Stockland

RIVERMONT PRECINCT 3
STAGE 4 - 35 LOTS

DRAWING INDEX

Only Stormwater, Drainage and Road Works approved.

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

Date: 24/07/2026

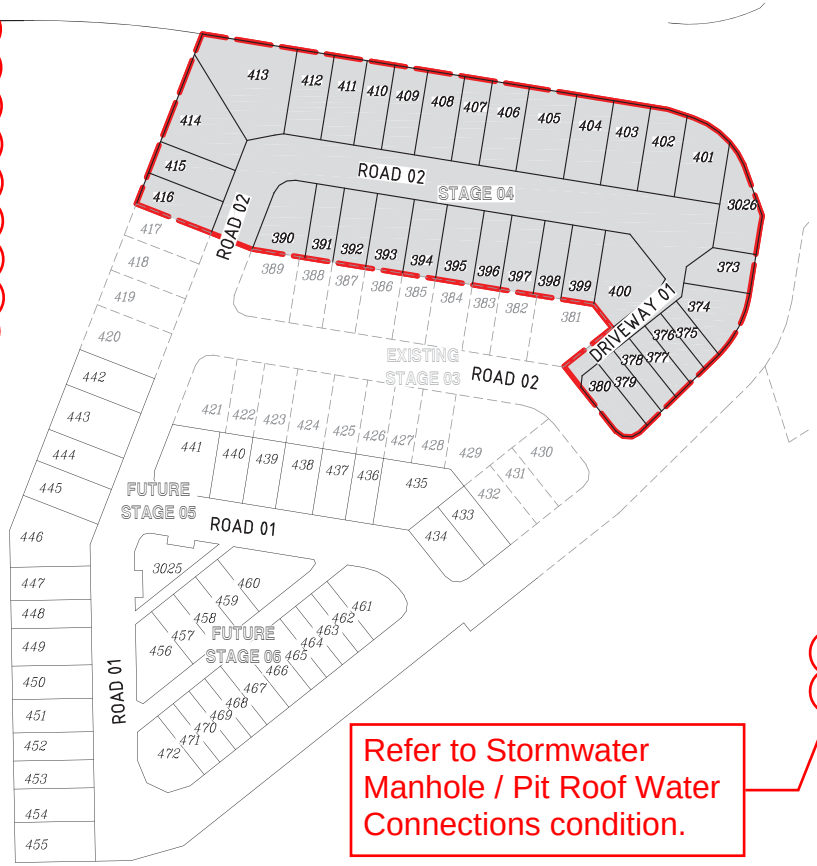
Queensland Government

AMENDED IN RED

By: Mahima Reshamwala

Date: 24 July 2026

Queensland Government



PLAN
SCALE 1:1000

GENERAL NOTES

1. ALL WORK SHALL BE JOINED NEATLY TO EXISTING CONSTRUCTION.
2. WHERE REFERENCE IS MADE ON THESE DRAWINGS TO A KERB LINE, IT SHALL BE TAKEN TO MEAN THE KERB INVERT LINE.
3. LEVELS FOR KERB AND CHANNEL CONSTRUCTION ARE SHOWN AT LIP OF CHANNEL UNLESS SHOWN OTHERWISE.
4. KERB AND CHANNEL AND SPOON DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA STANDARD DWG NO SEQ R-080. SPOON DRAINS ACROSS ROAD INTERSECTIONS SHALL BE IN ACCORDANCE WITH INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA STD DWG NO SEQ R-080. THE CONCRETE SHALL BE CLASS N32 AND THE DEPTH INCREASED BY 50mm TO 175mm AT INVERT. FLUSH KERB TO BE INCREASED IN DEPTH BY 50mm TO 280mm.
5. IF MACHINE MADE KERB AND CHANNEL IS USED, EXTRA FINES AND 20mm SLUMP IS REQUIRED.
6. ALL DRAINAGE CENTRE LINES ARE TO BE 1.5m FROM INVERT OF KERB FOR 6.0m WIDE ROADS AND 2.0m OFF THE INVERT OF THE KERB FOR ALL OTHERS, UNLESS OTHERWISE SHOWN.
7. GULLY CONNECTIONS AND STORM WATER PIPES SHALL BE 375mm DIAMETER CLASS '3' R.C. PIPES UNLESS SHOWN OTHERWISE.
8. THE CONTRACTOR SHALL INITIALLY EXCAVATE THE PAVEMENT BOX TO 700mm BELOW THE FINISHED PAVEMENT LEVEL SHOWN ON THE DRAWINGS. HE SHALL THEN NOTIFY THE ENGINEER WHO WILL FIX THE PAVEMENT THICKNESS TO BE CONSTRUCTED FOLLOWING THE RESULTS OF SUB-GRADE TESTING.
9. NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE DRAWINGS, THE ACTUAL LIMITS SHALL BE DETERMINED ON SITE BY THE ENGINEER AND SIMILARLY THE FINISHED SURFACE CONTOURS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE ENGINEER DURING CONSTRUCTION.
10. THE MINIMUM CLEARANCE BETWEEN OUTER WALLS OF PIPES IN MANHOLES SHALL BE 150mm.
11. SUBSURFACE DRAIN CLEANING POINTS SHALL BE INSTALLED IN ACCORDANCE WITH IPWEAQ STD DWG NO SEQ R-140.
12. CONSTRUCTION LOAD CONTROL ON THE INSTALLATION OF REINFORCED CONCRETE STORMWATER PIPE WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE RECOMMENDATIONS DEFINED IN THE CONCRETE PIPE ASSOCIATIONS OF AUSTRALASIA'S "THE INSTALLATIONS OF STEEL REINFORCED CONCRETE PIPES – MINIMUM PIPE COVER REQUIRED FOR VARIOUS COMPACTORS".
13. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ERECT A STARPICKET AND 2 STRAND WIRE FENCE TO THE PERIMETER OF VEGETATION TO BE RETAINED.

ROOFWATER

1. uP.V.C. SEWER PIPES TO BE USED SHALL BE :-
   (a) PIPES – CLASS SH (TO AS 1260)
   (b) FITTINGS – CLASS M (TO AS 1260)
2. THE MINIMUM COVER TO ALL ROOFWATER DRAINAGE LINES SHALL BE 300mm FOR PRC AND 450mm FOR uPVC, EXCEPT IN THE CASE OF 100mm DIAMETER LINES DISCHARGING THROUGH KERB INTO CHANNEL.
3. THE ENDS OF 100mm ROOFWATER CONNECTIONS FROM LOT DIRECTLY TO GULLY PIT SHALL BE CAPPED AND LOCATED WITH NOT LESS THAN 300mm AND NOT MORE THAN 450mm COVER UNLESS OTHERWISE APPROVED.
4. ALL ROOFWATER LINES TERMINATING IN THE KERB AND CHANNEL SHALL BE LAID AT A MINIMUM GRADE 1 IN 50 AND SHALL HAVE A 'KACEY' CAST ALUMINIUM KERB ADAPTOR OR EQUIVALENT.
5. THE ENDS OF ALL LINES SHALL BE PLUGGED WITH APPROVED FITTINGS.
6. PROVIDE 2 KERB ADAPTORS FOR ALL LOTS . ALL KERB ADAPTORS SHALL BE CAST INTO KERB AND CHANNEL UNLESS PIPED CONNECTION TO SW STRUCTURE PROVIDED.
7. WHERE THE COVER IS LESS THAN 400mm FOR ROOFWATER THE PIPE CLASS SHALL BE SEH uPVC.
8. THE KERB ADAPTOR SHALL BE LOCATED SO THAT ITS CENTRE LINE IS 300mm FROM THE PROJECTION OF THE SIDE BOUNDARY AT THE KERB LINE.

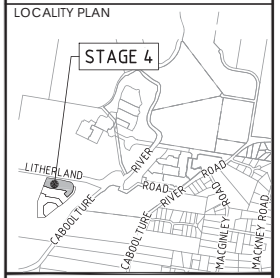
Refer to Stormwater Manhole / Pit Roof Water Connections condition.

SCALE 10 5 0 10 20 30 40 50 60 70 80 90 100m
1 : 1000 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP
B	FOR APPROVAL	30.03.2026	DF

Client: Stockland

Project: RIVERMONT PRECINCT 3 STAGE 4

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: 2026.03.30 15:32:48+10'00'

Drawing Title: GENERAL LOCALITY PLAN, DRAWING INDEX AND NOTES

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	01 of 21

Drawing No	Revision
24-274-01	B

A1

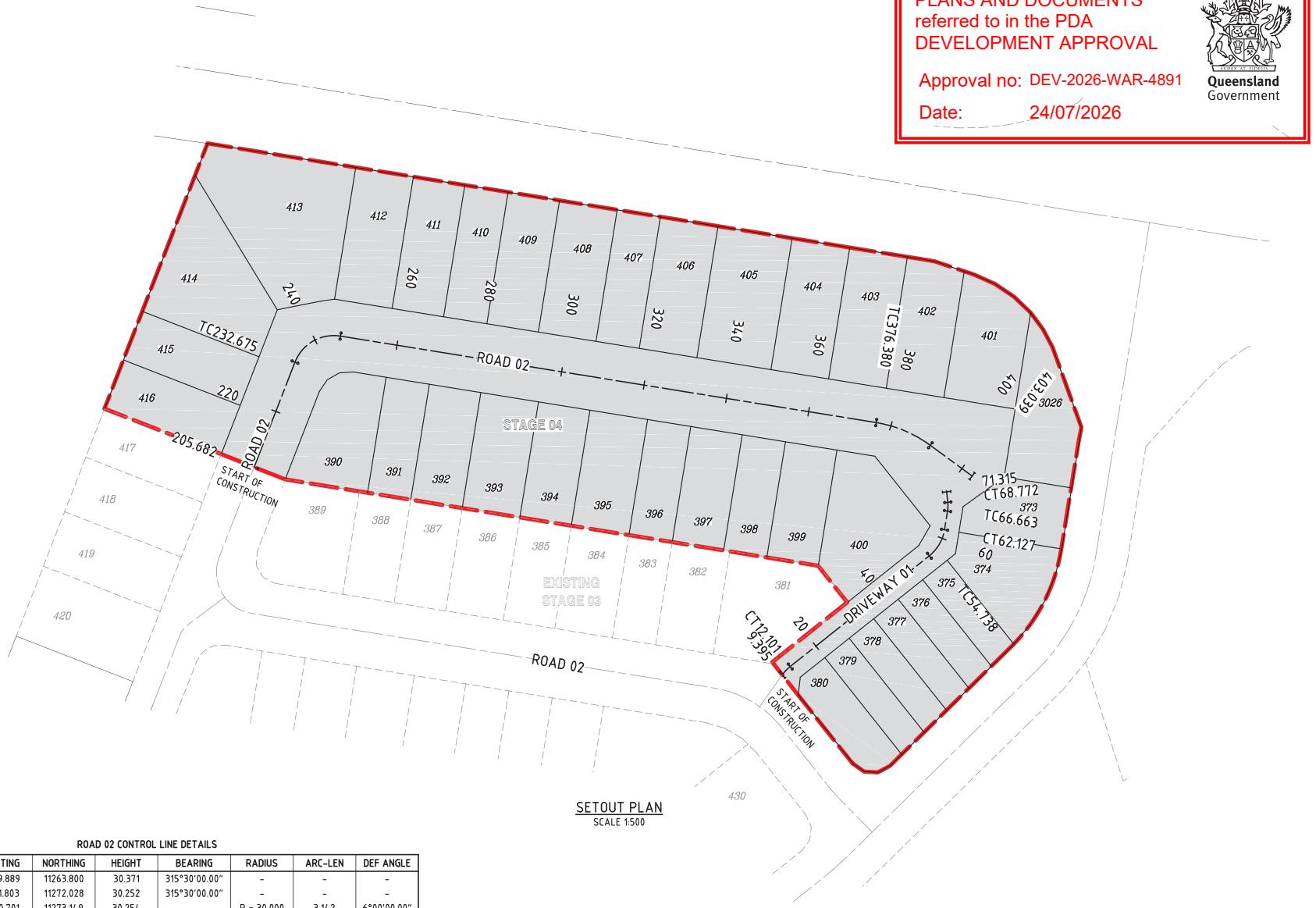
M:\2024\24274 Rivermont P2 Stage 4\Engineering\Acad\24-274-01-GE-COVER.dwg Plotted by DF on 30/03/2026 2:04:33 PM

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

Date: 24/07/2026

Queensland Government



SETOUT PLAN
SCALE 1:500

ROAD 02 CONTROL LINE DETAILS

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RADIUS	ARC-LEN	DEF ANGLE
IP 1	0.000	8269.889	11263.800	30.371	315°30'00.00"	-	-	-
TC	11.536	8261.803	11272.028	30.252	315°30'00.00"	-	-	-
IP 2	13.106	8260.701	11273.149	30.254	-	R = 30.000	3.142	6°00'00.00"
CT	14.677	8259.723	11274.379	30.264	321°30'00.00"	-	-	-
TC	33.154	8248.221	11288.839	30.724	321°30'00.00"	-	-	-
IP 1	51.631	8236.719	11303.299	31.184	321°30'00.00"	-	-	-
TC	70.108	8225.217	11317.759	31.644	321°30'00.00"	-	-	-
IP 2	88.585	8213.715	11332.219	32.104	321°30'00.00"	R = 30.000	3.142	6°00'00.00"
CT	107.062	8202.213	11346.679	32.564	321°30'00.00"	-	-	-
TC	125.539	8190.711	11361.139	33.024	321°30'00.00"	-	-	-
IP 1	144.016	8179.209	11375.599	33.484	321°30'00.00"	-	-	-
TC	162.493	8167.707	11390.059	33.944	321°30'00.00"	-	-	-
IP 2	180.970	8156.205	11404.519	34.404	321°30'00.00"	R = 30.000	3.142	6°00'00.00"
CT	199.447	8144.703	11418.979	34.864	321°30'00.00"	-	-	-
TC	217.924	8133.201	11433.439	35.324	321°30'00.00"	-	-	-
IP 1	236.401	8121.699	11447.899	35.784	321°30'00.00"	-	-	-
TC	254.878	8110.197	11462.359	36.244	321°30'00.00"	-	-	-

DRIVEWAY 01 CONTROL LINE DETAILS

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RADIUS	ARC-LEN	DEF ANGLE
IP 1	0.000	8242.919	11293.858	30.936	35°21'34.33"	-	-	-
TC	9.284	8248.292	11301.429	31.033	35°21'34.33"	-	-	-
IP 2	10.692	8249.112	11302.585	31.067	-	R = 10.000	2.817	16°08'25.68"
CT	12.101	8250.222	11303.468	31.100	51°30'00.00"	-	-	-
TC	54.738	8283.590	11330.010	31.913	51°30'00.00"	-	-	-
IP 3	58.432	8286.621	11332.421	31.975	-	R = -10.000	7.389	42°20'00.00"
CT	62.127	8287.238	11336.243	31.994	9°10'00.00"	-	-	-
TC	66.663	8287.960	11340.722	31.952	9°10'00.00"	-	-	-
IP 4	67.717	8288.129	11341.769	31.926	-	R = -8.000	2.109	15°06'23.16"
CT	68.772	8288.019	11342.824	31.900	354°03'36.84"	-	-	-
IP 5	71.315	8287.756	11345.353	-	354°03'36.84"	-	-	-

LEGEND

STAGE BOUNDARY

PROPOSED ROAD CENTRELINE

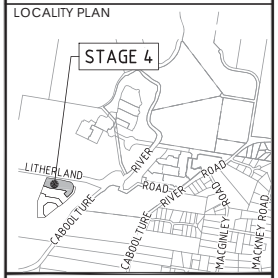
SCALE 10 5 0 10 20 30 40 50m

1 : 500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP

Client: Stockland

Project:
RIVERMONT
PRECINCT 3
STAGE 4

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

Aproved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.03.30 15:32:49+10'00'

Drawing Title:
GENERAL
SETOUT PLAN

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	02 of 21

	Drawing No	Revision
A1	24-274-02	A

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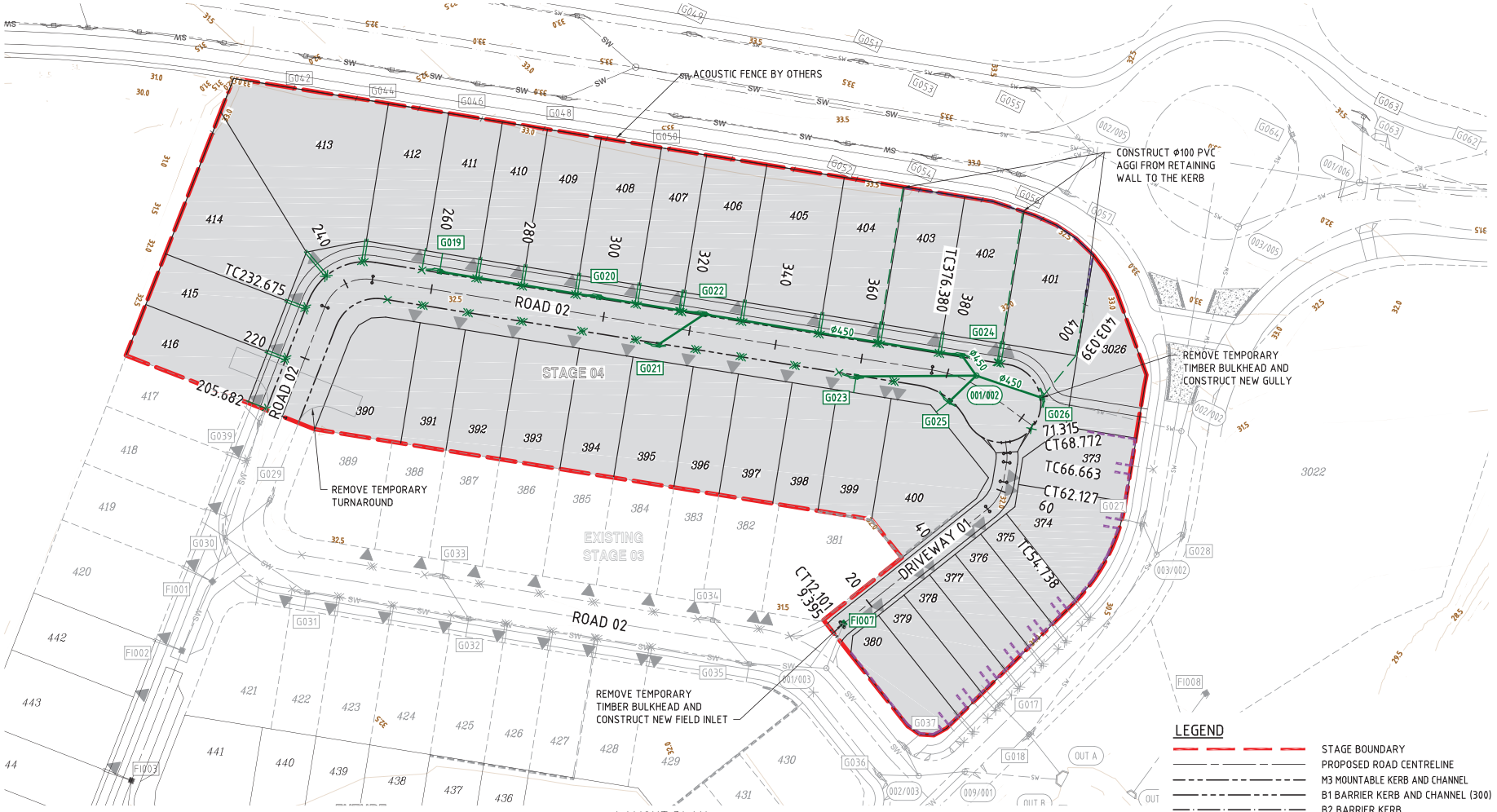

LAYOUT PLAN
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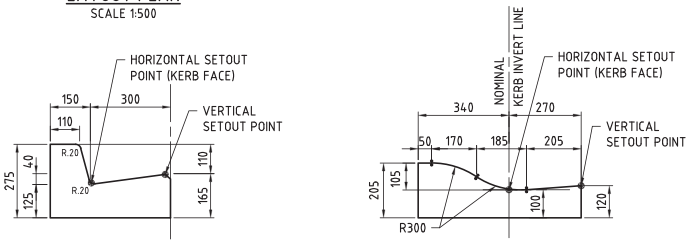

KERB SETOUT DETAIL
BARRIER KERB AND CHANNEL TYPE B1
SCALE 1:10

KERB SETOUT DETAIL –
MOUNTABLE KERB AND CHANNEL TYPE M3
SCALE 1:10

PLANS AND DOCUMENTS
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DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

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Queensland Government

FIRE ANT TREATMENT ZONE
HIGH RISK FIRE ANT RESTRICTED AREA (RED ZONE). MOVEMENT OF RESTRICTED ITEMS SHALL BE IN ACCORDANCE WITH DEPARTMENT OF AGRICULTURE, FISHERIES AND FORESTRY REQUIREMENTS. REFER TO www.daff.qld.gov.au

DANGER UNDERGROUND CABLES

DANGER LIVE WIRES AND COMMUNICATION SERVICES

DIAL BEFORE YOU DIG www.1100.com.au

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.

Refer to Stormwater Manhole / Pit Roof Water Connections condition.

LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- M3 MOUNTABLE KERB AND CHANNEL
- B1 BARRIER KERB AND CHANNEL (300)
- B2 BARRIER KERB
- PROPOSED STORMWATER DRAINAGE
- RETAINING WALL AGGI SUBSOIL DRAIN
- CONCRETE BLOCK MASONRY WALL
- SLEEPER RETAINING WALL
- EXISTING RETAINING WALL
- ACOUSTIC FENCE BY OTHERS
- FINISHED SURFACE CONTOURS
- STORMWATER MANHOLE NUMBER
- STORMWATER GULLY PIT NUMBER
- DRIVEWAY POSITION
- FLUSHING POINT (SUBDRAIN)
- min 150 100ø ROOFWATER CONNECTION TO GULLY PIT/MH. MIN 450mm COVER IN LOT
- min 150 100ø PVC ROOFWATER CONNECTION TO KERB ADAPTOR
- KERB ADAPTOR LOCATION
- EXISTING STORMWATER
- EXISTING WATER MAIN

SCALE
1 : 500 (A1 UNREDUCED)

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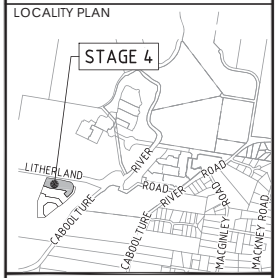
NORTH

LOCALITY PLAN



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B	FOR APPROVAL	30.03.2026	DF

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Project: RIVERMONT PRECINCT 3 STAGE 4

kn group
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Aproved Director - RPEQ 17544: Mark Shaw RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.03.30 15:32:49+10'00'

Drawing Title: GENERAL LAYOUT PLAN

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	03 of 21

	Drawing No	Revision
A1	24-274-03	B

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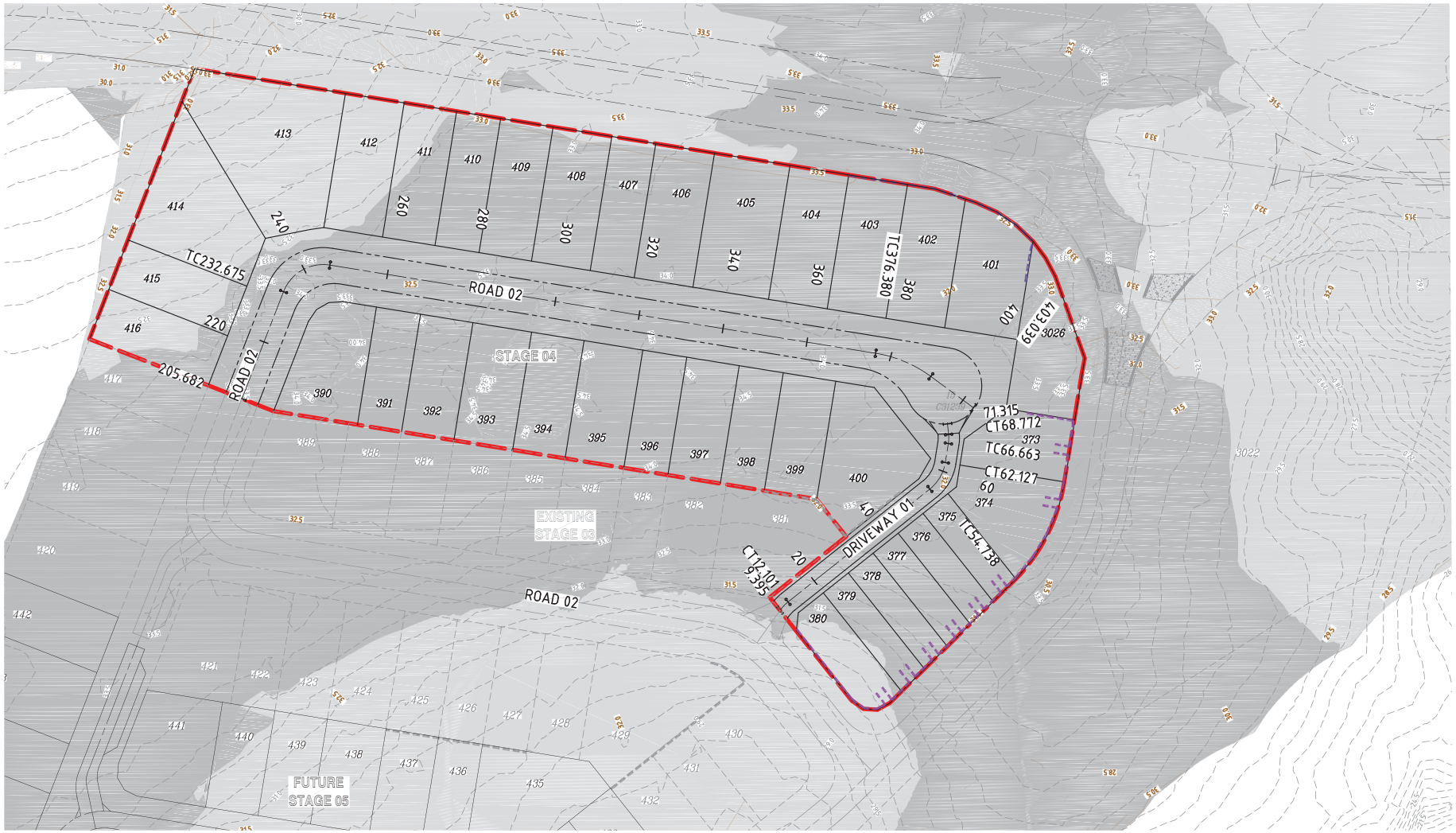

EARTHWORKS CONTOUR PLAN
SCALE 1:500

LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- M3 MOUNTABLE KERB AND CHANNEL
- B1 BARRIER KERB AND CHANNEL (300)
- B2 BARRIER KERB
- FINISHED SURFACE CONTOURS
- NATURAL SURFACE CONTOURS
- SLEEPER SLEEPER RETAINING WALL
- EXISTING SLEEPER RETAINING WALL
- CONCRETE BLOCK MASONRY WALL
- EXTENT OF CUT
- EXTENT OF FILL

SCALE
10 5 0 10 20 30 40 50m
1 : 500 (A1 UNREDUCED)

DANGER
UNDERGROUND CABLES

DANGER
LIVE WIRES AND COMMUNICATION SERVICES

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POST SERVICE LOCATION, CONTRACTOR TO SUPPLY SURVEY INFORMATION TO SUPERINTENDENT'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.

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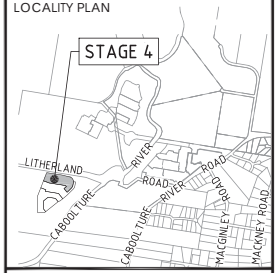
NORTH

LOCALITY PLAN



REVISIONS

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A	FOR APPROVAL	18.12.2025	RP
B	FOR APPROVAL	30.03.2026	DF

Client
Stockland

Project
RIVERMONT
PRECINCT 3
STAGE 4

kn group
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Aproved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.03.30 15:32:49+10'00'

Drawing Title
EARTHWORKS
CONTOUR PLAN

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	04 of 21

	Drawing No	Revision
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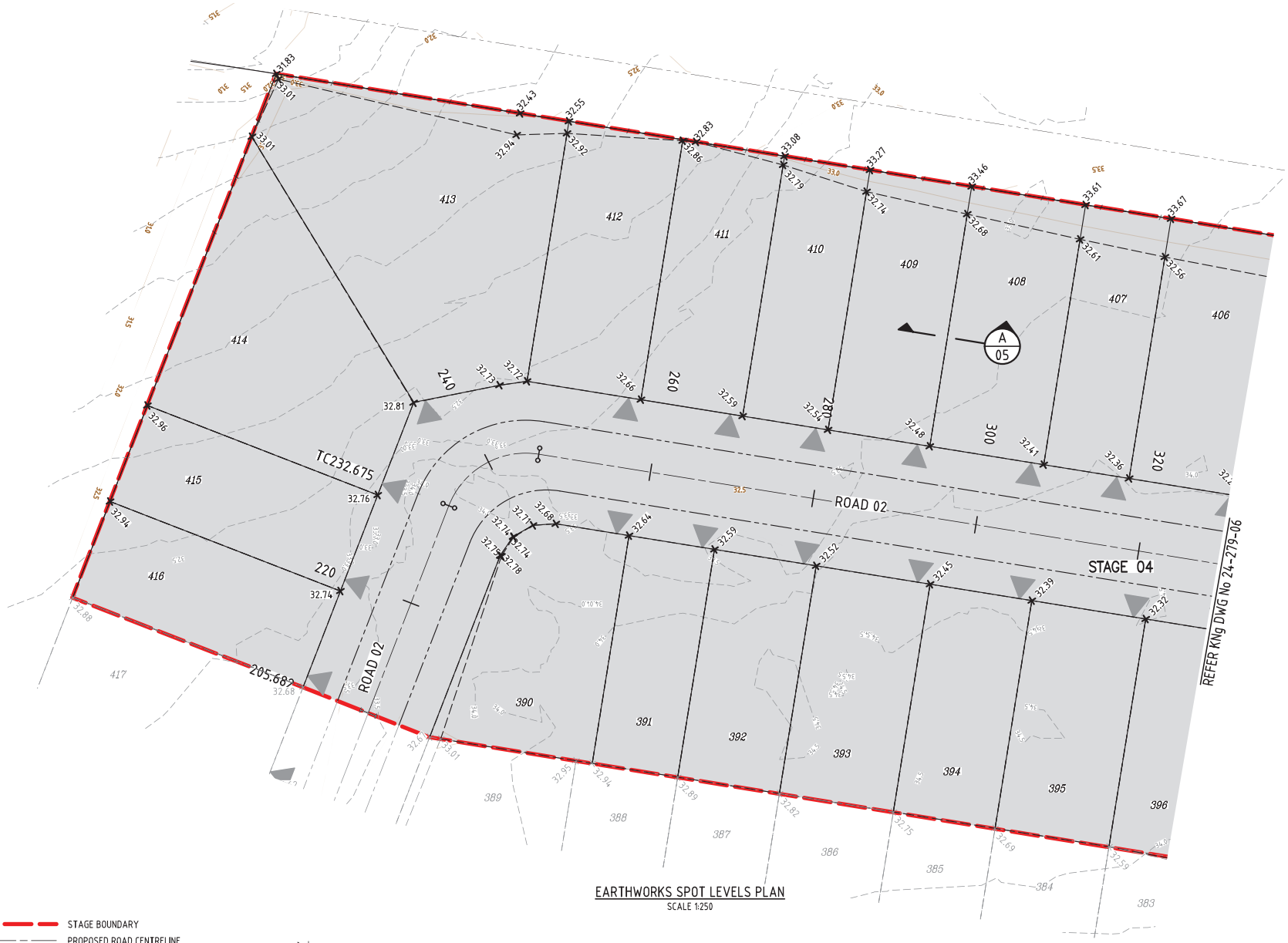
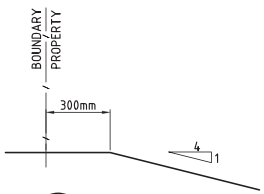


EARTHWORKS SPOT LEVELS PLAN
SCALE 1:250

LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- ACOUSTIC FENCE BY OTHERS
- M3 MOUNTABLE KERB AND CHANNEL
- B1 BARRIER KERB AND CHANNEL (300)
- B2 BARRIER KERB
- FINISHED SURFACE CONTOURS
- NATURAL SURFACE CONTOURS
- BATTER LINE
- EXISTING RETAINING WALL
- SLEEPER RETAINING WALL
- FUTURE RETAINING WALL
- DRIVEWAY POSITION
- ✕ 23.300 FINISHED SURFACE LEVELS



A 06 SECTION
SCALE NTS

SCALE
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1 : 250 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
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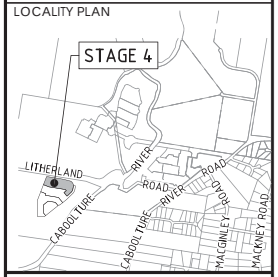
NORTH

LOCALITY PLAN



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Approved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:01+10'00'

Drawing Title
EARTHWORKS
SPOT LEVELS PLAN
SHEET 1

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	05 of 21

	Drawing No	Revision
A1	24-274-05	A

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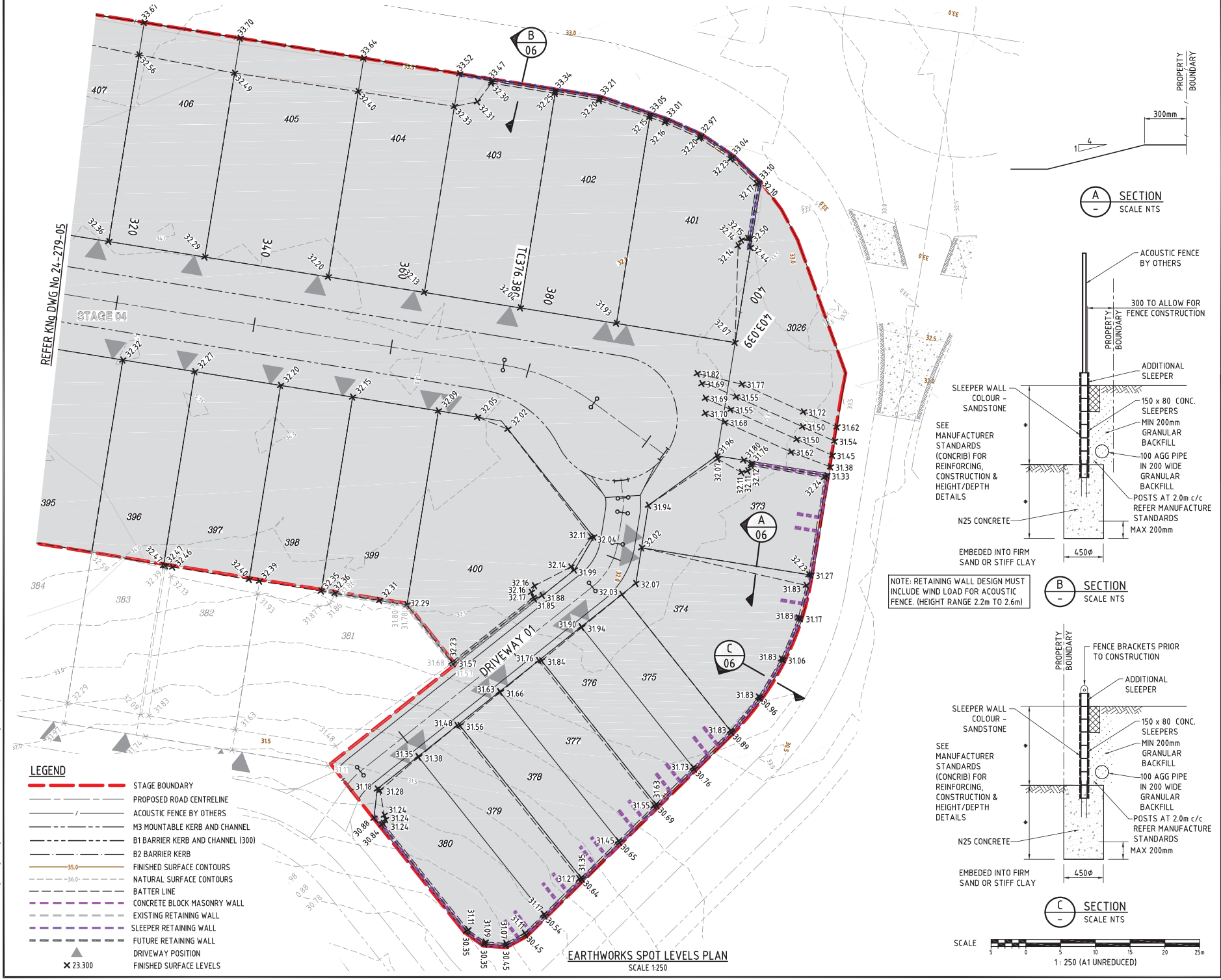

A SECTION
SCALE NTS

NOTE: RETAINING WALL DESIGN MUST INCLUDE WIND LOAD FOR ACOUSTIC FENCE. (HEIGHT RANGE 2.2m TO 2.6m)

B SECTION
SCALE NTS

C SECTION
SCALE NTS

SCALE
5 0 5 10 15 20 25m
1 : 250 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
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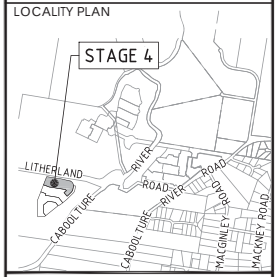
NORTH

LOCALITY PLAN



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Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.03.30 15:32:50+10'00'

Drawing Title
EARTHWORKS
SPOT LEVELS PLAN
SHEET 2

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	06 of 21

	Drawing No	Revision
A1	24-274-06	B

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DO NOT SCALE THIS DRAWING
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NOMINAL PAVEMENT DETAILS

LIVING RESIDENTIAL
30mm ASPHALTIC CONCRETE
5mm PRIMER SEAL
100mm BASE COURSE (TYPE 2.1, CBR 80)
100mm UPPER SUB-BASE COURSE (TYPE 2.3, CBR 45)
200mm LOWER SUB-BASE COURSE (TYPE 2.5, CBR 15)
SUBGRADE REPLACEMENT 300mm (TYPE 2.5, CBR 15)
DESIGN ESA = 1.2×10^5

Refer to Pavement Design Condition.

AMENDED IN RED
By: Mahima Reshamwala
Date: 24 July 2026
Queensland Government

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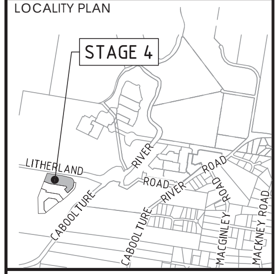
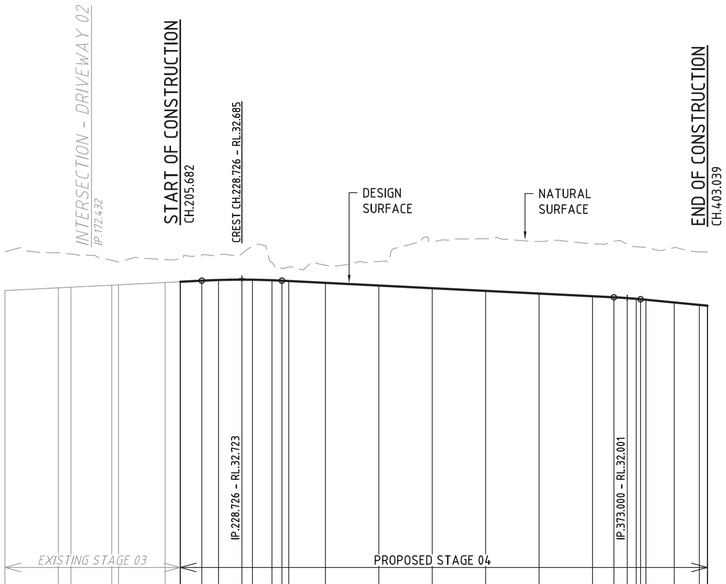
LOCALITY PLAN





Vertical Geometry Grade	0.500% / -0.500% / -0.963%
Vertical Geometry Length (m)	153.024 / 144.274 / 30.039
Vertical Curve Length (m)	VC.30 / VC.10
Vertical Curve Radius (m)	R.2999.969 / R.2159.477

DATUM R.L.17.000

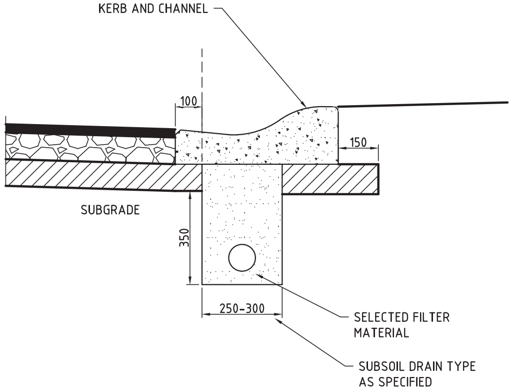
LIP OF KERB LHS	32.167	32.267	32.291	32.367	32.380	32.467	32.495	32.536	32.561	32.573	32.571	32.552	32.536	32.523
LIP OF KERB RHS	32.167	32.267	EXISTING INTERSECTION			32.467	32.495	32.536	32.561	32.573	*			
NATURAL SURFACE	33.728	33.690	33.641	33.409	33.347	33.432	33.461	33.595	33.605	33.656	33.926	33.323	33.096	33.157
CUT/FILL DEPTH	-1.449	-1.311	-1.238	-0.930	-0.856	-0.853	-0.854	-0.948	-0.933	-0.971	-1.243	-0.660	-0.448	-0.523
DESIGN SURFACE	32.279	32.379	32.403	32.479	32.492	32.579	32.607	32.648	32.672	32.685	32.683	32.664	32.648	32.635
PEGGED CHAINAGE	140.000	160.000	164.751	180.000	182.566	200.000	205.682	213.726	220.000	228.726	232.675	240.000	243.726	246.275

LIP OF KERB LHS	32.454	32.354	32.254	32.154	32.054	31.954	31.914	31.884	31.858	31.847	31.832	31.728	31.694	31.712
LIP OF KERB RHS	32.454	32.354	32.254	32.154	32.054	31.954	31.914	31.884	*					
NATURAL SURFACE	33.224	33.362	34.121	34.214	34.113	34.025	34.119	34.009	33.916	33.906	33.889	33.883	33.727	33.718
CUT/FILL DEPTH	-0.658	-0.896	-1.755	-1.948	-1.947	-1.959	-2.092	-2.014	-1.948	-1.953	-1.955	-2.051	-1.985	-2.006
DESIGN SURFACE	32.566	32.466	32.366	32.266	32.166	32.066	32.026	31.995	31.968	31.953	31.934	31.832	31.741	31.712
PEGGED CHAINAGE	260.000	280.000	300.000	320.000	340.000	360.000	368.000	373.000	376.380	378.000	380.000	390.600	400.000	403.039

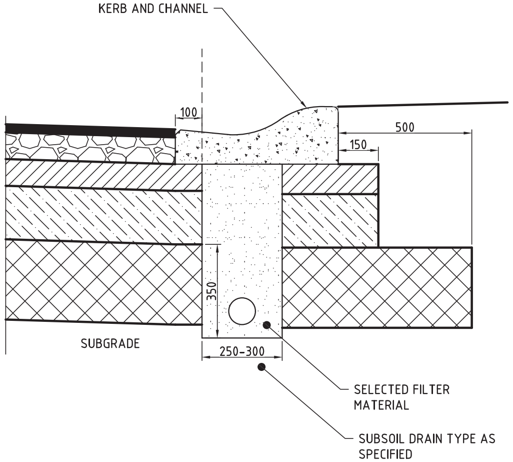
Horiz Curve Data: R.10 17.815; R.10 13.601; R.30 14.220

LONGITUDINAL SECTION - ROAD 02
SCALE - 1:1000 (H)
1:100 (V)

* REFER INTERSECTION DETAILS ON KN DWG 24-274-10.



TYPICAL DETAIL SUB-SOIL DRAINAGE
GRATER THAN INSITU CBR 3
SCALE 1:10



TYPICAL SECTION ROADS ESA 1.2x10^5
LESS THAN INSITU CBR 3, SWELLS >5%
SCALE 1:10

SCALE A 1:1000 (Horiz.) 10 5 0 10 20 30 40 50 60 70 80 90 100m
B 1:100 (Vert.) 1 0.5 0 1 2 3 4 5 6 7 8 9 10m
(A1 UNREDUCED)

REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP

Client
Stockland

Project
RIVERMONT
PRECINCT 3
STAGE 4

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: 2025.12.18 17:00:02+10'00'

Drawing Title
ROADWORKS
LONGITUDINAL SECTION
ROAD 02

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	07 of 21

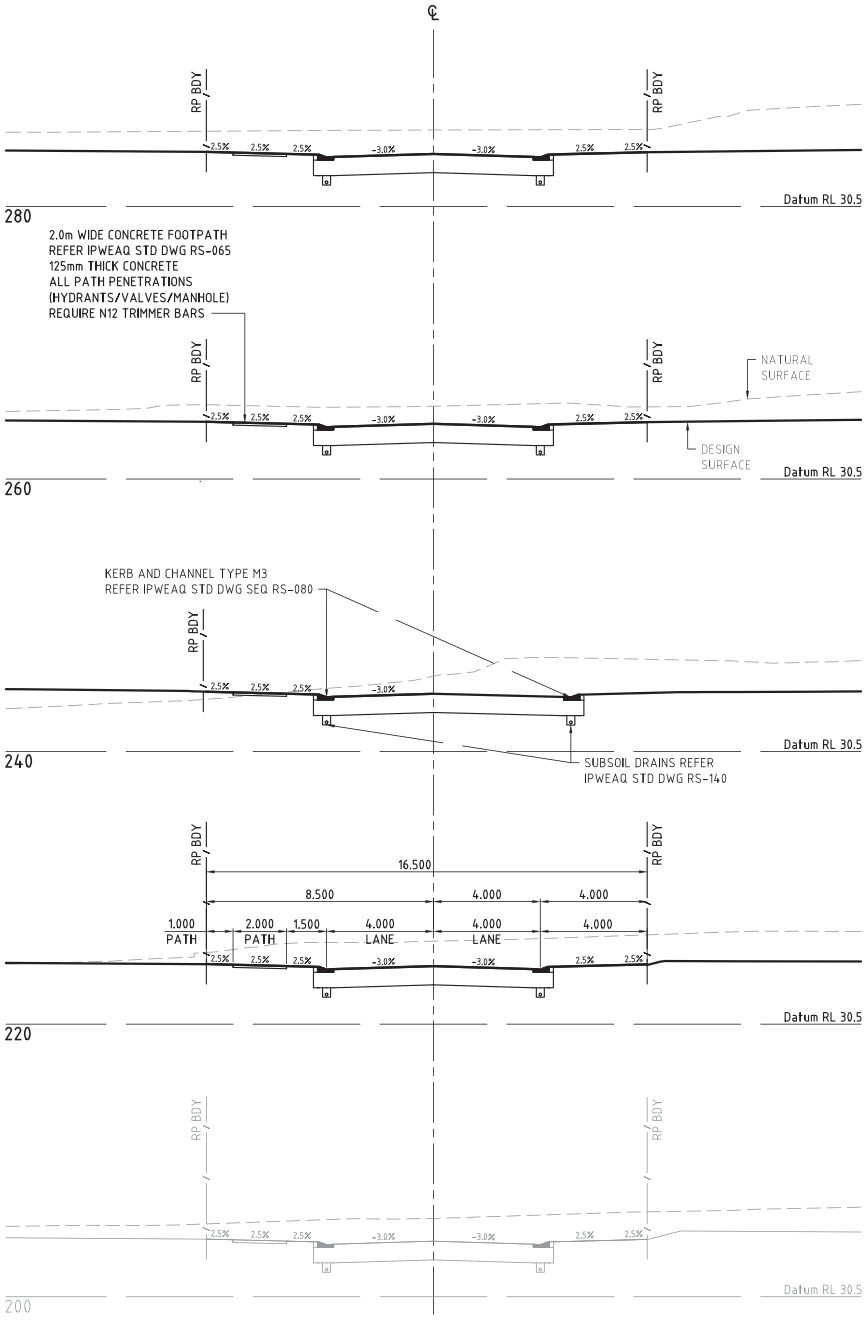
	Drawing No	Revision
A1	24-274-07	A

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

Date: 24/07/2026

Queensland Government



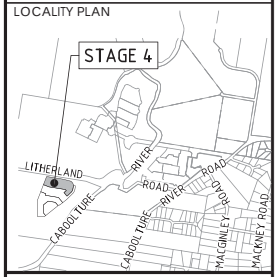
CROSS SECTIONS - ROAD 02

SCALE 1 0.5 0 1 2 3 4 5 6 7 8 9 10m

1 : 100 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP

Client

Stockland

Project

RIVERMONT
PRECINCT 3
STAGE 4

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

Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:02+10'00'

Drawing Title

ROADWORKS
CROSS SECTIONS
ROAD 02

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	08 of 21

Drawing No	Revision
24-274-08	A

A1

M:\202\A\4x27x Rivermont P2 Stage 4\Engineering\Acad\A1+274-07-09-RD-LONG-CROSS.dwg Plotted by: AL on Thu Dec 18 15:42:08 2025

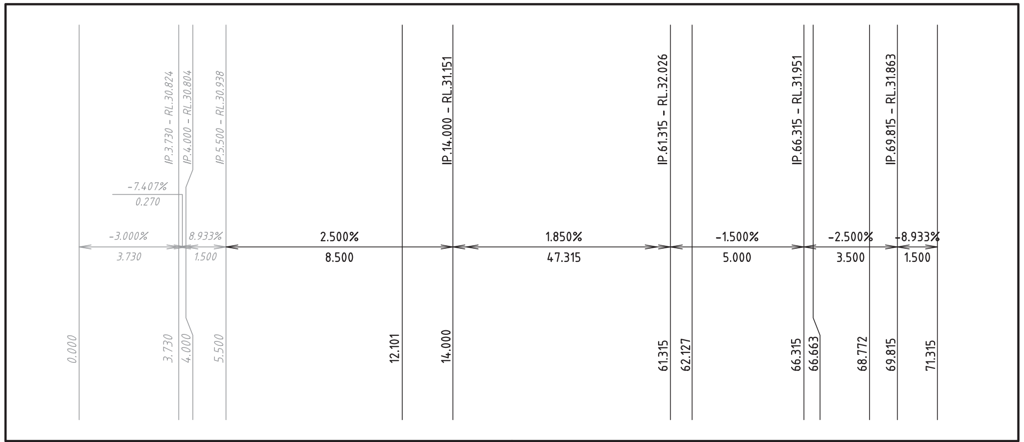
DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

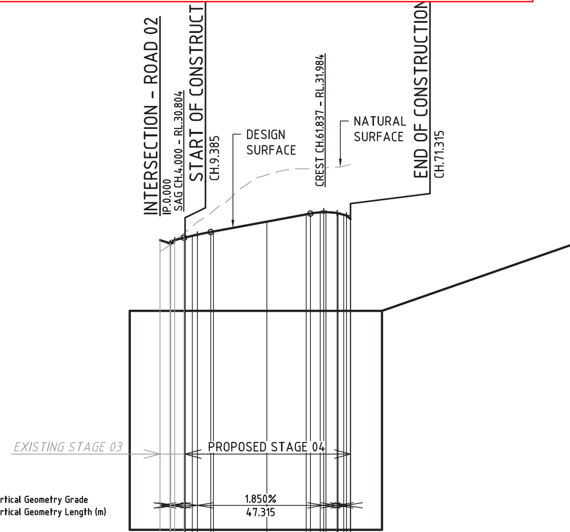
NOMINAL PAVEMENT DETAILS

LANEWAY RESIDENTIAL

~~175mm N40 CONCRETE - EXPOSED AGGREGATE~~
~~SL92 REINFORCEMENT WITH 50mm TOP COVER INCLUDING CROSS OVER~~
~~200mm COMPACTED CBR45 GRAVEL(TYPE 2.3)~~
~~360mm SUBGRADE REPLACEMENT(TYPE 2.5, CBR 15)~~
DESIGN ESA = $2.5x10^3$
~~COLOUR: PLAIN GREY~~
~~AGGREGATE: HY-TEC JAFFA 90~~

Refer to Pavement Design Condition. Final concrete pavement finish to be confirmed with MBC at pre-start meeting or prior to construction commencement.





Vertical Geometry Grade 1.850%
Vertical Geometry Length (m) 47.315

Vertical Curve Length (m) VC.10 VC.10
Vertical Curve Radius (m) R.1537.300 R.298.551

DATUM R.L.18.000

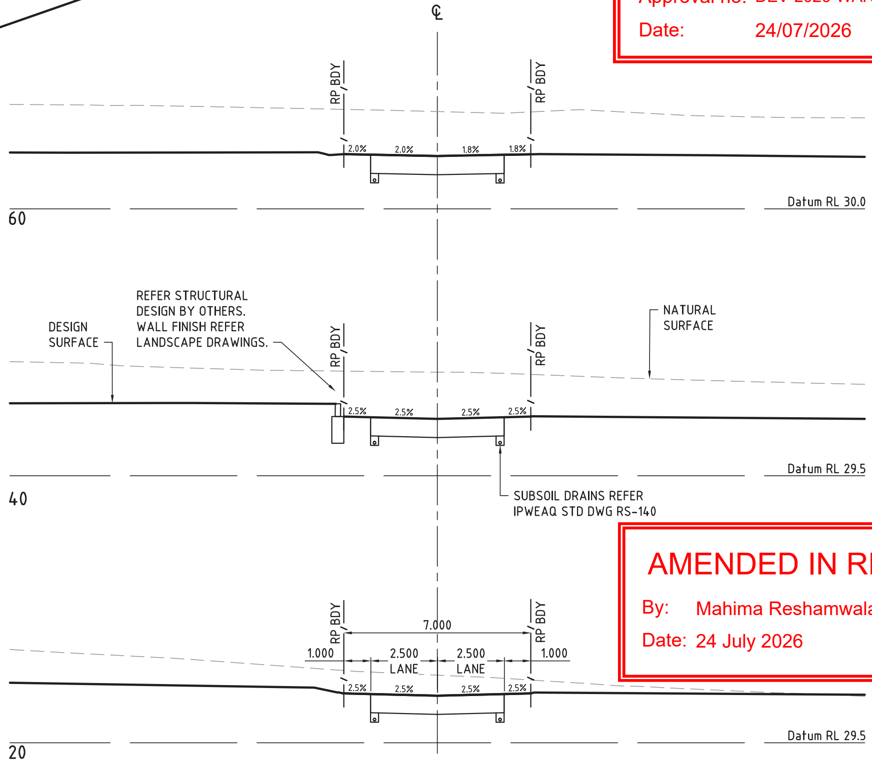
LIP OF KERB LHS	EXISTING INTERSECTION	31.066	31.154	31.205	31.306	31.324	31.694	31.967	31.996	32.028	32.025	32.020	31.960	*				
LIP OF KERB RHS		31.040	31.148	31.205	31.306	31.324	31.694	31.967	31.996	32.024	32.019	32.012	31.944					
NATURAL SURFACE		31.231	31.439	31.616	31.949	32.032	33.381	33.610	33.616	33.644	33.647	33.651	33.677	33.678	33.713	33.737	33.771	
CUT/FILL DEPTH		-0.196	-0.339	-0.474	-0.706	-0.771	-1.750	-1.706	-1.683	-1.665	-1.663	-1.667	-1.726	-1.736	-1.824	-1.874	-2.042	
DESIGN SURFACE		31.035	31.100	31.142	31.243	31.262	31.631	31.904	31.933	31.979	31.984	31.984	31.951	31.942	31.889	31.863	31.729	
PEGGED CHAINAGE		9.395	12.101	14.000	19.000	20.000	40.000	54.738	56.315	60.000	61.315	62.127	66.315	66.663	68.772	69.815	71.315	

Horiz Curve Data R.10 / 2.817; R.-10 / 7.389; R.-8 / 2.109

LONGITUDINAL SECTION - DRIVEWAY 01

SCALE - 1:1000 (H)
1:100 (V)

* REFER INTERSECTION DETAILS ON KN DWG 24-274-10



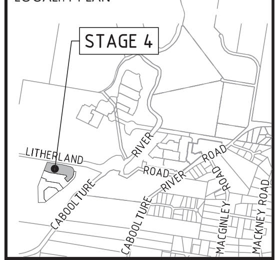
CROSS SECTIONS - DRIVEWAY 01

SCALE A 1:1000 (Horiz.)
B 1:100 (Vert.)
(A1 UNREDUCED)

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV-2026-WAR-4891
Date: 24/07/2026
Queensland Government

AMENDED IN RED
By: Mahima Reshamwala
Date: 24 July 2026
Queensland Government

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP

Client
Stockland

Project
RIVERMONT
PRECINCT 3
STAGE 4

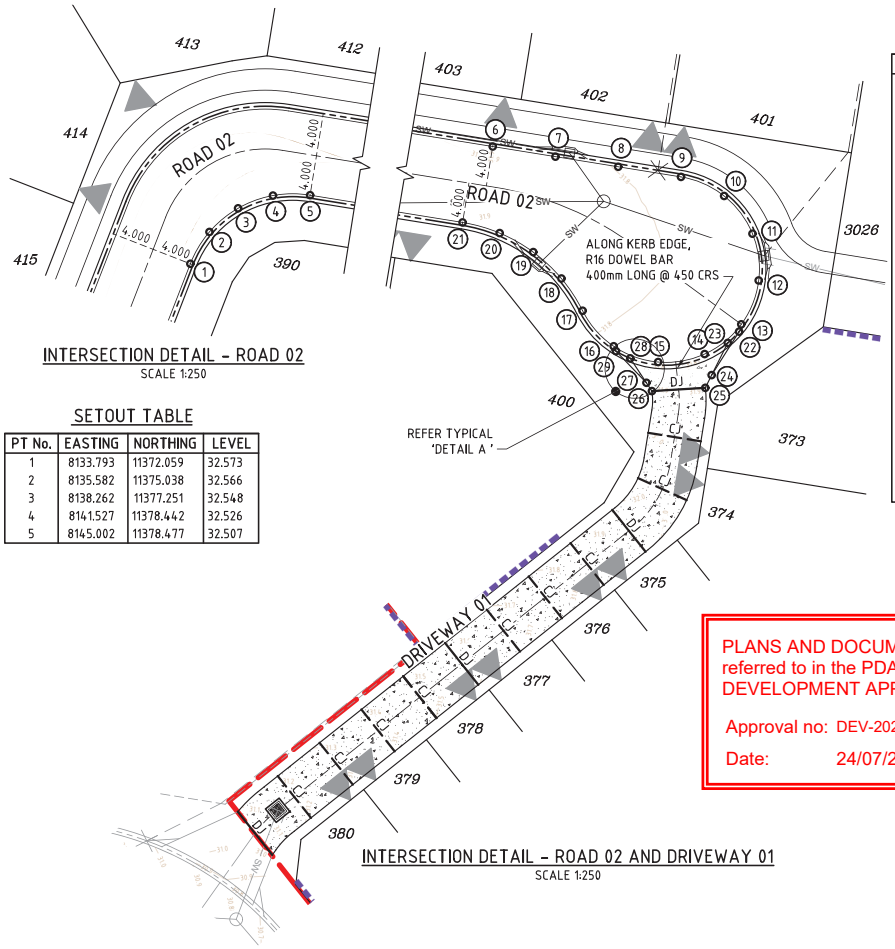
kn group
L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:03+10'00'

Drawing Title
ROADWORKS
LONG. AND CROSS SECTIONS
DRIVEWAY 01

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale: AS SHOWN
Sheet: 09 of 21
A1
Drawing No: 24-274-09
Revision: A



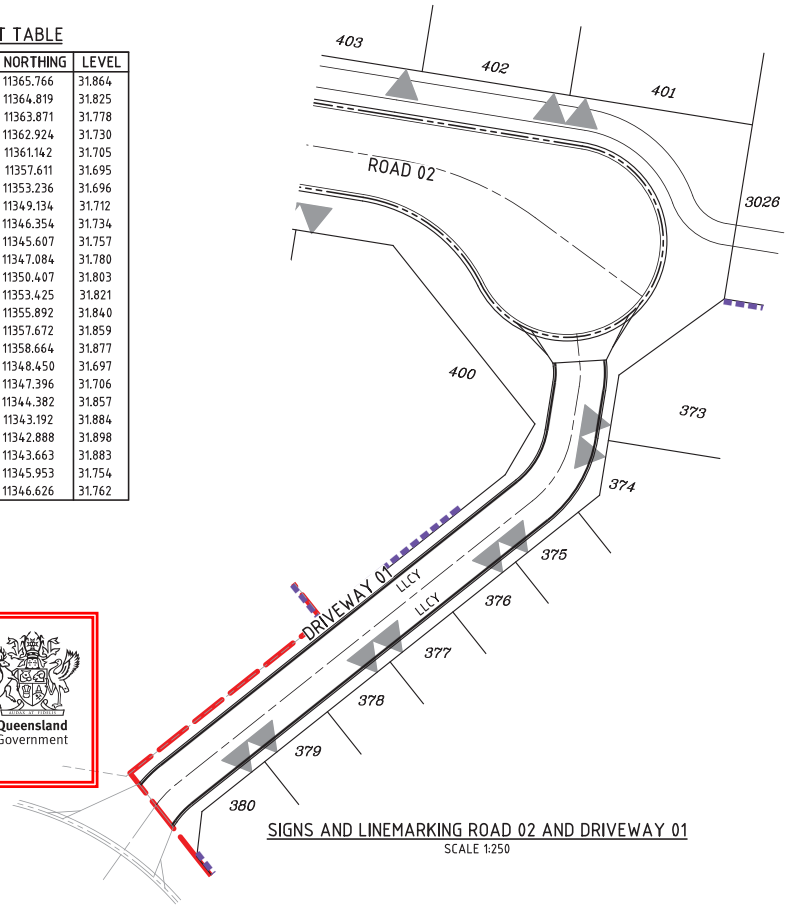
INTERSECTION DETAIL - ROAD 02
SCALE 1:250

SETOUT TABLE

PT No.	EASTING	NORTHING	LEVEL
1	8133.793	11372.059	32.573
2	8135.582	11375.038	32.566
3	8138.262	11377.251	32.548
4	8141.527	11378.442	32.526
5	8145.002	11378.477	32.507

SETOUT TABLE

PT No.	EASTING	NORTHING	LEVEL
6	8270.601	11365.766	31.864
7	8276.473	11364.819	31.825
8	8282.344	11363.871	31.778
9	8288.216	11362.924	31.730
10	8292.254	11361.142	31.705
11	8294.905	11357.611	31.695
12	8295.489	11353.236	31.696
13	8293.858	11349.134	31.712
14	8290.429	11346.354	31.734
15	8286.079	11345.607	31.757
16	8281.919	11347.084	31.780
17	8279.013	11350.407	31.803
18	8277.031	11353.425	31.821
19	8274.395	11355.892	31.840
20	8271.254	11357.672	31.859
21	8267.783	11358.664	31.877
22	8293.660	11348.450	31.697
23	8292.593	11347.396	31.706
24	8291.089	11344.382	31.857
25	8290.495	11343.192	31.884
26	8285.499	11342.888	31.898
27	8284.987	11343.663	31.883
28	8283.473	11345.953	31.754
29	8282.132	11346.626	31.762



SIGNS AND LINEMARKING ROAD 02 AND DRIVEWAY 01
SCALE 1:250

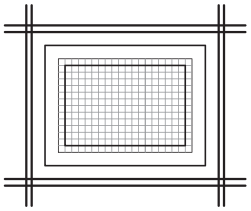
INTERSECTION DETAIL - ROAD 02 AND DRIVEWAY 01
SCALE 1:250

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

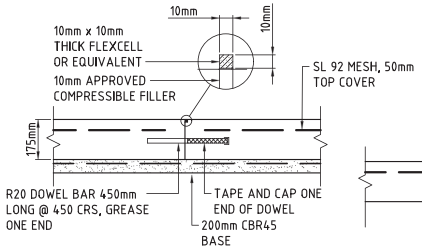
Approval no: DEV-2026-WAR-4891

Date: 24/07/2026

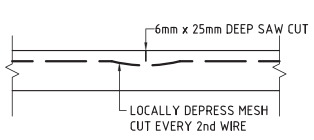
Queensland Government



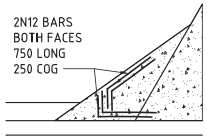
REINFORCING DETAIL AT INLETS
SCALE - NTS



DOWEL JOINT
DENOTED 'DJ' ON PLAN
SCALE 1:10



CUT JOINT
DENOTED 'CJ' ON PLAN
SCALE 1:10



DETAIL A
TYPICAL TREATMENT
N.T.S.

LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- M3 MOUNTABLE KERB AND CHANNEL
- B1 BARRIER KERB AND CHANNEL (300)
- B2 BARRIER KERB
- FINISHED SURFACE CONTOURS
- 3.000 OFFSET TO KERB FACE
- DJ DOWEL JOINT
- CJ SAW CUT JOINT (C.J.)

LINEMARKING LEGEND

- EDGE LINE (EL) — 150mm
- GIVE WAY LINE (GWL) — 600mm STRIPE AND GAP — 300mm
- BARRIER LINE (BL) — RRPM — MIN 4m MAX 12m — 100mm
- UNBROKEN YELLOW NO STOPPING LINE (LLCY) — 100mm

NOTE- RETROREFLECTIVE RAISED PAVEMENT MARKERS (RRPM'S) REQUIRED TO ALL LANE LANES AND ALL PERIMETER OF CHEVRONS AS PER MAIN ROADS 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' (MUTCD).

DRIVEWAY SETOUT AND LEVELS ONLY CONSTRUCTED IN ACCORDANCE WITH IPWEAQ STANDARD DWG RS-051. 175mm THICK, SL92 MESH, n40 CONCRTE, 50mm TOP COVER. MINIMUM 200mm CBR45 BASE.

GENERAL NOTES

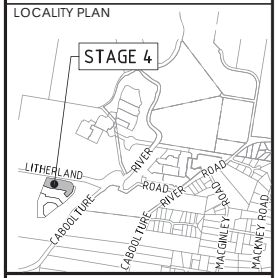
1. SETOUT POINTS ARE GIVEN AT KERB LIP LEVELS.
2. KERB LIP LEVELS ARE GIVEN AT QUARTER POINTS, TP'S AND EQUAL PARTS U.N.O.
3. KERB OFFSETS ARE GIVEN TO THE KERB FACE.
4. KERB RADII ARE GIVEN TO THE KERB LIP
5. EXTRA DETAIL FOR SETTING OUT IS AVAILABE ON CAD FILE.

SCALE 5 0 5 10 15 20 25m
1 : 250 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP

Client: Stockland

Project: RIVERMONT PRECINCT 3 STAGE 4

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

Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:03+10'00'

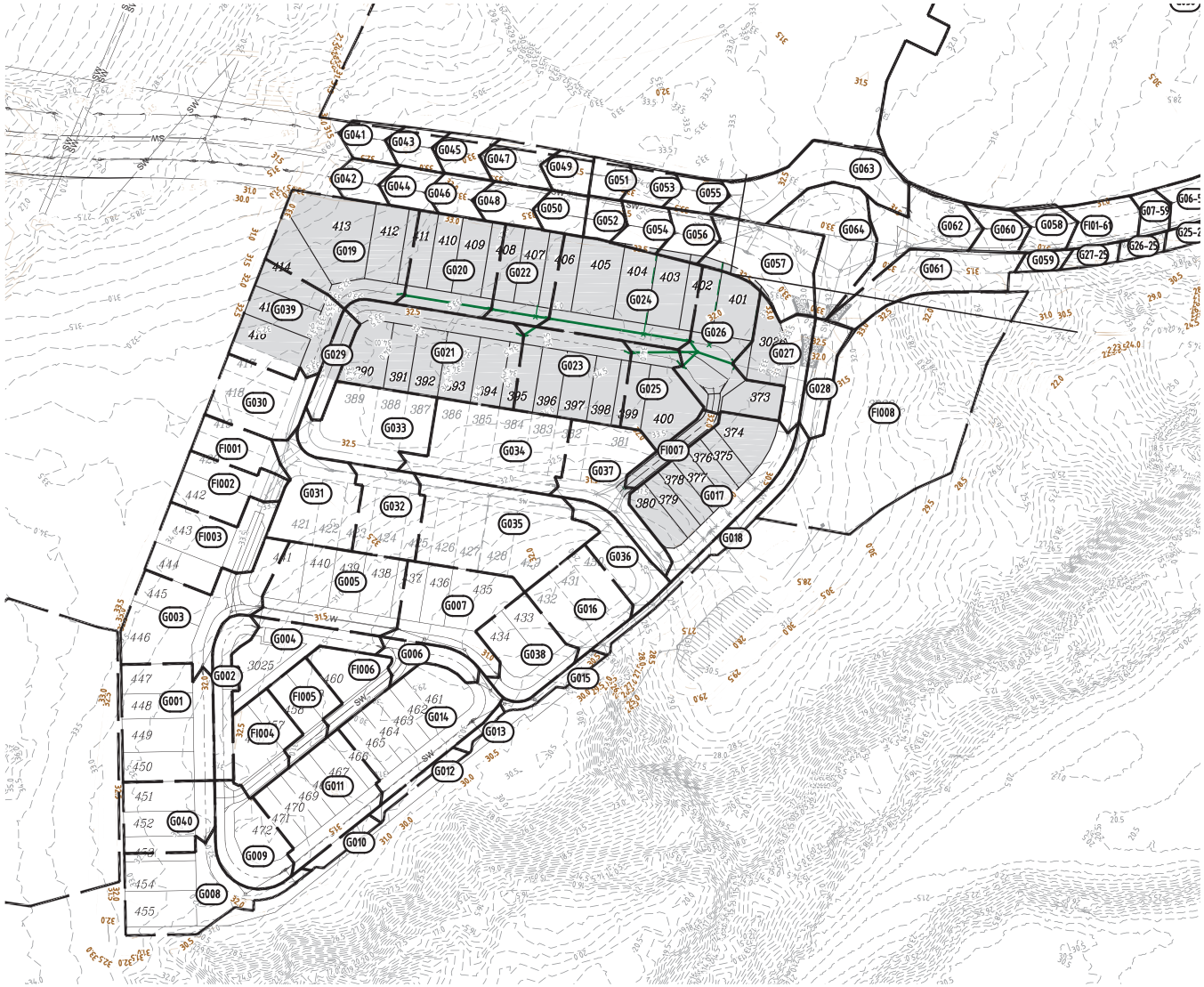
Drawing Title: ROADWORKS INTERSECTION DETAILS AND LINEMARKING PLAN

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	10 of 21

Drawing No	Revision
24-274-10	A

A1



CATCHMENT PLAN
SCALE 1:1000

CATCHMENT TABLE

CATCHMENT NO.	AREA (ha)
G041	0.032
G043	0.033
G045	0.035
G047	0.045
G042	0.034
G044	0.034
G046	0.034
G048	0.042
G019	0.225
G020	0.150
G049	0.031
G051	0.026
G053	0.030
G055	0.030
G050	0.033
G052	0.027
G054	0.039
G056	0.039
G021	0.261
G023	0.165
G025	0.101
G058	0.038
G060	0.038
G062	0.107
G022	0.100
G059	0.016
G061	0.122
G024	0.232
G026	0.166
G057	0.132
G063	0.141
G064	0.131
G027	0.096
G017	0.243
G028	0.058
G015	0.022
EXTD1	1.464

CATCHMENT TABLE

CATCHMENT NO.	AREA (ha)
G018	0.060
FI002	0.085
FI001	0.057
FI003	0.132
G002	0.067
G004	0.101
FI004	0.085
FI005	0.067
FI006	0.071
G001	0.067
G003	0.101
G005	0.184
G008	0.167
G010	0.020
G012	0.019
G013	0.010
G040	0.110
G009	0.105
G011	0.169
G029	0.036
G039	0.150
G030	0.107
G031	0.130
G006	0.043
G014	0.205
G007	0.152
G033	0.153
G032	0.098
G034	0.194
G035	0.240
FI007	0.033
G016	0.116
G036	0.079
G038	0.109
G037	0.132
FI008	0.586

LEGEND

- PROPOSED CATCHMENT BOUNDARY
- EXTERNAL CONTRIBUTING CATCHMENT BOUNDARY
- 506 CATCHMENT NUMBER
- BARRIER KERB AND CHANNEL
- PROPOSED STORMWATER DRAINAGE
- 36.0 FINISHED SURFACE CONTOURS
- -36.0- NATURAL SURFACE CONTOURS

SCALE 10 5 0 10 20 30 40 50 60 70 80 90 100m
1 : 1000 (A1 UNREDUCED)

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

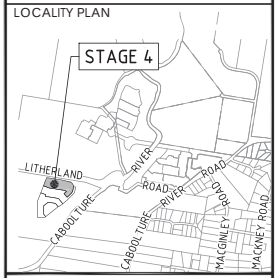
Date: 24/07/2026

Queensland Government

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP
B	FOR APPROVAL	30.03.2026	DF

Client: Stockland

Project:
RIVERMONT
PRECINCT 3
STAGE 4

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

Aproved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.03.30 15:32:50+10'00'

Drawing Title
STORMWATER
CATCHMENT PLAN

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	11 of 21

	Drawing No	Revision
A1	24-274-11	B

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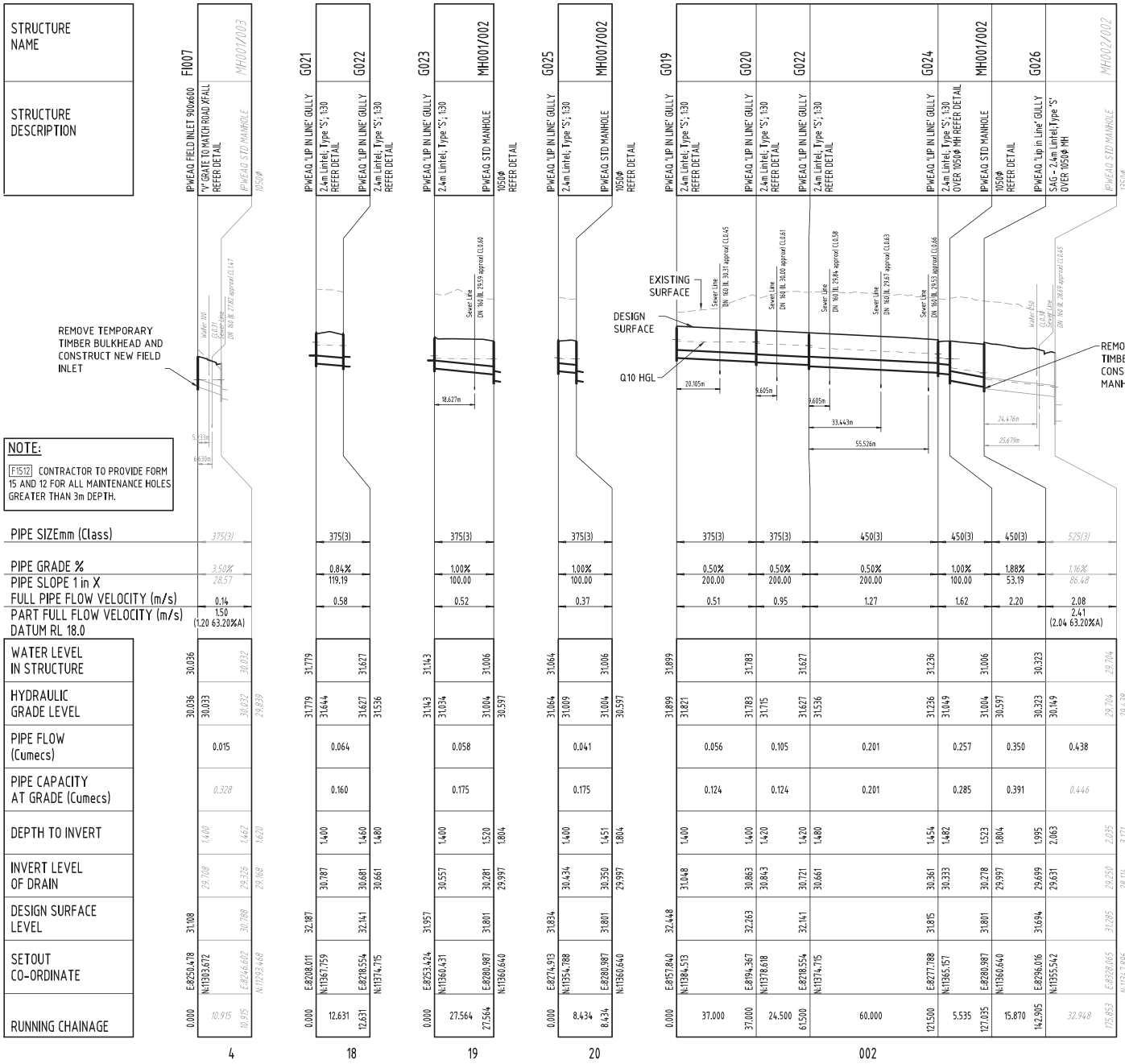


PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

Date: 24/07/2026

Queensland Government

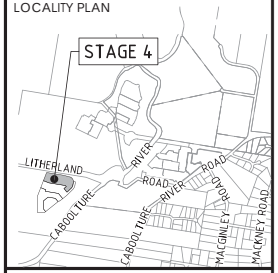
SCALE A 1:1000 (Horiz.) 10 5 0 10 20 30 40 50 60 70 80 90 100m

B 1:100 (Vert.) 1 0.5 0 1 2 3 4 5 6 7 8 9 10m

(A1 UNREDUCED)

DO NOT SCALE THIS DRAWING IF IN DOUBT - ASK!

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	

Client: Stockland

Project: RIVERMONT PRECINCT 3 STAGE 4

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

Approved Engineer RPEQ 17544

Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:04+10'00'

Drawing Title: STORMWATER LONG SECTIONS

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale: AS SHOWN

Sheet: 13 of 21

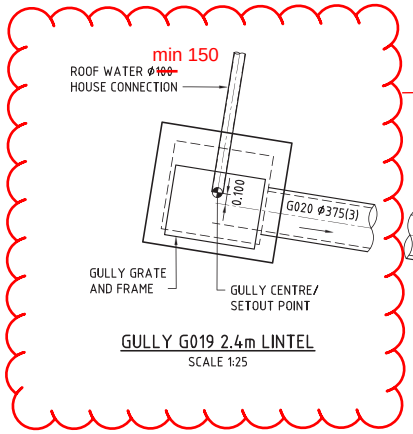
Drawing No: 24-274-13

Revision: A

A1

M:\202A\274\Rivermont P2 Stage 4\Engineering\Acad\274-13-SW-LS.dwg Plotted by: AL on Thu Dec 18 15:42:39 2025

Refer to Stormwater Manhole / Pit Roof Water Connections condition.



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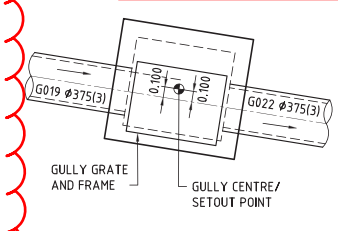
SCALE 1:25



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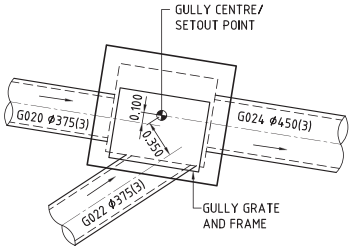

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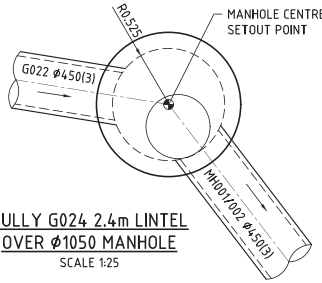
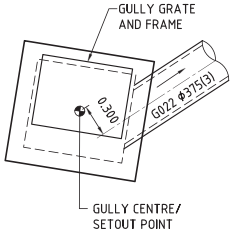
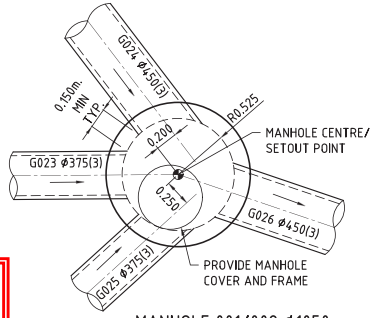


GULLY G024 2.4m LINTEL
OVER Ø1050 MANHOLE
SCALE 1:25



GULLY G021 2.4m LINTEL
SCALE 1:25



MANHOLE 001/002 Ø1050
SCALE 1:25

CONSTRUCTION EQUIPMENT	PIPE CLASS	MINIMUM COMPACTION COVER TO PIPE OBVERT								
		375Ø	450Ø	525Ø	600Ø	675Ø	750Ø	825Ø	900Ø	1050Ø-1500Ø
VIBRATORY RAMMER (UP TO 75kg)	2	0.450	0.400	0.400	0.350	0.350	0.300	0.300	0.250	0.250
	3	0.300	0.300	0.3000	0.250	0.250	0.200	0.200	0.200	0.200
VIBRATORY TRENCH ROLLER (UP TO 2t)	2	0.400	0.400	0.350	0.250	0.250	0.200	0.200	0.200	0.200
	3	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM (UP TO 7t)	2	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.400	0.400
	3	0.450	0.450	0.450	0.350	0.350	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM (UP TO 10t)	2	0.850	0.850	0.800	0.800	0.800	0.750	0.750	0.750	0.750
	3	0.550	0.550	0.500	0.500	0.500	0.200	0.200	0.200	0.200
EXCAVATOR & COMPACTION WHEEL (15t)	2	0.700	0.650	0.650	0.650	0.650	0.600	0.600	0.550	0.550
	3	0.450	0.450	0.450	0.450	0.450	0.350	0.350	0.250	0.250
EXCAVATOR & COMPACTION WHEEL (25t)	2	1.050	1.000	0.950	0.900	0.900	0.850	0.850	0.750	0.750
	3	0.650	0.650	0.650	0.650	0.650	0.600	0.600	0.500	0.500
GRADER (CAT120H) (14.5t)	2	0.600	0.600	0.450	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.450	0.450	0.200	0.200	0.200	0.200	0.200	0.200
GRADER (CAT140H) (17.0t)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
SCRAPER (CAT613C11) (27.2t)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
SCRAPER (CAT621F) (53.8t)	2	0.700	0.700	0.650	0.650	0.600	0.600	0.600	0.600	0.600
	3	0.650	0.650	0.600	0.600	0.600	0.600	0.600	0.600	0.600
DOZER (CATD7 G)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
DOZER (CATD9 R)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
EXCAVATOR (CAT315B) (15.8t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT317) (17.3t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT325B) (25.9t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4891

Date: 24/07/2026

Queensland Government

AMENDED IN RED

By: Mahima Reshamwala

Date: 24 July 2026

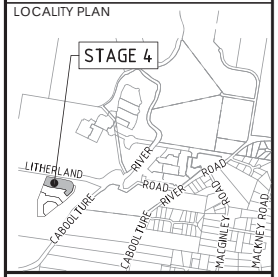
Queensland Government

SCALE 0.5 0 0.5 1.0 1.5 2.0 2.5m

1 : 25 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP

Client: Stockland

Project: RIVERMONT PRECINCT 3 STAGE 4

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

Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:04+10'00'

Drawing Title: STORMWATER MANHOLE DETAILS

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	14 of 21

Drawing No	Revision
24-274-14	A

A1

M:\202A\24274 Rivermont P2 Stage 4\Engineering\Acad\24-274-14-SW-MH.dwg Plotted by: AL on Thu Dec 18 15:42:43 2025

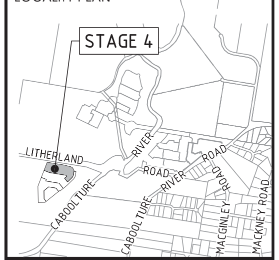
DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

LOCATION						TIME		SUB-CATCHMENT RUNOFF						INLET DESIGN							DRAIN DESIGN											
						tc	I	C10	C	A	CxA	+CA	Q					Qg	Qb		tc	I	+CA	Qt	Qm	Qs	Qp	L	S		V	T
DESIGN ARI	STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	LAND USE	SLOPE OF CATCHMENT	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	10yr RUNOFF CO-EFFICIENT	CO-EFFICIENT OF RUNOFF	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUM OF (C x A)	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	ROAD GRADE AT INLET	MINOR FLOW ROAD CAPACITY	INLET TYPE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	MAJOR TOTAL FLOW	MAJOR SURFACE FLOW CAPACITY	MAJOR SURFACE FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE / BOX DIMENSIONS (CLASS)	FLOW VELOCITY FULL (PIPE GRADE VELOCITY)	TIME OF FLOW IN REACH
yrs					%	min	mm/h			ha	ha	ha	l/s	l/s	%	l/s		l/s	l/s		min	mm/h	ha	l/s	l/s	l/s	l/s	m	%	mm	m/s	min
10% 1%	G041	G041 to G043	G041	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.032 0.032	0.028 0.032	0.028 0.032	16 27	18 FLOW DEPTH 0.067 m (0.000m 3 month) DOWNSTREAM 0.027m	2.00	249	4	16	1	LOST	5.00 5.00	205 304	0.028 0.032	27	1389	11 (Pipe flow= Grate flow)	16	19.999	0.50	375(3)	0.15 (1.12)	0.56
10% 1%	G043	G043 to G045	G041;G043	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.033 0.033	0.029 0.033	0.029 0.033	17 28	19 FLOW DEPTH 0.068 m (0.000m 3 month) DOWNSTREAM 0.028m	2.00	249	4	17	2	G041	5.56 5.56	201 294	0.057 0.065	53	1389	21 (Pipe flow= Sum upstr atten flows)	33	20.000	0.50	375(3)	0.29 (1.12)	0.56
10% 1%	G045	G045 to G047	G041;G043;G045	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.035 0.035	0.031 0.035	0.031 0.035	18 30	21 FLOW DEPTH 0.071 m (0.000m 3 month) DOWNSTREAM 0.031m	2.00	249	4	18	2	G043	6.12 6.12	196 286	0.088 0.100	79	1389	30 (Pipe flow= Sum upstr atten flows)	49	19.999	0.50	375(3)	0.45 (1.12)	0.56
10% 1%	G047	G047 to MH001/005	G041;G043;G045; G047	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.045 0.045	0.039 0.045	0.039 0.045	22 38	23 FLOW DEPTH 0.076 m (0.000m 3 month) DOWNSTREAM 0.036m	1.60	223	4	20	3	G045	6.68 6.68	191 278	0.127 0.145	112	1242	45 (Pipe flow= Sum upstr atten flows)	67	17.860	0.50	375(3)	0.61 (1.12)	0.49
10% 1%	G042	G042 to G044	G042	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.034 0.034	0.030 0.034	0.030 0.034	17 29	19 FLOW DEPTH 0.069 m (0.000m 3 month) DOWNSTREAM 0.029m	2.00	249	4	17	2	LOST	5.00 5.00	205 304	0.030 0.034	29	1389	12 (Pipe flow= Grate flow)	17	19.999	0.50	375(3)	0.16 (1.12)	0.56
10% 1%	G044	G044 to G046	G042;G044	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.034 0.034	0.030 0.034	0.030 0.034	17 29	19 FLOW DEPTH 0.069 m (0.000m 3 month) DOWNSTREAM 0.029m	2.00	249	4	17	2	G042	5.56 5.56	201 294	0.060 0.068	56	1389	22 (Pipe flow= Sum upstr atten flows)	34	20.000	0.50	375(3)	0.31 (1.12)	0.56
10% 1%	G046	G046 to G048	G042;G044;G046	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.034 0.034	0.030 0.034	0.030 0.034	17 29	20 FLOW DEPTH 0.070 m (0.000m 3 month) DOWNSTREAM 0.030m	2.00	249	4	18	2	G044	6.12 6.12	196 286	0.090 0.102	81	1389	31 (Pipe flow= Sum upstr atten flows)	50	20.000	0.50	375(3)	0.45 (1.12)	0.56
10% 1%	G048	G048 to MH001/005	G042;G044;G046; G048	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.042 0.042	0.037 0.042	0.037 0.042	21 36	22 FLOW DEPTH 0.075 m (0.000m 3 month) DOWNSTREAM 0.035m	1.60	223	4	20	3	G046	6.68 6.68	191 278	0.127 0.144	111	1242	44 (Pipe flow= Sum upstr atten flows)	67	17.860	0.50	375(3)	0.61 (1.12)	0.49
10% 1%	MH001/005	MH001/005 to MH002/005	G041;G043;G045; G047;G042;G044; G046;G048														30				7.17 7.17	187 272	0.254 0.289	218	0	84 (Pipe flow= Sum upstream flows)	134	106.153	0.50	450(3)	0.84 (1.27)	2.11
10% 1%	G019	G019 to G020	G019		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.225 0.225	0.191 0.225	0.191 0.225	74 127	74 FLOW WIDTH 2.643 m (0.000m 3 month) DOWNSTREAM 1.360m	0.50	87	4	56	18	G020	15.00 15.00	140 204	0.191 0.225	128	2206	71 (Pipe flow= Grate flow)	56	37.000	0.50	375(3)	0.51 (1.12)	1.03
10% 1%	G020	G020 to G022	G019;G020		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.150 0.150	0.127 0.150	0.127 0.150	49 85	67 FLOW WIDTH 2.533 m (0.000m 3 month) DOWNSTREAM 1.260m	0.50	87	4	52	16	G022	16.03 16.03	136 198	0.318 0.375	206	2206	101 (Pipe flow= Sum upstr atten flows)	105	24.500	0.50	375(3)	0.95 (1.12)	0.43
10% 1%	G049	G049 to G051	G049	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.031 0.031	0.027 0.031	0.027 0.031	15 26	15 FLOW DEPTH 0.075 m (0.000m 3 month) DOWNSTREAM 0.027m	0.78	156	4	14	1	G047	5.00 5.00	205 304	0.027 0.031	26	867	12 (Pipe flow= Grate flow)	14	40.000	0.50	375(3)	0.13 (1.12)	1.11
10% 1%	G051	G051 to G053	G049;G051	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.026 0.026	0.022 0.026	0.022 0.026	13 22	13 FLOW DEPTH 0.073 m (0.000m 3 month) DOWNSTREAM 0.014m	0.60	136	4	12	0	G053	6.11 6.11	196 286	0.049 0.057	45	761	20 (Pipe flow= Sum upstr atten flows)	26	20.000	0.50	375(3)	0.23 (1.12)	0.56
10% 1%	G053	G053 to G055	G049;G051;G053	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.030 0.030	0.026 0.030	0.026 0.030	15 25	15 FLOW DEPTH 0.069 m (0.000m 3 month) DOWNSTREAM 0.023m	1.20	193	4	14	1	G055	6.67 6.67	191 278	0.075 0.087	67	1076	29 (Pipe flow= Sum upstr atten flows)	38	19.999	1.08	375(3)	0.35 (1.65)	0.56
10% 1%	G055	G055 to MH002/005	G049;G051;G053; G055	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.030 0.030	0.026 0.030	0.026 0.030	15 25	16 FLOW DEPTH 0.066 m (0.000m 3 month) DOWNSTREAM 0.023m	1.80	236	4	15	1	G063	7.23 7.23	186 271	0.101 0.117	88	1318	38 (Pipe flow= Sum upstr atten flows)	51	19.293	1.00	375(3)	0.46 (1.59)	0.54
10% 1%	G050	G050 to G052	G050	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.033 0.033	0.029 0.033	0.029 0.033	17 28	17 FLOW DEPTH 0.076 m (0.000m 3 month) DOWNSTREAM 0.030m	0.78	156	4	15	1	G048	5.00 5.00	205 304	0.029 0.033	28	867	13 (Pipe flow= Grate flow)	15	40.001	0.50	375(3)	0.14 (1.12)	1.11
10% 1%	G052	G052 to G054	G050;G052	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.027 0.027	0.023 0.027	0.023 0.027	13 23	13 FLOW DEPTH 0.074 m (0.000m 3 month) DOWNSTREAM 0.019m	0.60	136	4	13	0	G054	6.11 6.11	196 286	0.052 0.060	48	761	21 (Pipe flow= Sum upstr atten flows)	27	19.999	0.50	375(3)	0.24 (1.12)	0.56
10% 1%	G054	G054 to G056	G050;G052;G054	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.039 0.039	0.033 0.039	0.033 0.039	19 33	19 FLOW DEPTH 0.075 m (0.000m 3 month) DOWNSTREAM 0.033m	1.20	193	4	17	2	G056	6.67 6.67	191 278	0.085 0.099	76	1076	34 (Pipe flow= Sum upstr atten flows)	42	20.000	1.08	375(3)	0.38 (1.65)	0.56

STRUCTURE No.	HEADLOSSES											PART FULL		DESIGN LEVELS						
			V2/2g	Ku	hu	Kl	hl	Kw	hw	Sf	hf		Vp							
STRUCTURE No.	STRUCTURE CHART No.	STRUCTURE RATIOS FOR 'K' VALUE CALCULATIONS	VELOCITY HEAD	U/S HEADLOSS COEFFICIENT	U/S PIPE STRUCT. HEADLOSS	LAT. HEADLOSS CO-EFFICIENT	LAT. PIPE STRUCT. HEADLOSS	W.S.E CO-EFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEADLOSS (L x Sf)	DEPTH	VELOCITY	OBVERT LEVELS	DRAIN SECTION H.G.L	UPSTREAM H.G.L	LAT. H.G.L	W.S.E.	SURFACE OR K&C INVERT LEVEL	STRUCTURE No.
			m		m		m		m	%	m	m	m/s	m	m	m	m	m	m	
G041			0.001	5.90	0.006			5.90	0.006	0.01	0.002			30.805 30.705	31.265 31.263	31.271		31.271	31.830	G041
G043		Qg 0.017 Qo 0.033 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.51 K 1.53 S/Do 2.54 cor -0.01 Ku 1.52 Kw 1.52	0.004	1.52	0.006			1.52	0.006	0.03	0.007			30.685 30.585	31.257 31.250	31.263		31.263	32.230	G043
G045		Qg 0.018 Qo 0.049 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.36 K 1.22 S/Do 2.83 cor -0.07 Ku 1.15 Kw 1.15	0.010	1.15	0.012			1.15	0.012	0.08	0.016			30.565 30.465	31.238 31.222	31.250		31.250	32.630	G045
G047		Qg 0.019 Qo 0.067 Do 375 CHART 34 Angle 32 Case3 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.28 K 1.13 S/Do 3.07 cor -0.09 Ku 1.04 Kw 1.04	0.019	1.04	0.020			1.04	0.020	0.15	0.026			30.445 30.356	31.202 31.176	31.222		31.222	27.273	G047
G042			0.001	5.90	0.008			5.90	0.008	0.01	0.002			30.805 30.705	31.266 31.264	31.274		31.274	31.830	G042
G044		Qg 0.017 Qo 0.034 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.50 K 1.51 S/Do 2.54 cor -0.01 Ku 1.50 Kw 1.50	0.005	1.50	0.008			1.50	0.008	0.04	0.007			30.685 30.585	31.256 31.249	31.264		31.264	32.230	G044
G046		Qg 0.017 Qo 0.050 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.34 K 1.19 S/Do 2.82 cor -0.07 Ku 1.12 Kw 1.12	0.010	1.12	0.012			1.12	0.012	0.08	0.016			30.565 30.465	31.237 31.221	31.249		31.249	32.630	G046
G048		Qg 0.018 Qo 0.067 Do 375 CHART 34 Angle 32 Case3 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.27 K 1.11 S/Do 3.07 cor -0.09 Ku 1.02 Kw 1.02	0.019	1.02	0.019			1.02	0.019	0.15	0.026			30.445 30.356	31.202 31.176	31.221		31.221	33.009	G048
MH001/005		Qo 0.134 Do 450 Routine 2.14 Equiv defln 57 CHART 49 High vel lat G048 Dhv 375 Qhv 0.067 Dhv/Dlv 1.0 Dhv/Do 0.83 Qhv/Qo 0.50 H 2.33 Low vel latrl G047 Dlv 375 Qlv 0.067 Dlv/Do 0.83 Qlv/Qo 0.50 L 0.57 H-L 1.76 No grate flow: H-L-0.2 = 1.56	0.036	1.07	0.039	Ku=Kw= 1.60 Combined pipes in line case Join Pipes: G047 and G048 Vel1 0.606 Vel2 0.606 Eq Dia 530 Angle 178 Flow 0.134 CHART 50 Du/Do1.18 alpha 0 K'w 0.05 Vu 0.61 WSE 0.03 Ku 0.77 Kw 0.80 Interpolated Ku= 1.07 Kw= 1.09		1.09	0.040	0.22	0.234			30.410 29.879	31.137 30.903	31.176		31.177	0.150	MH001/005
G019			0.013	5.90	0.078			5.90	0.078	0.10	0.038			31.423 31.238	31.821 31.783	31.899		31.899	32.448	G019
G020		Qg 0.050 Qo 0.105 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.48 K 1.47 S/Do 2.51 cor 0.00 Ku 1.47 Kw 1.47	0.046	1.47	0.068			1.47	0.068	0.36	0.088			31.218 31.096	31.715 31.627	31.783		31.783	32.263	G020
G049		Part full downstream pipe Upstream HGL 32.176 below outlet pipe obv 32.291 Set Kp to 5.9	0.001	5.90	0.172			5.90	0.172	0.01	0.003	0.088 (0.059 63.20%	0.76 63.20%A)	32.291 32.091	32.004 31.852	32.176		32.176	33.316	G049
G051		Qg 0.012 Qo 0.026 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.46 K 1.44 S/Do 1.02 cor 0.82 Ku 2.26 Kw 2.26	0.003	1.00	0.040	Part full downstream pipe Upstream HGL 31.852 below outlet pipe obv 32.071 Set Kp to 1		1.00	0.040	0.02	0.004	0.116 (0.079 63.20%	0.88 63.20%A)	32.071 31.971	31.812 31.780	31.852		31.852	33.341	G051
G053		Qg 0.013 Qo 0.038 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.35 K 1.20 S/Do 1.03 cor 0.61 Ku 1.81 Kw 1.81	0.006	1.00	0.087	Part full downstream pipe Upstream HGL 31.780 below outlet pipe obv 31.951 Set Kp to 1		1.00	0.087	0.05	0.010	0.117 (0.079 63.20%	1.31 63.20%A)	31.951 31.735	31.693 31.573	31.780		31.780	33.150	G053
G055		Qg 0.013 Qo 0.051 Do 375 Angle 38 Chart 39 S/Do 2.5 chartdeg Du/Do 1.00 K0 1.80 K0.5 1.91 Qu/Qo 0.74 Cg 0.61 K 1.87 S/Do 2.0 K0 1.98 K0.5 2.10 K 2.05 S/Do 1.5 K0 2.39 K0.5 2.52 K 2.47 Interp val for S/Do 1.08 Kw 2.81 CHART 38	0.011	1.00	0.095	S/Do 2.0 K0 1.84 K0.5 1.75 K 1.78 S/Do 1.5 K0 2.05 K0.5 1.84 K 1.92 Interp val for S/Do 1.08 Ku 2.04 Part full downstream pipe Upstream HGL 31.573 below outlet pipe obv 31.715 Set Kp to 1		1.00	0.095	0.08	0.016	0.138 (0.094 63.20%	1.37 63.20%A)	31.715 31.522	31.478 31.285	31.573		31.573	0.150	G055
G050		Part full downstream pipe Upstream HGL 32.176 below outlet pipe obv 32.291 Set Kp to 5.9	0.001	5.90	0.172			5.90	0.172	0.01	0.003	0.088 (0.062 63.20%	0.76 63.20%A)	32.291 32.091	32.004 31.856	32.176		32.176	33.316	G050
G052		Qg 0.012 Qo 0.027 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.46 K 1.43 S/Do 1.02 cor 0.81 Ku 2.24 Kw 2.24	0.003	1.00	0.041	Part full downstream pipe Upstream HGL 31.856 below outlet pipe obv 32.071 Set Kp to 1		1.00	0.041	0.02	0.005	0.119 (0.082 63.20%	0.90 63.20%A)	32.071 31.971	31.815 31.791	31.856		31.856	33.341	G052
G054		Qg 0.016 Qo 0.042 Do 375 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.38 K 1.28 S/Do 1.04 cor 0.66 Ku 1.94 Kw 1.94	0.007	1.00	0.092	Part full downstream pipe Upstream HGL 31.791 below outlet pipe obv 31.951 Set Kp to 1		1.00	0.092	0.06	0.012	0.123 (0.085 63.20%	1.34 63.20%A)	31.951 31.735	31.699 31.593	31.791		31.791	33.150	G054

CALCULATIONS TABLE

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	

Client

Stockland

Project

RIVERMONT
PRECINCT 3
STAGE 4

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: 2025.12.18 17:00:05+10'00'

Drawing Title
STORMWATER
CALCULATION TABLE
SHEET 1

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale: AS SHOWN
Sheet: 15 of 21
A1
Drawing No: 24-274-15
Revision: A

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV-2026-WAR-4891
Date: 24/07/2026
Queensland Government

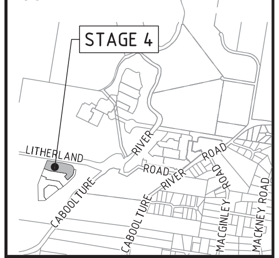
DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

CALCULATIONS TABLE

LOCATION: DESIGN ARI (yrs)	STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	LAND USE	TIME: SLOPE OF CATCHMENT (%)	tc SUB-CATCHMENT TIME OF CONC. (min)	I RAINFALL INTENSITY (mm/h)	SUB-CATCHMENT RUNOFF: C10 10yr RUNOFF CO-EFFICIENT	C CO-EFFICIENT OF RUNOFF	A SUB-CATCHMENT AREA (ha)	C×A EQUIVALENT AREA (ha)	ΣCA SUM OF (C × A) (ha)	Q SUB-CATCHMENT DISCHARGE (l/s)	INLET DESIGN: FLOW IN K&C (INC. BYPASS) (l/s)	ROAD GRADE AT INLET (%)	MINOR FLOW ROAD CAPACITY (l/s)	INLET TYPE	Qg FLOW INTO INLET (l/s)	Qb BYPASS FLOW (l/s)	BYPASS STRUCTURE No.	DRAIN DESIGN: tc CRITICAL TIME OF CONC. (min)	I RAINFALL INTENSITY (mm/h)	ΣCA TOTAL (C × A) (ha)	Qt MAJOR TOTAL FLOW (l/s)	Qm MAJOR SURFACE FLOW CAPACITY (l/s)	Qs MAJOR SURFACE FLOW (l/s)	Qp PIPE FLOW (l/s)
10% 1%	G056	G056 to MH002/005	G050;G052;G054; G056	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.039 0.039	0.034 0.039	0.034 0.039	19 33	21 FLOW DEPTH 0.073 m (0.000m 3 month) DOWNSTREAM 0.033m	1.80	236	4	19	2	G057	7.23 7.23	186 271	0.119 0.138	104	1318	46	58 (Pipe flow= Sum upstr atten flows)
10% 1%	G021	G021 to G022	G021;G021		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.261 0.261	0.221 0.261	0.221 0.261	86 148	86 FLOW WIDTH 2.817 m (0.000m 3 month) DOWNSTREAM 1.510m	0.50	87	4	64	22	G023	15.00 15.00 (Sum Imp Area Maj 0.261 Sum Flow Maj 0.148 Overland Flow Maj 0.084) (100% of overland flow diverted = 0.084; Equiv Area = Diverted Flow x 360/204mm/h = 0.148 to G023)	140 204	0.221 0.113	64	2206	0	64 (Pipe flow= Grate flow)
10% 1%	G023	G023 to MH001/002	G023;G023		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.165 0.165	0.140 0.165	0.140 0.165	54 94	77 FLOW WIDTH 2.680 m (0.000m 3 month) DOWNSTREAM 1.390m	0.50	87	4	58	19	G025	15.00 15.00 (Sum Imp Area Maj 0.313 Sum Flow Maj 0.177 Overland Flow Maj 0.120) (100% of overland flow diverted = 0.120; Equiv Area = Diverted Flow x 360/204mm/h = 0.211 to G025) (Major Bypass Area= 0.148 from upstream reaches)	140 204	0.140 0.102	58	2206	0	58 (Pipe flow= Grate flow)
10% 1%	G025	G025 to MH001/002	G025		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.101 0.101	0.086 0.101	0.086 0.101	33 57	52 FLOW WIDTH 2.260 m (0.000m 3 month) DOWNSTREAM 1.053m	0.50	87	4	41	11	G026	15.00 15.00 (Major Bypass Area= 0.211 from upstream reaches)	140 204	0.086 0.312	177	2206	136	41 (Pipe flow= Grate flow)
10% 1%	G058	G058 to G060	G058	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.038 0.038	0.033 0.038	0.033 0.038	19 32	25 FLOW DEPTH 0.084 m (0.000m 3 month) DOWNSTREAM 0.042m	1.00	176	4	21	3	LOST	5.00 5.00	205 304	0.033 0.038	32	982	11	21 (Pipe flow= Grate flow)
10% 1%	G060	G060 to G062	G058;G060	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.038 0.038	0.033 0.038	0.033 0.038	19 32	35 FLOW DEPTH 0.093 m (0.000m 3 month) DOWNSTREAM 0.053m	1.00	176	4	29	6	G058	5.55 5.55	201 294	0.066 0.076	62	982	13	49 (Pipe flow= Sum upstr atten flows)
10% 1%	G062	G062 to MH001/006	G058;G060;G062	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.107 0.107	0.093 0.107	0.093 0.107	53 91	69 FLOW DEPTH 0.119 m (0.000m 3 month) DOWNSTREAM 0.076m	0.75	153	4	53	16	G060	6.10 6.10	196 286	0.159 0.183	145	851	46	99 (Pipe flow= Sum upstr atten flows)
10% 1%	G022	G022 to G024	G019;G020;G021; G021;G022		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.100 0.100	0.085 0.100	0.085 0.100	33 57	49 FLOW WIDTH 2.187 m (0.000m 3 month) DOWNSTREAM 1.000m	0.50	87	4	38	10	G024	16.46 16.46	134 195	0.476 0.588	318	2206	117	201 (Pipe flow= Sum upstr atten flows)
10% 1%	G024	G024 to MH001/002	G019;G020;G021; G021;G022;G024		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.232 0.232	0.198 0.232	0.198 0.232	77 132	87 FLOW WIDTH 2.590 m (0.000m 3 month) DOWNSTREAM 1.373m	0.76	107	4	65	23	G026	17.25 17.25	131 191	0.674 0.820	435	2714	178	257 (Pipe flow= Sum upstr atten flows)
10% 1%	MH001/002	MH001/002 to G026	G023;G023;G025; G019;G020;G021; G021;G022;G024														30				17.31 17.31	131 191	0.689 1.234	654	2206	305	350 (Pipe flow= Sum upstr atten flows)
10% 1%	G026	G026 to MH002/002	G023;G023;G025; G019;G020;G021; G021;G022;G024; G026		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.166 0.166	0.141 0.166	0.141 0.166	55 94	88 FLOW WIDTH 1.216 m (0.000m 3 month)	0.00	191	SAG	88	0	LOST	17.43 17.43	131 190	0.830 1.400	739	0	300	438 (Pipe flow= Sum upstream flows)
10% 1%	G059	G059 to G061	G059	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.016 0.016	0.014 0.016	0.014 0.016	8 13	21 FLOW DEPTH 0.079 m (0.000m 3 month) DOWNSTREAM 0.037m	1.00	176	4	19	2	LOST	5.00 5.00	205 304	0.014 0.016	14	982	0	19 (Pipe flow= Grate flow)
10% 1%	G061	G061 to MH001/006	G059;G061	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.122 0.122	0.106 0.122	0.106 0.122	60 103	60 FLOW DEPTH 0.109 m (0.000m 3 month) DOWNSTREAM 0.068m	1.00	176	4	47	13	G059	5.56 5.56	201 294	0.120 0.138	113	982	48	65 (Pipe flow= Sum upstr atten flows)
10% 1%	G057	G057 to MH002/005	G057	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.132 0.132	0.115 0.132	0.115 0.132	65 112	68 FLOW DEPTH 0.025 m (0.000m 3 month)	0.00	345	SAG	68	0	LOST	5.00 5.00	205 304	0.115 0.132	111	0	44	68 (Pipe flow= Sum upstream flows)
10% 1%	MH002/005	MH002/005 to MH003/005	G041;G043;G045; G047;G042;G044; G046;G048;G049; G051;G053;G055; G050;G052;G054; G056;G057														30				9.28 9.28	171 249	0.589 0.676	468	0	157	310 (Pipe flow= Sum upstream flows)
10% 1%	G063	G063 to MH001/006	G063	ROAD		5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.141 0.141	0.122 0.141	0.122 0.141	69 119	70 FLOW DEPTH 0.119 m (0.000m 3 month) DOWNSTREAM 0.077m	0.75	153	4	54	16	G062	5.00 5.00	205 304	0.122 0.141	119	851	65	54 (Pipe flow= Grate flow)

STRUCTURE No.	L REACH LENGTH (m)	S PIPE GRADE (%)	PIPE / BOX DIMENSIONS (CLASS) (mm)	V FLOW VELOCITY FULL (PIPE GRADE VELOCITY) (m/s)	T TIME OF FLOW IN REACH (min)	STRUCTURE CHART No.	STRUCTURE RATIOS FOR 'K' VALUE CALCULATIONS	HEADLOSSES: V2/2g VELOCITY HEAD (m)	Ku U/S HEADLOSS COEFFICIENT	hu U/S PIPE STRUCT. HEADLOSS (m)	Kl LAT. HEADLOSS CO-EFFICIENT	hl LAT. PIPE STRUCT. HEADLOSS (m)	Kw W.S.E CO-EFFICIENT	hw CHANGE IN W.S.E (m)	Sf PIPE FRICTION SLOPE (%)	hf PIPE FRICTION HEADLOSS (L × Sf) (m)	PART FULL: DEPTH (m)	Vp VELOCITY (m/s)	DESIGN LEVELS: OBVERT LEVELS (m)	DRAIN SECTION H.G.L (m)	UPSTREAM H.G.L (m)	LAT. H.G.L (m)	W.S.E. (m)	SURFACE OR K&C INVERT LEVEL (m)	STRUCTURE No.
G056	16.871	1.00	375(3)	0.53 (1.59)	0.47		Qg 0.017 Qo 0.058 Do 375 CHART 34 Angle 25 Case3 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.29 K 1.17 S/Do 1.06 cor 0.50 Ku 1.67 Kw 1.67	0.014	1.00	0.104	Part full downstream pipe Upstream HGL 31.593 below outlet pipe obv 31.715 Set Kp to 1		1.00	0.104	0.11	0.019	0.149 (0.103 63.20%A)	1.43 (63.20%A)	31.715 31.546	31.489 31.321	31.593		31.593	32.820	G056
G021	12.631	0.84	375(3)	0.58 (1.45)	0.35			0.017	7.90	0.135			7.90	0.135	0.13	0.017			31.162 31.056	31.644 31.627	31.779		31.779	32.187	G021
G023	27.564	1.00	375(3)	0.52 (1.59)	0.77			0.014	7.90	0.109			7.90	0.109	0.11	0.030			30.932 30.656	31.034 31.004	31.143		31.143	31.957	G023
G025	8.434	1.00	375(3)	0.37 (1.59)	0.23			0.007	7.90	0.055			7.90	0.055	0.06	0.005			30.809 30.725	31.009 31.004	31.064		31.064	31.834	G025
G058	19.975	0.50	375(3)	0.19 (1.12)	0.55			0.002	5.90	0.011			5.90	0.011	0.01	0.003			29.766 29.666	30.844 30.841	30.855		30.855	30.437	G058
G060	19.976	0.50	375(3)	0.45 (1.12)	0.55		Qg 0.028 Qo 0.049 Do 375 CHART 33 Angle 4 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.57 K 1.64 S/Do 4.19 cor -0.31 Ku 1.33 Kw 1.33	0.010	1.33	0.013			1.33	0.013	0.08	0.016			29.645 29.545	30.828 30.812	30.841		30.841	30.644	G060
G062	33.163	0.47	375(3)	0.90 (1.08)	0.61		Qg 0.051 Qo 0.099 Do 375 CHART 33 Angle 11 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.52 K 1.54 S/Do 4.43 cor -0.30 Ku 1.24 Kw 1.24	0.041	1.24	0.051			1.24	0.051	0.32	0.106			29.525 29.370	30.761 30.655	30.812		30.812	0.150	G062
G022	60.000	0.50	450(3)	1.27 (1.27)	0.79		Qg 0.037 Qo 0.201 Do 450 Routine 2.1 CHART 48 Du/Do 0.83 Qu/Qo 0.51 K 1.23 d/Do 2.0 chrt Qg/Qo 0.18 Kg 0.22 d/Do 1.5 chrt Qg/Qo 0.18 Kg 0.25 d/Do 1.94 Interp value Kg 0.22 Ku=Kw= 1.45 Combined pipes in line case Join Pipes:	0.082	1.11	0.091	G020 and G021 Vel1 0.937 Vel2 0.553 Eq Dia 513 Angle 164 Flow 0.165 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.14 Qg/Qo 0.18 K 0.76 S/Do 2.09 cor 0.06 Ku 0.82 Kw 0.82 Interpolated Ku= 1.11 Kw= 1.11		1.11	0.091	0.50	0.300			31.111 30.811	31.536 31.236	31.627		31.627	32.141	G022
G024	5.535	1.00	450(3)	1.62 (1.79)	0.06		Qg 0.060 Qo 0.257 Do 450 CHART 37 Angle 46 Case3 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.23 K 1.31 S/Do 2.01 cor 0.09 Ku 1.40 Kw 1.40	0.134	1.40	0.187			1.40	0.187	0.82	0.045			30.783 30.728	31.049 31.004	31.236		31.236	31.815	G024
MH001/002	15.870	1.88	450(3)	2.20 (2.46)	0.12		Qo 0.350 Do 450 Flow G023 made eqv grate flow Flow G025 made eqv grate flow Flow G024 made eqv grate flow CHART 32: Vo2/2gDo 0.55 H/Do 0.33 Kg side flow 3.46 end flow 3.09 K vals above for stepped pipes as grate flow grate flow decreased by 0.054 from G023 grate flow decreased by 0.038 from G025 grate flow decreased by 0.257 from G024 Routine 3.1 Join Pipes: G025 and G023 Vel1 0.348 Vel2 0.490 Eq Dia 522 Angle 142 Flow 0.093 Routine 2.13 Equiv defln 53 CHART 49 High vel lat G024 Dhv 450 Qhv 0.257	0.247	1.65	0.407	Dhv/Dlv 0.9 Dhv/Do 1.00 Qhv/Qo 0.74 H 2.31 Low vel latrl Eqv G025 & G023 Dlv 522 Qlv 0.093 Dlv/Do 1.16 Qlv/Qo 0.26 L 0.06 H-L 2.25 No grate flow: H-L-0.2 = 2.05 Ku=Kw= 2.05 Combined pipes in line case Join Pipes: Eqv G025 & G023 and G024 Vel1 1.618 Vel2 0.432 Eq Dia 584 Angle 196 Flow 0.350 CHART 50 Du/Do1.30 alpha 0 K'w 0.05 Vu 1.31 WSE 0.23 Ku 0.90 Kw 0.92 Interpolated Ku= 1.37 Kw= 1.38 K vals step pipes as pipe flow Ku 1.37 Kw 1.38 Averaged Ku 1.65 Kw 1.66		1.66	0.409	1.51	0.239			30.447 30.149	30.597 30.358	31.004		31.006	31.801	MH001/002
G026	32.948	1.00	525(3)	2.08 (1.97)	0.26		Qg 0.088 Qo 0.438 Do 525 CHART 33 Angle 6 S/Do 2.5 Du/Do 0.86 Qg/Qo 0.20 K 0.52 S/Do 1.40 cor 0.25 Ku 0.77 Kw 0.77	0.221	0.77	0.170			0.77	0.170	1.12	0.368			30.149 29.820	30.188 29.820	30.358		30.358	31.694	G026
G059	19.981	0.50	375(3)	0.17 (1.12)	0.56			0.001	5.90	0.009			5.90	0.009	0.01	0.002			29.766 29.666	30.753 30.751	30.762		30.762	30.791	G059
G061	50.475	0.50	375(3)	0.59 (1.12)	1.40		Qg 0.047 Qo 0.065 Do 375 CHART 33 Angle 8 S/Do 2.5 Du/Do 1.00 Qg/Qo 0.72 K 1.91 S/Do 3.95 cor -0.35 Ku 1.56 Kw 1.56	0.018	1.56	0.027			1.56	0.027	0.14	0.069			29.645 29.393	30.724 30.655	30.751		30.751	30.990	G061
G057	9.586	1.00	375(3)	0.61 (1.59)	0.26			0.019	7.90	0.150			7.90	0.150	0.15	0.014	0.163 (0.104 63.20%A)	1.49 (63.20%A)	31.627 31.531	31.627 31.319	31.777		31.777	32.652	G057
MH002/005	38.114	0.48	525(3)	1.47 (1.37)	0.43		Qo 0.310 Do 525 Flow G055 made eqv grate flow Flow G056 made eqv grate flow Flow G057 made eqv grate flow Angle 17 Chart 36 S/Do 2.5 chartdeg Du/Do 0.86 K0 1.40 K0.5 1.81 Qu/Qo 0.43 Cg 1.08 K 1.84 S/Do 3.0 K0 1.29 K0.5 1.58 K 1.61	0.110	1.58	0.174	S/Do 2.5 K0 1.40 K0.5 1.81 K 1.84 Interp val for S/Do 2.98 Kw 1.62 CHART 35 S/Do 3.0 K0 1.07 K0.5 1.53 K 1.57 S/Do 2.5 K0 1.27 K0.5 1.64 K 1.67 Interp val for S/Do 2.98 Ku 1.58 K vals above for stepped pipes as grate flow		1.62	0.178	0.56	0.214			29.879 29.695	30.729 30.515	30.903		30.907	32.834	MH002/005
G063	15.207	1.00	375(3)	0.49 (1.59)	0.42			0.012	7.90	0.097			7.90	0.097	0.09	0.014			30.371 30.219	30.669 30.655	30.766		30.766	0.150	G063

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	

Client

Stockland

Project

RIVERMONT
PRECINCT 3
STAGE 4

KN group
L1, 62 Astor Terrace, Spring Hill, QLD 4000
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Approved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:05+10'00'

Drawing Title
STORMWATER
CALCULATION TABLE
SHEET 2

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	16 of 21

	Drawing No	Revision
A1	24-274-16	A

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV-2026-WAR-4891
Date: 24/07/2026
Queensland Government

M:\2024\24274 Rivermont P2 Stage 4\Engineering\Acad\24-274-15-17-SW-CALCS.dwg Plotted by: AL on Thu Dec 18 15:42:46 2025

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CALCULATIONS TABLE

LOCATION / TIME / SUB-CATCHMENT RUNOFF / INLET DESIGN

DESIGN ARI (yrs)	STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	LAND USE	SLOPE OF CATCHMENT (%)	tc SUB-CATCHMENT TIME OF CONC. (min)	I RAINFALL INTENSITY (mm/h)	C10 10yr RUNOFF CO-EFFICIENT	C CO-EFFICIENT OF RUNOFF	A SUB-CATCHMENT AREA (ha)	C×A EQUIVALENT AREA (ha)	ΣCA SUM OF (C × A) (ha)	Q SUB-CATCHMENT DISCHARGE (l/s)	FLOW IN K&C (INC. BYPASS) (l/s)	ROAD GRADE AT INLET (%)	MINOR FLOW ROAD CAPACITY (l/s)	INLET TYPE	Qg FLOW INTO INLET (l/s)	Qb BYPASS FLOW (l/s)	BYPASS STRUCTURE No.	Notes
10% 1%	G014	G014 to MH005/001	G012;G013;G010;G010;G008;G008;G040;G009;G011;G014		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.205 0.205	0.174 0.205	0.174	68 116	81	0.00	191	SAG	81	0	LOST	0.205 FLOW WIDTH 1.073 m (0.000m 3 month)
10% 1%	G007	G007 to MH004/001	G007;G007		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.152 0.152	0.129 0.152	0.129	50 86	66	0.80	110	4	51	15	G038	0.152 FLOW WIDTH 2.257 m (0.000m 3 month) DOWNSTREAM 1.080m
10% 1%	MH004/001	MH004/001 to MH005/001	FI006;FI004;FI005;FI006;G004;G004;G002;G002;FI003;FI003;G001;G003;G005;G006;G006;G007;G007														30				
10% 1%	MH005/001	MH005/001 to MH006/001	G012;G013;G010;G010;G008;G008;G040;G009;G011;G014;FI006;FI004;FI005;FI006;G004;G004;G002;G002;FI003;FI003;G001;G003;G005;G006;G006;G007;G007														30				
10% 1%	MH006/001	MH006/001 to MH007/001	G012;G013;G010;G010;G008;G008;G040;G009;G011;G014;FI006;FI004;FI005;FI006;G004;G004;G002;G002;FI003;FI003;G001;G003;G005;G006;G006;G007;G007														30				
10% 1%	G033	G033 to G032	G033			15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.182 0.182	0.155 0.182	0.155	60 103	62	0.50	87	4	48	14	G034	0.182 FLOW WIDTH 2.440 m (0.000m 3 month) DOWNSTREAM 1.187m
10% 1%	G032	G032 to G035	FI001;FI002;FI002;FI001;G029;G039;G030;G031;G033;G032			15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.098 0.098	0.084 0.098	0.084	33 56	44	0.50	87	4	35	9	G035	0.098 FLOW WIDTH 2.087 m (0.000m 3 month) DOWNSTREAM 0.920m
10% 1%	G034	G034 to G035	G034			15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.168 0.168	0.143 0.168	0.143	56 95	69	2.90	209	4	54	15	G037	0.168 FLOW WIDTH 1.717 m (0.000m 3 month) DOWNSTREAM 0.753m
10% 1%	G035	G035 to MH001/003	FI001;FI002;FI002;FI001;G029;G039;G030;G031;G033;G032;G034;G035			15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.240 0.240	0.204 0.240	0.204	79 136	88	2.90	209	4	65	23	G036	0.240 FLOW WIDTH 1.920 m (0.000m 3 month) DOWNSTREAM 0.960m
10% 1%	FI007	FI007 to MH001/003	FI007	ROAD	1.00	5.00 5.00	205 304	0.87 0.87	0.87 1.00	0.033 0.033	0.029 0.033	0.029	17 28	17	2.50	500	3	15	1	G037	0.033 FLOW DEPTH 0.029 m (0.000m 3 month) DOWNSTREAM 0.012m
10% 1%	MH001/003	MH001/003 to MH002/003	FI001;FI002;FI002;FI001;G029;G039;G030;G031;G033;G032;G034;G035;FI007														30				
10% 1%	G016	G016 to MH008/001	G016;G016		1.00	15.00 15.00	140 204	0.85 0.85	0.85 1.00	0.116 0.116	0.098 0.116	0.098	38 66	49	0.50	87	4	39	10	G036	0.116 FLOW WIDTH 2.193 m (0.000m 3 month) DOWNSTREAM 1.003m

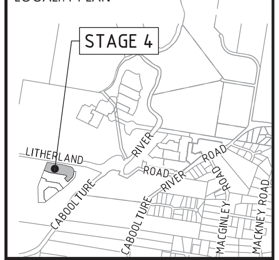
DRAIN DESIGN

STRUCTURE No.	tc CRITICAL TIME OF CONC. (min)	I RAINFALL INTENSITY (mm/h)	ΣCA TOTAL (C × A) (ha)	Qt MAJOR TOTAL FLOW (l/s)	Qm MAJOR SURFACE FLOW CAPACITY (l/s)	Qs MAJOR SURFACE FLOW (l/s)	Qp PIPE FLOW (l/s)	L REACH LENGTH (m)	S PIPE GRADE (%)	PIPE / BOX DIMENSIONS (CLASS) (mm)	V FLOW VELOCITY FULL (PIPE GRADE VELOCITY) (m/s)	T TIME OF FLOW IN REACH (min)	Notes
G014	17.79 17.79	129 188	0.526 1.021	533	0	277	257	15.536	0.81	450(3)	1.61 (1.61)	0.16	(Pipe flow= Sum upstream flows) (Major Bypass Area= 0.217 from upstream reaches)
G007	15.00 15.00	140 204	0.129 0.090	51	2790	0	51	6.625	1.00	375(3)	0.46 (1.59)	0.18	(Pipe flow= Grate flow) (Sum Imp Area Maj 0.152 Sum Flow Maj 0.086 Overland Flow Maj 0.035) (100% of overland flow diverted = 0.035; Equiv Area = Diverted Flow x 360/204mm/h = 0.062 to G016)
MH004/001	17.66 17.66	130 189	0.059 0.852	448	2790	134	314	8.155	0.50	525(3)	1.49 (1.39)	0.09	(Pipe flow= Sum upstr atten flows)
MH005/001	17.95 17.95	129 188	0.585 1.873	978	1698	410	568	12.625	0.50	600(3)	2.01 (1.53)	0.10	(Pipe flow= Sum upstr atten flows)
MH006/001	18.05 18.05	128 187	0.585 1.873	973	1698	405	568	37.231	0.50	600(3)	2.01 (1.53)	0.31	(Pipe flow= Sum upstr atten flows)
G033	15.00 15.00	140 204	0.155 0.182	103	2206	55	48	10.712	1.00	375(3)	0.44 (1.59)	0.30	(Pipe flow= Grate flow)
G032	16.53 16.53	134 195	0.659 0.785	425	2206	179	246	65.206	1.18	450(3)	1.55 (1.94)	0.70	(Pipe flow= Sum upstr atten flows)
G034	15.00 15.00	140 204	0.143 0.168	95	5312	41	54	13.041	3.00	375(3)	0.49 (2.75)	0.36	(Pipe flow= Grate flow)
G035	17.23 17.23	131 191	1.006 1.193	633	5312	280	353	17.775	2.94	450(3)	2.22 (3.07)	0.13	(Pipe flow= Sum upstr atten flows)
FI007	5.00 5.00	205 304	0.029 0.033	28	500	13	15	10.915	3.50	375(3)	0.14 (2.97)	0.30	(Pipe flow= Grate flow)
MH001/003	17.36 17.36	131 191	1.035 1.226	651	2206	288	362	32.522	1.97	450(3)	2.28 (2.51)	0.24	(Pipe flow= Sum upstr atten flows)
G016	15.00 15.00	140 204	0.098 0.068	39	2047	0	39	8.531	1.00	375(3)	0.35 (1.59)	0.24	(Pipe flow= Grate flow) (Sum Imp Area Maj 0.178 Sum Flow Maj 0.101 Overland Flow Maj 0.062) (100% of overland flow diverted = 0.062; Equiv Area = Diverted Flow x 360/204mm/h = 0.110 to G036) (Major Bypass Area= 0.062 from upstream reaches)

HEADLOSSES / PART FULL / DESIGN LEVELS

STRUCTURE No.	STRUCTURE CHART No.	STRUCTURE RATIOS FOR 'K' VALUE CALCULATIONS	V2/2g VELOCITY HEAD (m)	Ku U/S HEADLOSS COEFFICIENT	hu U/S PIPE STRUCT. HEADLOSS (m)	Kl / hl LAT. HEADLOSS CO-EFFICIENT / LAT. PIPE STRUCT. HEADLOSS (m)	Kw W.S.E CO-EFFICIENT	hw CHANGE IN W.S.E (m)	Sf PIPE FRICTION SLOPE (%)	hf PIPE FRICTION HEADLOSS (L × Sf) (m)	DEPTH (m)	Vp VELOCITY (m/s)	OBVERT LEVELS (m)	DRAIN SECTION H.G.L (m)	UPSTREAM H.G.L (m)	LAT. H.G.L (m)	W.S.E. (m)	SURFACE OR K&C INVERT LEVEL (m)	STRUCTURE No.
G014		Qg 0.081 Qo 0.257 Do 450 Routine 2.2 CHART 48 Du/Do 0.83 Qu/Qo 0.62 K 0.90 d/Do 2.5 chrt Qg/Qo 0.31 Kg 0.45 d/Do 2.0 chrt Qg/Qo 0.31 Kg 0.25 d/Do 2.28 Interp value Kg 0.36 Ku=Kw= 1.26 Combined pipes in line case Join Pipes:	0.132	1.29	0.170	G013 and G011 Vel1 1.443 Vel2 0.151 Eq Dia 411 Angle 161 Flow 0.176 CHART 33 Angle 0 S/Do 2.5 Du/Do 0.91 Qg/Qo 0.31 K 1.04 S/Do 2.58 cor -0.02 Ku 1.02 Kw 1.02 Interpolated Ku= 1.29 Kw= 1.29	1.29	0.170	0.81	0.126			29.500 29.374	30.075 29.949	30.245		30.245	30.626	G014
G007			0.011	7.90	0.085		7.90	0.085	0.09	0.006			29.740 29.674	30.067 30.061	30.152		30.152	30.765	G007
MH004/001		Qo 0.314 Do 525 Flow G006 made eqv grate flow Routine 2.8 CHART 48 Du/Do 0.86 Qu/Qo 0.80 K 0.29 d/Do 2.0 chrt Qg/Qo 0.05 Kg 0.04 d/Do 1.5 chrt Qg/Qo 0.05 Kg 0.03 d/Do 1.57 Interp value Kg 0.04 Ku=Kw= 0.32 Combined pipes @ 90 deg defl'n Join Pipes: MH003/001 and G007 Vel1 1.580 Vel2 0.429 Eq Dia 521 Angle 204 Flow 0.299	0.113	0.58	0.065	Angle 90 Chart 47 S/Do 2.5 chartdeg Du/Do 0.99 K0 1.93 K0.5 2.13 Qu/Qo 0.95 Cg 0.13 K 1.95 S/Do 2.5 K0 1.93 K0.5 2.13 K 1.95 S/Do 2.0 K0 2.44 K0.5 2.40 K 2.44 Interp val for S/Do 2.09 Kw 2.35 CHART 46 S/Do 2.5 K0 1.82 K0.5 1.72 K 1.80 S/Do 2.0 K0 2.04 K0.5 1.93 K 2.03 Interp val for S/Do 2.09 Ku 1.99 Interpolated Ku= 0.58 Kw= 0.64 K vals above for stepped pipes as grate flow	0.64	0.072	0.57	0.047			29.698 29.657	29.996 29.949	30.061		30.068	30.791	MH004/001
MH005/001		Qo 0.568 Do 600 Flow MH004/001 made eqv grate flow Angle 20 Chart 36 S/Do 2.5 chartdeg Du/Do 0.75 K0 1.27 K0.5 1.76 Qu/Qo 0.45 Cg 1.06 K 1.79 S/Do 2.5 K0 1.27 K0.5 1.76 K 1.79 S/Do 2.0 K0 1.47 K0.5 1.94 K 1.96 Interp val for S/Do 2.17 Kw 1.91 CHART 35 S/Do 2.5 K0 1.14 K0.5 1.64 K 1.67 S/Do 2.0 K0 1.32 K0.5 1.66 K 1.68 Interp val for S/Do 2.17 Ku 1.68 K vals above for stepped pipes as grate flow grate flow decreased by 0.311 from MH004/001 Routine 2.18 CHART 52 B 900 In line G014 Latrl MH004/001 Determine Kl	0.206	1.25	0.257	Dl/Do 0.88 B/Do 1.50 Qu/Qo 0.45 Do/Du 1.33 Do/Dl 1.14 K'l 1.53 Ml 0.69 Kl=K'l×Ml= 1.06 Determine Ku K'u 1.83 Mu 0.64 Ku=K'u×Mu= 1.17 Kw=Ku= 1.17 Combined pipes in line case Join Pipes: G014 and MH004/001 Vel1 1.614 Vel2 1.489 Eq Dia 690 Angle 198 Flow 0.568 CHART 50 Du/Do1.15 alpha 0 K'w 0.05 Vu 1.52 WSE 0.16 Ku 0.73 Kw 0.76 Interpolated Ku= 1.17 Kw= 1.17 K vals step pipes as pipe flow Ku 1.17 Kw 1.17 Averaged Ku 1.25 Kw 1.28	1.28	0.264	0.86	0.108			29.386 29.322	29.692 29.584	29.949		29.956	30.745	MH005/001
MH006/001		Qo 0.568 Do 600 CHART 50 Du/Do1.00 alpha 30 K'w 0.23 Vu 2.01 WSE 0.20 Ku 0.72 Kw 0.95	0.206	0.72	0.149		0.95	0.196	0.86	0.319			29.302 29.116	29.435 29.116	29.584		29.631	30.700	MH006/001
G033			0.010	7.90	0.078		7.90	0.078	0.08	0.008			31.010 30.903	31.195 31.187	31.273		31.273	32.035	G033
G032		Qg 0.033 Qo 0.246 Do 450 Routine 2.1 CHART 48 Du/Do 0.83 Qu/Qo 0.68 K 0.70 d/Do 2.0 chrt Qg/Qo 0.14 Kg 0.14 d/Do 1.5 chrt Qg/Qo 0.14 Kg 0.15 d/Do 1.27 Interp value Kg 0.15 Ku=Kw= 0.85 Combined pipes in line case Join Pipes:	0.122	0.88	0.108	G031 and G033 Vel1 1.511 Vel2 0.417 Eq Dia 461 Angle 207 Flow 0.213 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.02 Qg/Qo 0.14 K 0.62 S/Do 1.48 cor 0.15 Ku 0.77 Kw 0.77 Interpolated Ku= 0.88 Kw= 0.88	0.88	0.108	0.75	0.488			30.958 30.191	31.079 30.591	31.187		31.187	32.067	G032
G034			0.012	5.90	0.073		5.90	0.073	0.10	0.012			30.496 30.105	30.603 30.591	30.676		30.676	31.521	G034
G035		Qg 0.061 Qo 0.353 Do 450 Routine 2.1 CHART 48 Du/Do 1.00 Qu/Qo 0.68 K 1.10 d/Do 2.0 chrt Qg/Qo 0.17 Kg 0.26 d/Do 1.5 chrt Qg/Qo 0.17 Kg 0.29 d/Do 1.32 Interp value Kg 0.30 Ku=Kw= 1.40 Combined pipes in line case Join Pipes:	0.251	1.14	0.286	G032 and G034 Vel1 1.515 Vel2 0.459 Eq Dia 528 Angle 193 Flow 0.292 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.17 Qg/Qo 0.17 K 0.73 S/Do 1.80 cor 0.12 Ku 0.85 Kw 0.85 Interpolated Ku= 1.14 Kw= 1.14	1.14	0.286	1.53	0.273			30.160 29.638	30.305 30.032	30.591		30.591	31.242	G035
FI007		Part full downstream pipe Upstream HGL 30.036 below outlet pipe obv 30.083 Set Kp to 2.75	0.001	2.75	0.003		2.75	0.003	0.01	0.001	0.054 (0.038 63.20%A)	1.50 (1.2A) 63.20%A)	30.083 29.701	30.033 30.032	30.036		30.036	31.108	FI007
MH001/003		Qo 0.362 Do 450 Flow FI007 made eqv grate flow CHART 37 Angle 46 Case3 S/Do 2.5	0.265	0.73	0.193	Du/Do 1.00 Qg/Qo 0.03 K 0.72 S/Do 1.92 cor 0.01 Ku 0.73 Kw 0.73 K vals above for stepped pipes as grate flow	0.73	0.193	1.62	0.527			29.618 28.978	29.839 29.312	30.032		30.032	30.788	MH001/003
G016			0.006	7.90	0.049		7.90	0.049	0.05	0.004	0.120 (0.081 63.20%A)	1.28 (1.0A) 63.20%A)	29.347 29.262	29.347 29.007	29.396		29.396	30.372	G016

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	

Client
Stockland

Project
RIVERMONT
PRECINCT 3
STAGE 4

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

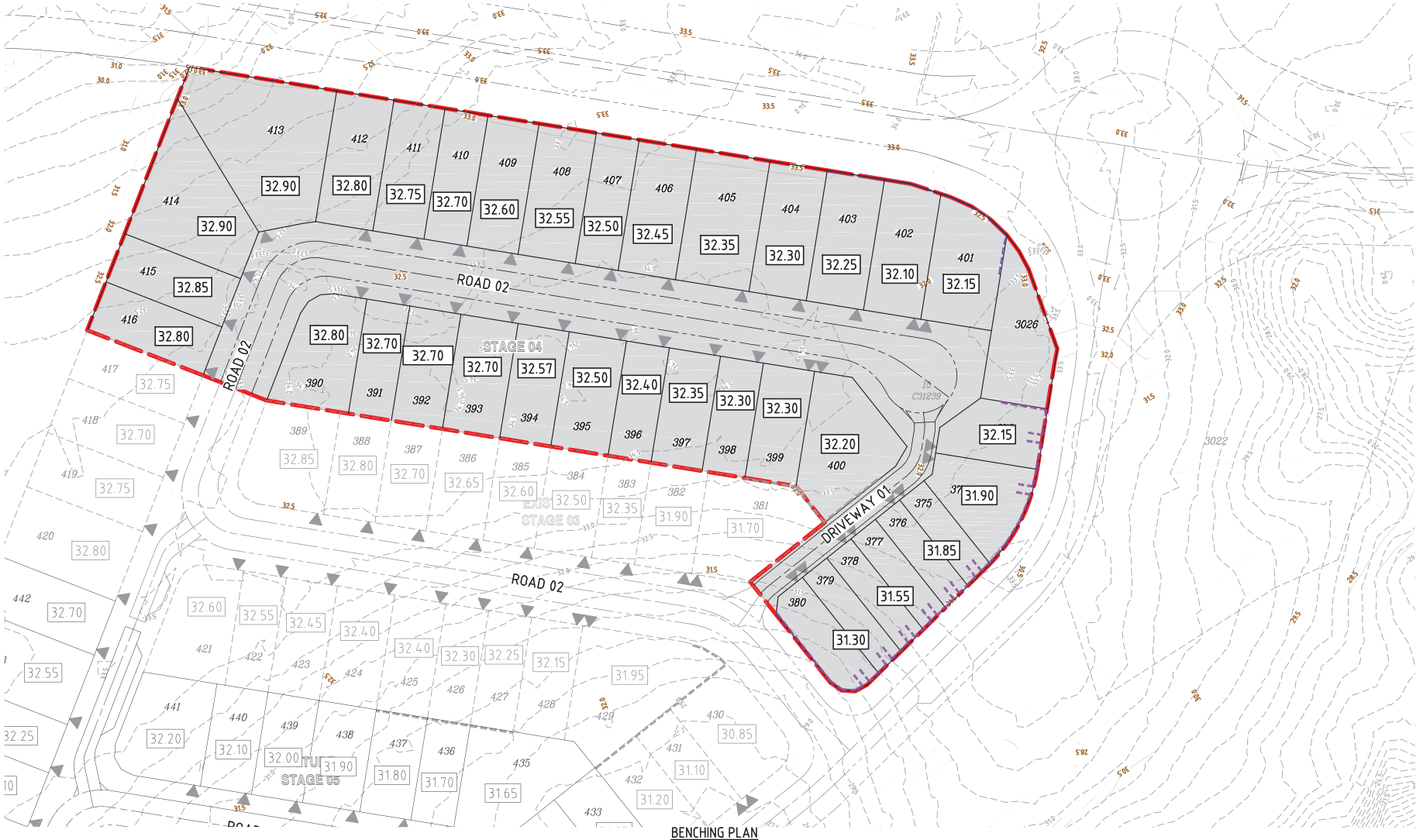
Approved Director - RPEQ 17544
Digitally signed by Mark Shaw RPEQ 17544
Date: 2025.12.18 17:00:06+10'00'

Drawing Title
STORMWATER
CALCULATION TABLE
SHEET 3

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	17 of 21

	Drawing No	Revision
A1	24-274-17	A



BENCHING PLAN
SCALE 1:500

LEGEND

- STAGE BOUNDARY
- PROPOSED ROAD CENTRELINE
- BARRIER KERB AND CHANNEL (TYPE B1)
- MOUNTABLE KERB AND CHANNEL (TYPE M1)
- FINISHED SURFACE CONTOURS (36.0)
- NATURAL SURFACE CONTOURS (36.0)
- CONCRETE BLOCK MASONRY WALL
- CONCRETE RETAINING WALL
- EXISTING RETAINING WALL
- 22.45 PREFERRED BENCH LEVEL
- NOMINATED DRIVEWAY LOCATION

SCALE 10 5 0 10 20 30 40 50m
1 : 500 (A1 UNREDUCED)

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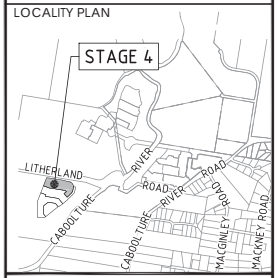
NORTH

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	FOR APPROVAL	18.12.2025	RP
B	FOR APPROVAL	30.03.2026	DF

Client: Stockland

Project:
RIVERMONT
PRECINCT 3
STAGE 4

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www.kngroup.com.au | 07 3017 1900

Aproved Director - RPEQ 17544 — Digitally signed by Mark Shaw RPEQ 17544 Date: 2026.03.30 15:32:50+10'00'

Drawing Title: PREFERRED BENCHING PLAN

Drawn	Designed	Checked	Date
LNT	VS	MAS	DEC' 25

Scale	Sheet
AS SHOWN	20 of 21

Drawing No	Revision
24-274-20	B

A1

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