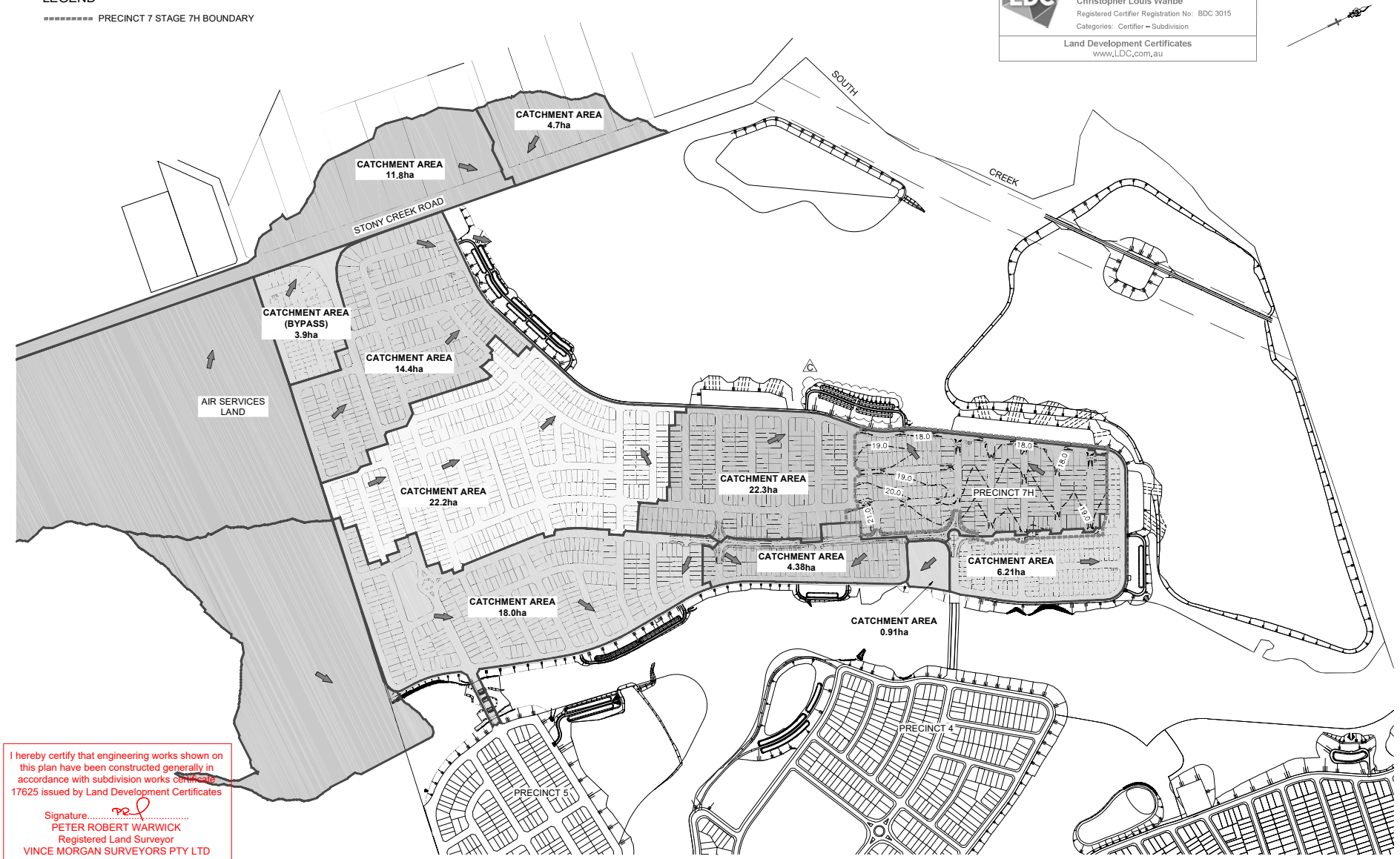
LEGEND

PRECINCT 7 STAGE 7H BOUNDARY

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au



1:4000 (AT A1)
1:8000 (AT A3)
100 0 100 200 300 400
METRES

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	BIORETENTION MS2 LAYOUT UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

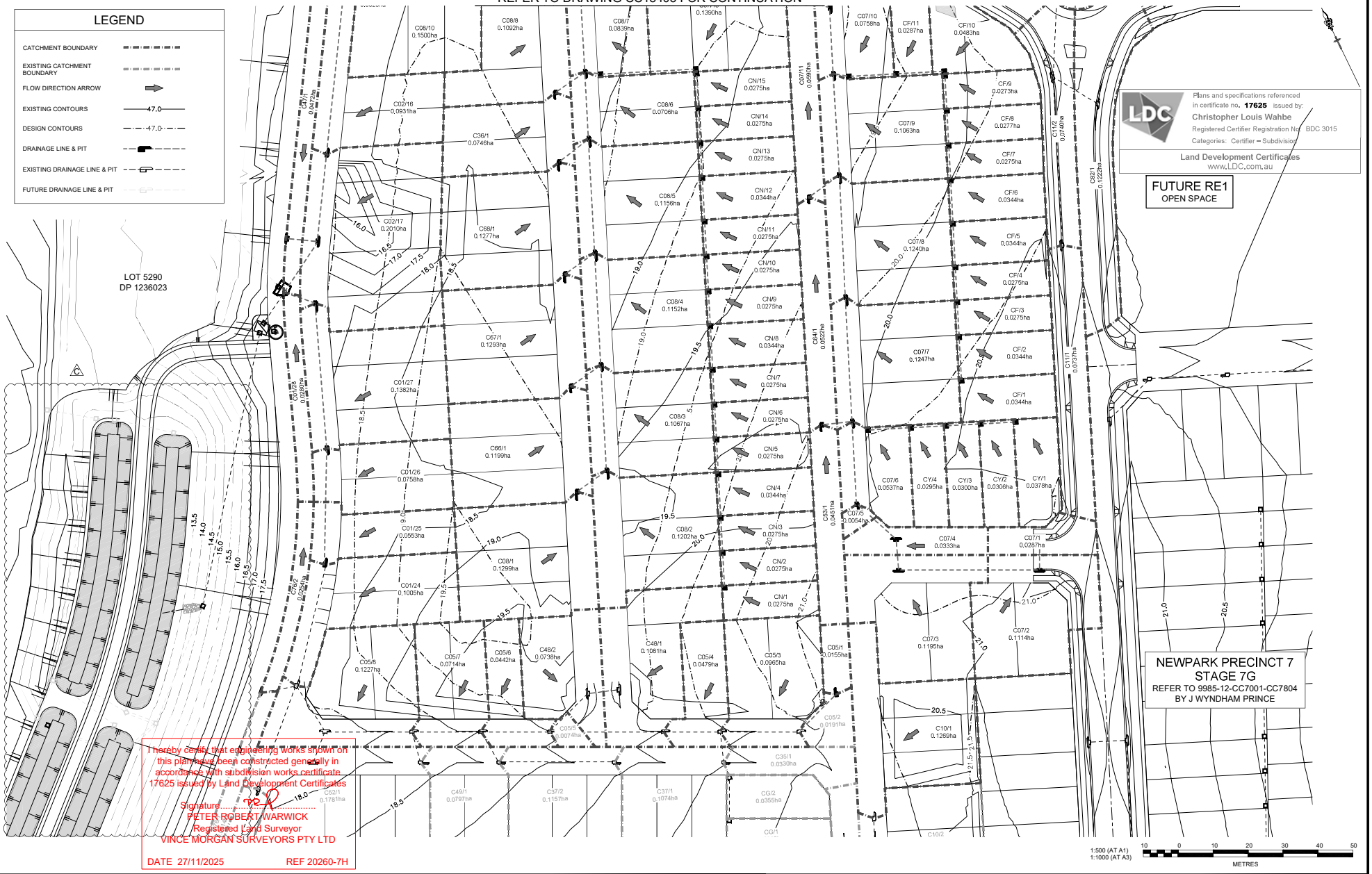
NEWPARK
PRECINCT 7, STAGE 7H
OVERALL CATCHMENT PLAN

PROJECT No: 9985-12
SHEET No: CC18401

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18401 | C

Plotted: 18 August, 2022 3:36:39 PM File Name: J:\9985\DC\C - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18401.dwg

REFER TO DRAWING CC18403 FOR CONTINUATION



AMENDMENT	DES	DRN	CKD	APR	DATE
C BIORETENTION MS2 LAYOUT & DRAINAGE UPDATED	DG	DG	KE	KE	18/08/22
B ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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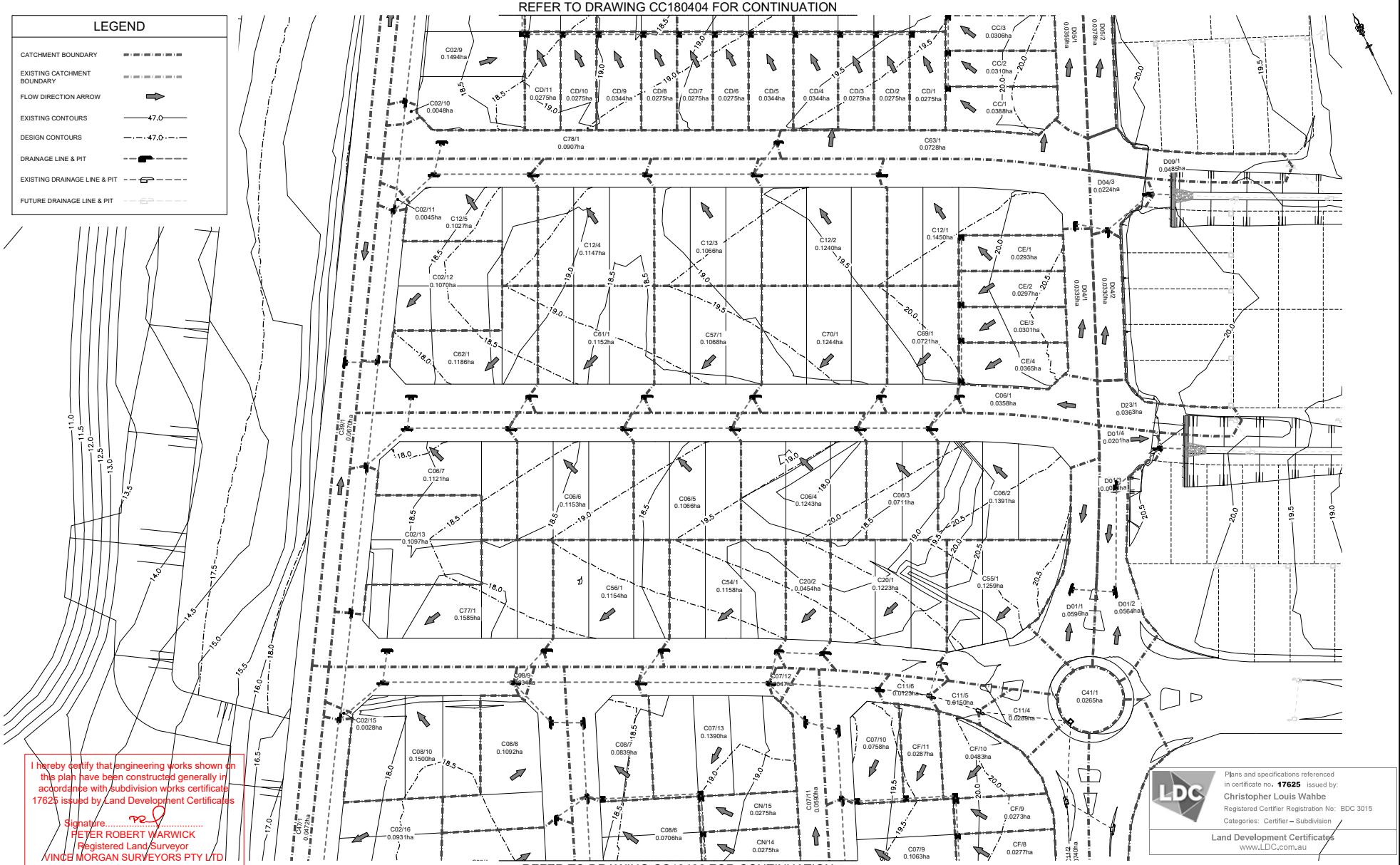
NEWPARK PRECINCT 7, STAGE 7H
CATCHMENT PLAN
SHEET 1

PROJECT No: 9985-12
SHEET No: CC18402

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18402 | C

Plotted: 18 August, 2023 3:36:42 PM File Name: J:\9985\DC\DC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCT\9\18 - Precinct 7H\9985-12-CC18402.dwg



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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

Plans and specifications referenced in certificate no. **17625** issued by:
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Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
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1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
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NEWPARK
PRECINCT 7, STAGE 7H
CATCHMENT PLAN
SHEET 2

PROJECT No: 9985-12
SHEET No: CC18403

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18403 | B

Plotted: 8 March 2022 11:23:52 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18403.dwg

GPT HYDRAULIC CHECKS (PIT C01/30)

- GPT HIGH FLOW BYPASS WEIR HEIGHT = 1.4m
- GPT HIGH FLOW BYPASS WEIR RL = 14.40
- GPT HIGH FLOW BYPASS WEIR LENGTH = 3.6m
- ADOPTED GPT VORTEX K FACTOR = 6
- 2EY HGL IMMEDIATELY UPSTREAM OF GPT WITH ADOPTED K FACTOR = RL 14.40
- ADOPTED K FACTOR FOR GPT HIGH FLOW BYPASS WEIR = 1.5
- 10% AEP FLOW OVER GPT HIGH FLOW BYPASS WEIR = 0.78m³/s
- DEPTH OF 10% AEP FLOW OVER GPT HIGH FLOW BYPASS WEIR FROM WEIR FLOW CALCULATION = 253mm
- DEPTH OF 10% AEP FLOW OVER GPT HIGH FLOW BYPASS WEIR FROM HYDRAULIC MODEL = 276mm
- 1% AEP FLOW OVER GPT HIGH FLOW BYPASS WEIR = 1.13m³/s
- DEPTH OF 1% AEP FLOW OVER GPT HIGH FLOW BYPASS WEIR FROM WEIR FLOW CALCULATION = 324mm
- DEPTH OF 1% AEP FLOW OVER GPT HIGH FLOW BYPASS WEIR FROM HYDRAULIC MODEL = 443mm

SPLITTER PIT HYDRAULIC CHECKS (PIT C01/28)

- 4EY HGL AT DOWNSTREAM GPT = RL 14.40
- 4EY HGL AT SPLITTER PIT = RL 14.51
- HIGH FLOW BYPASS WEIR LEVEL = RL 14.52
- HIGH FLOW BYPASS WEIR LENGTH = 4m
- ADOPTED K FACTOR FOR SPLITTER PIT HIGH FLOW BYPASS WEIR = 1.5
- 10% AEP FLOW OVER HIGH FLOW BYPASS WEIR = 3.58m³/sec
- DEPTH OF 10% AEP FLOW OVER HIGH FLOW BYPASS WEIR FROM WEIR FLOW CALCULATION = 651mm
- DEPTH OF 10% AEP FLOW OVER HIGH FLOW BYPASS WEIR FROM HYDRAULIC MODEL = 652mm
- 1% AEP FLOW OVER HIGH FLOW BYPASS WEIR = 4.37m³/sec
- DEPTH OF 1% AEP FLOW OVER HIGH FLOW BYPASS WEIR FROM WEIR FLOW CALCULATION = 744mm
- DEPTH OF 1% AEP FLOW OVER HIGH FLOW BYPASS WEIR FROM HYDRAULIC MODEL = 943mm

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
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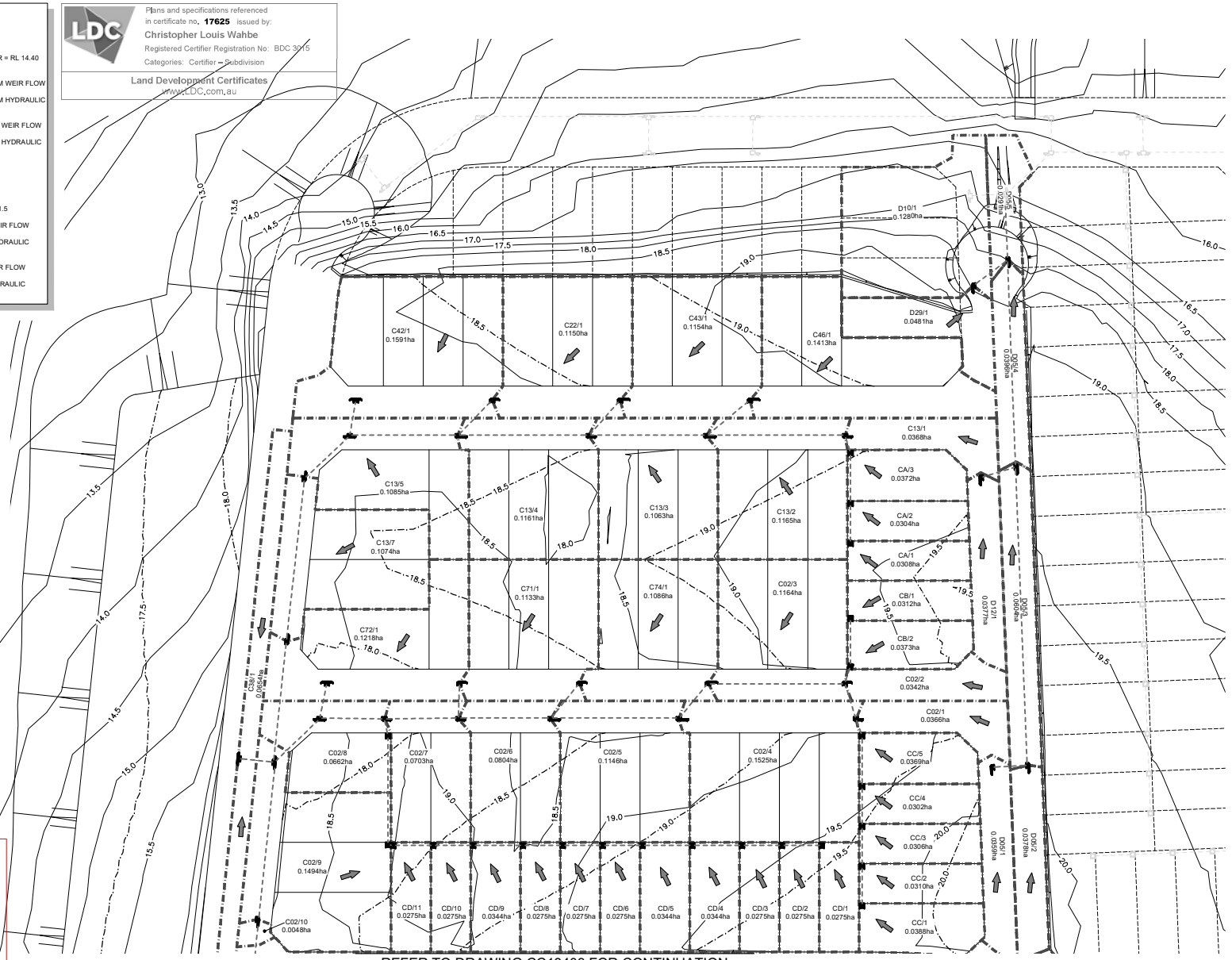
LEGEND

- CATCHMENT BOUNDARY
- EXISTING CATCHMENT BOUNDARY
- FLOW DIRECTION ARROW
- EXISTING CONTOURS 47.0
- DESIGN CONTOURS 47.0
- DRAINAGE LINE & PIT
- EXISTING DRAINAGE LINE & PIT
- FUTURE DRAINAGE LINE & PIT



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1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50
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NEWPARK
PRECINCT 7, STAGE 7H
CATCHMENT PLAN
SHEET 3

PROJECT No: 9985-12
SHEET No: CC18404

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18404 | B

Plotted: 8 March 2022 11:24:50 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18404.dwg

PIT SCHEDULE

PIT NAME (-)	SURFACE FITTING TYPE AND SIZE (-)	PIT EASTING (m)	PIT NORTHING (m)	PIT DEPTH (m)	COMMENTS
C01/25	1.8 m lintel	295616.18	6269650.67	4.59	LINTEL ONLY
C01/26	1.8 m lintel	295631.37	6269680.42	4.76	LINTEL ONLY
C01/27	2.4 m lintel	295646.52	6269719.23	4.64	LINTEL ONLY
C01/28	1.8 m lintel	295639.76	6269726	4.71	LINTEL ONLY
C01/29	NODE	295630.63	6269720.64	4.79	GPT INLET - S7.11 WORKS
C01/30	GPT	295632.19	6269717.27	4.89	GPT VORTEX - S7.11 WORKS
C01/31	NODE	295628.38	6269718.63	4.73	GPT OUTLET - S7.11 WORKS
C01/32	NODE	295579.51	6269655.32	2	SPLITTER PIT - S7.11 WORKS
C02/1	1.8 m lintel	295941.26	6269921.78	1.45	
C02/2	1.8 m lintel	295942.67	6269931.1	1.57	
C02/3	2.4 m lintel	295911.78	6269946.12	1.59	
C02/4	2.4 m lintel	295901.25	6269941.23	1.68	
C02/5	2.4 m lintel	295872.32	6269955.3	1.69	
C02/6	1.8 m lintel	295851.53	6269965.4	1.71	
C02/7	1.8 m lintel	295834.77	6269973.55	1.76	
C02/8	2.4 m lintel sag	295820.19	6269980.64	1.83	
C02/9	2.4 m lintel sag	295805.23	6269975.81	2.53	SPECIAL PIT
C02/10	1.8 m lintel	295784.24	6269942.19	3.01	SPECIAL PIT
C02/11	1.8 m lintel	295767.82	6269915.88	3.25	SPECIAL PIT
C02/12	1.8 m lintel	295745.39	6269879.95	3.27	SPECIAL PIT
C02/13	1.8 m lintel	295729.95	6269855.21	3.63	SPECIAL PIT
C02/14	1.8 m lintel	295708.3	6269820.52	4.19	SPECIAL PIT
C02/15	1.8 m lintel	295691.12	6269794.6	4.37	SPECIAL PIT
C02/16	1.8 m lintel	295668.07	6269756.08	4.4	SPECIAL PIT
C02/17	2.4 m lintel sag	295654.83	6269734.86	4.49	SPECIAL PIT
C05/1	1.8 m lintel	295731.57	6269553.27	1.35	LINTEL ONLY
C06/1	1.8 m lintel	295886.79	6269800.38	1.47	
C06/2	2.4 m lintel	295875.67	6269795.78	1.53	
C06/3	2.4 m lintel	295857.68	6269804.52	1.54	
C06/4	2.4 m lintel	295826.2	6269819.82	1.61	
C06/5	2.4 m lintel	295798.95	6269833.07	1.69	
C06/6	2.4 m lintel	295769.99	6269847.15	1.7	
C06/7	2.4 m lintel sag	295744.66	6269859.47	1.71	
C07/3	2.4 m lintel sag	295763.19	6269577.31	1.98	
C07/4	2.4 m lintel sag	295766.47	6269585.72	2.21	SPECIAL PIT
C07/5	1.8 m lintel	295760.83	6269599.61	2.44	SPECIAL PIT
C07/6	1.8 m lintel	295770.05	6269621.53	2.4	SPECIAL PIT
C07/7	2.4 m lintel	295783.9	6269654.44	2.32	SPECIAL PIT
C07/8	2.4 m lintel	295797.47	6269686.69	2.25	SPECIAL PIT
C07/9	1.8 m lintel	295808.74	6269713.5	2.19	SPECIAL PIT
C07/10	2.4 m lintel sag	295816.09	6269730.97	2.19	SPECIAL PIT
C07/11	2.4 m lintel sag	295808.95	6269737.19	2.3	SPECIAL PIT
C07/12	1.8 m lintel	295804.38	6269751.33	2.58	SPECIAL PIT
C07/13	2.4 m lintel	295771.57	6269767.44	2.62	SPECIAL PIT
C08/1	2.4 m lintel	295690.18	6269637.98	1.45	
C08/2	2.4 m lintel	295700.66	6269639.68	1.67	
C08/3	1.8 m lintel	295712.39	6269667.58	1.79	
C08/4	2.4 m lintel	295724.9	6269697.3	1.92	
C08/5	2.4 m lintel	295737.59	6269727.46	2.05	SPECIAL PIT
C08/6	1.8 m lintel	295745.03	6269745.14	2.14	SPECIAL PIT
C08/7	2.4 m lintel sag	295753	6269764.09	2.26	SPECIAL PIT
C08/8	2.4 m lintel sag	295744.93	6269768.12	2.52	SPECIAL PIT
C08/9	1.8 m lintel	295740.42	6269782.58	2.88	SPECIAL PIT
C08/10	2.4 m lintel sag	295707.5	6269798.59	3.12	SPECIAL PIT
C11/6	1.8 m lintel	295831.03	6269736.51	1.92	
C12/1	2.4 m lintel	295894.17	6269865.73	1.52	
C12/2	2.4 m lintel	295862.7	6269881.03	1.63	
C12/3	1.8 m lintel	295835.52	6269894.24	1.73	
C12/4	2.4 m lintel	295806.54	6269908.33	1.63	
C12/5	2.4 m lintel sag	295782.39	6269920.07	1.58	
C13/1	1.8 m lintel	295969.86	6269986.83	1.52	
C13/2	2.4 m lintel	295938.5	6270002.07	1.72	
C13/3	1.8 m lintel	295911.98	6270014.96	1.84	
C13/4	2.4 m lintel	295882.35	6270029.36	1.97	
C13/5	2.4 m lintel sag	295858	6270041.2	2.1	SPECIAL PIT
C13/6	1.8 m lintel	295843.14	6270036.54	2.54	SPECIAL PIT
C13/7	1.8 m lintel	295821.36	6270001.66	2.5	SPECIAL PIT
C20/1	2.4 m lintel	295821.44	6269752.41	1.54	
C20/2	1.8 m lintel	295810.35	6269758.37	1.54	
C22/1	1.8 m lintel	295894.09	6270033.67	1.46	
C36/1	1.8 m lintel	295734.59	6269743.54	1.46	
C38/1	2.4 m lintel sag	295797.59	6269980.57	1.44	
C39/1	2.4 m lintel sag	295737.17	6269881.78	1.44	
C42/1	2.4 m lintel sag	295863.33	6270048.62	1.45	
C43/1	2.4 m lintel	295922.97	6270019.63	1.46	
C46/1	2.4 m lintel	295952.3	6270005.37	1.46	
C47/1	2.4 m lintel sag	295647.16	6269739.56	1.44	
C53/1	1.8 m lintel	295761.57	6269624.58	1.45	
C54/1	2.4 m lintel	295781.26	6269772.73	1.45	
C56/1	2.4 m lintel	295751.86	6269787.03	1.46	
C57/1	2.4 m lintel	295808.05	6269838.66	1.46	
C61/1	2.4 m lintel	295779.08	6269852.74	1.46	
C62/1	2.4 m lintel sag	295750.19	6269866.78	1.44	
C63/1	1.8 m lintel	295822.44	6269886.1	1.46	
C64/1	1.8 m lintel	295786.91	6269684.81	1.46	

PIT SCHEDULE

PIT NAME (-)	SURFACE FITTING TYPE AND SIZE (-)	PIT EASTING (m)	PIT NORTHING (m)	PIT DEPTH (m)	COMMENTS
C66/1	1.8 m lintel	295701.92	6269665.9	1.46	
C67/1	2.4 m lintel	295714.4	6269695.55	1.45	
C68/1	2.4 m lintel	295726.86	6269725.16	1.45	
C69/1	1.8 m lintel	295867.18	6269809.91	1.46	
C70/1	2.4 m lintel	295835.34	6269825.39	1.46	
C71/1	1.8 m lintel	295855.7	6269973.38	1.45	
C72/1	2.4 m lintel sag	295825.77	6269987.93	1.44	
C74/1	1.8 m lintel	295882.77	6269960.23	1.46	
C77/1	2.4 m lintel sag	295712.52	6269806.15	1.44	
C78/1	2.4 m lintel sag	295788.35	6269927.18	1.44	
CA/1	IAD 600x900			0.76	
CA/2	IAD 600x900			0.77	
CA/3	IAD 900x900			1.54	
CB/1	IAD 600x900			0.76	
CB/2	IAD 900x900			1.54	
CC/1	IAD 600x900			0.76	
CC/2	IAD 600x900			0.78	
CC/3	IAD 600x900			0.83	
CC/4	IAD 600x900			0.85	
CC/5	IAD 900x900			1.54	
CD/1	IAD 600x900			0.76	
CD/2	IAD 600x900			0.79	
CD/3	IAD 600x900			0.83	
CD/4	IAD 600x900			0.87	
CD/5	IAD 600x900			0.91	
CD/6	IAD 600x900			0.95	
CD/7	IAD 600x900			0.99	
CD/8	IAD 600x900			1.03	
CD/9	IAD 600x900			1.06	
CD/10	IAD 600x900			1.06	
CD/11	IAD 600x900			1.05	
CD/12	IAD 600x900			1.1	
CD/13	IAD 900x900			1.54	
CE/1	IAD 600x900			0.75	
CE/2	IAD 600x900			1.1	
CE/3	IAD 600x900			1.15	
CE/4	IAD 900x900			1.53	
CF/1	IAD 600x900			0.76	
CF/2	IAD 600x900			0.83	
CF/3	IAD 600x900			0.86	
CF/4	IAD 600x900			0.89	
CF/5	IAD 600x900			0.93	
CF/6	IAD 600x900			0.95	
CF/7	IAD 600x900			1	
CF/8	IAD 600x900			1.04	
CF/9	IAD 600x900			1.09	
CF/10	IAD 600x900			1.16	
CF/11	IAD 600x900			1.06	
CF/12	IAD 900x900			1.54	
CN/1	IAD 600x900			0.76	
CN/2	IAD 600x900			0.78	
CN/3	IAD 600x900			0.84	
CN/4	IAD 600x900			0.86	
CN/5	IAD 600x900			0.89	
CN/6	IAD 600x900			0.92	
CN/7	IAD 600x900			0.95	
CN/8	IAD 600x900			0.98	
CN/9	IAD 600x900			1.01	
CN/10	IAD 600x900			1.04	
CN/11	IAD 600x900			1.07	
CN/12	IAD 600x900			1.09	
CN/13	IAD 600x900			1.2	
CN/14	IAD 600x900			1.33	
CN/15	IAD 600x900			1.49	
CN/16	IAD 600x900			1.55	
CN/17	IAD 900x900			1.54	
CY/1	IAD 600x900			0.76	
CY/2	IAD 600x900			0.81	
CY/3	IAD 600x900			0.87	
CY/4	IAD 600x900			0.92	
CY/5	IAD 900x900			1.54	
D01/3	1.8 m lintel	295935.5	6269758.26	2.05	SPECIAL PIT
D01/4	1.8 m lintel	295931.28	6269767.64	1.98	CHAMBER ONLY
D04/1	1.8 m lintel	295937.52	6269829.47	1.45	
D04/2	1.8 m lintel	295944.9	6269823.88	1.7	
D04/3	1.8 m lintel	295959.74	6269827.76	1.51	CHAMBER ONLY
D05/1	1.8 m lintel	295966.7	6269895.93	1.45	
D05/2	1.8 m lintel	295975.01	6269892.45	1.68	
D05/3	1.8 m lintel	296005.14	6269961.09	1.93	
D05/4	1.8 m lintel	296026.07	6270008.76	1.64	CHAMBER ONLY
D12/1	1.8 m lintel	295995.96	6269962.55	1.45	
D29/1	1.8 m lintel	296015.34	6270006.71	1.47	CHAMBER ONLY

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Signature.....

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VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

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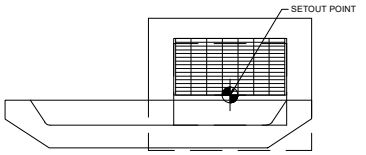
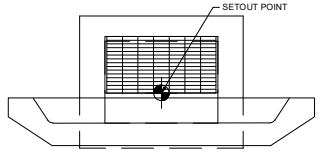
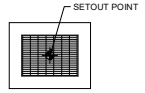


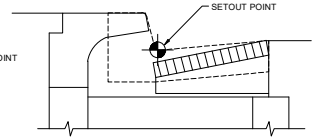
SETOUT DETAIL KERB INLET PIT (LINTEL)
SCALE 1:20



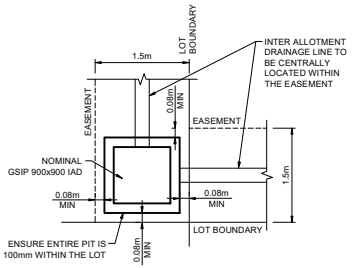
SETOUT DETAIL KERB INLET PIT (SAG)
SCALE 1:20



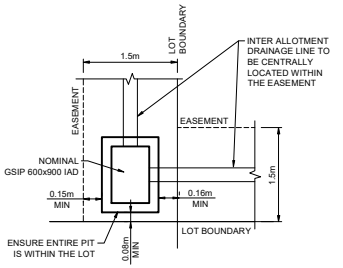
GRATED SURFACE INLET PIT (GSIP)
SCALE 1:10



SETOUT DETAIL KERB INLET PIT (LINTEL)
SCALE 1:10



TYPICAL INTER-ALLOTMENT SETOUT FROM LOT BOUNDARY (900 x 900 GSIP)
SCALE 1:10



TYPICAL INTER-ALLOTMENT SETOUT FROM LOT BOUNDARY (600 x 900 GSIP)
SCALE 1:10

C	PIT C62 UPDATED	DG	DG	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE

NEWPARK
PRECINCT 7, STAGE 7H
PIT SCHEDULE & DETAILS

PROJECT No: 9985-12
SHEET No: CC18410

AZIMUTHM.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18410 | C

Plotted: 1 June 2022 2:29:08 PM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18410.dwg

DESIGN STORM 10% AEP HYDROLOGIC RESULTS

PIT NAME (-)	PIT TYPE (-)	CATCHMENT AREA (Ha)	PERCENT IMPERVIOUS (%)	Tc IMP (min)	Tc PERV (min)	CRITICAL STORM (min)	APPROACH FLOW (L/s)	CAPTURED FLOW (L/s)	UNCAPTURED FLOW (L/s)	GRATE DEPTH (mm)	ROAD GRADE (%)	ROAD CROSSFALL (%)	BYPASS PIT (-)	FLOW AT BYPASS PIT (L/s)	FLOW WIDTH AT BYPASS PIT (m)	VxD AT BYPASS PIT (m/s^2)	COMMENTS (-)
C01/24	1.8 m lintel	0.1	85	5	5	15	37	35	2	72	0.7	3	C05/8	21	1.55	0.04	
C01/25	1.8 m lintel	0.055	85	5	5	15	21	21	0	87	0.6	3	C01/24	37	2	0.05	
C01/26	1.8 m lintel	0.076	85	5	5	15	29	28	1	95	0.5	3	C01/27	51	2.31	0.06	
C01/27	2.4 m lintel	0.138	85	5	5	25	51	48	3	94	0.7	3	C02/17	33	1.89	0.05	
C01/28	1.8 m lintel	0.028	100	5	5	5	12	12	0	0	0.6	3	C26/1	0	0.25	0.02	SPLITTER PIT
C01/29	NODE		0			5	0	0	0	0							GPT INLET
C01/30	GPT		0			15	0	0	0	54		2.5	C01/28	10	0.94	0.03	GPT VORTEX
C01/31	NODE		0			5	0	0	0	0							GPT OUTLET
C02/1	1.8 m lintel	0.037	95	5	5	25	14	14	0	91	1.1	3	C02/4	56	2.21	0.07	
C02/2	1.8 m lintel	0.034	95	5	5	15	13	13	0	84	1.1	3	C02/3	43	1.96	0.06	
C02/3	2.4 m lintel	0.116	85	5	5	15	43	41	1	83	1.1	3	C74/1	41	2.01	0.05	
C02/4	2.4 m lintel	0.152	85	5	5	25	56	53	3	86	1.1	3	C02/5	45	2.01	0.06	
C02/5	2.4 m lintel	0.115	85	5	5	25	45	42	3	78	1.1	3	C02/6	32	1.74	0.05	
C02/6	1.8 m lintel	0.08	85	5	5	25	32	30	3	75	1.1	3	C02/7	28	1.64	0.05	
C02/7	1.8 m lintel	0.07	85	5	5	15	28	28	1	66	1.1	3	C02/8	16	1.34	0.03	
C02/8	2.4 m lintel sag	0.066	85	5	5	15	18	18	0	41	0.6	2.2	C02/9	0	0.91	0	
C02/9	2.4 m lintel sag	0.149	85	5	5	5	48	48	0	53	0.1	3	C38/1	1	0	0	
C02/10	1.8 m lintel	0.005	95	5	5	15	2	2	0	80	0.7	3	C02/9	24	1.66	0.04	
C02/11	1.8 m lintel	0.005	95	5	5	25	1	1	0	85	0.7	3	C02/12	39	1.9	0.05	
C02/12	1.8 m lintel	0.107	85	5	5	15	33	31	2	66	0.7	3.7	C62/1	13	1.19	0.03	
C02/13	1.8 m lintel	0.11	85	5	5	15	41	36	5	67	0.7	3	C06/7	21	1.37	0.04	
C02/14	1.8 m lintel		0			5	0	0	0	0	0.7	3	XP81/1	0	0	0	
C02/15	1.8 m lintel	0.003	95	5	5	15	1	1	0	82	0.7	3.2	C02/16	34	2.43	0.03	
C02/16	1.8 m lintel	0.093	85	5	5	25	28	27	2	98	0.7	3	C02/17	44	2.17	0.05	
C02/17	2.4 m lintel sag	0.201	85	5	5	5	77	77	0	70	0	3	C47/1	0			
C05/1	1.8 m lintel	0.016	95	5	5	5	6	6	0	39	0.7	3	C05/2	7	1.6	0.01	
C05/2	1.8 m lintel	0.019	95	5	5	25	7	7	0	74	2.1	3	C05/3	36	1.61	0.06	
C06/1	1.8 m lintel	0.036	95	5	5	15	14	14	0	71	1.4	3	C69/1	27	1.95	0.04	
C06/2	2.4 m lintel	0.139	85	5	5	15	52	47	5	74	1.4	3	C06/3	30	1.92	0.04	
C06/3	2.4 m lintel	0.071	85	5	5	15	30	30	0	83	1.4	3	C06/4	46	1.92	0.06	
C06/4	2.4 m lintel	0.124	85	5	5	15	46	43	3	81	1.4	3	C06/5	42	1.9	0.06	
C06/5	2.4 m lintel	0.107	85	5	5	25	42	40	2	82	1.4	3	C06/6	44	1.9	0.06	
C06/6	2.4 m lintel	0.115	85	5	5	15	44	42	3	72	1.4	3	C06/7	28	1.56	0.05	
C06/7	2.4 m lintel sag	0.112	85	5	5	15	49	49	0	58	0.7	2.7	C62/1	0			
C07/1	2.4 m lintel sag	0.029	95	5	5	5	11	11	0	30	0.4	2.6	C07/4	0	0	0	
C07/2	2.4 m lintel sag	0.111	85	5	5	15	42	42	0	55	0.7	3	C07/3	0	0	0	
C07/3	2.4 m lintel sag	0.12	85	5	5	15	36	36	0	46	0.7	2.9	C07/4	0			
C07/4	2.4 m lintel sag	0.033	95	5	5	5	4	4	0	13	0.7	2.7	C07/5	0	1.32	0	
C07/5	1.8 m lintel	0.005	95	5	5	15	0	0	0	65	1.3	3	C07/6	20	1.94	0.03	
C07/6	1.8 m lintel	0.054	85	5	5	15	20	20	0	84	1.3	3	C07/7	46	1.99	0.06	
C07/7	2.4 m lintel	0.125	85	5	5	15	46	43	3	85	1.3	3	C07/8	49	1.99	0.06	
C07/8	2.4 m lintel	0.124	85	5	5	15	49	45	4	82	1.3	3	C07/9	42	1.88	0.06	
C07/9	1.8 m lintel	0.106	85	5	5	15	42	36	6	66	1.3	3	C07/10	20	1.33	0.04	
C07/10	2.4 m lintel sag	0.076	85	5	5	5	34	34	0	46	0.9	2.5	C07/11	0			
C07/11	2.4 m lintel sag	0.059	95	5	5	15	20	20	0	33	0.6	3	C07/12	0	2.23	0	
C07/12	1.8 m lintel	0.005	95	5	5	25	1	1	0	90	1.5	3	C07/13	51	2.14	0.06	
C07/13	2.4 m lintel	0.139	85	5	5	15	50	47	3	61	0.7	3	C08/7	19	1.16	0.04	
C08/1	2.4 m lintel	0.13	85	5	5	25	49	47	2	91	0.7	3	C66/1	46	2.31	0.05	
C08/2	2.4 m lintel	0.12	85	5	5	25	45	43	2	89	0.7	3	C08/3	41	2.24	0.05	
C08/3	1.8 m lintel	0.107	85	5	5	25	41	36	5	92	0.7	3	C08/4	47	2.23	0.05	
C08/4	2.4 m lintel	0.115	85	5	5	25	47	45	2	91	0.7	3	C08/5	45	2.18	0.05	
C08/5	2.4 m lintel	0.116	85	5	5	25	45	43	2	79	0.7	3	C08/6	28	1.75	0.04	
C08/6	1.8 m lintel	0.071	85	5	5	15	28	26	2	68	0.7	3	C08/7	16	1.34	0.03	
C08/7	2.4 m lintel sag	0.084	85	5	5	15	35	35	0	51	0.6	2.8	C08/8	0			
C08/8	2.4 m lintel sag	0.109	85	5	5	5	38	38	0	48	0.4	2.1	C08/9	0	2.24	0.01	
C08/9	1.8 m lintel	0.003	95	5	5	25	1	1	0	92	0.7	3.7	C08/10	44	1.99	0.05	
C08/10	2.4 m lintel sag	0.15	85	5	5	5	42	42	0	50	0.4	2.1	C02/15	0	1.87	0.01	
C11/5	1.8 m lintel	0.015	95	5	5	15	5	5	0	36	?	2.7	C11/6	5	0.85	0.01	
C11/6	1.8 m lintel	0.012	95	5	5	15	5	5	0	52	2	3	C07/10	14	0.85	0.04	
C12/1	2.4 m lintel	0.145	85	5	5	15	54	50	4	92	0.8	3	C12/2	49	2.23	0.06	
C12/2	2.4 m lintel	0.124	85	5	5	15	49	46	3	87	0.8	3	C12/3	41	2.06	0.05	
C12/3	1.8 m lintel	0.107	85	5	5	25	41	36	5	83	0.8	3	C12/4	47	1.93	0.06	
C12/4	2.4 m lintel	0.115	85	5	5	15	47	44	3	69	2.1	3	C12/5	31	1.43	0.06	
C12/5	2.4 m lintel sag	0.103	85	5	5	25	38	38	0	48	0.5	3.1	C02/11	0	1.98	0.01	
C13/1	1.8 m lintel	0.037	95	5	5	15	14	14	0	90	0.7	3	C13/2	43	2.14	0.05	
C13/2	2.4 m lintel	0.117	85	5	5	15	43	42	1	87	0.7	3	C13/3	39	2.22	0.05	
C13/3	1.8 m lintel	0.106	85	5	5	15	39	34	5	92	0.7	3	C13/4	46	2.22	0.05	
C13/4	2.4 m lintel	0.116	85	5	5	15	46	45	1	89	0.7	3	C13/5	40	2.09	0.05	
C13/5	2.4 m lintel sag	0.109	85	5	5	15	40	40	0	56	0.4	3.3	C42/1	0			
C13/6	1.8 m lintel		0			5	0	0	0	0	0.7	3					
C13/7	1.8 m lintel	0.107	85	5	5	25	40	35	5	80	0.7	3	C02/9	23	1.62	0.04	
C20/1	2.4 m lintel	0.122	85	5	5	15	49	47	2	62	2	3	C20/2	19	1.98	0.02	
C20/2	1.8 m lintel	0.045	85	5	5	25	19	19	0	85	1.6	3	C54/1	43	2.16	0.05	
C22/1	1.8 m lintel	0.115	85	5	5	25	43	39	4	96	0.7	3	C42/1	49	2.26	0.06	
C36/1	1.8 m lintel	0.075	85	5	5	15	29	28	1	86	0.7	3	C08/8	31	1.84	0.04	
C38/1	2.4 m lintel sag	0.065	100	5	5	5	22	20	0	32	0.1	3	LOST	0			
C39/1	2.4 m lintel sag	0.067	100	5	5	5	21	20	0	32	0.1	3	LOST	0			
C47/1	2.4 m lintel sag	0.159	85	5	5	5	49	48	0	54	0.3	3	LOST	0	0	0	
C43/1	2.4 m lintel	0.115	85	5	5	25	45	44	1	90	0.7	3	C22/1	43	2.36	0.05	
C46/1	2.4 m lintel	0.141	85	5	5	25	53	49	4	91	0.7	3	C43/1	45	2.2	0.05	
C47/1	2.4 m lintel sag	0.047	100	5	5	5	14	14	0	25	0	3	LOST	0			
C53/1	1.8 m lintel	0.045	95	5	5	15	17	17	0	65	1.3	3	C64/1	19	1.3	0.04	
C54/1	2.4 m lintel	0.116	85	5	5	25	43	41	2	90	0.7	3	C56/1	43	2.46	0.05	
C56/1	2.4 m lintel	0.115	85	5	5	25	43	42	2	99	0.7	3	C77/1	59	2.46	0.06	
C57/1	2.4 m lintel	0.107	85	5	5	25	42	40	2	82	1.4	3	C61/1	45	1.9	0.06	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no, **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
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B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 1

PROJECT No: 9985-12
SHEET No: CC18411

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18411 | B

Plotted: 8 March 2022 11:20:35 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCT\9.18 - Precinct 7H\9985-12-CC18411.dwg

DESIGN STORM 10% AEP HYDROLOGIC RESULTS

PIT NAME (-)	PIT TYPE (-)	CATCHMENT AREA (Ha)	PERCENT IMPERVIOUS (%)	Tc IMP (min)	Tc PERV (min)	CRITICAL STORM (min)	APPROACH FLOW (L/s)	CAPTURED FLOW (L/s)	UNCAPTURED FLOW (L/s)	GRATE DEPTH (mm)	ROAD GRADE (%)	ROAD CROSSFALL (%)	BYPASS PIT (-)	FLOW AT BYPASS PIT (L/s)	FLOW WIDTH AT BYPASS PIT (m)	VxD AT BYPASS PIT (m/s^2)	COMMENTS (-)
C61/1	2.4 m lintel	0.115	85	5	5	25	45	42	3	71	1.4	3	C62/1	27	1.51	0.05	
C62/1	2.4 m lintel sag	0.119	85	5	5	5	40	40	0	51	0.7	3.6	C39/1	0			
C63/1	1.8 m lintel	0.073	95	5	5	15	27	26	1	75	0.8	3	C78/1	33	1.64	0.05	
C64/1	1.8 m lintel	0.052	95	5	5	25	19	19	0	64	1.3	3	C07/11	18	1.27	0.04	
C66/1	1.8 m lintel	0.12	85	5	5	25	46	41	4	95	0.7	3	C67/1	51	2.31	0.06	
C67/1	2.4 m lintel	0.129	85	5	5	25	51	49	2	93	0.7	3	C68/1	49	2.26	0.06	
C68/1	2.4 m lintel	0.128	85	5	5	15	49	46	3	80	0.7	3	C36/1	29	2.03	0.04	
C69/1	1.8 m lintel	0.072	85	5	5	15	27	25	1	84	1.4	3	C70/1	47	1.95	0.06	
C70/1	2.4 m lintel	0.124	85	5	5	25	47	44	3	81	1.4	3	C57/1	42	1.9	0.06	
C71/1	1.8 m lintel	0.113	85	5	5	15	45	40	4	88	1.1	3	C72/1	49	2.09	0.06	
C72/1	2.4 m lintel sag	0.122	85	5	5	15	49	49	0	59	0.6	2.9	C02/8	0			
C74/1	1.8 m lintel	0.109	85	5	5	15	41	38	3	86	1.1	3	C71/1	45	2.09	0.06	
C77/1	2.4 m lintel sag	0.158	85	5	5	15	59	59	0	65	0.3	2.8	C08/10	0			
C78/1	2.4 m lintel sag	0.091	95	5	5	15	33	33	0	50	1.3	3.2	C12/5	0			
D01/3	1.8 m lintel	0.003	95	5	5	15	0	0	0	48	0.7	3	D01/4	8	1.79	0.01	
D01/4	1.8 m lintel	0.02	95	5	5	15	7	7	0	79	1.4	3	D01/5	40	1.89	0.06	
D04/1	1.8 m lintel	0.033	95	5	5	5	12	12	0	0	0.7	3	LOST	0	0	0	
D04/2	1.8 m lintel	0.033	95	5	5	15	12	12	0	44	0.7	3	D04/3	8	0.87	0.03	
D04/3	1.8 m lintel	0.022	95	5	5	5	8	8	0	52	0.7	3	D04/4	7	1.93	0.01	
D05/1	1.8 m lintel	0.036	95	5	5	5	13	13	0	0	0.7	3	LOST	0	0	0	
D05/2	1.8 m lintel	0.038	95	5	5	15	14	14	0	73	0.7	3	D05/3	21	1.54	0.04	
D05/3	1.8 m lintel	0.06	95	5	5	15	21	21	0	57	0.7	3	D05/4	14	1.04	0.04	
D05/4	1.8 m lintel	0.04	95	5	5	5	14	14	0	36	3.1	3	D05/5	5	0.42	0.02	
D12/1	1.8 m lintel	0.038	95	5	5	5	14	14	0	0	0.7	3	LOST	0	0	0	
D29/1	1.8 m lintel	0.048	85	5	5	25	18	18	0	69	2.8	3	D10/1	34	1.45	0.06	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

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	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 2

PROJECT No: 9985-12
SHEET No: CC18412

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18412 | B

Plotted: 8 March 2022 11:29:56 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18412.dwg

DESIGN STORM 10% AEP HYDRAULIC RESULTS

PIPE NAME (-)	PIPE DIAMETER (mm)	PIPE TYPE (-)	PIPE LENGTH (m)	PIPE GRADE (%)	CRITICAL STORM (min)	PEAK FLOW (L/s)	CAPACITY RATIO (-)	PEAK VELOCITY (m/s)	PIPE U/S IL (m)	PIPE D/S IL (m)	PIPE D/S DROP (m)	U/S PIT Ku (-)	D/S PIT Kw (-)	PIT LOSS (Ku.V'head) (m)	WSE LOSS (Kw.V'head) (m)	U/S PIPE HGL (m)	D/S PIPE HGL (m)	HGL GRADE (%)	MINIMUM COVER (m)	MINIMUM FREEBOARD (m)	COMMENTS
C01/24 to C01/25	1350	RRJ2	35.73	0.3	25	3113	0.98	2.17	13.608	13.501	0.05	1.6	1.67	0.13	0.14	15.806	15.702	0.29	2.76	1.887	
C01/25 to C01/26	1500	RRJ2	33.39	0.3	25	3126	0.75	1.77	13.451	13.35	0.05	3.8	0.07	0.04	0	15.702	15.646	0.17	3.01	2.34	
C01/26 to C01/27	1500	RRJ2	41.67	0.3	25	3143	0.75	1.78	13.3	13.175	0.05	4.37	0.24	0.05	0.04	15.608	15.536	0.17	3.16	2.415	
C01/27 to C01/28	1500	RRJ2	9.57	0.4	25	3175	0.66	1.8	13.125	13.087	0.05	1.47	1.56	0.23	0.24	15.308	15.291	0.18	3.11	2.229	
C01/28 to C01/29	1050	RRJ2	10.59	0.35	25	2098	1.2	2.42	13.037	13	0	1.5	1.5	0.45	0.45	14.843	14.79	0.5	3.67	2.455	
C01/29 to C01/30	GPT	INLET	3.72	0	5	1602	3.38	1.36	13	13	0	1.5	1.5	0.14	0.14	14.76	14.759	0.03	3.41	3.001	
C01/30 to C01/31	GPT	OUTLET	4.04	0	5	1430	3.15	1.6	13	13	0	5.6	5.6	0.41	0.41	14.647	14.646	0.02	3.4	3.128	
C02/1 to C02/2	375	RRJ2	9.43	1	25	74	0.39	1.18	17.609	17.365	0.05	1	0.84	0.06	0.02	17.618	17.57	0.39	1.1	1.237	
C02/2 to C02/3	375	RRJ2	34.35	1	25	112	0.59	1.32	17.315	16.971	0.05	1.75	2	0.13	0.1	17.441	17.259	0.53	1.14	1.312	
C02/3 to C02/4	450	RRJ2	11.61	1	25	152	0.49	1.43	16.921	16.805	0.051	1.58	1.48	0.1	0.07	17.161	17.06	0.87	1.15	1.256	
C02/4 to C02/5	525	RRJ2	32.16	1	25	211	0.45	1.49	16.755	16.433	0.03	1.42	1.5	0.18	0.07	16.944	16.974	-0.09	1.1	1.377	
C02/5 to C02/6	525	RRJ2	23.12	1	15	280	0.6	1.66	16.403	16.172	0.03	0.91	0.8	0.13	0.07	16.932	16.876	0.24	1.11	1.119	
C02/6 to C02/7	525	RRJ2	18.63	1	15	339	0.73	1.84	16.142	15.955	0.064	0.6	0.57	0.09	0.07	16.832	16.764	0.37	1.13	0.971	
C02/7 to C02/8	600	RRJ2	16.21	1	15	470	0.71	1.81	15.891	15.729	0.05	0.52	0.49	0.09	0.07	16.717	16.659	0.36	1.1	0.884	
C02/8 to C02/9	600	RRJ2	15.73	1	20	566	0.85	2.09	15.679	15.522	0.347	0.76	0.76	0.15	0.15	16.564	16.489	0.48	1.37	0.847	
C02/9 to C02/10	825	RRJ2	39.63	0.6	20	1046	0.85	2.14	15.174	14.936	0.03	0.53	0.62	0.14	0.1	16.429	16.325	0.26	1.65	1.211	
C02/10 to C02/11	825	RRJ2	31.02	0.6	20	1048	0.8	2.11	14.906	14.72	0.03	0.21	0.21	0.07	0.03	16.307	16.207	0.32	2.14	1.591	
C02/11 to C02/12	900	RRJ2	42.35	0.6	10	1166	0.77	2.14	14.69	14.436	0.03	1.68	2.04	0.17	0.2	16.15	16.022	0.3	2.26	1.735	
C02/12 to C02/13	900	RRJ2	29.17	0.6	25	1159	0.76	2.05	14.406	14.231	0.03	0.32	0.31	0.09	0.05	15.979	15.883	0.33	2.3	1.654	
C02/13 to C02/14	1050	RRJ2	40.89	0.6	5	1721	0.75	2.4	14.201	13.956	0.03	0.58	2.4	0.22	0.25	15.786	15.876	-0.22	2.51	1.949	
C02/14 to C02/15	1050	RRJ2	30.56	0.6	5	1683	0.73	2.37	13.926	13.742	0.03	0.2	0.2	0.08	0.04	15.861	15.749	0.37	3.06	2.237	
C02/15 to C02/16	1350	RRJ2	45.4	0.6	25	2774	0.62	2.73	13.712	13.44	0.03	0.17	0.34	0.08	0.03	15.729	15.458	0.6	2.94	2.335	
C02/16 to C02/17	1350	RRJ2	25.01	0.6	25	2794	0.62	2.07	13.41	13.26	0.05	0.26	0.23	0.09	0.04	15.432	15.331	0.4	2.97	2.356	
C02/17 to C01/28	1350	RRJ2	17.48	0.6	20	2878	0.64	2.01	13.21	13.105	0.068	7.84	0.45	0.09	0.09	15.255	15.172	0.47	3.11	2.369	
C05/1 to C05/2	375	RRJ2	14.96	3.47	15	6	0.02	1.05	19.432	18.913	0.21	4.5	4.5	0.02	0	19.455	18.947	3.4	1.1	1.308	
C06/1 to C06/2	375	RRJ2	12.03	1	15	65	0.34	1.03	18.223	18.102	0.053	1.26	1.19	0.08	0.02	18.354	18.333	0.17	1.1	1.27	
C06/2 to C06/3	375	RRJ2	20	1.16	25	108	0.53	1.36	18.05	17.818	0.048	2.26	2.25	0.16	0.11	18.178	18.07	0.54	1.1	1.248	
C06/3 to C06/4	375	RRJ2	35	1.23	25	160	0.76	1.86	17.77	17.339	0.124	0.96	0.95	0.1	0.1	17.975	17.583	1.12	1.1	1.237	
C06/4 to C06/5	450	RRJ2	30.31	1.23	25	242	0.71	2	17.215	16.842	0.116	0.94	0.92	0.14	0.1	17.439	17.121	1.05	1.1	1.252	
C06/5 to C06/6	525	RRJ2	32.2	1.24	25	314	0.6	2.08	16.726	16.327	0.051	0.7	0.71	0.15	0.07	16.935	16.887	0.15	1.1	1.339	
C06/6 to C06/7	525	RRJ2	28.17	1.19	25	389	0.77	1.8	16.276	15.942	0.05	0.69	0.62	0.16	0.09	16.796	16.602	0.69	1.1	1.085	
C06/7 to C02/13	525	RRJ2	15.31	1	25	477	1.02	2.26	15.892	15.739	1.538	0.93	0.93	0.23	0.23	16.382	16.197	1.21	1.33	1.005	
C07/1 to C07/2	375	RRJ2	9	2	15	18	0.07	0.8	19.149	18.969	0.05	4.5	4.5	0.08	0.01	19.162	19.159	0.03	1.1	1.349	
C07/2 to C07/3	375	RRJ2	40.33	1	25	75	0.39	1.09	18.919	18.516	0.05	5.84	4.91	0.17	0.1	19.098	19.108	-0.02	1.26	1.426	
C07/3 to C07/4	375	RRJ2	9.03	2	20	102	0.38	1.43	18.466	18.285	0.05	2.18	2.58	0.16	0.11	19.078	19.071	0.08	1.64	1.335	
C07/4 to C07/5	375	RRJ2	14.99	1	20	108	0.57	1.47	18.235	18.085	0.05	0.76	0.75	0.09	0.04	19.06	19.044	0.11	1.98	1.371	
C07/5 to C07/6	375	RRJ2	23.78	1	20	114	0.6	1.28	18.035	17.798	0.03	0.6	0.6	0.08	0.03	19.035	19.008	0.11	1.97	1.432	
C07/6 to C07/7	375	RRJ2	35.71	1	5	149	0.78	1.52	17.768	17.411	0.03	1.6	2.57	0.14	0.14	18.957	18.841	0.32	1.9	1.158	
C07/7 to C07/8	375	RRJ2	34.99	1	20	178	0.94	1.62	17.381	17.031	0.03	1.26	1.2	0.13	0.1	18.795	18.62	0.5	1.83	0.86	
C07/8 to C07/9	375	RRJ2	29.08	1	25	245	1.29	2.22	17.001	16.71	0.03	1.49	1.17	0.14	0.1	18.546	18.303	0.84	1.76	0.626	
C07/9 to C07/10	450	RRJ2	18.95	1	20	304	0.98	1.91	16.68	16.49	0.05	1.45	1.7	0.24	0.26	18.093	17.911	0.96	1.66	0.564	
C07/10 to C07/11	450	RRJ2	9.48	1	25	346	1.12	2.17	16.44	16.345	0.05	1.5	1.64	0.32	0.35	17.641	17.537	1.1	1.76	0.718	
C07/11 to C07/12	525	RRJ2	14.85	1	25	393	0.84	1.88	16.295	16.147	0.05	0.3	0.3	0.07	0.05	17.499	17.42	0.53	1.92	1.064	
C07/12 to C07/13	600	RRJ2	36.56	1	25	542	0.81	2	16.097	15.731	0.03	1.66	1.88	0.25	0.29	17.182	16.943	0.65	1.98	1.253	
C07/13 to C08/9	600	RRJ2	34.63	1	25	604	0.91	2.24	15.701	15.355	0.189	0.55	0.54	0.15	0.1	16.854	16.571	0.82	1.97	1.379	
C08/1 to C08/2	375	RRJ2	10.61	2	20	46	0.17	1	17.38	17.167	0.05	4.5	4.5	0.16	0.04	17.935	17.933	0.02	1.1	0.881	
C08/2 to C08/3	375	RRJ2	30.26	1	20	87	0.46	1.16	17.117	16.815	0.03	4.34	2.44	0.17	0.08	17.912	17.888	0.08	1.25	0.858	
C08/3 to C08/4	375	RRJ2	32.25	1	5	136	0.72	1.39	16.785	16.462	0.03	1.26	1.15	0.13	0.09	17.852	17.756	0.3	1.38	0.69	
C08/4 to C08/5	375	RRJ2	32.72	1	25	205	1.08	1.85	16.432	16.105	0.03	1.08	1.13	0.13	0.12	17.685	17.443	0.74	1.5	0.597	
C08/5 to C08/6	450	RRJ2	19.18	1	25	276	0.89	1.84	16.075	15.883	0.03	1.08	0.95	0.1	0.08	17.391	17.291	0.52	1.55	0.681	
C08/6 to C08/7	525	RRJ2	20.55	1	25	396	0.85	1.83	15.853	15.648	0.05	1.49	1.63	0.21	0.23	17.102	16.958	0.7	1.56	0.698	
C08/7 to C08/8	600	RRJ2	9.02	2	25	426	0.45	1.51	15.598	15.417	0.05	2	2.52	0.2	0.25	16.772	16.737	0.39	1.69	0.897	
C08/8 to C08/9	600	RRJ2	15.15	1	25	458	0.69	1.62	15.367	15.216	0.05	0.94	0.93	0.11	0.1	16.639	16.571	0.45	2.06	1.152	
C08/9 to C08/10	675	RRJ2	36.6	1	25	1088	1.2	3.04	15.166	14.8	0.05	0.35	0.29	0.13	0.13	16.439	15.928	1.4	2.15	1.474	
C08/10 to C02/15	750	RRJ2	15.89	1	20	1270	1.05	2.93	14.75	14.591	0.878	0.75	0.76	0.31	0.32	15.686	15.749	-0.4	2.5	1.943	
C11/5 to C11/6	375	RRJ2	14.48	1	25	162	0.85	1.63	17.519	17.375	0.05	1.47	1.05	0.09	0.09	17.816	17.641	1.21	1.64	1.641	
C11/6 to C07/12	375	RRJ2	40.49	1	25	171	0.9	1.83	17.075	17.07	0.923	0.31	0.31	0.05	0.04	17.574	17.42	0.51	1.27	1.675	
C12/1 to C12/2	375	RRJ2	34.98	1	15	49	0.26	0.95	17.87	17.52	0.03	4.5	4.5	0.12	0.05	17.919	17.769	0.43	1.1	1.362	
C12/2 to C12/3	375	RRJ2	30.23	1	25	122	0.64	1.36	17.49	17.187	0.03	1.76	1.72	0.15	0.1	17.623	17.574	0.16	1.21	1.351	
C12/3 to C12/4	375	RRJ2	32.22	1	15	150	0.79	1.64	17.157	16.835	0.03	1.12	1.09	0.13	0.1	17.482	17.295	0.58	1.22	1.312	
C12/4 to C12/5	375	RRJ2	26.85	2.05	25	184	0.68	1.73	16.805	16.256	0.05	1.16	1.11	0.14	0.14	17.167	16.915	0.94	1.11	1.139	
C12/5 to C02/11	375	RRJ2	15.16	1	25	256	1.35	2.35	16.206	16.054	1.364	1.02	1.04	0.2	0.24	16.737	16.404	2.2	1.35	0.869	
C13/1 to C13/2	375	RRJ2	34.86	1	15	52	0.27	1.19	17.17	16.822	0.097	1.98	2.25	0.1	0.03	17.424	17.42	0.01	1.1	1.253	
C13/2 to C13/3	375	RRJ2	29.49	1	20	122	0.64	1.32	16.725	16.43	0.03	1.55	1.52	0.15	0.1	17.376	17.309	0.23	1.3	1.025	
C13/3 to C13/4	375	RRJ2	32.94	1	20	173	0.91	1.68	16.4	16.071	0.03	0.94	0.97	0.12	0.11	17.247	17.052	0.59	1.42	0.929	
C13/4 to C13/5	450	RRJ2	27.08	1	25	245	0.79	1.66	16.041	15.77	0.05	1.05	0.92	0.13	0.1	16.997	16.877	0.44	1.46	0.956	
C13/5 to C13/6	525	RRJ2	15.58	0.5	20	324	0.98	1.56	15.72	15.642	0.05	1.26	1.3	0.14	0.15	16.794	16.74	0.35	1.72	0.946	
C13/6 to C13/7	525	RRJ2	41.12	0.5	25	337	1.02	1.63	15.592	15.387	0.03	0.53	0.53	0.07	0.07	16.696	16.551	0.35	1.91	1.395	
C13/7 to C02/9	600	RRJ2	30.48	0.5	25	404	0.86	1.72	15.357	15.204	0.03	5.89	0.46	0.11	0.01	16.551	16.489	0.2	1.84	1.3	
C20/1 to C20/2	375	RRJ2	12.6	1.35	25	46	0.21	1.02	17.383	17.212	0.05	4.5	4.5	0.15	0.04	17.43	17.441	-0.09	1.1	1.348	
C20/2 to C07/12	375	RRJ2	9.23	2	25	68	0.25	1.4	17.162	16.977	0.88	2.01	2.37	0.15	0.04	17.416	17.42	-0.04	1.19	1.262	
C22/1 to C13/4	375	RRJ2	12.5	2	15	38	0.14	1.17	16.605	16.355	0.315	4.5	4.5	0.14	0.03	17.055	17.052	0.02	1.1	0.999	
C36/1 to C08/6	375	RRJ2	10.56	2	25	33	0.12	1.05	16.571	16.36	0.507	4.5	4.5	0.12	0.02	17.293	17.291	0.02	1.1	0.729	
C38/1 to C02/9	375	RRJ2	9	2	25	28	0.1	0.98	16.262	16.082	0.908	4.5	4.5	0.13	0.01	16.486	16.489	-0.03	1.1	1.199	
C39/1 to C02/12	375	RRJ2	9.07	2	25	20	0.07	1	16.262	16.081	1.674	4.5	4.5	0.08	0.01	16.287	16.15	1.51	1.1	1.33	
C42/1 to C13/5	375	RRJ2	9.13	2	15	48	0.18	1.16	16.476	16.243	0.523	4.5	4.5	0.17	0.04	16.88	16.877	0.03	1.1	0.973	
C43/1 to C13/3	375	RRJ2	11.94	2	20	41	0.15	1.11	16.827	16.599	0.198	4.5	4.5	0.15	0.03	17.312	17.309	0.03	1.1	0.965	
C46/1 to C13/2	375	RRJ2	14.19	2	15	47	0.18	1.02	17.059	16.775	0.05	4.5	4.5	0.16	0.04	17.424	17.42	0.03	1.1	1.078	
C47/1 to C02/17	375	RRJ2	9	2	15	13	0.05	0.93	16.262	16.082	2.872	4.5	4.5	0.06	0	16.286	16.139	1.63	1.1	1.355	
C53/1 to C07/6	375	RRJ2	9.01	2	25	18	0.07	0.97	18.725	18.544	0.777	4.5	4.5	0.09	0.01	19.008	19.008	0	1.1	1.162	
C54/1 to C07/13	375	RRJ2	11.05	2	25	42	0.16	1.18	16.915	16.694	0.993	4.5	4.5	0.13	0.03	16.948	16.943	0.05	1.1	1.287	
C56/1 to C08/9	375	RRJ2	12.28	2	25	41	0.15	1.2	16.681	16.436	1.27	4.5	4.5	0.13	0.03	16.716	16.571	1.18	1.1	1.295	
C57/1 to C06/5	375	RRJ2	10.68	2	25	39	0.15	0.97	17.035	16.822	0.096	4.5	4.5	0.14	0.03	17.053	17.073	-0.19	1.1	1.3	
C61/1 to C06/6	375	RRJ2	10.67	2	25	43	0.16	1.01	16.594	16.381	0.105	4.5	4.5	0.15	0.04	16.888	16.887	0.01	1.1	1.133	
C62/1 to C06/7	375	RRJ2	9.17	2	25	45	0.16	0.8	16.158	15.975	0.081	4.5	4.5	0.11	0.03	16.61	16.605	0.04	1.1	0.953	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

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www.LDC.com.au

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	LINE C01 UPDATED	DG	DG	KE	KE	18/08/22
C	LINE C62 UPDATED, FLOWS ON C02/9 - C02/11 UPDATED	DG	DG	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
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PO Box 4366 PENRITH WESTFIELD NSW 2750
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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 3

PROJECT No: 9985-12
SHEET No: CC18413

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18413 | D

Plotted: 18 August, 2022 3:36:59 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18413.dwg

DESIGN STORM 10% AEP HYDRAULIC RESULTS

PIPE NAME (-)	PIPE DIAMETER (mm)	PIPE TYPE (-)	PIPE LENGTH (m)	PIPE GRADE (%)	CRITICAL STORM (min)	PEAK FLOW (L/s)	CAPACITY RATIO (-)	PEAK VELOCITY (m/s)	PIPE U/S IL (m)	PIPE D/S IL (m)	PIPE D/S DROP (m)	U/S PIT Ku (-)	D/S PIT Kw (-)	PIT LOSS (Ku.V'head) (m)	WSE LOSS (Kw.V'head) (m)	U/S PIPE HGL (m)	D/S PIPE HGL (m)	HGL GRADE (%)	MINIMUM COVER (m)	MINIMUM FREEBOARD (m)	COMMENTS
C63/1 to C12/2	375	RRJ2	11.07	1	15	25	0.13	0.79	17.711	17.6	0.111	4.5	4.5	0.09	0.01	17.77	17.769	0.01	1.1	1.311	
C64/1 to C07/8	375	RRJ2	10.72	2	25	29	0.11	0.98	17.86	17.646	0.645	4.5	4.5	0.12	0.02	18.621	18.62	0.01	1.1	0.697	
C66/1 to C08/3	375	RRJ2	10.6	2	20	38	0.14	1.11	17.161	16.949	0.164	4.5	4.5	0.14	0.03	17.891	17.888	0.03	1.1	0.713	
C67/1 to C08/4	375	RRJ2	10.64	2	5	42	0.16	1.15	16.942	16.729	0.297	4.5	4.5	0.15	0.03	17.759	17.756	0.03	1.1	0.616	
C68/1 to C08/5	375	RRJ2	10.98	2	25	42	0.16	1.15	16.716	16.496	0.421	4.5	4.5	0.15	0.03	17.446	17.443	0.03	1.1	0.704	
C69/1 to C06/3	375	RRJ2	10.92	1	15	24	0.13	0.65	17.929	17.82	0.05	4.5	4.5	0.09	0.01	18.058	18.07	-0.11	1.1	1.284	
C70/1 to C06/4	375	RRJ2	10.7	1.5	25	42	0.18	0.88	17.451	17.29	0.075	4.5	4.5	0.14	0.03	17.553	17.576	-0.21	1.1	1.249	
C71/1 to C02/6	375	RRJ2	9	2	25	38	0.14	0.96	16.402	16.222	0.08	4.5	4.5	0.13	0.03	16.878	16.876	0.02	1.1	0.955	
C72/1 to C02/8	375	RRJ2	9.18	2	15	54	0.2	1.06	16.06	15.876	0.197	4.5	4.5	0.16	0.06	16.663	16.659	0.04	1.1	0.808	
C74/1 to C02/5	375	RRJ2	11.55	2	25	37	0.14	0.95	16.708	16.477	0.074	4.5	4.5	0.14	0.03	16.973	16.974	-0.01	1.1	1.176	
C77/1 to C08/10	375	RRJ2	9.08	2	25	69	0.26	1.24	16.401	16.219	1.47	4.5	4.5	0.18	0.09	16.465	16.349	1.28	1.1	1.192	
C78/1 to C12/5	375	RRJ2	9.28	1.25	25	50	0.24	0.68	16.379	16.263	0.057	4.5	4.5	0.09	0.05	16.919	16.915	0.04	1.1	0.875	
D01/2 to D01/3	375	RRJ2	29.19	1	15	44	0.23	1.21	18.563	18.271	0.05	3.66	3.12	0.07	0.02	18.645	18.394	0.86	1.26	1.368	
D01/3 to D01/4	375	RRJ2	16.38	1	25	44	0.23	1.26	18.221	18.057	0.05	0.74	0.76	0.04	0.01	18.317	18.18	0.84	1.71	1.913	
D01/4 to D01/5	375	RRJ2	25.9	1	25	51	0.27	1.16	18.007	17.748	0.05	1.12	1.08	0.06	0.01	18.087	18.004	0.32	1.47	1.846	
D04/1 to D04/2	375	RRJ2	9.25	2	15	12	0.05	0.87	18.726	18.541	0.05	4.5	4.5	0.06	0	18.748	18.608	1.51	1.1	1.369	
D04/2 to D04/3	375	RRJ2	15.34	1	25	25	0.13	0.99	18.491	18.338	0.132	4.22	2.81	0.07	0.01	18.544	18.429	0.75	1.15	1.579	
D04/3 to D04/4	375	RRJ2	24.3	1	15	32	0.17	1.13	18.206	17.963	0.05	1.5	1.5	0.04	0.01	18.282	18.087	0.8	1.1	1.395	
D05/1 to D05/2	375	RRJ2	9	2	15	13	0.05	0.93	18.217	18.037	0.05	4.5	4.5	0.06	0	18.241	18.093	1.64	1.1	1.364	
D05/2 to D05/3	375	RRJ2	74.97	1	15	27	0.14	1.03	17.987	17.238	0.03	4.94	2.94	0.02	0.01	18.06	17.371	0.92	1.26	1.581	
D05/3 to D05/4	375	RRJ2	52.06	1	25	65	0.34	1.41	17.208	16.687	0.03	1.7	1.69	0.05	0.03	17.325	16.942	0.74	1.24	1.768	
D05/4 to D05/5	375	RRJ2	16.49	1.74	15	90	0.36	1.54	16.657	16.37	0.084	0.94	0.83	0.11	0.03	16.917	16.91	0.04	1.11	1.356	
D12/1 to D05/3	375	RRJ2	9.3	2	15	14	0.05	0.95	17.705	17.519	0.311	4.5	4.5	0.06	0	17.729	17.577	1.63	1.1	1.365	
D29/1 to D05/4	375	RRJ2	10.92	2	25	18	0.07	1.02	17.006	16.788	0.131	4.5	4.5	0.07	0.01	17.034	16.942	0.84	1.1	1.377	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
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B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 4

PROJECT No: 9985-12
SHEET No: CC18414

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18414 | B

Plotted: 8 March 2022 11:21:12 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18414.dwg

DESIGN STORM 5% AEP HYDROLOGIC RESULTS

PIT NAME (-)	PIT TYPE (-)	CATCHMENT AREA (Ha)	PERCENT IMPERVIOUS (%)	Tc IMP (min)	Tc PERV (min)	CRITICAL STORM (min)	APPROACH FLOW (L/s)	CAPTURED FLOW (L/s)	UNCAPTURED FLOW (L/s)	GRATE DEPTH (mm)	ROAD GRADE (%)	ROAD CROSSFALL (%)	BYPASS PIT (-)	FLOW AT BYPASS PIT (L/s)	FLOW WIDTH AT BYPASS PIT (m)	VxD AT BYPASS PIT (m/s^2)	COMMENTS (-)
CA/1	IAD 600x900	0.031	80	5	5	15	13	13	0	0							
CA/2	IAD 600x900	0.03	80	5	5	15	13	13	0	0							
CA/3	IAD 900x900	0.037	80	5	5	15	16	16	0	0							
CB/1	IAD 600x900	0.031	80	5	5	25	14	14	0	0							
CB/2	IAD 900x900	0.037	80	5	5	15	16	16	0	0							
CC/1	IAD 600x900	0.039	80	5	5	15	17	17	0	0							
CC/2	IAD 600x900	0.031	80	5	5	25	14	14	0	0							
CC/3	IAD 600x900	0.031	80	5	5	15	13	13	0	0							
CC/4	IAD 600x900	0.03	80	5	5	15	13	13	0	0							
CC/5	IAD 900x900	0.037	80	5	5	15	16	16	0	0							
CD/1	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CD/2	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CD/3	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CD/4	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CD/5	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CD/6	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CD/7	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CD/8	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CD/9	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CD/10	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CD/11	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CD/12	IAD 600x900		0			5	0	0	0	0							
CD/13	IAD 900x900		0			5	0	0	0	0							
CE/1	IAD 600x900	0.029	80	5	5	15	13	13	0	0							
CE/2	IAD 600x900	0.03	80	5	5	15	13	13	0	0							
CE/3	IAD 600x900	0.03	80	5	5	15	13	13	0	0							
CE/4	IAD 900x900	0.037	80	5	5	15	16	16	0	0							
CF/1	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CF/2	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CF/3	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CF/4	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CF/5	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CF/6	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CF/7	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CF/8	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CF/9	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CF/10	IAD 600x900	0.048	80	5	5	15	21	21	0	0							
CF/11	IAD 600x900	0.029	80	5	5	15	12	12	0	0							
CF/12	IAD 900x900		0			5	0	0	0	0							
CN/1	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CN/2	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CN/3	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CN/4	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CN/5	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CN/6	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CN/7	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CN/8	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CN/9	IAD 600x900	0.028	80	5	5	15	12	12	0	0							
CN/10	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CN/11	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CN/12	IAD 600x900	0.034	80	5	5	15	15	15	0	0							
CN/13	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CN/14	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CN/15	IAD 600x900	0.027	80	5	5	15	12	12	0	0							
CN/16	IAD 600x900		0			5	0	0	0	0							
CN/17	IAD 900x900		0			5	0	0	0	0							
CY/1	IAD 600x900	0.038	80	5	5	15	16	16	0	0							
CY/2	IAD 600x900	0.031	80	5	5	15	13	13	0	0							
CY/3	IAD 600x900	0.03	80	5	5	15	13	13	0	0							
CY/4	IAD 600x900	0.029	80	5	5	15	13	13	0	0							
CY/5	IAD 900x900		0			5	0	0	0	0							

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

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A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 5

PROJECT No: 9985-12
SHEET No: CC18415

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18415 | B

Plotted: 8 March 2022 11:29:56 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18415.dwg

DESIGN STORM 5% AEP HYDRAULIC RESULTS

PIPE NAME (-)	PIPE DIAMETER (mm)	PIPE TYPE (-)	PIPE LENGTH (m)	PIPE GRADE (%)	CRITICAL STORM (min)	PEAK FLOW (L/s)	CAPACITY RATIO (-)	PEAK VELOCITY (m/s)	PIPE U/S IL (m)	PIPE D/S IL (m)	PIPE D/S DROP (m)	U/S PIT Ku (-)	D/S PIT Kw (-)	PIT LOSS (Ku.V'head) (m)	WSE LOSS (Kw.V'head) (m)	U/S PIPE HGL (m)	D/S PIPE HGL (m)	HGL GRADE (%)	MINIMUM COVER (m)	MINIMUM FREEBOARD (m)	COMMENTS
CA/1 to CA/2	150	uPVC	10	1.67	15	13	0.52	0.77	18.639	18.472	0.03	7.66	6.72	0.12	0.12	18.798	18.744	0.54	0.6	0.491	
CA/2 to CA/3	150	uPVC	12.66	1.58	25	27	1.07	1.52	18.442	18.242	0.795	2.98	2.83	0.09	0.16	18.682	18.382	2.37	0.6	0.471	
CA/3 to C13/1	375	RRJ2	4.46	1.88	25	43	0.17	1.12	17.446	17.363	0.192	2.24	3.06	0.09	0.02	17.852	17.852	0	1.1	1.126	
CB/1 to CB/2	150	uPVC	12.03	1.02	15	13	0.67	0.89	18.557	18.434	0.79	7.32	6.63	0.12	0.14	18.663	18.525	1.15	0.6	0.543	
CB/2 to C02/2	375	RRJ2	4.48	1.96	25	30	0.11	1.03	17.644	17.556	0.242	3.31	3.89	0.08	0.01	17.713	17.644	1.54	1.1	1.388	
CC/1 to CC/2	150	uPVC	10	1.02	15	16	0.82	0.92	18.967	18.864	0.03	4.06	3.9	0.11	0.12	19.338	19.25	0.88	0.6	0.29	
CC/2 to CC/3	150	uPVC	10	1	15	29	1.48	1.66	18.834	18.734	0.067	2.44	1.55	0.09	0.16	19.186	18.878	3.08	0.62	0.361	
CC/3 to CC/4	225	uPVC	10	1.02	15	43	0.73	1.29	18.667	18.565	0.03	5.64	0.51	0.04	0.02	18.851	18.823	0.28	0.6	0.649	
CC/4 to CC/5	225	uPVC	12.67	1.11	15	55	0.89	1.49	18.535	18.394	0.719	1.2	1.12	0.1	0.1	18.731	18.559	1.36	0.6	0.564	
CC/5 to C02/1	375	RRJ2	4.52	1.97	15	69	0.26	1.27	17.675	17.586	0.127	2.18	3.13	0.1	0.06	17.822	17.717	2.32	1.1	1.296	
CD/1 to CD/2	150	uPVC	10	1	25	11	0.54	0.64	18.674	18.574	0.03	7.78	6.06	0.09	0.09	19.165	19.139	0.26	0.6	0.221	
CD/2 to CD/3	150	uPVC	10	1	25	22	1.09	1.22	18.544	18.444	0.03	2.7	2.14	0.09	0.11	19.072	18.951	1.21	0.64	0.199	
CD/3 to CD/4	225	uPVC	12.5	1	25	35	0.6	1.17	18.414	18.289	0.03	2.14	4.47	0.08	0.03	18.951	18.916	0.28	0.6	0.296	
CD/4 to CD/5	225	uPVC	12.5	1	25	45	0.76	1.12	18.259	18.134	0.03	1.52	1.41	0.08	0.06	18.863	18.794	0.55	0.64	0.217	
CD/5 to CD/6	225	uPVC	10	1	25	57	0.98	1.44	18.104	18.004	0.03	1.01	1.01	0.08	0.08	18.722	18.629	0.93	0.68	0.223	
CD/6 to CD/7	225	uPVC	10	1	25	68	1.16	1.7	17.974	17.874	0.03	0.73	0.73	0.09	0.09	18.551	18.421	1.3	0.72	0.297	
CD/7 to CD/8	225	uPVC	10	1	25	78	1.33	1.96	17.844	17.744	0.03	0.7	0.7	0.1	0.11	18.34	18.151	1.89	0.76	0.413	
CD/8 to CD/9	300	uPVC	12.5	1	25	89	0.71	1.64	17.714	17.589	0.03	6.25	3.55	0.02	0	18.151	18.09	0.49	0.72	0.591	
CD/9 to CD/10	300	uPVC	10	1	25	101	0.8	1.47	17.559	17.459	0.03	0.84	0.8	0.07	0.07	18.029	17.965	0.64	0.73	0.527	
CD/10 to CD/11	300	uPVC	10	1	25	111	0.88	1.57	17.429	17.329	0.05	0.68	0.63	0.06	0.06	17.904	17.826	0.78	0.71	0.523	
CD/11 to CD/12	300	uPVC	1.36	1	25	121	0.97	1.72	17.279	17.266	0.05	0.61	0.61	0.07	0.07	17.755	17.743	0.88	0.75	0.507	
CD/12 to CD/13	300	uPVC	27.35	1	25	123	0.98	1.82	17.216	16.942	0.536	1.9	2.07	0.17	0.27	17.599	17.218	1.39	0.7	0.574	
CD/13 to C02/7	375	RRJ2	4.35	1.9	15	118	0.45	1.39	16.406	16.323	0.432	2.09	2.71	0.13	0.16	17.126	17.112	0.32	1.1	0.723	
CE/1 to CE/2	150	uPVC	18.8	1	15	14	0.7	0.85	19.278	19.09	0.03	7.52	7.03	0.11	0.16	19.356	19.246	0.59	0.6	0.57	
CE/2 to CE/3	225	uPVC	10	1	25	41	0.7	1.34	19.06	18.96	0.03	8.92	6.39	0.12	0.05	19.2	19.173	0.27	0.87	0.913	
CE/3 to CE/4	225	uPVC	11.46	1	25	45	0.77	1.27	18.93	18.815	0.362	1.82	1.27	0.08	0.08	19.094	18.963	1.14	0.92	0.906	
CE/4 to C06/1	375	RRJ2	4.4	1.97	25	62	0.23	1.62	18.453	18.366	0.143	1.24	0.88	0.04	0.01	18.611	18.49	2.75	1.1	1.365	
CF/1 to CF/2	150	uPVC	12.5	1	5	14	0.7	0.85	19.805	19.68	0.077	7.55	5.88	0.12	0.15	20.172	20.117	0.44	0.6	0.306	
CF/2 to CF/3	225	uPVC	10	1	45	41	0.7	1.31	19.603	19.503	0.03	9.02	6.42	0.12	0.06	20.096	20.076	0.2	0.6	0.319	
CF/3 to CF/4	225	uPVC	10	1	10	40	0.68	1.15	19.473	19.373	0.03	1.47	1.28	0.08	0.06	20.039	19.998	0.41	0.63	0.26	
CF/4 to CF/5	225	uPVC	12.5	1	25	48	0.82	1.2	19.343	19.218	0.03	1.16	1.03	0.08	0.06	19.948	19.865	0.66	0.66	0.239	
CF/5 to CF/6	225	uPVC	12.5	1	25	61	1.04	1.52	19.188	19.063	0.03	0.99	0.99	0.09	0.09	19.786	19.651	1.08	0.69	0.251	
CF/6 to CF/7	225	uPVC	10	1	25	73	1.26	1.85	19.033	18.933	0.03	0.87	0.92	0.11	0.11	19.561	19.401	1.6	0.72	0.336	
CF/7 to CF/8	300	uPVC	10	1	25	84	0.67	1.65	18.903	18.803	0.03	7.37	4.09	0.03	0	19.401	19.361	0.4	0.69	0.499	
CF/8 to CF/9	300	uPVC	10	1	25	95	0.75	1.35	18.773	18.673	0.05	0.75	0.69	0.06	0.05	19.321	19.272	0.49	0.73	0.448	
CF/9 to CF/10	300	uPVC	1.36	1	25	105	0.84	1.49	18.623	18.61	0.05	0.65	0.65	0.06	0.06	19.228	19.222	0.44	0.78	0.445	
CF/10 to CF/11	300	uPVC	13.73	1	25	124	0.99	1.76	18.56	18.422	0.03	1.77	2.02	0.2	0.29	19.027	18.933	0.68	0.73	0.494	
CF/11 to CF/12	300	uPVC	13.62	1	25	136	1.08	1.94	18.392	18.256	0.629	0.55	0.55	0.1	0.1	18.881	18.777	0.76	0.62	0.515	
CF/12 to C07/9	375	RRJ2	4.36	1.93	25	127	0.48	1.42	17.627	17.543	0.863	2.09	2.71	0.14	0.18	18.693	18.68	0.3	1.1	0.387	
CN/1 to CN/2	150	uPVC	10	1.35	5	11	0.47	0.71	19.524	19.389	0.03	8.81	7.1	0.11	0.11	19.928	19.902	0.26	0.6	0.301	
CN/2 to CN/3	150	uPVC	10	1.16	120	22	1.02	1.26	19.359	19.243	0.077	3.24	2.26	0.1	0.12	19.836	19.717	1.19	0.6	0.232	
CN/3 to CN/4	225	uPVC	12.5	1	15	33	0.57	1.1	19.166	19.041	0.03	3.06	4.46	0.08	0.03	19.717	19.682	0.28	0.6	0.286	
CN/4 to CN/5	225	uPVC	10	1	25	44	0.75	1.09	19.011	18.911	0.03	1.5	1.43	0.07	0.07	19.632	19.578	0.54	0.63	0.189	
CN/5 to CN/6	225	uPVC	10	1	25	54	0.92	1.35	18.881	18.781	0.03	1.08	0.94	0.07	0.07	19.521	19.439	0.82	0.66	0.193	
CN/6 to CN/7	225	uPVC	10	1	25	64	1.09	1.6	18.751	18.651	0.03	0.82	0.82	0.08	0.08	19.368	19.25	1.18	0.69	0.23	
CN/7 to CN/8	225	uPVC	12.5	1	25	74	1.26	1.86	18.621	18.496	0.03	0.79	0.81	0.1	0.1	19.18	18.966	1.71	0.71	0.318	
CN/8 to CN/9	300	uPVC	10	1	15	88	0.7	1.69	18.466	18.366	0.03	7.3	0.7	0.04	0	18.966	18.919	0.47	0.67	0.481	
CN/9 to CN/10	300	uPVC	10	1	25	97	0.77	1.47	18.336	18.236	0.03	0.66	0.66	0.06	0.05	18.87	18.813	0.57	0.7	0.428	
CN/10 to CN/11	300	uPVC	10	1	25	107	0.85	1.52	18.206	18.106	0.03	0.64	0.65	0.06	0.06	18.764	18.698	0.66	0.73	0.432	
CN/11 to CN/12	300	uPVC	12.5	1	25	118	0.94	1.67	18.076	17.951	0.03	0.64	0.58	0.07	0.07	18.644	18.549	0.76	0.76	0.447	
CN/12 to CN/13	300	uPVC	10	1	25	131	1.04	1.85	17.921	17.821	0.03	0.61	0.61	0.09	0.09	18.483	18.394	0.89	0.78	0.464	
CN/13 to CN/14	300	uPVC	10	1	25	142	1.13	2.01	17.791	17.691	0.03	0.51	0.51	0.09	0.09	18.333	18.233	1	0.9	0.598	
CN/14 to CN/15	300	uPVC	10	1	25	153	1.22	2.18	17.661	17.561	0.05	0.49	0.51	0.11	0.11	18.167	18.061	1.06	1.03	0.762	
CN/15 to CN/16	375	uPVC	1.36	1	25	171	0.75	1.94	17.511	17.498	0.05	9.21	0.4	0.02	0	18.061	18.057	0.29	1.11	0.941	
CN/16 to CN/17	375	uPVC	27.35	1	25	163	0.72	1.65	17.448	17.174	0.429	1.93	2.36	0.21	0.25	17.911	17.814	0.35	0.75	0.939	
CN/17 to C08/6	375	RRJ2	4.36	1.85	20	149	0.58	1.6	16.745	16.664	0.811	1.91	2.32	0.17	0.21	17.693	17.671	0.5	1.1	0.471	
CY/1 to CY/2	150	uPVC	10	1	25	16	0.79	0.89	20.042	19.942	0.03	3.79	3.79	0.1	0.11	20.395	20.323	0.72	0.6	0.307	
CY/2 to CY/3	150	uPVC	10	1	25	29	1.44	1.63	19.912	19.812	0.03	2.33	1.57	0.09	0.15	20.259	19.975	2.84	0.66	0.401	
CY/3 to CY/4	225	uPVC	10	1	25	42	0.71	1.27	19.782	19.682	0.03	5.57	0.52	0.05	0.02	19.975	19.94	0.35	0.64	0.674	
CY/4 to CY/5	225	uPVC	12.35	1	15	53	0.92	1.45	19.652	19.529	0.582	1.2	1.12	0.09	0.09	19.851	19.698	1.24	0.69	0.635	
CY/5 to C07/6	375	RRJ2	5.04	2.16	15	53	0.19	1.25	18.947	18.839	1.071	2.09	3.24	0.1	0.04	19.399	19.399	0	1.1	1.077	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
www.LDC.com.au

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE

NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 6

PROJECT No: 9985-12
SHEET No: CC18416

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18416 | B

Plotted: 8 March 2022 11:28:49 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7\49985-12-CC18416.dwg

DESIGN STORM 1% AEP HYDROLOGIC RESULTS

PIT NAME (-)	PIT TYPE (-)	CATCHMENT AREA (Ha)	PERCENT IMPERVIOUS (%)	Tc IMP (min)	Tc PERV (min)	CRITICAL STORM (min)	APPROACH FLOW (L/s)	CAPTURED FLOW (L/s)	UNCAPTURED FLOW (L/s)	GRATE DEPTH (mm)	ROAD GRADE (%)	ROAD CROSSFALL (%)	BYPASS PIT (-)	FLOW AT BYPASS PIT (L/s)	FLOW WIDTH AT BYPASS PIT (m)	VxD AT BYPASS PIT (m/s^2)	COMMENTS (-)
C01/24	1.8 m lintel	0.1	85	5	5	15	59	41	18	89	0.7	3	C05/8	45	2.43	0.05	
C01/25	1.8 m lintel	0.055	85	5	5	15	30	23	7	99	0.6	3	C01/24	59	2.47	0.06	
C01/26	1.8 m lintel	0.076	85	5	5	15	40	30	11	109	0.5	3	C01/27	83	2.97	0.07	
C01/27	2.4 m lintel	0.138	85	5	5	15	83	55	28	114	0.7	3	C02/17	70	4.13	0.05	
C01/28	1.8 m lintel	0.028	100	5	5	10	17	14	3	138	0.6	3	C26/1	3	0.44	0.01	SPLITTER PIT
C01/29	NODE		0			10	0	0	0	0							GPT INLET
C01/30	GPT		0			15	0	0	0	60		2.5	C01/28	14	3.75	0.03	GPT VORTEX
C01/31	NODE		0			10	0	0	0	0							GPT OUTLET
C02/1	1.8 m lintel	0.037	95	5	5	15	20	16	4	103	1.1	3	C02/4	84	2.6	0.08	
C02/2	1.8 m lintel	0.034	95	5	5	15	18	15	4	95	1.1	3	C02/3	65	2.45	0.07	
C02/3	2.4 m lintel	0.116	85	5	5	15	65	47	17	99	1.1	3	C74/1	73	2.6	0.07	
C02/4	2.4 m lintel	0.152	85	5	5	15	84	58	26	103	1.1	3	C02/5	84	2.6	0.08	
C02/5	2.4 m lintel	0.115	85	5	5	15	84	54	30	98	1.1	3	C02/6	71	2.43	0.08	
C02/6	1.8 m lintel	0.08	85	5	5	15	71	43	28	95	1.1	3	C02/7	64	2.33	0.07	
C02/7	1.8 m lintel	0.07	85	5	5	15	64	43	21	87	1.1	3	C02/8	43	2.41	0.05	
C02/8	2.4 m lintel sag	0.066	85	5	5	15	54	54	0	97	0.6	2.2	C02/9	0	2.42	0.01	
C02/9	2.4 m lintel sag	0.149	85	5	5	10	82	69	9	98	0.1	3	C38/1	11	0	0	
C02/10	1.8 m lintel	0.005	95	5	5	15	3	2	1	88	0.7	3	C02/9	36	2.42	0.04	
C02/11	1.8 m lintel	0.005	95	5	5	15	1	1	0	94	0.7	3	C02/12	57	2.22	0.05	
C02/12	1.8 m lintel	0.107	85	5	5	15	46	34	13	83	0.7	3.7	C62/1	29	3.15	0.03	
C02/13	1.8 m lintel	0.11	85	5	5	15	58	37	20	82	0.7	3	C06/7	43	3.59	0.04	
C02/14	1.8 m lintel		0			10	0	0	0	0	0.7	3	XP81/1	0	0	0	
C02/15	1.8 m lintel	0.003	95	5	5	15	1	1	0	90	0.7	3.2	C02/16	49	2.88	0.03	
C02/16	1.8 m lintel	0.093	85	5	5	15	40	28	12	111	0.7	3	C02/17	72	4.13	0.05	
C02/17	2.4 m lintel sag	0.201	85	5	5	15	142	138	0	149	0	3	C47/1	0			
C05/1	1.8 m lintel	0.016	95	5	5	15	8	7	2	49	0.7	3	C05/2	12	1.91	0.02	
C05/2	1.8 m lintel	0.019	95	5	5	15	12	9	2	83	2.1	3	C05/3	53	1.91	0.07	
C06/1	1.8 m lintel	0.036	95	5	5	15	19	15	4	81	1.4	3	C69/1	42	2.39	0.04	
C06/2	2.4 m lintel	0.139	85	5	5	15	74	49	25	90	1.4	3	C06/3	61	2.45	0.06	
C06/3	2.4 m lintel	0.071	85	5	5	15	61	43	18	99	1.4	3	C06/4	83	2.46	0.09	
C06/4	2.4 m lintel	0.124	85	5	5	15	83	53	29	99	1.4	3	C06/5	84	2.53	0.08	
C06/5	2.4 m lintel	0.107	85	5	5	15	84	54	30	101	1.4	3	C06/6	89	2.53	0.09	
C06/6	2.4 m lintel	0.115	85	5	5	15	89	56	33	94	1.4	3	C06/7	68	3.59	0.05	
C06/7	2.4 m lintel sag	0.112	85	5	5	15	111	111	0	133	0.7	2.7	C62/1	0			
C07/1	2.4 m lintel sag	0.029	95	5	5	15	16	16	0	55	0.4	2.6	C07/4	0	0	0	
C07/2	2.4 m lintel sag	0.111	85	5	5	15	60	60	0	98	0.7	3	C07/3	2	1.92	0	
C07/3	2.4 m lintel sag	0.12	85	5	5	10	53	52	0	83	0.7	2.9	C07/4	0			
C07/4	2.4 m lintel sag	0.033	95	5	5	15	5	5	0	27	0.7	2.7	C07/5	0	1.57	0	
C07/5	1.8 m lintel	0.005	95	5	5	15	1	0	0	73	1.3	3	C07/6	28	2.34	0.03	
C07/6	1.8 m lintel	0.054	85	5	5	15	28	22	6	95	1.3	3	C07/7	72	2.54	0.07	
C07/7	2.4 m lintel	0.125	85	5	5	15	72	48	24	101	1.3	3	C07/8	88	2.56	0.09	
C07/8	2.4 m lintel	0.124	85	5	5	15	88	56	32	102	1.3	3	C07/9	90	3.5	0.09	
C07/9	1.8 m lintel	0.106	85	5	5	15	90	45	182	130	1.3	3	C07/10	196	5.62	0.1	
C07/10	2.4 m lintel sag	0.076	85	5	5	15	209	140	53	189	0.9	2.5	C07/11	104			
C07/11	2.4 m lintel sag	0.059	95	5	5	10	126	112	0	131	0.6	3	C07/12	0	2.54	0	
C07/12	1.8 m lintel	0.005	95	5	5	15	1	1	0	99	1.5	3	C07/13	73	2.46	0.07	
C07/13	2.4 m lintel	0.139	85	5	5	15	70	49	21	77	0.7	3	C08/7	44	5.67	0.04	
C08/1	2.4 m lintel	0.13	85	5	5	15	69	51	18	108	0.7	3	C66/1	80	2.95	0.07	
C08/2	2.4 m lintel	0.12	85	5	5	15	64	45	19	105	0.7	3	C08/3	74	2.9	0.06	
C08/3	1.8 m lintel	0.107	85	5	5	15	74	45	29	112	0.7	3	C08/4	91	3.61	0.08	
C08/4	2.4 m lintel	0.115	85	5	5	15	91	58	30	133	0.7	3	C08/5	158	3.72	0.1	
C08/5	2.4 m lintel	0.116	85	5	5	15	158	59	31	136	0.7	3	C08/6	170	4.42	0.11	
C08/6	1.8 m lintel	0.071	85	5	5	15	170	46	209	152	0.7	3	C08/7	228	5.67	0.09	
C08/7	2.4 m lintel sag	0.084	85	5	5	15	252	205	40	191	0.6	2.8	C08/8	47			
C08/8	2.4 m lintel sag	0.109	85	5	5	15	138	132	0	145	0.4	2.1	C08/9	0	2.56	0.01	
C08/9	1.8 m lintel	0.003	95	5	5	15	2	1	0	102	0.7	3.7	C08/10	64	2.32	0.06	
C08/10	2.4 m lintel sag	0.15	85	5	5	10	59	59	0	89	0.4	2.1	C02/15	0	2.16	0.01	
C11/5	1.8 m lintel	0.015	95	5	5	15	10	8	2	47	2	2.7	C11/6	8	1.11	0.02	
C11/6	1.8 m lintel	0.012	95	5	5	15	8	7	2	59	2	3	C07/10	22	5.62	0.04	
C12/1	2.4 m lintel	0.145	85	5	5	15	77	52	25	110	0.8	3	C12/2	88	2.81	0.08	
C12/2	2.4 m lintel	0.124	85	5	5	15	88	58	30	108	0.8	3	C12/3	84	2.75	0.08	
C12/3	1.8 m lintel	0.107	85	5	5	15	84	50	34	102	0.8	3	C12/4	93	2.56	0.09	
C12/4	2.4 m lintel	0.115	85	5	5	15	93	57	36	88	2.1	3	C12/5	75	2.85	0.07	
C12/5	2.4 m lintel sag	0.103	85	5	5	10	85	85	0	111	0.5	3.1	C02/11	0	2.28	0.01	
C13/1	1.8 m lintel	0.037	95	5	5	15	20	16	4	101	0.7	3	C13/2	64	2.63	0.06	
C13/2	2.4 m lintel	0.117	85	5	5	15	64	48	16	104	0.7	3	C13/3	71	2.86	0.06	
C13/3	1.8 m lintel	0.106	85	5	5	15	71	44	27	111	0.7	3	C13/4	87	2.86	0.08	
C13/4	2.4 m lintel	0.116	85	5	5	15	87	62	26	111	0.7	3	C13/5	86	3.34	0.07	
C13/5	2.4 m lintel sag	0.109	85	5	5	15	86	86	0	125	0.4	3.3	C42/1	0			
C13/6	1.8 m lintel		0			10	0	0	0	0	0.7	3					
C13/7	1.8 m lintel	0.107	85	5	5	15	57	37	20	97	0.7	3	C02/9	47	2.42	0.05	
C20/1	2.4 m lintel	0.122	85	5	5	15	85	59	26	82	2	3	C20/2	50	2.49	0.05	
C20/2	1.8 m lintel	0.045	85	5	5	15	50	35	15	100	1.6	3	C54/1	75	2.8	0.07	
C27/1	1.8 m lintel	0.115	85	5	5	15	81	53	29	117	0.7	3	C42/1	92	3.23	0.08	
C36/1	1.8 m lintel	0.075	85	5	5	15	91	49	30	117	0.7	3	C08/8	89	4.01	0.07	
C38/1	2.4 m lintel sag	0.065	100	5	5	10	31	26	0	55	0.1	3	LOST	0			
C39/1	2.4 m lintel sag	0.067	100	5	5	10	29	27	0	57	0.1	3	LOST	0			
C42/1	2.4 m lintel sag	0.159	85	5	5	10	92	90	0	122	0.3	2	LOST	0	0	0	
C43/1	2.4 m lintel	0.115	85	5	5	15	82	59	23	109	0.7	3	C22/1	81	3.05	0.07	
C46/1	2.4 m lintel	0.141	85	5	5	15	74	51	23	109	0.7	3	C43/1	82	2.79	0.07	
C47/1	2.4 m lintel sag	0.047	100	5	5	10	20	20	0	48	0	3	LOST	0			
C53/1	1.8 m lintel	0.045	95	5	5	15	24	19	5	75	1.3	3	C64/1	32	1.67	0.05	
C54/1	2.4 m lintel	0.116	85	5	5	15	75	51	24	109	0.7	3	C56/1	82	3.13	0.06	
C56/1	2.4 m lintel	0.115	85	5	5	15	82	55	27	119	0.7	3	C77/1	108	3.68	0.08	
C57/1	2.4 m lintel	0.107	85	5	5	15	82	53	29	101	1.4	3	C61/1	88	2.52	0.09	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
www.LDC.com.au

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE

NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 7

PROJECT No: 9985-12
SHEET No: CC18417

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18417 | B

Plotted: 8 March 2022 11:20:35 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7\A\9985-12-CC18417.dwg

DESIGN STORM 1% AEP HYDROLOGIC RESULTS

PIT NAME (-)	PIT TYPE (-)	CATCHMENT AREA (Ha)	PERCENT IMPERVIOUS (%)	Tc IMP (min)	Tc PERV (min)	CRITICAL STORM (min)	APPROACH FLOW (L/s)	CAPTURED FLOW (L/s)	UNCAPTURED FLOW (L/s)	GRATE DEPTH (mm)	ROAD GRADE (%)	ROAD CROSSFALL (%)	BYPASS PIT (-)	FLOW AT BYPASS PIT (L/s)	FLOW WIDTH AT BYPASS PIT (m)	VxD AT BYPASS PIT (m/s^2)	COMMENTS (-)
C61/1	2.4 m lintel	0.115	85	5	5	15	88	56	32	92	1.4	3	C62/1	67	3.15	0.06	
C62/1	2.4 m lintel sag	0.119	85	5	5	15	96	96	0	120	0.7	3.6	C39/1	0			
C63/1	1.8 m lintel	0.073	95	5	5	15	38	27	11	87	0.8	3	C78/1	56	2.26	0.07	
C64/1	1.8 m lintel	0.052	95	5	5	15	32	24	7	76	1.3	3	C07/11	32	3.53	0.05	
C66/1	1.8 m lintel	0.12	85	5	5	15	80	52	28	114	0.7	3	C67/1	94	3.04	0.08	
C67/1	2.4 m lintel	0.129	85	5	5	15	94	66	29	116	0.7	3	C68/1	102	3.04	0.08	
C68/1	2.4 m lintel	0.128	85	5	5	15	102	62	35	112	0.7	3	C36/1	91	3.05	0.08	
C69/1	1.8 m lintel	0.072	85	5	5	15	42	29	13	97	1.4	3	C70/1	78	2.44	0.08	
C70/1	2.4 m lintel	0.124	85	5	5	15	78	51	27	99	1.4	3	C57/1	82	2.52	0.08	
C71/1	1.8 m lintel	0.113	85	5	5	15	84	52	32	107	1.1	3	C72/1	95	4	0.07	
C72/1	2.4 m lintel sag	0.122	85	5	5	15	95	95	0	145	0.6	2.9	C02/8	3			
C74/1	1.8 m lintel	0.109	85	5	5	15	73	47	26	103	1.1	3	C71/1	84	2.73	0.08	
C77/1	2.4 m lintel sag	0.158	85	5	5	15	108	108	0	135	0.3	2.8	C08/10	0			
C78/1	2.4 m lintel sag	0.091	95	5	5	15	56	56	0	93	1.3	3.2	C12/5	2			
D01/3	1.8 m lintel	0.003	95	5	5	5	0	0	0	53	0.7	3	D01/4	10	2.12	0.01	
D01/4	1.8 m lintel	0.02	95	5	5	5	10	8	2	89	1.4	3	D01/5	60	2.38	0.06	
D04/1	1.8 m lintel	0.033	95	5	5	5	18	14	4	127	0.7	3	LOST	0	0	0	
D04/2	1.8 m lintel	0.033	95	5	5	5	17	14	3	55	0.7	3	D04/3	15	1.25	0.03	
D04/3	1.8 m lintel	0.022	95	5	5	5	15	12	3	63	0.7	3	D04/4	13	2.28	0.01	
D05/1	1.8 m lintel	0.036	95	5	5	5	19	15	4	37	0.7	3	LOST	4	0.43	0.02	
D05/2	1.8 m lintel	0.038	95	5	5	5	20	16	4	84	0.7	3	D05/3	34	1.93	0.05	
D05/3	1.8 m lintel	0.06	95	5	5	5	34	25	9	71	0.7	3	D05/4	28	1.5	0.05	
D05/4	1.8 m lintel	0.04	95	5	5	5	28	22	6	53	3.1	3	D05/5	13	0.91	0.04	
D12/1	1.8 m lintel	0.038	95	5	5	5	20	16	4	38	0.7	3	LOST	4	0.44	0.02	
D29/1	1.8 m lintel	0.048	85	5	5	5	26	20	6	79	2.8	3	D10/1	54	2.6	0.06	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 8

PROJECT No: 9985-12
SHEET No: CC18418

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18418 | B

Plotted: 8 March 2022 11:21:12 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7\H\9985-12-CC18418.dwg

DESIGN STORM 1% AEP HYDRAULIC RESULTS

PIPE NAME	PIPE DIAMETER (mm)	PIPE TYPE (-)	PIPE LENGTH (m)	PIPE GRADE (%)	CRITICAL STORM (min)	PEAK FLOW (l/s)	CAPACITY RATIO (-)	PEAK VELOCITY (m/s)	PIPE U/S IL (m)	PIPE D/S IL (m)	PIPE D/S DROP (m)	U/S PIT Ku (-)	D/S PIT Kw (-)	PIT LOSS (Ku.V'head) (m)	WSE LOSS (Kw.V'head) (m)	U/S PIPE HGL (m)	D/S PIPE HGL (m)	HGL GRADE (%)	MINIMUM COVER (m)	MINIMUM FREEBOARD (m)	COMMENTS
C01/24 to C01/25	1350	RRJ2	35.73	0.3	25	3795	1.2	2.65	13.608	13.501	0.05	2.06	2.53	0.32	0.4	16.188	16.033	0.43	2.76	1.46	
C01/25 to C01/26	1500	RRJ2	33.39	0.3	25	3808	0.91	2.16	13.451	13.35	0.05	5.24	0.06	0.03	0	16.033	15.952	0.24	3.01	2.009	
C01/26 to C01/27	1500	RRJ2	41.67	0.3	25	3826	0.91	2.16	13.3	13.175	0.05	4.16	0.24	0.06	0.06	15.925	15.791	0.32	3.16	2.109	
C01/27 to C01/28	1500	RRJ2	9.57	0.4	25	3864	0.8	2.19	13.125	13.087	0.05	1.34	1.41	0.32	0.34	15.549	15.447	1.07	3.11	1.975	
C01/28 to C01/29	1050	RRJ2	10.59	0.35	20	2204	1.26	2.55	13.037	13	0	1.5	1.5	0.5	0.5	14.952	14.893	0.56	3.67	2.3	
C01/29 to C01/30	GPT	INLET	3.72	0	10	1689	3.57	1.42	13	13	0	1.5	1.5	0.15	0.15	14.874	14.873	0.03	3.41	2.898	
C01/30 to C01/31	GPT	OUTLET	4.04	0	10	1462	3.22	1.61	13	13	0	5.6	5.6	0.43	0.43	14.802	14.801	0.02	3.4	3.013	
C02/1 to C02/2	375	RRJ2	9.43	1	15	99	0.52	1.2	17.459	17.365	0.05	0.87	0.79	0.06	0.03	18.25	18.239	0.12	1.1	0.649	
C02/2 to C02/3	375	RRJ2	34.35	1	20	144	0.76	1.37	17.315	16.971	0.05	1.74	1.98	0.17	0.17	18.178	18.087	0.26	1.14	0.643	
C02/3 to C02/4	450	RRJ2	11.61	1	20	187	0.61	1.48	16.921	16.805	0.051	1.36	1.48	0.11	0.1	18.051	18.03	0.18	1.15	0.428	
C02/4 to C02/5	525	RRJ2	32.16	1	20	230	0.49	1.47	16.755	16.433	0.03	1.45	1.53	0.2	0.08	17.995	17.949	0.14	1.1	0.407	
C02/5 to C02/6	525	RRJ2	23.12	1	10	287	0.62	1.6	16.403	16.172	0.03	0.87	1.08	0.13	0.08	17.91	17.845	0.28	1.11	0.145	
C02/6 to C02/7	525	RRJ2	18.63	1	10	355	0.76	1.77	16.142	15.955	0.064	0.66	0.7	0.1	0.09	17.796	17.712	0.45	1.13	-0.083	
C02/7 to C02/8	600	RRJ2	16.21	1	10	523	0.79	1.85	15.891	15.729	0.05	0.59	0.64	0.09	0.09	17.658	17.582	0.47	1.1	-0.08	
C02/8 to C02/9	600	RRJ2	15.73	1	10	692	1.04	2.5	15.679	15.522	0.347	0.88	0.88	0.26	0.26	17.442	17.336	0.67	1.37	-0.088	
C02/9 to C02/10	825	RRJ2	39.63	0.6	10	1118	0.93	2.17	15.174	14.936	0.03	0.55	0.55	0.14	0.12	17.251	17.092	0.4	1.65	0.364	
C02/10 to C02/11	825	RRJ2	31.02	0.6	10	1040	0.86	2.12	14.906	14.72	0.03	0.21	0.21	0.06	0.04	17.056	16.931	0.4	2.14	0.824	
C02/11 to C02/12	900	RRJ2	42.35	0.6	20	1291	0.85	2.15	14.69	14.436	0.03	2.06	2.54	0.21	0.26	16.853	16.672	0.43	2.26	1.012	
C02/12 to C02/13	900	RRJ2	29.17	0.6	20	1337	0.88	2.1	14.406	14.231	0.03	1.35	0.31	0.08	0.06	16.616	16.482	0.46	2.3	1.003	
C02/13 to C02/14	1050	RRJ2	40.89	0.6	20	1933	0.84	2.4	14.201	13.956	0.03	2.07	2.57	0.26	0.33	16.342	16.168	0.43	2.51	1.351	
C02/14 to C02/15	1050	RRJ2	30.56	0.6	20	1933	0.84	2.42	13.926	13.742	0.03	0.2	0.2	0.08	0.05	16.117	15.987	0.43	3.06	1.945	
C02/15 to C02/16	1350	RRJ2	45.4	0.6	20	3295	0.74	2.74	13.712	13.44	0.03	0.17	0.15	0.08	0.04	15.946	15.798	0.33	2.94	2.097	
C02/16 to C02/17	1350	RRJ2	25.01	0.6	20	3315	0.74	2.32	13.41	13.26	0.05	0.26	0.22	0.08	0.06	15.738	15.656	0.33	2.97	2.016	
C02/17 to C01/28	1350	RRJ2	17.48	0.6	20	3431	0.77	2.4	13.21	13.105	0.068	0.5	0.5	0.14	0.14	15.524	15.463	0.35	3.11	2.044	
C05/1 to C05/2	375	RRJ2	14.96	3.47	15	7	0.02	1.08	19.432	18.913	0.21	4.5	4.5	0.02	0	19.456	18.949	3.39	1.1	1.305	
C06/1 to C06/2	375	RRJ2	12.03	1	15	81	0.43	1.11	18.223	18.102	0.053	1.11	1.05	0.08	0.03	18.439	18.444	-0.04	1.1	1.215	
C06/2 to C06/3	375	RRJ2	20	1.16	20	126	0.61	1.34	18.05	17.818	0.048	2.09	2.06	0.16	0.13	18.35	18.288	0.31	1.1	1.137	
C06/3 to C06/4	375	RRJ2	35	1.23	20	189	0.9	1.85	17.77	17.339	0.124	1.17	1.08	0.14	0.16	18.178	17.918	0.74	1.1	1.019	
C06/4 to C06/5	450	RRJ2	30.31	1.23	20	278	0.81	2	17.215	16.842	0.116	0.95	0.95	0.17	0.15	17.816	17.621	0.64	1.1	0.91	
C06/5 to C06/6	525	RRJ2	32.2	1.24	10	340	0.65	2.02	16.726	16.327	0.051	0.85	0.85	0.17	0.09	17.544	17.381	0.51	1.1	0.792	
C06/6 to C06/7	525	RRJ2	28.17	1.19	15	429	0.84	1.98	16.276	15.942	0.05	0.77	0.65	0.16	0.12	17.283	17.057	0.8	1.1	0.591	
C06/7 to C02/13	525	RRJ2	15.31	1	15	626	1.34	2.91	15.892	15.739	1.538	1.07	1	0.34	0.42	16.751	16.482	1.76	1.33	0.55	
C07/1 to C07/2	375	RRJ2	9	2	15	24	0.09	0.78	19.149	18.969	0.05	4.5	4.5	0.11	0.01	20.127	20.126	0.01	1.1	0.459	
C07/2 to C07/3	375	RRJ2	40.33	1	10	92	0.49	1.06	18.919	18.516	0.05	7	7	0.22	0.17	20.106	20.08	0.06	1.26	0.458	
C07/3 to C07/4	375	RRJ2	9.03	2	10	123	0.46	1.44	18.466	18.285	0.05	2.19	2.59	0.17	0.16	20.046	20.032	0.16	1.64	0.363	
C07/4 to C07/5	375	RRJ2	14.99	1	10	129	0.68	1.51	18.235	18.085	0.05	0.76	0.76	0.09	0.05	20.014	19.987	0.18	1.98	0.409	
C07/5 to C07/6	375	RRJ2	23.78	1	15	142	0.75	1.38	18.035	17.798	0.03	0.59	0.59	0.09	0.05	19.972	19.929	0.18	1.97	0.489	
C07/6 to C07/7	375	RRJ2	35.71	1	25	172	0.9	1.61	17.768	17.411	0.03	1.65	2.55	0.16	0.17	19.853	19.67	0.51	1.9	0.237	
C07/7 to C07/8	375	RRJ2	34.99	1	25	204	1.08	1.85	17.381	17.031	0.03	1.37	1.24	0.13	0.1	19.605	19.348	0.73	1.83	0.031	
C07/8 to C07/9	375	RRJ2	29.08	1	15	273	1.44	2.48	17.001	16.71	0.03	1.77	1.14	0.14	0.13	19.247	18.996	0.86	1.76	-0.102	
C07/9 to C07/10	450	RRJ2	18.95	1	20	329	1.07	2.07	16.68	16.49	0.05	1.53	1.78	0.27	0.31	18.889	18.817	0.38	1.66	-0.13	
C07/10 to C07/11	450	RRJ2	9.48	1	20	377	1.22	2.37	16.44	16.345	0.05	1.5	1.5	0.34	0.41	18.533	18.457	0.8	1.76	-0.189	
C07/11 to C07/12	525	RRJ2	14.85	1	15	458	0.98	2.12	16.295	16.147	0.05	0.3	0.3	0.07	0.07	18.406	18.297	0.73	1.92	0.143	
C07/12 to C07/13	600	RRJ2	36.56	1	20	614	0.92	2.17	16.097	15.731	0.03	1.32	2.02	0.3	0.32	18.056	17.784	0.74	1.98	0.375	
C07/13 to C08/9	600	RRJ2	34.63	1	20	680	1.02	2.41	15.701	15.355	0.189	0.54	0.54	0.15	0.1	17.702	17.391	0.9	1.97	0.538	
C08/1 to C08/2	375	RRJ2	10.61	2	10	46	0.17	1	17.38	17.167	0.05	4.5	4.5	0.16	0.04	18.811	18.811	0	1.1	-0.102	
C08/2 to C08/3	375	RRJ2	30.26	1	10	88	0.46	1.08	17.117	16.815	0.03	5.29	2.42	0.17	0.08	18.773	18.691	0.27	1.25	-0.101	
C08/3 to C08/4	375	RRJ2	32.25	1	10	142	0.75	1.45	16.785	16.462	0.03	1.42	1.3	0.14	0.09	18.636	18.486	0.47	1.38	-0.112	
C08/4 to C08/5	375	RRJ2	32.72	1	10	220	1.16	1.99	16.432	16.105	0.03	1.22	1.31	0.14	0.13	18.405	18.26	0.44	1.5	-0.133	
C08/5 to C08/6	450	RRJ2	19.18	1	10	302	0.98	1.95	16.075	15.883	0.03	1.33	1.07	0.11	0.09	18.188	18.142	0.24	1.55	-0.136	
C08/6 to C08/7	525	RRJ2	20.55	1	60	435	0.93	2.01	15.853	15.648	0.05	1.58	1.75	0.25	0.28	18.047	17.996	0.25	1.56	-0.152	
C08/7 to C08/8	600	RRJ2	9.02	2	30	507	0.54	1.79	15.598	15.417	0.05	1.62	2.52	0.26	0.29	17.775	17.734	0.45	1.69	-0.191	
C08/8 to C08/9	600	RRJ2	15.15	1	20	583	0.88	2.06	15.367	15.216	0.05	1.06	1.07	0.23	0.23	17.506	17.391	0.76	2.06	0.155	
C08/9 to C08/10	675	RRJ2	36.6	1	20	1264	1.39	3.53	15.166	14.8	0.05	0.33	0.31	0.15	0.2	17.242	16.531	1.94	2.15	0.654	
C08/10 to C02/15	750	RRJ2	15.89	1	20	1368	1.13	3.1	14.75	14.591	0.878	0.82	0.84	0.39	0.4	16.188	15.987	1.26	2.5	1.34	
C11/5 to C11/6	375	RRJ2	14.48	1	10	190	1	1.78	17.519	17.375	0.05	0.76	1.01	0.11	0.11	18.54	18.472	0.47	1.64	0.958	
C11/6 to C07/12	375	RRJ2	30.49	1	10	186	0.98	1.83	17.325	17.02	0.923	0.35	0.37	0.06	0.05	18.451	18.297	0.51	1.27	0.775	
C12/1 to C12/2	375	RRJ2	34.98	1	20	52	0.28	0.93	17.87	17.52	0.03	4.5	4.5	0.15	0.05	18.315	18.302	0.04	1.1	1.052	
C12/2 to C12/3	375	RRJ2	30.23	1	10	123	0.65	1.31	17.49	17.187	0.03	2.06	3.4	0.17	0.12	18.242	18.161	0.27	1.21	0.818	
C12/3 to C12/4	375	RRJ2	32.22	1	10	152	0.8	1.6	17.157	16.835	0.03	1.34	1.41	0.14	0.12	18.098	17.936	0.5	1.22	0.726	
C12/4 to C12/5	375	RRJ2	26.85	2.05	15	185	0.68	1.78	16.805	16.256	0.05	1.42	1.31	0.16	0.14	17.843	17.612	0.86	1.11	0.498	
C12/5 to C02/11	375	RRJ2	15.16	1	20	298	1.57	2.7	16.206	16.054	1.364	1.38	1.13	0.23	0.41	17.431	16.931	3.3	1.35	0.171	
C13/1 to C13/2	375	RRJ2	34.86	1	10	64	0.34	1.22	17.17	16.822	0.097	1.95	2.19	0.11	0.04	18.513	18.503	0.03	1.1	0.167	
C13/2 to C13/3	375	RRJ2	29.49	1	10	125	0.66	1.31	16.725	16.43	0.03	1.57	1.52	0.15	0.1	18.458	18.349	0.37	1.3	-0.095	
C13/3 to C13/4	375	RRJ2	32.94	1	15	189	0.99	1.82	16.4	16.071	0.03	1.04	1.09	0.13	0.12	18.292	18.119	0.53	1.42	-0.111	
C13/4 to C13/5	450	RRJ2	27.08	1	15	265	0.86	1.79	16.041	15.77	0.05	1.09	1.08	0.14	0.11	18.049	17.945	0.38	1.46	-0.111	
C13/5 to C13/6	525	RRJ2	15.58	0.5	10	368	1.12	1.7	15.72	15.642	0.05	1.44	1.5	0.2	0.2	17.785	17.709	0.49	1.72	-0.125	
C13/6 to C13/7	525	RRJ2	41.12	0.5	15	371	1.13	1.72	15.592	15.387	0.03	0.53	0.53	0.08	0.08	17.644	17.426	0.53	1.91	0.425	
C13/7 to C02/9	600	RRJ2	30.48	0.5	15	426	0.91	1.86	15.357	15.204	0.03	5.92	0.43	0.11	0.01	17.426	17.336	0.3	1.84	0.426	
C20/1 to C20/2	375	RRJ2	12.6	1.35	20	58	0.26	1	17.383	17.212	0.05	4.5	4.5	0.16	0.06	18.318	18.316	0.02	1.1	0.59	
C20/2 to C07/12	375	RRJ2	9.23	2	20	90	0.33	1.47	17.162	16.977	0.88	2.09	4.13	0.16	0.08	18.302	18.297	0.05	1.19	0.388	
C22/1 to C13/4	375	RRJ2	12.5	2	20	47	0.18	1.19	16.605	16.355	0.315	4.5	4.5	0.16	0.04	18.154	18.119	0.28	1.1	-0.109	
C36/1 to C08/8	375	RRJ2	10.56	2	25	49	0.18	1.09	16.521	16.36	0.507	4.5	4.5	0.13	0.04	18.139	18.142	-0.03	1.1	-0.117	
C38/1 to C02/9	375	RRJ2	9	2	10	-77	-0.29	1.03	16.262	16.082	0.908	4.5	4.5	0.35	0.07	17.338	17.336	0.02	1.1	0.35	
C39/1 to C02/12	375	RRJ2	9.07	2	15	32	0.12	1.04	16.262	16.081	1.674	4.5	4.5	0.12	0.02	16.673	16.672	0.01	1.1	1.017	
C42/1 to C13/5	375	RRJ2	9.13	2	25	86	0.32	1.21	16.426	16.243	0.523	4.5	4.5	0.2	0.14	17.945	17.945	0	1.1	-0.122	
C43/1 to C13/3	375	RRJ2	11.94	2	20	48	0.18	1.15	16.837	16.599	0.198	4.5	4.5	0.16	0.04	18.362	18.349	0.11	1.1	-0.102	
C46/1 to C13/2	375	RRJ2	14.19	2	10	45	0.17	0.99	17.059	16.775	0.05	4.5	4.5	0.15	0.04	18.509	18.503	0.04	1.1	-0.097	
C47/1 to C02/17	375	RRJ2	9	2	15	19	0.07	0.99	16.262	16.082	2.872	4.5	4.5	0.08	0.01	16.287	16.15	1.52	1.1	1.333	
C53/1 to C07/6	375	RRJ2	9.01	2	15	23	0.08	0.97	18.725	18.544	0.777	4.5	4.5	0.1	0.01	19.929	19.929	0	1.1	0.242	
C54/1 to C07/13	375	RRJ2	11.05	2	20	52	0.19	1.21	16.915	16.694	0.993	4.5	4.5	0.17	0.05	17.786	17.784	0.02	1.1	0.565	
C56/1 to C08/9	375	RRJ2	12.28	2	20	56	0.21	1.25	16.681	16.436	1.27	4.5	4.5	0.17	0.06	17.395	17.391	0.03	1.1	0.723	
C57/1 to C06/5	375	RRJ2	10.68	2	15	48	0.18	0.99	17.035	16.822	0.096	4.5	4.5	0.17	0.04	17.626	17.621	0.05	1.1	0.833	
C61/1 to C06/6	375	RRJ2	10.67	2	25	57	0.21	1.02	16.594	16.381	0.105	4.5	4.5	0.17	0.06	17.386	17.381	0.05	1.1	0.629	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
www.LDC.com.au

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	LINE C01 UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
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P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 9

PROJECT No: 9985-12
SHEET No: CC18419

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18419 | C

Plotted: 18 August, 2022 3:36:59 PM File Name: J:\9985\DC\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7\H9985-12-CC18419.dwg

DESIGN STORM 1% AEP HYDRAULIC RESULTS

PIPE NAME (-)	PIPE DIAMETER (mm)	PIPE TYPE (-)	PIPE LENGTH (m)	PIPE GRADE (%)	CRITICAL STORM (min)	PEAK FLOW (L/s)	CAPACITY RATIO (-)	PEAK VELOCITY (m/s)	PIPE U/S IL (m)	PIPE D/S IL (m)	PIPE D/S DROP (m)	U/S PIT Ku (-)	D/S PIT Kw (-)	PIT LOSS (Ku.V²head) (m)	WSE LOSS (Kw.V²head) (m)	U/S PIPE HGL (m)	D/S PIPE HGL (m)	HGL GRADE (%)	MINIMUM COVER (m)	MINIMUM FREEBOARD (m)	COMMENTS
C62/1 to C06/7	375	RRJ2	9.17	2	15	90	0.34	0.82	16.158	15.975	0.081	4.5	4.5	0.15	0.15	17.069	17.057	0.13	1.1	0.397	
C63/1 to C12/2	375	RRJ2	11.07	1	20	26	0.13	0.76	17.711	17.6	0.111	4.5	4.5	0.09	0.01	18.304	18.302	0.02	1.1	0.859	
C64/1 to C07/8	375	RRJ2	10.72	2	10	33	0.12	1	17.86	17.646	0.645	4.5	4.5	0.12	0.02	19.388	19.348	0.37	1.1	-0.075	
C66/1 to C08/3	375	RRJ2	10.6	2	25	55	0.2	1.14	17.161	16.949	0.164	4.5	4.5	0.16	0.06	18.699	18.691	0.08	1.1	-0.112	
C67/1 to C08/4	375	RRJ2	10.64	2	45	49	0.18	1.17	16.942	16.729	0.297	4.5	4.5	0.17	0.05	18.482	18.486	-0.04	1.1	-0.116	
C68/1 to C08/5	375	RRJ2	10.98	2	10	54	0.2	1.17	16.716	16.496	0.421	4.5	4.5	0.16	0.06	18.261	18.26	0.01	1.1	-0.112	
C69/1 to C06/3	375	RRJ2	10.92	1	15	28	0.15	0.66	17.929	17.82	0.05	4.5	4.5	0.09	0.01	18.29	18.288	0.02	1.1	1.091	
C70/1 to C06/4	375	RRJ2	10.7	1.5	20	49	0.21	0.88	17.451	17.29	0.075	4.5	4.5	0.14	0.04	17.923	17.918	0.05	1.1	0.953	
C71/1 to C02/6	375	RRJ2	9	2	10	43	0.16	0.96	16.402	16.222	0.08	4.5	4.5	0.14	0.04	17.849	17.845	0.04	1.1	-0.097	
C72/1 to C02/8	375	RRJ2	9.18	2	25	102	0.38	1.07	16.06	15.876	0.197	4.5	4.5	0.19	0.19	17.587	17.582	0.05	1.1	-0.145	
C74/1 to C02/5	375	RRJ2	11.55	2	10	40	0.15	0.97	16.708	16.477	0.074	4.5	4.5	0.16	0.03	17.953	17.949	0.03	1.1	0.197	
C77/1 to C08/10	375	RRJ2	9.08	2	15	117	0.43	1.35	16.401	16.219	1.47	4.5	4.5	0.26	0.26	16.564	16.531	0.36	1.1	1.02	
C78/1 to C12/5	375	RRJ2	9.28	1.25	10	64	0.3	0.7	16.379	16.263	0.057	4.5	4.5	0.1	0.08	17.62	17.612	0.09	1.1	0.143	
D01/2 to D01/3	375	RRJ2	29.19	1	25	67	0.35	1.3	18.563	18.271	0.05	4.2	3.05	0.14	0.05	18.863	18.854	0.03	1.26	1.205	
D01/3 to D01/4	375	RRJ2	16.38	1	15	70	0.37	1.35	18.221	18.057	0.05	0.74	0.75	0.09	0.01	18.85	18.842	0.05	1.71	1.422	
D01/4 to D01/5	375	RRJ2	25.9	1	15	76	0.4	1.17	18.007	17.748	0.05	1.12	1.06	0.09	0.02	18.837	18.823	0.05	1.47	1.143	
D04/1 to D04/2	375	RRJ2	9.25	2	5	14	0.05	0.92	18.726	18.541	0.05	4.5	4.5	0.06	0	18.748	18.773	-0.27	1.1	1.363	
D04/2 to D04/3	375	RRJ2	15.34	1	25	30	0.16	1.01	18.491	18.338	0.132	4.73	2.89	0.1	0.01	18.769	18.768	0.01	1.15	1.414	
D04/3 to D04/4	375	RRJ2	24.3	1	15	43	0.23	1.08	18.206	17.963	0.05	2.04	1.65	0.1	0.01	18.765	18.759	0.02	1.1	0.951	
D05/1 to D05/2	375	RRJ2	9	2	15	15	0.06	0.95	18.217	18.037	0.05	4.5	4.5	0.07	0	18.241	18.097	1.6	1.1	1.357	
D05/2 to D05/3	375	RRJ2	74.97	1	25	31	0.16	1.04	17.987	17.238	0.03	3.4	3.01	0.06	0.01	18.066	17.705	0.48	1.26	1.572	
D05/3 to D05/4	375	RRJ2	52.06	1	20	77	0.4	1.42	17.208	16.687	0.03	2.67	1.82	0.11	0.04	17.691	17.665	0.05	1.24	1.434	
D05/4 to D05/5	375	RRJ2	16.49	1.74	15	100	0.4	1.43	16.657	16.37	0.084	1.28	1.21	0.13	0.04	17.652	17.633	0.12	1.11	0.632	
D12/1 to D05/3	375	RRJ2	9.3	2	15	16	0.06	0.97	17.705	17.519	0.311	4.5	4.5	0.07	0.01	17.73	17.705	0.27	1.1	1.358	
D29/1 to D05/4	375	RRJ2	10.92	2	15	22	0.08	1.04	17.006	16.788	0.131	4.5	4.5	0.09	0.01	17.665	17.665	0	1.1	0.812	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

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	AMENDMENT	DES	DRN	CKD	APR	DATE
C	LINE C62 UPDATED	DG	DG	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
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PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE CALCULATIONS
SHEET 10

PROJECT No: 9985-12
SHEET No: CC18420

AZIMUTHM.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18420 | C

Plotted: 1 June 2022 2:46:06 PM File Name: J:\9985\DOCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18420.dwg

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
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NOTE:
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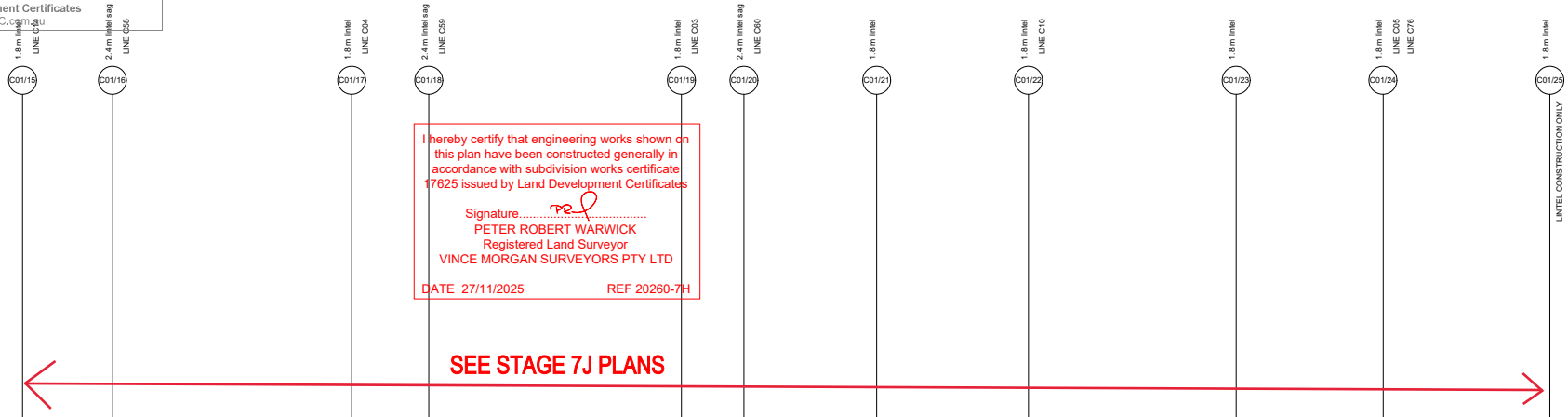

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Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

SEE STAGE 7J PLANS

DATUM (m)	9.00										
PEAK FLOW (L/s)	2038	1064	1630	1465	2535	2305	2311	2732	2748	3113	
PIPE SIZE (mm)	1200	1200	1200	1200	1200	1200	1200	1350	1350	1350	
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	
PIPE GRADE (%)	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
PIPE COVER MINIMUM	1.69	1.73	1.93	1.97	2.29	2.41	2.68	2.55	2.53	2.76	
FULL PIPE VELOCITY (m/s)	1.96	1.43	1.76	1.32	2.24	2.05	2.04	1.94	1.92	2.17	
HGL GRADE (%)	1.16	0.03	0.36	0.13	0.28	0.3	0.29	0.22	0.23	0.29	
NOTE: 10% AEP VALUES SHOWN											
WAE											
HYDRAULIC GRADE LINE	16.922	16.699 16.888	16.673 16.661	16.601 16.584	16.512 16.453	16.415 16.367	16.283 16.238	16.144 16.093	15.996 15.956	15.884 15.808	15.702
INVERT LEVEL	14.993 14.898	14.821 14.791	14.587 14.557	14.491 14.461	14.298 14.268	14.228 14.198	14.113 14.083	13.965 13.915	13.782 13.752	13.658 13.608	13.501
DESIGN SURFACE LEVEL	17.918	17.799 17.803	17.701	17.857	17.799	17.988	19.012	17.715	17.771	18.042	
ROAD CHAINAGE	1090.55	1109.81 1160.99	1177.48	1231.62	1245.00	1273.71	1307.00	1351.78	1383.17	1417.98	
PIPE CHAINAGE	349.19	368.452 419.624	436.122	490.254	503.638	532.044	564.514	609.99	640.434	676.162	

LINE C01

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES
V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	LINE C01 UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
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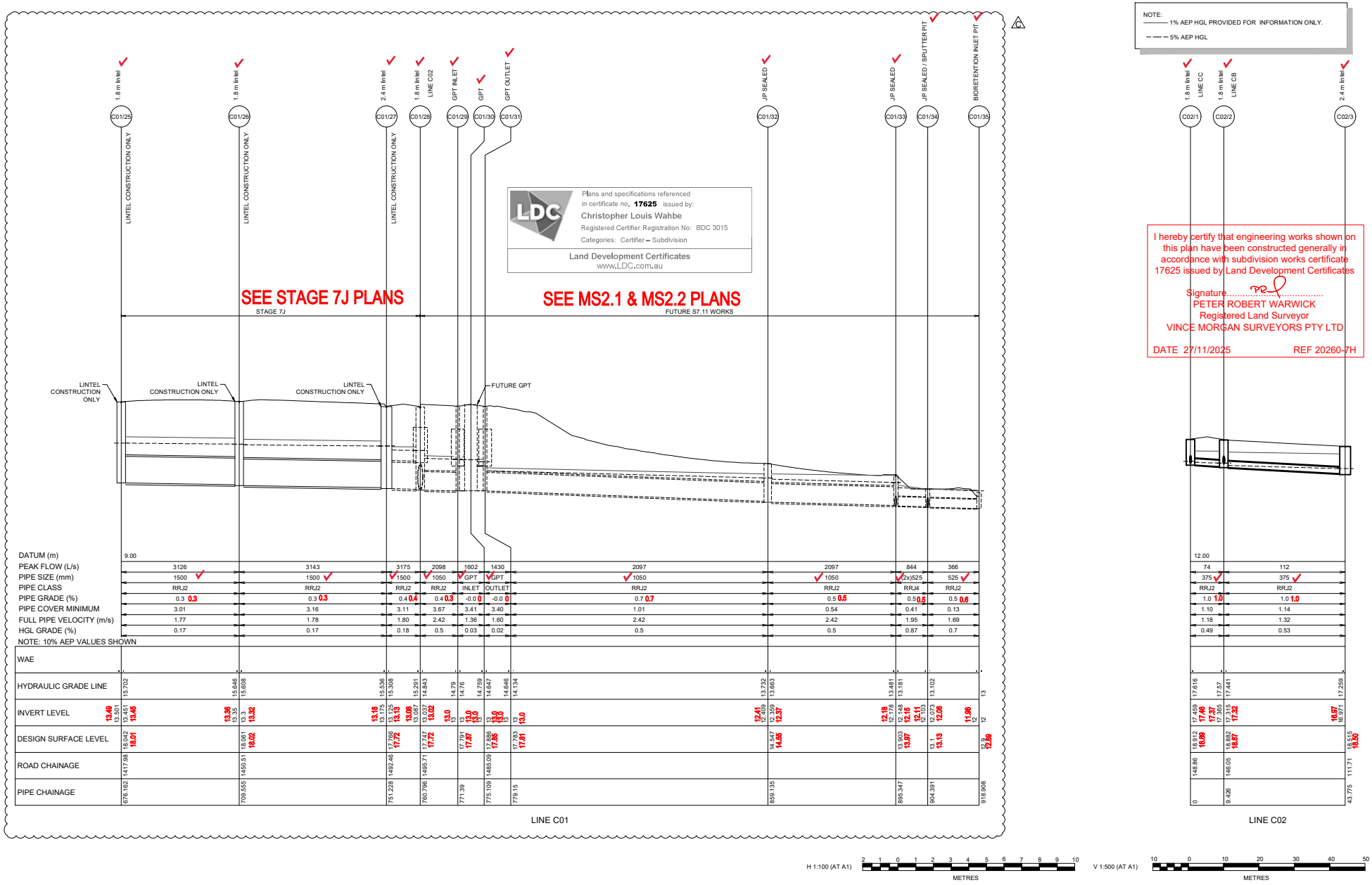
NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 1

PROJECT No: 9985-12
SHEET No: CC18450

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18450 | C

Plotted: 18 August, 2022 3:36:56 PM File Name: J:\9985\DC\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18450.dwg



Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
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Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	LINE C01 UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 2

PROJECT No: 9985-12
SHEET No: CC18451

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18451 | C

Plotted: 18 August, 2022 3:36:57 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18451.dwg

Plans and specifications referenced in certificate no. **17625** issued by:
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Registered Certifier Registration No: BDC 3015
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C02/3	C02/4	C02/5	C02/6	C02/7	C02/8	C02/9	C02/10	C02/11	C02/12	C02/13	C02/14	C02/15
2.4 m lintel ✓	2.4 m lintel ✓	2.4 m lintel LINE C74 ✓	1.8 m lintel LINE C71 ✓	1.8 m lintel LINE CD ✓	2.4 m lintel sag LINE C72 ✓	2.4 m lintel sag LINE C13 LINE C38 ✓	1.8 m lintel ✓	1.8 m lintel LINE C12 ✓	1.8 m lintel LINE C39 ✓	1.8 m lintel LINE C06 ✓	1.8 m lintel ✓	1.8 m lintel LINE C08 ✓

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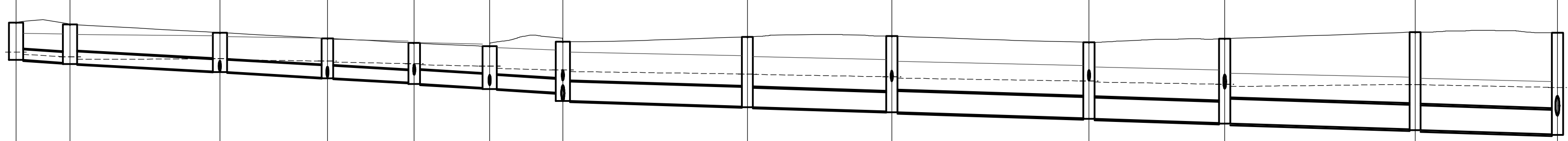
Signature..
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H



DATUM (m) 10.00

	C02/3–C02/4	C02/4–C02/5	C02/5–C02/6	C02/6–C02/7	C02/7–C02/8	C02/8–C02/9	C02/9–C02/10	C02/10–C02/11	C02/11–C02/12	C02/12–C02/13	C02/13–C02/14	C02/14–C02/15
PEAK FLOW (L/s)	152	211	280	339	470	566	1046	1048	1166	1159	1721	1683
PIPE SIZE (mm)	450 ✓	525 ✓	525 ✓	525 ✓	600 ✓	600 ✓	825 ✓	825 ✓	900 ✓	900 ✓	1050 ✓	1050 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	1.0 0.8	1.0 ✓	1.0 ✓	1.0 ✓	1.0 1.3	1.0 1.1	0.6 ✓	0.6 ✓	0.6 ✓	0.6 ✓	0.6 ✓	0.6 0.7
PIPE COVER MINIMUM	1.15	1.10	1.11	1.13	1.10	1.37	1.65	2.14	2.26	2.30	2.51	3.06
FULL PIPE VELOCITY (m/s)	1.43	1.49	1.66	1.84	1.81	2.09	2.14	2.11	2.14	2.05	2.40	2.37
HGL GRADE (%)	0.87	-0.09	0.24	0.37	0.36	0.48	0.26	0.32	0.3	0.33	-0.22	0.37

NOTE: 10% AEP VALUES SHOWN

	C02/3	C02/4	C02/5	C02/6	C02/7	C02/8	C02/9	C02/10	C02/11	C02/12	C02/13	C02/14	C02/15
WAE													
HYDRAULIC GRADE LINE	17.259 / 17.161	17.06 / 16.944	16.974 / 16.932	16.876 / 16.832	16.764 / 16.717	16.659 / 16.564	16.489 / 16.429	16.325 / 16.307	16.207 / 16.15	16.022 / 15.979	15.883 / 15.786	15.876 / 15.861	15.749
INVERT LEVEL	16.97 16.971 / 16.921 16.93	16.85 16.805 / 16.755 16.80	16.5 16.433 / 16.403 16.43	16.21 16.172 / 16.142 16.15	15.98 15.955 / 15.891 15.94	15.73 15.729 / 15.679 15.69	15.51 15.522 / 15.174 15.19	14.93 14.936 / 14.906 14.91	14.74 14.72 / 14.69 14.70	14.46 14.436 / 14.406 14.43	14.26 14.231 / 14.201 14.22	13.97 13.956 / 13.926 13.94	13.70 13.742
DESIGN SURFACE LEVEL	18.515 18.50	18.437 18.43	18.094 18.08	17.847 17.85	17.648 17.64	17.506 17.51	17.7 17.70	17.916 17.89	17.943 17.92	17.675 17.68	17.832 17.81	18.113 18.08	18.084 18.05
ROAD CHAINAGE	111.71	104.37	72.21	49.09	30.46	14.25	1794.78	1755.15	1724.13	1681.78	1652.61	1611.72	1581.17
PIPE CHAINAGE	43.775	55.384	87.549	110.67	129.299	145.51	161.236	200.868	231.885	274.237	303.402	344.294	374.851

LINE C02

H 1:100 (AT A1) METRES V 1:500 (AT A1) METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	FLOWS ON LINE C02 UPDATED	DG	DG	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
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PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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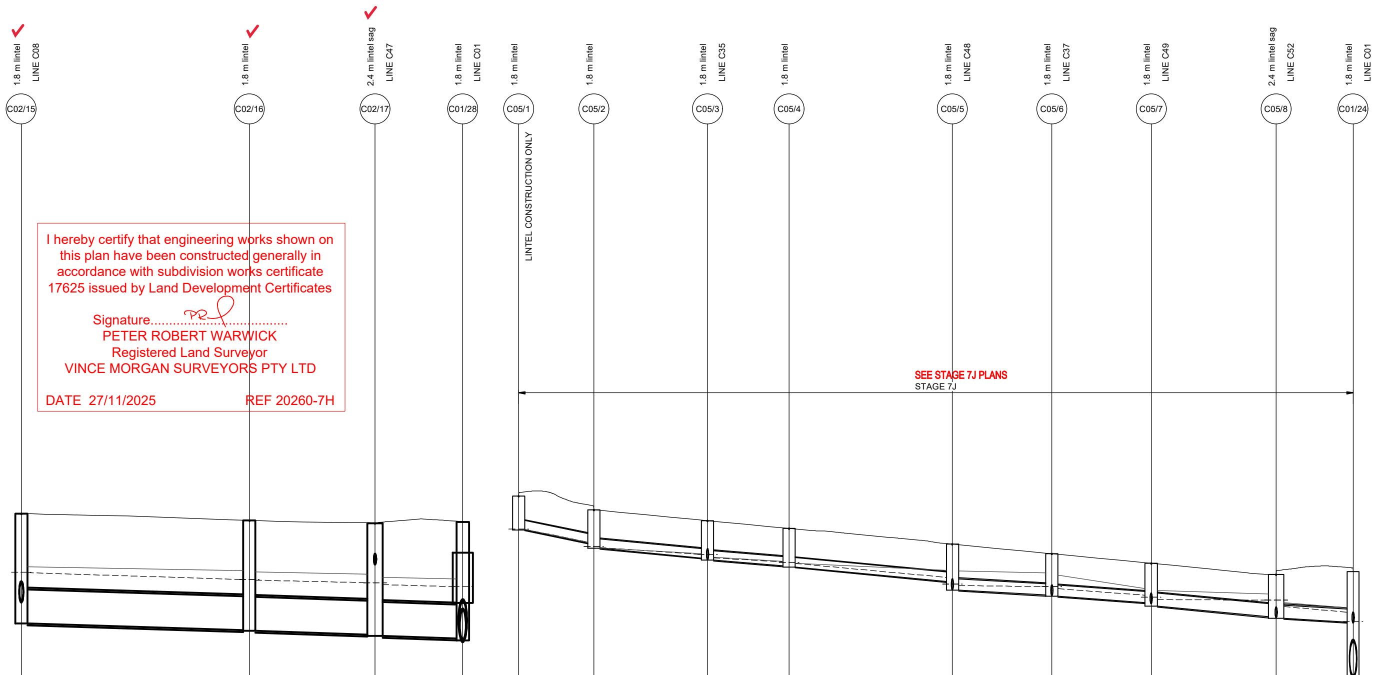
NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 3

PROJECT No: 9985-12
SHEET No: CC18452

AZIMUTHM.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18452 | C

Plotted: 1 June , 2022 2:30:06 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18452.dwg

NOTE:
——— 1% AEP HGL PROVIDED FOR INFORMATION ONLY.
— — — 5% AEP HGL



I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.......PR.......
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LINE C02

DATUM (m) 9.00

NOTE: 10% AEP VALUES SHOWN

Pipe	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
C02/15 – C02/16	2774	1350 ✓	RRJ2	0.6 ✓	2.94	2.73	0.6
C02/16 – C02/17	2794	1350 ✓	RRJ2	0.6 ✓	2.97	2.07	0.4
C02/17 – C01/28	2878	1350 ✓	RRJ2	0.6 ✓	3.11	2.01	0.47

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
C02/15		15.749 / 15.729	13.70 13.742 / 13.712 13.67	18.084 18.05	1581.17	374.851
C02/16		15.458 / 15.432	13.39 13.44 / 13.41 13.35	17.815 17.80	1535.76	420.256
C02/17		15.331 / 15.255	13.20 13.26 / 13.21 13.16	17.7 17.68	1510.71	445.268
C01/28		15.172 / 14.793	13.06 13.105 / 13.037 13.02	17.747 17.72	1495.71	462.75

LINE C05

DATUM (m) 11.00

Pipe	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
C05/1 – C05/2	6	375	RRJ2	3.5	1.10	1.05	3.4
C05/2 – C05/3	13	375	RRJ2	1.7	1.10	0.83	1.18
C05/3 – C05/4	83	375	RRJ2	1.4	1.10	1.44	0.98
C05/4 – C05/5	102	375	RRJ2	1.8	1.10	1.98	1.69
C05/5 – C05/6	171	450	RRJ2	1.0	1.18	1.63	0.22
C05/6 – C05/7	268	450	RRJ2	1.3	1.10	2.08	1.32
C05/7 – C05/8	317	525	RRJ2	1.7	1.10	1.79	0.11
C05/8 – C01/24	424	525	RRJ2	1.0	1.37	2.11	1.48

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
C05/1		19.455	19.432	20.779	513.24	0
C05/2		18.947 / 18.727	18.913 / 18.703	20.237	155.22	14.958
C05/3		18.459 / 18.32	18.315 / 18.231	19.801	132.57	37.61
C05/4		18.16 / 18.094	18.003 / 17.956	19.49	116.32	53.857
C05/5		17.544 / 17.219	17.379 / 17.034	18.865	83.81	86.368
C05/6		17.176 / 17.093	16.836 / 16.791	18.485	64.01	106.167
C05/7		16.832 / 16.66	16.537 / 16.393	18.106	44.24	125.933
C05/8		16.633 / 16.382	15.971 / 15.915	17.656	19.36	150.821
C01/24		16.156 / 15.72	15.762 / 13.608	17.771	1383.17	166.136

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au

H 1:100 (AT A1) METRES
V 1:500 (AT A1) METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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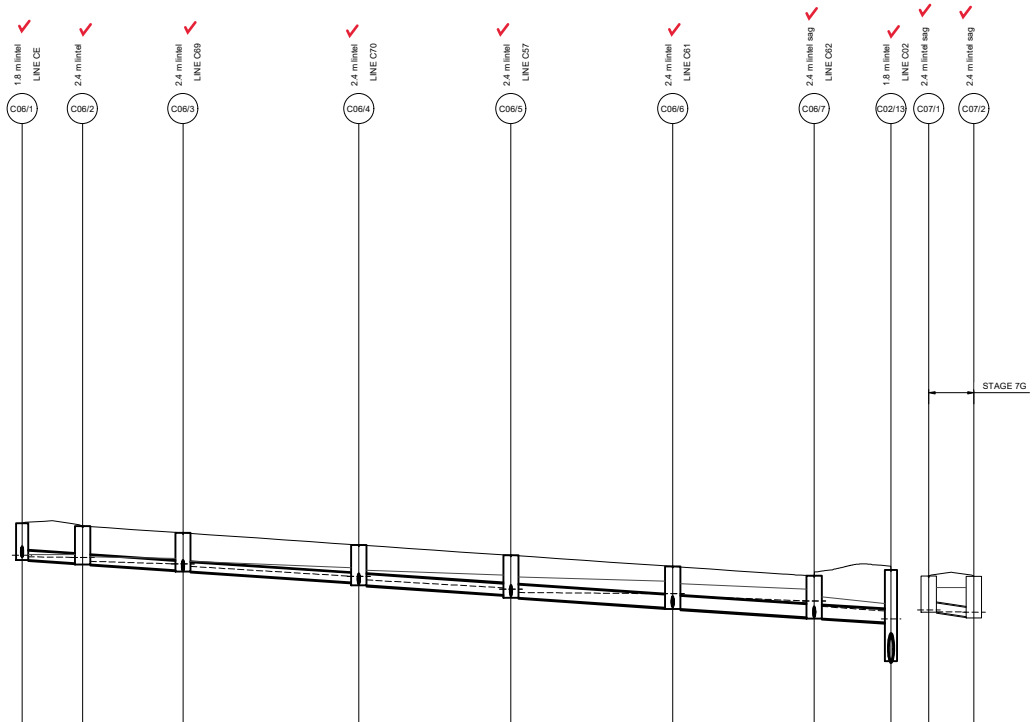
NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 4

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112

PROJECT No: 9985-12
SHEET No: CC18453
PLAN No: 9985-12-CC18453 B

NOTE:
——— 1% AEP HGL PROVIDED FOR INFORMATION ONLY.
– – – 5% AEP HGL



DATUM (m)	11.00												14.00	
PEAK FLOW (L/s)	65	108		160		242		314		389		477	18	
PIPE SIZE (mm)	375 ✓	375 ✓		375 ✓		450 ✓		525 ✓		525 ✓		525 ✓	375 ✓	
PIPE CLASS	RRJ2	RRJ2		RRJ2		RRJ2		RRJ2		RRJ2		RRJ2	RRJ2	
PIPE GRADE (%)	1.0 **0.7**	1.2 **1.2**		1.2 **1.3**		1.2 **1.2**		1.2 **1.2**		1.2 **1.3**		1.0 **1.0**	2.0 **2.5**	
PIPE COVER MINIMUM	1.10	1.10		1.10		1.10		1.10		1.10		1.33	1.10	
FULL PIPE VELOCITY (m/s)	1.03	1.36		1.86		2.00		2.08		1.80		2.26	0.80	
HGL GRADE (%)	0.17	0.54		1.12		1.05		0.15		0.69		1.21	0.03	
NOTE: 10% AEP VALUES SHOWN														
WAE														
HYDRAULIC GRADE LINE	18.354	18.333	18.178	18.07	17.975	17.583	17.439	17.121	16.935	16.687	16.796	16.602	16.392	16.197	15.786	19.162	19.159
INVERT LEVEL	18.223 **18.03**	**18.13** 18.102	18.05 **18.10**	**17.88** 17.858	17.77 **17.81**	**17.35** 17.339	17.215 **17.25**	**16.85** 16.842	16.726 **16.73**	**16.34** 16.327	16.276 **16.29**	**15.94** 15.924	15.862 **15.91**	**15.78** 15.759	14.201 **14.22**	19.149 **19.13**	**18.91** 18.969
DESIGN SURFACE LEVEL	19.68 **19.68**	19.981 **19.57**	19.307 **19.30**	19.828 **17.82**	18.413 **18.45**	17.972 **17.97**	17.607 **17.60**	17.812 **17.82**	20.949 **20.95**	20.985 **20.99**							
ROAD CHAINAGE	167.98	160.00	140.00	105.00	74.69	42.50	14.33	1652.61	55.95	55.92							
PIPE CHAINAGE	0	12.032	32.032	67.032	97.338	129.534	157.702	173.015	0	9							

LINE C06 LINE C07

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
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VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC
Plans and specifications referenced in certificate no. **17625** issued by:
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Categories: Certifier – Subdivision
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H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES
V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 5

PROJECT No: 9985-12
SHEET No: CC18454

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18454 | B

Plotted: 8 March 2022 11:20:33 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCT\9.18 - Precinct 7H\9985-12-CC18454.dwg

Plans and specifications referenced in certificate no. **17625** issued by:
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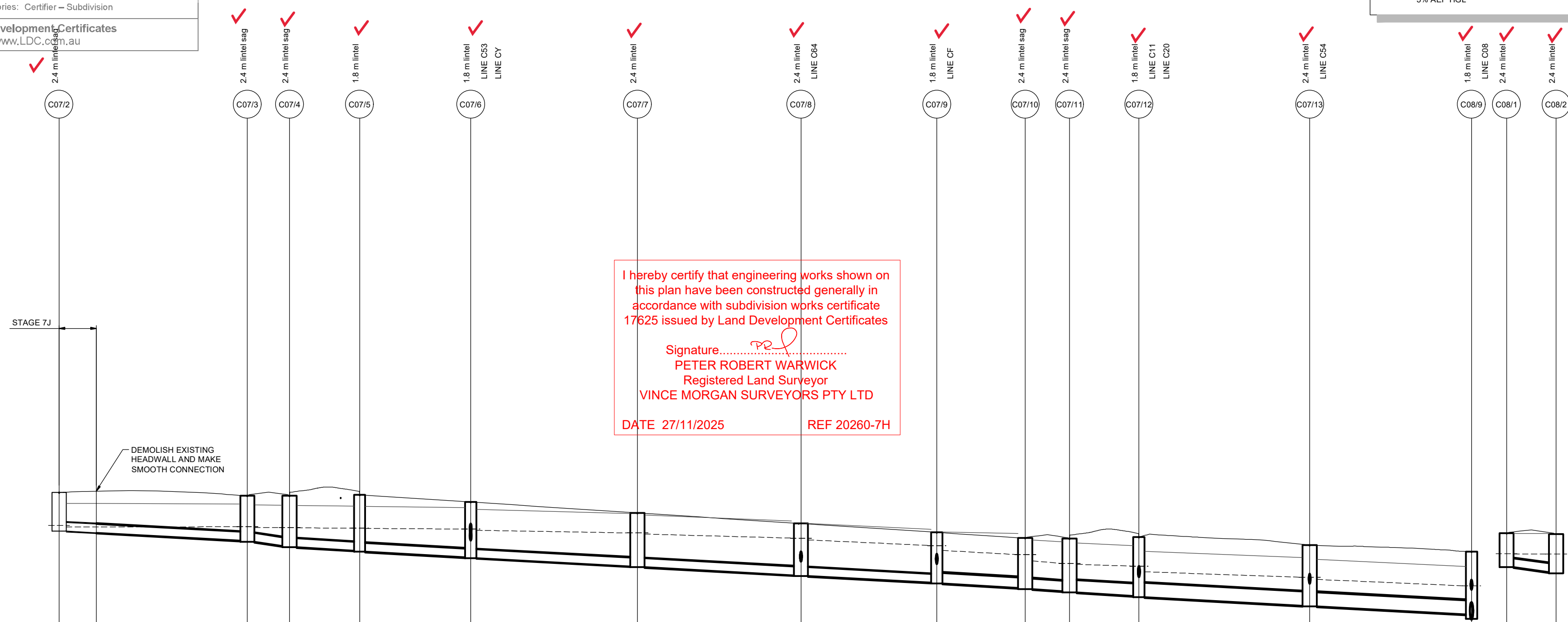

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Signature................................
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

DATUM (m) 12.00

Pipe	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
C07/2 – C07/3	75	375	RRJ2	1.0	1.26	1.09	-0.02
C07/3 – C07/4	102	375	RRJ2	2.0 2.1	1.64	1.43	0.08
C07/4 – C07/5	108	375	RRJ2	1.0	1.98	1.47	0.11
C07/5 – C07/6	114	375	RRJ2	1.0	1.97	1.28	0.11
C07/6 – C07/7	149	375	RRJ2	1.0 1.1	1.90	1.52	0.32
C07/7 – C07/8	178	375	RRJ2	1.0	1.83	1.62	0.5
C07/8 – C07/9	245	375	RRJ2	1.0	1.76	2.22	0.84
C07/9 – C07/10	304	450	RRJ2	1.0	1.66	1.91	0.96
C07/10 – C07/11	346	450	RRJ2	1.0	1.76	2.17	1.1
C07/11 – C07/12	393	525	RRJ2	1.0	1.92	1.88	0.53
C07/12 – C07/13	542	600	RRJ2	1.0	1.98	2.00	0.65
C07/13 – C08/9	604	600	RRJ2	1.0	1.97	2.24	0.82
C08/1 – C08/2 (DATUM 12.00)	46	375	RRJ2	2.0	1.10	1.00	0.02

NOTE: 10% AEP VALUES SHOWN

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
C07/2		19.159 / 19.098	18.91 18.969 / 18.919 18.89	20.585 20.59	55.92	9
STAGE 7J						17
C07/3		19.108 / 19.078	18.52 18.516 / 18.466 18.44	20.443 20.42	15.59	49.332
C07/4		19.071 / 19.06	18.26 18.285 / 18.235 18.22	20.442 20.42	14.86	58.361
C07/5		19.044 / 19.035	18.07 18.085 / 18.035 18.01	20.476 20.48	567.29	73.348
C07/6		19.008 / 18.957	17.79 17.798 / 17.768 17.76	20.166 20.17	591.08	97.13
C07/7		18.841 / 18.795	17.38 17.411 / 17.381 17.35	19.701 19.68	626.78	132.836
C07/8		18.62 / 18.546	17.02 17.031 / 17.001 17.00	19.246 19.21	661.77	167.829
C07/9		18.303 / 18.093	16.71 16.71 / 16.68 16.68	18.867 18.85	690.86	196.913
C07/10		17.911 / 17.641	16.47 16.49 / 16.44 16.40	18.628 18.61	709.81	215.866
C07/11		17.537 / 17.499	16.30 16.345 / 16.295 16.26	18.6 18.59	712.78	225.342
C07/12		17.42 / 17.182	16.12 16.147 / 16.097 16.05	18.673 18.62	122.95	240.197
C07/13		16.943 / 16.854	15.71 15.731 / 15.701 15.76	18.322 18.29	86.29	276.752
C08/9		16.571 / 16.439	15.20 15.355 / 15.166 15.15	18.045 18.02	51.65	311.386
C08/1		17.935	17.38 17.38	18.83 18.82	73.53	0
C08/2		17.933	17.17 17.167	18.791 18.78	79.16	10.614

LINE C07

LINE C08

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

Plotted: 8 March , 2022 11:20:33 AM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18455.dwg

	AMENDMENT	DES	DRN	CKD	APR	DATE
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 6

PROJECT No: 9985-12
SHEET No: CC18455

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18455 | B

Plans and specifications referenced in certificate no. **17625** issued by:
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Signature...
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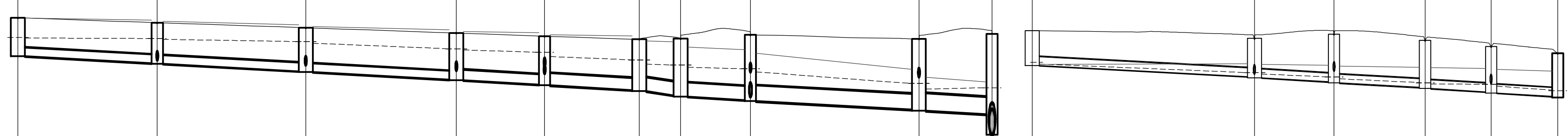
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

Pit	Notes
C08/2	2.4 m lintel
C08/3	1.8 m lintel, LINE C66
C08/4	2.4 m lintel, LINE C67
C08/5	2.4 m lintel, LINE C68
C08/6	1.8 m lintel, LINE C36, LINE CN
C08/7	2.4 m lintel sag
C08/8	2.4 m lintel sag
C08/9	1.8 m lintel, LINE C07, LINE C56
C08/10	2.4 m lintel sag, LINE C77
C02/15	1.8 m lintel, LINE C02
C11/1	2.4 m lintel sag
C11/2	2.4 m lintel sag, LINE C82
C11/3	1.8 m lintel, LINE C41
C11/4	1.8 m lintel
C11/5	1.8 m lintel, LINE C55
C11/6	1.8 m lintel

STAGE 7G



LINE C08

DATUM (m) 10.00

	C08/2–C08/3	C08/3–C08/4	C08/4–C08/5	C08/5–C08/6	C08/6–C08/7	C08/7–C08/8	C08/8–C08/9	C08/9–C08/10	C08/10–C02/15
PEAK FLOW (L/s)	87	136	205	276	396	426	458	1088	1270
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	450 ✓	525 ✓	600 ✓	600 ✓	675 ✓	750 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	1.0 ✓	1.0 1.1	1.0 ✓	1.0 1.1	1.0 0.6	2.0 0.6	1.0 1.1	1.0 ✓	1.0 0.9
PIPE COVER MINIMUM	1.25	1.38	1.50	1.55	1.56	1.69	2.06	2.15	2.50
FULL PIPE VELOCITY (m/s)	1.16	1.39	1.85	1.84	1.83	1.51	1.62	3.04	2.93
HGL GRADE (%)	0.08	0.3	0.74	0.52	0.7	0.39	0.45	1.4	-0.4

NOTE: 10% AEP VALUES SHOWN

	C08/2	C08/3	C08/4	C08/5	C08/6	C08/7	C08/8	C08/9	C08/10	C02/15
WAE										
HYDRAULIC GRADE LINE	17.933 / 17.912	17.888 / 17.852	17.756 / 17.685	17.443 / 17.391	17.291 / 17.102	16.958 / 16.772	16.737 / 16.639	16.571 / 16.439	15.928 / 15.686	15.749 / 15.729
INVERT LEVEL	17.17 17.167 / 17.117 17.12	16.84 16.815 / 16.785 16.76	16.42 16.462 / 16.432 16.39	16.09 16.105 / 16.075 16.05	15.84 15.883 / 15.853 15.81	15.67 15.648 / 15.598 15.66	15.61 15.417 / 15.367 16.53	15.36 15.216 / 15.166 15.15	14.79 14.8 / 14.75 14.73	14.59 14.591 / 13.712 13.67
DESIGN SURFACE LEVEL	18.791 18.78	18.579 18.54	18.353 18.32	18.124 18.10	17.99 17.97	17.855 17.83	17.889 17.87	18.045 18.02	17.871 17.84	18.084 18.05
ROAD CHAINAGE	79.16	109.42	141.67	174.39	193.57	214.13	214.72	51.65	15.05	1581.17
PIPE CHAINAGE	10.614	40.878	73.129	105.85	125.031	145.584	154.603	169.754	206.358	222.248

LINE C08

LINE C11

DATUM (m) 12.00

	C11/1–C11/2	C11/2–C11/3	C11/3–C11/4	C11/4–C11/5	C11/5–C11/6
PEAK FLOW (L/s)	41	97	111	117	162
PIPE SIZE (mm)	375	375	375	375	375
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	1.0	1.0	1.0	1.0	1.0
PIPE COVER MINIMUM	1.10	1.46	1.81	1.73	1.64
FULL PIPE VELOCITY (m/s)	1.04	1.49	1.56	1.45	1.63
HGL GRADE (%)	0.77	0.73	0.86	0.1	1.21

	C11/1	C11/2	C11/3	C11/4	C11/5	C11/6
WAE						
HYDRAULIC GRADE LINE	18.778	18.406 / 18.345	18.218 / 18.139	17.969 / 17.911	17.897 / 17.816	17.641
INVERT LEVEL	18.716	18.234 / 18.184	18.01 / 17.96	17.763 / 17.713	17.569 / 17.519	17.375
DESIGN SURFACE LEVEL	20.23	19.896	20.078	19.811	19.537	19.247
ROAD CHAINAGE	1075.00	1122.96	200.88	182.56	168.33	153.73
PIPE CHAINAGE	0	48.256	65.563	85.333	99.67	114.146

LINE C11

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 7

PROJECT No: 9985-12
SHEET No: CC18456

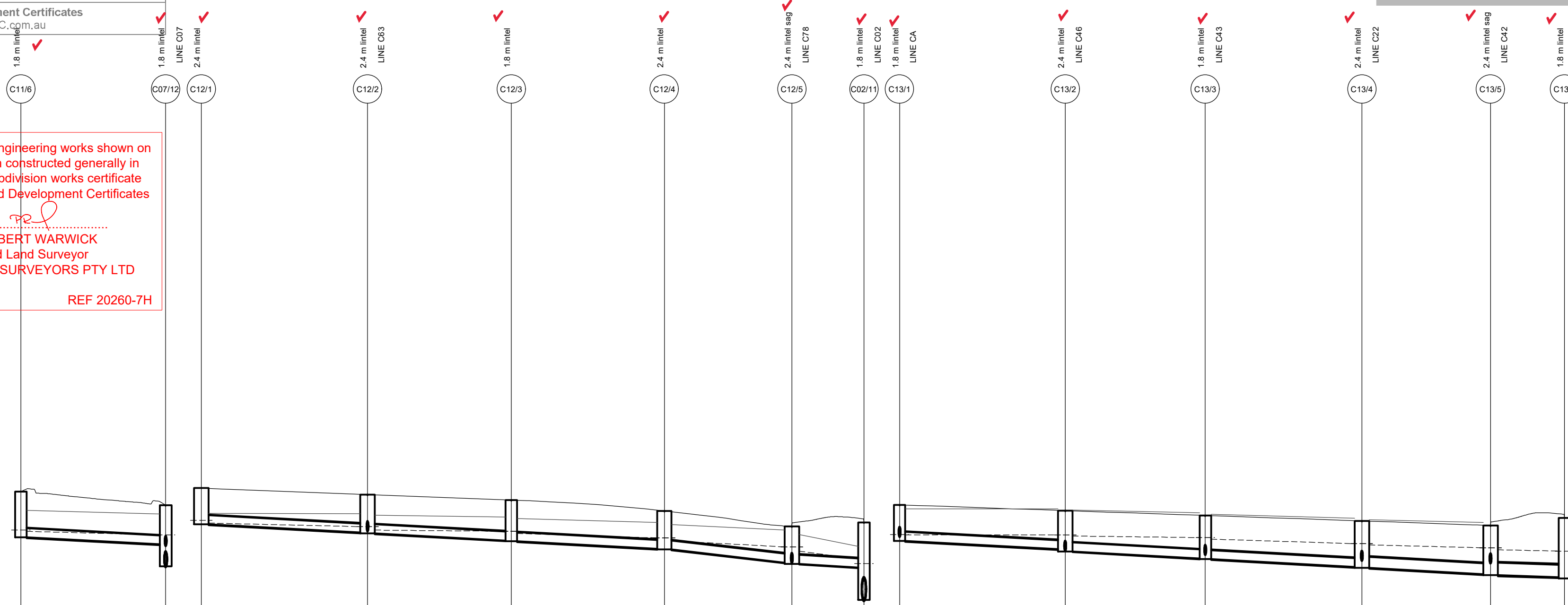
AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18456 | B

NOTE:
—— 1% AEP HGL PROVIDED FOR INFORMATION ONLY.
– – – 5% AEP HGL

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature..................................
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H



NOTE: 10% AEP VALUES SHOWN

LINE C11

	C11/6 – C07/12
DATUM (m)	11.00
PEAK FLOW (L/s)	171
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	1.0 1.0
PIPE COVER MINIMUM	1.27
FULL PIPE VELOCITY (m/s)	1.83
HGL GRADE (%)	0.51

	C11/6	C07/12
WAE		
HYDRAULIC GRADE LINE	17.641 / 17.574	17.42 / 17.182
INVERT LEVEL	17.33 17.375 / 17.325 17.31	17.00 17.02 / 16.097 16.05
DESIGN SURFACE LEVEL	19.247 19.24	18.673 18.62
ROAD CHAINAGE	153.73	122.95
PIPE CHAINAGE	114.146	144.64

LINE C12

	C12/1 – C12/2	C12/2 – C12/3	C12/3 – C12/4	C12/4 – C12/5	C12/5 – C02/11
DATUM (m)	11.00				
PEAK FLOW (L/s)	49	122	150	184	256
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	1.0 ✓	1.0 ✓	1.0 ✓	2.0 ✓	1.0 1.4
PIPE COVER MINIMUM	1.10	1.21	1.22	1.11	1.35
FULL PIPE VELOCITY (m/s)	0.95	1.36	1.64	1.73	2.35
HGL GRADE (%)	0.43	0.16	0.58	0.94	2.2

	C12/1	C12/2	C12/3	C12/4	C12/5	C02/11
WAE						
HYDRAULIC GRADE LINE	17.919	17.769 / 17.623	17.574 / 17.482	17.295 / 17.167	16.915 / 16.737	16.404 / 16.15
INVERT LEVEL	17.87 17.86	17.53 17.52 / 17.49 17.50	17.22 17.187 / 17.157 17.18	16.86 16.835 / 16.805 16.82	16.27 16.256 / 16.206 16.22	16.01 16.054 / 14.69 14.71
DESIGN SURFACE LEVEL	19.391 19.39	19.12 19.11	18.886 18.88	18.435 18.43	17.784 17.79	17.943 17.92
ROAD CHAINAGE	138.53	103.55	73.32	41.09	14.25	1724.13
PIPE CHAINAGE	0	34.984	65.212	97.435	124.284	139.446

LINE C13

	C13/1 – C13/2	C13/2 – C13/3	C13/3 – C13/4	C13/4 – C13/5	C13/5 – C13/6
DATUM (m)	11.00				
PEAK FLOW (L/s)	52	122	173	245	324
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	450 ✓	525 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	1.0 ✓	1.0 1.1	1.0 1.1	1.0 1.1	0.5 0.6
PIPE COVER MINIMUM	1.10	1.30	1.42	1.46	1.72
FULL PIPE VELOCITY (m/s)	1.19	1.32	1.68	1.66	1.56
HGL GRADE (%)	0.01	0.23	0.59	0.44	0.35

	C13/1	C13/2	C13/3	C13/4	C13/5	C13/6
WAE						
HYDRAULIC GRADE LINE	17.424	17.42 / 17.376	17.309 / 17.247	17.052 / 16.997	16.877 / 16.794	16.74
INVERT LEVEL	17.17 17.21	16.85 16.822 / 16.725 16.78	16.44 16.43 / 16.4 16.42	16.07 16.071 / 16.041 16.05	15.75 15.77 / 15.72 15.72	15.62 15.642
DESIGN SURFACE LEVEL	18.689 18.67	18.445 18.44	18.238 18.22	18.008 18.01	17.823 17.84	18.135 18.10
ROAD CHAINAGE	138.62	103.76	74.27	41.33	14.25	1866.37
PIPE CHAINAGE	0	34.864	64.35	97.294	124.374	139.951

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 8

PROJECT No: 9985-12
SHEET No: CC18457

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18457 | B

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

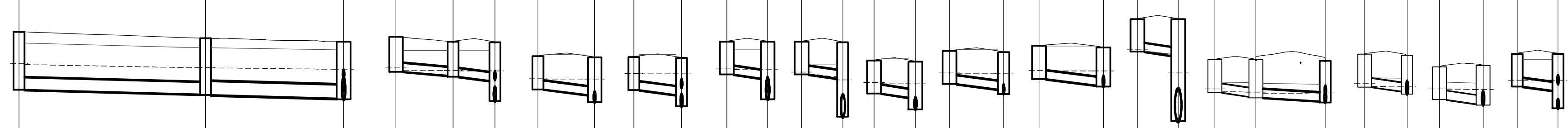
Signature..................................
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

NOTE:
——— 1% AEP HGL PROVIDED FOR INFORMATION ONLY.
— — — 5% AEP HGL

C13/6 (1.8 m lintel), C13/7 (1.8 m lintel), C02/9 (2.4 m lintel sag, LINE C02), C20/1 (2.4 m lintel), C20/2 (1.8 m lintel), C07/12 (1.8 m lintel, LINE C07), C22/1 (1.8 m lintel), C13/4 (2.4 m lintel, LINE C13), C36/1 (1.8 m lintel), C08/6 (1.8 m lintel, LINE C08), C38/1 (2.4 m lintel sag), C02/9 (2.4 m lintel sag, LINE C02), C39/1 (2.4 m lintel sag), C02/12 (1.8 m lintel, LINE C02), C42/1 (2.4 m lintel sag), C13/5 (2.4 m lintel sag, LINE C13), C43/1 (2.4 m lintel), C13/3 (1.8 m lintel, LINE C13), C46/1 (2.4 m lintel), C13/2 (2.4 m lintel, LINE C13), C47/1 (2.4 m lintel sag), C02/17 (2.4 m lintel sag, LINE C02), C48/1 (2.4 m lintel sag), C48/2 (2.4 m lintel sag), C05/5 (1.8 m lintel, LINE C05), C49/1 (2.4 m lintel), C05/7 (1.8 m lintel, LINE C05), C52/1 (2.4 m lintel sag), C05/8 (2.4 m lintel sag, LINE C05), C53/1 (1.8 m lintel), C07/6 (1.8 m lintel, LINE C07)

STAGE 7J



NOTE: 10% AEP VALUES SHOWN

LINE	Pipe	DATUM (m)	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
LINE C13	C13/6 – C13/7	10.00	337	525	RRJ2	0.5	1.91	1.63	0.35
LINE C13	C13/7 – C02/9		404	600	RRJ2	0.5	1.84	1.72	0.2
LINE C20	C20/1 – C20/2	11.00	46	375	RRJ2	1.4 1.6	1.10	1.02	-0.09
LINE C20	C20/2 – C07/12		68	375	RRJ2	2.0 1.8	1.19	1.40	-0.04
LINE C22	C22/1 – C13/4	11.00	38	375	RRJ2	2.0 2.1	1.10	1.17	0.02
LINE C36	C36/1 – C08/6	11.00	33	375	RRJ2	2.0 2.4	1.10	1.05	0.02
LINE C38	C38/1 – C02/9	10.00	28	375	RRJ2	2.0 1.7	1.10	0.98	-0.03
LINE C39	C39/1 – C02/12	10.00	20	375	RRJ2	2.0 2.9	1.10	1.00	1.51
LINE C42	C42/1 – C13/5	11.00	48	375	RRJ2	2.0 1.9	1.10	1.16	0.03
LINE C43	C43/1 – C13/3	11.00	41	375	RRJ2	2.0 1.8	1.10	1.11	0.03
LINE C46	C46/1 – C13/2	11.00	47	375	RRJ2	2.0 1.8	1.10	1.02	0.03
LINE C47	C47/1 – C02/17	9.00	13	375	RRJ2	2.0 1.8	1.10	0.93	1.63
LINE C48	C48/1 – C48/2	12.00	50	375	RRJ2	2.0	1.10	1.03	0.19
LINE C48	C48/2 – C05/5		66	375	RRJ2	1.0	1.45	1.15	-0.03
LINE C49	C49/1 – C05/7	11.00	33	375	RRJ2	2.0	1.10	1.01	0.19
LINE C52	C52/1 – C05/8	11.00	55	375	RRJ2	2.0	1.10	0.81	0.08
LINE C53	C53/1 – C07/6	13.00	18	375	RRJ2	2.0 1.5	1.10	0.97	0

LINE	Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
LINE C13	C13/6		16.74 / 16.696	15.62 / 15.642 / 15.592 / 15.57	18.135 / 18.10	1866.37	139.951
LINE C13	C13/7		16.551	15.37 / 15.387 / 15.357 / 15.34	17.852 / 17.83	1825.26	181.067
LINE C13	C02/9		16.489 / 16.429	15.22 / 15.204 / 15.174 / 15.19	17.7 / 17.70	1794.78	211.544
LINE C20	C20/1		17.43	17.383 / 17.37	18.925 / 18.89	137.49	0
LINE C20	C20/2		17.441 / 17.416	17.17 / 17.212 / 17.162 / 17.11	18.703 / 18.68	125.00	12.598
LINE C20	C07/12		17.42 / 17.182	16.95 / 16.977 / 16.097 / 16.04	18.673 / 18.62	122.95	21.829
LINE C22	C22/1		17.055	16.605 / 16.62	18.069 / 18.5	50.00	0
LINE C22	C13/4		17.052 / 16.997	16.37 / 16.355 / 16.041 / 16.08	18.008 / 18.01	41.33	12.5
LINE C36	C36/1		17.293	16.571 / 16.57	18.028 / 18.00	188.05	0
LINE C36	C08/6		17.291 / 17.102	16.34 / 16.36 / 15.853 / 15.81	17.99 / 17.98	193.57	10.559
LINE C38	C38/1		16.486	16.262 / 16.25	17.7 / 17.67	1794.78	0
LINE C38	C02/9		16.489 / 16.429	16.11 / 16.082 / 15.174 / 15.19	17.7 / 17.7	1794.78	9
LINE C39	C39/1		16.287	16.262 / 16.27	17.7 / 17.67	1680.68	0
LINE C39	C02/12		16.15 / 15.979	16.03 / 16.081 / 14.406 / 14.43	17.675 / 17.67	1681.78	9.067
LINE C42	C42/1		16.88	16.426 / 16.42	17.875 / 17.87	15.80	0
LINE C42	C13/5		16.877 / 16.794	16.26 / 16.243 / 15.72 / 15.72	17.823 / 17.84	14.25	9.134
LINE C43	C43/1		17.312	16.837 / 16.84	18.293 / 18.28	82.11	0
LINE C43	C13/3		17.309 / 17.247	16.62 / 16.599 / 16.4 / 16.42	18.238 / 18.22	74.27	11.937
LINE C46	C46/1		17.424	17.059 / 17.03	18.522 / 18.52	114.73	0
LINE C46	C13/2		17.42 / 17.376	16.79 / 16.775 / 16.725 / 16.78	18.445 / 18.44	103.76	14.189
LINE C47	C47/1		16.286	16.262 / 16.2	17.7 / 17.68	1510.71	0
LINE C47	C02/17		16.139 / 15.255	16.05 / 16.082 / 13.21 / 13.14	17.7 / 17.68	1510.71	9
LINE C48	C48/1		17.503	17.468	18.907	16.20	0
LINE C48	C48/2		17.486 / 17.438	17.287 / 17.237	18.906	15.59	9.021
LINE C48	C05/5		17.442 / 17.427	17.084 / 17.034	18.865	83.81	24.353
LINE C49	C49/1		16.73	16.707	18.154	46.75	0
LINE C49	C05/7		16.712 / 16.59	16.52 / 16.394	18.106	44.24	9.344
LINE C52	C52/1		16.611	16.157	17.598	16.00	0
LINE C52	C05/8		16.603 / 16.367	15.965 / 15.915	17.654	19.36	9.606
LINE C53	C53/1		19.008	18.725 / 18.60	20.173 / 20.17	590.60	0
LINE C53	C07/6		19.008 / 18.957	18.48 / 18.544 / 17.768 / 17.77	20.166 / 20.15	591.08	9.013

LINE C13 LINE C20 LINE C22 LINE C36 LINE C38 LINE C39 LINE C42 LINE C43 LINE C46 LINE C47 LINE C48 LINE C49 LINE C52 LINE C53

H 1:100 (AT A1) METRES
V 1:500 (AT A1) METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 9

AZIMUTH:M.G.A.94 DATUM:A.H.D. ORIGIN:SSM 1112

PROJECT No: 9985-12
SHEET No: CC18458
PLAN No: 9985-12-CC18458 B

Plotted: 8 March , 2022 11:21:10 AM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18458.dwg

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au

NOTE:
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– — – 5% AEP HGL

Pit	Note
C54/1	2.4 m lintel
C07/13	2.4 m lintel, LINE C07
C56/1	2.4 m lintel
C08/9	1.8 m lintel, LINE C08
C57/1	2.4 m lintel
C06/5	2.4 m lintel, LINE C06
C61/1	2.4 m lintel
C06/6	2.4 m lintel, LINE C06
C62/1	2.4 m lintel sag
C06/7	2.4 m lintel sag, LINE C06
C63/1	1.8 m lintel
C12/2	2.4 m lintel, LINE C12
C64/1	1.8 m lintel
C07/8	2.4 m lintel, LINE C07
C66/1	1.8 m lintel
C08/3	1.8 m lintel, LINE C08
C67/1	2.4 m lintel
C08/4	2.4 m lintel, LINE C08
C68/1	2.4 m lintel
C08/5	2.4 m lintel, LINE C08
C69/1	1.8 m lintel
C06/3	2.4 m lintel, LINE C06
C70/1	2.4 m lintel
C06/4	2.4 m lintel, LINE C06
C71/1	1.8 m lintel
C02/6	1.8 m lintel, LINE C02
C72/1	2.4 m lintel sag
C02/8	2.4 m lintel sag, LINE C02
C74/1	1.8 m lintel
C02/5	2.4 m lintel, LINE C02
C76/1	2.4 m lintel sag
C76/2	1.8 m lintel
C01/24	1.8 m lintel, LINE C01
C77/1	2.4 m lintel sag
C08/10	2.4 m lintel sag, LINE C08
C78/1	2.4 m lintel sag
C12/5	2.4 m lintel sag, LINE C12

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature...................................
PETER ROBERT WARWICK
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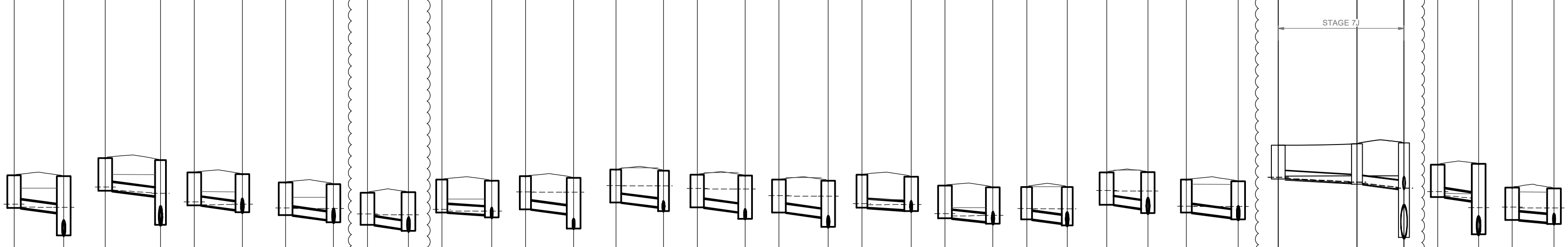
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H



NOTE: 10% AEP VALUES SHOWN

LINE	DATUM (m)	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
LINE C54	11.00	42	375 ✓	RRJ2	2.0 1.8	1.10	1.18	0.05		16.948 / 16.943 / 16.854	16.915 16.93 / 16.74 16.694 / 15.701 15.56	18.367 18.35 / 18.322 18.29	92.69 / 86.29	0 / 11.047
LINE C56	10.00	41	375 ✓	RRJ2	2.0 1.8	1.10	1.20	1.18		16.716 / 16.571 / 16.439	16.681 16.65 / 16.45 16.436 / 15.166 15.15	18.138 18.13 / 18.045 18.02	60.00 / 51.65	0 / 12.276
LINE C57	11.00	39	375 ✓	RRJ2	2.0 1.9	1.10	0.97	-0.19		17.053 / 17.073 / 16.935	17.035 17.06 / 16.86 16.822 / 16.726 16.73	18.492 18.50 / 18.413 18.40	80.44 / 74.69	0 / 10.678
LINE C61	11.00	43	375 ✓	RRJ2	2.0 1.7	1.10	1.01	0.01		16.888 / 16.887 / 16.796	16.594 16.61 / 16.44 16.381 / 16.276 18.29	18.05 18.03 / 17.972 17.96	48.22 / 42.50	0 / 10.668
LINE C62	11.00	45	375 ✓	RRJ2	2.0 1.8	1.10	0.81	0.04		16.61 / 16.605 / 16.387	16.159 16.13 / 15.98 15.975 / 15.892 15.92	17.595 17.58 / 17.607 17.59	16.11 / 14.33	0 / 9.174
LINE C63	12.00	25	375 ✓	RRJ2	1.0 1.1	1.10	0.79	0.01		17.77 / 17.769 / 17.623	17.711 17.74 / 17.62 17.6 / 17.49 17.50	19.17 19.14 / 19.12 19.11	110.00 / 103.55	0 / 11.075
LINE C64	12.00	29	375 ✓	RRJ2	2.0 2.2	1.10	0.98	0.01		18.621 / 18.62 / 18.546	17.86 17.87 / 17.64 17.646 / 17.001 17.00	19.322 19.31 / 19.246 19.21	655.95 / 661.77	0 / 10.722
LINE C66	11.00	38	375 ✓	RRJ2	2.0 2.1	1.10	1.11	0.03		17.891 / 17.888 / 17.852	17.161 17.15 / 16.94 16.949 / 16.785 16.76	18.618 18.60 / 18.579 18.54	103.82 / 109.42	0 / 10.604
LINE C67	11.00	42	375 ✓	RRJ2	2.0 1.9	1.10	1.15	0.03		17.759 / 17.756 / 17.685	16.942 16.93 / 16.74 16.729 / 16.432 16.39	18.393 18.36 / 18.353 18.32	135.99 / 141.67	0 / 10.645
LINE C68	11.00	42	375 ✓	RRJ2	2.0 2.0	1.10	1.15	0.03		17.446 / 17.443 / 17.391	16.716 16.71 / 16.50 16.496 / 16.075 16.05	18.168 18.14 / 18.124 18.10	168.11 / 174.39	0 / 10.978
LINE C69	12.00	24	375 ✓	RRJ2	1.0 0.9	1.10	0.65	-0.11		18.058 / 18.07 / 17.975	17.929 17.96 / 17.87 17.82 / 17.77 17.81	19.392 19.38 / 19.307 19.29	146.18 / 140.00	0 / 10.92
LINE C70	12.00	42	375 ✓	RRJ2	1.5 1.5	1.10	0.88	-0.21		17.553 / 17.576 / 17.439	17.451 17.46 / 17.31 17.29 / 17.215 17.23	18.907 18.90 / 18.828 18.82	110.79 / 105.00	0 / 10.7
LINE C71	11.00	38	375 ✓	RRJ2	2.0 2.0	1.10	0.96	0.02		16.878 / 16.876 / 16.832	16.402 16.41 / 16.23 16.222 / 16.142 16.15	17.85 17.85 / 17.847 17.84	49.35 / 49.09	0 / 9.004
LINE C72	10.00	54	375 ✓	RRJ2	2.0 2.0	1.10	1.06	0.04		16.663 / 16.659 / 16.564	16.06 16.06 / 15.88 15.876 / 15.679 15.69	17.503 17.51 / 17.506 17.50	16.08 / 14.25	0 / 9.184
LINE C74	11.00	37	375 ✓	RRJ2	2.0 1.8	1.10	0.95	-0.01		16.973 / 16.974 / 16.932	16.708 16.70 / 16.51 16.477 / 16.403 16.44	18.171 18.16 / 18.094 18.08	79.44 / 72.21	0 / 11.549
LINE C76	9.00	11 / 20	375 / 375	RRJ2 / RRJ2	1.0 / 2.0	1.10 / 1.45	0.77 / 1.17	0.85 / 1.73		16.225 / 16.077 / 16.007 / 15.826 / 15.717	16.191 / 16.016 / 15.966 / 15.757 / 13.608	17.7 / 17.761 / 17.8	1360.37 / 1377.88 / 1383.17	0 / 17.51 / 27.966
LINE C77	10.00	69	375 ✓	RRJ2	2.0 1.7	1.10	1.24	1.28		16.465 / 16.349 / 15.686	16.401 16.39 / 16.24 16.219 / 14.75 14.73	17.84 17.84 / 17.871 17.84	16.26 / 15.05	0 / 9.081
LINE C78	11.00	50	375 ✓	RRJ2	1.3 1.3	1.10	0.68	0.04		16.919 / 16.915 / 16.737	16.379 16.39 / 16.28 16.263 / 16.206 16.22	17.823 17.83 / 17.784 17.79	16.49 / 14.25	0 / 9.277

H 1:100 (AT A1) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES
V 1:500 (AT A1) — 10 0 10 20 30 40 50 METRES

REV	AMENDMENT	DES	DRN	CKD	APR	DATE
C	DRAINAGE LONG SECTIONS UPDATED	DG	EJ	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 10

PROJECT No: 9985-12
SHEET No: CC18459
AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112
PLAN No: 9985-12-CC18459 | C

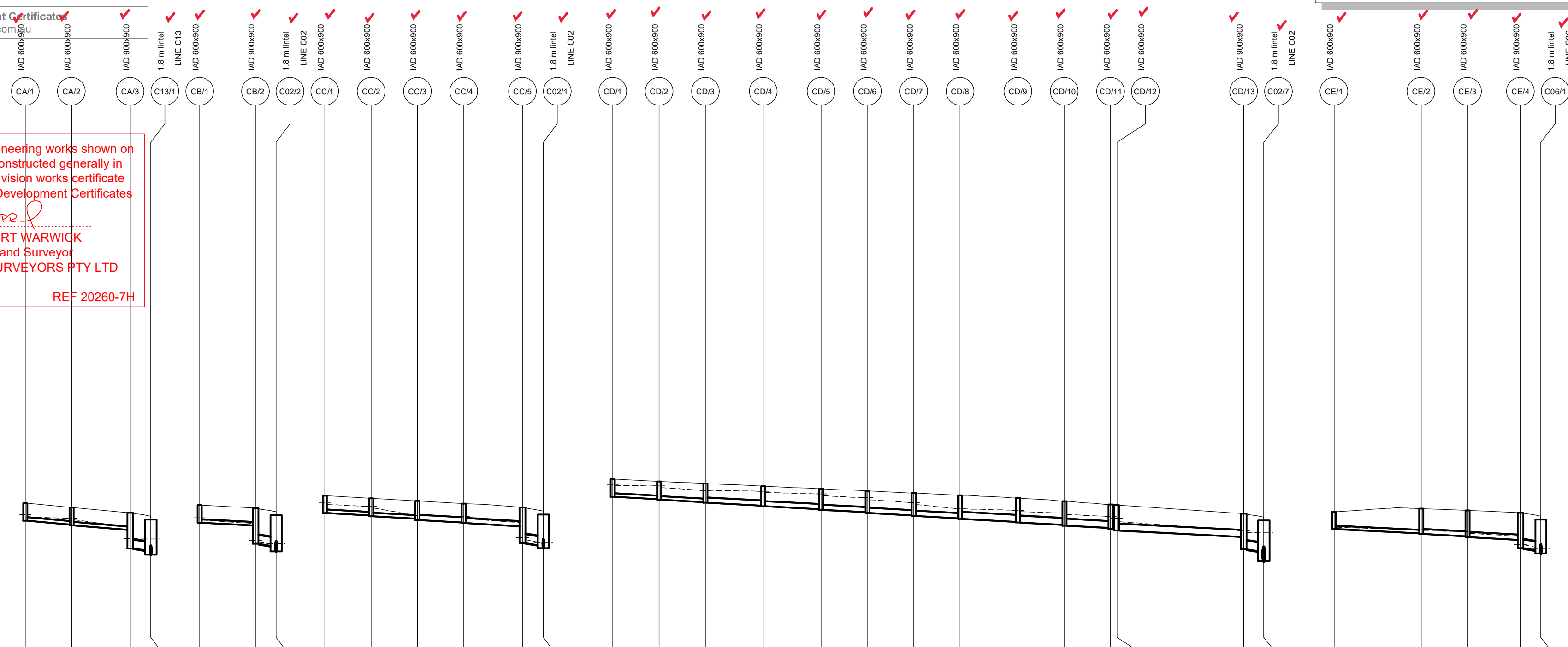
Plotted: 1 June , 2022 2:30:25 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18459.dwg

NOTE:
——— 1% AEP HGL PROVIDED FOR INFORMATION ONLY.
– — – 5% AEP HGL

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature..
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H



NOTE: 5% AEP VALUES SHOWN

LINE CA

	CA/1 – CA/2	CA/2 – CA/3	CA/3 – C13/1	C13/1
DATUM (m)	12.00			
PEAK FLOW (L/s)	13	27	43	
PIPE SIZE (mm)	150 ✓	150 ✓	375 ✓	
PIPE CLASS	uPVC	uPVC	RRJ2	
PIPE GRADE (%)	1.7 1.6	1.6 1.4	1.9 2.5	
PIPE COVER MINIMUM	0.60	0.60	1.10	
FULL PIPE VELOCITY (m/s)	0.77	1.52	1.12	
HGL GRADE (%)	0.54	2.37	0	
WAE				
HYDRAULIC GRADE LINE	18.798 / 18.744	18.682 / 18.382	17.852 / 17.852	17.844
INVERT LEVEL	18.639 18.63 / 18.48 18.472	18.442 18.46 / 18.29 18.242	17.446 17.50 17.39 17.363	17.17 17.21
DESIGN SURFACE LEVEL	19.4 19.4	19.216 19.22	18.983 19.02	18.689 18.67
ROAD CHAINAGE			139.96	138.62
PIPE CHAINAGE	0	10	22.665	27.123

LINE CB

	CB/1 – CB/2	CB/2 – C02/2	C02/2
DATUM (m)	12.00		
PEAK FLOW (L/s)	13	30	
PIPE SIZE (mm)	150 ✓	375 ✓	
PIPE CLASS	uPVC	RRJ2	
PIPE GRADE (%)	1.0 1.1	2.0 2.4	
PIPE COVER MINIMUM	0.60	1.10	
FULL PIPE VELOCITY (m/s)	0.89	1.03	
HGL GRADE (%)	1.15	1.54	
WAE			
HYDRAULIC GRADE LINE	18.663 / 18.525	17.713 / 17.644	17.564
INVERT LEVEL	18.557 18.60 / 18.47 18.434	17.644 17.67 17.56 17.556	17.315 17.32
DESIGN SURFACE LEVEL	19.314 19.34	19.18 19.19	18.882 18.88
ROAD CHAINAGE		147.49	146.05
PIPE CHAINAGE	0	12.035	16.52

LINE CC

	CC/1 – CC/2	CC/2 – CC/3	CC/3 – CC/4	CC/4 – CC/5	CC/5 – C02/1	C02/1
DATUM (m)	12.00					
PEAK FLOW (L/s)	16	29	43	55	69	
PIPE SIZE (mm)	150 ✓	150 ✓	225 ✓	225 ✓	375 ✓	
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	RRJ2	
PIPE GRADE (%)	1.0 1.0	1.0 1.3	1.0 0.8	1.1 1.2	2.0 2.0	
PIPE COVER MINIMUM	0.60	0.62	0.60	0.60	1.10	
FULL PIPE VELOCITY (m/s)	0.92	1.66	1.29	1.49	1.27	
HGL GRADE (%)	0.88	3.08	0.28	1.36	2.32	
WAE						
HYDRAULIC GRADE LINE	19.338 / 19.25	19.186 / 18.878	18.851 / 18.823	18.731 / 18.559	17.822 / 17.717	17.64
INVERT LEVEL	18.967 18.98 / 18.89 18.864	18.834 18.84 / 18.72 18.734	18.667 18.65 / 18.59 18.565	18.535 18.58 / 18.43 18.394	17.675 17.68 17.60 17.586	17.459 17.47
DESIGN SURFACE LEVEL	19.724 19.74	19.611 19.62	19.499 19.50	19.387 19.44	19.213 19.23	18.912 18.88
ROAD CHAINAGE					150.40	148.86
PIPE CHAINAGE	0	10	20	30	42.665	47.187

LINE CD

	CD/1 – CD/2	CD/2 – CD/3	CD/3 – CD/4	CD/4 – CD/5	CD/5 – CD/6	CD/6 – CD/7	CD/7 – CD/8
DATUM (m)	11.00						
PEAK FLOW (L/s)	11	22	35	45	57	68	78
PIPE SIZE (mm)	150 ✓	150 ✓	225 ✓	225 ✓	225 ✓	225 ✓	225 ✓
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC
PIPE GRADE (%)	1.0 0.9	1.0 1.1	1.0 1.4	1.0 1.1	1.0 1.3	1.0 1.2	1.0 1.2
PIPE COVER MINIMUM	0.60	0.64	0.60	0.64	0.68	0.72	0.76
FULL PIPE VELOCITY (m/s)	0.64	1.22	1.17	1.12	1.44	1.70	1.96
HGL GRADE (%)	0.26	1.21	0.28	0.55	0.93	1.3	1.89
WAE							
HYDRAULIC GRADE LINE	19.165 / 19.139	19.072	18.951 / 18.916	18.863 / 18.794	18.722 / 18.629	18.551 / 18.421	18.34
INVERT LEVEL	18.674 18.66 / 18.59 18.574	18.544 18.58 / 18.48 18.444	18.414 18.45 / 18.29 18.289	18.259 18.28 / 18.15 18.134	18.104 18.13 / 18.00 18.004	17.974 17.99 / 17.88 17.874	17.844 17.85 / 17.75 17.744
DESIGN SURFACE LEVEL	19.43 19.42	19.338 19.36	19.246 19.27	19.133 19.14	19.017 19.03	18.926 18.93	18.834 18.83
ROAD CHAINAGE							
PIPE CHAINAGE	0	10	20	32.5	45	55	65

	CD/8 – CD/9	CD/9 – CD/10	CD/10 – CD/11	CD/11 – CD/12	CD/12 – CD/13	CD/13 – C02/7	C02/7
PEAK FLOW (L/s)	89	101	111	121	123	118	
PIPE SIZE (mm)	300 ✓	300 ✓	300 ✓	300 ✓	300 ✓	375 ✓	
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ2	
PIPE GRADE (%)	1.0 0.9	1.0 1.4	1.0 1.0	1.0 2.0	1.0 1.0	1.9 1.9	
PIPE COVER MINIMUM	0.72	0.73	0.71	0.75	0.70	1.10	
FULL PIPE VELOCITY (m/s)	1.64	1.47	1.57	1.72	1.82	1.39	
HGL GRADE (%)	0.49	0.64	0.78	0.88	1.39	0.32	
WAE							
HYDRAULIC GRADE LINE	18.151 / 18.09	18.029 / 17.965	17.904 / 17.826	17.755 / 17.743	17.599 / 17.218	17.126 / 17.112	17.062
INVERT LEVEL	17.714 17.72 / 17.62 17.589	17.559 17.60 / 17.47 17.459	17.429 17.45 / 17.35 17.329	17.279 17.32 17.28 17.266	17.216 17.25 / 16.98 16.942	16.406 16.44 16.36 16.323	15.891 15.95
DESIGN SURFACE LEVEL	18.742 18.75	18.617 18.67	18.488 18.52	18.334 18.34	18.317 18.34	17.941 17.98	17.648 17.64
ROAD CHAINAGE						31.40	30.46
PIPE CHAINAGE	75	87.5	97.5	107.5	108.858	136.208	140.562

LINE CE

	CE/1 – CE/2	CE/2 – CE/3	CE/3 – CE/4	CE/4 – C06/1	C06/1
DATUM (m)	13.00				
PEAK FLOW (L/s)	14	41	45	62	
PIPE SIZE (mm)	150 ✓	225 ✓	225 ✓	375 ✓	
PIPE CLASS	uPVC	uPVC	uPVC	RRJ2	
PIPE GRADE (%)	1.0 1.0	1.0 1.6	1.0 0.9	2.0 2.1	
PIPE COVER MINIMUM	0.60	0.87	0.92	1.10	
FULL PIPE VELOCITY (m/s)	0.85	1.34	1.27	1.62	
HGL GRADE (%)	0.59	0.27	1.14	2.75	
WAE					
HYDRAULIC GRADE LINE	19.356 / 19.246	19.2 / 19.173	19.094 / 18.963	18.611 / 18.49	18.383
INVERT LEVEL	19.278 19.30 / 19.13 19.09	19.06 19.10 / 18.95 18.96	18.93 18.92 / 18.83 18.815	18.453 18.46 18.37 18.366	18.223 18.20
DESIGN SURFACE LEVEL	20.024 20.03	20.159 20.19	20.079 20.07	19.988 19.99	19.69 19.68
ROAD CHAINAGE				169.12	167.98
PIPE CHAINAGE	0	18.8	28.8	40.26	44.659

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 11

PROJECT No: 9985-12
SHEET No: CC18460

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18460 | B

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au

NOTE: — — — 5% AEP HGL

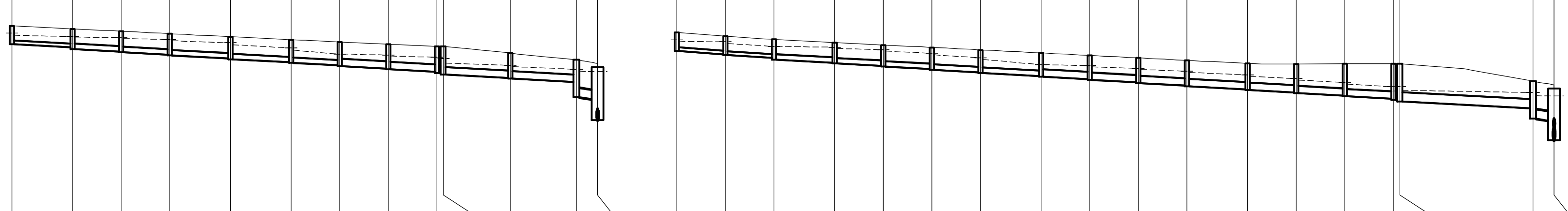
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature..................................
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LINE CF

Pit	Pit type
CF/1	IAD 600x900
CF/2	IAD 600x900
CF/3	IAD 600x900
CF/4	IAD 600x900
CF/5	IAD 600x900
CF/6	IAD 600x900
CF/7	IAD 600x900
CF/8	IAD 600x900
CF/9	IAD 600x900
CF/10	IAD 600x900
CF/11	IAD 600x900
CF/12	IAD 900x900
C07/9	1.8 m lintel LINE C07



DATUM (m) 12.00

Segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
CF/1 – CF/2	14	150	uPVC	1.0 1.2	0.60	0.85	0.44
CF/2 – CF/3	41	225	uPVC	1.0 1.0	0.60	1.31	0.2
CF/3 – CF/4	40	225	uPVC	1.0 1.3	0.63	1.15	0.41
CF/4 – CF/5	48	225	uPVC	1.0 1.3	0.66	1.20	0.66
CF/5 – CF/6	61	225	uPVC	1.0 0.9	0.69	1.52	1.08
CF/6 – CF/7	73	225	uPVC	1.0 1.5	0.72	1.85	1.6
CF/7 – CF/8	84	300	uPVC	1.0 1.0	0.69	1.65	0.4
CF/8 – CF/9	95	300	uPVC	1.0 1.4	0.73	1.35	0.49
CF/9 – CF/10	105	300	uPVC	1.0 1.0	0.78	1.49	0.44
CF/10 – CF/11	124	300	uPVC	1.0 1.0	0.73	1.76	0.68
CF/11 – CF/12	136	300	uPVC	1.0 1.6	0.62	1.94	0.76
CF/12 – C07/9	127	375	RRJ2	1.9 1.9	1.10	1.42	0.3

NOTE: 5% AEP VALUES SHOWN

Segment	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
CF/1 – CF/2		20.172 / 20.117	19.805 19.82 / 19.67 19.68	20.565 20.58		0
CF/2 – CF/3		20.096 / 20.076	19.603 19.60 / 19.50 19.503	20.436 20.44		12.5
CF/3 – CF/4		20.039 / 19.998	19.473 19.48 / 19.36 19.373	20.337 20.34		22.5
CF/4 – CF/5		19.948 / 19.865	19.343 19.35 / 19.19 19.218	20.237 20.25		32.5
CF/5 – CF/6		19.786 / 19.651	19.188 19.17 / 19.07 19.063	20.116 20.12		45
CF/6 – CF/7		19.561	19.033 19.06 / 18.92 18.933	19.988 20.01		57.5
CF/7 – CF/8		19.401 / 19.361	18.903 18.90 / 18.81 18.803	19.9 19.90		67.5
CF/8 – CF/9		19.321 / 19.272	18.773 18.79 / 18.66 18.673	19.809 19.82		77.5
CF/9 – CF/10		19.228 / 19.222	18.623 18.63 / 18.62 18.61	19.717 19.72		87.5
CF/10 – CF/11		19.027 / 18.933	18.56 18.59 / 18.46 18.422	19.716 19.74		88.858
CF/11 – CF/12		18.881 / 18.777	18.392 18.37 / 18.16 18.256	19.449 19.44		102.586
CF/12 – C07/9		18.693 / 18.68	17.627 17.55 / 17.48 17.543	19.165 19.09	689.87	116.208
C07/9		18.451	16.68 16.68	18.867 18.85	690.86	120.571

LINE CF

LINE CN

Pit	Pit type
CN/1	IAD 600x900
CN/2	IAD 600x900
CN/3	IAD 600x900
CN/4	IAD 600x900
CN/5	IAD 600x900
CN/6	IAD 600x900
CN/7	IAD 600x900
CN/8	IAD 600x900
CN/9	IAD 600x900
CN/10	IAD 600x900
CN/11	IAD 600x900
CN/12	IAD 600x900
CN/13	IAD 600x900
CN/14	IAD 600x900
CN/15	IAD 600x900
CN/16	IAD 600x900
CN/17	IAD 900x900
C08/6	1.8 m lintel LINE C08

DATUM (m) 13.00 (CN/1), 12.00 (CN/2)

Segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
CN/1 – CN/2	11	150	uPVC	1.3 1.5	0.60	0.71	0.26
CN/2 – CN/3	22	150	uPVC	1.2 1.3	0.60	1.26	1.19
CN/3 – CN/4	33	225	uPVC	1.0 1.2	0.60	1.10	0.28
CN/4 – CN/5	44	225	uPVC	1.0 1.0	0.63	1.09	0.54
CN/5 – CN/6	54	225	uPVC	1.0 1.2	0.66	1.35	0.82
CN/6 – CN/7	64	225	uPVC	1.0 1.1	0.69	1.60	1.18
CN/7 – CN/8	74	225	uPVC	1.0 1.0	0.71	1.86	1.71
CN/8 – CN/9	88	300	uPVC	1.0 1.2	0.67	1.69	0.47
CN/9 – CN/10	97	300	uPVC	1.0 1.0	0.70	1.47	0.57
CN/10 – CN/11	107	300	uPVC	1.0 1.0	0.73	1.52	0.66
CN/11 – CN/12	118	300	uPVC	1.0 1.1	0.76	1.67	0.76
CN/12 – CN/13	131	300	uPVC	1.0 0.9	0.78	1.85	0.89
CN/13 – CN/14	142	300	uPVC	1.0 1.2	0.90	2.01	1
CN/14 – CN/15	153	300	uPVC	1.0 1.2	1.03	2.18	1.06
CN/15 – CN/16	171	375	uPVC	1.0 2.0	1.11	1.94	0.29
CN/16 – CN/17	163	375	uPVC	1.0 1.0	0.75	1.65	0.35
CN/17 – C08/6	149	375	RRJ2	1.8 3.0	1.10	1.60	0.5

Segment	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
CN/1 – CN/2		19.928 / 19.902	19.524 19.54 / 19.40 19.389	20.283 20.29		0
CN/2 – CN/3		19.836	19.359 19.38 / 19.26 19.243	20.134 20.14		10
CN/3 – CN/4		19.717 / 19.682	19.166 19.21 / 19.06 19.041	20.002 20.03		20
CN/4 – CN/5		19.632 / 19.578	19.011 19.01 / 18.92 18.911	19.871 19.87		32.5
CN/5 – CN/6		19.521 / 19.439	18.881 18.90 / 18.80 18.781	19.77 19.78		42.5
CN/6 – CN/7		19.368 / 19.25	18.751 18.77 / 18.67 18.651	19.669 19.69		52.5
CN/7 – CN/8		19.18	18.621 18.63 / 18.52 18.496	19.568 19.57		62.5
CN/8 – CN/9		18.966 / 18.919	18.466 18.51 / 18.40 18.366	19.447 19.48		75
CN/9 – CN/10		18.87 / 18.813	18.336 18.34 / 18.25 18.236	19.346 19.35		85
CN/10 – CN/11		18.764 / 18.698	18.206 18.20 / 18.10 18.106	19.245 19.25		95
CN/11 – CN/12		18.644 / 18.549	18.076 18.06 / 17.93 17.951	19.144 19.16		105
CN/12 – CN/13		18.483 / 18.394	17.921 17.88 / 17.80 17.821	19.013 19.01		117.5
CN/13 – CN/14		18.333 / 18.233	17.791 17.78 / 17.67 17.691	18.993 18.99		127.5
CN/14 – CN/15		18.167	17.661 17.66 / 17.55 17.561	18.996 18.99		137.5
CN/15 – CN/16		18.061 / 18.057	17.511 17.51 / 17.46 17.498	19.002 18.97		147.5
CN/16 – CN/17		17.911 / 17.814	17.448 17.38 / 17.12 17.174	18.995 18.95		148.858
CN/17 – C08/6		17.693 / 17.671	16.745 16.69 / 16.57 16.664	18.285 18.22	192.62	176.208
C08/6		17.462	15.853 15.81	17.99 17.98	193.57	180.565

LINE CN

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
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P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 12

PROJECT No: 9985-12
SHEET No: CC18461
AZIMUTH:M.G.A.94 DATUM:A.H.D. ORIGIN:SSM 1112
PLAN No: 9985-12-CC18461 B

Plotted: 8 March , 2022 11:22:10 AM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18461.dwg

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

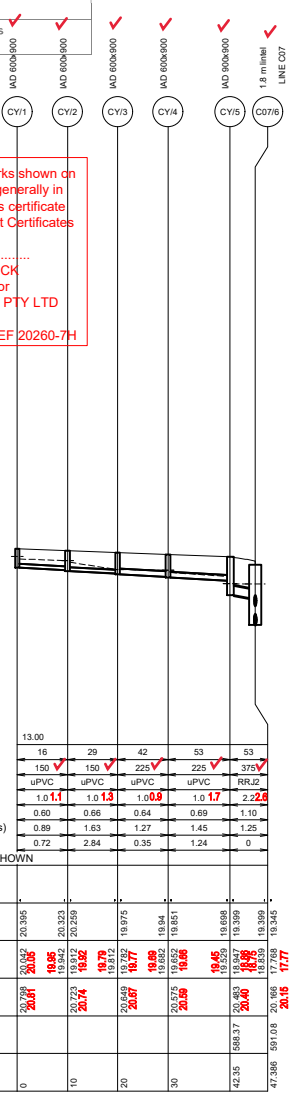
Land Development Certificates
www.LDC.com.au

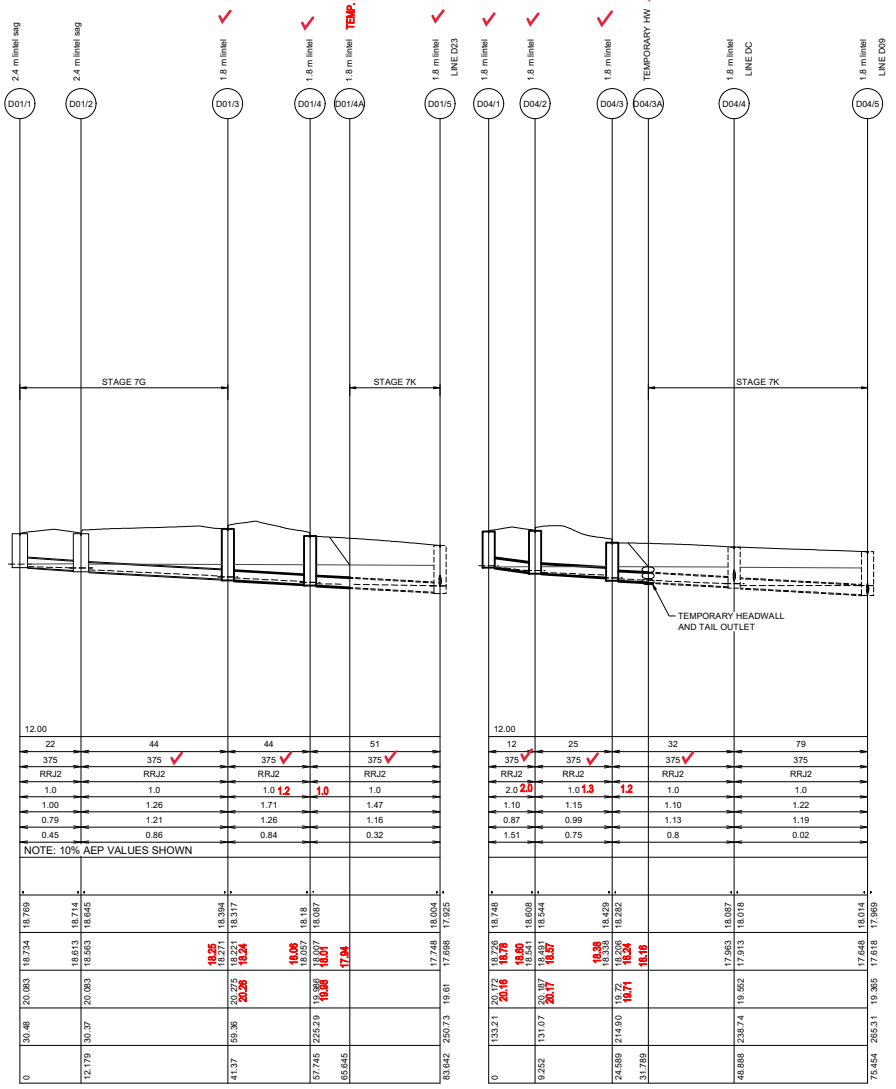
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

NOTE:
– – – 5% AEP HGL





DATUM (m)	13.00						
PEAK FLOW (L/s)	16	29	42	53	53		
PIPE SIZE (mm)	150	150	225	225	375		
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	RRJ2		
PIPE GRADE (%)	1.0 1.1	1.0 1.3	1.0 0.9	1.0 1.7	2.2 2.0		
PIPE COVER MINIMUM	0.60	0.66	0.64	0.69	1.10		
FULL PIPE VELOCITY (m/s)	0.89	1.63	1.27	1.45	1.25		
HGL GRADE (%)	0.72	2.84	0.35	1.24	0		
NOTE: 5% AEP VALUES SHOWN							
WAE							
HYDRAULIC GRADE LINE	20.395	20.323	19.975	19.94	19.851	19.698	19.399	19.345
INVERT LEVEL	20.042 20.05	19.942 19.92	19.782 19.77	19.69 19.69	19.662 19.65	19.45 19.45	18.947 18.839	18.839 17.77
DESIGN SURFACE LEVEL	20.798 20.81	20.723 20.74	20.649 20.67	20.575 20.59	20.483 20.40	20.166 20.15	591.08
ROAD CHAINAGE					588.37		
PIPE CHAINAGE	0	10	20	30	42.35	47.386	

LINE CY

DATUM (m)	12.00							
PEAK FLOW (L/s)	22	44	44	51				
PIPE SIZE (mm)	375	375	375	375				
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2				
PIPE GRADE (%)	1.0	1.0	1.0 1.2	1.0				
PIPE COVER MINIMUM	1.00	1.26	1.71	1.47				
FULL PIPE VELOCITY (m/s)	0.79	1.21	1.26	1.16				
HGL GRADE (%)	0.45	0.86	0.84	0.32				
NOTE: 10% AEP VALUES SHOWN								
WAE								
HYDRAULIC GRADE LINE	18.769	18.714	18.645	18.394	18.317	18.18	18.087	18.004	17.925
INVERT LEVEL	18.734	18.613	18.563	18.25 18.271	18.221 18.04	18.06 18.057	18.007 17.94	17.748	17.698
DESIGN SURFACE LEVEL	20.083	20.083	20.275 20.26	19.88 19.88	19.61
ROAD CHAINAGE	30.48	30.37	59.36	225.29	250.73
PIPE CHAINAGE	0	12.179	41.37	57.745	65.645	83.642

DATUM (m)	12.00							
PEAK FLOW (L/s)	12	25	32	79				
PIPE SIZE (mm)	375	375	375	375				
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2				
PIPE GRADE (%)	2.0 2.0	1.0 1.3	1.2	1.0	1.0			
PIPE COVER MINIMUM	1.10	1.15	1.10	1.22				
FULL PIPE VELOCITY (m/s)	0.87	0.99	1.13	1.19				
HGL GRADE (%)	1.51	0.75	0.8	0.02				
WAE								
HYDRAULIC GRADE LINE	18.748	18.608	18.544	18.429	18.282	18.087	18.018	18.014	17.969
INVERT LEVEL	18.726 18.76	18.58 18.541	18.491 18.57	18.38 18.358	18.206 18.24	17.963 17.913	17.648
DESIGN SURFACE LEVEL	20.172 20.16	20.167 20.17	19.72 19.71	19.562	19.365
ROAD CHAINAGE	133.21	131.07	214.90	238.74	265.31
PIPE CHAINAGE	0	9.252	24.589	31.789	48.888	75.454

LINE D01

LINE D04

H 1:100 (AT A1) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) 10 0 10 20 30 40 50 METRES

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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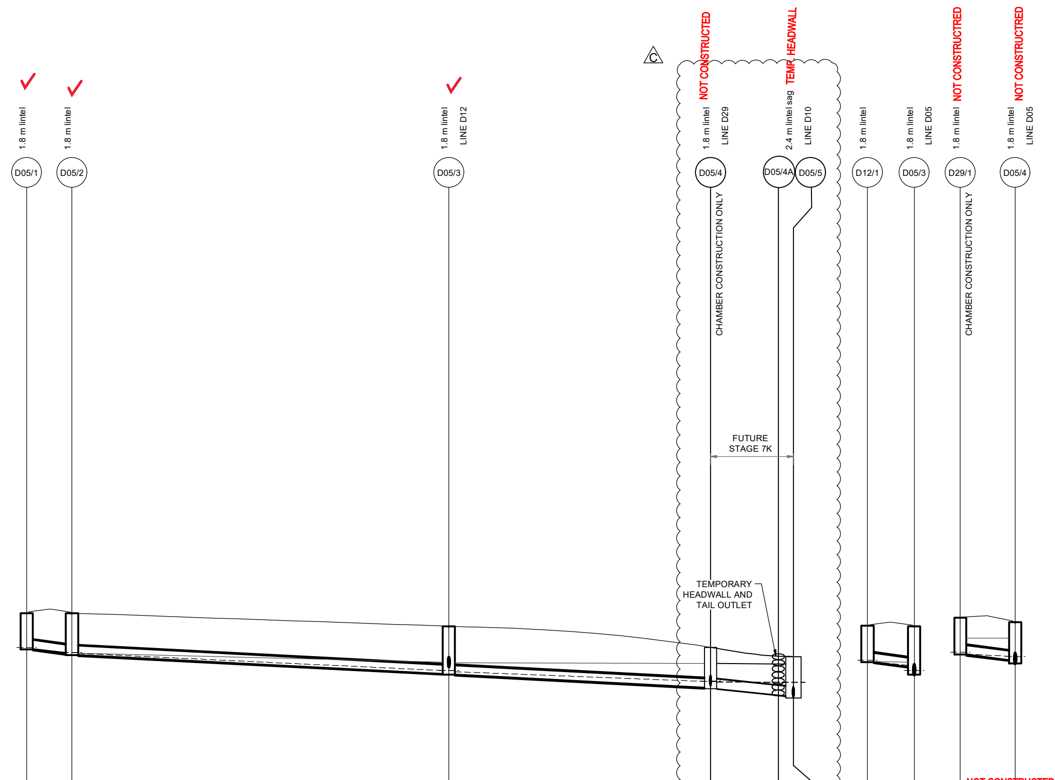
NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 13

PROJECT No: 9985-12
SHEET No: CC18462

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18462 | B

Plotted: 8 March 2022 11:22:10 AM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18462.dwg

NOTE: — — — 5% AEP HGL



LINE D05

DATUM (m) 12.00

	D05/1 – D05/2	D05/2 – D05/3	D05/3 – D05/4	D05/4 – D05/4A
PEAK FLOW (L/s)	13	27	65	90
PIPE SIZE (mm)	375 ✓	375 ✓	375	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	2.0 1.8	1.0 1.0	1.0 1.3	1.7
PIPE COVER MINIMUM	1.10	1.26	1.24	1.11
FULL PIPE VELOCITY (m/s)	0.93	1.03	1.41	1.54
HGL GRADE (%)	1.64	0.92	0.74	0.04

NOTE: 10% AEP VALUES SHOWN

	D05/1	D05/2	D05/3	D05/4	D05/4A	D05/5
WAE						
HYDRAULIC GRADE LINE	18.241	18.093 / 18.06	17.371 / 17.325	16.942 / 16.917	16.91	
INVERT LEVEL	18.217 18.21	18.06 18.037 / 17.987 18.00	17.28 17.238 / 17.208 17.24	16.687 / 16.657	16.35 16.37	
DESIGN SURFACE LEVEL	19.664 19.66	19.663 19.65	19.139 19.12	18.297		17.93
ROAD CHAINAGE	205.80	205.95	280.92	332.97		349.47
PIPE CHAINAGE	0	9.001	83.967	136.024	149.535	152.514

LINE D05

LINE D12

DATUM (m) 12.00

	D12/1 – D05/3
PEAK FLOW (L/s)	14
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	2.0 1.7
PIPE COVER MINIMUM	1.10
FULL PIPE VELOCITY (m/s)	0.95
HGL GRADE (%)	1.63

	D12/1	D05/3
WAE		
HYDRAULIC GRADE LINE	17.729	17.577 / 17.325
INVERT LEVEL	17.705 17.71	17.56 17.519 / 17.208 17.24
DESIGN SURFACE LEVEL	19.155 19.16	19.139 19.12
ROAD CHAINAGE	278.56	280.92
PIPE CHAINAGE	0	9.304

LINE D12

LINE D29

NOT CONSTRUCTED

DATUM (m) 11.00

	D29/1 – D05/4
PEAK FLOW (L/s)	18
PIPE SIZE (mm)	375
PIPE CLASS	RRJ2
PIPE GRADE (%)	2.0
PIPE COVER MINIMUM	1.10
FULL PIPE VELOCITY (m/s)	1.02
HGL GRADE (%)	0.84

	D29/1	D05/4
WAE		
HYDRAULIC GRADE LINE	17.034	16.942 / 16.917
INVERT LEVEL	17.006	16.788 / 16.657
DESIGN SURFACE LEVEL	18.479	18.297
ROAD CHAINAGE	326.79	332.97
PIPE CHAINAGE	0	10.921

LINE D29

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature..............................

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au

H 1:100 (AT A1) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

V 1:500 (AT A1) — 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	LINE D05 UPDATED	DG	EJ	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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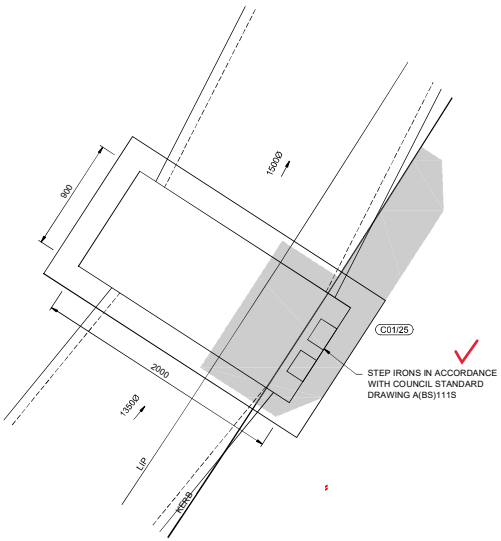
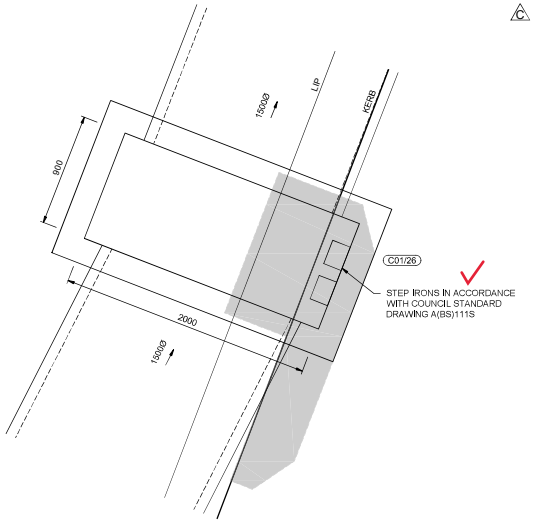
NEWPARK
PRECINCT 7, STAGE 7H
DRAINAGE LOGITUDINAL SECTIONS
SHEET 14

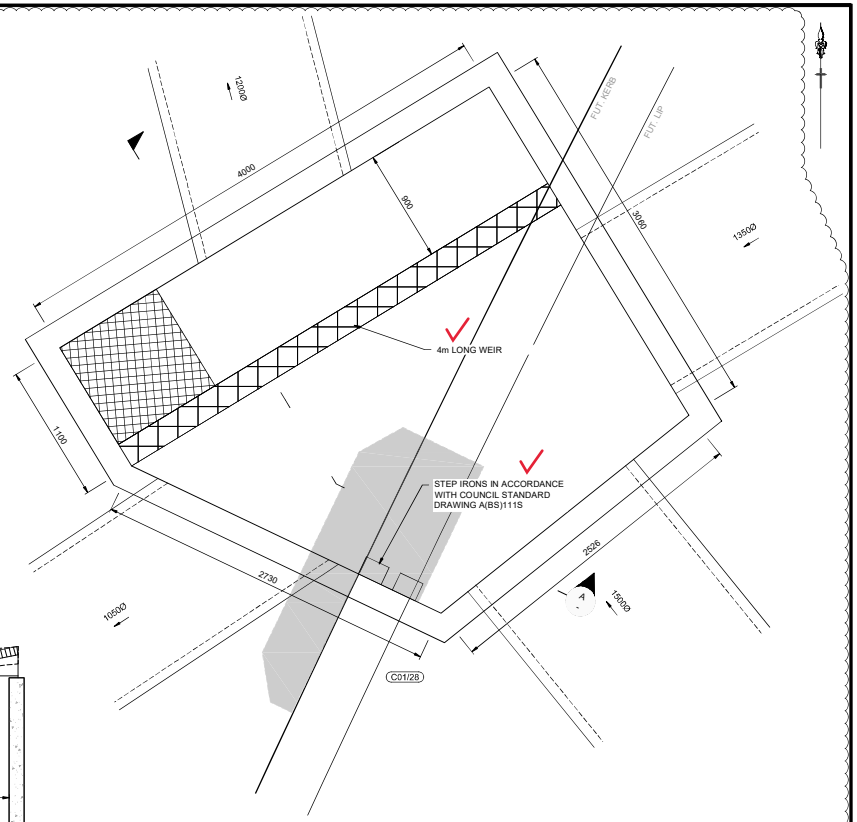
PROJECT No: 9985-12
SHEET No: CC18463

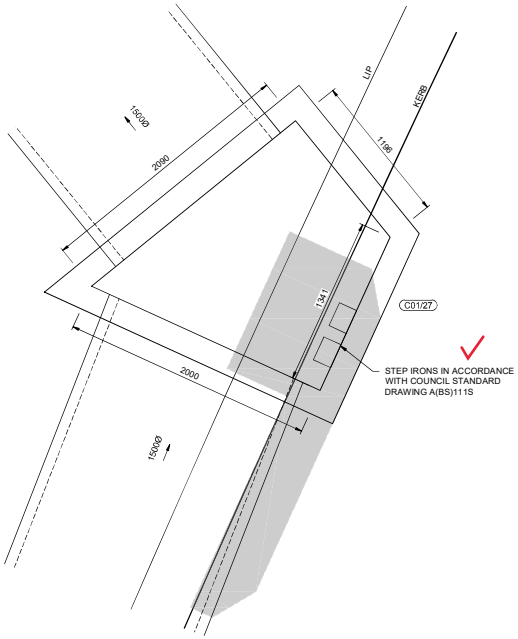
AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18463 | C

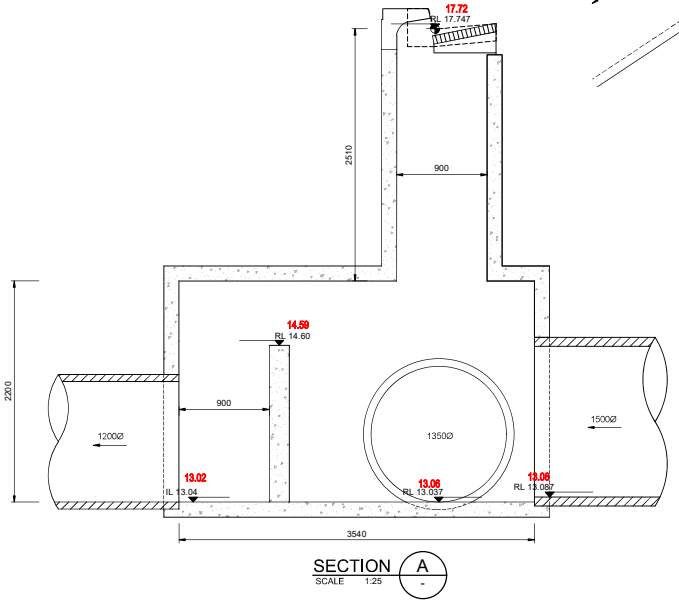
Plotted: 1 June , 2022 2:30:45 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18463.dwg











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Signature.....

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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

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1:20 (AT A1) 400 200 0 400 800 1200 1600 2000 MILLIMETRES

1:25(AT A1) 500 0 500 1000 1500 2000 2500 MILLIMETRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	PIT C01/28 UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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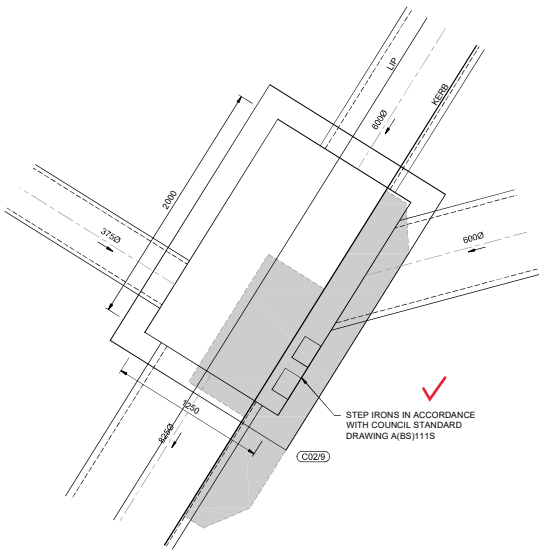
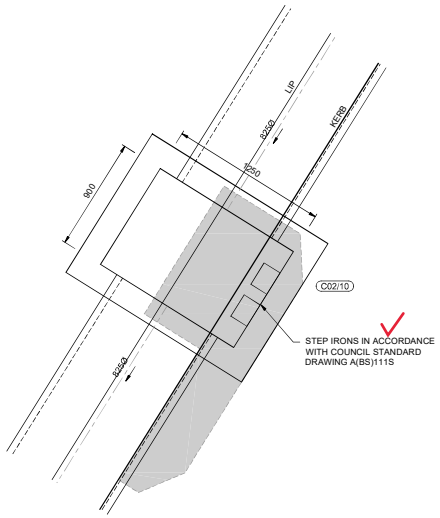
NEWPARK
PRECINCT 7, STAGE 7H
SPECIAL PIT DETAILS
SHEET 1

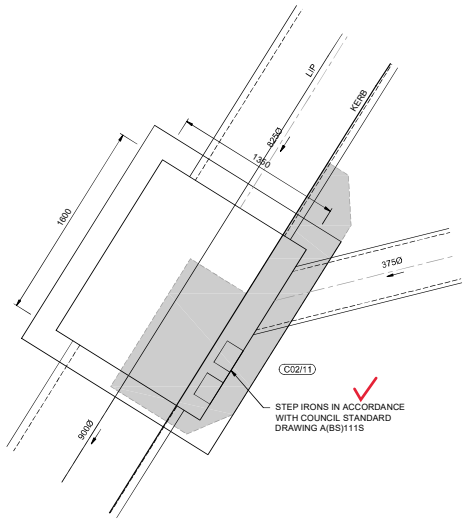
PROJECT No: 9985-12
SHEET No: CC18501

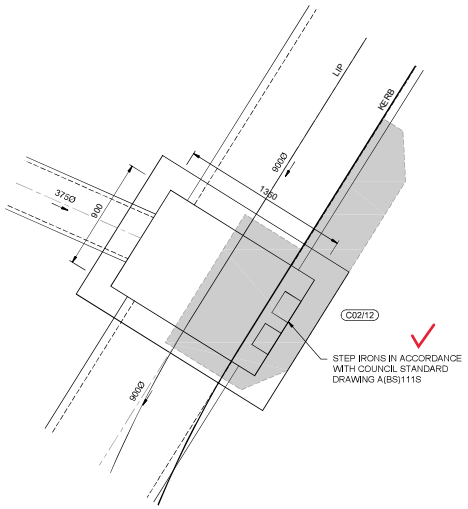
AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18501 | C

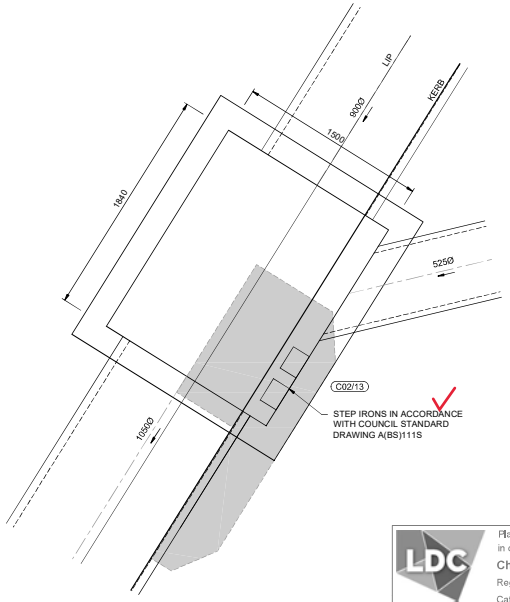
Plotted: 7 September, 2022 8:42:47 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7\A\9985-12-CC18501.dwg

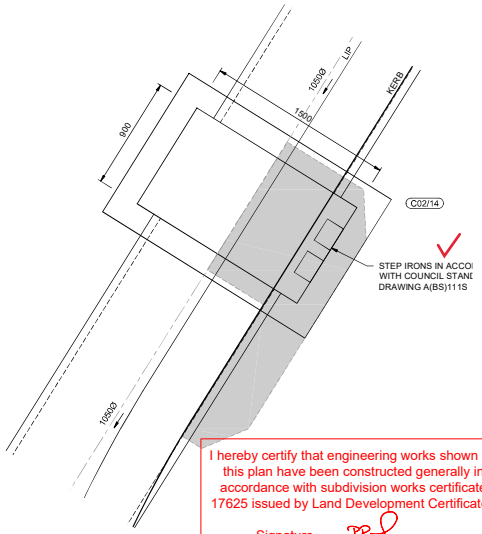












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Signature.....
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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

1:20 (AT A1)

400 200 0 400 800 1200 1600 2000
MILLIMETRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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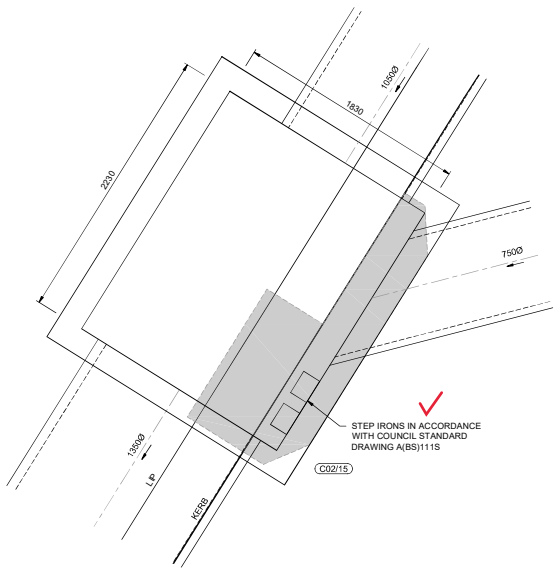
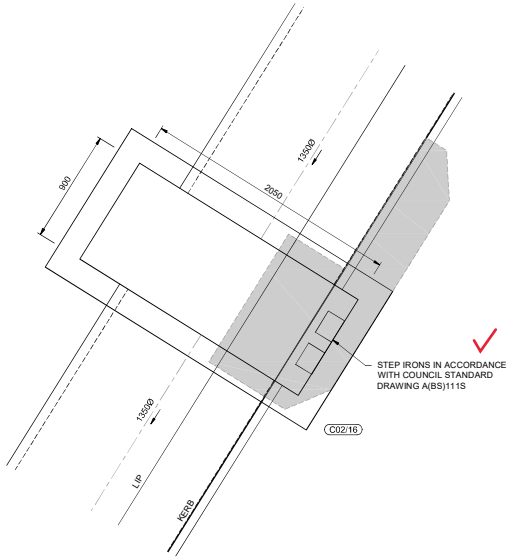
NEWPARK
PRECINCT 7, STAGE 7H
SPECIAL PIT DETAILS
SHEET 2

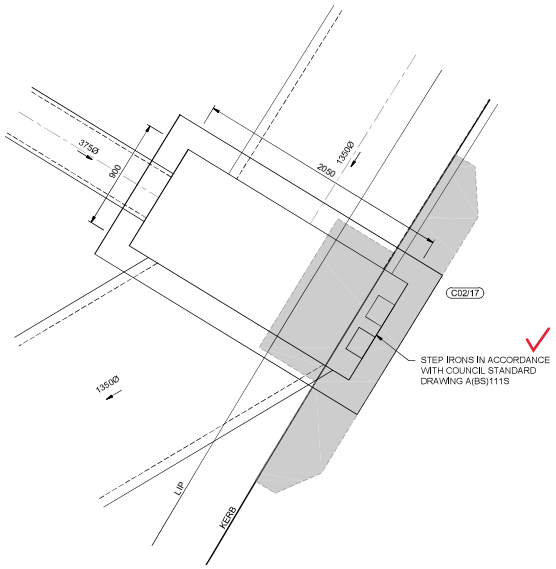
PROJECT No: 9985-12
SHEET No: CC18502

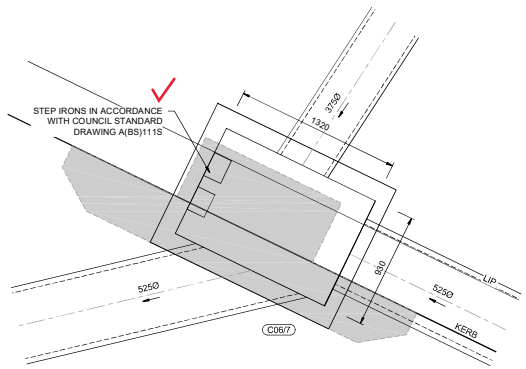
AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18502 | B

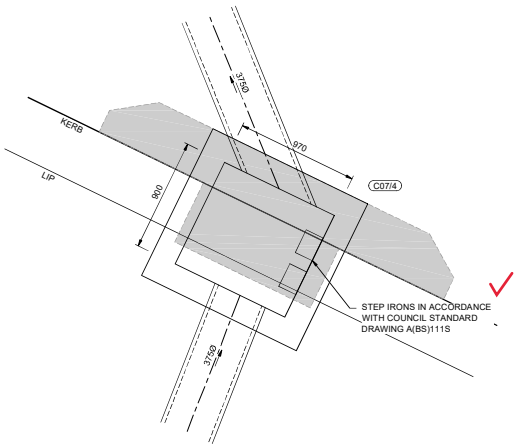
Plotted: 8 March 2022 11:23:01 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18502.dwg

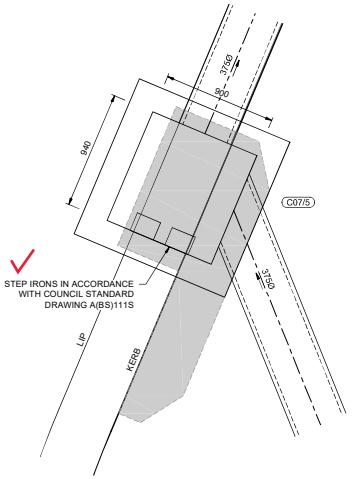












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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

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Land Development Certificates
www.LDC.com.au

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Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

1:20 (AT A1)

400 200 0 400 800 1200 1600 2000
MILLIMETRES

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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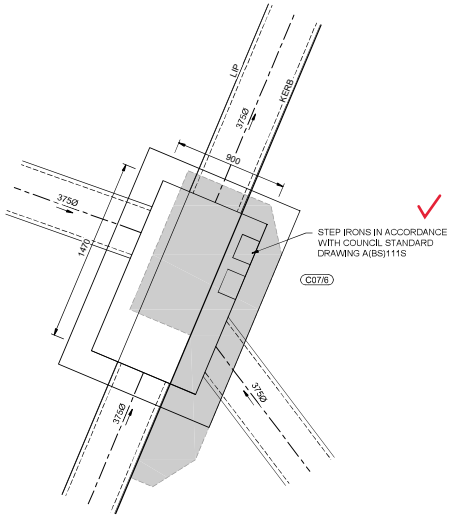
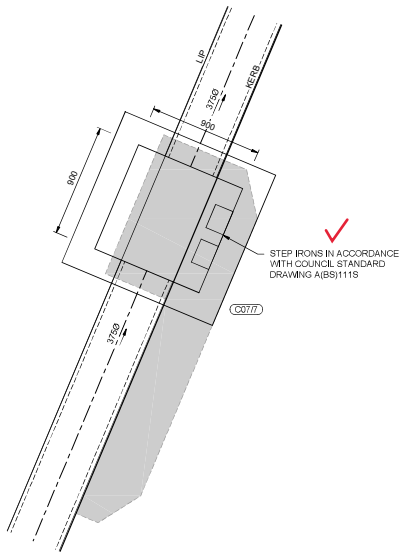
NEWPARK
PRECINCT 7, STAGE 7H
SPECIAL PIT DETAILS
SHEET 3

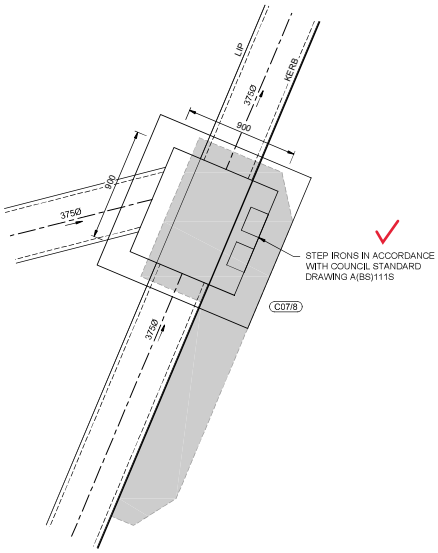
PROJECT No: 9985-12
SHEET No: CC18503

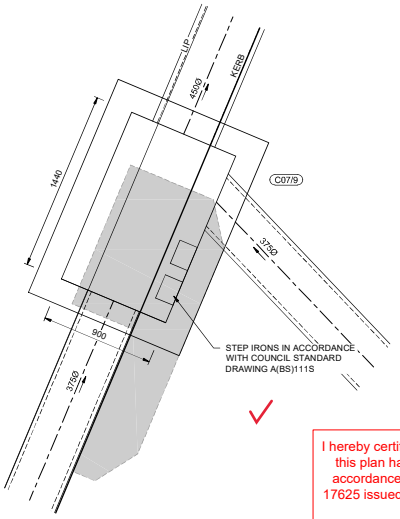
AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18503 | B

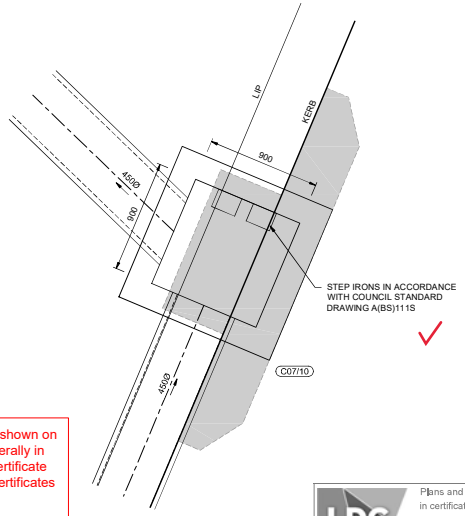
Plotted: 8 March 2022 11:29:55 AM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18503.dwg

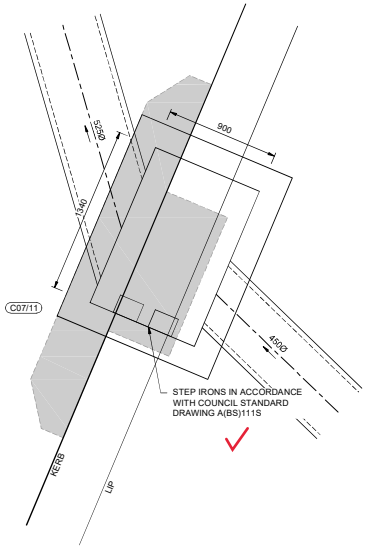












I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC

Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
www.LDC.com.au

1:20 (AT A1)

400 200 0 400 800 1200 1600 2000
MILLIMETRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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CLIENT: WINTEN PROPERTY GROUP

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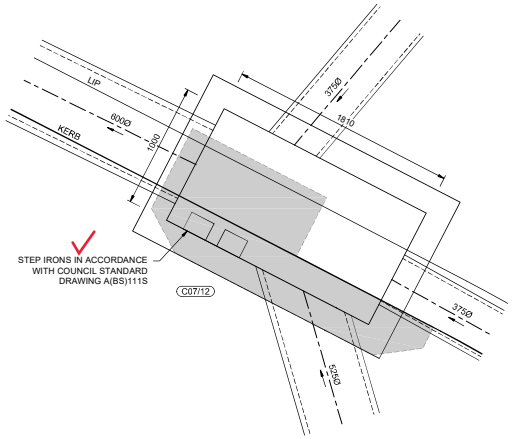
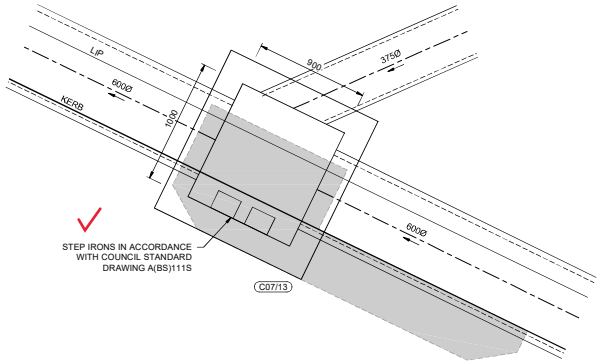
NEWPARK
PRECINCT 7, STAGE 7H
SPECIAL PIT DETAILS
SHEET 4

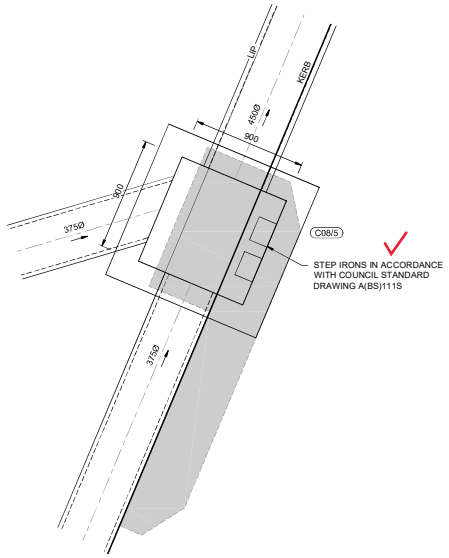
PROJECT No: 9985-12
SHEET No: CC18504

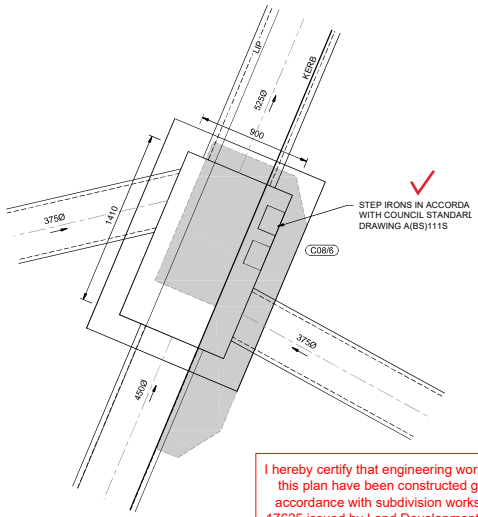
AZIMUTHM.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18504 | B

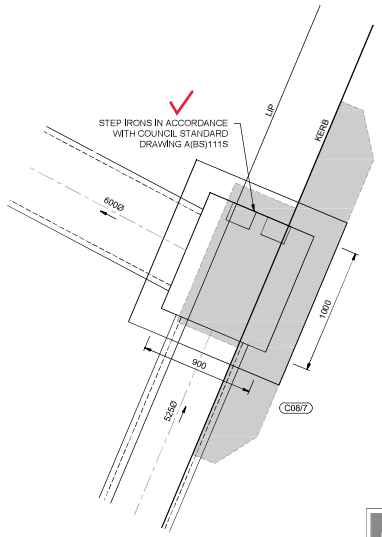
Plotted: 8 March 2022 11:22:26 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7\9985-12-CC18504.dwg

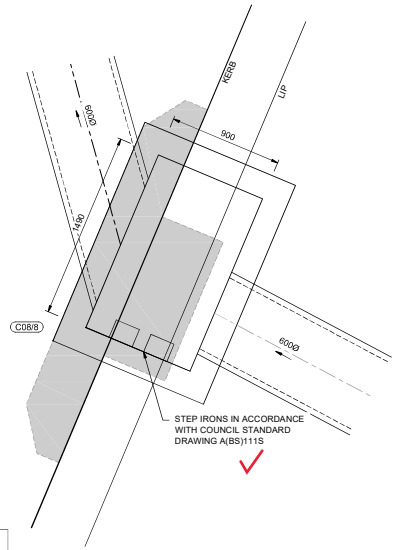












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Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

Plans and specifications referenced in certificate no. **17625** issued by:
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Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
www.LDC.com.au

1:20 (AT A1)

400 200 0 400 800 1200 1600 2000
MILLIMETRES

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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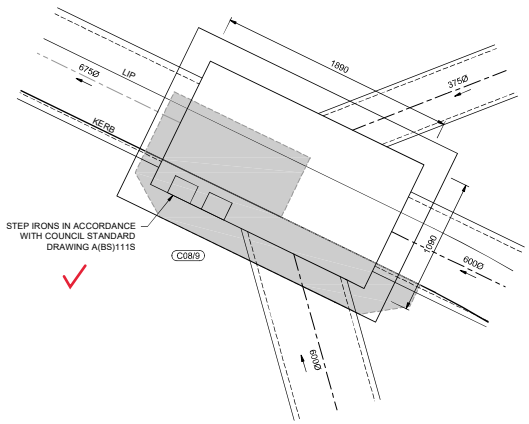
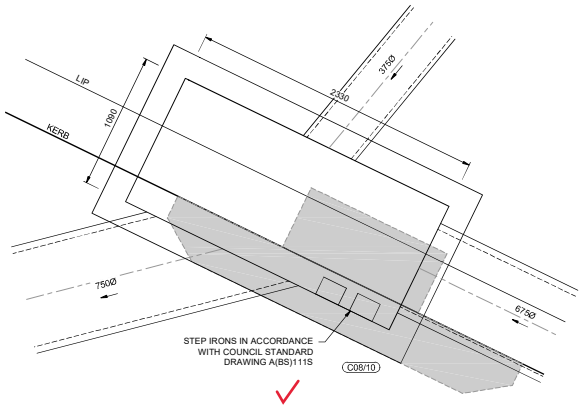
NEWPARK
PRECINCT 7, STAGE 7H
SPECIAL PIT DETAILS
SHEET 5

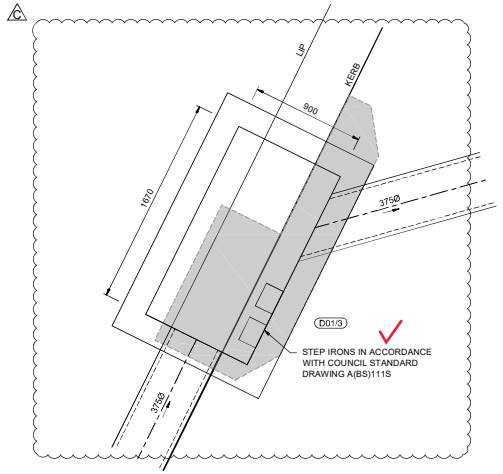
PROJECT No: 9985-12
SHEET No: CC18505

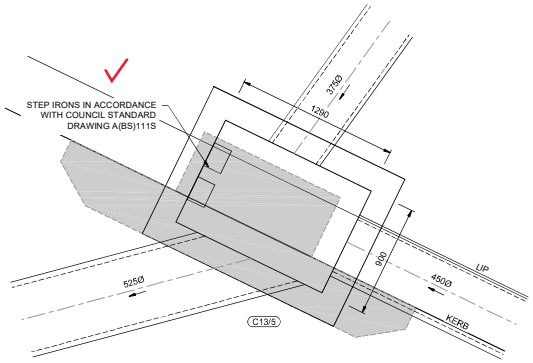
AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18505 | B

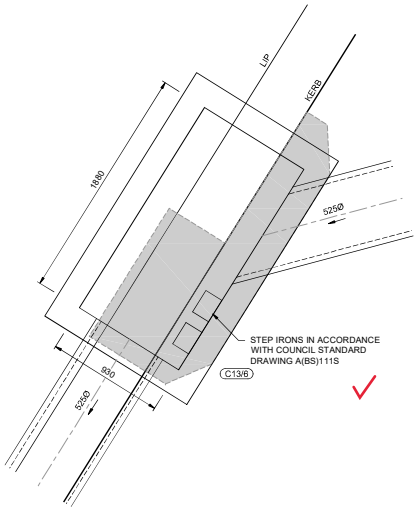
Plotted: 8 March 2022 11:22:39 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18505.dwg

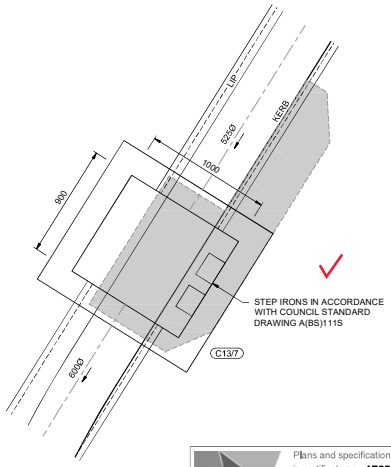












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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

Plans and specifications referenced in certificate no. **17625** issued by:
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Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision

Land Development Certificates
www.LDC.com.au

1:20 (AT A1)

400 200 0 400 800 1200 1600 2000
MILLIMETRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	SPECIAL PIT D01/3 UPDATED	DG	EJ	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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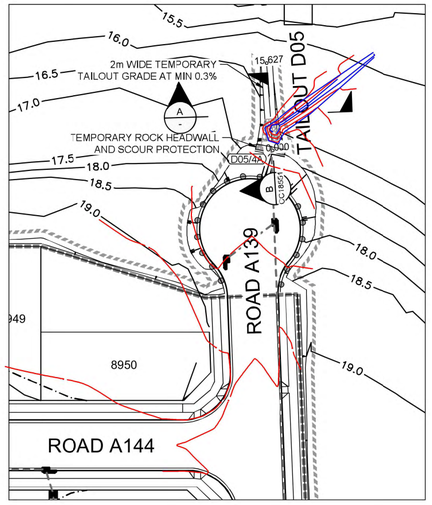
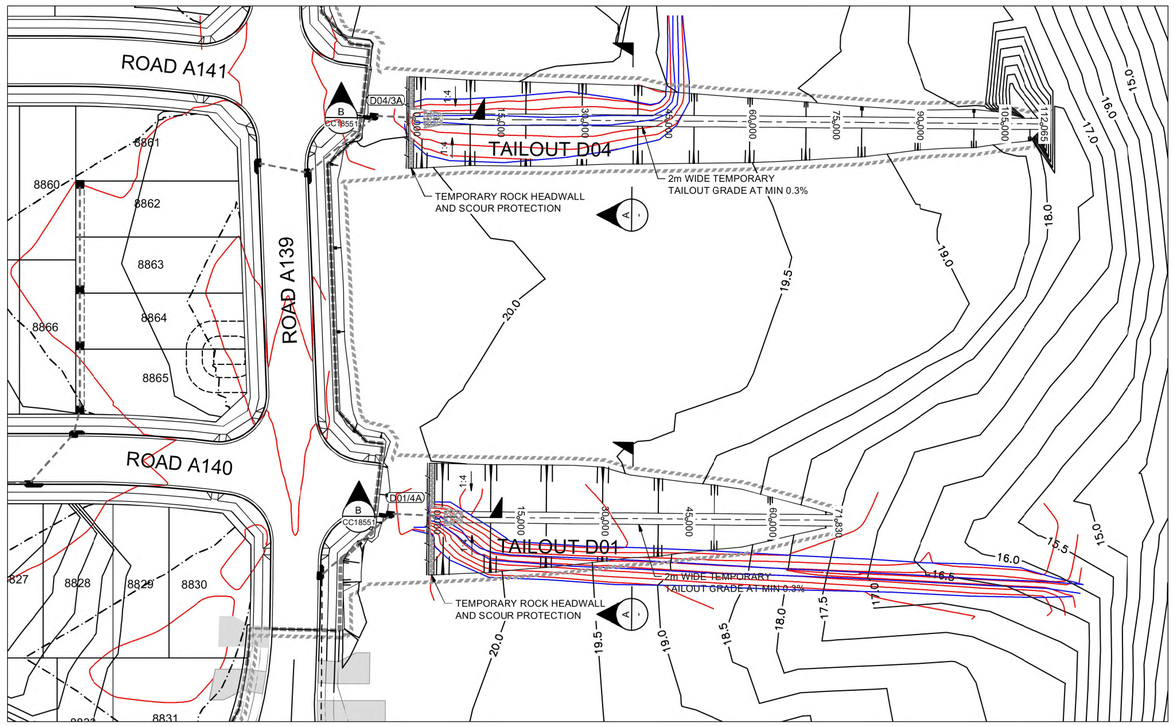
NEWPARK
PRECINCT 7, STAGE 7H
SPECIAL PIT DETAILS
SHEET 6

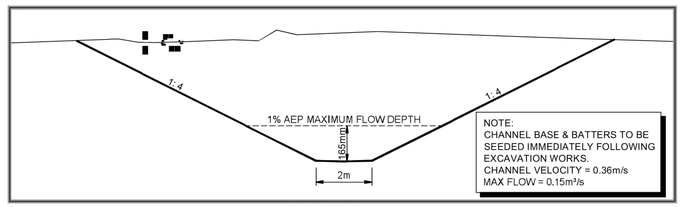
PROJECT No. 9985-12
SHEET No. CC18506

AZIMUTH: M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18506 | C

Plotted: 1 June 2022 2:31:36 PM | File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\16 - Precinct 7H\9985-12-CC18506.dwg







SECTION A
TAILOUT TYPICAL SECTION
NTS

TAILOUT D01			
CHAINAGE	EASTING	NORTHING	BEARING
0	295938.28	6269758.86	116°24'43.51"
71.83	296002.61	6269726.9	116°24'43.51"

TAILOUT D04			
CHAINAGE	EASTING	NORTHING	BEARING
0	295966.08	6269824.31	116°23'19.04"
112.07	296066.47	6269774.5	116°23'19.04"

TAILOUT D05			
CHAINAGE	EASTING	NORTHING	BEARING
0	296031.23	6270020.51	22°04'50.84"
15.63	296037.11	6270034.99	22°04'50.84"

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Categories: Certifier – Subdivision
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1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

AMENDMENT	DES	DRN	CKD	APR	DATE
B ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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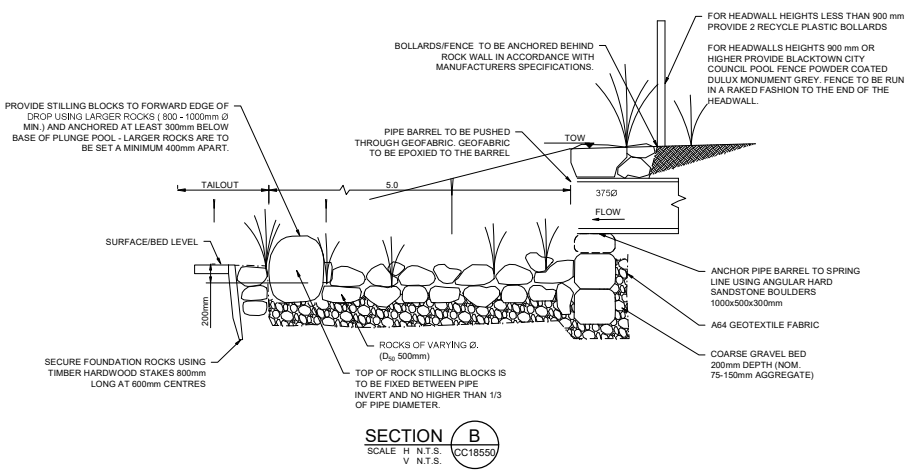
NEWPARK
PRECINCT 7, STAGE 7H
TAILOUT PLAN

PROJECT No: 9985-12
SHEET No: CC18550

AZIMUTHM.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18550 | B

Plotted: 8 March , 2022 11:25:23 AM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18550.dwg



SECTION B
SCALE H N.T.S.
V N.T.S.
CC18550

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

SEE PREVIOUS PAGE FOR PLOT OF DRAINAGE CHANNEL LOCATIONS

Plans and specifications referenced in certificate no. **17625** issued by:
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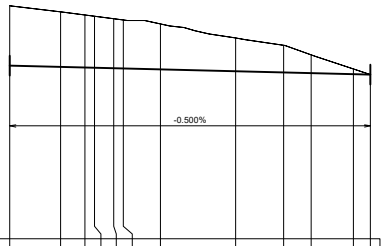
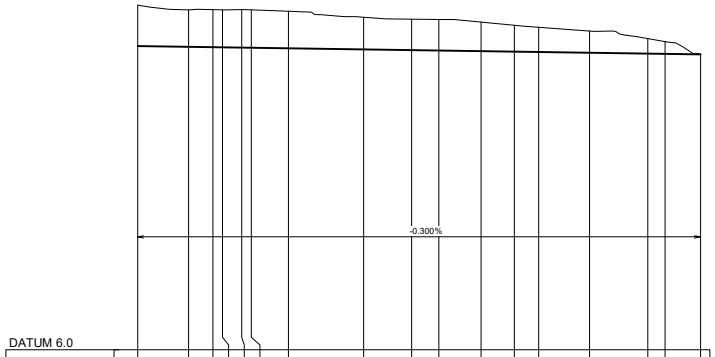
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au



DATUM 11.0

	17.94	17.90	17.85	17.84	17.81	17.80	17.75	17.70	17.65	17.60	17.55	17.52	17.46
DESIGN LINE GRADING	17.900	17.849	17.825	17.815	17.796	17.787	17.750	17.675	17.627	17.600	17.558	17.541	
EXISTING SURFACE	20.280	20.044	19.916	19.866	19.764	19.713	19.461	19.002	18.707	18.326	17.770	17.537	
CHAINAGE	0.000	10.127	15.000	16.909	20.730	22.643	30.000	45.000	54.547	60.000	68.396	71.830	

LONGITUDINAL SECTION TAILOUT D01
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

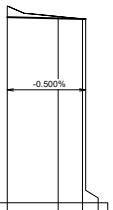


DATUM 6.0

	18.15	18.10	18.05	18.05	18.05	18.00	18.00	18.00	18.00	18.10	18.10	18.10	18.10
DESIGN LINE GRADING	18.100	18.070	18.055	18.049	18.038	18.032	18.010	17.965	17.936	17.920	17.895	17.875	17.860
EXISTING SURFACE	19.729	19.526	19.546	19.537	19.547	19.539	19.482	19.246	19.168	19.158	19.053	18.929	18.847
CHAINAGE	0.000	10.127	15.000	16.909	20.730	22.643	30.000	45.000	54.547	60.000	68.396	75.000	79.886

	18.10	18.10	18.10	18.10	18.10	18.10	18.10	18.10	18.10	18.10	18.10	18.10	18.10
DESIGN LINE GRADING	17.830	17.795	17.785	17.761									
EXISTING SURFACE	18.690	18.391	18.272	17.761									
CHAINAGE	90.000	101.566	105.000	112.065									

LONGITUDINAL SECTION TAILOUT D04
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



DATUM 9.0

	NIC	16.27	16.16	16.10	16.08		
DESIGN LINE GRADING	16.400		16.349	16.326	16.322		
EXISTING SURFACE	16.847	3.4 START	16.424	16.333	16.322		
CHAINAGE	0.000		10.127	15.000	15.827		

LONGITUDINAL SECTION TAILOUT D05
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

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NEWPARK
PRECINCT 7, STAGE 7H
TAILOUT LONGITUDINAL SECTIONS

PROJECT No: 9985-12
SHEET No: CC18551

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18551 | B

Plotted: 8 March 2022 11:23:06 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18551.dwg

SOIL AND WATER MANAGEMENT NOTES

GENERAL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED TO THE REQUIREMENTS OF THE " SOILS AND CONSTRUCTION - VOLUME 1, 4TH EDITION, MARCH 2004 ".
2. TOPSOIL FROM ALL AREAS TO BE DISTURBED SHALL BE STOCKPILED AND LATER RESPREAD TO AID REVEGETATION IN THOSE AREAS.
3. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS EARLY AS POSSIBLE DURING DEVELOPMENT.
4. ALL TAIL-OUT DRAINS SHALL BE COUCH GRASSED AND TRAPEZOIDAL IN SECTION. STRAW BALES SHALL BE PLACED AS A SEDIMENT CONTROL DEVICE WHERE REQUIRED.
5. VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING DEVELOPMENT CONFINING ACCESS WHERE POSSIBLE TO PROPOSED OR EXISTING ROAD ALIGNMENTS. AREAS TO BE LEFT UNDISTURBED SHALL BE MARKED OFF.
6. ROADS SHALL BE PAVED AS EARLY AS POSSIBLE AFTER FORMATION.
7. DISTURBANCE OF VEGETATION SHALL BE LIMITED TO FILL AREAS, ROADWAYS AND DRAINAGE LINES. NO LOT GRADING SHALL BE CARRIED OUT IN UNDISTURBED AREAS WITHOUT CONSULTATION WITH COUNCIL'S ENGINEER.
8. ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.
9. ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MAXIMUM 60% FULL OF SOLID MATERIALS, INCLUDING DURING THE MAINTENANCE PERIOD.
10. THE SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND COUNCIL'S WRITTEN GUIDELINES FOR THE DEVELOPMENT OF LAND.
11. CONTRACTORS SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS SPECIFIED ON THE PLAN AND IN ACCORDANCE WITH THE GUIDELINES SHOWN IN "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION 4TH EDITION" ("THE BLUE BOOK").
12. ALL CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR REDUCING THE SOIL EROSION AND POLLUTION OF DOWNSLOPE AREAS.
13. THE SOIL EROSION HAZARD ON THE SITE IS TO BE KEPT AS LOW AS POSSIBLE AND GENERALLY IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

LAND USE	LIMITATION	COMMENTS
CONSTRUCTION AREAS	DISTURBANCE TO BE NO FURTHER THAN 5m (PREF 2m) FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON THESE PLANS	ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE ZONES - WHERE APPROPRIATE THE CONSTRUCTION AREAS ARE TO BE IDENTIFIED WITH BARRIER FENCING (DOWNSLOPE) OR SIMILAR MATERIAL.
ACCESS AREAS	LIMITED TO A MAXIMUM WIDTH OF 10m	THE SITE MANAGER SHALL DETERMINE AND MARK THE LOCATION OF THESE ZONES ONSITE. THEY CAN VARY IN POSITION TO BEST CONSERVE THE EXISTING VEGETATION AND PROTECT DOWNSTREAM AREAS WHILE BEING CONSIDERATE OF THE NEEDS OF EFFICIENT WORKS ACTIVITIES. ALL SITE WORKERS SHALL CLEARLY RECOGNISE THEIR BOUNDARIES. WHERE APPROPRIATE THE ACCESS AREAS ARE TO BE MARKED WITH BARRIER MESH, SEDIMENT FENCING OR SIMILAR MATERIALS.
REMAINING LANDS	ENTRY PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH	THINNING OF GROWTH MAY BE REQUIRED FOR FIRE HAZARD REDUCTION.

NOTE:
WORKS WITHIN WATERWAYS AND CREEKS SHALL BE RESTRICTED AS DIRECTED - ALL LANDS WITHIN CREEKS AND WATERWAYS SHALL HAVE A GROUNDCOVER MORE THAN 70%, USING MATERIALS THAT CAN CATER FOR CONCENTRATED FLOWS.

14. WORKS ARE TO BE UNDERTAKEN IN THE FOLLOWING SEQUENCE. EACH SUBSEQUENT STAGE IS NOT TO COMMENCE UNTIL THE PREVIOUS ONE IS COMPLETE:-
    a. INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN AND TO DETAIL(SD) 6-8.
    b. CONSTRUCT STABILISED SITE ACCESS AS SHOWN ON THE PLAN AND TO DETAIL (SD) 6-14.
    c. CONSTRUCT LOW FLOW EARTH BANKS WHERE SHOWN ON THE PLAN AND TO DETAIL (SD) 5-5.
    d. PROVIDE TEMP. ACCESS TO THE SEDIMENT BASIN(S)AND PROTECT THIS WITH SEDIMENT FENCING (SD) 6-8 OR BARRIER FENCING AND EARTH BANKS (SD) 5-5.
    e. PLACE SEDIMENT FENCING (SD) 6-8 DOWNSLOPE OF LANDS TO BE DISTURBED FOR CONSTRUCTION OF THE SEDIMENT BASINS.
    f. CONSTRUCT SEDIMENT BASIN(S) GENERALLY IN ACCORDANCE WITH (SD) 6-4
    g. STABILISE LAND SURFACES DISTURBED BY CONSTRUCTION OF THE SEDIMENT BASIN(S) AS SOON AS FINAL LEVELS ARE ESTABLISHED
    h. CLEAR THE SITE AND STRIP AND STOCKPILE THE TOPSOIL IN THE LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE SITE SUPERINTENDENT TO DETAIL (SD) 4-1.
    i. UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS.
    j. GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 14 DAYS OF COMPLETION OF CONSTRUCTION WORKS.
    k. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
15. CLEARLY VISIBLE BARRIER FENCING SHALL BE INSTALLED WHERE DIRECTED BY THE SITE SUPERINTENDENT TO CONTROL AND PROHIBIT UNNECESSARY SITE DISTURBANCE
16. EARTH BATTERS SHALL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER THAN:-
    a. 2(h) - 1(v) WHERE SLOPE LENGTH IS LESS THAN 7m
    b. 2.5(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 7m AND 10m
    c. 3(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 10m AND 12m
    d. 4(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 12m AND 18m
    e. 5(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 18m AND 27m
    f. 6(h) - 1(v) WHERE SLOPE LENGTH IS GREATER THAN 27m

    SLOPE LENGTHS CAN BE SHORTENED BY USING LOW FLOW EARTH BANKS AS CATCH DRAINS ABOVE THE EARTH BATTER AREA.
17. PROTECTION FROM EROSIVE FORCES SHALL BE UNDERTAKEN ON ALL LANDS. GROUND COVER TO BE IN PLACE WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION AND BEFORE THEY ARE ALLOWED TO CARRY ANY CONCENTRATED FLOWS.
18. TEMPORARY GROUND COVER SHOULD BE MINIMUM 70%. FOOT AND VEHICULAR TRAFFIC SHALL BE KEPT AWAY FROM REHABILITATED AREAS.
19. WHERE POSSIBLE THE CONSTRUCTION PROGRAM IS TO SCHEDULE WORKS SUCH THAT LAND DISTURBANCE ACTIVITIES ARE COMPLETED IN LESS THAN 6 MONTHS. REVEGETATION WORKS MUST BE CARRIED OUT AS STIPULATED IN THE RELEVANT COUNCIL GUIDELINES / SPECIFICATIONS SUCH THAT A SATISFACTORY GROUND COVER IS PROVIDED TO AT LEAST 60% OF THE DISTURBED AREA WITHIN 10 DAYS AND AT LEAST 70% OF THE DISTURBED AREA WITHIN A FURTHER 60 DAYS..
20. SEDIMENT FENCES (SD) 6-8 SHALL:-
    a. BE INSTALLED WHERE SHOWN ON THE PLAN AND AS DIRECTED AT THE DISCRETION OF THE SITE SUPERINTENDENT DURING THE COURSE OF CONSTRUCTION TO CONTAIN THE COARSER SEDIMENT FRACTIONS AS NEAR AS POSSIBLE TO THEIR SOURCE.
    b. HAVE A CATCHMENT AREA NOT EXCEEDING 720sq.m, AND A STORAGE DEPTH OF AT LEAST 0.6m.
    c. PROVIDE AN UPSLOPE RETURN OF 1m AT INTERVALS ALONG THE FENCE WHERE THE CATCHMENT AREA EXCEEDS 720sq.m. TO LIMIT THE DISCHARGE REACHING EACH SECTION TO 50litres/sec IN A MAX. 10yr Tc DISCHARGE.
21. STOCKPILES (SD) 4-1 SHALL BE LOCATED AS SHOWN ON THE PLANS AND AT THE DISCRETION OF THE SITE SUPERINTENDENT.
22. DURING WINDY WEATHER LARGE UNPROTECTED AREAS ARE TO BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL. IN THE EVENT WATER IS NOT AVAILABLE IN SUFFICIENT QUANTITIES SOIL BINDERS AND/OR DUST RETARDANTS SHALL BE USED OR THE SURFACE SHALL BE LEFT IN A CLODDY STATE THAT RESISTS REMOVAL BY WIND.
23. STOCKPILES SHALL NOT BE LOCATED WITHIN 5m OF HAZARD AREAS, INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS OR DRIVEWAYS.
24. THE SEDIMENT RETENTION BASINS (SD) 6-4 SHALL:-
    (REFER TO J WYNDHAM PRINCE PLAN REF 998512-CC2702 FOR PRECINCT 7, STAGE 7A SEDIMENT BASIN DESIGN DETAILS)
    a. BE CONSTRUCTED WHERE SHOWN ON THE PLANS.
    b. BE FLOCCULATED (APPENDIX E MANAGING URBAN STORMWATER SOILS & CONSTRUCTION 4TH ED.) BEFORE DISCHARGE OCCURS (UNLESS THE DESIGN STORM EVENT IS EXCEEDED)
    c. HAVE ONE OR MORE PEGS PLACED ON THE FLOOR TO CLEARLY INDICATE THE LEVEL AT WHICH DESIGN CAPACITY OCCURS AND WHEN SEDIMENT SHALL BE REMOVED.
25. STORED CONTENTS OF THE BASINS SHALL BE TREATED WITH GYPSUM (APPENDIX E MANAGING URBAN STORMWATER SOILS & CONSTRUCTION 4TH ED.) OR OTHER FLOCCULATING AGENTS WHERE THEY CONTAIN MORE THAN 50mg/litre OF SUSPENDED SOLIDS. TREATMENT SHALL BE AS FOLLOWS:-
    a. LOWER SUSPENDED SOLIDS TO LESS THAN 50mg/litre WITHIN 24hrs OF FILLING
    b. THE BASINS SHALL THEN BE ALLOWED TO STAND 36 TO 48hrs FOR FLOCCULATED PARTICLES TO SETTLE
    c. THE BASINS SHALL THEN BE DRAINED SO THAT FULL STORAGE CAPACITY IS REGAINED WITHOUT DISCHARGING SEDIMENT FROM THE SITE.
26. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE SHALL BE DISPOSED IN LOCATIONS WHERE FURTHER EROSION AND CONSEQUENT POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS SHALL NOT OCCUR.
27. WATER SHALL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE (ie THE CATCHMENT HAS BEEN LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN TREATED IN AN APPROVED DEVICE) NEVERTHELESS STORMWATER INLETS SHALL BE PROTECTED (SD) 6-11 & 6-12.
28. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED.
29. ACCEPTABLE BINS SHALL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES SHALL BE PROVIDED AT LEAST ONCE A WEEK.

STOCKPILE NOTES:

1. SPOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE.
2. IF STOCKPILES ARE TO BE IN PLACE FOR LONGER THAN 14 DAYS THEN THEY SHALL BE STABILIZED BY COVERING WITH A MULCH OR WITH TEMPORARY VEGETATION.
3. FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE RESPREAD TO A MINIMUM DEPTH OF 100mm ON THE BARE SOIL SURFACES AND REVEGETATED.

SEDIMENTATION CONTROL DEVICES:

1. ALL STRAW BALES SHALL BE BOUND WITH WIRE. STRAW BALES SHALL BE PLACED END TO END IN A SINGLE ROW AND EMBEDDED INTO THE SOIL TO A DEPTH OF 100mm. EACH BALE SHALL BE SECURELY ANCHORED WITH TWO STEEL STAKES DRIVEN 600mm INTO THE GROUND AND LOCKED ON THE BALE CENTRELINE.
2. SILT FENCES SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR SIMILAR) BETWEEN POSTS AT 2.5m CENTRES. FABRIC SHALL BE BURIED 150mm ALONG IT'S LOWER EDGE.
3. PROVIDE STRIP OF TURF MIN. 300mm WIDE BEHIND KERB + 1m WIDE AROUND ALL SURFACE INLET PITS

SITE INSPECTION AND MAINTENANCE:

1. A SELF-AUDITING PROGRAM SHALL BE ESTABLISHED BASED ON A INSPECTION TEST PLAN (ITP) OR LOG BOOK. A SITE INSPECTION USING THE ITP SHALL BE MADE BY THE SITE MANAGER-:
    a. AT LEAST WEEKLY
    b. IMMEDIATELY BEFORE SITE CLOSURE
    c. IMMEDIATELY FOLLOWING RAINFALL EVENTS IN EXCESS OF 5mm IN ANY 24hr PERIOD.

    THE SELF AUDIT SHALL INCLUDE:-
    a. RECORDING THE CONDITION OF EVERY 'BEST MANAGEMENT PRACTICE' EMPLOYED
    b. RECORDING MAINTENANCE REQUIREMENTS (IF ANY) FOR EACH 'BEST MANAGEMENT PRACTICE'
    c. RECORDING THE VOLUMES OF SEDIMENT REMOVED FROM SEDIMENT RETENTION SYSTEMS WHERE APPLICABLE
    d. RECORDING THE SITE WHERE SEDIMENT IS DISPOSED
    e. FORWARDING A SIGNED DUPLICATE OF THE COMPLETED CHECK SHEET TO THE PROJECT MANAGER/DEVELOPER FOR THEIR INFORMATION.
2. IN ADDITION A SUITABLY QUALIFIED PERSON SHALL BE RESPONSIBLE FOR OVERSEEING THE INSTALLATION AND MAINTENANCE OF ALL SOIL AND WATER MANAGEMENT WORKS ON THE SITE. THE PERSON SHALL BE REQUIRED TO SPEND A MINIMUM OF:-
    a. 2hrs ONSITE EACH FORTNIGHT UP UNTIL COMPLETION OF ROAD AND DRAINAGE WORKS AND/OR THE COMMISSIONING OF SEDIMENT BASIN(S)WATER QUALITY CONTROL FACILITIES, AND DURING THE DECOMMISSIONING OF SAME AND/OR FINAL SITE STABILISATION. TO PROVIDE A SHORT MONTHLY WRITTEN REPORT.
    b. ONE HOUR ONSITE EACH 2 MONTHS DURING THAT PHASE WHERE THE DEVELOPERS RESPONSIBILITIES ARE LIMITED TO MAINTENANCE OF THE SDS DEVICES AND/OR SEDIMENT BASINS (ie DURING THE STAGE WHEN BUILDING WORKS CAN BE UNDERTAKEN) TO PROVIDE A SHORT WRITTEN REPORT EACH 4 MONTHS

    THE RESPONSIBLE PERSON SHALL ENSURE THAT:-
    a. THIS PLAN IS BEING IMPLEMENTED CORRECTLY
    b. REPAIRS ARE BEING UNDERTAKEN AS REQUIRED
    c. ESSENTIAL MODIFICATIONS TO THIS PLAN ARE BEING MADE IF AND WHEN NECESSARY. EACH REPORT SHALL CERTIFY THAT WORKS HAVE BEEN CARRIED OUT ACCORDING TO THE APPROVED PLANS.
3. WASTE BINS SHALL BE EMPTIED AS NECESSARY, DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT
4. PROPER DRAINAGE OF THE SITE SHALL BE MAINTAINED. DRAINS (INCLUDING INLET AND OUTLET WORKS) SHALL BE CHECKED TO ENSURE THAT THEY ARE OPERATING AS INTENDED,ESPECIALLY THAT:-
    a. NO LOW POINTS EXIST WHICH CAN OVERTOP IN A LARGE STORM EVENT.
    b. AREAS OF EROSION ARE REPAIRED (e.g LINED WITH SUITABLE MATERIAL) AND/OR VELOCITY OF FLOW IS REDUCED APPROPRIATELY THROUGH CONSTRUCTION OF SMALL CHECK DAMS OR INSTALLING ADDITIONAL DIVERSIONS UPSLOPE
    c. BLOCKAGES ARE CLEARED (THESE MIGHT OCCUR BECAUSE OF SEDIMENT POLLUTION, SAND/SOIL/SPOIL BEING DEPOSITED IN OR TOO CLOSE TO THEM, BREACHED BY VEHICLE WHEELS etc)
5. SAND/SOIL/SPOIL MATERIALS PLACED CLOSER THAN 2m FROM HAZARD AREAS SHALL BE REMOVED SUCH HAZARD AREAS INCLUDE ANY AREAS OF HIGH VELOCITY WATER FLOWS (eg WATERWAYS AND GUTTERS) PAVED AREAS AND DRIVEWAYS.
6. RECENTLY STABILISED LANDS SHALL BE CHECKED TO ENSURE THAT THE EROSION HAZARD HAS BEEN EFFECTIVELY REDUCED. ANY REPAIRS SHALL BE INITIATED AS APPROPRIATE.
7. EXCESSIVE VEGETATIVE GROWTH SHALL BE CONTROLLED THROUGH MOWING OR SLASHING.
8. ALL SEDIMENT DETENTION SYSTEMS SHALL BE KEPT IN GOOD WORKING CONDITION. IN PARTICULAR ATTENTION SHALL BE GIVEN TO:-
    a. RECENT WORKS TO ENSURE THAT THEY HAVE NOT RESULTED IN DIVERSION OF SEDIMENT LADEN WATER AWAY FROM THEM.
    b. DEGRADABLE PRODUCTS TO ENSURE THAT THEY ARE REPLACED AS REQUIRED
    c. SEDIMENT REMOVAL TO ENSURE THE DESIGN CAPACITY OR LESS REMAINS IN THE SETTLING ZONE.
9. ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS SHALL BE CONSTRUCTED AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS (ie MAKE ONGOING CHANGES TO THIS PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECTED TO CHANGES IN CONDITIONS AT THE WORKS SITE OR ELSEWHERE IN THE CATCHMENT.
10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN A FUNCTIONING CONDITION UNTIL ALL EARTHWORKS ACTIVITIES ARE COMPLETED AND THE SITE STABILISED.
11. WATERS IN SEDIMENT RETENTION BASIN(S) THAT OCCUPY MORE THAN 1/4 OF THE DESIGN CAPACITY DURING THAT STAGE OF THE WORKS UP UNTIL COMMISSIONING OF THE BASIN(s) SHALL BE:-
    a. TREATED WITH A FLOCCULATING AGENT (APPENDIX E MANAGING URBAN STORMWATER SOILS & CONSTRUCTION 4TH ED.)
    b. DISCHARGED WITHIN 5 days FROM THE CONCLUSION OF ANY STORM EVENT LARGE ENOUGH TO FILL THE BASIN TO THAT LEVEL.
12. LITTER, DEBRIS AND COARSE SEDIMENT SHALL BE REMOVED FROM THE GROSS POLLUTANT TRAPS AND TRASH RACKS AS REQUIRED.

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

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Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
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B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
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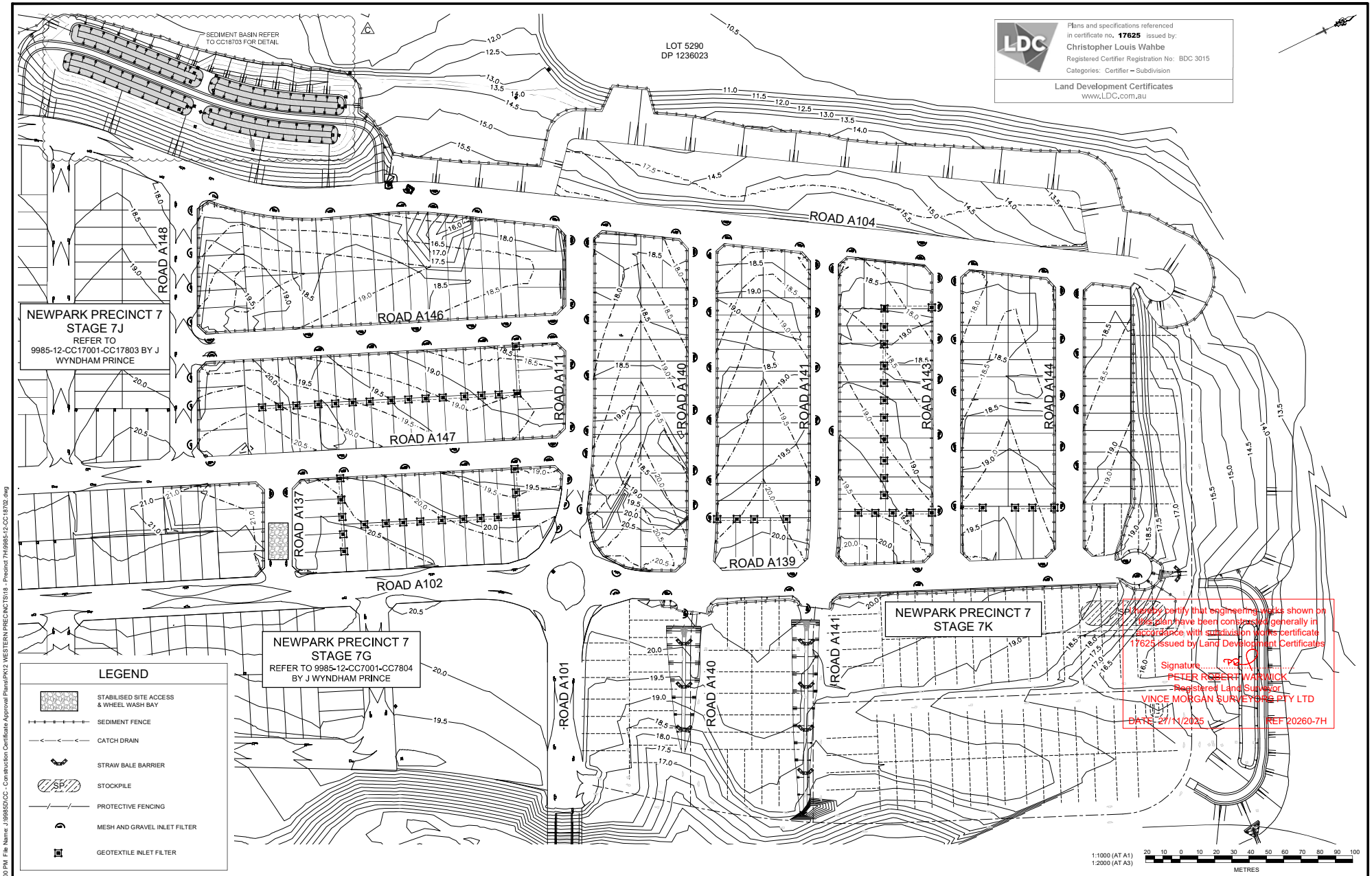
NEWPARK
PRECINCT 7, STAGE 7H
SOIL & WATER MANAGEMENT NOTES

PROJECT No: 9985-12
SHEET No: CC18701

AZIMUTH M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18701 | B

Plotted: 8 March 2022 1:33:58 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18701.dwg



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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE: 27/11/2025 REF 20260-7H

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	SEDIMENT BASIN LAYOUT UPDATED	DG	DG	KE	KE	18/08/22
C	STOCKPILE SEDIMENT FENCE ADDED	DG	EJ	KE	KE	01/06/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

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NEWPARK PRECINCT 7, STAGE 7H
SOIL & WATER MANAGEMENT PLAN

PROJECT No: 9985-12
SHEET No: CC18702

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18702 | D

Plotted: 18 August, 2023 3:37:00 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18702.dwg

LEGEND

- SEDIMENT FENCE
- CATCH DRAIN
- STRAW BALE BARRIER
- MESH AND GRAVEL INLET FILTER
- GEOTEXTILE INLET FILTER

1. Site Data Sheet

Site Name: NEWPARK PRECINCT 7 - SEDIMENT BASIN MS2

Site Location: MARSDEN PARK

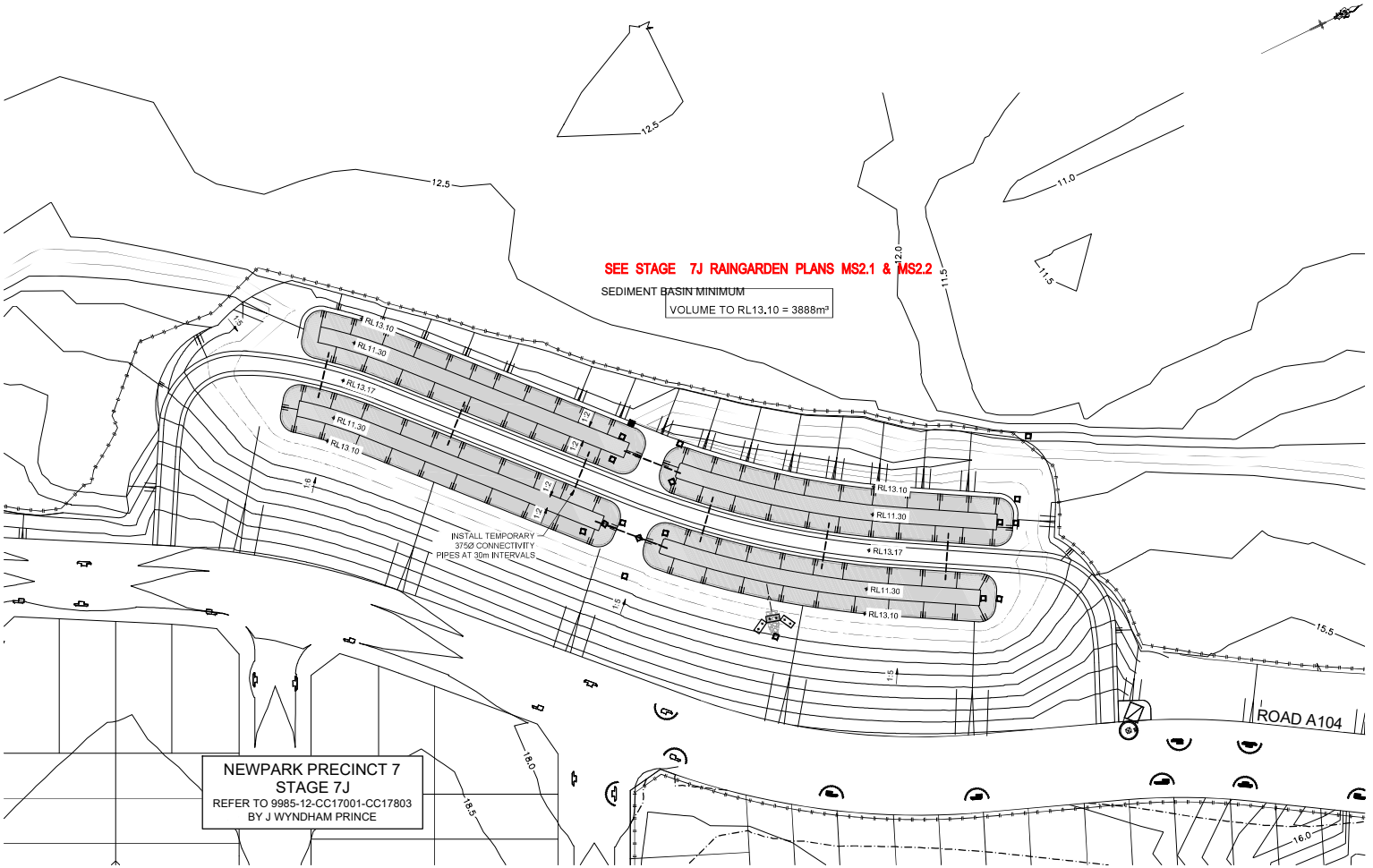
Precinct: BLACKTOWN CITY COUNCIL

Description of Site: SEDIMENT BASIN TO SUPPORT THE PRECINCT 7J & 7H SUBDIVISION CONSTRUCTION

Site area	Site						Remarks
	7JH						
Total catchment area (ha)	22.3						
Disturbed catchment area (ha)	22.3						
Soil analysis							
% sand (fraction 0.02 to 2.00 mm							Soil texture should be assessed through
% silt (fraction 0.002 to 0.02 mm)	25						mechanical dispersion only. Dispersing
% clay (fraction finer than 0.002 mm)	75						agents (e.g. Calgon) should not be used
Dispersion percentage	100.0						E.g. enter 10 for dispersion of 10%
% of whole soil dispersible	87.5						See Section 6.3.3(e)
Soil Texture Group	D						See Section 6.3.3(c), (f) and (e)
Rainfall data							
Design rainfall depth (days)	5						See Sections 6.3.4 (d) and (e)
Design rainfall depth (percentile)	85						See Sections 6.3.4 (f) and (g)
x-day, y-percentile rainfall event	32.2						See Section 6.3.4 (h)
Rainfall intensity: 2-y-ear, 6-hour storm	10.1						See IFD chart for the site
RUSLE Factors							
Rainfall erosivity (R-factor)	2250						Automatic calculation frm above data
Soil erodibility (K-factor)	0.038						
Slope length (m)	80						
Slope gradient (%)	2						RUSLE data can be obtained from
Length/gradient (LS factor)	0.65						Appendices A, B and C
Erosion control practice (P-factor)	1.3	1.3					
Ground cover (C-factor)	1	1					
Calculations							
Soil loss (Rxkx)	72						
Soil Loss Class	1						See Section 4.4.2(b)
Soil loss (m^3/ha/yr)	56						
Sediment basin storage volume, m^3	211						See Sections 6.3.4(i) and 6.3.5 (e)

Total Basin Volume

Site	C_v	$R_{day,y\%ile}$	Total catchment area (ha)	Settling zone volume (m^3)	Sediment storage volume (m^3)	Total basin volume (m^3)
7JH	0.50	32.2	22.3	3590.3	211	3801.3



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Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

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1:1000 (AT A1)
1:2000 (AT A3)

20 10 0 10 20 30 40 50 60 70 80 90 100
METRES

C	SEDIMENT BASIN LAYOUT UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
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NEWPARK
PRECINCT 7, STAGE 7H
SEDIMENT BASIN PLAN

PROJECT No: 9985-12
SHEET No: CC18703

AZIMUTHM.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18703 | C

Plotted: 18 August, 2023 5:52:25 PM File Name: J:\9985\DVCC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18703.dwg

THESE SIGNAGE AND LINEMARKING PLANS ARE SUBJECT TO APPROVAL BY BLACKTOWN CITY COUNCIL TRAFFIC COMMITTEE

NOTE: REFER TO CC18803 FOR LEGEND AND NOTES.

LOT 5290
DP 1236023

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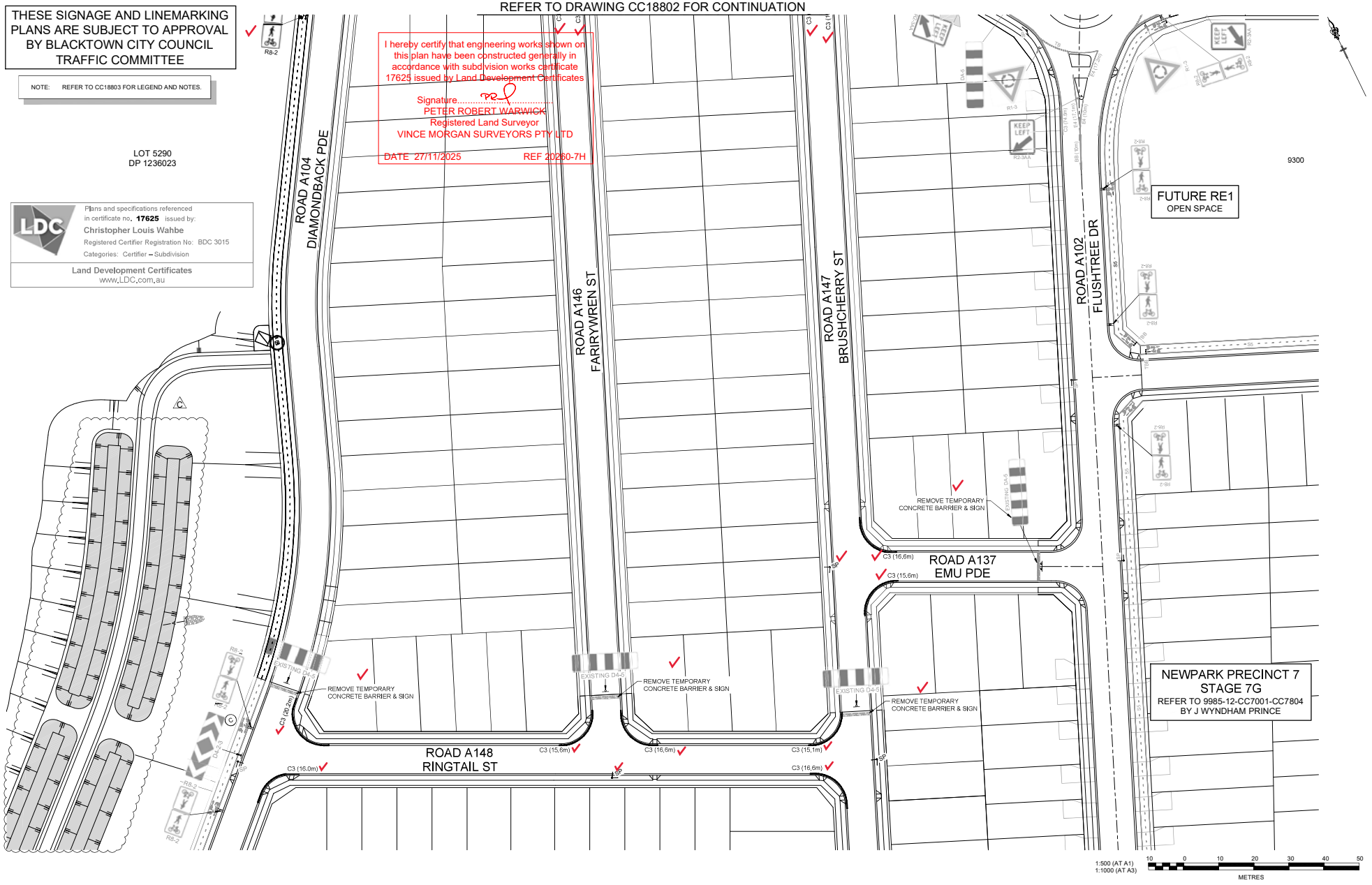
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

REFER TO DRAWING CC18802 FOR CONTINUATION



C	SEDIMENT BASIN LAYOUT UPDATED	DG	DG	KE	KE	18/08/22
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22
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NEWPARK
PRECINCT 7, STAGE 7H
SIGNAGE & LINEMARKING PLAN
SHEET 1

PROJECT No: 9985-12
SHEET No: CC18801

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18801 | C

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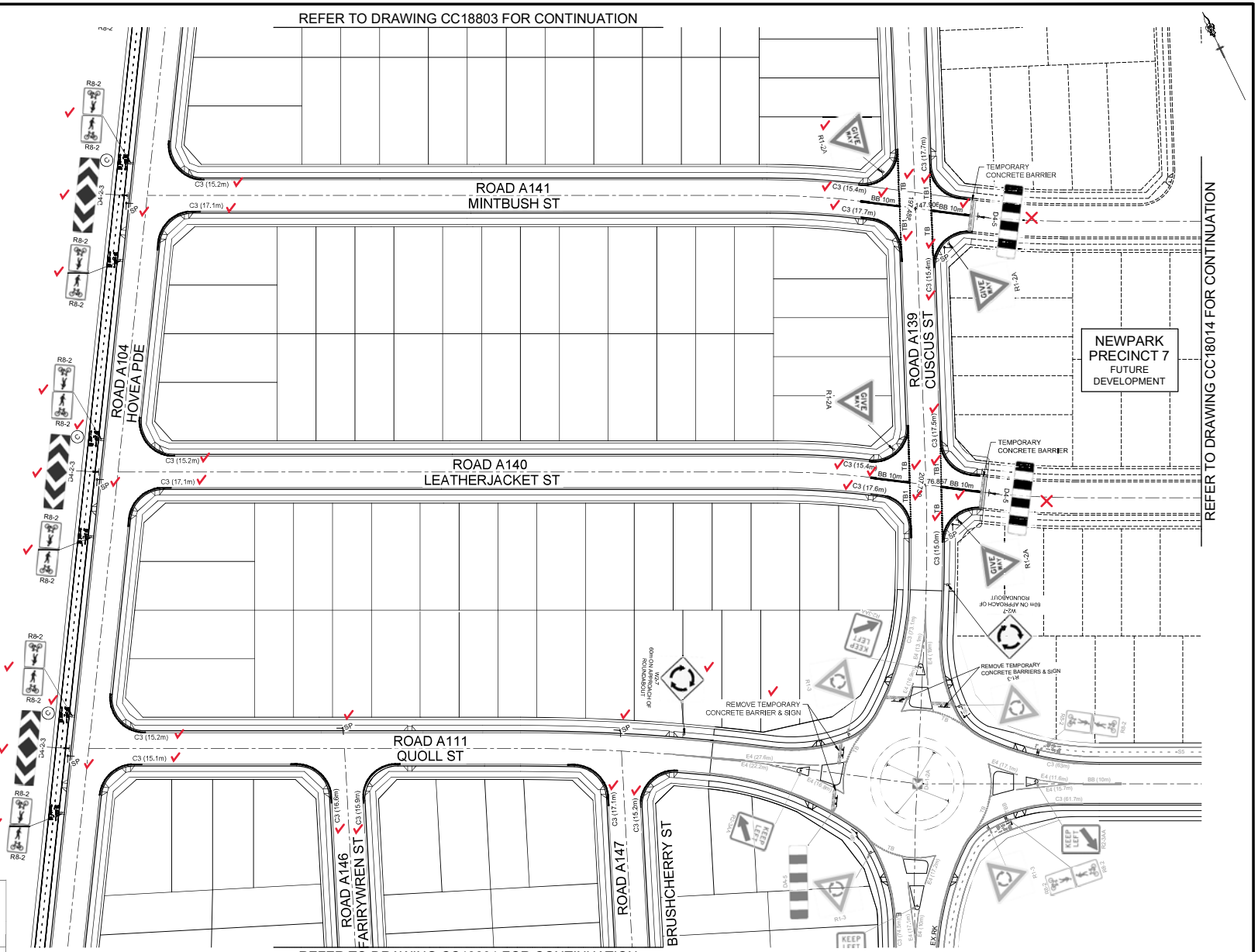
NOTE: REFER TO CC18803 FOR LEGEND AND NOTES.

LOT 5290
DP 1236023



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1:1000 (AT A3)

10 0 10 20 30 40 50
METRES

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with subdivision works certificate 17625 issued by Land Development Certificates

Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 27/11/2025 REF 20260-7H

LDC
Plans and specifications referenced in certificate no. **17625** issued by:
Christopher Louis Wahbe
Registered Certifier Registration No: BDC 3015
Categories: Certifier – Subdivision
Land Development Certificates
www.LDC.com.au

	AMENDMENT	DES	DRN	CKD	APR	DATE
B	ISSUE FOR SWC APPROVAL	DG	NDW	KE	PM	08/03/22
A	ISSUE FOR CAA APPROVAL	DG	NDW	KE	PM	19/01/22

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

CLIENT: WINTEN PROPERTY GROUP

STATUS: ISSUE FOR CONSTRUCTION APPROVAL
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

NEWPARK
PRECINCT 7, STAGE 7H
SIGNAGE & LINEMARKING PLAN
SHEET 2

PROJECT No: 9985-12
SHEET No: CC18802

AZIMUTH: M.G.A.94 | DATUM: A.H.D. | ORIGIN: SSM 1112 | PLAN No: 9985-12-CC18802 | B

Plotted: 8 March 2022 11:24:00 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18802.dwg

PAVEMENT MARKING SCHEDULE

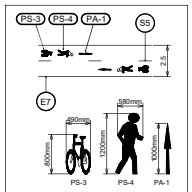
CODE	USE	STYLE	COLOUR & TYPE
BB	Barrier line where sight is restricted in both directions or approach to median island		Reflectorised white type 'YY' pavement markers bi-directional reflective yellow
TB	Give way line (Used with Signs)		Reflectorised white
TB1	Give way line (Used on right side of side)		Reflectorised white
TBB	Give way line on Path		Reflectorised white
S4	Bicycle lane continuous separation line for off-road bike path		Reflectorised white
S5	Bicycle lane separation line for off-road bike path (straight sections)		Reflectorised white
TBB	Give way line on Path		Reflectorised white
SP	Sreet post sign		
C	Shared Path pavement arrangement. Refer to detail.		Reflectorised white
C3	Kerbside Linemarking for No Stopping Restrictions		Reflectorised yellow

LOT 5290
DP 1236023

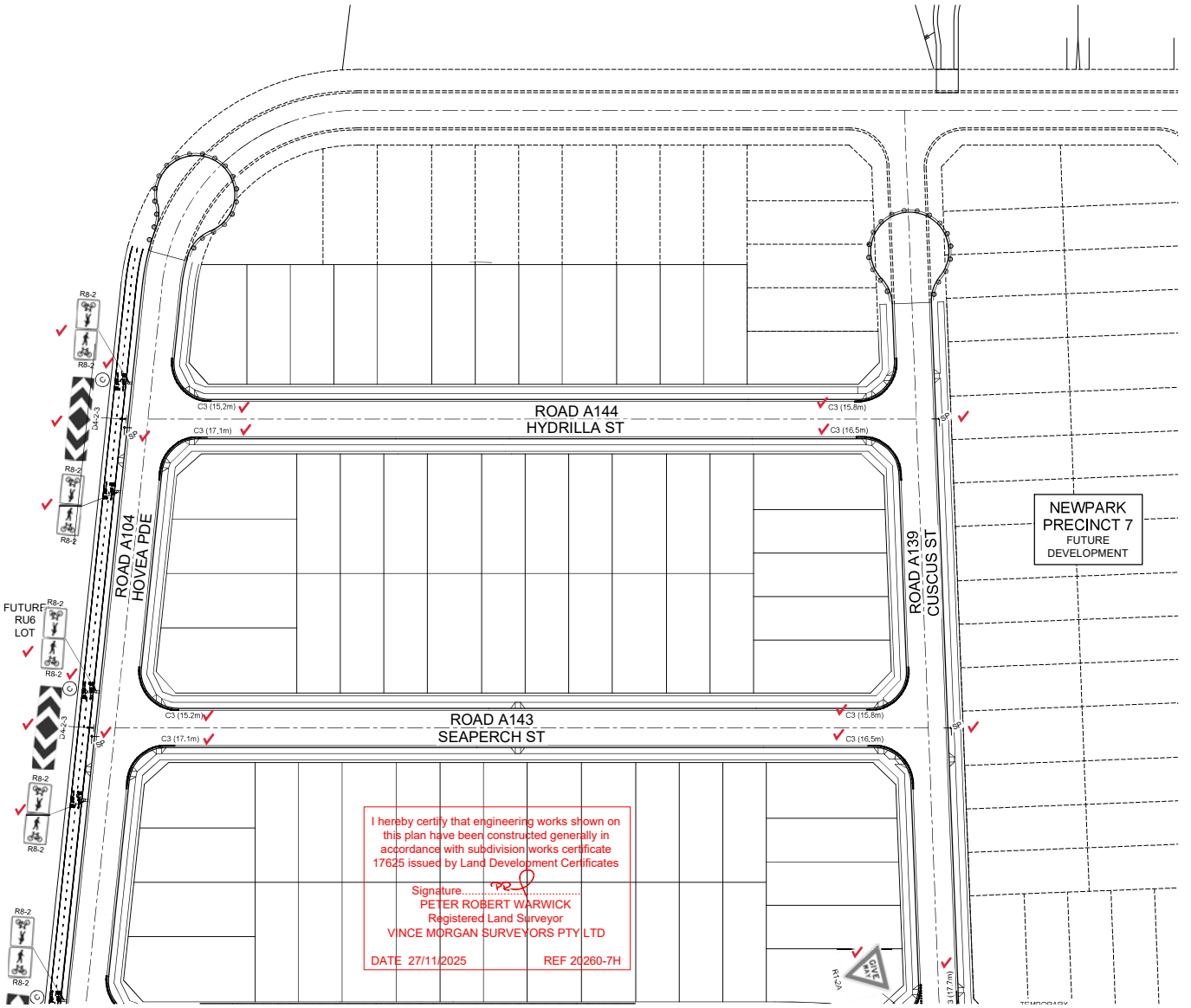
NOTES

1. ALL PAVEMENT MARKINGS, CHEVRONS AND REFLECTORS ARE TO BE IN ACCORDANCE WITH AUSTROADS GUIDE TO TRAFFIC MANAGEMENT PART 6 AND AUSTRALIAN STANDARDS. AS1742.9 AND AS1743.
2. ALL SIGNS TO BE IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARD; AS 1743 - ROAD SIGNS AND COUNCIL'S SPECIFICATION UNLESS OTHERWISE SHOWN.
3. ROAD SIGNS ARE SIZE 'B', UNLESS OTHERWISE SHOWN. LOCATE OUTSIDE OF CLEAR ZONES.
4. ALL NEW PAVEMENT MARKINGS ARE TO BE INSTALLED IN WHITE, REFLECTIVE, THERMOPLASTIC PAINT.
5. KERBSIDE LANE WIDTHS INCLUDE THE WIDTH OF THE GUTTER.
6. RE-MARK EXISTING PAVEMENT MARKINGS AS DIRECTED BY THE COUNCIL'S ENGINEER.
7. PAVEMENT MARKINGS THAT FORM NO PART OF THE FINAL WORKS ARE TO BE REMOVED BY SAND BLASTING OR OTHER METHOD AS APPROVED BY THE PROJECT MANAGER.
8. ALL MEASUREMENTS ARE IN METRES UNLESS OTHERWISE SHOWN.

THESE SIGNAGE AND LINEMARKING PLANS ARE SUBJECT TO APPROVAL BY BLACKTOWN CITY COUNCIL TRAFFIC COMMITTEE



TYPICAL SHARED PATH PAVEMENT ARRANGEMENT DETAIL
N.T.S.



REFER TO DRAWING CC18802 FOR CONTINUATION

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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

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NEWPARK
PRECINCT 7, STAGE 7H
SIGNAGE & LINEMARKING PLAN
SHEET 3

PROJECT No: 9985-12
SHEET No: CC18803

AZIMUTH:M.G.A.94 | DATUM:A.H.D. | ORIGIN:SSM 1112 | PLAN No: 9985-12-CC18803 | B

Plotted: 8 March 2022 11:25:20 AM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK12 WESTERN PRECINCTS\18 - Precinct 7H\9985-12-CC18803.dwg