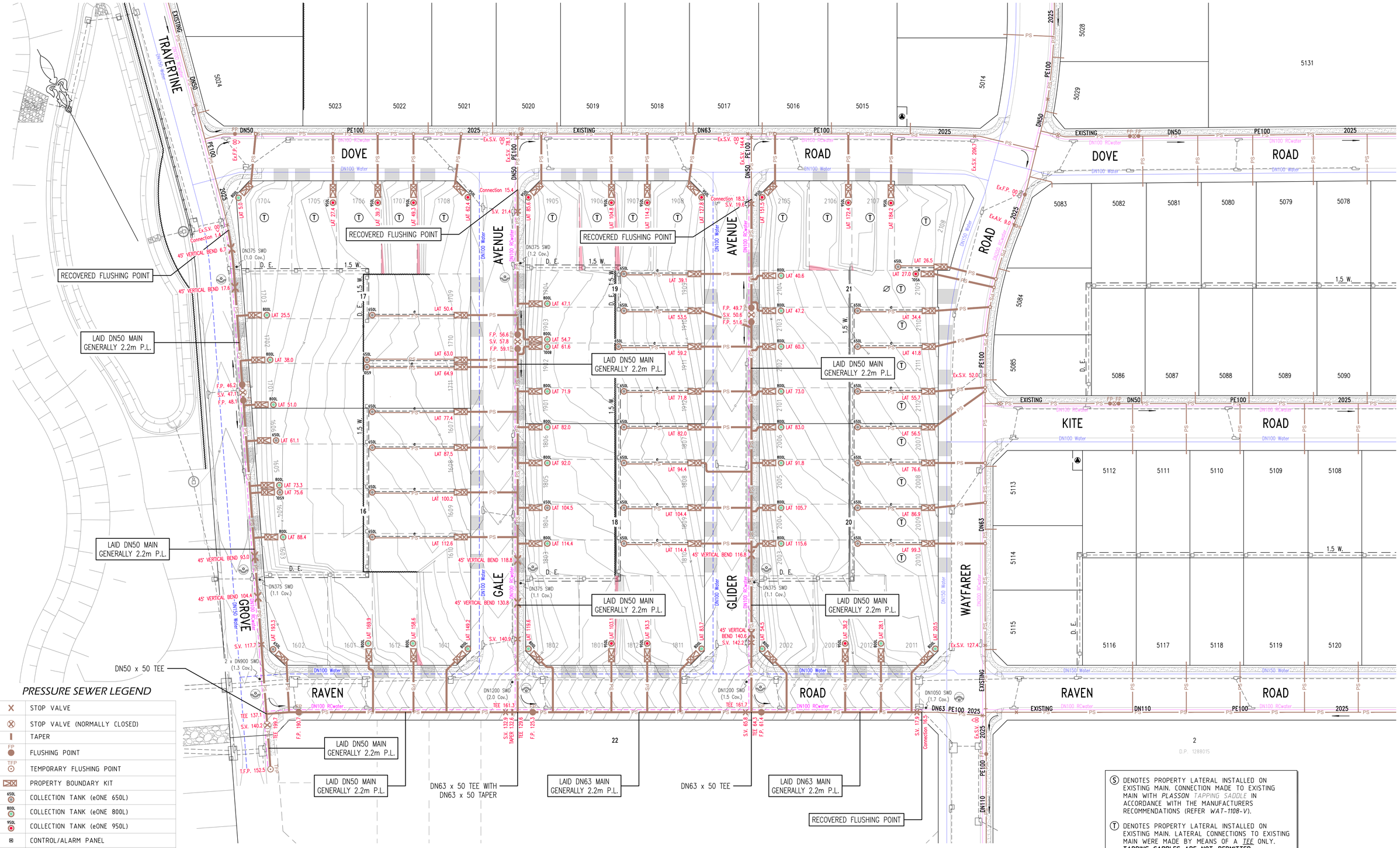
Quality System Quality Endorsed Company

PRESSURE SEWER GENERAL ARRANGEMENT | SHEET 3 OF 7 | VERSION: WAC

DRAFTED:	DESIGNED:	REVIEWED:	VERIFIED:	JOB No:
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO	4/23645/F2A
SCALE: -	DATUM: -	U.D.D. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025	

A1

WORK-AS-CONSTRUCTED



PRESSURE SEWER LEGEND

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

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PRESSURE SEWER DETAIL PLAN

SHEET 4 OF 7 | VERSION: WAC

DRAFTED:	DESIGNED:	REVIEWED:	VERIFIED:	JOB No:
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO	4/23645/F2A
SCALE: 1:500	DATUM: A.H.D.	U.B.D. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025	

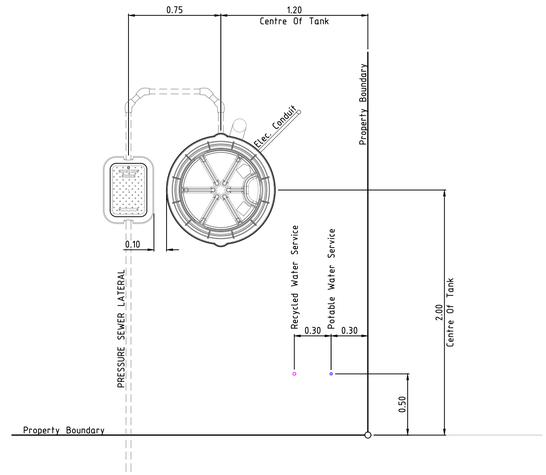
A1

PRESSURE SEWER COLLECTION TANK LEVEL DETAILS

THE GABLES DEVELOPMENT - PRECINCT F [STAGE 2A]

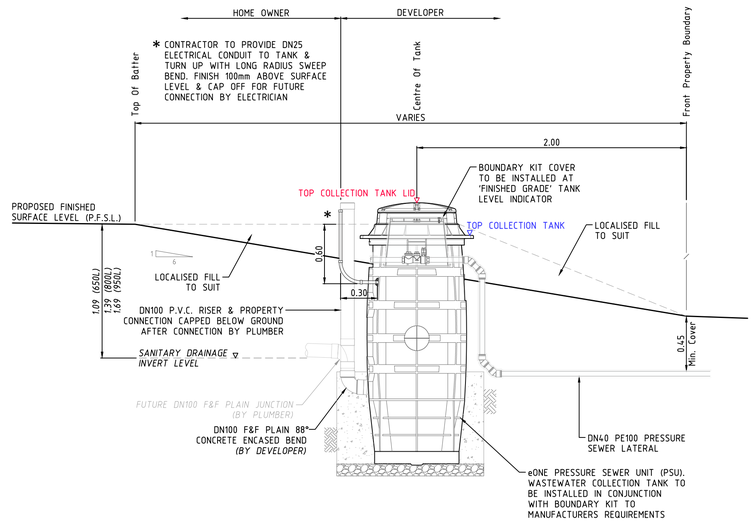
LOT NUMBER	COLLECTION TANK LOCATION [FRONT / REAR]	TANK SIZE [650L / 800L / 950L]	PFSL AT TANK LOCATION	TOP OF COLLECTION TANK [Design R.L.]	DESIGN SANITARY DRAINAGE INVERT LEVEL [Design R.L.]	*TOP OF COLLECTION TANK LID* * [Work-As-Constructed]	*CALCULATED SANITARY DRAINAGE INVERT LEVEL* [Work-As-Constructed]	*WAC v's DESIGN INVERT LEVEL COMPARISON* [- LOWER / + HIGHER]
1601	FRONT BATTER	800L	30.63	30.56	29.26	*30.74*	*29.17*	*-0.09*
1602	FRONT FLAT	650L	29.79	29.75	28.75	*30.02*	*28.75*	*0.00*
1603	FRONT BATTER	800L	30.45	30.51	29.21	*30.73*	*29.16*	*-0.05*
1604	FRONT BATTER	650L	30.48	30.51	29.51	*30.75*	*29.48*	*-0.03*
1605	FRONT BATTER	800L	30.48	30.51	29.21	*30.77*	*29.20*	*-0.01*
1606	FRONT BATTER	650L	30.39	30.41	29.41	*30.68*	*29.41*	*0.00*
1607	REAR	650L	32.77	32.73	31.73	*33.01*	*31.74*	*0.01*
1608	REAR	650L	32.63	32.59	31.59	*32.88*	*31.61*	*0.02*
1609	REAR	650L	32.41	32.37	31.37	*32.65*	*31.38*	*0.01*
1610	REAR	650L	32.21	32.17	31.17	*32.46*	*31.19*	*0.02*
1611	FRONT FLAT	800L	32.00	31.96	30.66	*32.18*	*30.61*	*-0.05*
1612	FRONT FLAT	800L	31.28	31.24	29.94	*31.45*	*29.88*	*-0.06*
1701	FRONT BATTER	800L	30.28	30.41	29.11	*30.61*	*29.04*	*-0.07*
1702	FRONT BATTER	800L	30.14	30.21	28.91	*30.40*	*28.83*	*-0.08*
1703	FRONT BATTER	800L	30.01	30.06	28.76	*30.25*	*28.68*	*-0.08*
1704	FRONT BATTER	800L	29.87	30.01	28.71	*30.24*	*28.67*	*-0.04*
1705	FRONT FLAT	950L	31.18	31.14	29.54	*31.33*	*29.46*	*-0.08*
1706	FRONT FLAT	950L	31.80	31.76	30.16	*32.00*	*30.13*	*-0.03*
1707	FRONT FLAT	950L	32.46	32.42	30.82	*32.64*	*30.77*	*-0.05*
1708	FRONT FLAT	950L	33.28	33.24	31.64	*33.45*	*31.58*	*-0.06*
1709	REAR	650L	32.54	32.50	31.50	*32.78*	*31.51*	*0.01*
1710	REAR	650L	32.75	32.71	31.71	*33.03*	*31.76*	*0.05*
1711	REAR	650L	32.77	32.73	31.73	*33.02*	*31.75*	*0.02*
1801	FRONT FLAT	950L	34.19	34.15	32.55	*34.38*	*32.51*	*-0.04*
1802	FRONT BATTER	800L	33.03	32.99	31.69	*33.25*	*31.68*	*-0.01*
1803	FRONT BATTER	800L	33.21	33.21	31.91	*33.48*	*31.91*	*0.00*
1804	FRONT BATTER	650L	33.41	33.36	32.36	*33.63*	*32.36*	*0.00*
1805	FRONT BATTER	800L	33.69	33.66	32.36	*33.89*	*32.32*	*-0.04*
1806	FRONT BATTER	800L	33.95	33.96	32.66	*34.22*	*32.65*	*-0.01*
1807	REAR	650L	35.74	35.70	34.70	*35.94*	*34.67*	*-0.03*
1808	REAR	650L	35.84	35.80	34.80	*36.05*	*34.78*	*-0.02*
1809	REAR	650L	35.56	35.52	34.52	*35.74*	*34.47*	*-0.05*
1810	REAR	650L	35.53	35.49	34.49	*35.69*	*34.42*	*-0.07*
1811	FRONT FLAT	800L	35.57	35.53	34.23	*35.76*	*34.19*	*-0.04*
1812	FRONT FLAT	950L	35.01	34.97	33.37	*35.20*	*33.33*	*-0.04*
1901	FRONT BATTER	800L	34.20	34.30	33.00	*34.52*	*32.95*	*-0.05*
1902	FRONT BATTER	800L	34.25	34.34	33.04	*34.58*	*33.01*	*-0.03*
1903	FRONT BATTER	800L	34.24	34.33	33.03	*34.61*	*33.04*	*0.01*
1904	FRONT BATTER	800L	34.14	34.23	32.93	*34.48*	*32.91*	*-0.02*
1905	FRONT BATTER	950L	34.41	34.37	32.77	*34.59*	*32.72*	*-0.05*
1906	FRONT FLAT	950L	35.62	35.58	33.98	*35.79*	*33.92*	*-0.06*
1907	FRONT FLAT	950L	36.35	36.31	34.71	*36.56*	*34.69*	*-0.02*
1908	FRONT FLAT	950L	37.14	37.10	35.50	*37.33*	*35.46*	*-0.04*
1909	REAR	650L	36.34	36.30	35.30	*36.51*	*35.24*	*-0.06*
1910	REAR	650L	36.06	36.02	35.02	*36.25*	*34.98*	*-0.04*
1911	REAR	650L	35.95	35.91	34.91	*36.15*	*34.88*	*-0.03*
1912	REAR	650L	35.75	35.71	34.71	*35.96*	*34.69*	*-0.02*
2001	FRONT FLAT	950L	37.83	37.79	36.19	*38.00*	*36.13*	*-0.06*
2002	FRONT BATTER	800L	36.65	36.61	35.31	*36.85*	*35.28*	*-0.03*
2003	FRONT BATTER	800L	36.65	36.81	35.51	*37.04*	*35.47*	*-0.04*
2004	FRONT BATTER	800L	36.83	37.01	35.71	*37.22*	*35.65*	*-0.06*
2005	FRONT BATTER	800L	37.06	37.23	35.93	*37.45*	*35.88*	*-0.05*
2006	FRONT BATTER	800L	37.24	37.41	36.11	*37.61*	*36.04*	*-0.07*
2007	REAR	650L	39.53	39.49	38.49	*39.78*	*38.51*	*0.02*
2008	REAR	650L	39.38	39.34	38.34	*39.64*	*38.37*	*0.03*
2009	REAR	650L	39.22	39.18	38.18	*39.43*	*38.16*	*-0.02*
2010	REAR	650L	39.07	39.03	38.03	*39.28*	*38.01*	*-0.02*
2011	FRONT BATTER	800L	38.88	38.84	37.54	*39.11*	*37.54*	*0.00*
2012	FRONT BATTER	800L	38.42	38.38	37.08	*38.59*	*37.02*	*-0.06*
2101	FRONT BATTER	800L	37.42	37.59	36.29	*37.79*	*36.22*	*-0.07*
2102	FRONT BATTER	800L	37.64	37.81	36.51	*37.97*	*36.40*	*-0.11*
2103	FRONT BATTER	800L	37.82	37.99	36.69	*38.19*	*36.62*	*-0.07*
2104	FRONT BATTER	800L	37.89	38.06	36.76	*38.23*	*36.66*	*-0.10*
2105	FRONT BATTER	950L	38.29	38.25	36.65	*38.45*	*36.58*	*-0.07*
2106	FRONT FLAT	950L	39.65	39.61	38.01	*39.76*	*37.89*	*-0.12*
2107	FRONT FLAT	950L	40.33	40.29	38.69	*40.48*	*38.61*	*-0.08*
2108	REAR	650L	40.46	40.42	39.42	*40.65*	*39.38*	*-0.04*
2109	FRONT FLAT	950L	40.72	40.68	39.08	*40.90*	*39.03*	*-0.05*
2110	REAR	650L	40.13	40.09	39.09	*40.40*	*39.13*	*0.04*
2111	REAR	650L	39.97	39.93	38.93	*40.18*	*38.91*	*-0.02*
2112	REAR	650L	39.69	39.65	38.65	*39.96*	*38.69*	*0.04*

* 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

1. DESIGN SURFACE LEVELS WERE ELECTRONICALLY EXTRACTED FROM DIGITAL DATA SUPPLIED BY ENSPIRE DATED 25/11/24 (241125-TheGablesPrecinctF2A-DesignSurface.*12da*).
2. 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.
3. 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.
4. R.A.R. ACCEPT NO RESPONSIBILITY FOR INCONSISTENCIES IN EXTRACTED LEVELS RESULTING FROM CHANGES TO THE MODEL (SURFACE LEVEL) INFORMATION POST DATA EXTRACTION DATE.

ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT
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PH: (02) 9853 0200 FAX: (02) 9671 7399
Incorporated in New South Wales
Quality Endorsed Company

COLLECTION TANK LEVEL DETAILS				SHEET 5 OF 7	VERSION: WAC
DRAFTED: D.SHEATHER	DESIGNED: D.SHEATHER	REVIEWED: K.GAO	VERIFIED: K.GAO	JOB No.: 4/23645/F2A	
SCALE: -	DATUM: -	U.R.D. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025		

A1

WORK-AS-CONSTRUCTED

Precinct F Development Stages

Stage 1

Stage 2

ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.
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Quality System Quality Endorsed Company

RECYCLED WATER GENERAL ARRANGEMENT

SHEET 6 OF 7

VERSION: WAC

DRAFTED:	DESIGNED:	REVIEWED:	VERIFIED:	JOB No:
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO	4/23645/F2A
SCALE: -	DATUM: -	U.D.D. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025	

A1

WORK-AS-CONSTRUCTED

RECOVERED HYDRANT BEND AND INSERTED HYDRANT

LAID DN100 MAIN GENERALLY 2.9m P.L.

LAID DN100 MAIN GENERALLY 2.9m P.L.

LAID DN100 MAIN GENERALLY 2.9m P.L.

RECOVERED HYDRANT BEND

RECOVERED HYDRANT BEND

LAID DN100 MAIN GENERALLY 2.9m P.L.

LAID DN100 MAIN GENERALLY 2.9m P.L.

LAID DN100 MAIN GENERALLY 2.9m P.L.

DN100 x 100 TEE

LAID DN100 MAIN GENERALLY 2.9m P.L.

DN100 x 100 TEE

LAID DN100 MAIN GENERALLY 2.9m P.L.

DN100 x 100 TEE

LAID DN100 MAIN GENERALLY 2.9m P.L.

RECOVERED HYDRANT BEND AND INSERTED HYDRANT

HYDRANT BEND

DN100 m.P.V.C. 2025

TRAVERTINE

DOVE

ROAD

AVENUE

GALE

GLIDER

RAVEN

ROAD

KITE

ROAD

GROVE

WAYFARER

RAVEN

ROAD

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
CV ●	CONTROL VALVE (HYDRANT)
	TAPER
	WATER SERVICE CONNECTION
	FLOW METER
	AIR VALVE
	VERTICAL DEFLECTION
(m)	REMOTE MONITORED PRESSURE TRANSDUCER

DENOTES LAY MAIN UNDER SERVICE

DENOTES LAY MAIN OVER SERVICE

NOTE F1:
CONTRACTOR ENSURED THAT ALL SURFACE FITTINGS WERE INSTALLED CLEAR OF PROPOSED & EXISTING DRIVEWAY / PRAM RAMP.

DENOTES ESMT FOR PADMOUNT SUBSTATION 2.75 W.

0 10 20 30 40 50 METRES

✳ DENOTES PROPERTY SERVICE CONNECTION INSTALLED ON EXISTING MAIN. CONNECTION MADE TO EXISTING *PRESSURISED* MAIN WITH *MAIN TAP* IN ACCORDANCE WITH *WAT-1108-V*.

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Quality Endorsed Company

RECYCLED WATER DETAIL PLAN

SHEET 7 OF 7 | VERSION: WAC

DRAFTED:	DESIGNED:	REVIEWED:	VERIFIED:	JOB No:
D.SHEATHER	D.SHEATHER	K.GAO	K.GAO	4/23645/F2A
SCALE: 1:500	DATUM: -	U.D. REFERENCE: 88 K16	DATE OF ISSUE: 18/11/2025	