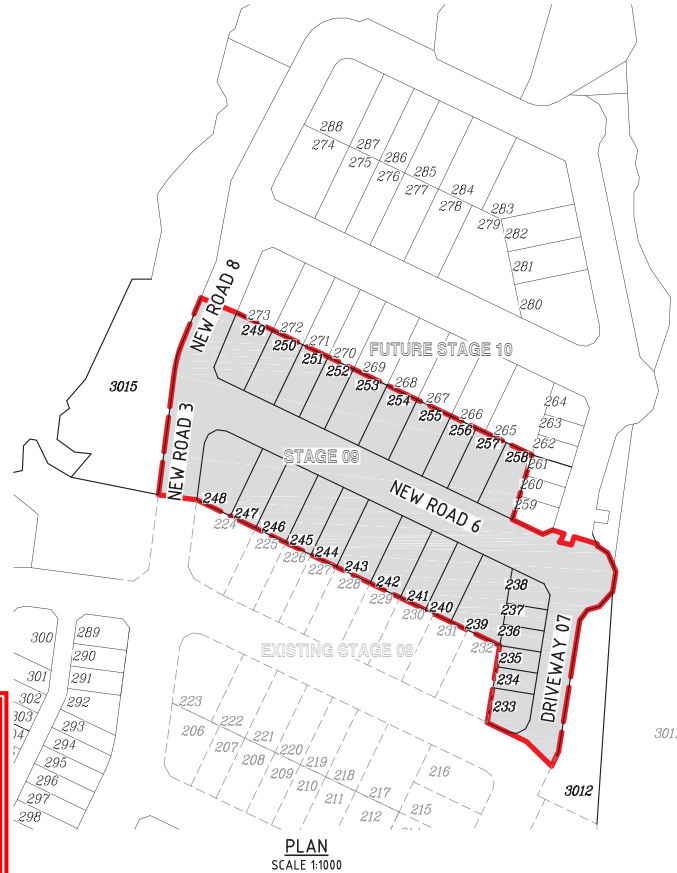




RIVERMONT PRECINCT 2 STAGE 9 - 26 LOTS

DRAWING INDEX

DRAWING NO.	DRAWING TITLE
24-279-51	GENERAL - LOCALITY PLAN, DRAWING INDEX AND NOTES
24-279-52	SEWER RETICULATION - LAYOUT PLAN
24-279-53	SEWER RETICULATION - NOTES - SHEET 1
24-279-54	SEWER RETICULATION - NOTES - SHEET 2
24-279-55	SEWER RETICULATION - TYPICAL TYPE A CROSS ROAD - PROPERTY CONNECTION
24-279-56	SEWER RETICULATION - TYPICAL TYPE B CROSS ROAD - PROPERTY CONNECTION
24-279-57	SEWER RETICULATION - TYPICAL TYPE C CROSS ROAD - PROPERTY CONNECTION
24-279-58	SEWER RETICULATION - NON-CONFORMANCE TABLE
24-279-59	SEWER RETICULATION - LONGITUDINAL SECTIONS - SHEET 1
24-279-60	SEWER RETICULATION - LONGITUDINAL SECTIONS SHEET 2
24-279-61	WATER RETICULATION - LAYOUT PLAN
24-279-62	WATER RETICULATION - LOCALITY PLAN
24-279-63	WATER RETICULATION - LIVE CONNECTION DETAIL



**PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**

Approval no: DEV-2026-WAR-4912

Date: 11/08/2026



AMENDED IN RED

By: Mahima Reshamwala

Date: 11/08/2026



UNITYWATER NETWORK WORKS STANDARD DESIGN DRAWING NOTES

WATER SUPPLY NETWORK WORKS

- ALL DESIGN OF WATER SUPPLY NETWORK WORKS SHALL BE IN ACCORDANCE WITH THE WATER SUPPLY CODE OF AUSTRALIA, SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION VERSION 1.4 (MARCH 2024), PART 1: PLANNING AND DESIGN AND PART 3: DRAWINGS.
- ALL CONSTRUCTION OF WATER SUPPLY NETWORK WORKS SHALL BE IN ACCORDANCE WITH THE WATER SUPPLY CODE OF AUSTRALIA, SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION VERSION 1.4 (MARCH 2024), PART 2: CONSTRUCTION AND PART 3: DRAWINGS.
- ALL PRODUCTS AND MATERIALS USED IN CONSTRUCTION OF WATER SUPPLY NETWORK WORKS SHALL BE IN ACCORDANCE WITH THE SOUTH EAST QUEENSLAND CODE ACCEPTED CIVIL INFRASTRUCTURE PRODUCTS AND MATERIAL LIST, AND THE MOST RECENT VERSION OF THE LIST IN EFFECT AT THE DATE OF THE CONSTRUCTION PRE-START MEETING.
- CONSTRUCTION WORKS SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO UNITYWATER'S WATER SUPPLY NETWORK.
- ALL LIVE WORKS ASSOCIATED WITH THE WATER SUPPLY NETWORK SHALL BE CARRIED OUT AT THE DEVELOPER'S COST BY QUOTATION REQUEST TO UNITYWATER PRIVATE WORKS ONLY.
- THE CONSTRUCTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT ASSET OWNERS AND AUTHORITIES BEFORE COMMENCING WORKS.
- PRIOR TO COMMENCEMENT OF ANY VARIATION WORKS, THE CONSTRUCTOR MUST FIRST OBTAIN APPROVAL FROM THE REGISTERED MAJOR CONNECTIONS CERTIFIER.

GRAVITY SEWERAGE NETWORK WORKS

- ALL DESIGN OF GRAVITY SEWERAGE NETWORK WORKS SHALL BE IN ACCORDANCE WITH THE GRAVITY SEWERAGE CODE OF AUSTRALIA, SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION VERSION 2.1 (SEPT 2021), PART 1: PLANNING AND DESIGN AND PART 3: DRAWINGS.
- ALL CONSTRUCTION OF GRAVITY SEWERAGE NETWORK WORKS SHALL BE IN ACCORDANCE WITH THE GRAVITY SEWERAGE CODE OF AUSTRALIA, SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION VERSION 2.1 (SEPT 2021), PART 2: CONSTRUCTION AND PART 3: DRAWINGS.
- ALL PRODUCTS AND MATERIALS USED IN CONSTRUCTION OF GRAVITY SEWERAGE NETWORK WORKS SHALL BE IN ACCORDANCE WITH THE SOUTH EAST QUEENSLAND CODE ACCEPTED CIVIL INFRASTRUCTURE PRODUCTS AND MATERIAL LIST, AND THE MOST RECENT VERSION OF THE LIST IN EFFECT AT THE DATE OF THE CONSTRUCTION PRE-START MEETING.
- ALL LIVE WORKS ASSOCIATED WITH THE SEWERAGE NETWORK SHALL BE CARRIED OUT AT THE DEVELOPER'S COST, EITHER:
 - BY THE CONSTRUCTOR, FOR 'MINOR' SEWERAGE CONNECTION WORKS, DEFINED IN THE A&C MANUAL UNDER SECTION PRE-START MEETING, UNDER THE INSPECTION OF THE CONSTRUCTION CERTIFIER WHO SHALL FOLLOW THE PLANNED NETWORK INTERVENTION PROCESS, OR
 - BY QUOTATION REQUEST TO UNITYWATER PRIVATE WORKS, FOR SEWERAGE CONNECTION WORKS NOT MEETING THE CRITERIA FOR CLASSIFICATION AS 'MINOR'.
- THE CONSTRUCTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT ASSET OWNERS AND AUTHORITIES BEFORE COMMENCING WORKS.
- PRIOR TO COMMENCEMENT OF ANY VARIATION WORKS, THE CONSTRUCTOR MUST FIRST OBTAIN APPROVAL FROM THE REGISTERED MAJOR CONNECTIONS CERTIFIER.

DATUM A.H.D.
P.S.M. No 103504
E 497116.520
N 6998102.825
RL 19.282

UNITYWATER STAGED CONNECTION	APP-26477
CMB DA REF No.	DA/2026/2065

SCALE 1:1000 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



LOCALITY PLAN

STAGE 9



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	14.04.2026	DF

Client



Project

RIVERMONT
PRECINCT 2
STAGE 9



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.04.17
10:55:04 +1000

Drawing Title

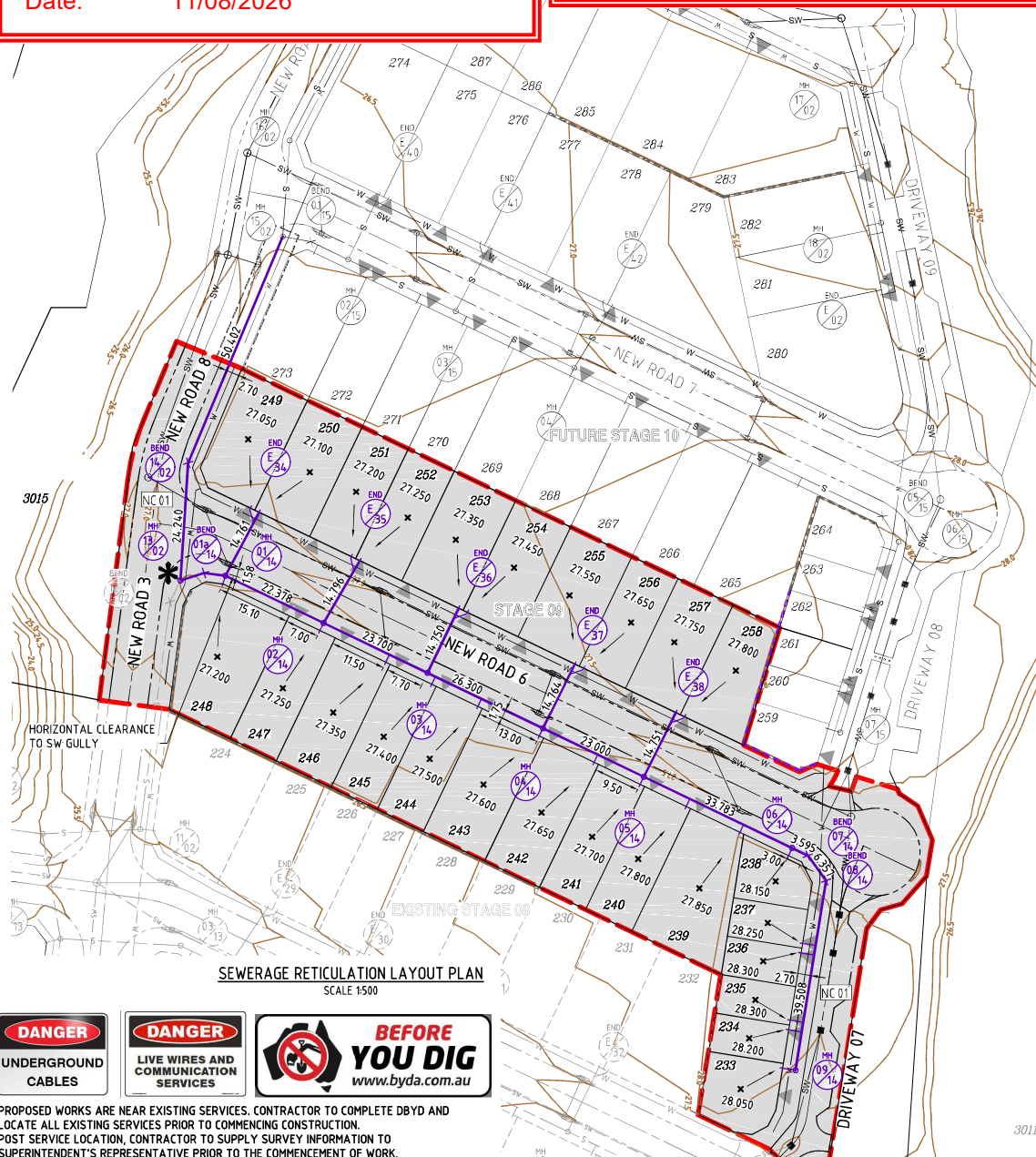
GENERAL
LOCALITY PLAN,
DRAWING INDEX AND NOTES

Drawn	Designed	Checked	Date
DF	VS	MAS	APR 26
Scale	Sheet	Revision	
AS SHOWN	1 of 13		
Drawing No	Revision		
A1	24-279-51	A	

Date: 11/08/2026



Date: 11/08/2026



	MANHOLE
	BEND
	END OF LINE
	FUTURE MANHOLE
	EXISTING MANHOLE
	EXISTING BEND

	WORKS BOUNDARY
	ROAD CENTRELINE
	M3 MOUNTABLE KERB AND CHANNEL
	B1 BARRIER KERB AND CHANNEL (300)
	B2 BARRIER KERB
	PROPOSED DN160 SEWER MAIN
	PROPOSED SLEEPER RETAINING WALL
	FUTURE SLEEPER RETAINING WALL
	EXISTING SLEEPER RETAINING WALL
	PROPOSED STORMWATER MAIN
	PROPOSED WATER MAIN
	EXISTING SEWER MAIN
	EXISTING STORMWATER
	EXISTING WATER MAIN
	EXISTING ELECTRICAL
	DESIGN SURFACE CONTOURS (0.1m)
	FINISHED SURFACE CONTOURS
	DEFINES CONNECTION REQUIRED BY UNITY WATER
	CONTROL POINT AND LEVEL
	FLOW ARROW
	BEND LOCATION
	UNITY WATER EASEMENT
	DENOTES NON-CONFORMING DESIGN ASPECT.
	REFER TO NON-CONFORMING DESIGN
	ASPECTS KN DWG 24-279-58 FOR DETAILS.

Both the horizontal and vertical clearances between the sewer main/property connection and any electrical cables, conduits and pillar boxes must comply with the requirements of the SEQ Code.

NOTE:
FOR BENCHING DETAILS REFER SEQ-SEW-1304-1,
SEQ-SEW-1305-1, AND SEQ-SEW-1306-1.

NOTES
PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1-60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 15m. UNLESS OTHERWISE STATED. FOR PE NUSEWER JUNCTION DETAILS REFER SEQ-SEW-1106-1 TO SEQ-SEW-1106-6.

ALL CONNECTIONS TO LIVE SEWER TO BE UNDERTAKEN BY CONTRACTOR UNDER SUPERVISION OF CONSTRUCTION CERTIFIER OR AS DIRECTED BY UNITYWATER, AND AT THE DEVELOPERS EXPENSE

NOTE
ALL WORKS ON EXISTING SEWER MAINS TO BE
CARRIED OUT BY UNITYWATER AT THE DEVELOPERS
EXPENSE.

ALL WATER AND SEWER CONSTRUCTION WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORKPLACE HEALTH AND SAFETY ACT 2011.
CONTACT YOUR NEAREST OFFICE OF THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION.
PHONE: 1300 362 128

CONTRACTOR TO CONFIRM ALL EXISTING SERVICES
LOCATIONS AND MATERIAL PRIOR TO CONSTRUCTION

WHERE PROPERTY CONNECTION INSPECTION TEES
TERMINATE BENEATH DRIVEWAY SLAB, EXTEND AN I.O.
RISER TO SURFACE LEVEL AND FINISH WITH
TRAFFICABLE BRASS CAP

SCALE  1 : 500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



LOCALITY PLAN

STAGE 9



REVISIONS

[illegible]

Client	
--------	--



Project

RIVERMONT
PRECINCT 2
STAGE 9



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
M. Shaw
 Digitally signed by Mark Shaw RPEQ 17544
 Date: 2026.07.15 10:43:11+10'00'

Drawing Title

SEWER RETICULATION
LAYOUT PLAN

Drawn DF	Designed VS	Checked MAS	Date MAY' 26
Scale AS SHOWN			Sheet 2 of 13
A1	Drawing No 24-279-52		Revision B

M:\2024\24279 Rivermont P3 Stage 9\Engineering\Acad\24-279-52-58-SEWER.dwg Plotted by: AL on 15/07/2026 10:33:37 AM

NOTES

- ## ENVIRONMENTAL CONDITION

- ## VEGETATION PROTECTION

- SOIL

- ## CREEK CROSSINGS

- ## REHABILITATION

- ## SAFETY

- ## MAINTENANCE HOLES

DESIGN REQUIREMENTS

- | LOCATION | LIVE LOAD | ACCESS COVERS
TO AS 3996 |
|---|-----------|-----------------------------|
| RESERVES, RESIDENTIAL ALLOTMENTS,
FOOTPATHS AND VERGES | 25 kN | CLASS RATING B |
| ROADWAYS AND DRIVEWAYS, COMMERCIAL,
INDUSTRIAL AND NON-RESIDENTIAL
ALLOTMENTS | 80 kN | CLASS RATING D |

LOCATION	LIVE LOAD	ACCESS COVERS TO AS 3996
RESERVES, RESIDENTIAL ALLOTMENTS, FOOTPATHS AND VERGES	25 kN	CLASS RATING B
ROADWAYS AND DRIVEWAYS, COMMERCIAL, INDUSTRIAL AND NON-RESIDENTIAL ALLOTMENTS	80 kN	CLASS RATING D

- ### 3. DURABILITY CLASSIFICATION

STRUCTURE	COVER LOCATION	EXPOSURE CLASSIFICATION AS 3600, AS 3735	REINFORCEMENT COVER (mm)
SLABS	TOP	B2 TO AS 3600	40
	BOTTOM	B2 TO AS 3735	50 INCLUDING PE LINER THICKNESS

- ## GENERAL

- ## MAINTENANCE HOLES

- ## MAINTENANCE HOLE CIRCULAR ACCESS COVERS

- ## SAFETY IN DESIGN

- ## CONCRETE

- | CONCRETE
STRUCTURE | CONCRETE
STRENGTH f'_c | TEMPERATURE
LIMIT |
|---|---------------------------------|----------------------|
| CONCRETE SECTIONS LESS
THAN 600mm THICK. | EQUAL TO OR MORE THAN
40MPa. | 35°C |
| CONCRETE SECTIONS EQUAL
TO OR GREATER THAN
600mm THICK. | EQUAL TO OR MORE THAN
40MPa. | 27°C |

- | TYPE OF AGGREGATE | CALCAREOUS |
|---------------------------------|------------------------|
| COMPRESSIVE STRENGTH AT 28 DAYS | 40 MPa |
| MINIMUM CEMENT CONTENT | 380 kg/m ³ |
| MAXIMUM CEMENTITIOUS MATERIAL | 25% |
| MAXIMUM WATER/CEMENT RATIO | 0.5 |
| NOMINAL SLUMP | 80mm±15 |
| DRYING SHRINKAGE AT 21 DAYS | 500 x 10 ⁻⁶ |
| MAXIMUM AGGREGATE SIZE | 20mm |
| MINIMUM AGGREGATE SIZE | 10mm |

- ## REINFORCEMENT

- | BAR SIZE | LAP LENGTH (mm) |
|----------|-----------------|
| N12 | 350 |
| N16 | 500 |
| N20 | 600 |
| N24 | 700 |
| N28 | 850 |
| N32 | 950 |

- 

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4912

Date: 11/08/2026

1. PRECAST CONCRETE MEMBERS TO COMPLY WITH AS 3850.1 AND AS 3850.2
2. PRECAST MEMBERS ARE DESIGNED FOR THE FINAL INSTALLED CONDITIONS ONLY. PRECAST MANUFACTURER TO DESIGN THE PRECAST MEMBERS INCLUDING CONNECTIONS, FIXING DETAILS, JOINTS, FIRE RESISTANCE, ETC. FOR STABILITY, SERVICEABILITY AND STRENGTH REQUIREMENTS REQUIRED DURING MANUFACTURE, TRANSPORT, LIFTING, ERECTION AND INSTALLATION.
3. PRECAST MANUFACTURER TO PROVIDE THEIR SHOP DRAWINGS AND RPEO CERTIFICATION FOR CONSTRUCTION OF THE PRECAST SLAB TO THE DESIGNS PROVIDED IN MAINTENANCE HOLE DRAWINGS INCLUDING DESIGN AND CONSTRUCTION CERTIFICATION FOR CONNECTIONS AND FIXING REQUIRED FOR MANUFACTURE, TRANSPORT, ERECTION AND INSTALLATION. (FORM 15 AND 16)
4. PRECAST CONCRETE MEMBERS TO BE SUPPLIED AND CONSTRUCTED BY A PRECAST CONCRETE CONSTRUCTOR.
5. ADEQUATELY DESIGNED TEMPORARY BRACING, AS REQUIRED, TO BE PROVIDED DURING ERECTION AND INSTALLATION.
6. MINIMUM CHARACTERISTIC COMPRESSIVE STRENGTH OF CONCRETE AT REMOVAL FROM MOULDS SHALL BE 15MPa
7. ALL INSERTS IN PRECAST CONCRETE MEMBERS TO BE STAINLESS STEEL.
8. ALL STRUCTURAL STEELWORK CONNECTIONS TO PRECAST CONCRETE MEMBERS TO BE HOT DIP GALVANISED TO AS 4680 SYSTEM DESIGNATION HDG600.
9. PROVIDE 15mm CHAMFERS OR FILLETS AT EDGES AND CORNERS OF PRECAST MEMBERS EXCEPT AT UNDERSIDE OF 1mm SLAB ACCESS OPENING UNLESS APPROVED OTHERWISE.
10. PRECAST CONCRETE MEMBERS NOT TO BE ERECTED ON REINFORCED CONCRETE STRUCTURES UNTIL THE REINFORCED CONCRETE STRUCTURES HAVE BEEN CURED TO ACHIEVE 28 DAYS' STRENGTH.
11. WEIGHT OF TOP SLAB TO BE STAMPED ON THE SLAB.
12. CONCRETE TO BE SPECIAL CLASS TO WMA PS-35R WITH CALSAREOUS AGGREGATE.
13. APPROVED LIFTING PLAN IS TO BE AVAILABLE ON REQUEST.

1.	STAINLESS STEEL TO COMPLY TO ASTM A240/A240M AND ASTM A480/A480M.
2.	FABRICATION BY MANUFACTURERS ASSD ACCREDITED OR APPROVED EQUIVALENT.
3.	STAINLESS STEEL TO BE GRADE 316 OR 316L UNO.
4.	STORAGE, FABRICATION AND WELDING TO BE IN APPROVED DEDICATED AREAS.
5.	WELDING, CLEANING, PICKLING AND PASSIVATION TO COMPLY TO AS 1554.6 AND WITIA TECHNICAL NOTE 16 WELDING OR STAINLESS STEEL.
6.	SURFACE FINISH TO BE 2B OR BETTER TO ASTM A480.
7.	MEMBERS TO BE ACID PASSIVATED AFTER FABRICATION.
8.	ANTI GALLING COMPOUND "DURALON" OR EQUIV-SP APPROVED EQUIVALENT REQUIRED ON ALL FASTENERS UNLESS APPROVED OTHERWISE.

1. THE PE LINER SHALL FORM A COMPLETELY SEALED AND WELDED ROBUST CONTINUOUS MEMBRANE SYSTEM. THE PE LINER SHALL BE BUILT TO THE MH CONSTRUCTION TOLERANCES WITHOUT ANY DEFECTS SUCH AS BULGING, WARPING, PINCHING, OVERLAPPING.
2. THE PE SHEETS SHALL:
 - HAVE A MINIMUM THICKNESS OF 2.5 mm.
 - ACHIEVE A MECHANICAL BOND BETWEEN THE CONCRETE AND LINER.
 - BE INSTALLED BY AN ACCREDITED APPLICATOR APPROVED BY THE MANUFACTURER.
 - BE TENSIONED OVER THE FORMWORK WITHIN THE YIELD ELONGATION LIMIT PRIOR TO SECURING TO THE FORMWORK.
3. PREPARATION, APPLICATION AND INSTALLATION TO COMPLY WITH THE MANUFACTURER'S SPECIFICATION.
4. POURED CONCRETE TO BE AT A COOLER AMBIENT TEMPERATURE THAN THE TEMPERATURE WHEN THE PE SHEETS WERE ATTACHED TO THE FORMWORK.
5. EXTRUSION WELDING AND WELD TESTING AT SEAMS TO BE UNDERTAKEN BY THE APPROVED APPLICATOR TO THE MANUFACTURER'S SPECIFICATION.
6. ENCAPSULATION OF ANCHORS TO BE CHECKED BY TAPPING THE SURFACE TO DETECT HOLLOW SOUNDS THAT INDICATE VOIDS. VOIDS TO BE FILLED BY INJECTION GROUT AND PE SHEET REPAIRED BY EXTRUSION WELDING OVER THE INJECTION HOLE.

1. STRUCTURAL STEEL WORKMANSHIP AND MATERIALS TO COMPLY WITH AS 4100.
2. STEEL TO COMPLY WITH:
 - AS 1163 GRADE C350 FOR RECTANGULAR AND HOLLOW SECTIONS.
 - AS 3678 FOR PLATES AND FLOOR PLATES.
 - AS 3679.1 GRADE 300 OR BHP GRADE 300 PLUS FOR PARALLEL FLANGE CHANNELS.
 - AS 3679.2 GRADE 300 FOR WELDED BEAMS AND COLUMNS.
 - OTHER SECTIONS TO COMPLY WITH AS 3678 OR AS 3679 GRADE 250.
3. WELDS TO AS 1554.
 - WELD CATEGORY SP
 - BUTT WELDS TO BE FULL PENETRATION WELDS.
 - WELDS TO BE 6mm CONTINUOUS FILLET WELDS ALL ROUND INTERFACES.
 - ELECTRODES TO AS 1554. CLASSIFICATION E48X.
4. BOLTS TO AS 1275. COMMERCIAL GRADE 4.6/S TO AS 1111 AND AS 1112. HIGH STRENGTH STRUCTURAL BOLTS TO AS 1252.
 - BOLTS, NUTS AND WASHERS M16 AND LARGER TO GRADE 8.8/S. M12 TO BE GRADE 4.6/S.
 - STRUCTURAL CONNECTIONS TO BE 2 M16 8.8/S WITH 10mm THICK CLEAT PLATE UNLESS NOTED OTHERWISE.
 - INSTALL WASHERS UNDER BOLT HEAD AND NUT. INSTALL TAPERED WASHERS AS REQUIRED.
 - BOLT PROJECTION BEYOND NUT TO BE MINIMUM TWO THREADS AND MAXIMUM 10mm.
5. HOLD DOWN BOLTS TO BE GRADE 4.6/S UNLESS NOTED OTHERWISE. HOLD DOWN BOLTS GROUPS TO BE RIGIDLY TIGHT FOR CORRECT SET-OUT AND LOCATION.
6. SEAL WELD HOLLOW SECTIONS WITH 3mm THICK CAP PLATE UNLESS NOTED OTHERWISE.
7. GROUT BASE PLATES WITH HIGH STRENGTH NON-SHRINK PRE-MIXED GROUT BEFORE COLUMNS ARE LOADED.

1. STEELWORK TO BE HOT DIP GALVANISED TO AS 4680 SYSTEM DESIGNATION HDG600 AND THREADED FASTENERS TO AS 1214.
2. DAMAGED GALVANISED COATING REPAIR:
 - POWER CLEAN TO AS 1627.2
 - SOLVENT CLEAN/ DEGREASE TO AS 1627.1
 - APPLY TIN/ZINC TO PRE-HEATED STEEL OVERLAPPING THE GALVANISING COATING.

- CORE HOLES ON EACH CORNER OF AREA TO BE CUT.
- SAW CUT CONCRETE, PERPENDICULAR TO CONCRETE SURFACE, 15mm DEEP AROUND PERIMETER OF THE OPENING.
- BREAKOUT REMAINING CONCRETE AROUND THE OPENING WITHOUT DAMAGING REINFORCEMENT.
- CUT EXPOSED REINFORCEMENT SO THAT IS 30 mm CLEAR OF THE PIPE.
- CLEAN CONCRETE SURFACE AND REMOVE ALL LOOSE MATERIAL.
- ABRASIVE BLAST CLEAN EXPOSED REINFORCEMENT. IF IT IS CORRODED AND APPLY "WUPRIME" ZINC RICH PRIMER UNLESS APPROVED OTHERWISE.
- SOAK SUBSTRATE WITH CLEAN WATER FOR A MINIMUM OF TWO HOURS.
- PLACE M12 CIRCULAR TRIMMER ON BOTH SIDES OF THE PIPE FLANGE.
- INSTALL HYDROTITE CJ-07-25 SEAL ON PIPE 50mm FROM CONCRETE SURFACE UNLESS APPROVED OTHERWISE.
- APPLY "INTOBOND HAR" PRIMER TO CONCRETE SURFACE UNLESS APPROVED OTHERWISE.
- POUR CONCRETE/GROUT UNDER PRESSURE TO FILL OPENING.
- FILL CONCRETE/GROUT TO SUPPLIER REQUIREMENTS.

1. ALL EXPOSED REINFORCEMENT AND MILD STEEL ANCHORED TO BE REPAIRED AS FOLLOWS:
 - SAW CUT OR CHISEL CUT CONCRETE, PERPENDICULAR TO CONCRETE SURFACE, 15mm DEEP AROUND REINFORCEMENT/ANCHOR.
 - BREAKOUT CONCRETE AROUND REINFORCEMENT/ANCHOR TO A DEPTH OF 60mm.
 - CUT EXPOSED REINFORCEMENT/ANCHOR AT A MINIMUM DEPTH OF 50mm FROM CONCRETE SURFACE.
 - CLEAN CONCRETE SURFACE AND REMOVE ALL LOOSE MATERIAL.
 - ABRASIVE BLAST CLEAN EXPOSED REINFORCEMENT/ANCHOR. APPLY "NITOPRIME" ZINC RICH PRIMER TO REINFORCEMENT/ANCHOR UNLESS APPROVED OTHERWISE. THOROUGHLY SOAK SUBSTRATE WITH WATER.
 - APPLY "NITOBOND HA" PRIMER TO CONCRETE UNLESS APPROVED OTHERWISE.
 - APPLY "RENDERO HB40" TO FILL OPENING UNLESS APPROVED OTHERWISE,

1. BENCH MARK LEVELS ARE AS SHOWN ON KN DWG No 24-279-52.
2. THE CONTRACTOR SHALL VERIFY FINISH SURFACE LEVELS ON SITE BEFORE CONSTRUCTION OF SEWERS AND PROPERTY CONNECTION BRANCHES.
3. F.S.L SHOWN ON THE LONGITUDINAL SECTIONS ARE INDICATIVE ONLY. MANHOLE COVERS TO BE CONSTRUCTED AS PER STD DWG No SEQ-SEW-1308-1.
4. UNITYWATER HAS APPROVED THE USE OF 5mm GRAVEL SCREENING AROUND AND SUPPORTING THE BOTTOM AND SIDES OF PIPES, A NON-COHESIVE GRANULAR MATERIAL COMPLYING WITH THE GRADING, AS SETOUT IN UNITYWATER'S SPECIFICATIONS SHALL BE USED TO ENCLOSE THE HOUSE CONNECTION BRANCH.
5. VACUUM TESTING OF ALL SEWER MANHOLES AND PIPELINES ARE REQUIRED TO THE SEQ WS&S D&C CODE - UNITYWATER - SPECIFICATION REQUIREMENTS.
6. PRIOR TO COMMENCING WORKS/CONSTRUCTIONS TO LIVE SEWERS KN IS TO BE NOTIFIED OF PROPOSED TIMING AND ALLOW NOTIFICATION TO UNITYWATER REPRESENTATIVES.
7. SEWER MAINTENANCE HOLES SHALL BE CONSTRUCTED WITHOUT STEP IRONS OR LADDERS.
8. DETECTABLE MARKER TAPE TO BE INSTALLED OVER ALL SEWER MAINS DIRECTLY ABOVE SCREENINGS.
9. PIPE EMBEDMENT SHALL BE CONSTRUCTED AS PER STD DWG No. SEQ-SEW-1201-1 TO SEQ-SEW-1205-1.
10. PROPERTY CONNECTION BRANCHES SHALL BE CONSTRUCTED AS PER STD DWG No SEQ-SEW-1106-1 TO SEQ-SEW-1106-6.
11. CCTV FOOTAGE TO UNITYWATER SEQ D&C CODE REQUIREMENTS TO BE PROVIDED. KN TO REVIEW/REPORT FOOTAGE FOR EACH SEWER LINE. CCTV NOT REQUIRED ON DN160 CROSS ROAD PROPERTY CONNECTIONS.
12. TANGENT POINT SET-OUT INFORMATION FOR HORIZONTAL BENDS IS TO BE INCLUDED ON AS-CONSTRUCTED DRAWINGS.
13. ALL PE-PE CONNECTIONS SHALL BE WELDED. WELDING REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSA 02-014-31.1 CLAUSE 4.7.1. CLASS PN10/SOR17 PE FITTINGS SHALL BE UTILISED THROUGHOUT.
14. ALL CONNECTIONS TO LIVE SEWER TO BE UNDERTAKEN BY CONTRACTOR UNDER SUPERVISION OF CONSTRUCTION CERTIFIER OR AS DIRECTED BY UNITYWATER, AND AT THE DEVELOPERS EXPENSE. ALL LRB RADII SHALL BE 35 TIMES THE OUTSIDE DIAMETER OF AN SOR21 PE PIPE AND 25 TIMES THE OUTSIDE DIAMETER OF AN SOR17 PE100 PIPE. MOULDED PVC FITTING ARE NOT PERMITTED.
15. LEVELS FOR EXISTING SEWER HAVE BEEN OBTAINED FROM AS-CONSTRUCTED INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM EXISTING LEVELS ON SITE.
16. WHERE PROPERTY CONNECTION INSPECTION TEES TERMINATE BENEATH DRIVEWAY SLAB, EXTEND AN I.O. RISER TO SURFACE LEVEL AND FINISH WITH TRAFFICABLE BRASS CAP.

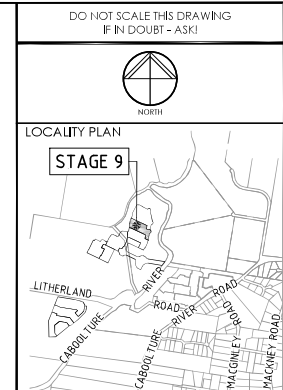
[illegible]

SOIL DESCRIPTION	APPROXIMATE NATIVE SOIL MODULUS (MPa)	SDR	PE 100 DN160 TRENCH WIDTH (mm)	MAX DEPTH (mm)
SOFT CLAY	5.0	21	600	6000

1. EMBEDMENT MATERIAL TO BE SINGLE SIZE CRUSHED ROCK NOMINAL 5 TO 7mm SIZE OR AS NOMINATED IN THE SEQ. ACCEPTED PRODUCTS AND MATERIALS LIST.
2. THE CONTRACTOR MUST CONFIRM THE TRENCH SUBGRADE INSITU MATERIAL CHARACTERISTICS EQUAL OR EXCEED A MINIMUM NATIVE SOIL MODULUS OF 0.9 MPa AND SUBMIT TO THE SUPERINTENDENT FOR APPROVAL, PRIOR TO PROGRESSING WITH CONSTRUCTION.

Queensland
Government

NAME OF ESTATE		RIVERMONT-PRECINCT 2-STAGE 09
SUBDIVIDER		STOCKLAND
APPLICATION No.		
SP DELEGATE APPROVAL DATE		
DRAWING/PLAN No.		
No. OF ALLOTMENTS		26
AREA IN ha.		1.223
LENGTH OF SEWERS (m)	DN160 PE100	336.626
	DN250 PE100	-

[illegible]

Project

RIVERMONT
PRECINCT 2
STAGE 9

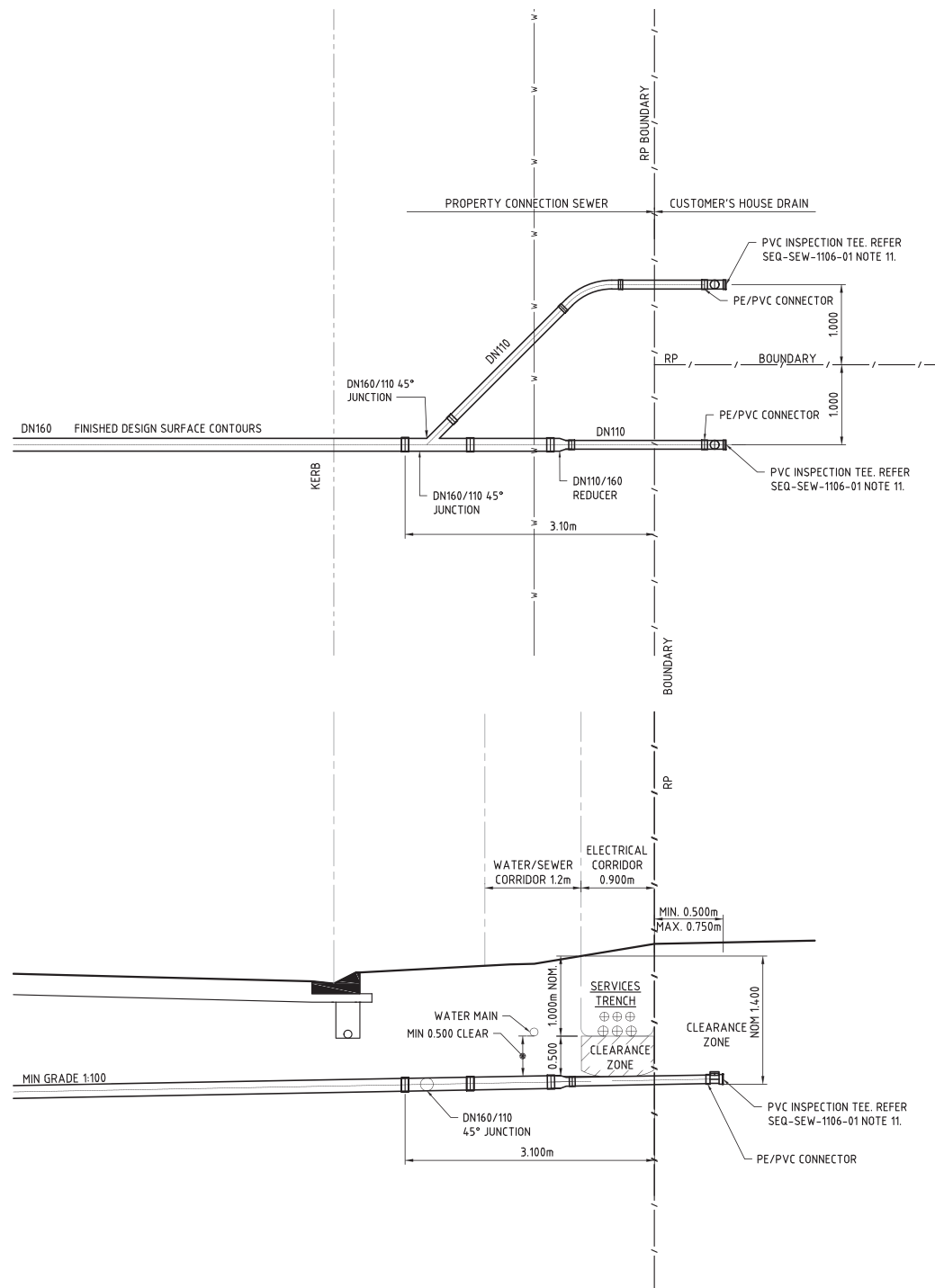


L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
M. Shaw
 Digitally signed by Mark Shaw RPEQ 17544
 Date: 2026.07.15 10:43:12+10'00'

Drawn DF	Designed VS	Checked MAS	Date MAY' 26
Scale AS SHOWN			Sheet 4 of 13
A1	Drawing No 24-279-54		Revision B

Date: 11/08/2026



DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



LOCALITY PLAN

STAGE 9



REVISIONS

[illegible]

Client	
--------	--



Project	
---------	--

RIVERMONT
PRECINCT 2
STAGE 9



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

Approved Director - RPEQ 17544

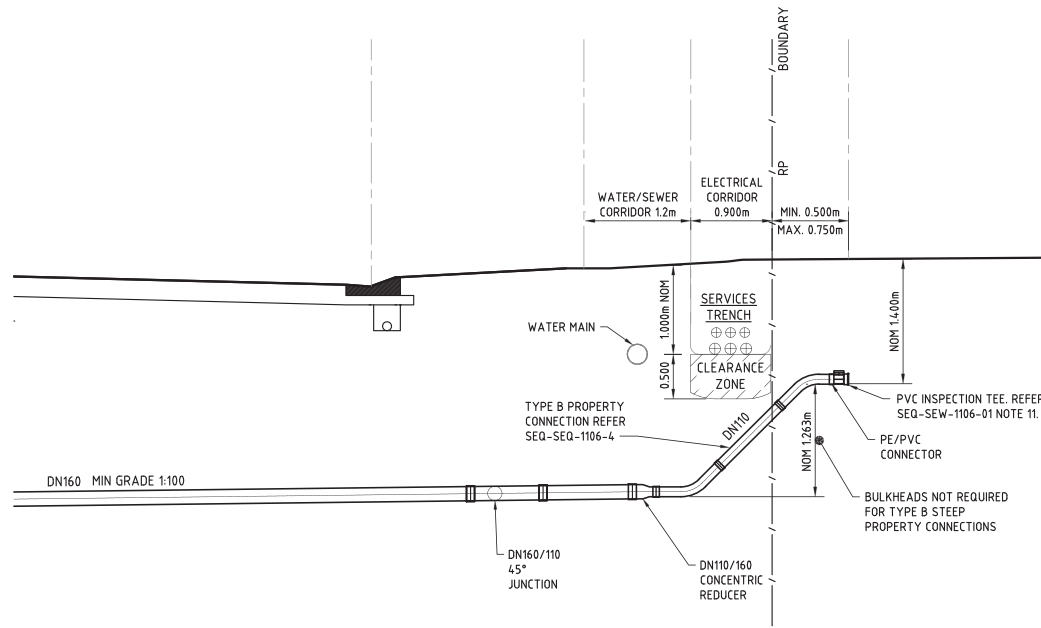
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.04.17
10:05:06 +10'00'

10.05.08 10:08
Drawing Title
SEWER RETICULATION
TYPICAL TYPE A CROSS ROAD
PROPERTY CONNECTION

Drawn DF	Designed VS	Checked MAS	Date APR '26
Scale AS SHOWN			Sheet 5 of 13
A1	Drawing No 24-279-55		Revision A

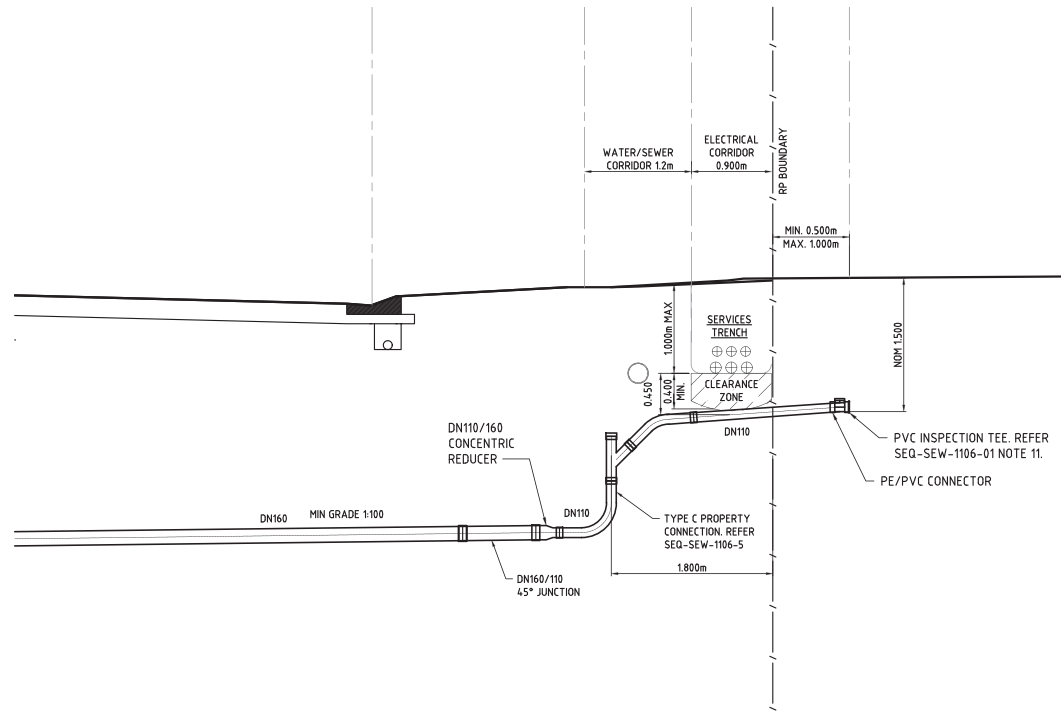
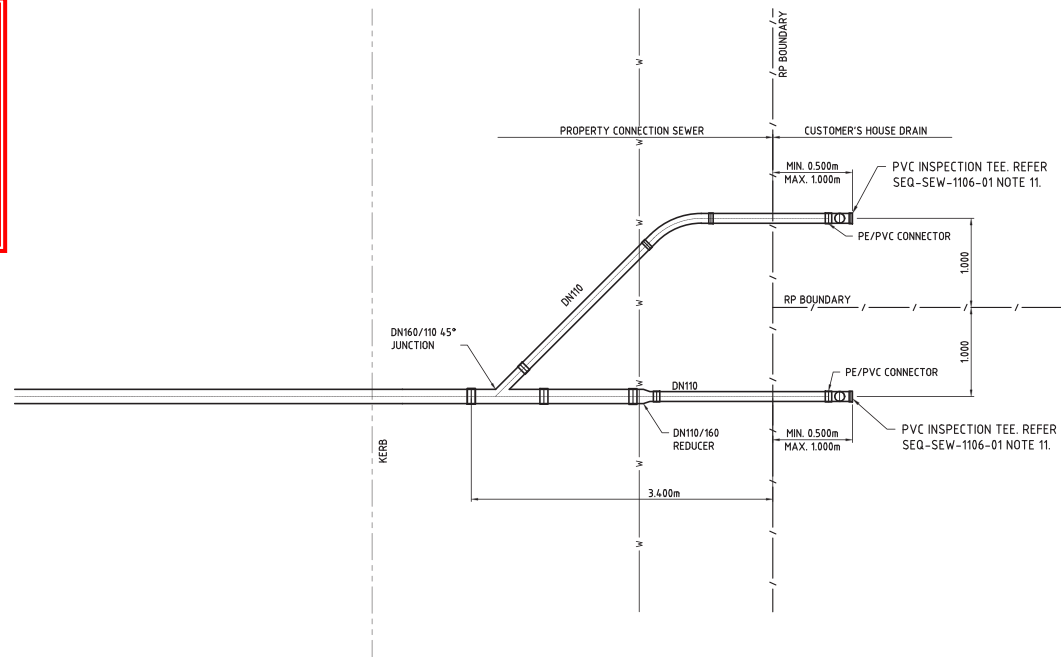
Approval no: DEV-2026-WAR-4912

Date: 11/08/2026



Drawn DF	Designed VS	Checked MAS	Date APR '26
Scale AS SHOWN			Sheet 6 of 13
A1	Drawing No 24-279-56		Revision A

Date: 11/08/2026



STAGE 9

[illegible]

Stockland

RIVERMONT
PRECINCT 2
STAGE 9



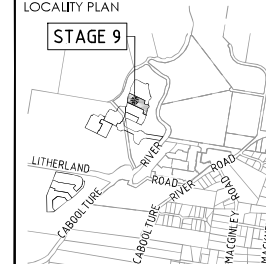
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.04.17
13:07:00 -0700

Drawn DF	Designed VS	Checked MAS	Date APR '26
Scale AS SHOWN			Sheet 7 of 13
A1	Drawing No 24-279-57		Revision A

No.	SEQ CODE CLAUSE	DETAILS FOR PROPOSED VARIATION	REASON FOR PROPOSED VARIATION	RELEVANT SERVICE
NC01	SEQ. WATER SUPPLY CODE CL 5.4.2.2 LOCATION IN FOOTWAY	WATER IN SHARED VERGE ALONG NEW ROAD 3, NEW ROAD 4 AND DRIVEWAY 07.	CONSIDERED AN ACCEPTABLE OUTCOME GIVEN NO DEVELOPMENT IS PROPOSED ALONG OPPOSITE VERGE. MINIMUM HORIZONTAL CLEARANCES AS PER SEQ WATER SUPPLY CODE CL 5.12.5.2 ACHIEVED.	DRINKING WATER

NORTH

STAGE 9

[illegible]

Client	



Project

RIVERMONT
PRECINCT 2
STAGE 9



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

M. Shaw
Digitally signed by Mark Shaw RPEQ
17544
Date: 2026.07.15
10:43:12+10'00'

Drawing Title

SEWER RETICULATION NON-CONFORMANCE TABLE

Drawn DF	Designed VS	Checked MAS	Date MAY '20
Scale AS SHOWN			Sheet 8 of 1
A1	Drawing No 24-279-58		Revision B

Date: 11/08/2026



MAINTENANCE HOLE/SHAFT No.

MH/MS COVER TYPE
MH/MS TYPE
BRANCH LINE No.
BRANCH DROP TYPE
HC TYPE
HC DEPTH
HC CH. TO DS MH/MS
HC INVERT LEVEL
HC LOT No.

LEGEND:

- G = CONCRETE 0.900Ø MH AS PER SEQ-SEW-1301-2 TO 1301-5 WITH MINIMUM 150mm WALL THICKNESS.
F = CONCRETE 1.200Ø MH AS PER SEQ-SEW-1301-8 TO 1301-11
X = CONCRETE 1.200Ø MH AS PER SEQ-SEW-1301-14 TO 1301-21 EXCLUDING SAFETY CHAINS AND LADDER AS PER UW P11051 REV 1
ⓐ = PE LINED SEQ-SPS-1407-1, 1407-2, AND SEQ-SEW-1301-26
+ = INTERNAL DROP PROPERTY CONNECTION REFER TO TYPICAL DETAIL ON NOTES PAGE
ⓑ = CLASS B NON-TRAFFICABLE
ⓓ = CLASS D TRAFFICABLE

NOTES:

- PROPERTY CONNECTION TYPE/DETAILS REFER SEQ-SEW-1106 DWG SERIES.
- CAST IN SITU MANHOLE TYPE/DETAILS REFER SEQ-SEW-1301-1 to 1301-21, 1301-26, 1302-1, 1301-1, 1304-1, 1305-1, 1306-1, 1307-1, 1308-1, 1308-5 to 1308-11, 1313-1.
- MAINTENANCE SHAFTS TYPE/DETAILS REFER SEQ-SEW-1315-1 AND 1316-1 STD DWG.
- WHERE CLASS "D" COVERS ARE SPECIFIED FOR MH OR MS, INCREASE TOP SLAB THICKNESS FROM 150mm TO 175mm.
- COMPLETE ALL END OF LINE WITH A ELECTROFUSION STOP END OR BUTT WELDED CAP.
- MH ≥ 6.0m DEEP TO BE INDIVIDUALLY DESIGNED FOR SPECIFIC INSTALLATION DEPTH. REFER TO STRUCTURAL DRAWINGS FOR DETAILS.

DATUM RL 13.0

LOCATION
PIPE DIAMETER
GRADE
LENGTH
EMBEDMENT TYPE
JUNCTION
INVERT LEVEL
DEPTH OF INVERT BELOW FSL
INVERT LEVEL (IL)
FINISHED SURFACE LEVEL (FSL)
EXISTING SURFACE LEVEL (ESL)
CHAINAGE (CH)

LINE

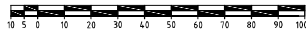


* DENOTES LIVE CONNECTION REQUIRED UNDER UNITYWATER SUPERVISION. REFER FOR LIVE SEWER WORKS TABLE ON KNg DWG No. 24-279-54.

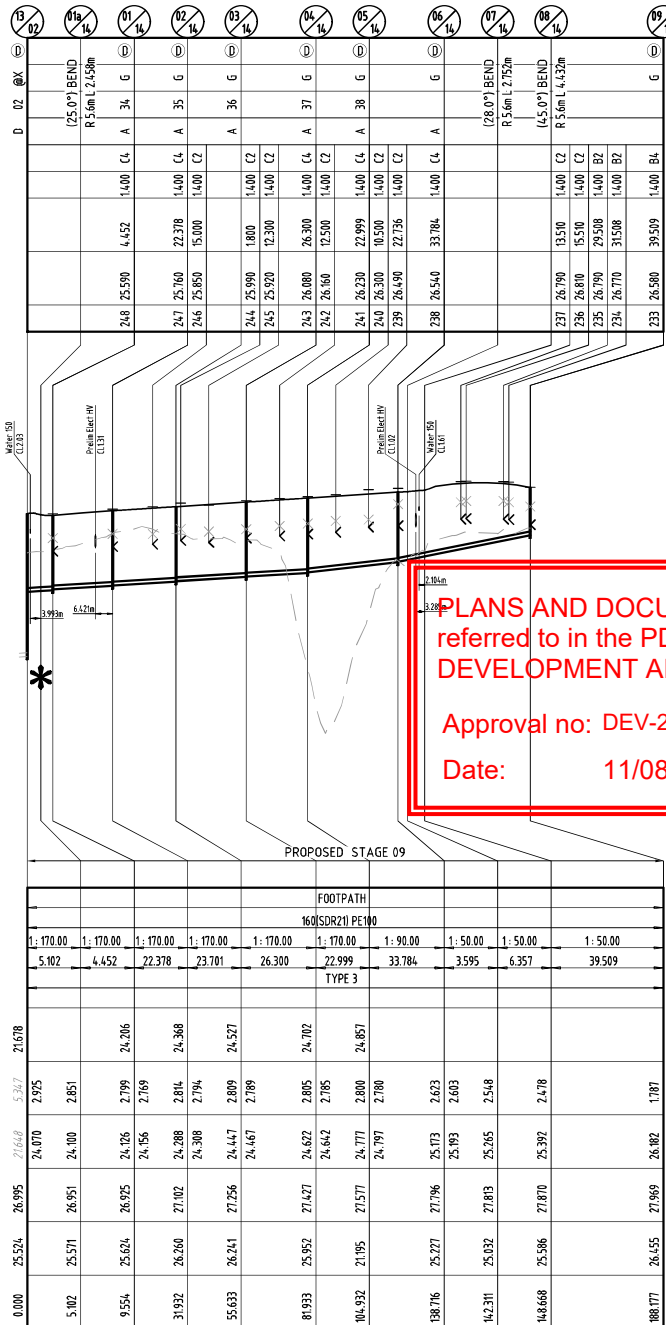
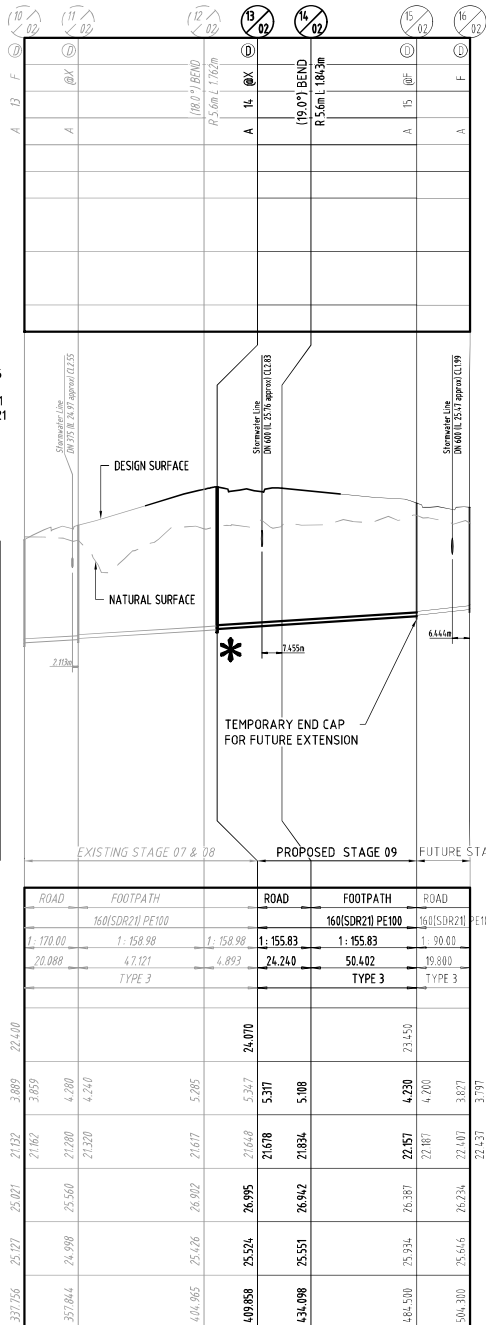


DENOTES CONCRETE ENCASEMENT OF SEWER BENEATH STORMWATER PIPE. REFER TO TYPE 9 EMBEDMENT (NO REINFORCEMENT) ON SEQ DRAWING SEQ-SEW-1203-1 FOR DETAILS. ENFORCEMENT TO BE EXTENDED MINIMUM 1.0m PAST EACH SIDE OF STORMWATER PIPE

SCALE A 1:1000 (Horiz.)



B 1:100 (Vert.)



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4912

Date: 11/08/2026



DO NOT SCALE THIS DRAWING IF IN DOUBT - ASK!

LOCALITY PLAN

STAGE 9

REVISIONS

No	Description	Date	By
A	FOR APPROVAL	14.04.2026	DF
B	UNITYWATER PFI	26.05.2024	DF

Client

Project

RIVERMONT PRECINCT 2 STAGE 9

kn group

L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.07.15 10:43:13+1000

Drawing Title: SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 1

Drawn	Designed	Checked	Date
VS	VS	MAS	MAY '26

Scale: AS SHOWN

Sheet: 9 of 13

Drawing No: A1 24-279-59

Revision: B

MH/MS COVER TYPE
MH/MS TYPE
BRANCH LINE No.
BRANCH DROP TYPE
HC TYPE
HC DEPTH
HC CH. TO DS MH/MS
HC INVERT LEVEL
HC LOT No.

G = CONCRETE 0.900Ø MH AS PER SEQ-SEW-1301-2 TO 1301-5
WITH MINIMUM 150mm WALL THICKNESS.
F = CONCRETE 1.200Ø MH AS PER SEQ-SEW-1301-8 TO 1301-11
X = CONCRETE 1.200Ø MH AS PER SEQ-SEW-1301-14 TO 1301-21
EXCLUDING SAFETY CHAINS AND LADDER AS PER UW
Pr11051 REV 1

@ = PE LINED SEQ-SPS-1407-1, 1407-2, AND SEQ-SEW-1301-26
 + = INTERNAL DROP PROPERTY CONNECTION
 REFER TO TYPICAL DETAIL ON NOTES PAGE
 (B) = CLASS B NON-TRAFFICABLE
 (D) = CLASS D TRAFFICABLE

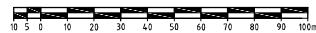
1. PROPERTY CONNECTION TYPE/DETAILS REFER
SEC-SEW-1106 DWG SERIES.
2. CAST IN SITU MANHOLE TYPE/DETAILS REFER
SEC-SEW-1301-1 to
1301-21, 1301-26, 1302-1, 1301-1, 1304-1, 1305-1,
1306-1, 1307-1, 1308-1, 1308-5 to 1308-11, 1313-1.
3. MAINTENANCE SHAFTS TYPE/DETAILS REFER
SEC-SEW-1315-1 AND 1316-1 STD DWG.
4. WHERE CLASS "D" COVERS ARE SPECIFIED FOR MH OR
MS, INCREASE TOP SLAB THICKNESS FROM 150mm TO
175mm.
5. COMPLETE ALL END OF LINE WITH A
ELECTROFUSION STOP END OR BUTT WELDED
CAP.
6. MH ≥ 6.0 m DEEP TO BE INDIVIDUALLY DESIGNED
FOR SPECIFIC INSTALLATION DEPTH. REFER TO
STRUCTURAL DRAWINGS FOR DETAILS.

LOCATION
PIPE DIAMETER
GRADE
LENGTH
EMBEDMENT TYPE
JUNCTION
INVERT LEVEL
DEPTH OF INVERT BELOW FSL
INVERT LEVEL (IL)
FINISHED SURFACE LEVEL (FSL)
EXISTING SURFACE LEVEL (ESL)
CHAINAGE (CH)

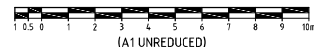
*** DENOTES LIVE CONNECTION REQUIRED UNDER UNITYWATER SUPERVISION.
REFER FOR LIVE SEWER WORKS TABLE ON KNq DWG No. 24-279-54.**

DENOTES CONCRETE ENCASMENT OF SEWER BENEATH STORMWATER PIPE. REFER TO TYPE 9 EMBEDMENT (NO REINFORCEMENT) ON SEQ DRAWING SEQ-SEW-1203-1 FOR DETAILS. ENCASMENT TO BE EXTENDED MINIMUM 1.0m PAST EACH SIDE OF STORMWATER PIPE

SCALE A 1:1000
(Horiz.)



B 1:100
(Vert.)



DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



STAGE 9

[illegible]

Client	
--------	--



Project

RIVERMONT
PRECINCT 2
STAGE 9



L1, 62 Astor Terrace, Spring Hill, QLC 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.15
10:43:13+10'00'

Drawing Title

SEWER RETICULATION
LONGITUDINAL SECTIONS
SHEET 2

Drawn VS	Designed VS	Checked MAS	Date MAY' 20
Scale AS SHOWN			Sheet 10 of 1
A1	Drawing No 24-279-60		Revision B

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4912

Date: 11/08/2026

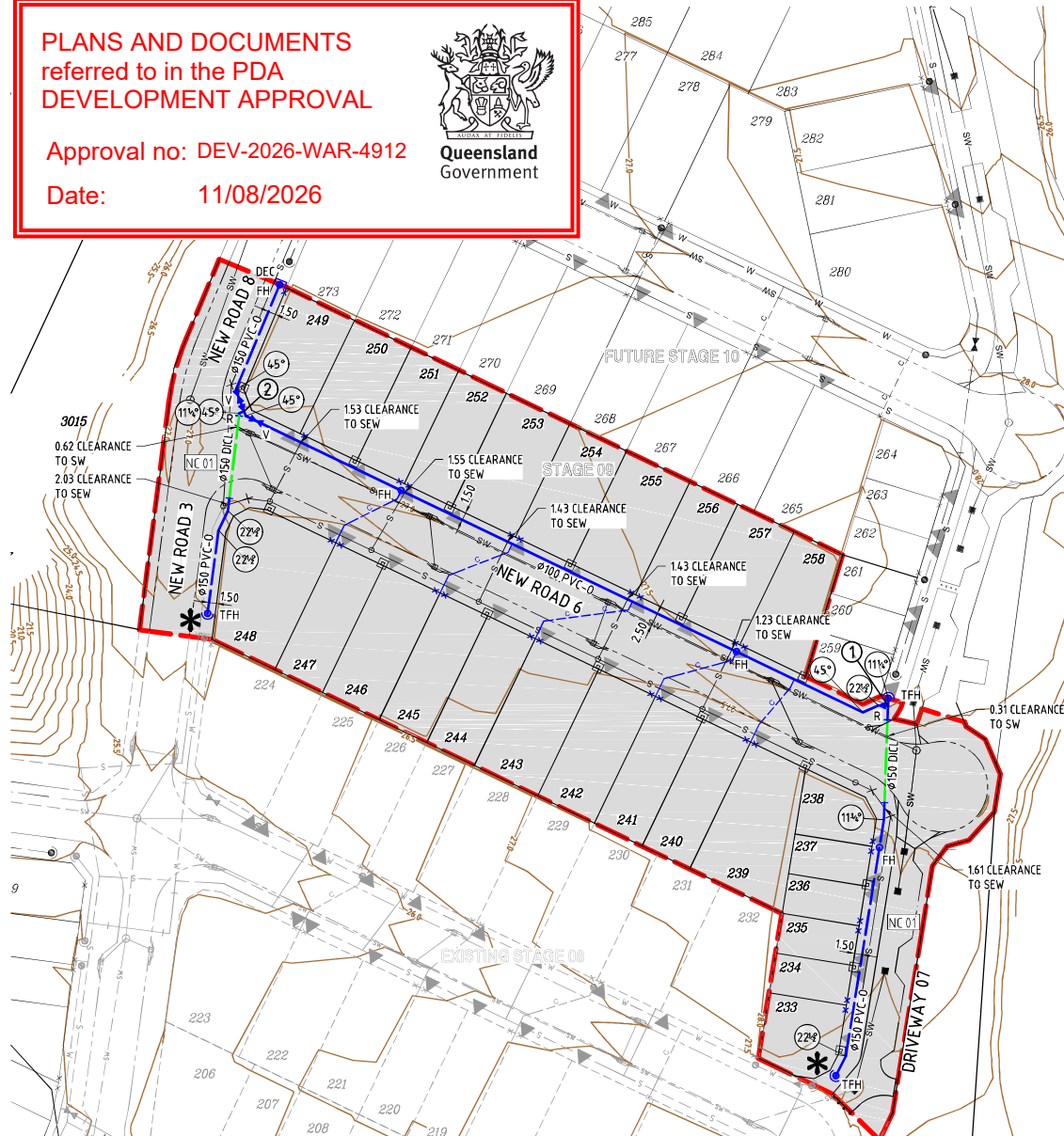


**Queensland
Government**

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4912

Date: 11/08/2026



WATER RETICULATION LAYOUT PLAN
SCALE 1:500

SCHEDULE OF PIPES AND FITTINGS

PIPE SIZE	LENGTH(m)	VALVE	FIRE HYDRANT	TEMP FIRE HYDRANT	11° BEND	22° BEND	45° BEND	90° BEND
Ø100 PVC-O	143.683	1	2	-	-	1	2	-
Ø100 DICL	-	-	-	-	-	-	-	-
Ø150 PVC-O	110.626	1	2	3	3	3	2	-
Ø150 DICL	33.000	-	-	-	-	-	-	-

NOTE - DUCTILE IRON (DICL) PIPEWORK UNDER ROAD CARRIAGEWAYS DENOTES DICL CLASS PN35.
- PVC-O PIPEWORK DENOTES PVC-O SERIES 2 PN16
- PE PIPEWORK DENOTES PE100 PN16. SERVICE LENGTHS APPROXIMATE, TO BE CONFIRMED ON SITE.
- ALL TRENCH REINSTATEMENT TO BE IN ACCORDANCE WITH SEQ-WAT-1204-1.

LEGEND

	WORKS BOUNDARY
	ROAD CENTRELINE
	M3 MOUNTABLE KERB AND CHANNEL
	B1 BARRIER KERB AND CHANNEL (300)
	B2 BARRIER KERB
	PROPOSED 100Ø PVC WATER MAIN SERIES 2 PN16, MIN SNI0 MRS400 OR MRS450
	PROPOSED 150Ø PVC WATER MAIN SERIES 2 PN16, MIN SNI0 MRS400 OR MRS450
	PROPOSED 150Ø DICL WATER MAIN PN35
	PROPOSED CONDUIT
	WATER SERVICE LOCATION
	FIRE HYDRANT
	TEMPORARY FIRE HYDRANT
	REDUCER
	VALVE
	CONNECTION REQUIRED BY UNITYWATER
	SLEEPER RETAINING WALL
	STORMWATER DRAINAGE
	SEWER MAIN
	EXISTING WATER MAIN
	EXISTING STORMWATER MAIN
	EXISTING SEWER MAIN
	UNITYWATER EASEMENT
	PROPOSED ELECTRICAL (BY OTHERS)
	DRIVEWAY POSITION
	ELECTRICITY SERVICE POINT
	DENOTES NON-CONFORMING DESIGN ASPECT. REFER TO NON-CONFORMING DESIGN ASPECTS KN DWG 24-279-59 FOR DETAILS.

UNITYWATER LIVE WATER
CONNECTION TABLE

LOCATION	DIAMETER
DRIVEWAY 07 OPPOSITE TO LOT 233	Ø150
ROAD 20 OPPOSITE TO LOT 248	Ø150

SCHEDULE OF FITTINGS

1	Ø150 x Ø150 x Ø150 TEE	1 REQUIRED
2	Ø150 x Ø100 x Ø100 TEE	1 REQUIRED

NOTE

ALL WORKS ON EXISTING WATER MAINS TO BE
CARRIED OUT BY UNITYWATER AT THE DEVELOPERS
EXPENSE.

NOTE

- WATER MAIN CROSSING UNDER ROAD TO BE LOCATED UNDER
ROAD PAVEMENT CONSTRUCTION
- ALL FIRE HYDRANT TEES AND RISERS TO BE DN100, WITH PE
FIRE HYDRANT RISERS DN125

NOTE

- ALL CONNECTIONS TO LIVE WATER MAINS TO BE
UNDERTAKEN BY UNITYWATER AT DEVELOPER'S
COST. THIS INCLUDES METER INSTALLATION TO
LIVE SERVICES.
- IF AN APPROVAL IS HELD FOR EACH STAGE, FOR
STAGED WORKS CONSTRUCTED CONCURRENTLY,
FOLLOWING THE NECESSARY PRE-START
MEETING(S), THE CONTRACTOR MAY INSTALL
METERS ON NON-LIVE SERVICES.

SCALE
1:500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



LOCALITY PLAN

STAGE 9



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	14.04.2026	DF
B	UNITYWATER RFI	26.05.2026	DF

Client



Project

RIVERMONT
PRECINCT 2
STAGE 9



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.15
10:43:13+1000

Drawing Title

WATER RETICULATION
LAYOUT PLAN

Drawn DF

Designed VS

Checked MAS

Date MAY '26

Scale AS SHOWN

Sheet 11 of 13

Drawing No A1

24-279-61

Revision B



PROPOSED WORKS ARE NEAR EXISTING SERVICES. CONTRACTOR TO COMPLETE DBYD AND
LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION.
POST SERVICE LOCATION, CONTRACTOR TO SUPPLY SURVEY INFORMATION TO
SUPERINTENDENT'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.



NOTE
WATER PIPE AFTER WATER METER IS PRIVATE PLUMBING INFRASTRUCTURE AND NOT REVIEWED AS PART OF THE UW APPROVAL. SEPARATE APPROVAL FROM THE RELEVANT AUTHORITY REQUIRED.

- 
- Queensland
Government