I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

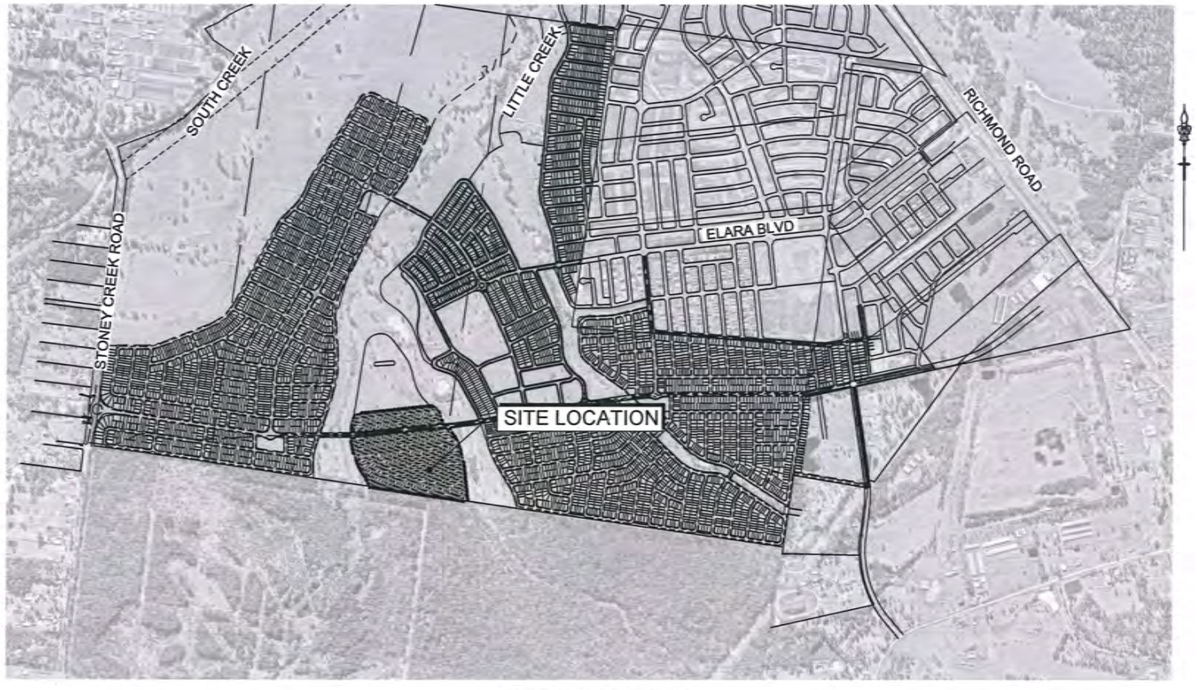
Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

WINTEN PROPERTY GROUP

NEWPARK - PRECINCT 5
CONSTRUCTION CERTIFICATE
PROPOSED LOT, ROAD AND DRAINAGE WORKS
COUNCIL REF : DA-17-01165



LOCALITY SKETCH

Prepared By:

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS
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These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

ISSUE FOR CONSTRUCTION APPROVAL

PLAN No. 998511/CC400 C
FILE No. 998511CC400

Plotted: September 26, 2019 File Name: J:\9985\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC400.dwg

LEGEND

DESCRIPTION	PROPOSED	EXISTING	FUTURE
VEHICULAR CROSSING	VC		
EXTENT OF WORKS			
KERB & GUTTER	K&G		
ROLL KERB	RK		
DISH CROSSING	DC		
PRAM RAMP			
DRAINAGE LINE, PIT & EASEMENT	05/05 Ø225		
DRAINAGE LINE & PIT	05/05 Ø600		
SUBSOIL		SS SS	
HEADWALL			
GROSS POLLUTANT TRAP (GPT)			
GUIDE POSTS			
CONTOURS	46.0	47.0	
CATCH DRAIN			
KERB RETURN No	KR		
ELECTRICITY, POWER POLE	E E E E	xE xE xE	
TELECOM, BOX	T T T T	xT xT xT xT	
WATER, STOP VALVE, HYDRANT	W W W W	HYD SV xW xW xW	
SEWER, MANHOLE	S S S S	xS xS xS	
GAS	G G G G	xG xG xG	
ELECTRICAL SUBSTATION			
STREET NAME SIGNS	SP		
SURVEY MARKS - BENCH MARKS			
STATE SURVEY MARKS			
STAGE BOUNDARY			
CATCHMENT BOUNDARY			
FLOW DIRECTION ARROW			
EXISTING NATIVE VEGETATION			
NATIVE VEGETATION RETENTION			
EASEMENT FOR MAINTENANCE ACCESS			
INDICATIVE DRIVEWAYS LOCATIONS			
RL17.3 CONTOUR			

CIVIL PLAN INDEX

PLAN NO.	PLAN NAME	REV
998511/CC400	COVER SHEET	C
998511/CC401	GENERAL NOTES, LEGEND & INDEX	D
998511/CC402	OVERALL PLAN	C
998511/CC403	ROAD SETOUT PLAN	C
998511/CC404	PAVEMENT PLAN	C
998511/CC405	TYPICAL ROAD SECTIONS	C
998511/CC406	CUT & FILL PLAN	C
998511/CC407	ENGINEERING PLAN SHEET 1	C
998511/CC408	ENGINEERING PLAN SHEET 2	D
998511/CC409	ENGINEERING PLAN SHEET 3	D
998511/CC410	ENGINEERING PLAN SHEET 4	D
998511/CC411	ROAD LONGITUDINAL SECTION ABELL ROAD	C
998511/CC412	ROAD LONGITUDINAL SECTION ROAD D1	C
998511/CC413	ROAD LONGITUDINAL SECTION ROAD D2 SHEET 1	C
998511/CC414	ROAD LONGITUDINAL SECTION ROAD D2 SHEET 2	C
998511/CC415	ROAD LONGITUDINAL SECTION ROAD D3 & D4	C
998511/CC416	ROAD LONGITUDINAL SECTION ROAD D5, D6 & D7	C
998511/CC417	ROAD LONGITUDINAL SECTION ROAD D8 & D9	C
998511/CC418	ROAD CROSS SECTIONS ROAD D1 SHEET 1	C
998511/CC419	ROAD CROSS SECTIONS ROAD D1 SHEET 2	C
998511/CC419A	ROAD CROSS SECTIONS ROAD D1 SHEET 3	C
998511/CC420	ROAD CROSS SECTIONS ROAD D2 SHEET 1	C
998511/CC421	ROAD CROSS SECTIONS ROAD D2 SHEET 2	C
998511/CC422	ROAD CROSS SECTIONS ROAD D2 SHEET 3	C
998511/CC423	ROAD CROSS SECTIONS ROAD D2 SHEET 4	C
998511/CC424	ROAD CROSS SECTIONS ROAD D2 SHEET 5	C
998511/CC425	ROAD CROSS SECTIONS ROAD D3 AND ROAD D4	C
998511/CC426	ROAD CROSS SECTIONS ROAD D4 AND ROAD D5	C
998511/CC427	ROAD CROSS SECTIONS ROAD D6	C
998511/CC428	ROAD CROSS SECTIONS ROAD D7 AND ROAD D8	C
998511/CC428A	ROAD CROSS SECTIONS ROAD D8 AND ROAD D9	C
998511/CC429	KERB RETURNS SHEET 1	C
998511/CC430	KERB RETURNS SHEET 2	C
998511/CC431	KERB RETURNS SHEET 3	C
998511/CC432	KERB RETURNS SHEET 4	C
998511/CC433	KERB RETURNS SHEET 5	C
998511/CC434	KERB RETURNS SHEET 6	C
998511/CC435	KERB RETURNS SHEET 7	C
998511/CC436	KERB RETURNS SHEET 8	C
998511/CC437	KERB RETURNS SHEET 9	C
998511/CC438	SPECIAL PIT DETAILS	C
998511/CC439	CATCHMENT PLAN	D
998511/CC440	PIT SCHEDULE	D
998511/CC441	PIT DETAILS	C
998511/CC442	DRAINAGE LONGITUDINAL SECTIONS SHEET 1	D
998511/CC443	DRAINAGE LONGITUDINAL SECTIONS SHEET 2	D
998511/CC444	DRAINAGE LONGITUDINAL SECTIONS SHEET 3	D
998511/CC445	DRAINAGE LONGITUDINAL SECTIONS SHEET 4	C
998511/CC446	DRAINAGE LONGITUDINAL SECTIONS SHEET 5	D
998511/CC447	DRAINAGE LONGITUDINAL SECTIONS SHEET 6	D
998511/CC448	DRAINAGE LONGITUDINAL SECTIONS SHEET 7	C
998511/CC449	DRAINAGE LONGITUDINAL SECTIONS SHEET 8	C
998511/CC450	DRAINAGE LONGITUDINAL SECTIONS SHEET 9	C
998511/CC451	DRAINAGE LONGITUDINAL SECTIONS SHEET 10	C
998511/CC452	DRAINAGE LONGITUDINAL SECTIONS SHEET 11	D
998511/CC453	DRAINAGE LONGITUDINAL SECTIONS SHEET 12	D
998511/CC454	DRAINAGE LONGITUDINAL SECTIONS SHEET 13	C
998511/CC455	DRAINAGE LONGITUDINAL SECTIONS SHEET 14	C
998511/CC456	DRAINAGE LONGITUDINAL SECTIONS SHEET 15	C
998511/CC457	DRAINAGE LONGITUDINAL SECTIONS SHEET 16	C
998511/CC458	DRAINAGE CALCULATIONS SHEET 1	D
998511/CC459	DRAINAGE CALCULATIONS SHEET 2	D
998511/CC460	DRAINAGE CALCULATIONS SHEET 3	D
998511/CC461	DRAINAGE CALCULATIONS SHEET 4	D
998511/CC462	DRAINAGE CALCULATIONS SHEET 5	D
998511/CC463	DRAINAGE CALCULATIONS SHEET 6	C
998511/CC464	DRAINAGE CALCULATIONS SHEET 7	D
998511/CC465	DRAINAGE CALCULATIONS SHEET 8	D
998511/CC466	DRAINAGE CALCULATIONS SHEET 9	D
998511/CC467	DRAINAGE CALCULATIONS SHEET 10	D
998511/CC468	TAILOUT PLAN & DETAILS	C
998511/CC469	TAILOUT PLAN & DETAILS	C
998511/CC470	RETAINING WALL SHEET 1	C
998511/CC471	RETAINING WALL SHEET 2	C
998511/CC472	RETAINING WALL SHEET 3	C
998511/CC473	SOIL AND WATER MANAGEMENT PLAN	D

CIVIL PLAN INDEX

PLAN NO.	PLAN NAME	REV
998511/CC474	SOIL AND WATER MANAGEMENT NOTES	C
998511/CC475	SIGNAGE & LINEMARKING PLAN SHEET 1	C
998511/CC476	SIGNAGE & LINEMARKING PLAN SHEET 2	D
998511/CC477	SIGNAGE & LINEMARKING PLAN SHEET 3	D
998511/CC478	SIGNAGE & LINEMARKING PLAN SHEET 4	D

GENERAL NOTES

1. ALL WORKS ARE TO BE IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S ENGINEERING GUIDE FOR DEVELOPMENT & "WORKS SPECIFICATION - CIVIL 2005".
2. SURVEY MARKS: -
   a. SURVEY MARKS SHOWN THUS. SHALL BE RETAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE SUPERINTENDENT MUST BE NOTIFIED AND CONSENT RECEIVED PRIOR TO THEIR REMOVAL.
3. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST IF NECESSARY.
4. THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE WRITTEN PERMISSION OF THE OWNERS. TO BE PROVIDED PRIOR TO THE APPROVAL OF THE PLANS.
5. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.
6. NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL'S ENGINEER.
7. TREES TO BE RETAINED ON SITE SHALL BE PROTECTED BY SUITABLE STURDY APPROVED PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF SITE WORKS.
8. FILLING IS TO BE FROM A NOMINATED SOURCE, OF SOUND CLEAN MATERIAL, FREE FROM LARGE ROCK, STUMPS, CONTAMINATED MATTER, INDUSTRIAL AND BUILDING WASTE, ORGANIC MATTER AND OTHER DEBRIS. PLACING OF FILLING ON THE PREPARED AREAS SHALL NOT COMMENCE UNTIL THE AUTHORITY TO DO SO HAS BEEN OBTAINED FROM THE COUNCIL.
9. THE FILL MATERIAL THAT MAY BE RECEIVED AT THE DEVELOPMENT SITE ARE VIRGIN EXCAVATED NATURAL MATERIALS (VENM) AND EXCAVATED NATURAL MATERIAL (ENM) WITHIN THE MEANING OF THE PROTECTION OF THE ENVIRONMENTAL OPERATIONS ACT1997.
10. SITE FILL AREAS: - THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
11. ALL SITE FILLING TO BE COMPACTED TO 95% STANDARD COMPACTION AND SHALL BE CONTROLLED BY A REGISTERED SOIL LABORATORY IN ACCORDANCE WITH COUNCIL'S "WORKS SPECIFICATION".
12. ALL SITE REGRADING AREAS SHALL BE GRADED AT A MINIMUM 1% TO THE ENGINEER'S REQUIREMENTS.
13. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.
14. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
15. DIMENSIONS OF ANY DETAIL SHALL NOT BE SCALED - DIMENSIONS, IF IN DOUBT, SHALL BE VERIFIED BY THE SUPERINTENDENT.
16. ALL CONSTRUCTION AND RESTORATION WORK ON COUNCIL'S ROAD AND FOOTPATH AREA ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE APPROVED DRAWINGS AND COUNCIL'S STANDARD SPECIFICATIONS.
17. ALL WORKS TO BE IN ACCORDANCE WITH THE SALINITY MANAGEMENT PLAN BY GEOTECH TESTING PTY LTD, REF8552/1-AA DATED 12th OCTOBER 2016
18. ALL STREET NAME POLES AND LIGHT POLES SHALL BE BLACK POWDER COATED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S ENGINEERING GUIDE FOR DEVELOPMENT.
19. PROVIDE ROOF WATER OUTLET TO KERB FOR EACH PROPOSED LOT THAT DRAIN TO THE STREET.
20. CONCRETE PATH PAVING MUST NOT BE PLACED UNTIL 80% OF LOTS HAVE BEEN BUILT UPON OR UNTIL APPROVED IN WRITING BY COUNCIL.
21. THE HOURS OF ANY OFFENSIVE NOISE-GENERATING DEVELOPMENT WORKS SHALL BE LIMITED TO BETWEEN 7.00am TO 5.00pm, MONDAYS TO FRIDAYS: 8.00am TO 1.00pm, SATDURDAYS; AND NO SUCH WORK TO BE UNDERTAKEN AT ANY TIME ON SUNDAY OR PUBLIC HOLIDAYS.
22. DRIVEWAYS/LAYBACKS TO HAVE MINIMUM 1.0m CLEARANCE FROM POWER AND LIGHT POLES AND STORMWATER DRAINS AND 6m CLEARANCE FROM KERB RETURN T.P.'s.
23. VEHICULAR CROSSINGS ARE TO BE 4.5m WIDE AT KERB AND GUTTER.
24. CONDUITS ARE TO BE PLACED WHERE REQUIRED BY RELEVANT AUTHORITIES.

SURFACE NOTES

1. BATTER SLOPES ARE TYPICALLY 1v:5h UNLESS NOTED OTHER WISE.
2. EXISTING SURFACE BASED ON BULK EARTHWORKS SURFACE REFER TO JWP PLANS 998510CC00-84.

SURVEY SET OUT INFORMATION NOTES:

1. ALL SITE SET OUT AND CONTROL POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.
2. THE INFORMATION DETAILED ON THE CERTIFIED CONSTRUCTION CERTIFICATE PLANS TAKES PRECEDENCE OVER ALL ELECTRONIC INFORMATION PROVIDED. THE ORDER OF PRIORITY FOR USE OF ALL INFORMATION PROVIDED IS AS FOLLOWS:
   a. CERTIFIED CONSTRUCTION CERTIFICATE DRAWINGS.
   b. 2D DRAFTING BASE (ELECTRONIC FILE)
   c. 3D DTM (ELECTRONIC FILE)
3. ANY DISCREPANCY BETWEEN ANY OF THE INFORMATION CONTAINED WITHIN THESE FILES IS TO BE BROUGHT TO THE ATTENTION OF THE SUPERINTENDENT PRIOR TO CONSTRUCTION WHO WILL SEEK CLARIFICATION AND ISSUE INSTRUCTIONS ON THE APPROPRIATE COURSE OF ACTION.

STORMWATER NOTES

INDEX UPDATED

1. STORMWATER DESIGN CRITERIA:
   ANNUAL EXCEEDANCE PROBABILITY (AEP):
   1% AEP MAJOR SYSTEM
   5% AEP MINOR SYSTEM (INTERALLOTMENT DRAINAGE)
   10% AEP MINOR SYSTEM
2. PIPES TO BE INSTALLED TO TYPE HS2 SUPPORT IN ACCORDANCE WITH AS 3725 (1989) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 300mm LAYERS TO MINIMUM 100% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75)
3. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (1998) AND AS/NZS 3500 3.2 (1998).
4. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
5. GRATES AND COVERS SHALL CONFORM TO AS 3996.
6. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
7. ALL DRAINAGE LINES THROUGH LOTS SHALL BE CONTAINED WITHIN THE FOLLOWING EASEMENTS: -
   a) INTERALLOTMENT DRAINS (C.D.L.) - 1.0m WIDE (UP TO 300mm DIAMETER), 1.5m WIDE (UP TO 375mm DIAMETER)
   b) ALL OTHER DRAINS - REFER TO COUNCILS DESIGN GUIDELINES SUBDIVISION/ DEVELOPMENTS.
8. DRAINAGE LINES UNDER ROADS SHALL BE BACKFILLED WITH NON-COHESIVE SAND AND HAVE 3m (AS PER BCC GUIDE) OF SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK, DISCHARGING INTO DOWN STREAM PITS. **FOR PIPELINES GREATER THAN 525Ø, SUBSOIL DRAIN SHALL BE PROVIDED ON BOTH SIDES OF THE TRENCH.**
9. ALL STORMWATER PIPES WITHIN ROADS TO BE REINFORCED CONCRETE PIPE (RRJ) CLASS 2 OR FRC CLASS 2 UNLESS NOTED OTHERWISE.
10. ALL INTERALLOTMENT DRAINAGE LINES SHALL BE LAID AT A MINIMUM GRADE OF 1% UNLESS OTHERWISE INDICATED.
11. DRAINAGE LINES ON PLANS ARE DIAGRAMMATIC ONLY AND PIPE CENTRELINES SHALL ENTER AND EXIT PITS AT THE CENTRE OF THE RESPECTIVE PIT WALLS.
12. STEP IRONS REQUIRED WHERE THE PIT EXCEEDS 1200 IN DEPTH. REFER TO COUNCIL DRAWING A(BS)1115
13. SUBSOIL PIPES ARE TO BE PLACED AS DIRECTED.
14. 100YR FLOW PATHS TO BE FORMED AT TIME OF CONSTRUCTION.

HYDROLOGY NOTES:

1. STORMWATER SYSTEM DESIGNED USING 12D DYNAMIC (ILSAX) SYSTEM.
2. ZBP LINES ARE DUMMY PITS AND ARE USED TO MORE ACCURATELY DETERMINE APPROACH FLOW WIDTHS AT UPSTREAM PITS AND SAG LOCATIONS.
3. MAXIMUM FLOW WIDTHS OF 2.0m IN GUTTERS HAVE GENERALLY BEEN ADOPTED HOWEVER EXTENDED TO 2.5m IN SOME LOCATIONS TO REDUCE THE NUMBER OF PITS REQUIRED DUE TO FLAT ROAD GRADES.

CUSTOM MADE PRECAST PIT NOTES

1. DESIGN DOCUMENTATION REFLECTS PRECAST DRAINAGE PITS BEING USED FOR THE SITE. UNLESS NOTED OTHERWISE.
2. AUSPITS OR SIMILAR APPROVED CUSTOM MADE PRECAST PITS TO BE USED.
3. PITS TO COMPLY WITH THE FOLLOWING PARAMETERS:
   a. ARE SPECIFICALLY MANUFACTURED FOR THE PROJECT.
   b. EACH PIT IS ACCOMPANIED BY A CERTIFICATE OF STRUCTURAL ADEQUACY SIGNED BY A NPER ENGINEER (STRUCTURAL)
   c. THE STRUCTURAL CERTIFICATION OF THE PITS SHOULD INCLUDE ANY ADDITIONAL PRECAST ELEMENTS REQUIRED TO BRING THE PIT UP TO FINAL LEVELS ON SITE.
   d. PITS MUST BE FIRMLY BEDDED ON SOUND MATERIAL.
   e. CONCRETE IS TO BE POURED AROUND THE BASE TO AID IN STABILISATION OF THE PIT.
   f. PIT FLOORS ARE TO HAVE A 1% FALL TOWARDS THE OUTLET PIPE.
   g. ANY PIT REQUIRING MODIFICATION AFTER IT HAS BEEN POURED IN THE FACTORY OR DAMAGED IN TRANSPORT CANNOT BE USED.
   h. ALL WORK TO BE TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT INSPECTORS.
   i. PITS TO HAVE STEP IRONS IF DEEPER THAN 1.2m.
4. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE DETAILED PIT DRAWINGS AND STRUCTURAL CERTIFICATION IF INSITU PITS ARE TO BE CONSTRUCTED.
5. ALL COUNCIL STANDARD DRAINAGE PITS CAN BE EITHER CAST INSITU OR "AUS PIT" CUSTOM MADE PRECAST PIT OR SIMILAR APPROVED.
6. ALL SPECIAL PITS, PITS DEEPER THAN 2 m OR NON STANDARD DRAINAGE PITS CAN BE EITHER CAST INSITU WITH STRUCTURAL DESIGN AND CERTIFICATION BY OTHERS, "AUS PIT" CUSTOM MADE PRECAST PIT OR SIMILAR APPROVED.

SURVEYED BY:
RPS AUSTRALIA
CAD REFERENCE:
PR111362-DTL-14.03.26_3D_FOR_ENGINEERS_MODEL.dwg
DATE RECEIVED: 07/04/14

LOT BOUNDARIES CALCULATED BY VMS
CAD REFERENCE: 20260-M5.dwg
DATE RECEIVED: 12/08/19

LDC
These plans are referred to in certificate No. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No.: BPB 3013
Categories: B1,C1,C2,C3,C4,D1,D2,D3,D4
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

DIAL 1100 BEFORE YOU DIG
www.dialbeforeyoudig.com.au

UTILITIES SHOWN ARE DIAGRAMMATIC ONLY, CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDE LINES & STANDARDS.

NOTE: UTILITIES SHOWN MAY NOT INCLUDE ALL SERVICES WITHIN THE LIMIT OF WORKS

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	INDEX UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4965 PENRITH WESTFIELDS NSW 2750
P 02 4720 3300 W www.jwprince.com.au E mail@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
GENERAL NOTES, LEGEND & INDEX

PLAN No: 998511/CC401 D
FILE No: 998511CC401
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:41:56 PM File Name: J:\998511\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5PRECINCT 5 DOCUMENTATION\998511CC401.dwg

FUTURE NEWPARK PRECINCT 7

SECTION 7.11 DETENTION BASIN 2
BASIN AND BIO-DETENTION RAIN GARDEN CONTRIBUTIONS. PLAN No.21 ITEMS ML5.0 AND ML5.1 FINAL ARRANGEMENT SUBJECT TO SEPARATE APPROVAL.

SECTION 7.11 RAINGARDEN & GPT
RAINGARDEN & GPT. CONTRIBUTIONS PLAN No.21, ITEMS ML8.0 AND ML8.1, SUBJECT TO SEPARATE APPROVAL. REFER 998511/CC500-525

EDUCATION PRECINCT
REFER 998509/CC00-40
DA-16-04214, MOD-17-00529
CC17-00759

NEWPARK PRECINCT 6

TC02

TC01

FUTURE DEVELOPMENT

LITTLE CREEK

998511CC/CC407

998511CC/CC408

998511CC/CC410

998511CC/CC409

FUTURE CROSSING PREVIOUSLY ML4.1

ROAD D1

ROAD D3

ROAD 100

ROAD D4

ROAD D9

ROAD D5

ROAD D6

ROAD D7

ROAD D8

ROAD D2

CULVERT CROSSING PREVIOUSLY ML4.2 AND MP10.8

FUTURE DEVELOPMENT

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

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Accredited Certifier
Registration No: BPB 3018
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
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1:2000 (AT A1)
1:4000 (AT A3)

50 0 50 100 150 200
METRES

LEGEND

- PRECINCT 5 SITE
- PRECINCT BOUNDARY
- PEDESTRIAN EVACUATION ROUTE
- EXISTING WATERCOURSE
- 40m OFFSET

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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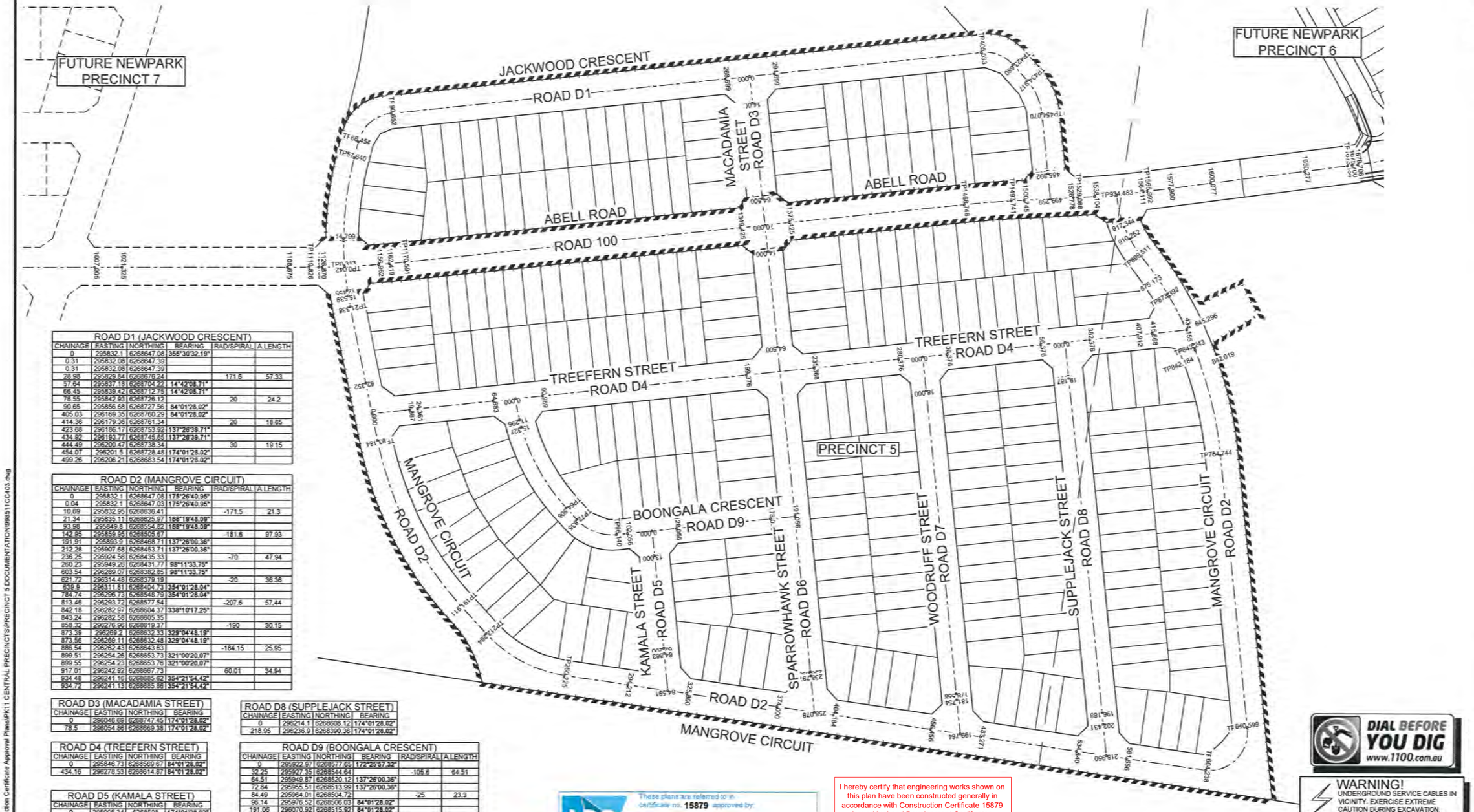
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK PRECINCT 5
OVERALL PLAN

PLAN No: 998511/CC402 C
FILE No: 998511CC402
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:42:09 PM File Name: J:\9985\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SIPRECINCT 5 DOCUMENTATION\998511CC402.dwg



ROAD D1 (JACKWOOD CRESCENT)					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH
0	295832.1	6268647.08	355°30'32.19"		
0.31	295832.08	6268647.39			
0.31	295832.08	6268647.39			
28.98	295829.84	6268676.24		171.6	57.33
57.64	295837.18	6268704.22	14°42'08.71"		
86.45	295839.42	6268732.75	14°42'08.71"		
78.55	295842.93	6268726.12		20	24.2
90.65	295856.68	6268727.56	84°01'28.02"		
405.03	296169.35	6268760.29	84°01'28.02"		
414.36	296179.36	6268761.34		20	18.65
423.68	296186.17	6268753.92	137°26'39.71"		
434.92	296193.77	6268745.65	137°26'39.71"		
444.49	296200.47	6268738.34		30	19.15
454.07	296201.5	6268728.48	174°01'28.02"		
499.26	296206.21	6268683.54	174°01'28.02"		

ROAD D2 (MANGROVE CIRCUIT)					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH
0	295832.1	6268647.08	175°26'40.95"		
0.04	295832.1	6268647.03	175°26'40.95"		
10.69	295832.95	6268636.41		-171.5	21.3
21.34	295835.11	6268625.97	168°19'48.09"		
93.98	295849.8	6268554.82	168°19'48.09"		
142.95	295859.95	6268505.67		-181.6	97.93
191.91	295869.9	6268468.71	137°26'00.36"		
212.28	295907.68	6268453.71	137°26'00.36"		
236.25	295924.56	6268435.33		-70	47.94
260.23	295949.26	6268431.77	98°11'33.75"		
603.54	296289.07	6268382.85	98°11'33.75"		
621.72	296314.48	6268379.19		-20	36.36
639.9	296311.81	6268404.73	354°01'28.04"		
784.74	296296.73	6268548.79	354°01'28.04"		
813.46	296293.72	6268577.54		-207.6	57.44
842.18	296282.97	6268604.37	338°10'17.25"		
843.24	296282.58	6268605.35			
858.52	296276.98	6268619.37		-190	30.15
873.39	296269.2	6268632.33	329°04'48.19"		
873.56	296269.11	6268632.48	329°04'48.19"		
886.54	296262.43	6268643.63		-184.15	25.95
899.51	296254.26	6268653.73	321°00'20.07"		
899.55	296254.23	6268653.76	321°00'20.07"		
917.01	296242.92	6268667.73		60.01	34.94
934.48	296241.16	6268685.62	354°21'54.42"		
934.72	296241.13	6268685.86	354°21'54.42"		

ROAD D3 (MACADAMIA STREET)			
CHAINAGE	EASTING	NORTHING	BEARING
0	296046.69	6268747.45	174°01'28.02"
78.5	296054.86	6268669.38	174°01'28.02"

ROAD D4 (TREEFERN STREET)			
CHAINAGE	EASTING	NORTHING	BEARING
0	295846.73	6268569.67	84°01'28.02"
434.16	296278.53	6268614.67	84°01'28.02"

ROAD D5 (KAMALA STREET)			
CHAINAGE	EASTING	NORTHING	BEARING
0	295955.34	6268508	174°01'28.02"
84.59	296004.14	6268423.87	174°01'28.02"

ROAD D6 (SPARROWHAWK STREET)			
CHAINAGE	EASTING	NORTHING	BEARING
0	296054.86	6268869.38	174°01'28.02"
258.08	296081.73	6268412.7	174°01'28.02"

ROAD D7 (WOODRUFF STREET)			
CHAINAGE	EASTING	NORTHING	BEARING
0	296138.52	6268500.21	174°01'28.02"
199.76	296159.31	6268401.53	174°01'28.02"

ROAD D8 (SUPPLEJACK STREET)			
CHAINAGE	EASTING	NORTHING	BEARING
0	296214.1	6268808.12	174°01'28.02"
218.95	296236.9	6268390.36	174°01'28.02"

ROAD D9 (BOONGALA CRESCENT)					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH
0	295922.97	6268577.65	172°25'57.32"		
32.25	295927.35	6268544.64		-105.6	64.51
64.51	295949.87	6268520.12	137°26'00.36"		
72.84	295955.51	6268513.99	137°26'00.36"		
84.49	295964.01	6268504.72		-25	23.3
96.14	295976.52	6268506.03	84°01'28.02"		
191.06	296070.92	6268515.92	84°01'28.02"		

ROAD 100 (ABELL ROAD)					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH
1119.57	295813.15	6268646.67	89°50'30.17"		
1144.96	295838.55	6268646.74		-500	50.77
1170.34	295863.92	6268649.38	84°01'28.02"		
1488.5	296180.35	6268680.42	84°01'28.02"		
1480.99	296172.79	6268681.72		500	24.99
1493.49	296185.27	6268682.4	86°53'18.28"		
1528.84	296220.56	6268684.32	86°53'18.28"		
1547.29	296238.99	6268685.32		-500	36.9
1565.74	296257.3	6268687.68	82°39'34.38"		

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Categories: B1,C1,C2,C3,C4,C6 & C18
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I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

1:1000 (AT A1)
1:2000 (AT A3)
20 10 0 10 20 30 40 50 60 70 80 90 100
METRES

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B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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PO Box 4366 PENRITH WESTFIELD NSW 2950
P 02 4720 2300 W www.jwprince.com.au E admin@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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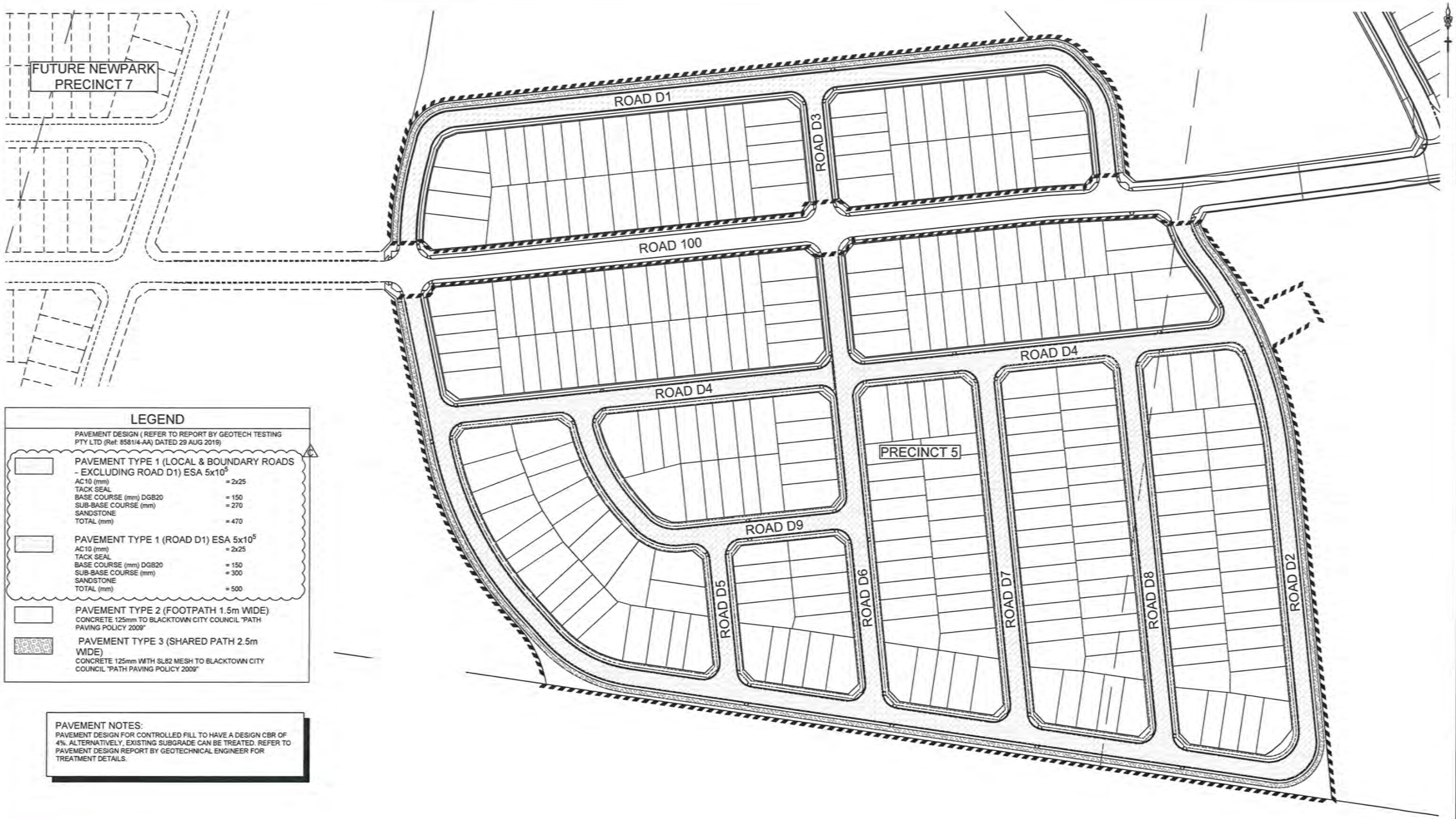
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK PRECINCT 5
ROAD SETOUT PLAN

PLAN No: 998511/CC403 C
FILE No: 998511CC403
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:42:00 PM File Name: J:\998\5\DCC - Construction Certificate Approval Plans\PK1\1 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC403.dwg



LEGEND

PAVEMENT DESIGN (REFER TO REPORT BY GEOTECH TESTING PTY LTD (Ref: 8581/4-AA) DATED 29 AUG 2019)

PAVEMENT TYPE 1 (LOCAL & BOUNDARY ROADS - EXCLUDING ROAD D1) ESA $5x10^5$

AC10 (mm)	= 2x25
TACK SEAL	
BASE COURSE (mm) DGB20	= 150
SUB-BASE COURSE (mm)	= 270
SANDSTONE	
TOTAL (mm)	= 470

PAVEMENT TYPE 1 (ROAD D1) ESA $5x10^5$

AC10 (mm)	= 2x25
TACK SEAL	
BASE COURSE (mm) DGB20	= 150
SUB-BASE COURSE (mm)	= 300
SANDSTONE	
TOTAL (mm)	= 500

PAVEMENT TYPE 2 (FOOTPATH 1.5m WIDE)
CONCRETE 125mm TO BLACKTOWN CITY COUNCIL "PATH PAVING POLICY 2009"

PAVEMENT TYPE 3 (SHARED PATH 2.5m WIDE)
CONCRETE 125mm WITH SL82 MESH TO BLACKTOWN CITY COUNCIL "PATH PAVING POLICY 2009"

PAVEMENT NOTES:

PAVEMENT DESIGN FOR CONTROLLED FILL TO HAVE A DESIGN CBR OF 4%. ALTERNATIVELY, EXISTING SUBGRADE CAN BE TREATED. REFER TO PAVEMENT DESIGN REPORT BY GEOTECHNICAL ENGINEER FOR TREATMENT DETAILS.

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DATE 14/07/2021 REF 20260-5

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

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METRES

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ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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NEWPARK
PRECINCT 5
PAVEMENT PLAN

PLAN No: 998511/CC404 C
FILE No: 998511CC404
SHEET SIZE: A1 ORIGINAL

Plotted: 17 October , 2019 3:25:08 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5PRECINCT 5 DOCUMENTATION\998511CC404.dwg

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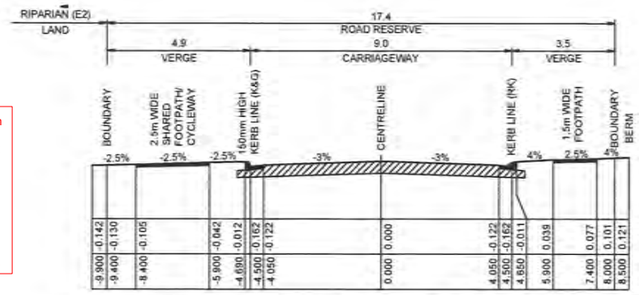
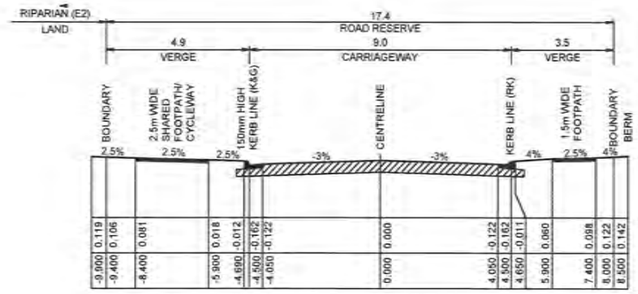
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

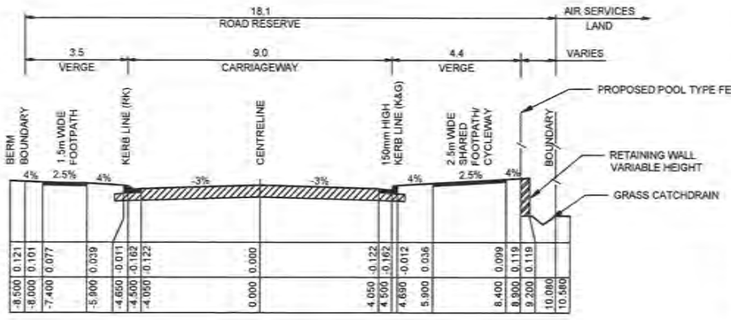
DATE 14/07/2021 REF 20260-5



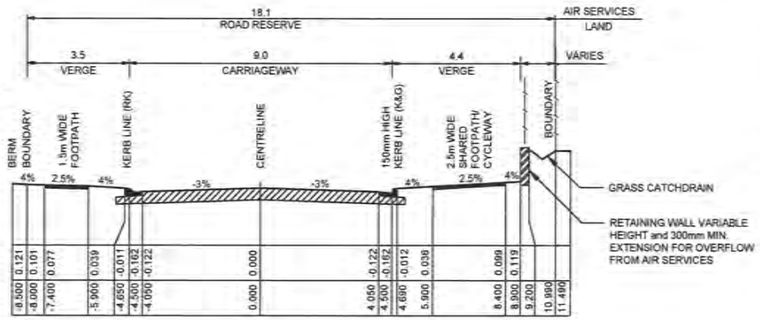
TYPICAL CROSS SECTION - JACKWOOD CRESCENT
ROAD D1 (CH 0 - 67, 420 - END)
1:100 NATURAL



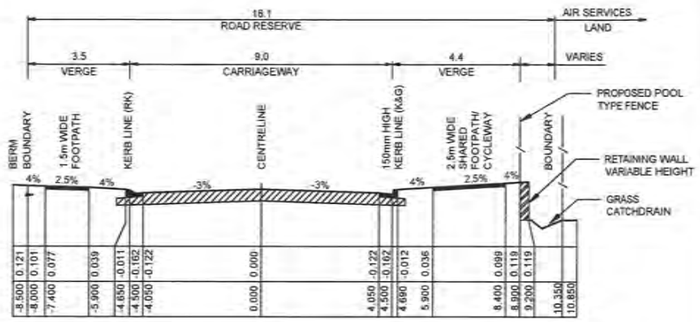
TYPICAL CROSS SECTION - JACKWOOD CRESCENT
ROAD D1 (CH 90.65 - 405)
1:100 NATURAL



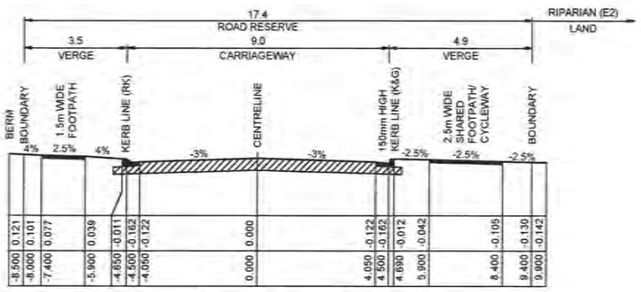
TYPICAL CROSS SECTION - MANGROVE CIRCUIT
ROAD D2 (CH - 240-280)
1:100 NATURAL



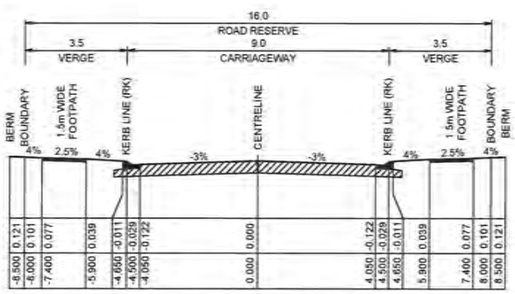
TYPICAL CROSS SECTION - MANGROVE CIRCUIT
ROAD D2 (CH - 280-580)
1:100 NATURAL



TYPICAL CROSS SECTION - MANGROVE CIRCUIT
ROAD D2 (CH - 580 - 615)
1:100 NATURAL



TYPICAL CROSS SECTION - MANGROVE CIRCUIT
ROAD D2 (CH 0-240, 615 - END)
1:100 NATURAL



TYPICAL CROSS SECTION -
MACADAMIA STREET, TREEFERN STREET, KAMALA STREET, SPARROWHAWK STREET, WOODRUFF STREET, SUPPLEJACK STREET, BOONGALA CRESCENT
ROAD D3, D4, D5, D6, D7, D8 & D9
1:100 NATURAL

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Accredited Certifier
Registration No: BPB 2015
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1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

AMENDMENT	DES	DRN	CKD	APR	DATE
C ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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A ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
TYPICAL ROAD SECTIONS

PLAN No: 998511/CC405 C
FILE No: 998511CC405
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September, 2019 2:42:03 PM File Name: J:\99850\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC405.dwg

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Christopher Louis Wahbe
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Categories: B1,C1,C2,C3,C4,C8 & C15
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Signature: .....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

CUT / FILL HATCH UPDATED FOR NEW SURVEY C

1:1000 (AT A1)
1:2000 (AT A3)
20 10 0 10 20 30 40 50 60 70 80 90 100
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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DATUM: MGA
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
CUT & FILL PLAN

PLAN No: 998511/CC406 C
FILE No: 998511CC406
SHEET SIZE: A1 ORIGINAL

Plotted: 27 September , 2019 10:49:24 AM File Name: J:\9985\DOCC - Construction Certificate Approval Plans\PK1\1 CENTRAL PRECINCT\5\PRECINCT 5 DOCUMENTATION\998511CC406.dwg

EASEMENT NOTES

(A) EASEMENT FOR PADMOUNT STATION 2.75m x 5.5m AND VARIABLE.
(B) RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATINGS OF BUILDINGS MEASURED 3m FROM THE SUBSTATION PLINTH.
(C) RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5m FROM THE SUBSTATION PLINTH.
(D) EASEMENT FOR DRAINAGE 1.5m WIDE

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Registered Land Surveyor
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EXISTING STORMWATER LINE TO PROPOSED PRECINCT 5 RAINGARDEN. REFER TO JWP PLANS REF 998511CC500-525 FOR DETAILS

TEMPORARILY BLOCK PIPE FROM PIT 01/22 TO GPT AND PROVIDE TEMPORARY OUTLET TO SEDIMENT BASIN

TEMPORARY SEDIMENT BASIN (REFER TO SHEET 998511BG472 FOR DETAILS

PROVIDE LOCALISED REVERSE CROSSFALL OF 2.5% IN VERGE ADJACENT TO PIT 01/22 FOR EMERGENCY OVERLAND FLOW PATH

PROPOSED PRECINCT 5 GPT. REFER TO JWP PLANS REF 998511CC500-525 FOR DETAILS

LITTLE CREEK

REGRADE AREA

ROAD D1

ROAD D3

ROAD 100

ROAD D2

ROAD D6

ROAD D4

PATHS NOT CONSTRUCTED

CONSTRUCT PIT OVER EXISTING PIPE

MATCH TO EXISTING KERB AND GUTTER

CONNECT PIPE AT EXISTING PIT 01/15

FUTURE CROSSING

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REFER TO DRAWING CC408 FOR CONTINUATION

REFER TO DRAWING CC410 FOR CONTINUATION

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

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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	AMENDMENT	DES.	DRN	CKD	APR	DATE

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AZIMUTH: AHD
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ENGINEERING PLAN
SHEET 1

PLAN No: 998511/CC407 C
FILE No: 998511CC407
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:52 PM File Name: J:\998511\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC407.dwg

EASEMENT NOTES

(A) EASEMENT FOR PADMOUNT STATION 2.75m x 5.5m AND VARIABLE.
(B) RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATINGS OF BUILDINGS MEASURED 3m FROM THE SUBSTATION PLINTH.
(C) RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5m FROM THE SUBSTATION PLINTH.
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EXISTING STORMWATER LINE TO PROPOSED PRECINCT 5 RAINGARDEN. REFER TO JWP PLANS REF 998511CC500-525 FOR DETAILS

TEMPORARILY BLOCK PIPE FROM PIT 01/22 TO GPT AND PROVIDE TEMPORARY OUTLET TO SEDIMENT BASIN

TEMPORARY SEDIMENT BASIN (REFER TO SHEET 998511BG472 FOR DETAILS

PROVIDE LOCALISED REVERSE CROSSFALL OF 2.5% IN VERGE ADJACENT TO PIT01/22 FOR EMERGENCY OVERLAND FLOW PATH.

PROPOSED PRECINCT 5 GPT. REFER TO JWP PLANS REF 998511CC500-525 FOR DETAILS

REGRADE AREA

LITTLE CREEK

ROAD D1 | ROAD D2 | ROAD D3 | ROAD D4 | ROAD D6 | ROAD 100

PATHS NOT CONSTRUCTED

CONSTRUCT PIT OVER EXISTING PIPE

MATCH TO EXISTING KERB AND GUTTER

CONNECT PIPE AT EXISTING PIT 01/16

FUTURE CROSSING

KR 1 KR 2 KR 3 KR 4 KR 5 KR 6 KR 7 KR 8 KR 13 KR 14 KR 15 KR 19 KR 20 KR 21 KR 22 KR 25 KR 26

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

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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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK PRECINCT 5
ENGINEERING PLAN
SHEET 1

PLAN No: 998511/CC407 C
FILE No: 998511CC407
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:52 PM File Name: J:\998511\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC407.dwg

EASEMENT NOTES

(A) EASEMENT FOR PADMOUNT STATION 2.75m x 5.5m AND VARIABLE.
(B) RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATINGS OF BUILDINGS MEASURED 3m FROM THE SUBSTATION PLINTH.
(C) RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5m FROM THE SUBSTATION PLINTH.
(D) EASEMENT FOR DRAINAGE 1.5m WIDE

NEWPARK PRECINCT 6

RESIDUE
LOT 6253

Land Development Certificates
www.LDC.com.au
Certificate No: 15879
Accredited by:
Christopher Louis Walshe
Accredited Certifier
Registration No: BPB 3015
Categories: B1 C1 C2 C3 D1 D4 D5 & D6

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

PROPOSED CULVERT CROSSING SUBJECT TO SEPARATE DESIGN APPROVAL BY J. WYNDHAM PRINCE REFER 998517/CC350 TO CC387

HEADWALL 2 / TAILOUT 2 REFER TO CC469 FOR DETAILS

DIAL BEFORE YOU DIG www.1100.com.au

WARNING!
UNDERGROUND SERVICE CABLES IN VICINITY. EXERCISE EXTREME CAUTION DURING EXCAVATION. CONTACT "DIAL BEFORE YOU DIG" PRIOR TO ANY CONSTRUCTION WORK

UTILITIES SHOWN ARE DIAGRAMMATIC ONLY. CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDE LINES & STANDARDS. NOTE: UTILITIES SHOWN MAY NOT INCLUDE ALL SERVICES WITHIN THE LIMIT OF WORKS

REFER TO DRAWING CC407 FOR CONTINUATION

REFER TO DRAWING CC409 FOR CONTINUATION

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

D	DRIVEWAY LOCATION ON LOT 5151 AMENDED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18
	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.wyprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ENGINEERING PLAN
SHEET 2

PLAN No: 998511/CC408 D
FILE No: 998511CC408
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 3:54:03 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC408.dwg

REFER TO DRAWING CC408 FOR CONTINUATION

REFER TO DRAWING CC410 FOR CONTINUATION

ROAD D4 | ROAD D6 | ROAD D7 | ROAD D8 | ROAD D9 | ROAD D2

KR 21 | KR 22 | KR 23 | KR 24 | KR 27 | KR 28 | KR 29 | KR 30 | KR 31 | KR 34 | KR 35 | KR 36 | KR 37 | KR 38 | KR 39 | KR 40 | KR 44 | KR 11 | KR 12

PATHS NOT CONSTRUCTED

RETAINING WALL 2 REFER TO 998511CC470 FOR DETAILS

PROPOSED CATCH DRAIN

RETAINING WALL 4 REFER TO 998511CC472 FOR DETAILS

RETAINING WALL 2 REFER TO 998511CC470 AND CC471 FOR DETAILS

RETAINING WALL 3 REFER TO 998511CC471 FOR DETAILS

TAILOUT RW3 SUBSOIL TO V-DRAIN

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

10 0 10 20 30 40 50
METRES

EASEMENT NOTES

(A) EASEMENT FOR PADMOUNT STATION 2.75m x 5.5m AND VARIABLE.
(B) RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATINGS OF BUILDINGS MEASURED 3m FROM THE SUBSTATION PLINTH.
(C) RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5m FROM THE SUBSTATION PLINTH.
(D) EASEMENT FOR DRAINAGE 1.5m WIDE

These plans are referred to in certificate no. 15879 approved by
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3013
Categories: B1-C3, C2-C3, C4-D5 & C13
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

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D	DRIVEWAY & DRAINAGE PIT LOCATION AMENDED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ENGINEERING PLAN
SHEET 3

PLAN No: 998511/CC409 D
FILE No: 998511CC409
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:54:20 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC409.dwg

REFER TO DRAWING CC407 FOR CONTINUATION

REFER TO DRAWING CC409 FOR CONTINUATION

LDC

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & G15
Land Development Certificates
www.LDC.com.au

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

DATE 14/07/2021 REF 20260-5

EASEMENT NOTES

(A) EASEMENT FOR PADMOUNT STATION 2.75m x 5.5m AND VARIABLE.
(B) RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATINGS OF BUILDINGS MEASURED 3m FROM THE SUBSTATION PLINTH.
(C) RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5m FROM THE SUBSTATION PLINTH.
(D) EASEMENT FOR DRAINAGE 1.5m WIDE

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AIR SERVICES
LAND

LITTLE CREEK

ROAD D4
ROAD D9
ROAD D5
ROAD D6
ROAD D2

PATHS NOT CONSTRUCTED

HEADWALL 1/ TAILOUT 1 REFER TO 998511CC468 FOR DETAILS

TEMPORARY SEDIMENT BASIN 2 REFER TO SHEET 998511CC472 FOR DETAILS

EXTEND V-DRAIN BEYOND WALL AND TAILOUT TO MATCH EXISTING LEVELS

TAILOUT RW1 SUBSOIL TO V-DRAIN

RETAINING WALL 1 REFER TO 998511CC470 FOR DETAILS

CONNECT RW2 SUBSOIL TO RW1 SUBSOIL

RETAINING WALL 2 REFER TO 998511CC470 AND CC471 FOR DETAILS

PROPOSED CATCH DRAIN

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

D	DRIVEWAY & DRAINAGE PIT LOCATION AMENDED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ENGINEERING PLAN
SHEET 4

PLAN No: 998511/CC410 D
FILE No: 998511CC410
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:54:11 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC410.dwg

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

DATE 14/07/2021 REF 20260-5

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Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: S1,C1,C2,C3,C4,C6 & C15
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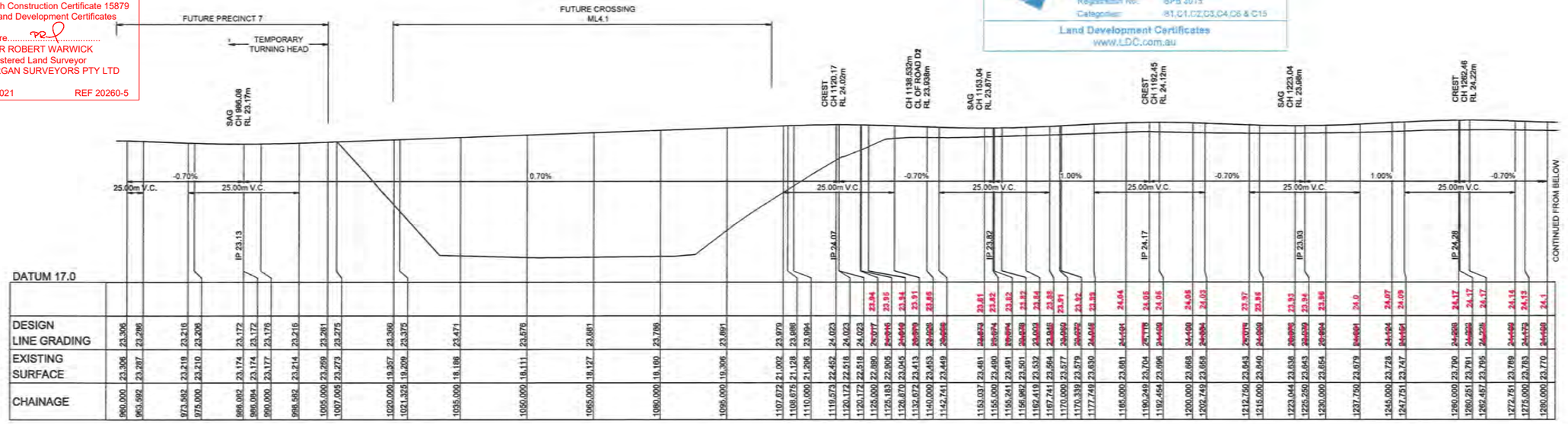
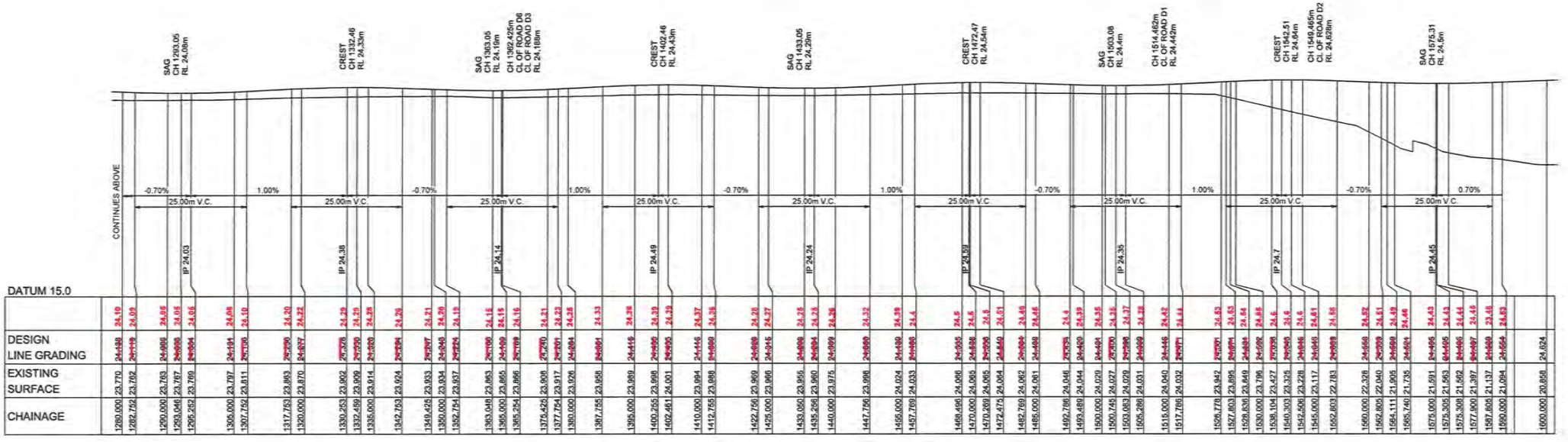


LONGITUDINAL SECTION - ABELL ROAD (ROAD 100)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - ABELL ROAD (ROAD 100)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

LONGSECTION UPDATED WITH NEW SURVEY

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

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	25/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ABELL ROAD

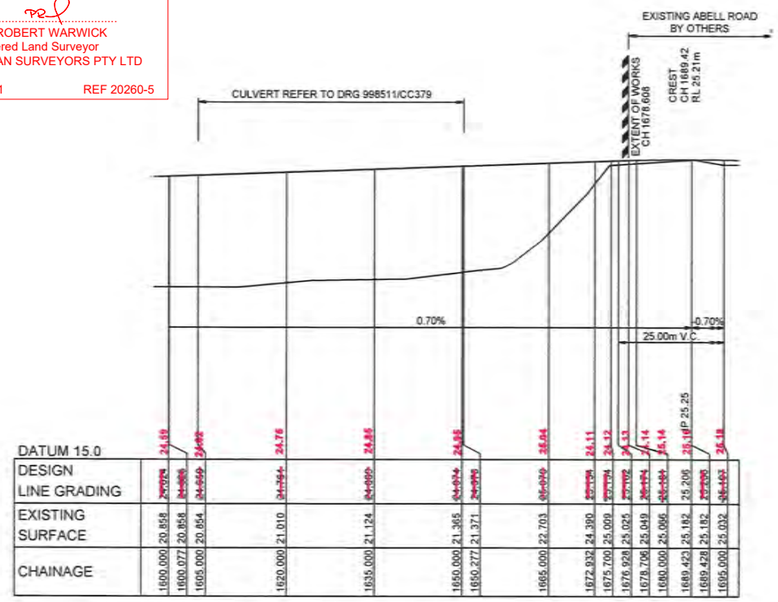
PLAN No: 998511/CC411 C
FILE No: 998511CC411
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:42:32 PM File Name: J:\998\DOC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC411.dwg

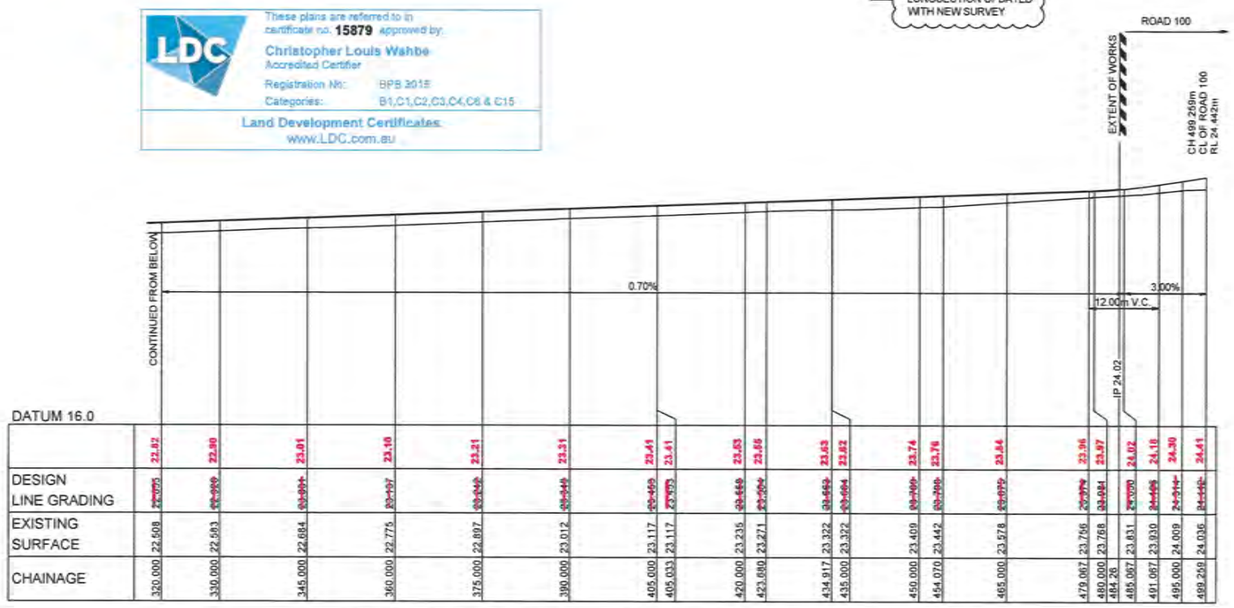
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5



LONGITUDINAL SECTION ABELL ROAD (ROAD 100)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - JACKWOOD CRESCENT (ROAD D1)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

LONGITUDINAL SECTION - JACKWOOD CRESCENT (ROAD D1)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ROAD D1

PLAN No: 998511/CC412 C
FILE No: 998511CC412
SHEET SIZE: A1 ORIGINAL

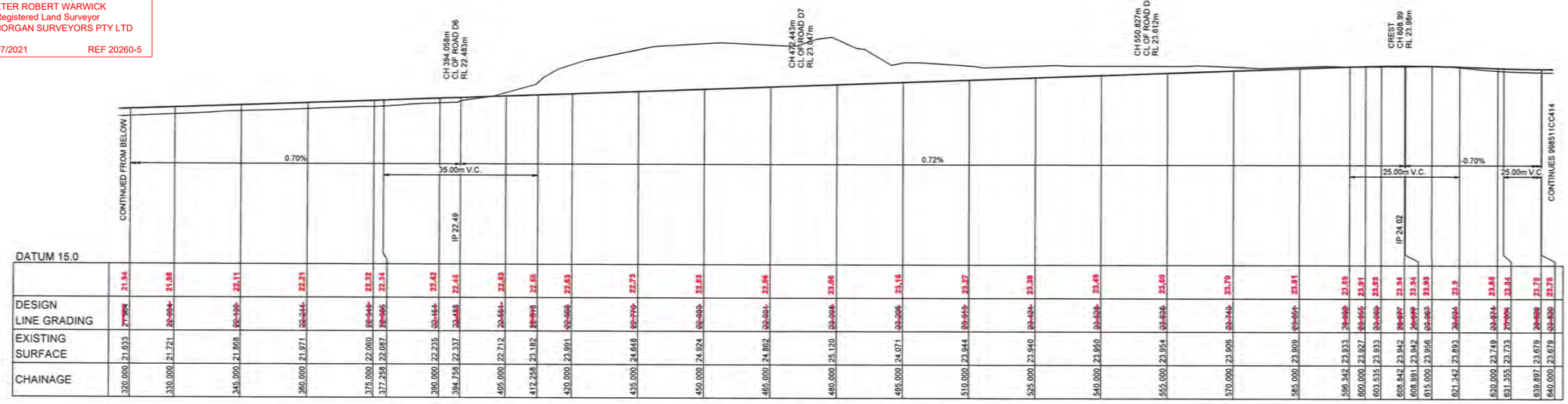
Plotted: 26 September , 2019 2:42:58 PM File Name: J\99985\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC412.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

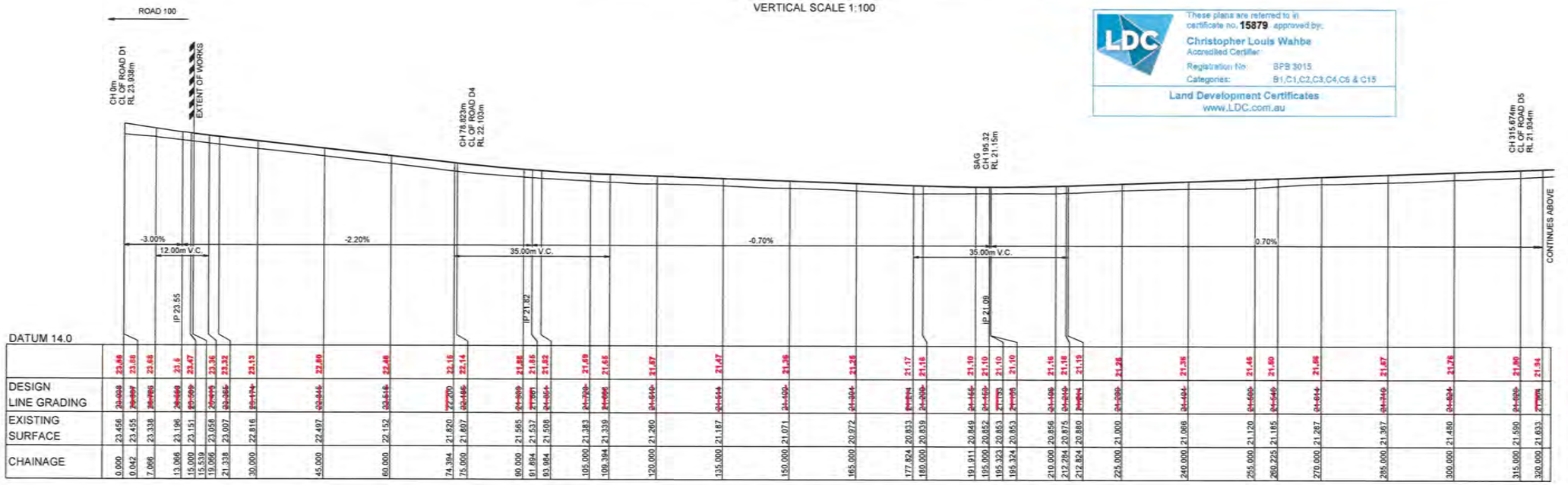
Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



LONGITUDINAL SECTION - MANGROVE CIRCUIT (ROAD D2)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - MANGROVE CIRCUIT (ROAD D2)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

LONGSECTION UPDATED WITH NEW SURVEY

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

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahba
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C5 & C15
Land Development Certificates
www.LDC.com.au

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ROAD D2 SHEET 1

PLAN No: 998511/CC413 C
FILE No: 998511CC413
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:42:56 PM File Name: J\9995\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC413.dwg

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

DATE 14/07/2021 REF 20260-5

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Categories: B1,C1,C2,C3,C4,C6 & C15
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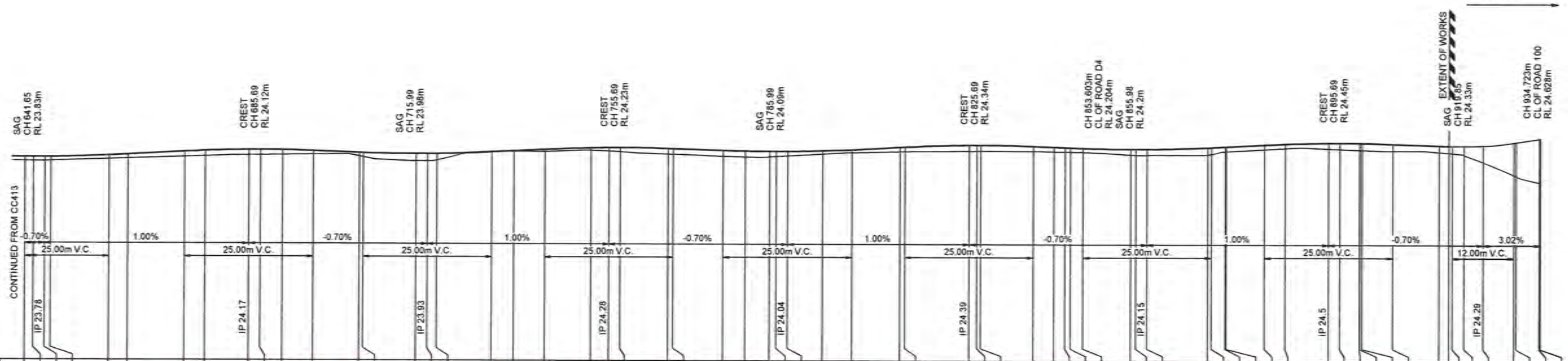

DATUM 16.0

CHAINAGE	EXISTING SURFACE	DESIGN LINE GRADING
640.000	23.679	23.78
641.648	23.674	23.78
643.855	23.674	23.78
645.000	23.682	23.78
656.355	23.753	23.87
660.000	23.776	23.89
670.988	23.846	24.00
675.000	23.871	24.04
683.488	23.915	24.09
685.694	23.921	24.09
690.000	23.933	24.09
695.988	23.950	24.06
705.000	23.883	23.99
705.694	23.856	23.99
715.988	23.699	23.96
718.194	23.703	23.96
720.000	23.734	23.96
730.694	24.073	24.03
735.000	24.072	24.07
740.988	24.071	24.12
750.000	24.122	24.19
753.488	24.092	24.20
755.694	24.068	24.20
765.000	23.988	24.17
765.988	23.982	24.16
775.694	23.904	24.10
780.000	23.880	24.08
784.744	23.878	24.06
785.988	23.894	24.06
788.194	23.917	24.06
795.000	23.991	24.09
800.694	24.044	24.13
810.000	24.083	24.22
810.988	24.087	24.23
823.488	24.107	24.31
825.000	24.111	24.31
825.693	24.113	24.31
835.988	24.106	24.28
840.000	24.096	24.23
842.184	24.089	24.22
843.243	24.085	24.22
845.691	24.078	24.21
855.000	23.986	24.16
855.984	23.975	24.16
858.191	23.978	24.16
870.000	23.993	24.24
870.691	24.016	24.24
873.392	24.108	24.27
873.560	24.110	24.27
880.975	24.194	24.33
885.000	24.239	24.38
893.475	24.229	24.41
895.686	24.212	24.41
899.511	24.180	24.40
899.545	24.180	24.40
900.000	24.176	24.40
905.975	24.132	24.38
915.000	24.090	24.31
916.90		
919.846	24.056	24.29
917.587	23.998	24.29
923.587	23.715	24.31
929.587	23.212	24.44
930.000	23.176	24.48
934.483	22.933	24.58
934.723	22.922	24.59

LONGITUDINAL SECTION - MANGROVE CIRCUIT (ROAD D2)

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

C: LONGSECTION UPDATED WITH NEW SURVEY

1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES
1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ROAD D2 SHEET 2

PLAN No: 998511/CC414 C
FILE No: 998511CC414
SHEET SIZE: A1 ORIGINAL

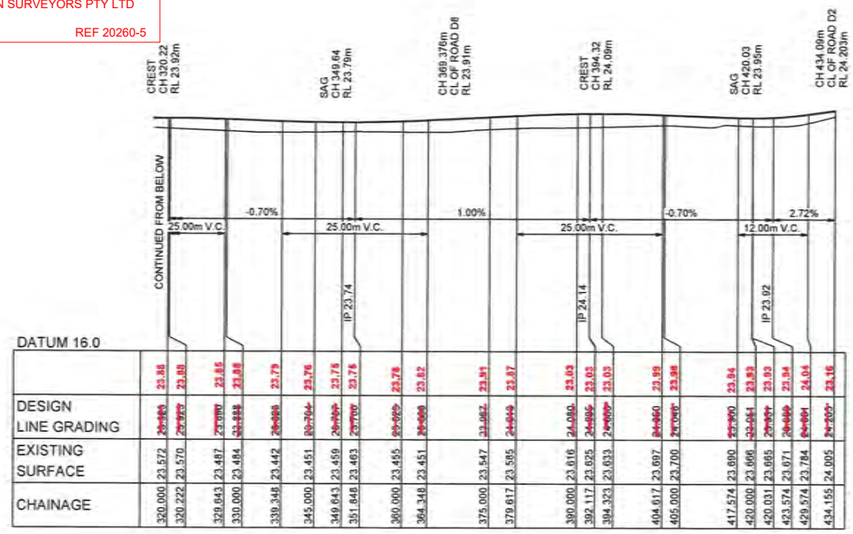
Plotted: 26 September , 2019 2:42:59 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC414.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

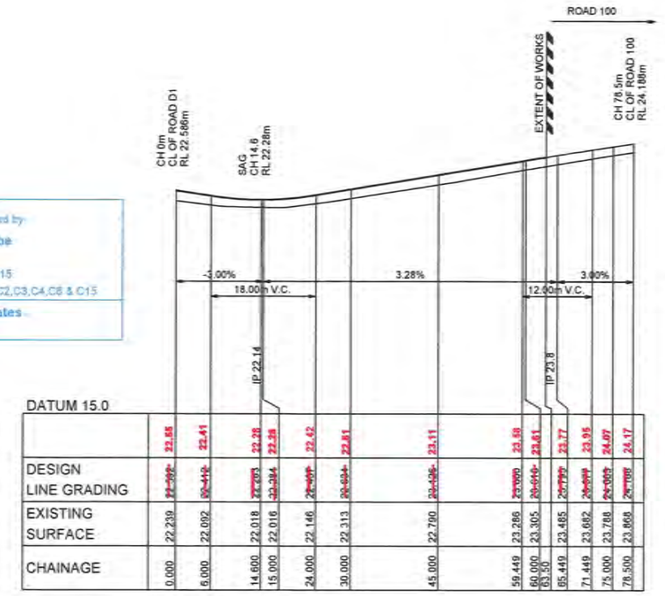
Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

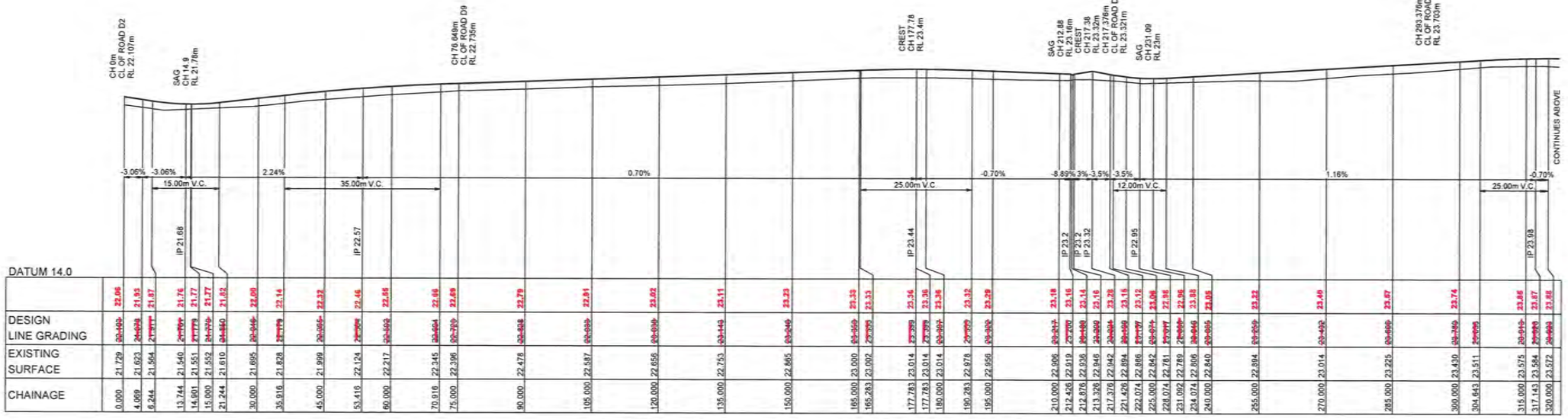
DATE 14/07/2021 REF 20260-5



LONGITUDINAL SECTION - TREEFERN STREET (ROAD D4)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - MACADAMIA STREET (ROAD D3)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - TREEFERN STREET (ROAD D4)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

A LONGSECTION UPDATED WITH NEW SURVEY

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

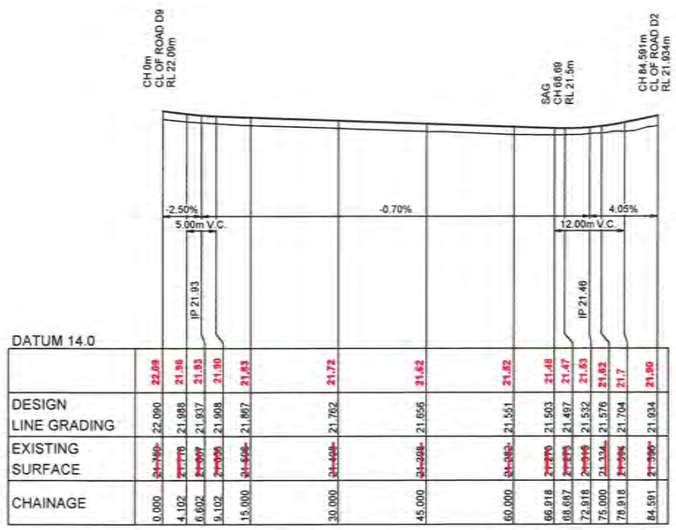
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ROAD D3 & D4

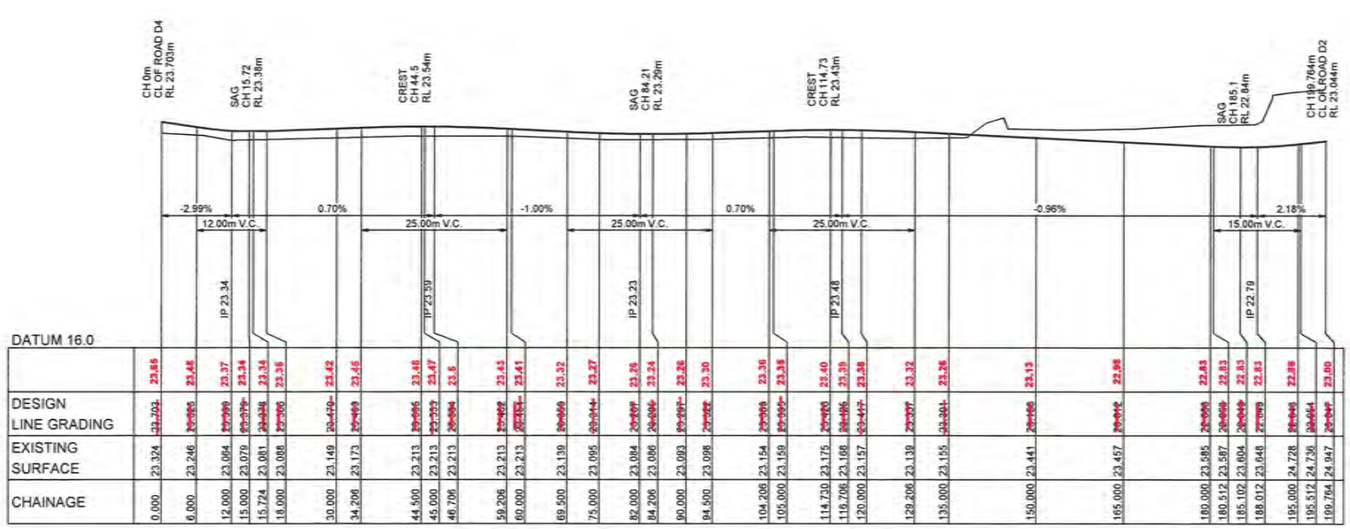
PLAN No: 998511/CC415 C
FILE No: 998511CC415
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:42:57 PM File Name: J:\9985\D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC415.dwg

LONGITUDINAL SECTION - SPARROWHAWK STREET (ROAD D6)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - KAMALA STREET (ROAD D5)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - WOODRUFF STREET (ROAD D7)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

These plans are referred to in certificate no: **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates
Signature .....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

C LONGSECTION UPDATED WITH NEW SURVEY

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/18

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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ROAD D5, D6 & D7

PLAN No: 998511/CC416 C
FILE No: 998511CC416
SHEET SIZE: A1 ORIGINAL

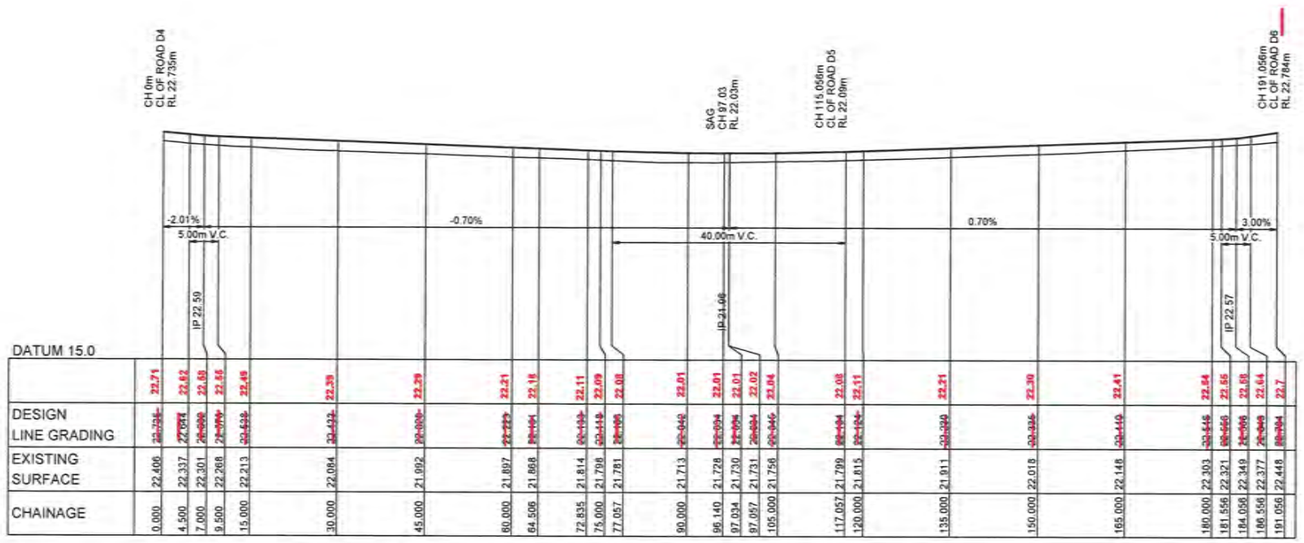
Plotted: 26 September , 2019 2:42:58 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC416.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

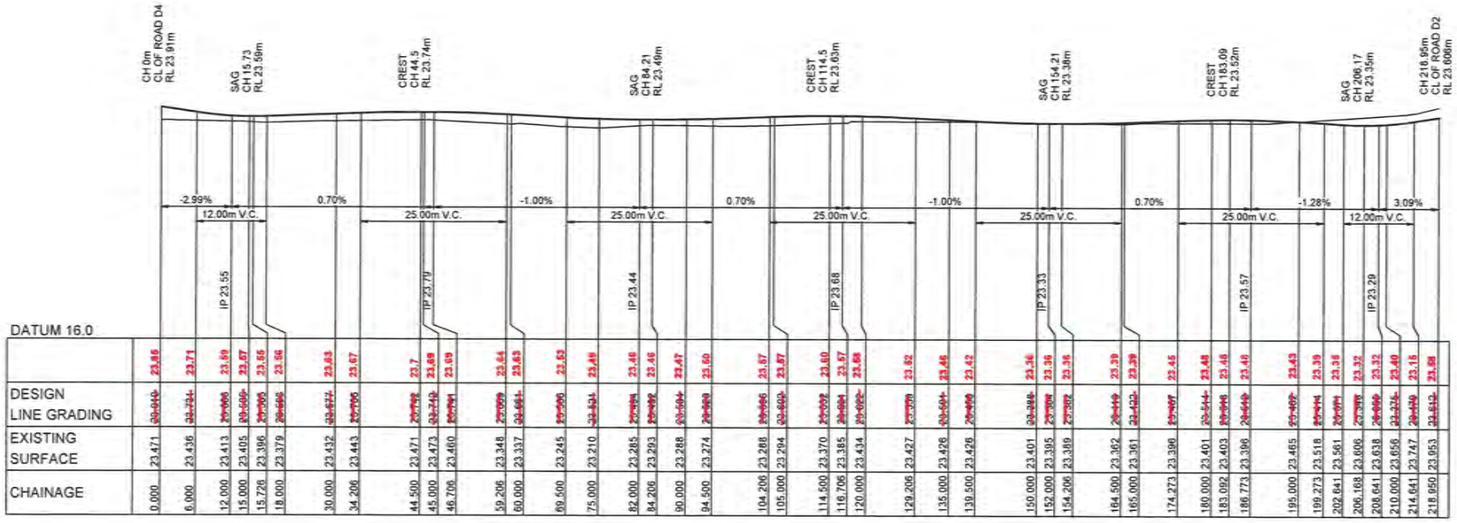
Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



LONGITUDINAL SECTION - BOONGALA CRESCENT (ROAD D9)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - SUPPLEJACK STREET (ROAD D8)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

LONGSECTION UPDATED WITH NEW SURVEY

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

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19

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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD LONGITUDINAL SECTION
ROAD D8 & D9

PLAN No: 998511/CC417 C
FILE No: 998511CC417
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:43:14 PM File Name: J:\9985\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC417.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

NOTE:

* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE

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Accredited Certifier
Registration No: BPB 5015
Categories: B1,C1,C2,C3,C4,D5 & C15
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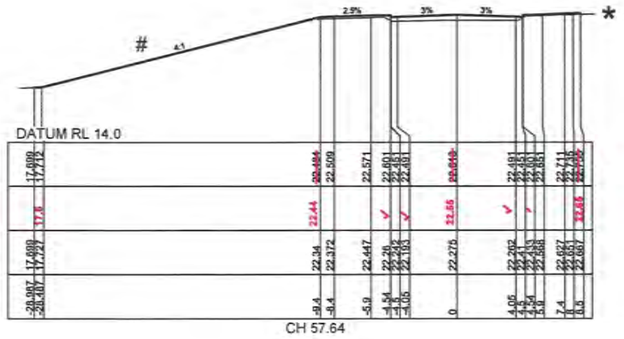

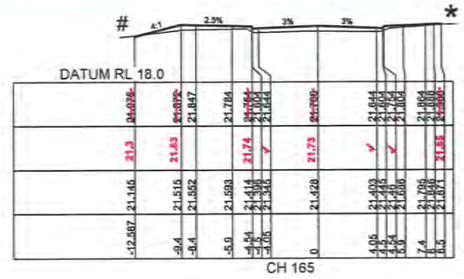

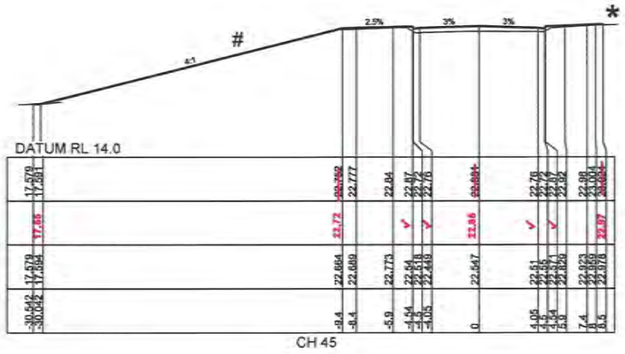

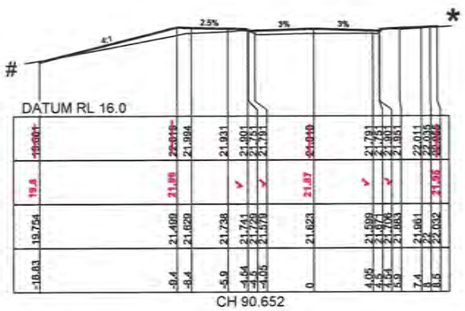

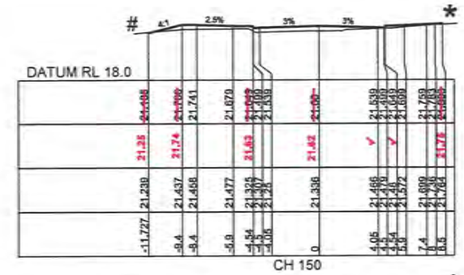

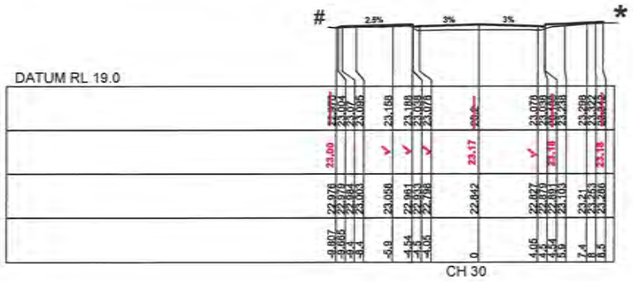

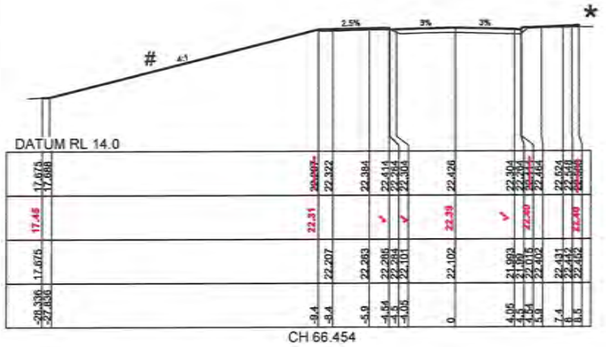

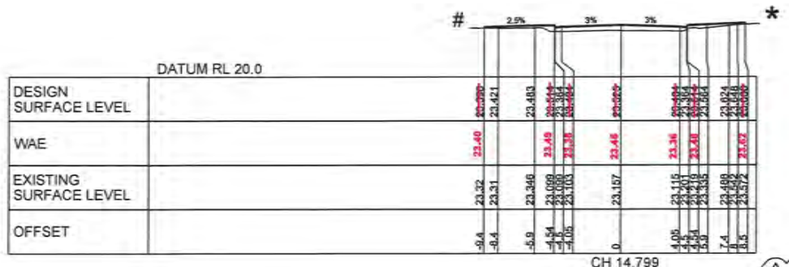

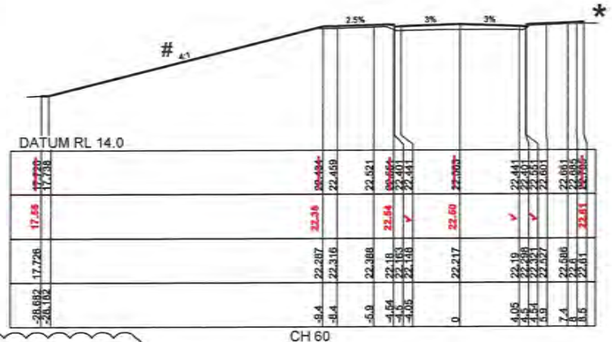

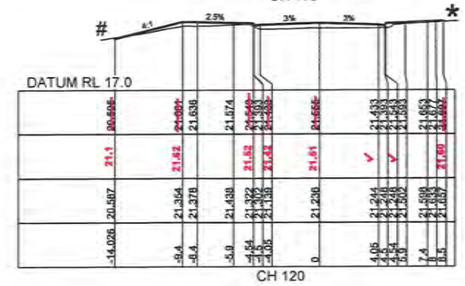

ROAD D1

△2 ROAD D1 CROSS SECTIONS UPDATED

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D1 SHEET 1

PLAN No: 998511/CC418 C
FILE No: 998511CC418
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:16 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC418.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

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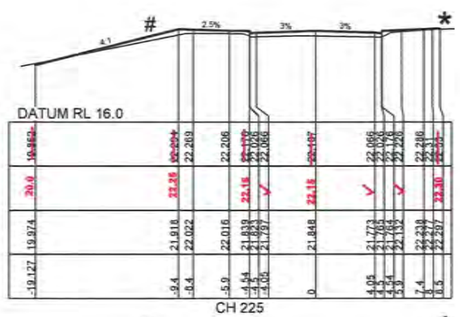
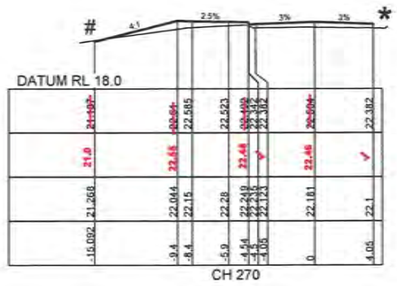
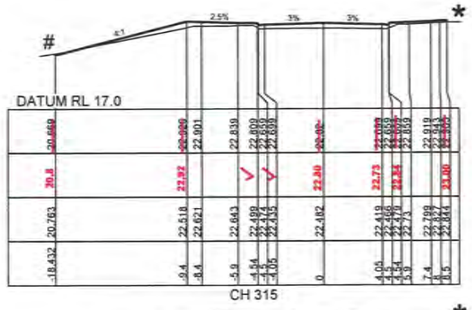
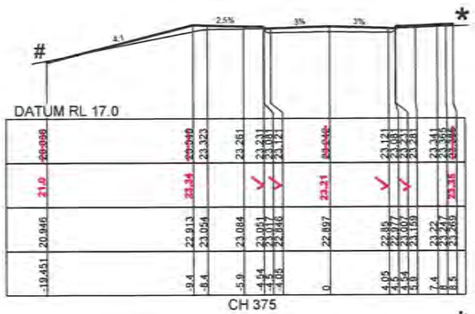
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 2013
Categories: B1,C1,C2,C3,CA,D5 & C15
Land Development Certificates
www.LDC.com.au

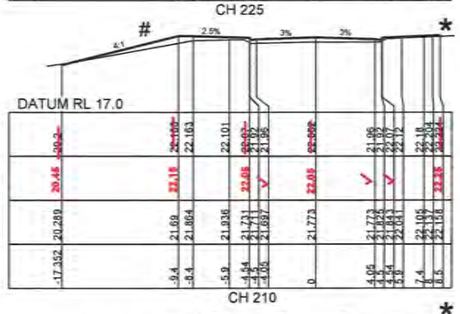
NOTE:
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410
\# DENOTES RESERVE

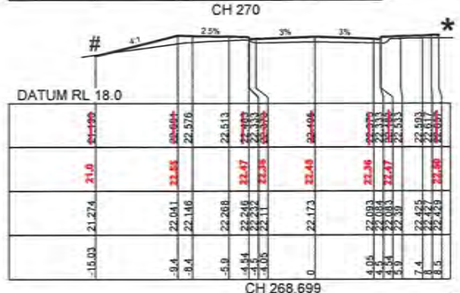


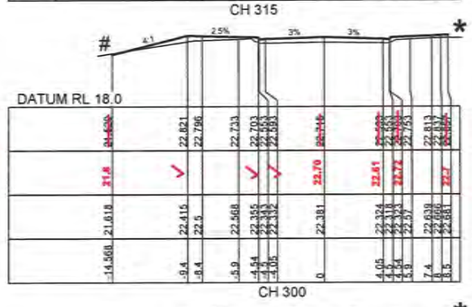


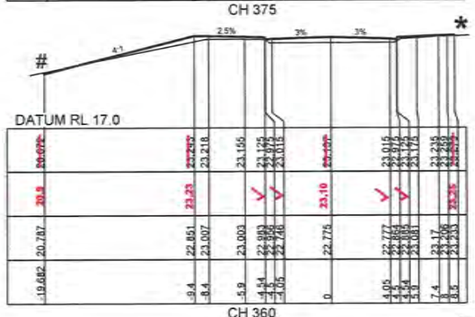


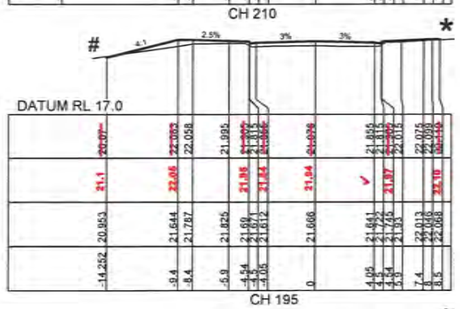


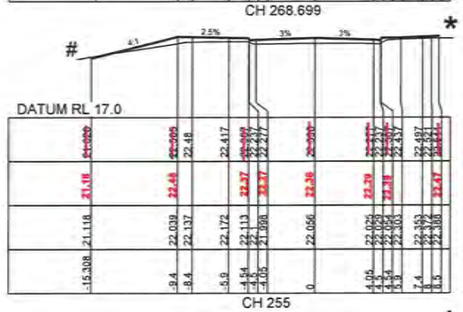


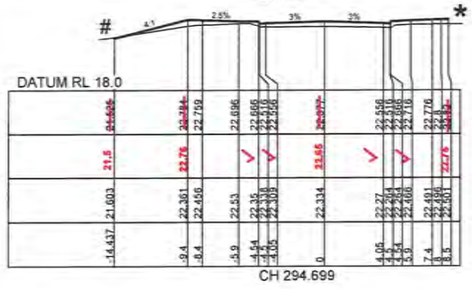


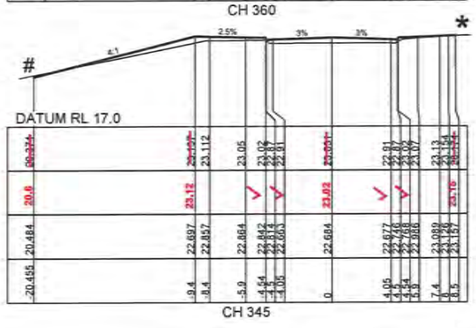


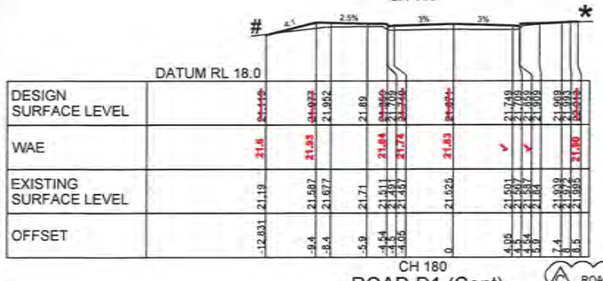




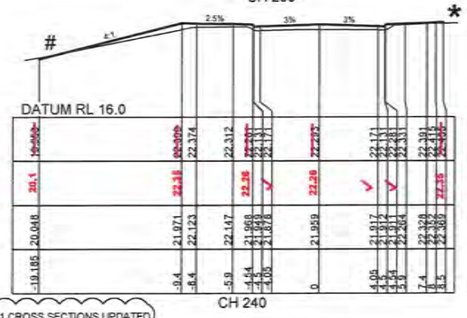


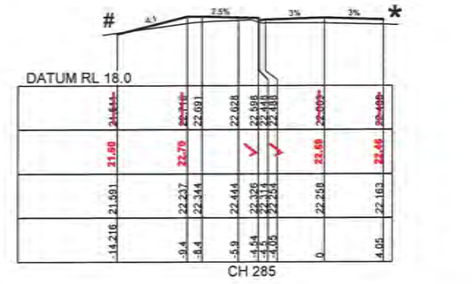


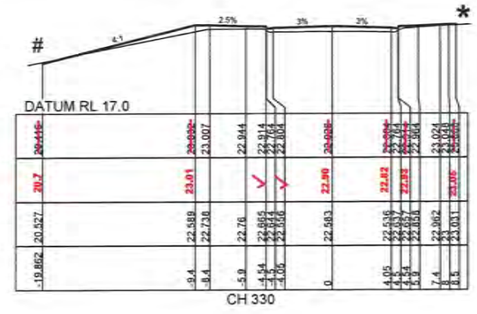




ROAD D1 (Cont)







ROAD D1 CROSS SECTIONS UPDATED

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
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	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 5000 W www.jwprince.com.au E hunt@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D1 SHEET 2

PLAN No: 998511/CC419 C
FILE No: 998511CC419
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:43:47 PM File Name: J19985DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC419.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

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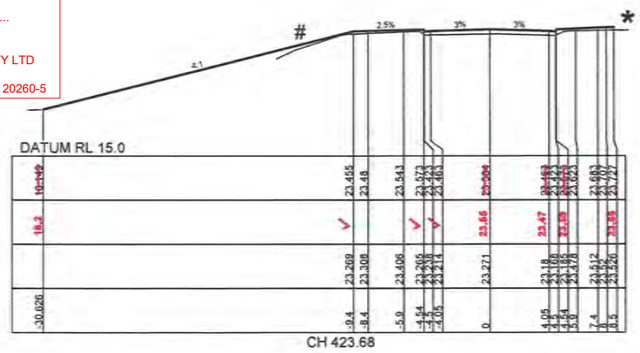
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

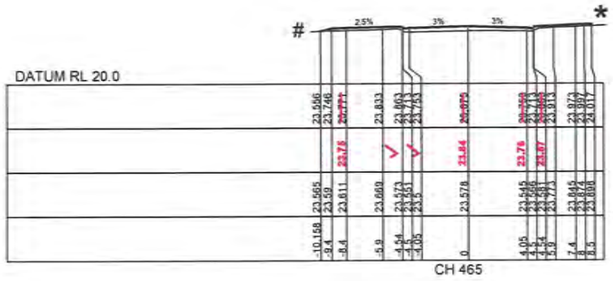
DATE 14/07/2021 REF 20260-5

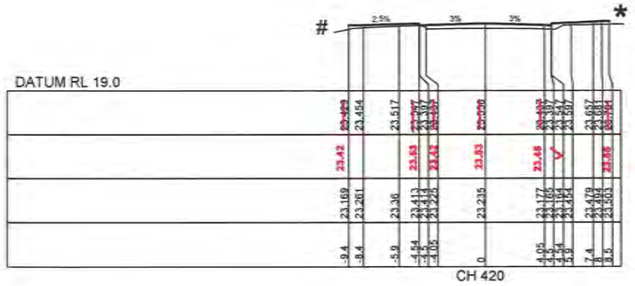
NOTE:

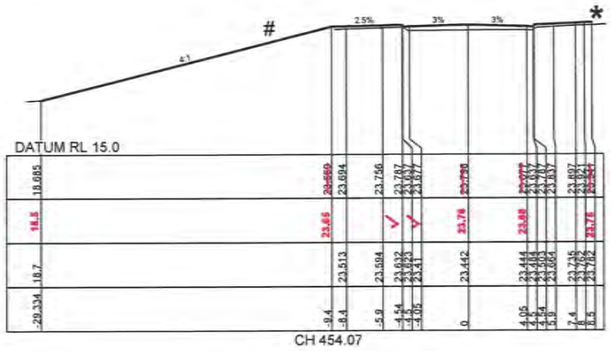
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

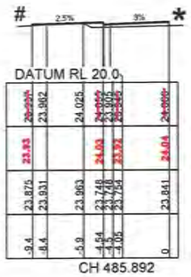
\# DENOTES RESERVE

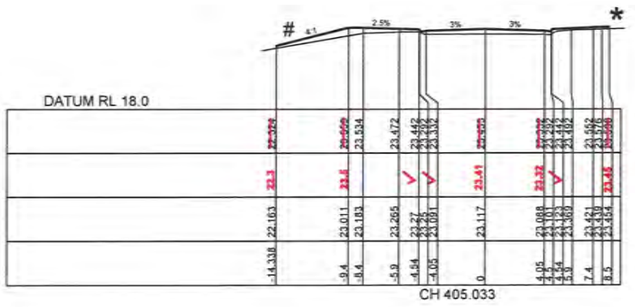


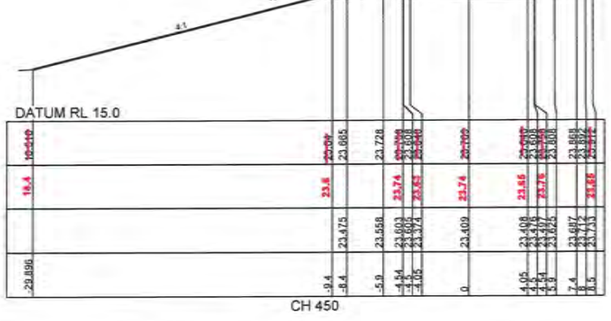


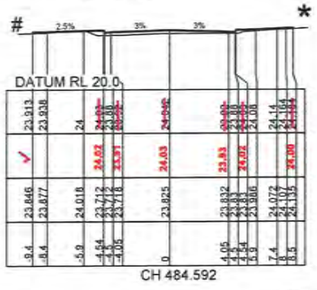


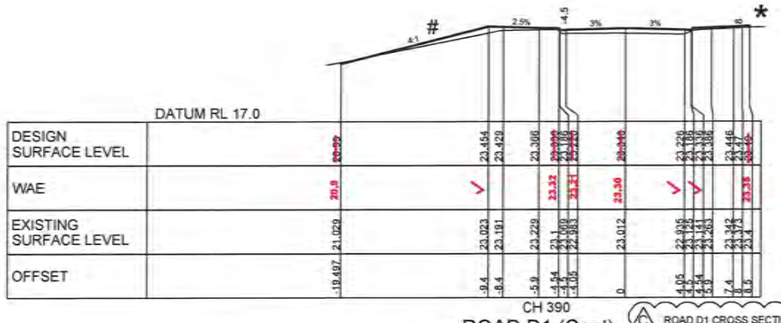






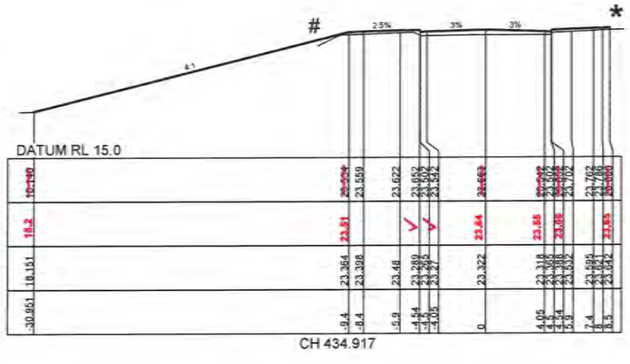


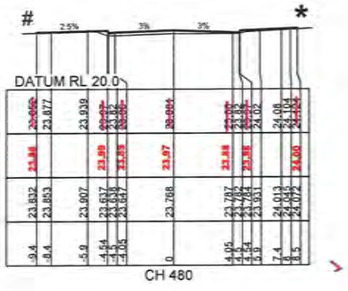




ROAD D1 (Cont)

△A ROAD D1 CROSS SECTIONS UPDATED





1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

These plans are referred to in certificate no. **15879** approved by
Christopher Louis Wahba
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	KM	NM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D1 SHEET 3

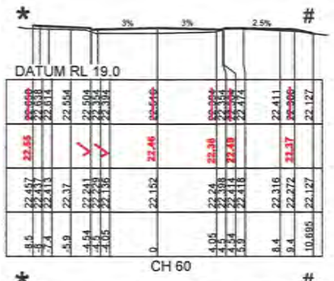
PLAN No: 998511/CC419A C
FILE No: 998511CC419A
SHEET SIZE: A1 ORIGINAL

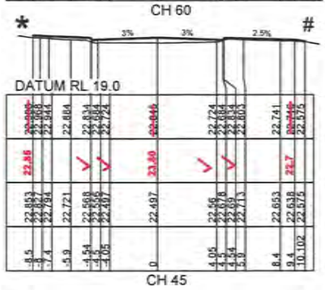
Plotted: 26 September , 2019 2:43:53 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511\CC419A.dwg

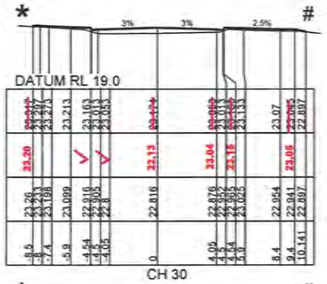
NOTE:

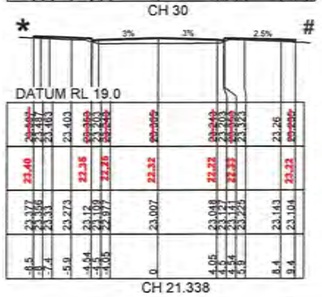
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

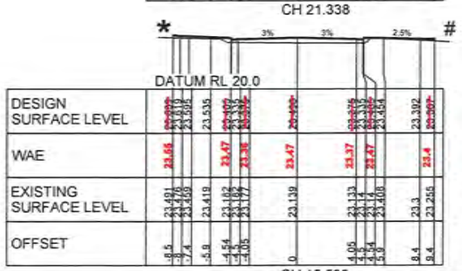
\# DENOTES RESERVE



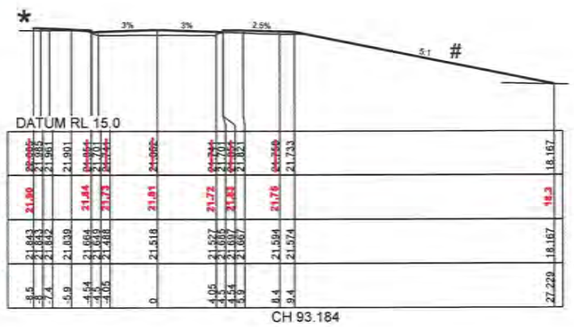


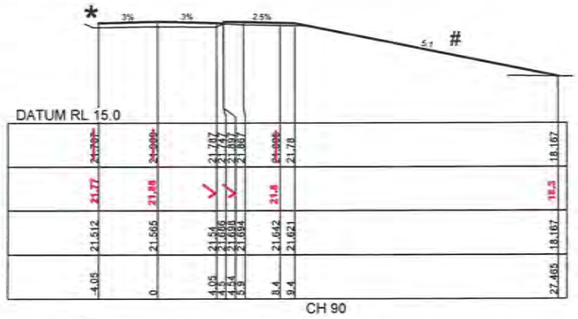


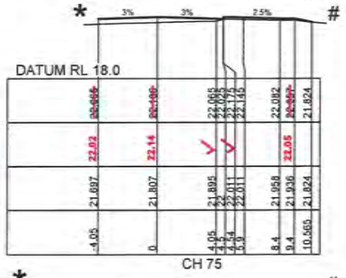


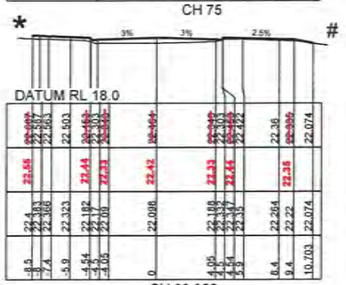


ROAD D2

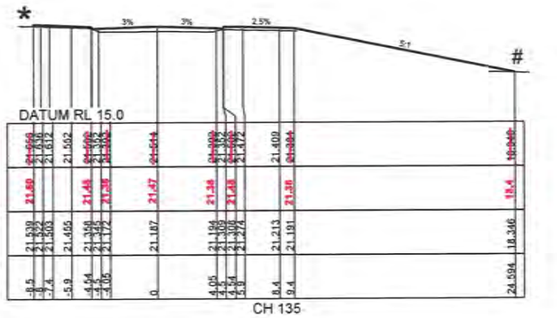


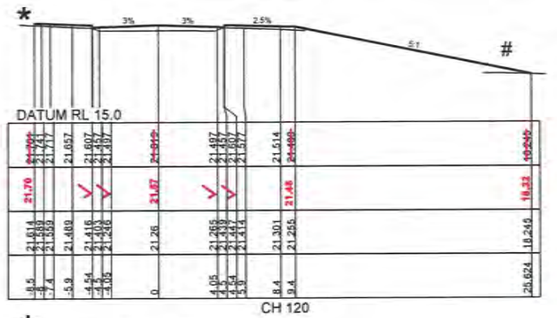


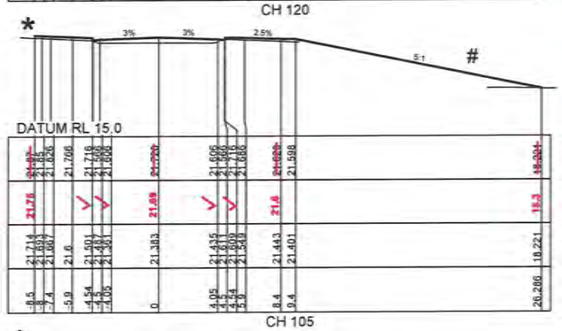


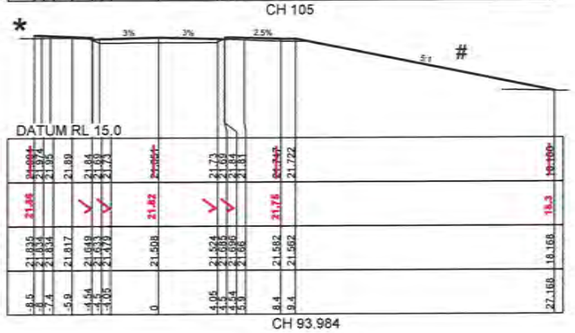


ROAD D2 CROSS SECTIONS UPDATED









1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20

METRES

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

LDC

These plans are referred to in certificate no. **15879** approved by:

Christopher Louis Wahbe
Accredited Certifier

Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15

Land Development Certificates
www.LDC.com.au

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	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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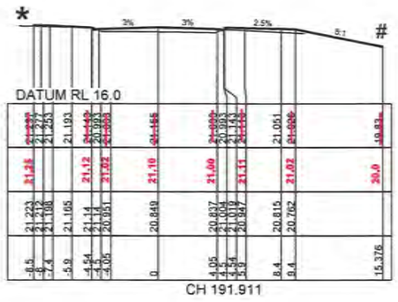
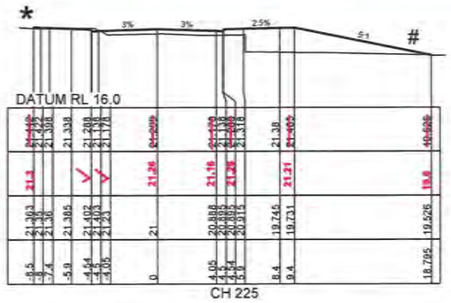
ISSUE FOR CONSTRUCTION APPROVAL

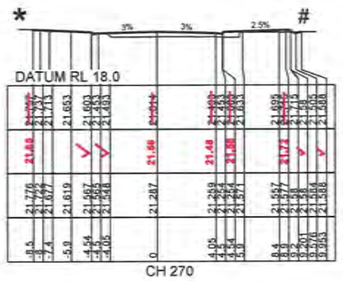
NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D2 SHEET 1

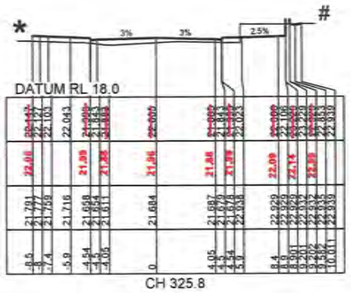
PLAN No: 998511/CC420 C
FILE No: 998511CC420
SHEET SIZE: A1 ORIGINAL

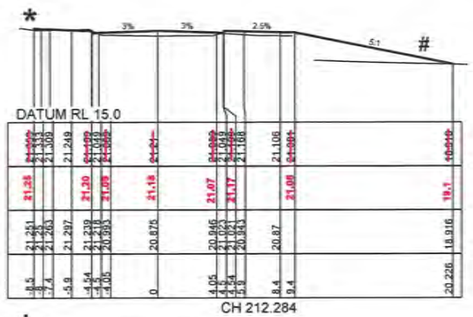
Plotted: 26 September , 2019 2:43:29 PM File Name: J:\9985\DOC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC420.dwg

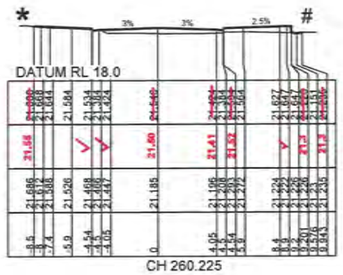


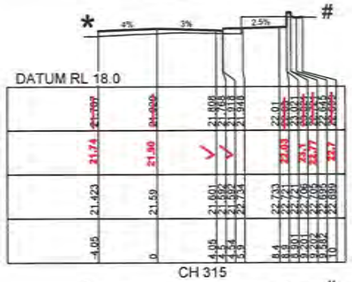


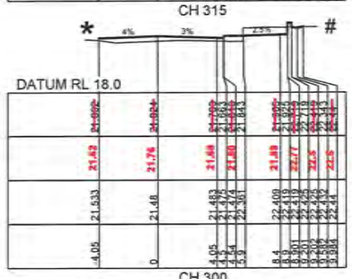


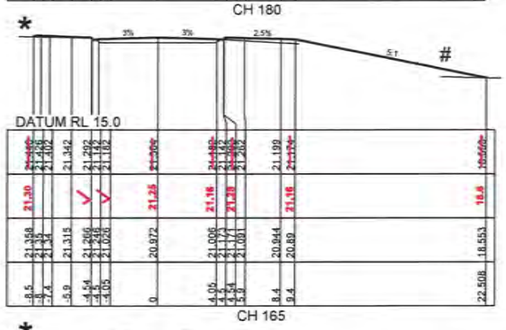


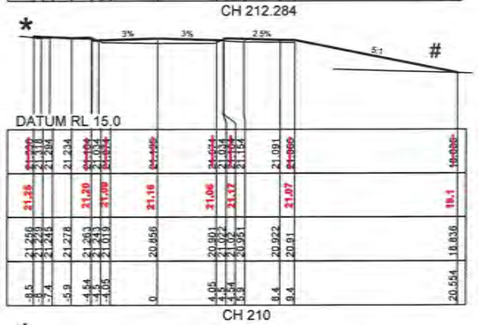


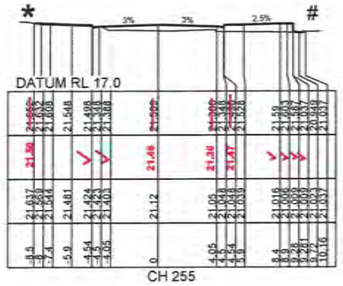


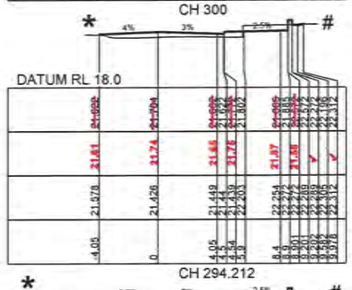


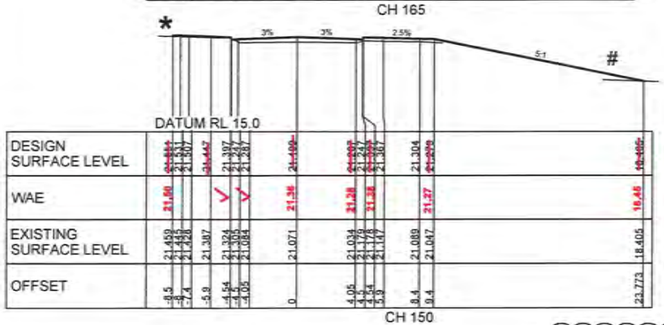


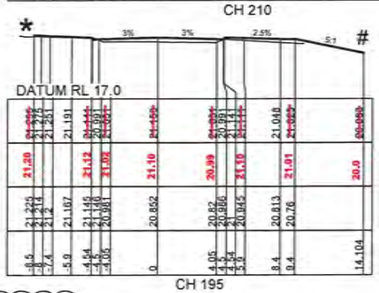


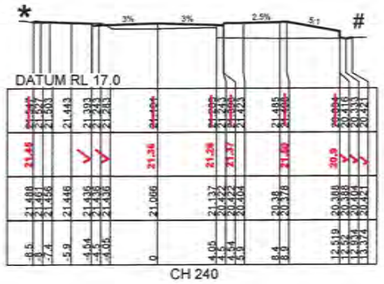


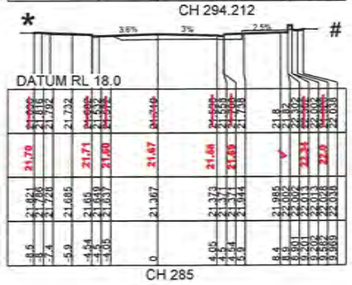












ROAD D2 (Cont)

A ROAD D2 CROSS SECTIONS UPDATED

NOTE:
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410
# DENOTES RESERVE

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,D6 & E1,5
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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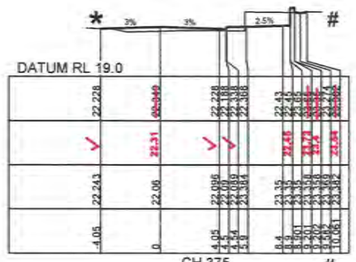
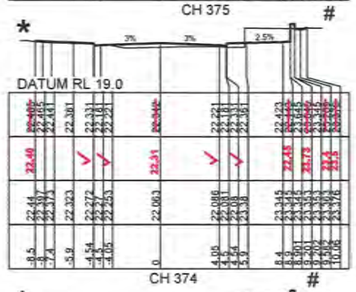
ISSUE FOR CONSTRUCTION APPROVAL

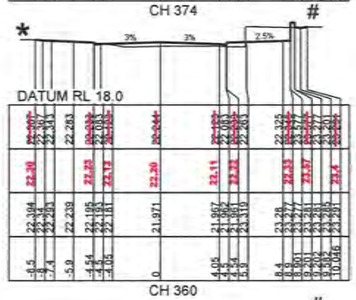
NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D2 SHEET 2

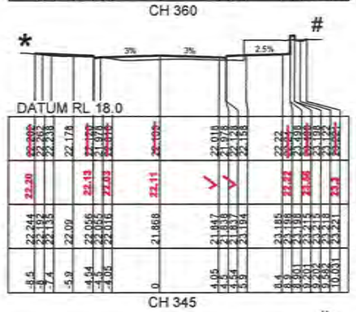
PLAN No: 998511/CC421 C
FILE No: 998511CC421
SHEET SIZE: A1 ORIGINAL

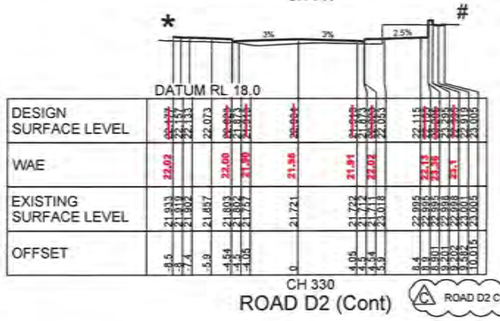
Plotted: 26 September , 2019 2:44:01 PM File Name: J:\998\DOC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\9\PRECINCT 5 DOCUMENTATION\998511CC421.dwg





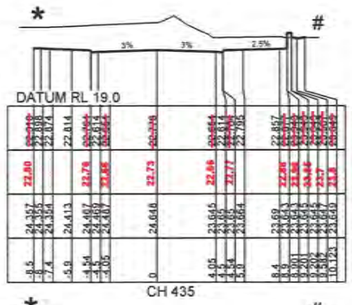


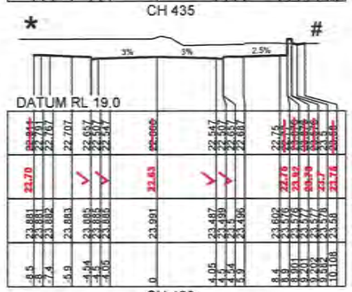


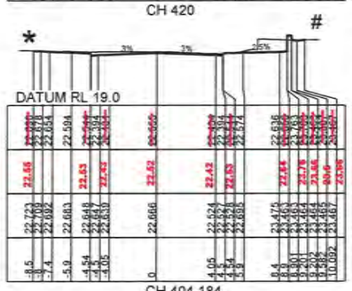


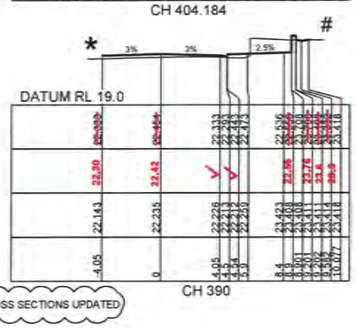
ROAD D2 (Cont)

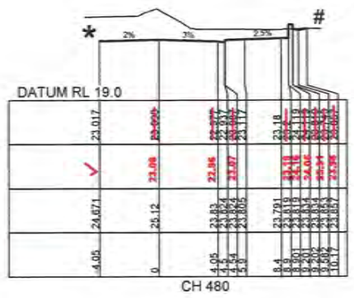
A ROAD D2 CROSS SECTIONS UPDATED

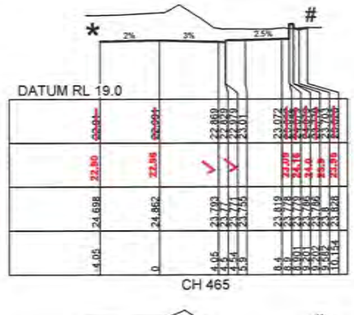


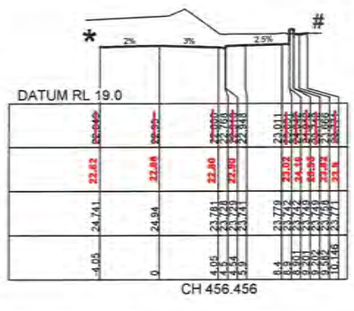


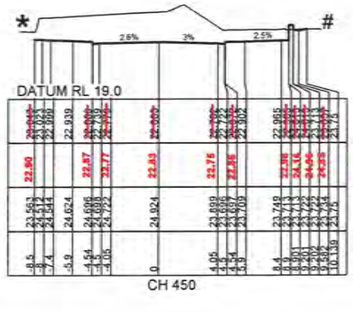


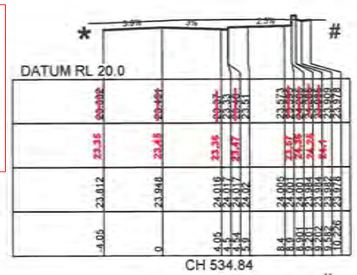


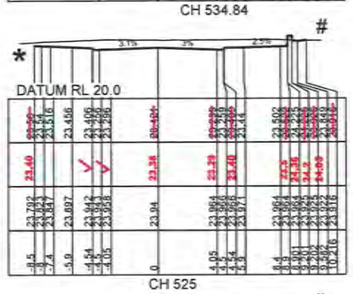


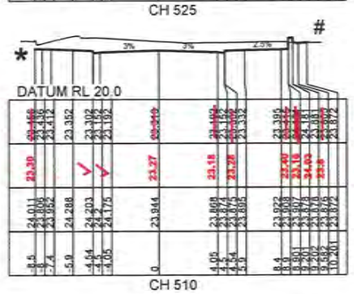


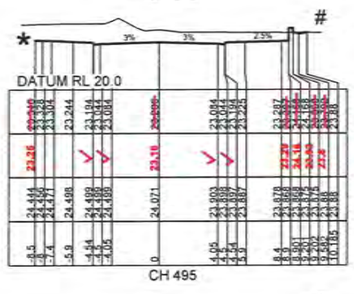


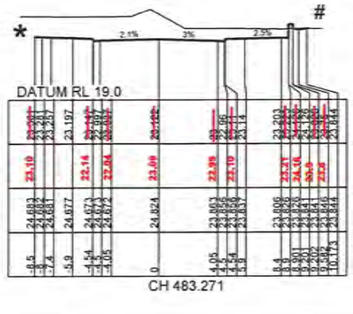


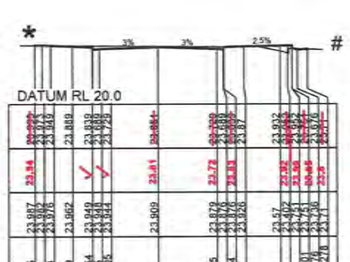


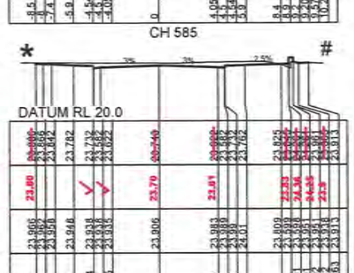


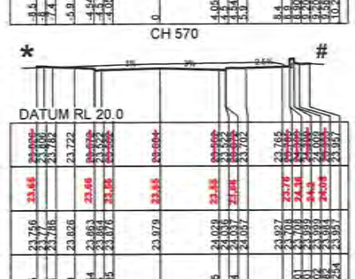


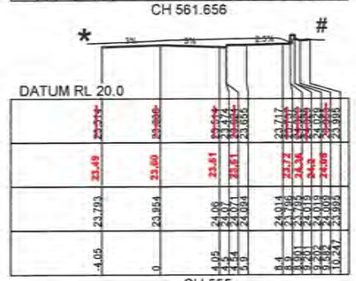


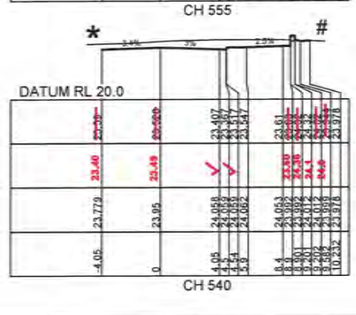












NOTE:

* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE

LDC

These plans are referred to in certificate no. **15879** approved by:

Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,CE & CN

Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

PO Box 4066 PENRITH WESTFIELD NSW 2750
P 02 4736 1300 W www.jwprince.com.au E info@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D2 SHEET 3

PLAN No: 998511/CC422 C
FILE No: 998511CC422
SHEET SIZE: A1 ORIGINAL

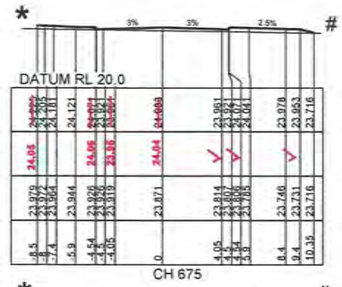
Plotted: 26 September, 2019 2:44:05 PM File Name: J:\99852\CC - Construction Certificate Approval Plans\PX11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC422.dwg

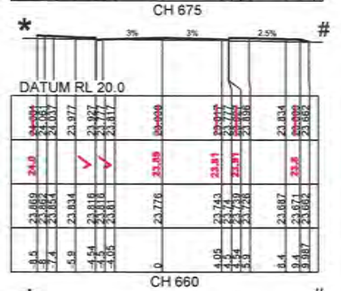
NOTE:

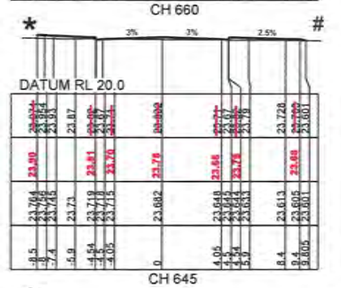
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

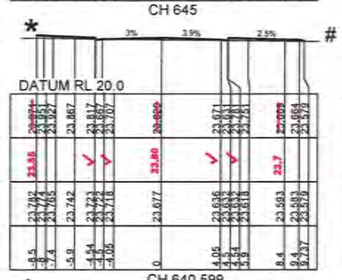
\# DENOTES RESERVE

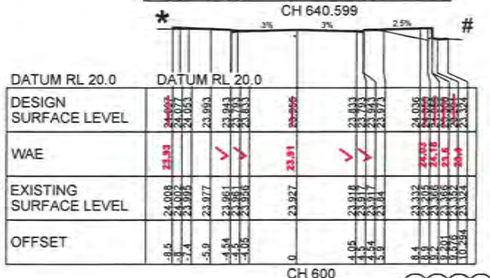
Ø REFER TO PLAN CC472 FOR RETAINING WALL 4 GRADING

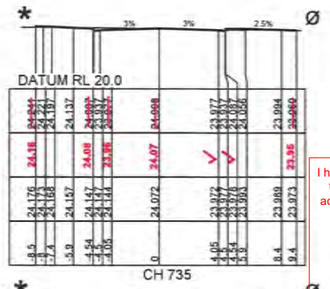


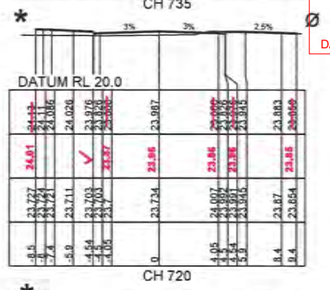


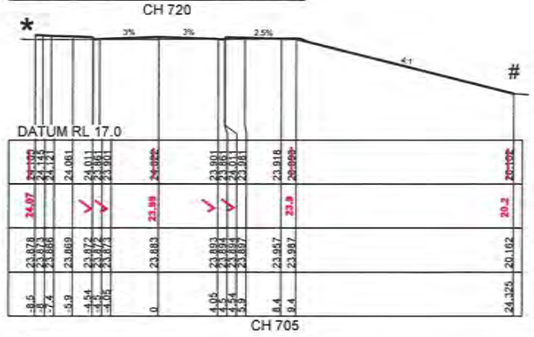


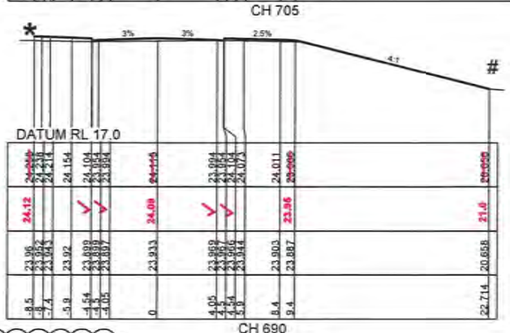










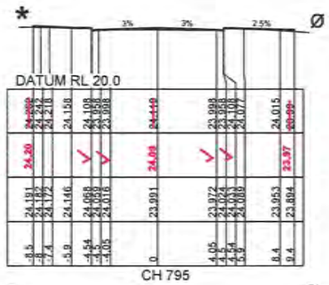


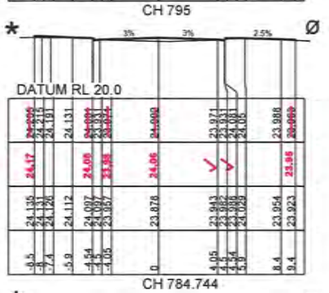
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

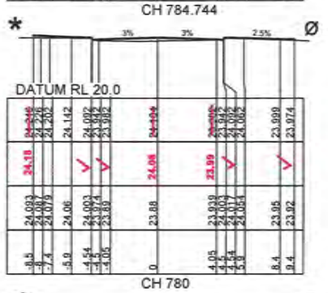
Signature.....

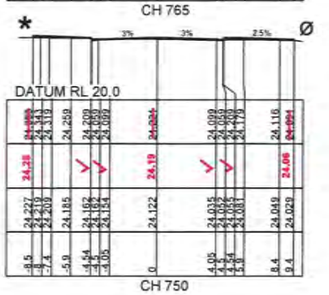
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

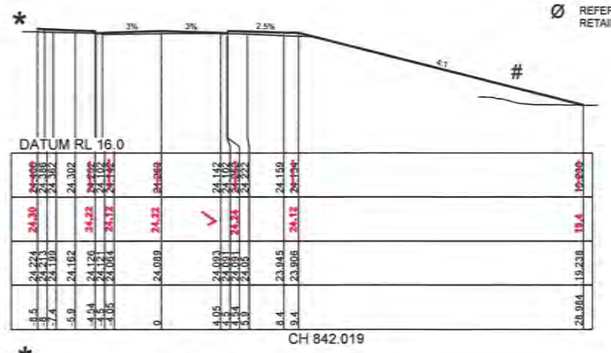
DATE 14/07/2021 REF 20260-5

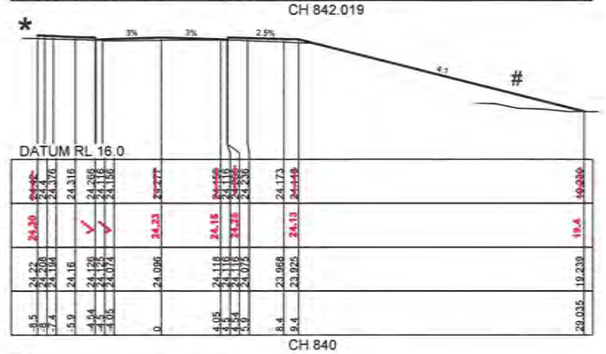


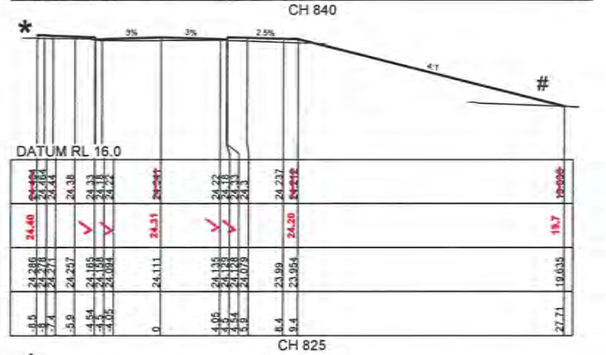


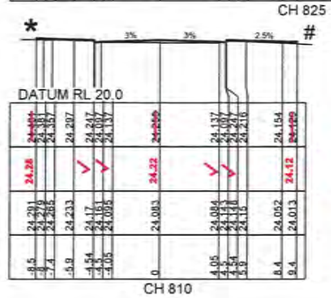












These plans are referred to in certificate no. **15879** approved by:

Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15

Land Development Certificates
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ROAD D2 (Cont)

C ROAD D2 CROSS SECTIONS UPDATED

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRUITH WEST FIELD NSW 2750
P 02 4720 2300 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D2 SHEET 4

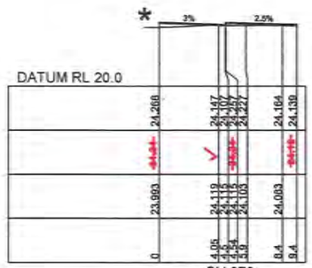
PLAN No: 998511/CC423 C
FILE No: 998511CC423
SHEET SIZE: A1 ORIGINAL

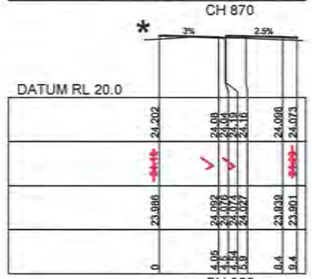
Plotted: 26 September, 2019 2:44:30 PM File Name: J:\998511\DC\G - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 DOCUMENTATION\998511CC423.dwg

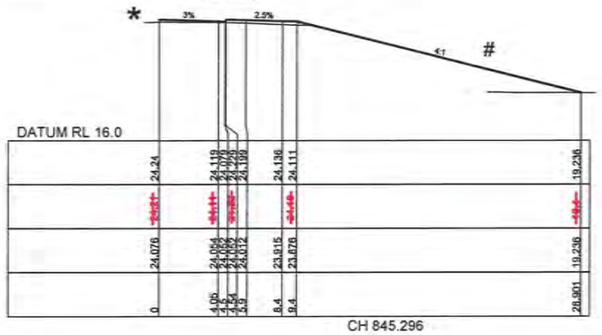
NOTE:

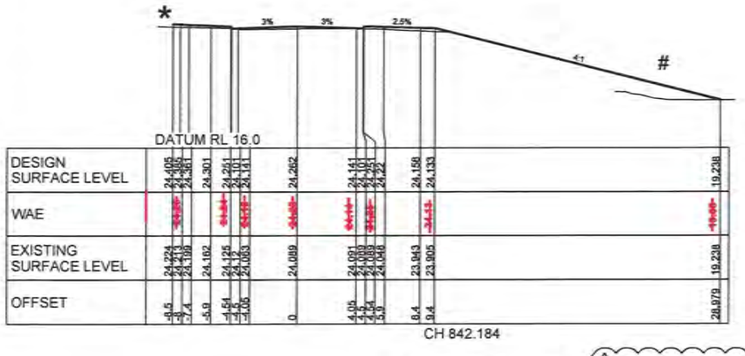
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE



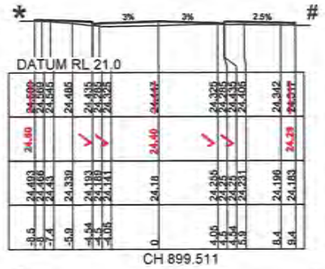


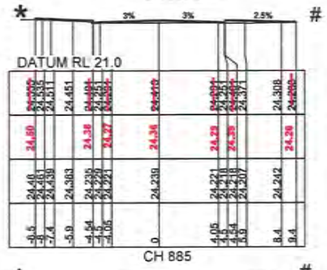


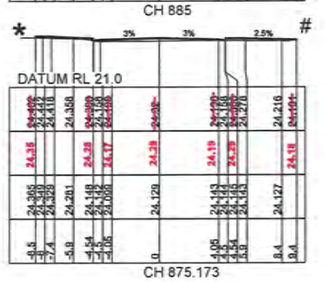


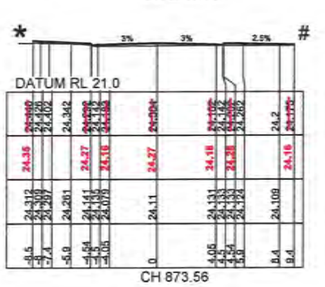
ROAD D2 (Cont)

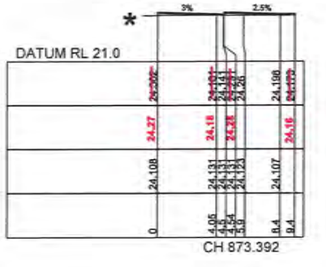
△ ROAD D2 CROSS SECTIONS UPDATED

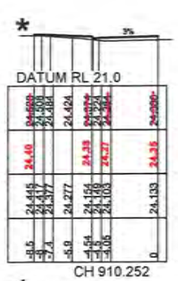


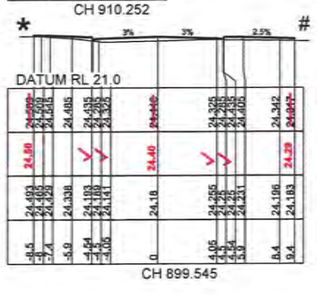












I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

LDC

These plans are referred to in certificate no. **15879** approved by...

Christopher Louis Wahbe
Accredited Certifier:
Registration No: BPB 3013
Categories: B1,C1,C2,C3,C4,C8 & C15

Land Development Certificates
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1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
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J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3000 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D2 SHEET 5

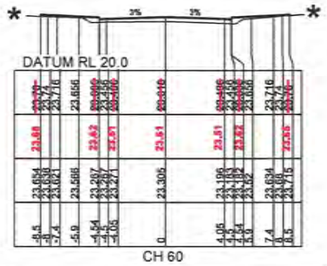
PLAN No: 998511/CC424 C
FILE No: 998511CC424
SHEET SIZE: A1 ORIGINAL

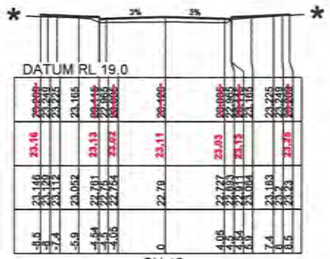
Plotted: 26 September , 2019 2:44:30 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC424.dwg

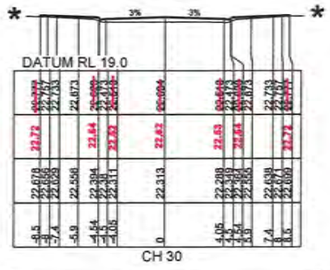
NOTE:

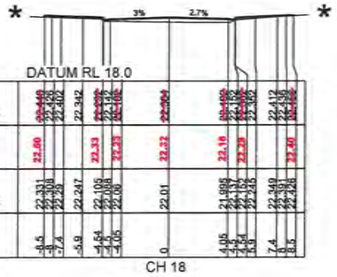
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE

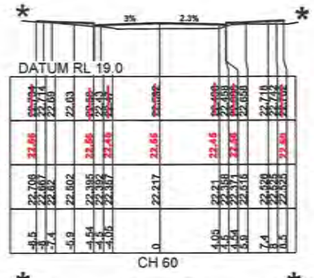


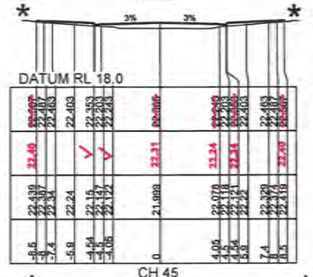


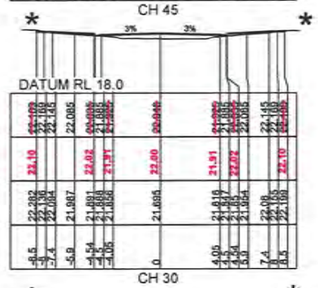


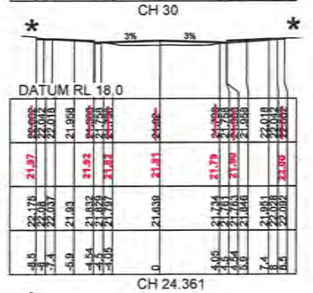


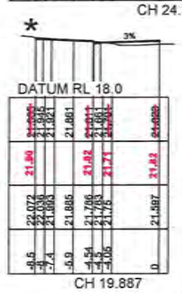
ROAD D3



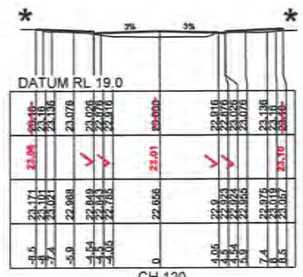


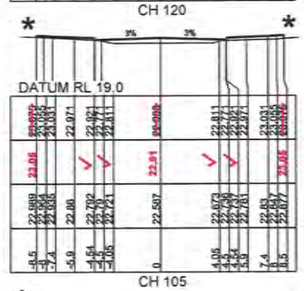


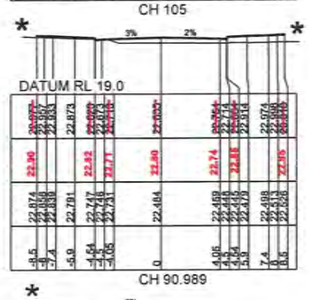


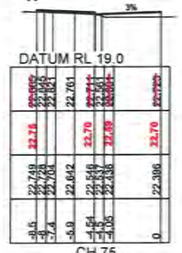


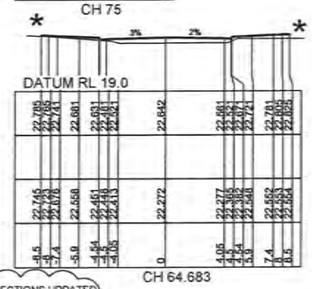
ROAD D4



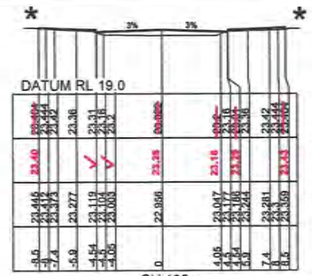


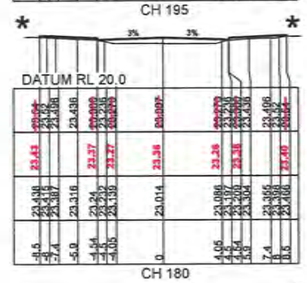


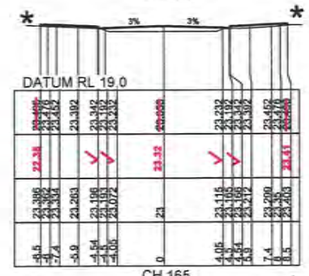


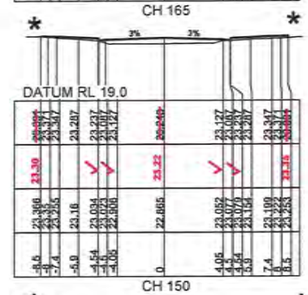


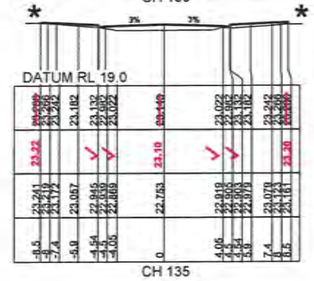
ROAD D3 & D4 CROSS SECTIONS UPDATED

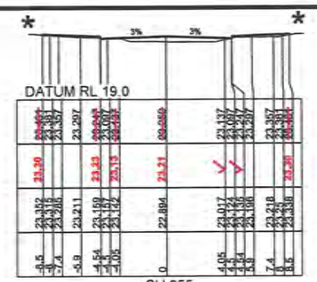


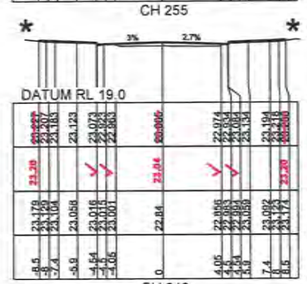


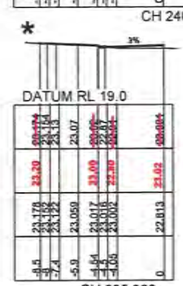


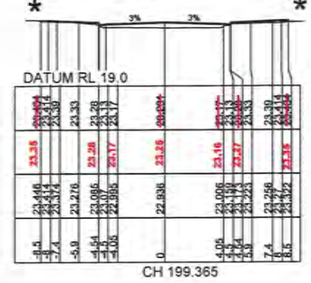












I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

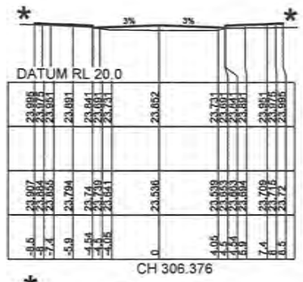
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE

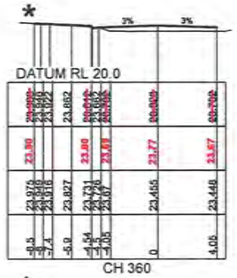
ISSUE FOR CONSTRUCTION APPROVAL

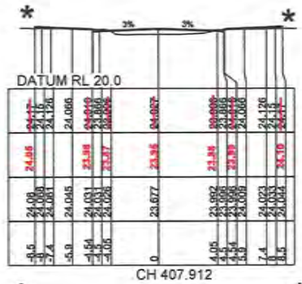
NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D3 AND ROAD D4

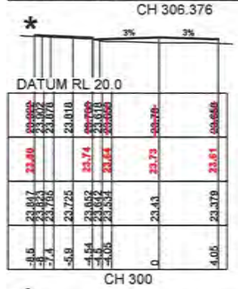
PLAN No: 998511/CC425 C
FILE No: 998511CC425
SHEET SIZE: A1 ORIGINAL

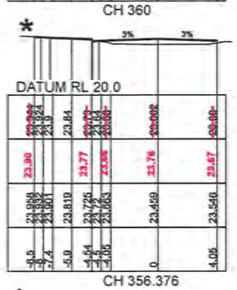
Plotted: 26 September , 2019 2:44:19 PM File Name: J:\998\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5\PRECINCT 5 DOCUMENTATION\998511CC425.dwg

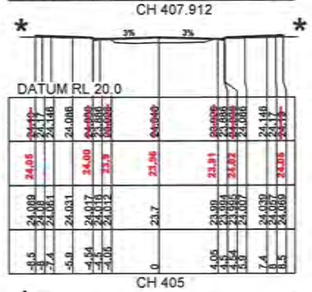


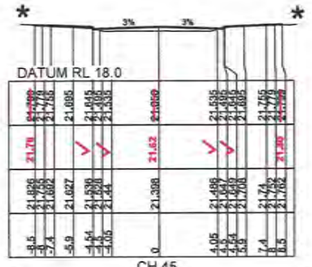


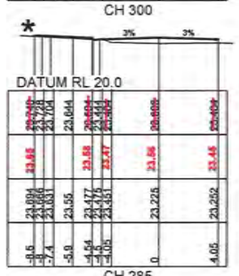


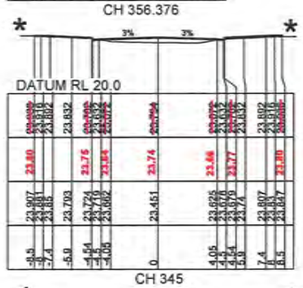


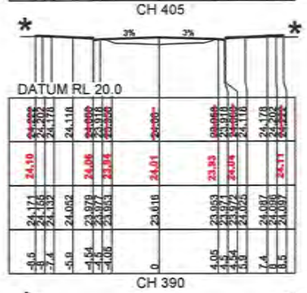


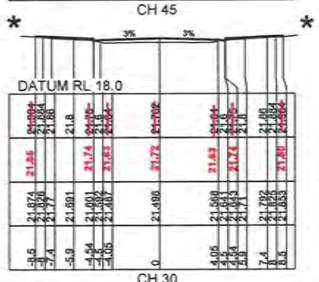


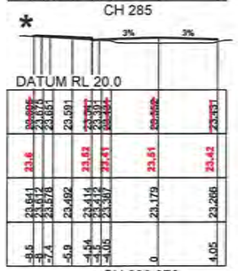


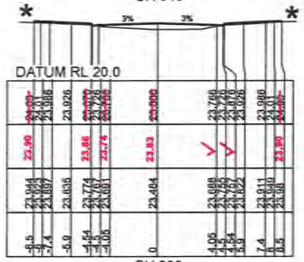


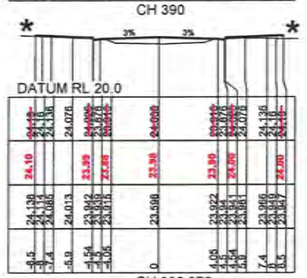


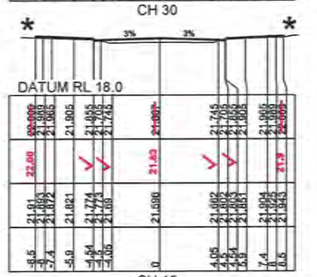


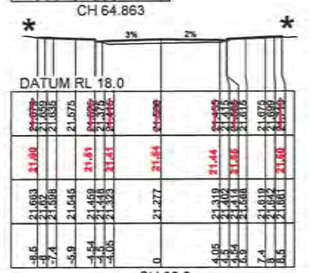


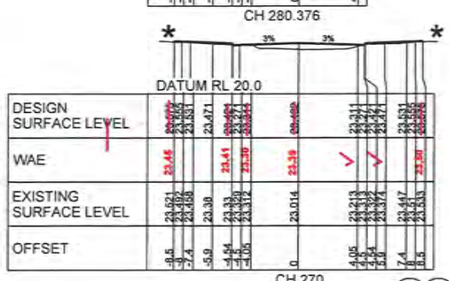


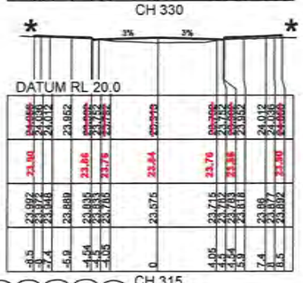


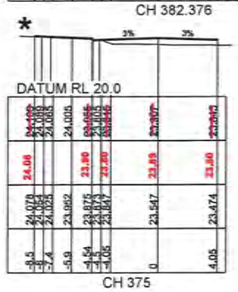


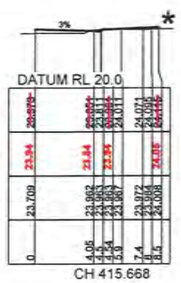


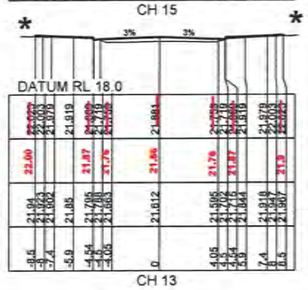


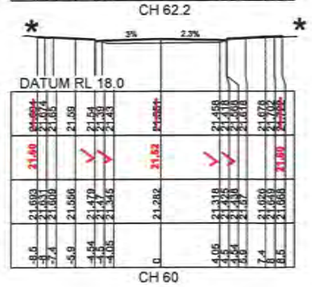












ROAD D4 (Cont)

ROAD D5

ROAD D4 & D5 CROSS SECTIONS UPDATED

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

NOTE:

* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE

These plans are referred to in certificate no: **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier:
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C8 & C13
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

PO Box 4966 PENRITH WESTFIELD NSW 2350
P 02 4721 3300 W www.jwyndhamprince.com.au E mail@jwyndhamprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D4 AND ROAD D5

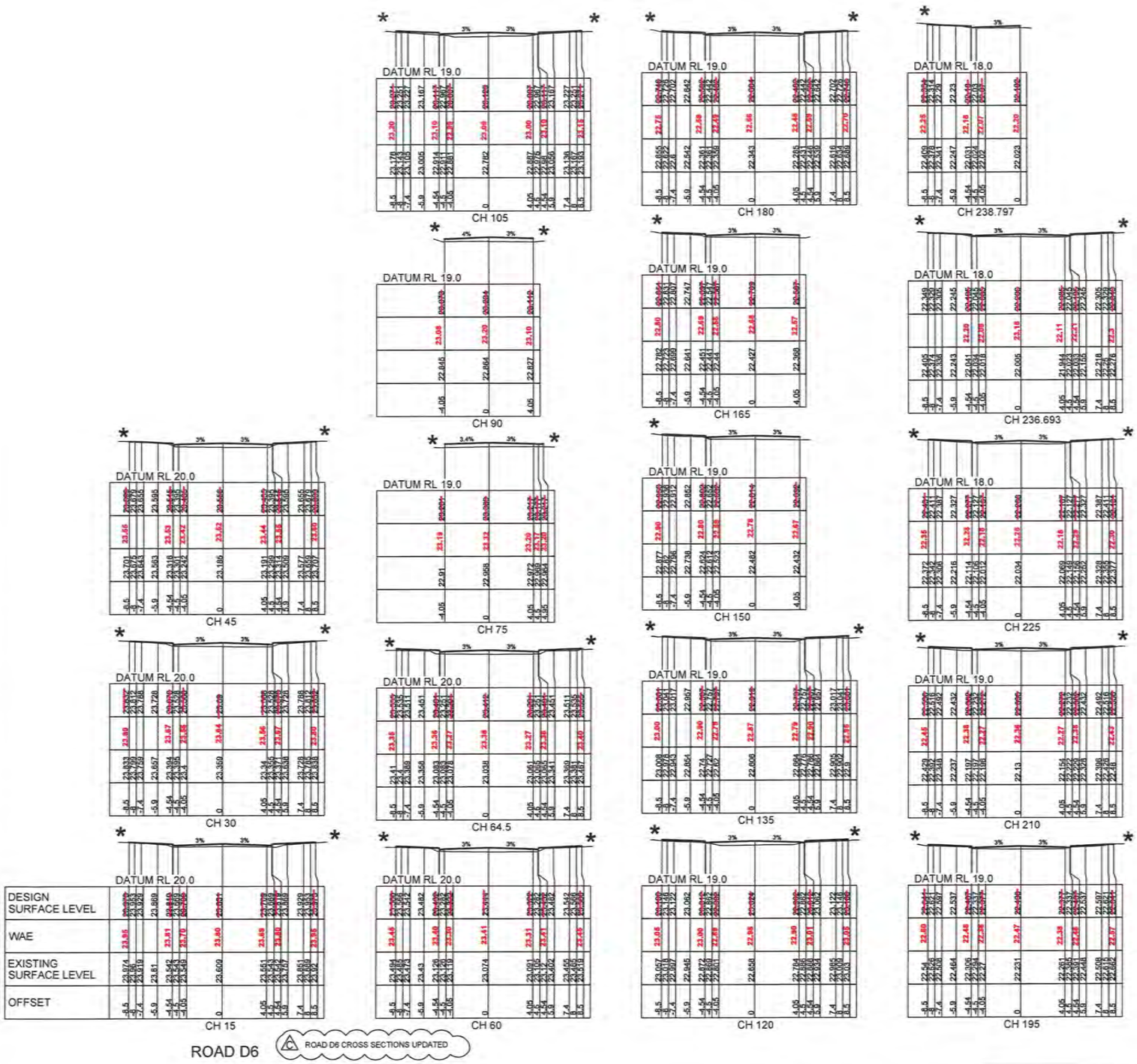
PLAN No: 998511/CC426 C
FILE No: 998511CC426
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:07 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC426.dwg

NOTE:

* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE



ROAD D6

A ROAD D6 CROSS SECTIONS UPDATED

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

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	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 W www.jwprince.com.au E

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D6

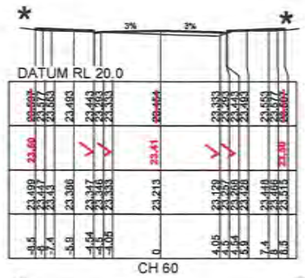
PLAN No: 998511/CC427 C
FILE No: 998511CC427
SHEET SIZE: A1 ORIGINAL

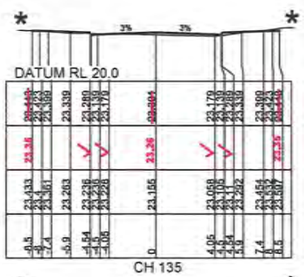
Plotted: 26 September , 2019 2:44:33 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511\CC427.dwg

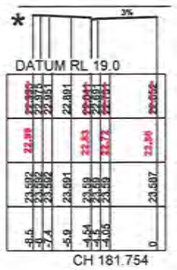
NOTE:

* FOR LOT GRADING REFER TO PLAN CC407 TO CC410

\# DENOTES RESERVE







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Registered Land Surveyor
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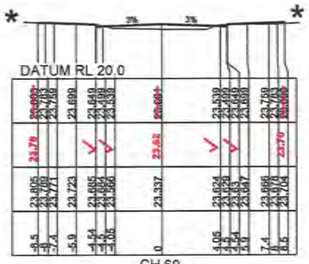
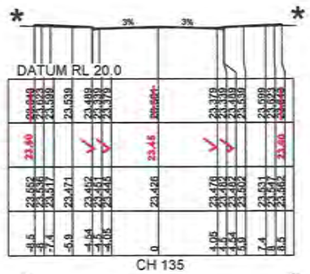
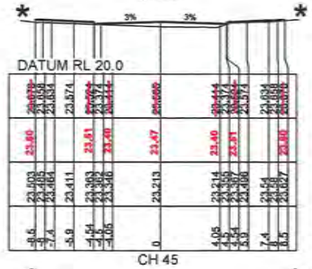
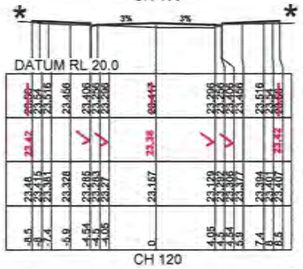
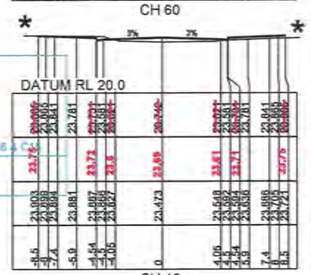
DATE 14/07/2021 REF 20260-5

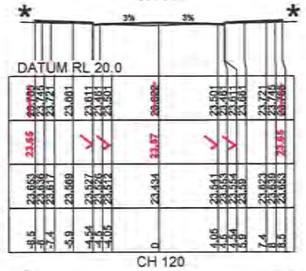


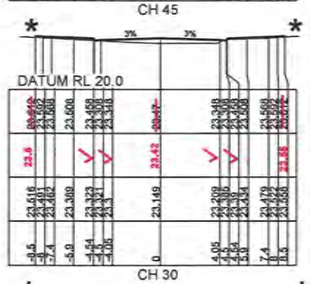


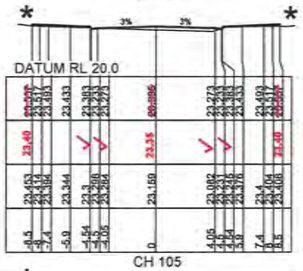


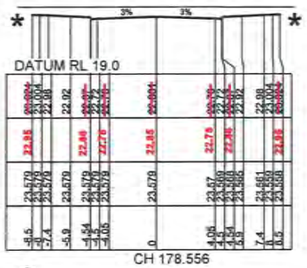


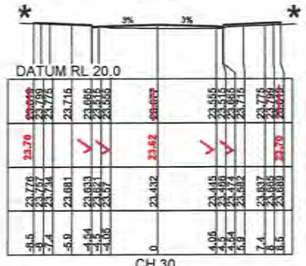


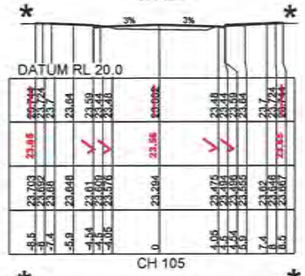


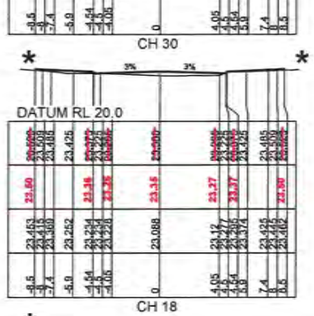


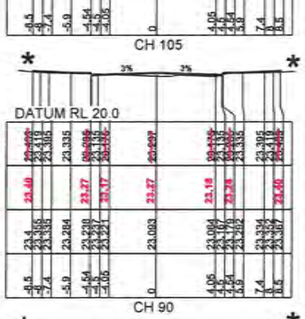


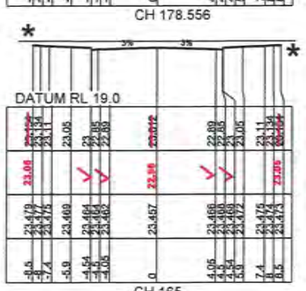


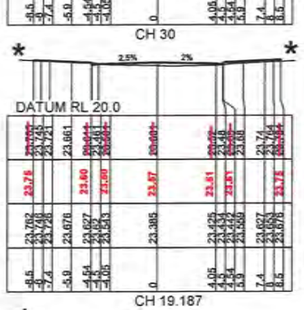


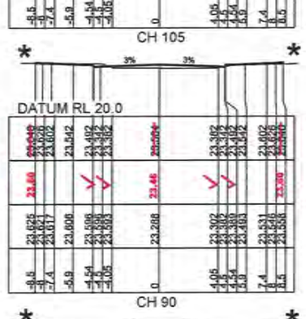


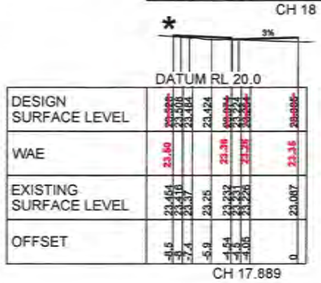


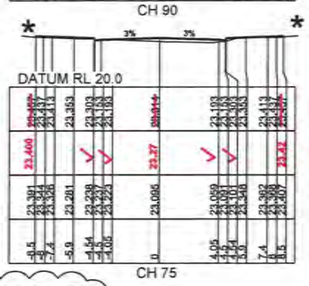


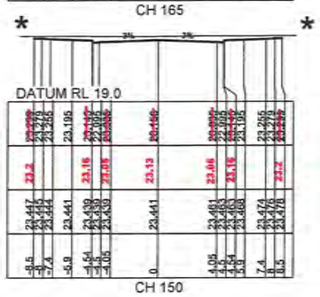


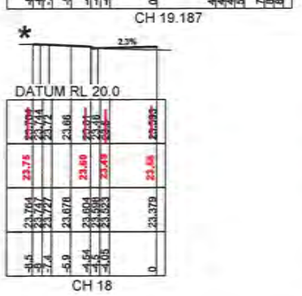


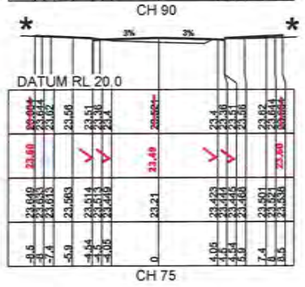












ROAD D7

ROAD D8

6 ROAD D7 & D8 CROSS SECTIONS UPDATED

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4356 PENNANT HILLS NSW 2120
P 02 9733 3000 W www.jwyndhamprince.com.au E ...

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

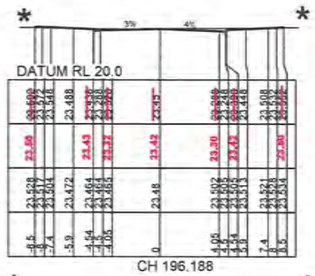
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

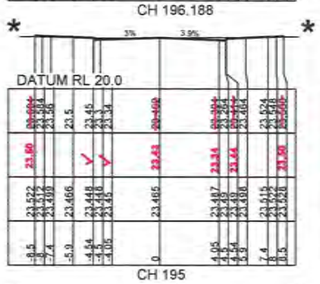
ISSUE FOR CONSTRUCTION APPROVAL

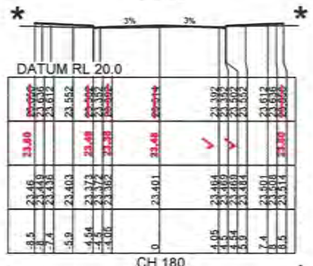
NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D7 AND ROAD D8

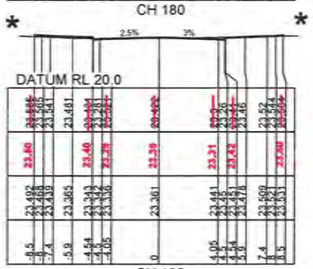
PLAN No: 998511/CC428 C
FILE No: 998511CC428
SHEET SIZE: A1 ORIGINAL

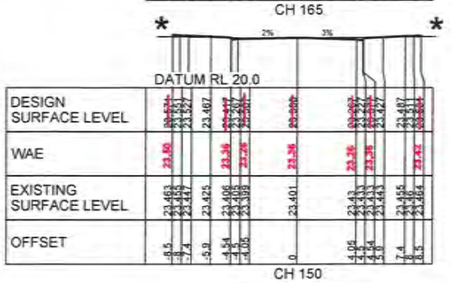
Plotted: 26 September, 2019 2:44:36 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5PRECINCT 5 DOCUMENTATION\998511CC428.dwg



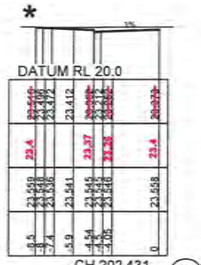




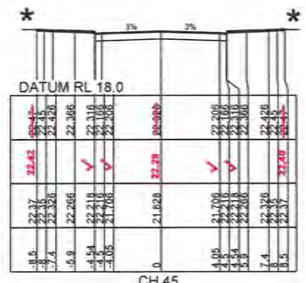


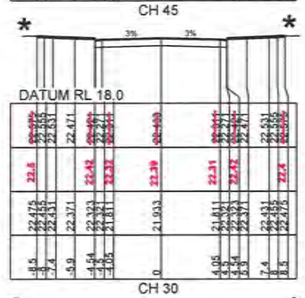


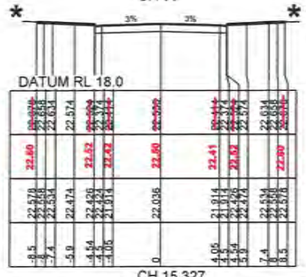
ROAD D8 (Cont)

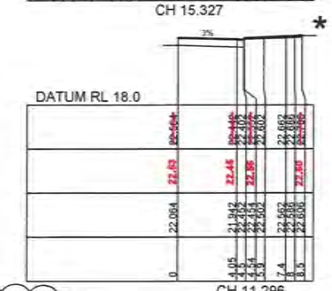


ROAD D8 & D9 CROSS SECTIONS UPDATED

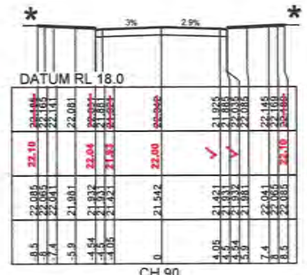


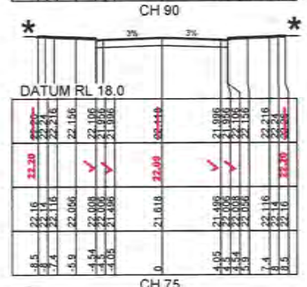


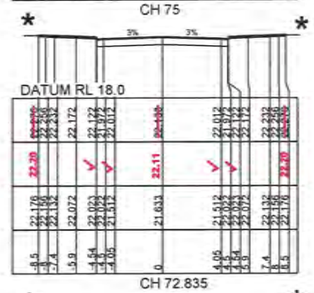


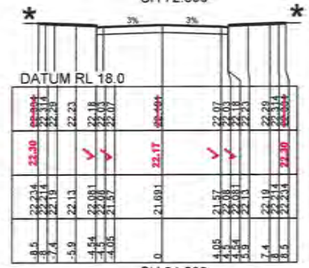


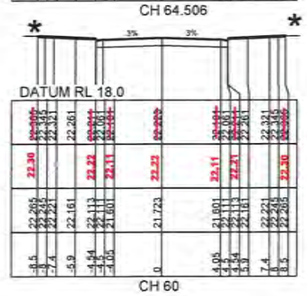
ROAD D9

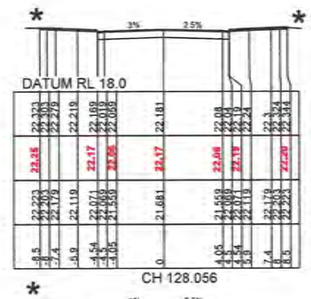


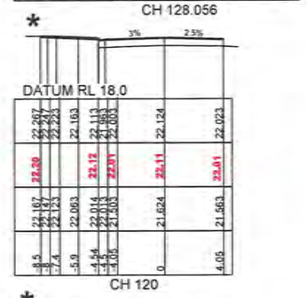


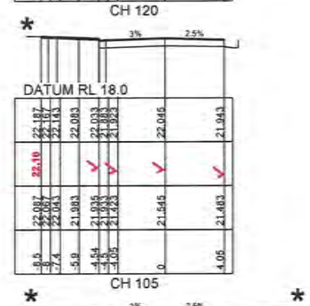


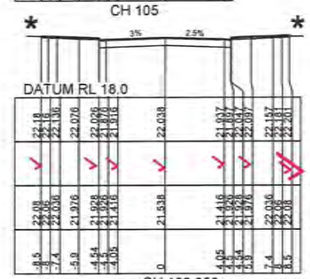


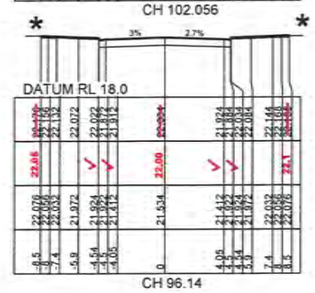


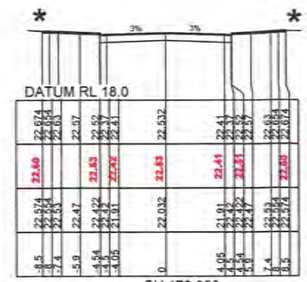


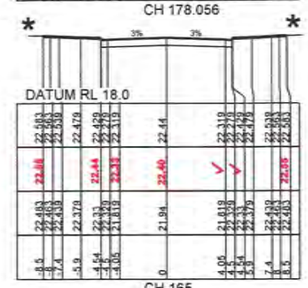


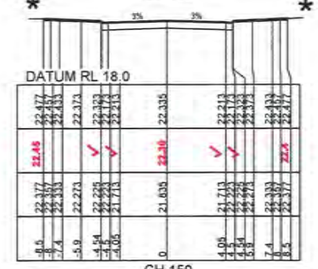


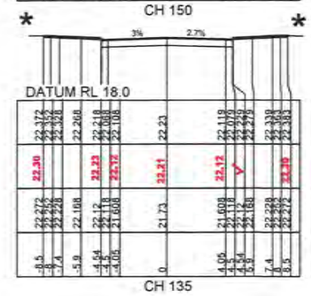












1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

NOTE:
* FOR LOT GRADING REFER TO PLAN CC407 TO CC410
# DENOTES RESERVE

These plans are referred to in certificate no. 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Delegates: S1,C1,C2,C3,C4,C5 & C15
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	NM	RO	MS	02/09/19

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 [illegible]

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
ROAD CROSS SECTIONS
ROAD D8 AND ROAD D9

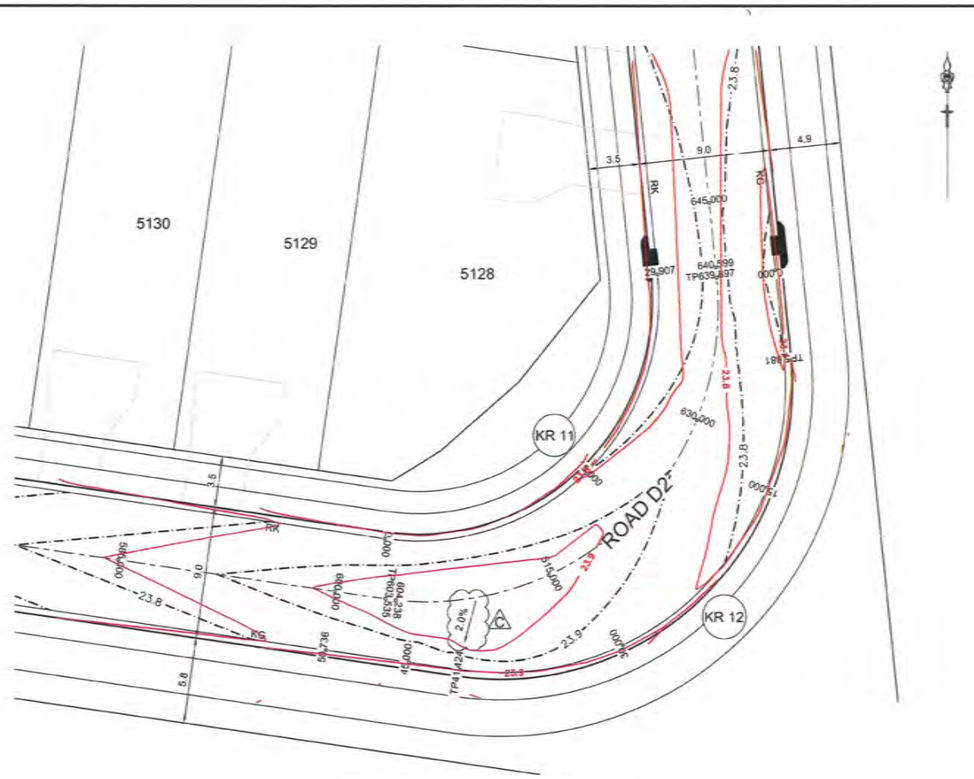
PLAN No: 998511/CC428A C
FILE No: 998511CC428A
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:35 PM File Name: J:\9985\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC428A.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

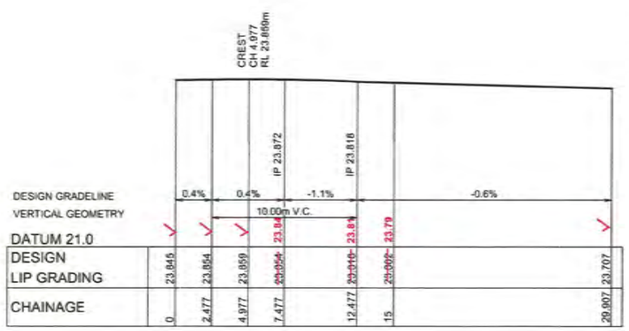
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



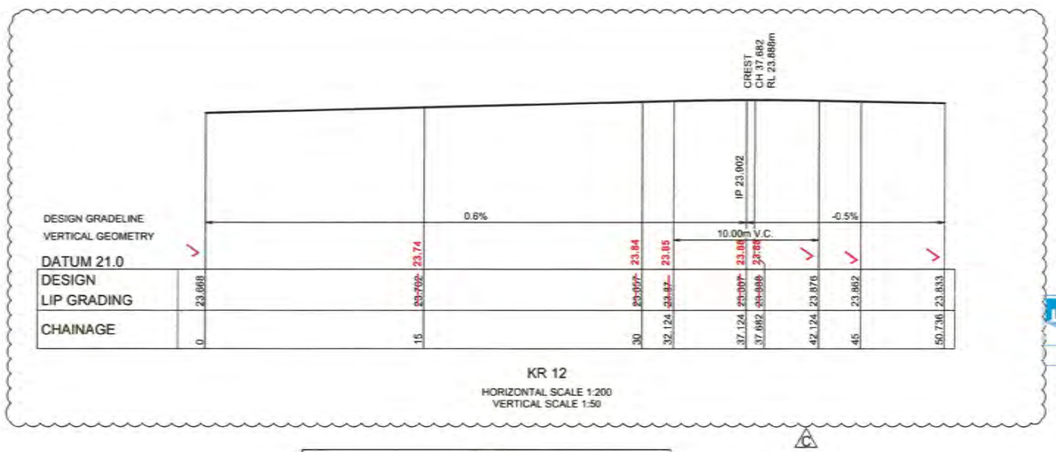
KERB RETURN 11 AND 12 PLAN

SCALE 1:200



KR 11

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 12

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 11					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296289.01	6268386.95	98°11'33.75"		
14.95	296309.91	6268383.94		-16.45	29.91
29.91	296307.71	6268404.95	354°01'28.03"		

KR 12					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296315.82	6268405.25	174°01'28.03"		
5.88	296316.44	6268399.4	174°01'28.03"		
23.65	296319.05	6268374.44		19.55	35.54
41.42	296294.21	6268378.02	278°11'33.75"		
50.74	296284.99	6268379.35	278°11'33.75"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

These plans are referred to in certificate no: 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with the plans and specifications approved by Blacktown City Council
Signature:
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
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	AMENDMENT	DES	DRN	CKD	APR	DATE

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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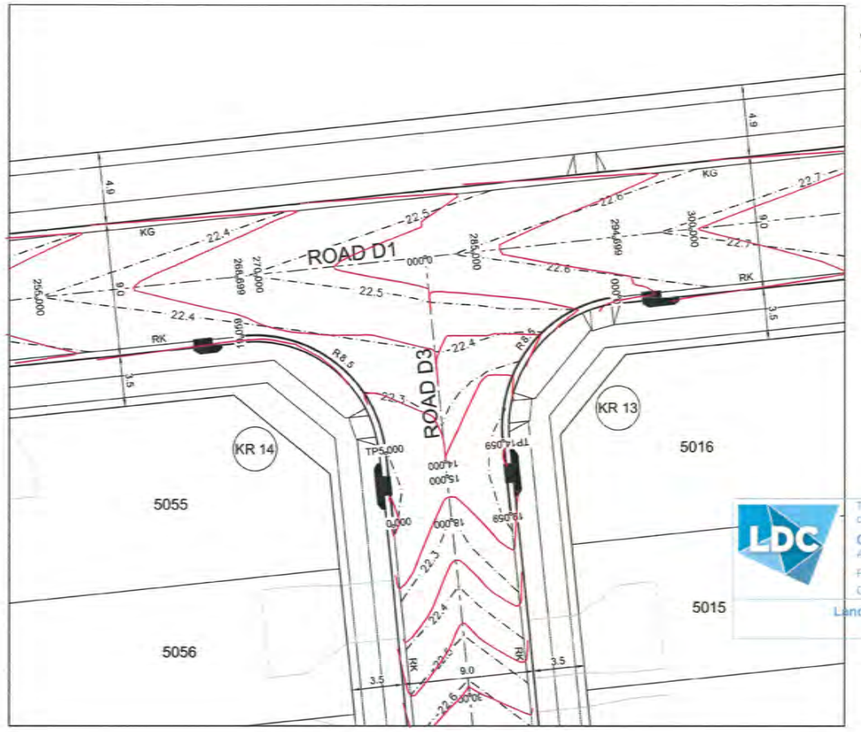
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 1

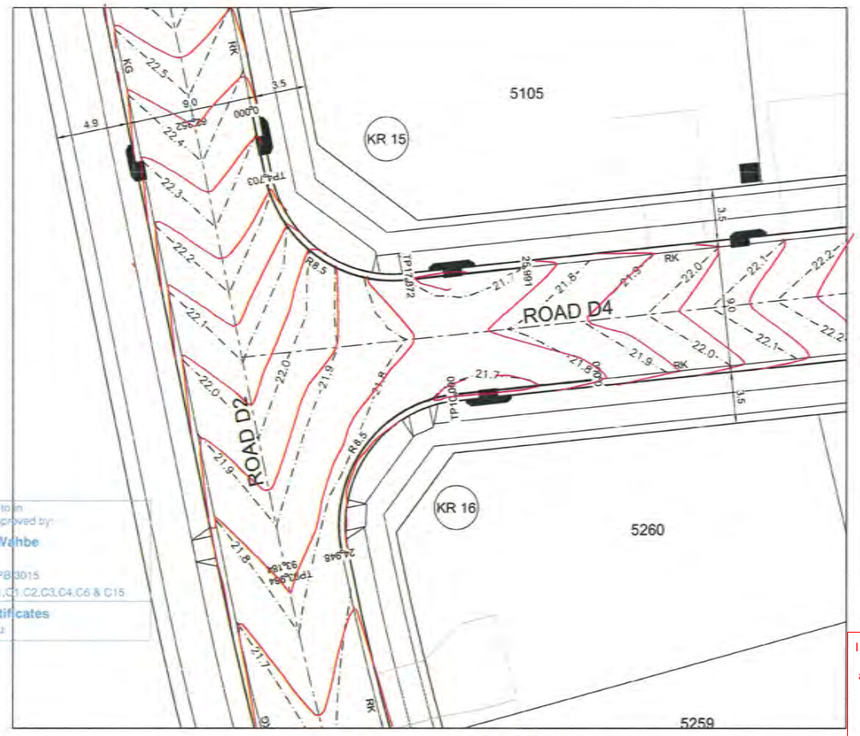
PLAN No: 998511/CC429 C
FILE No: 998511CC429
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:51 PM File Name: J:\998\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC429.dwg

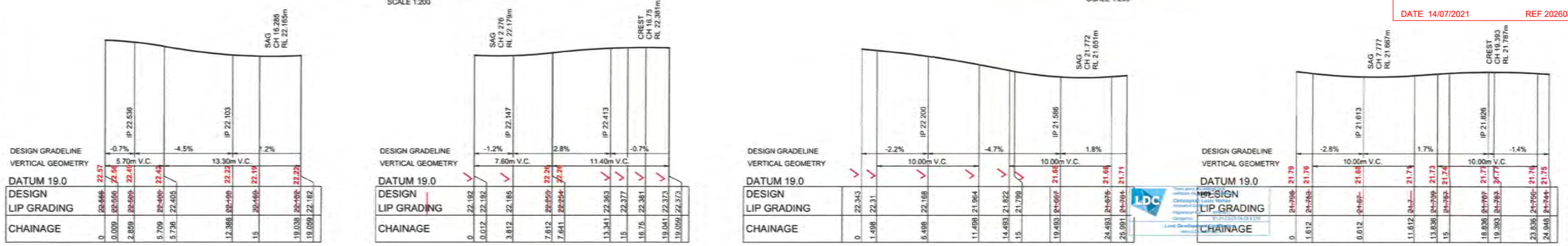
DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB



KERB RETURN 13 AND 14 PLAN
SCALE 1:200



KERB RETURN 15 AND 16 PLAN
SCALE 1:200



KR 13
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 14
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 15
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 16
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 13

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296060.04	6268744.78	264°01'28.02"		
7.03	296051.14	6268743.84		-8.95	14.06
14.06	296052.07	6268734.94	174°01'28.02"		
19.06	296052.59	6268729.97	174°01'28.02"		

KR 14

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296044.53	6268729.13	354°01'28.02"		
5	296044.01	6268734.1	354°01'28.02"		
12.03	296043.08	6268743		-8.95	14.06
19.06	296034.16	6268742.07	264°01'28.02"		

KR 15

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295847.37	6268586.62	168°19'48.09"		
4.7	295848.32	6268582.01	168°19'48.09"		
11.29	295849.96	6268574.08		-8.95	13.17
17.87	295858.02	6268574.92	84°01'28.02"		
25.99	295866.09	6268575.77	84°01'28.02"		

KR 16

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295371.38	6268568.18	264°01'28.02"		
10	295361.44	6268567.14	264°01'28.02"		
17.47	295351.81	6268566.11		-8.95	14.95
24.95	295853.61	6268556.42	168°19'48.09"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (A3)
4 2 0 4 8 12 16 20
METRES

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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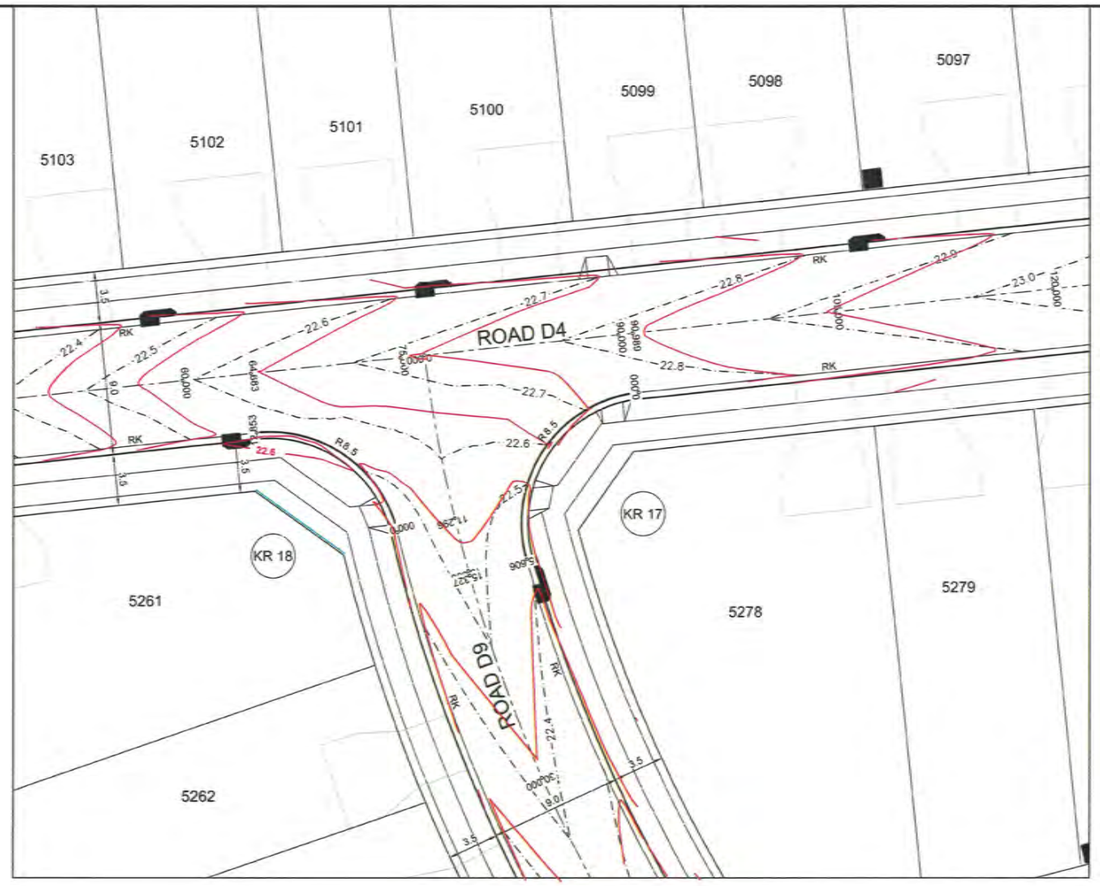
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 2

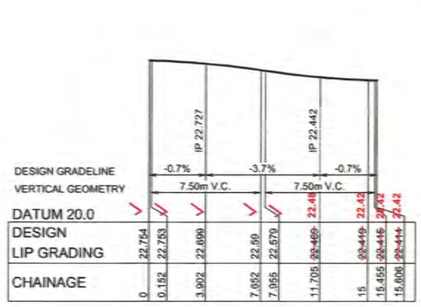
PLAN No: 998511/CC430 C
FILE No: 998511CC430
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:51 PM File Name: J:\998511CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC430.dwg

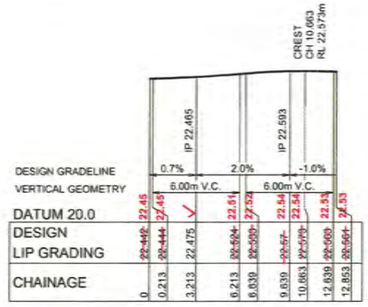
DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB



KERB RETURN 17 AND 18 PLAN
SCALE 1:200



KR 17
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 18
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 17

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295937.85	6268575.11	264°01'28.02"		
7.8	295927.06	6268574		-8.95	15.61
15.61	295929.97	6268563.76	164°06'58.86"		

KR 18

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295921.11	6268565.59	346°18'12.96"		
6.43	295919.26	6268573.19		-8.95	12.85
12.85	295911.49	6268572.37	264°01'28.02"		

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no: **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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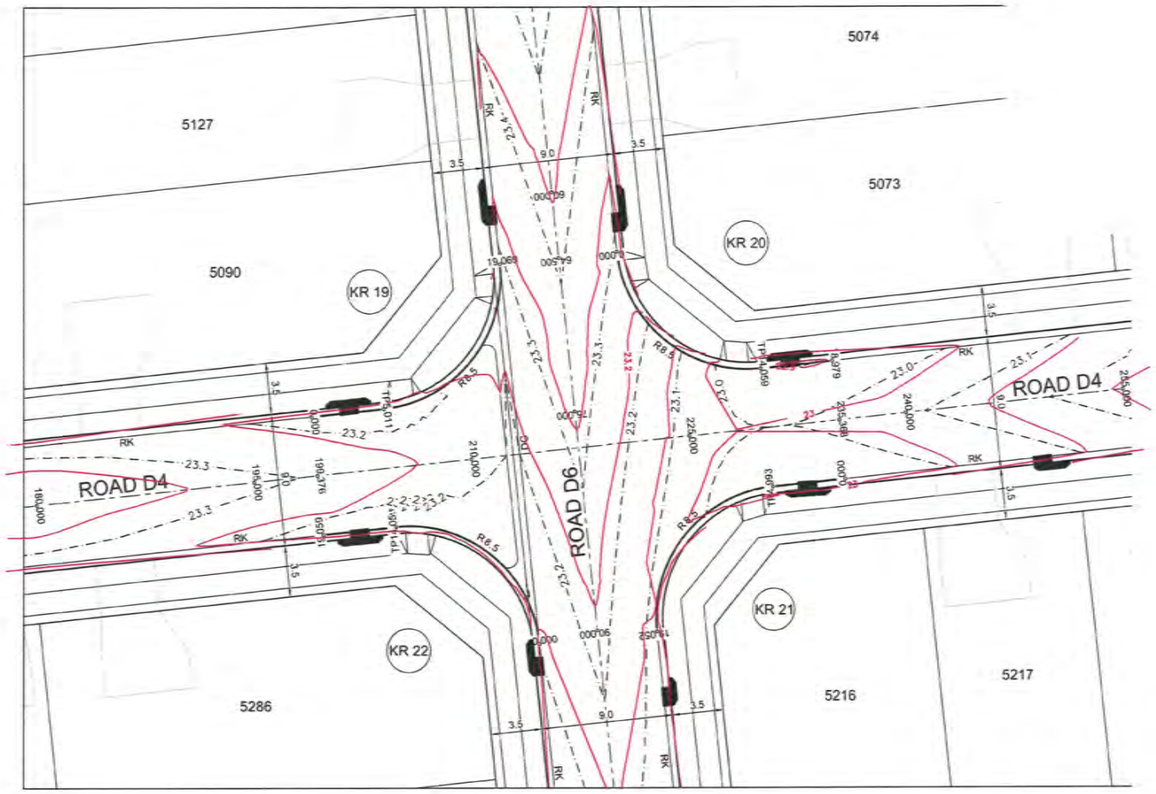
ISSUE FOR CONSTRUCTION APPROVAL

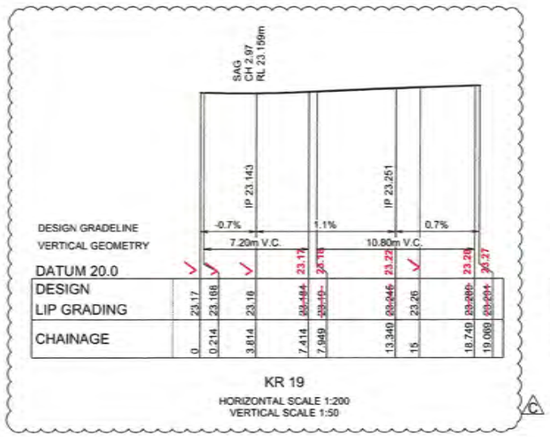
NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 3

PLAN No: 998511/CC431 C
FILE No: 998511CC431
SHEET SIZE: A1 ORIGINAL

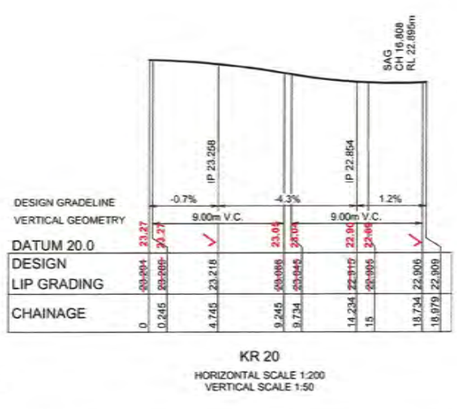
Plotted: 26 September , 2019 2:44:39 PM File Name: J:\9985\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC431.dwg



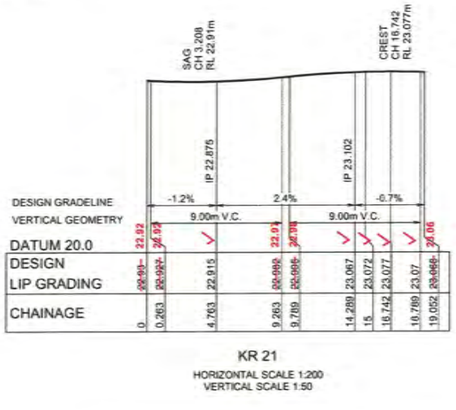
KERB RETURN 19 - 22 PLAN
SCALE 1:200



KR 19
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 20
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 21
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 19

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296044.59	6268594.45	84°01'28.02"		
5.01	296049.56	6268594.97	84°01'28.02"		
12.04	296058.48	6268595.9		-8.95	14.06
19.07	296057.55	6268604.81	354°01'28.02"		

KR 20

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296065.6	6268605.65	174°01'28.02"		
7.03	296066.53	6268596.75		-8.95	14.06
14.06	296075.44	6268597.68	84°01'28.02"		
18.98	296080.33	6268598.19	84°01'28.02"		

KR 21

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296061.25	6268590.14	264°01'28.02"		
4.99	296078.28	6268589.62	264°01'28.02"		
12.02	296067.38	6268588.69		-8.95	14.06
19.05	296068.31	6268579.79	174°01'28.02"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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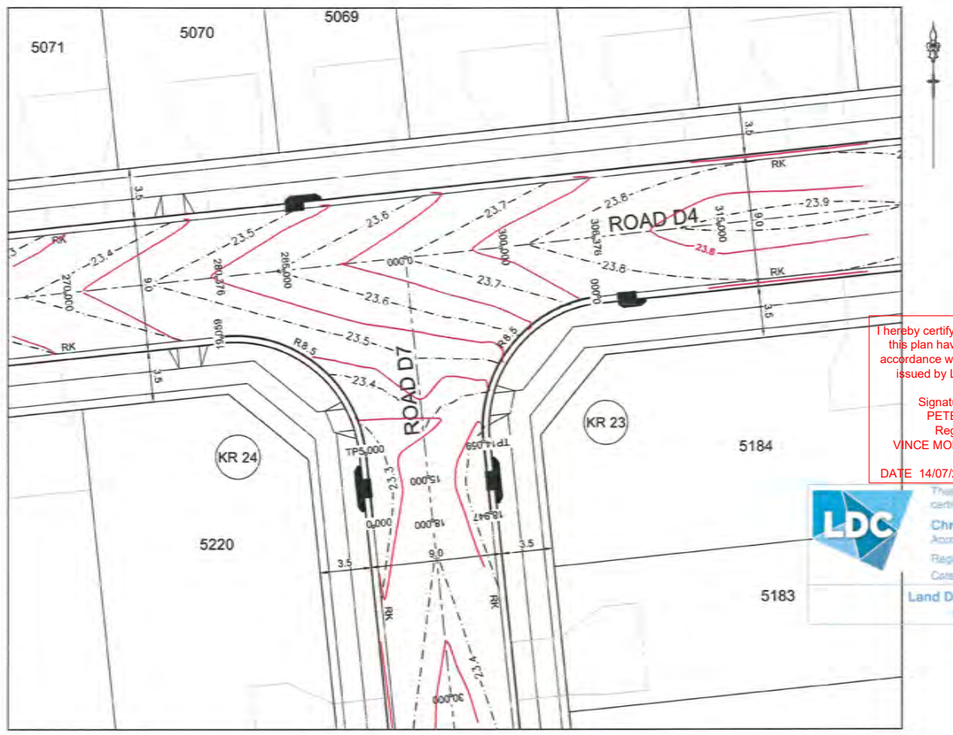
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

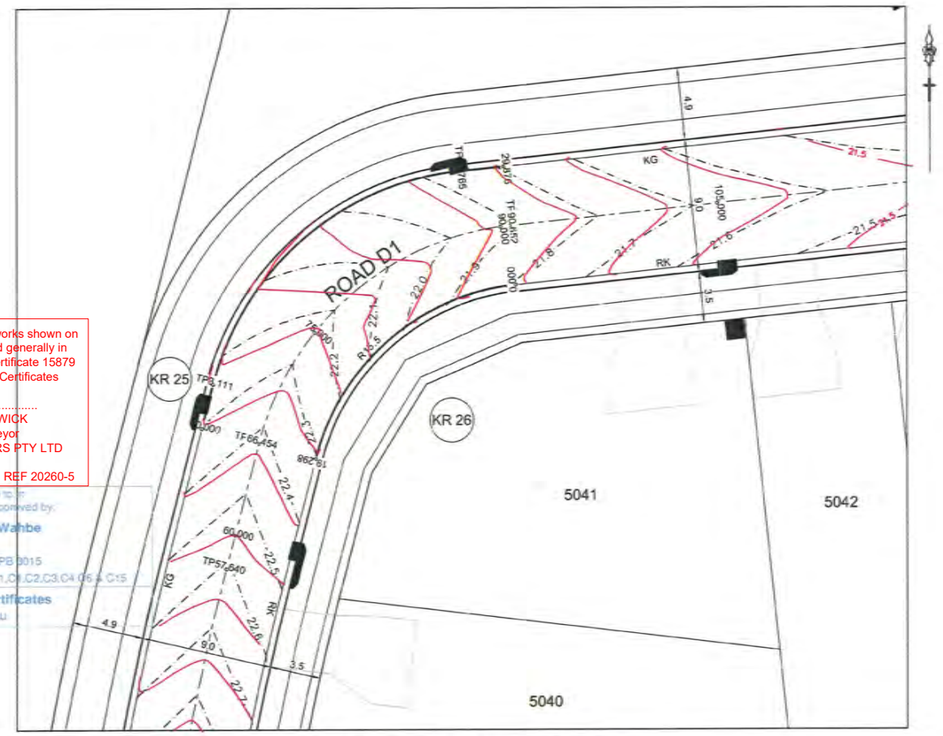
LDC Land Development Certification

Plotted: 26 September, 2019 2:44:43 PM File Name: J:\9985\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 DOCUMENTATION\9985 11CC432.dwg

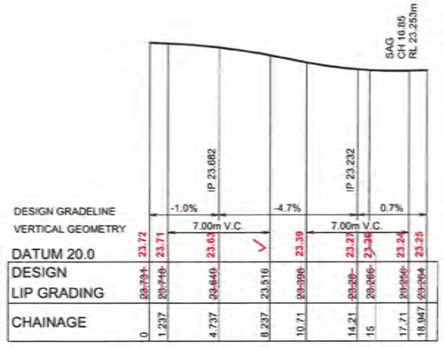
DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB



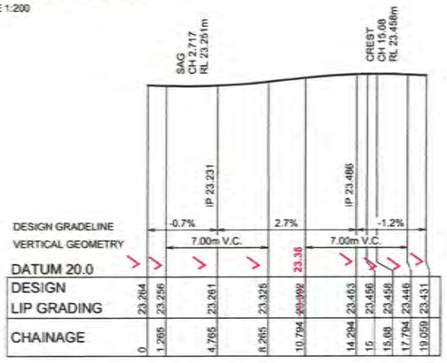
KERB RETURN 23 AND 24 PLAN
SCALE 1:200



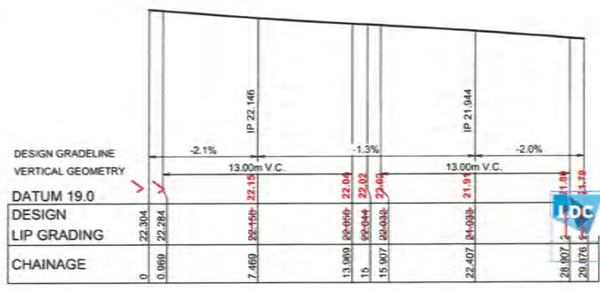
KERB RETURN 25 AND 26 PLAN
SCALE 1:200



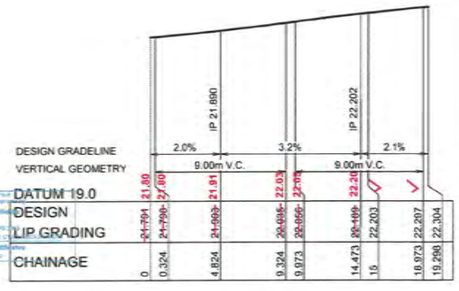
KR 23
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 24
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 25
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 26
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 23					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296151.87	6268597.54	264°01'28.02"		
7.03	296142.97	6268596.6		-8.95	14.06
14.06	296143.9	6268587.7	174°01'28.02"		
18.95	296144.41	6268582.84	174°01'28.02"		

KR 24					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296136.36	6268581.89	354°01'28.02"		
5	296135.84	6268586.86	354°01'28.02"		
12.03	296134.91	6268595.76		-8.95	14.06
19.06	296126.01	6268594.83	264°01'28.02"		

KR 25					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295835.5	6268713.77	14°42'08.71"		
14.55	295839.72	6268729.86		24.05	29.1
29.1	295856.26	6268731.59	84°01'28.02"		

KR 26					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295857.1	6268723.53	284°01'28.02"		
9.65	295846.13	6268722.39		-15.95	19.3
19.3	295843.33	6268711.72	194°42'08.71"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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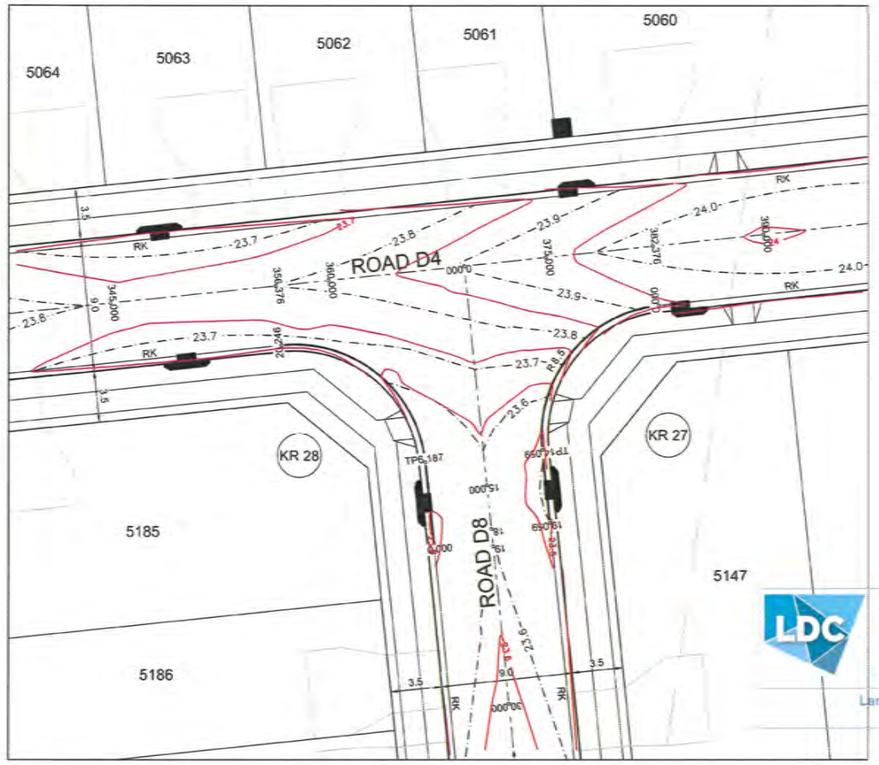
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 5

PLAN No: 998511/CC433 C
FILE No: 998511CC433
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:46 PM File Name: J:\998511CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC433.dwg

DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB



KERB RETURN 27 AND 28 PLAN

SCALE 1:200

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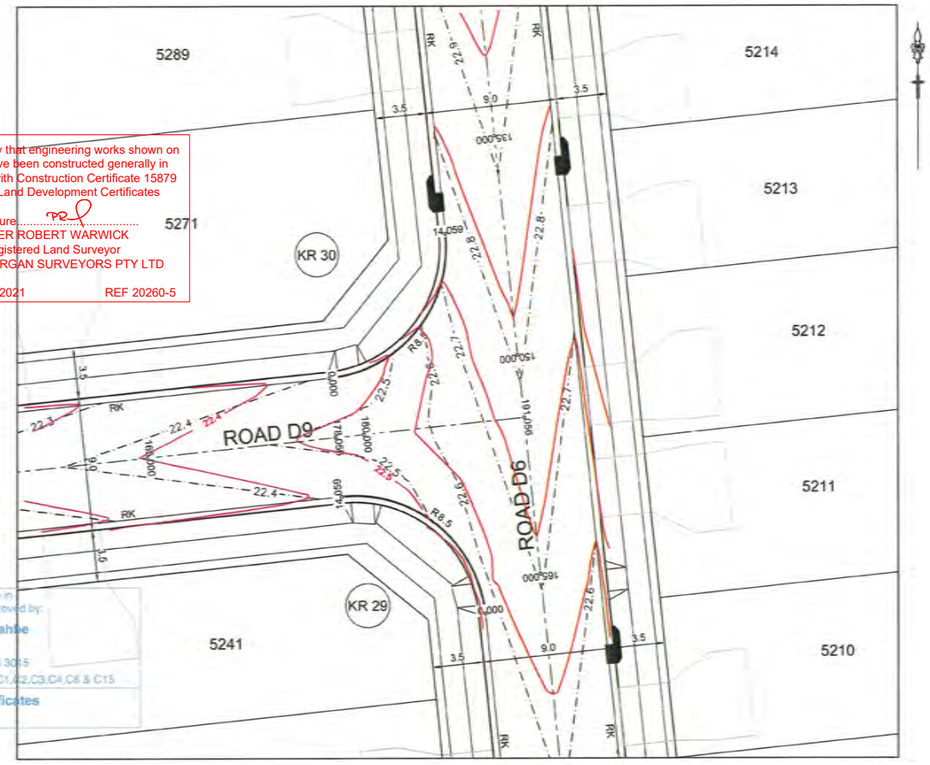
Signature.....

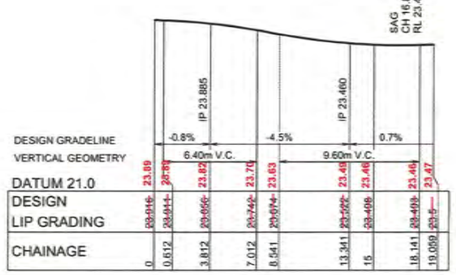
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



KERB RETURN 29 AND 30 PLAN

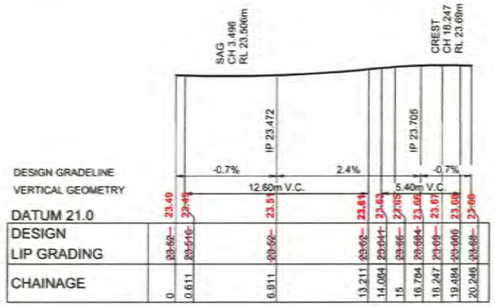
SCALE 1:200



KR 27

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

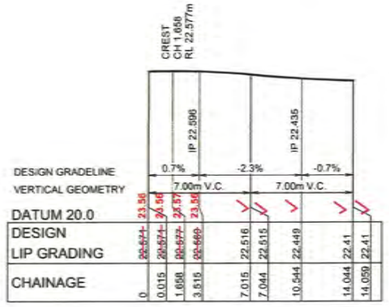
KR 27					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296227.45	6268605.45	264°01'28.02"		
7.03	296218.55	6268604.52		-8.95	14.06
14.06	296219.48	6268595.61	174°01'28.02"		
19.06	296220	6268590.64	174°01'28.02"		



KR 28

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

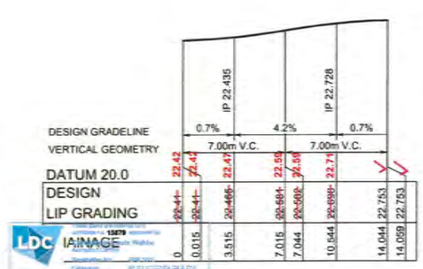
KR 28					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296212.07	6268568.62	354°01'28.02"		
6.19	296211.43	6268594.77	354°01'28.02"		
13.22	296210.5	6268663.67		-8.95	14.06
20.25	296201.59	6268602.74	264°01'28.02"		



KR 29

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 29					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296068.25	6268502.56	354°01'28.02"		
7.03	296067.32	6268511.47		-8.95	14.06
14.06	296058.42	6268510.53	264°01'28.02"		



KR 30

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 30					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296057.57	6268518.59	84°01'28.02"		
7.03	296066.47	6268519.52		-8.95	14.06
14.06	296065.54	6268528.42	354°01'28.02"		

These plans are referred to in certificate no: 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3065
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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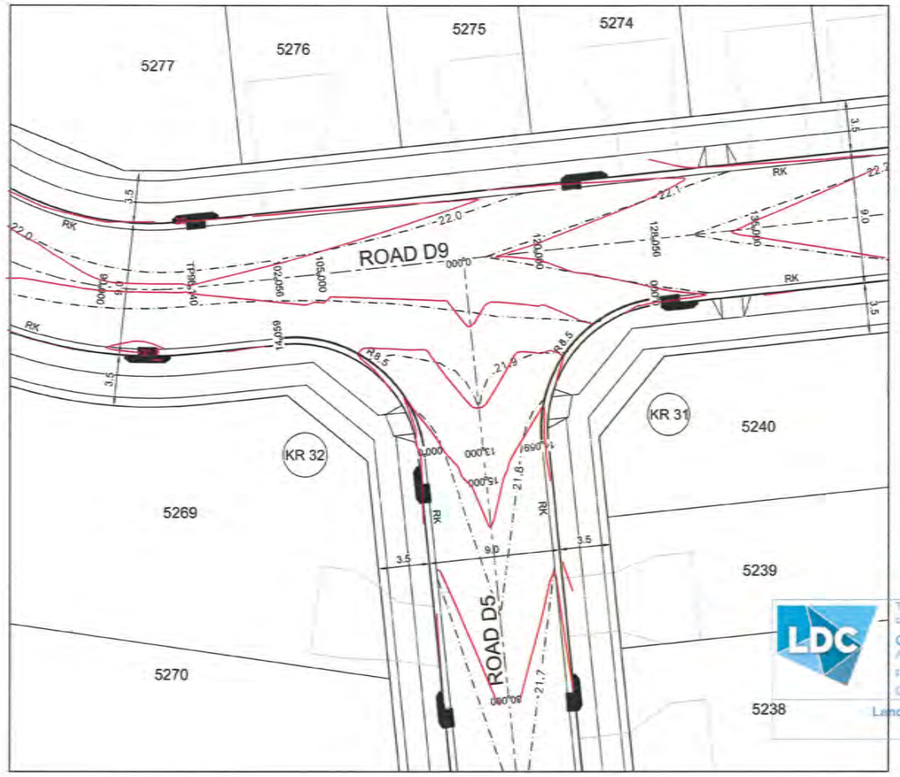
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 6

PLAN No: 998511/CC434 C
FILE No: 998511CC434
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:44:58 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC434.dwg

DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB



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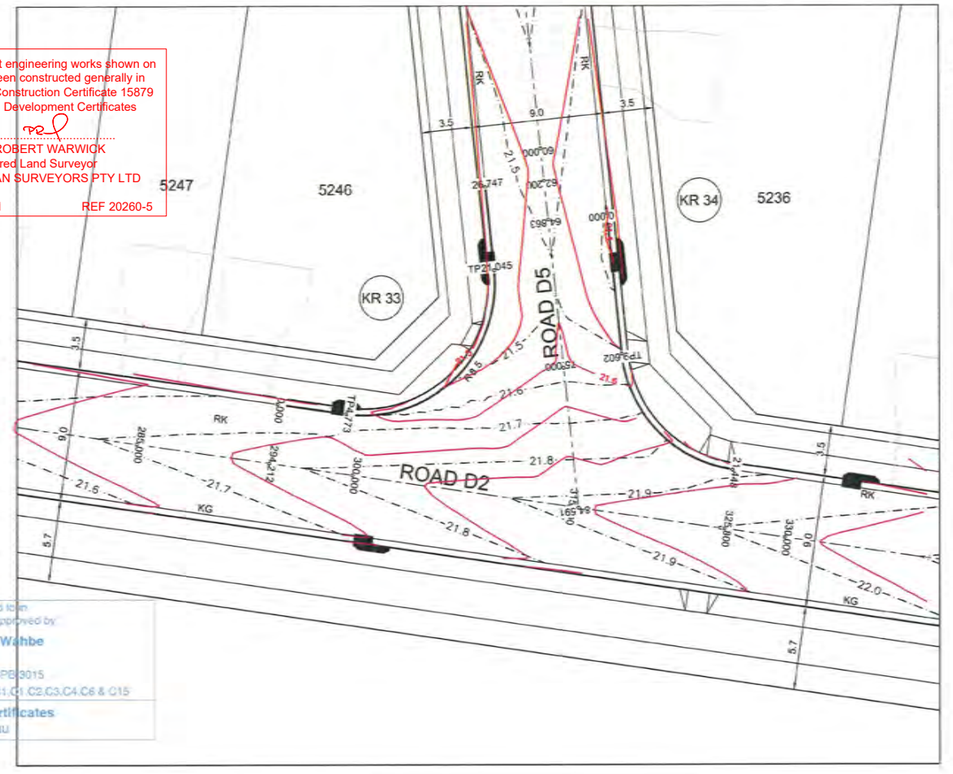
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

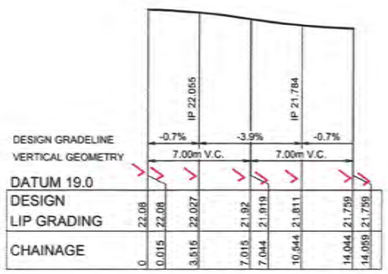
DATE 14/07/2021 REF 20260-5



These plans are referred to in certificate no: 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

KERB RETURN 31 AND 32 PLAN

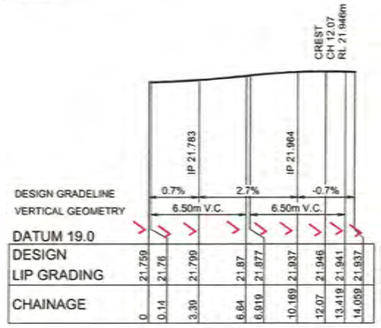
SCALE 1:200



KR 31

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 31					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296006.69	6268505.33	264°01'28.02"		
7.03	295999.79	6268504.4		-8.95	14.06
14.06	296000.72	6268495.5	174°01'28.02"		



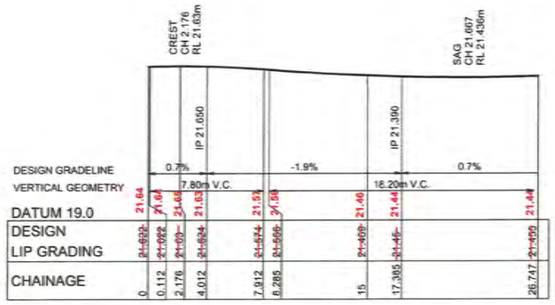
KR 32

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 32					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295992.66	6268494.65	354°01'28.02"		
7.03	295991.73	6268503.55		-8.95	14.06
14.06	295982.83	6268502.62	264°01'28.02"		

KERB RETURN 33 AND 34 PLAN

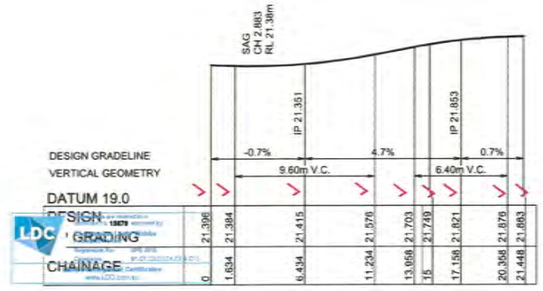
SCALE 1:200



KR 33

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 33					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295983.48	6268430.94	98°11'33.75"		
4.77	295988.2	6268430.26	98°11'33.75"		
12.91	295999.57	6268428.62		-8.95	16.27
21.04	295998.38	6268440.05	354°01'28.02"		
26.75	295997.78	6268445.72	354°01'28.02"		



KR 34

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 34					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296006.12	6268443.91	174°01'28.02"		
9.6	296007.12	6268434.36	174°01'28.02"		
15.53	296007.84	6268427.43		-8.95	11.85
21.45	296014.74	6268426.44	98°11'33.75"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

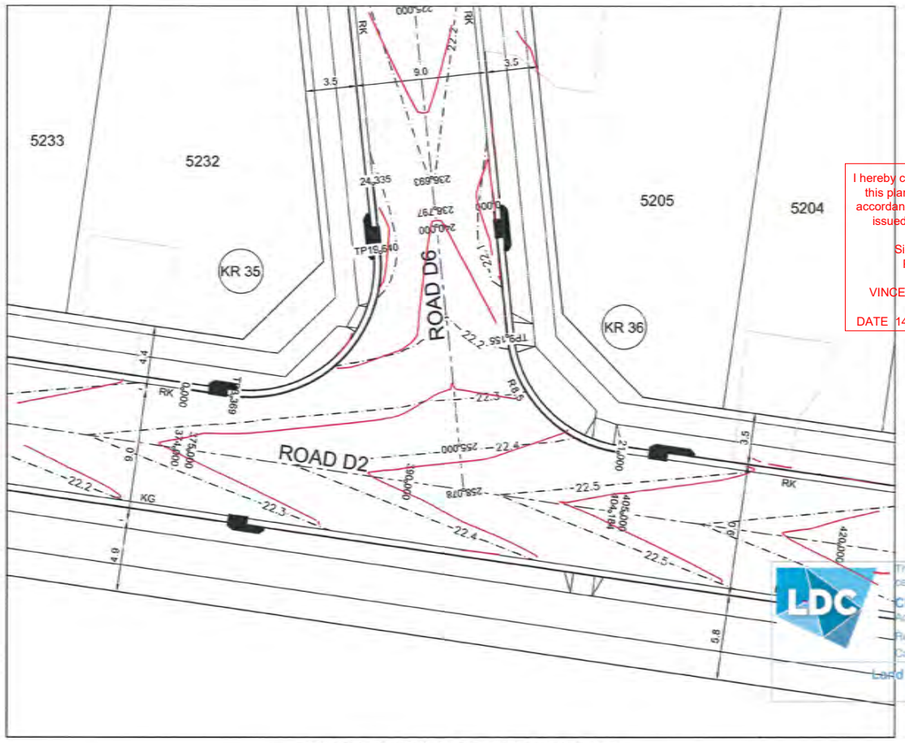
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 7

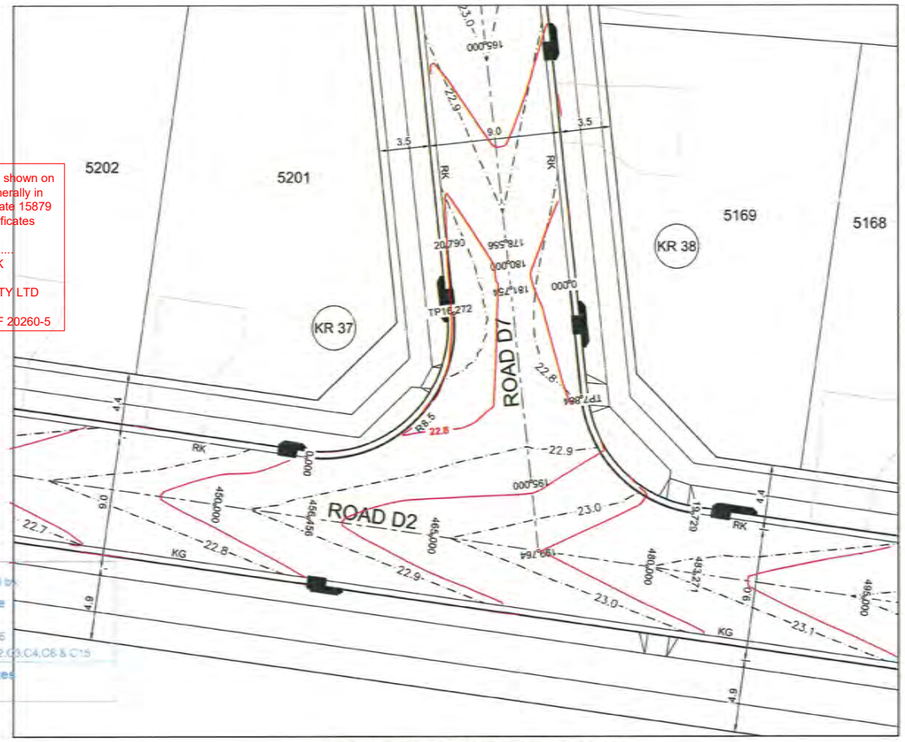
PLAN No: 998511/CC435 C
FILE No: 998511CC435
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September, 2019 2:45:01 PM File Name: J:\998\DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5\PRECINCT 5 DOCUMENTATION\998511CC435.dwg

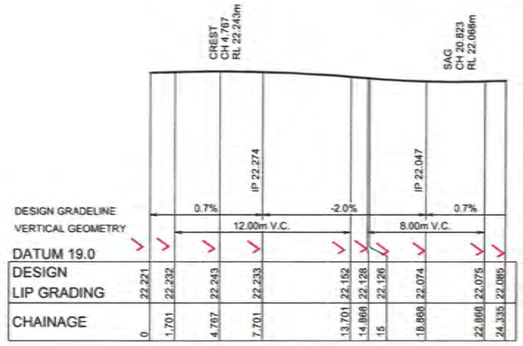
DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB



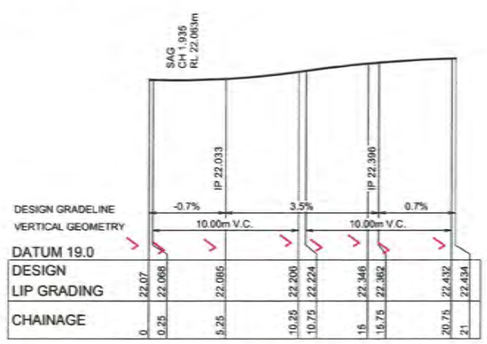
KERB RETURN 35 AND 36 PLAN
SCALE 1:200



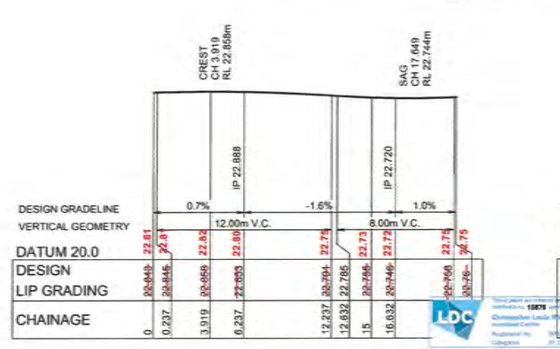
KERB RETURN 37 AND 38 PLAN
SCALE 1:200



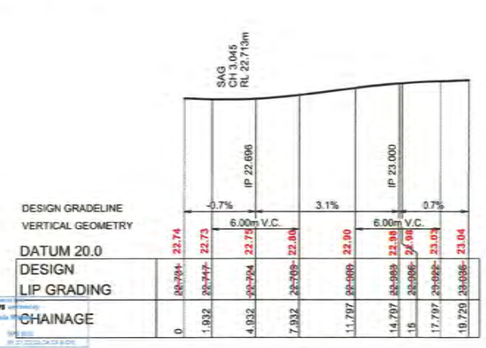
KR 35
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 36
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 37
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 38
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 35					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296062.45	6268419.57	98°11'33.75"		
3.37	296065.79	6268419.09	98°11'33.75"		
11.5	296077.16	6268417.45		-8.95	16.27
19.64	296075.96	6268428.88	354°01'26.02"		
24.34	296075.47	6268433.55	354°01'26.02"		

KR 36					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296083.75	6268432.3	174°01'28.02"		
9.15	296084.7	6268423.19	174°01'28.02"		
15.08	296085.43	6268416.26		-8.95	11.85
21	296092.33	6268415.27	98°11'33.75"		

KR 37					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296143.37	6268407.92	98°11'33.75"		
8.14	296154.74	6268406.28		-8.95	16.27
16.27	296153.55	6268417.71	354°01'28.02"		
20.79	296153.08	6268422.2	354°01'28.02"		

KR 38					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296161.46	6268419.87	174°01'28.02"		
7.88	296162.29	6268412.02	174°01'28.02"		
13.81	296163.01	6268405.09		-8.95	11.85
19.73	296169.91	6268404.1	98°11'33.75"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no. 15879 approved by
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3016
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 8

PLAN No: 998511/CC436 C
FILE No: 998511CC436
SHEET SIZE: A1 ORIGINAL

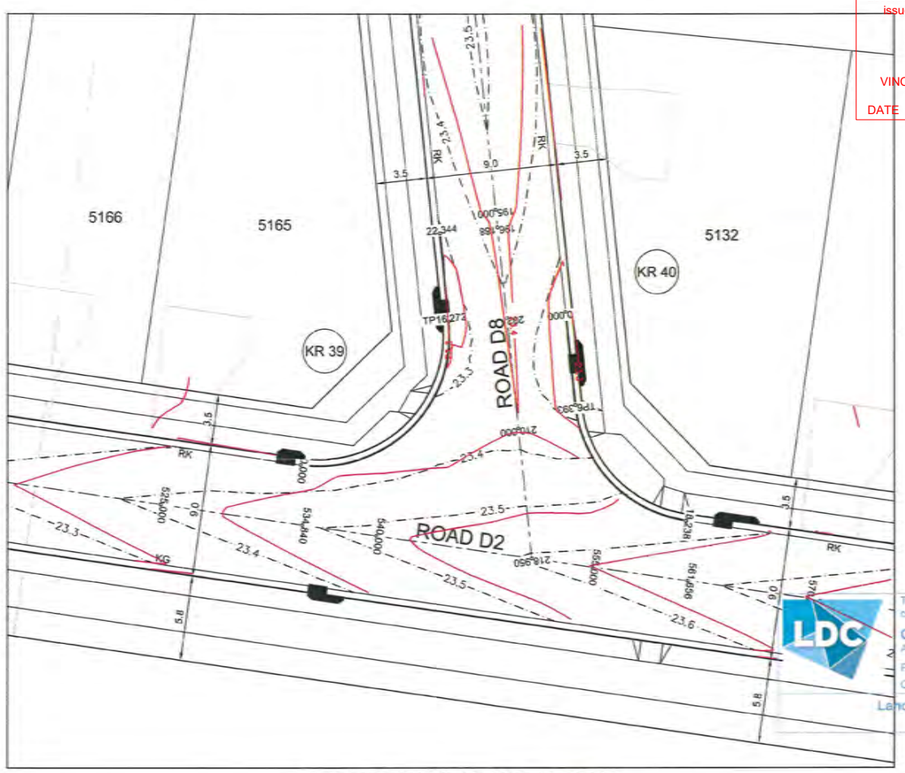
Plotted: 26 September , 2019 2:44:57 PM File Name: J:\9985\DC\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 DOCUMENTATION\998511CC430.dwg

DESIGN LEVELS AND SETOUT ARE TO LIP OF KERB

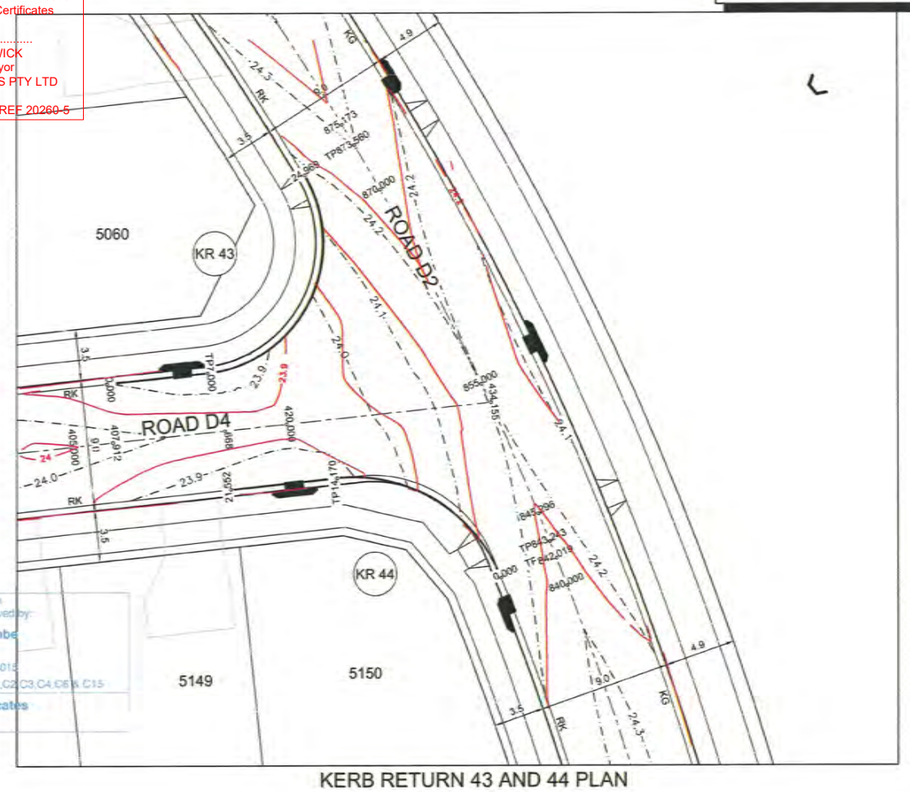
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

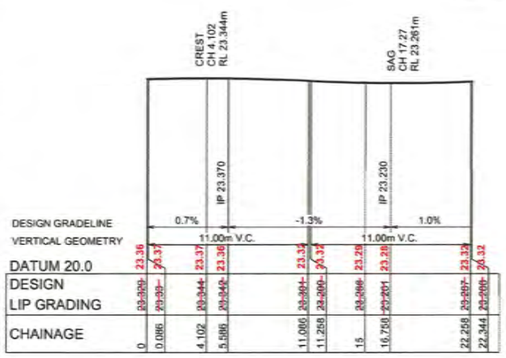
DATE 14/07/2021 REF 20260-5



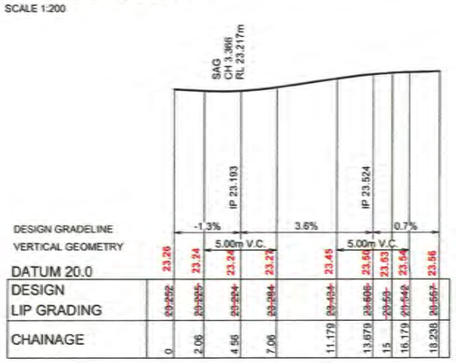
KERB RETURN 39 AND 40 PLAN
SCALE 1:200



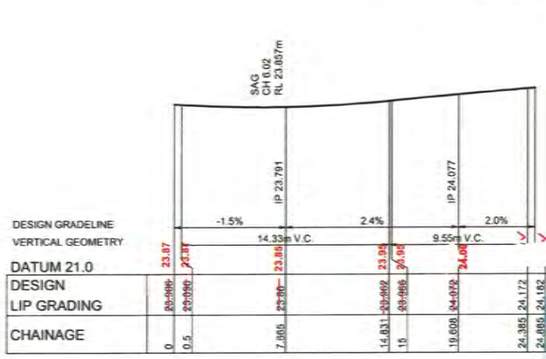
KERB RETURN 43 AND 44 PLAN
SCALE 1:200



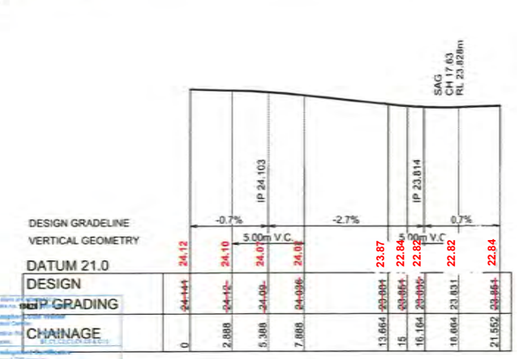
KR 39
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 40
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 43
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 44
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

KR 39

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296220.95	6268396.75	98°11'33.75"		
8.14	296232.33	6268395.11		-8.95	16.27
16.27	296231.13	6268406.54	354°01'28.02"		
22.34	296230.5	6268412.58	354°01'28.02"		

KR 40

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296239.2	6268407.21	174°01'28.02"		
8.39	296239.87	6268400.85	174°01'28.02"		
12.32	296240.6	6268393.92		-8.95	11.85
16.24	296247.5	6268392.93	98°11'33.75"		

KR 43

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296252.01	6268616.16	84°01'28.02"		
5.93	296258.9	6268616.88	84°01'28.02"		
15.91	296272.86	6268618.34		-8.95	17.96
24.88	296285.65	6268630.38	329°04'48.19"		

KR 44

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296279.21	6268692.86	336°10'17.25"		
7.09	296276.14	6268610.54		-10.95	14.17
14.17	296267.91	6268609.68	264°01'28.02"		
21.55	296260.57	6268608.91	264°01'28.02"		

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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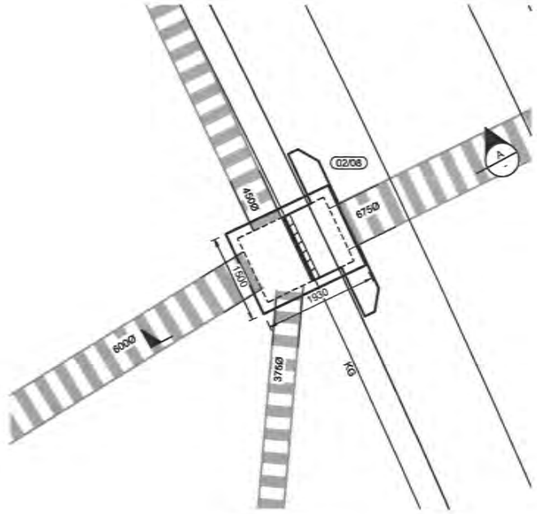
ISSUE FOR CONSTRUCTION APPROVAL

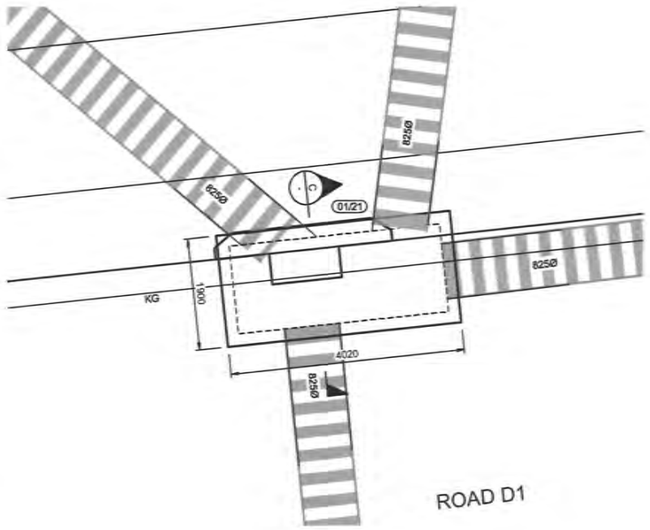
NEWPARK
PRECINCT 5
KERB RETURNS
SHEET 9

PLAN No: 998511/CC437 C
FILE No: 998511CC437
SHEET SIZE: A1 ORIGINAL

Plotted: 17 October, 2019 3:33:51 PM File Name: J:\99850\DOCUMENTATION\998511CC437.dwg

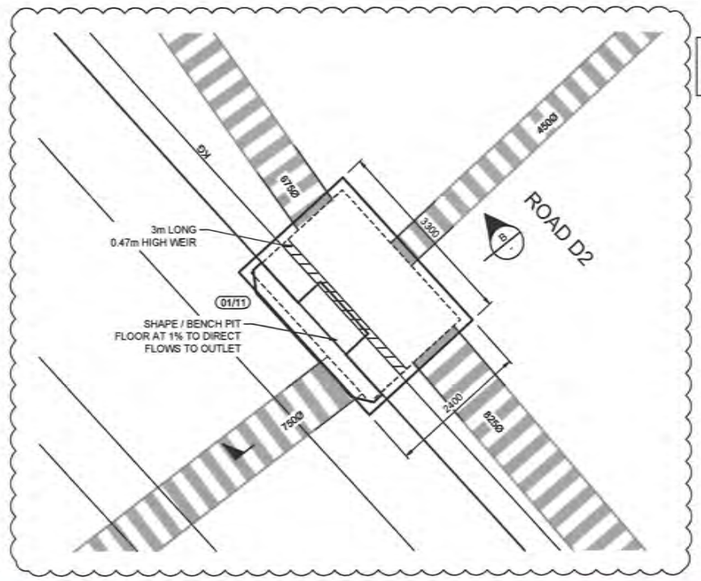


PIT 02/08
PLAN
SCALE 1:50

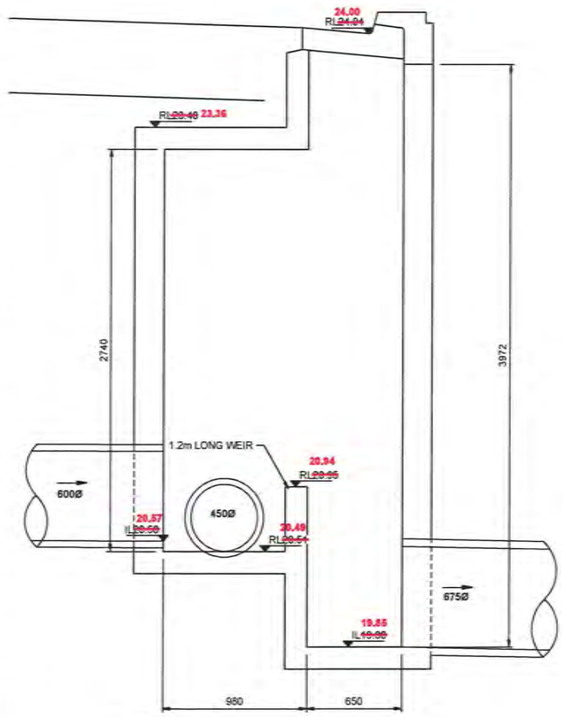


ROAD D1

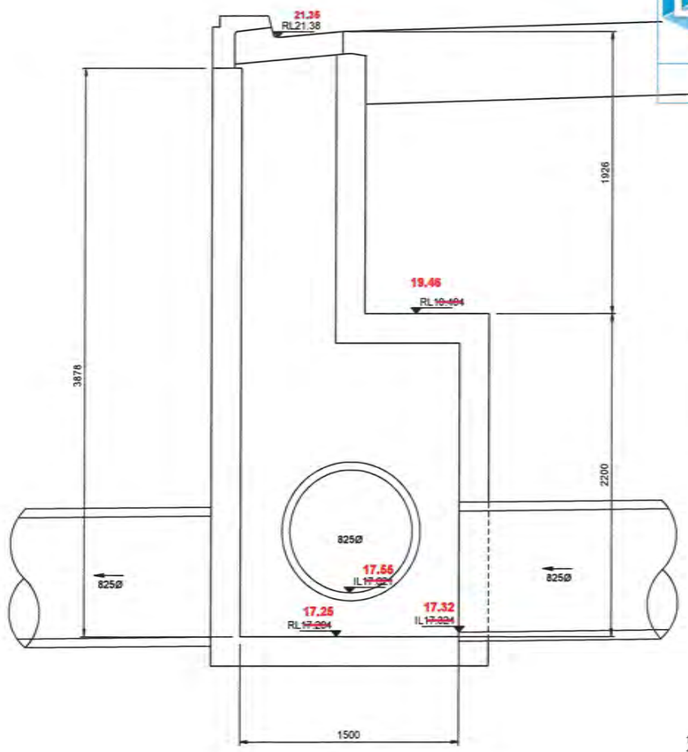
PIT 01/22
PLAN
SCALE 1:50



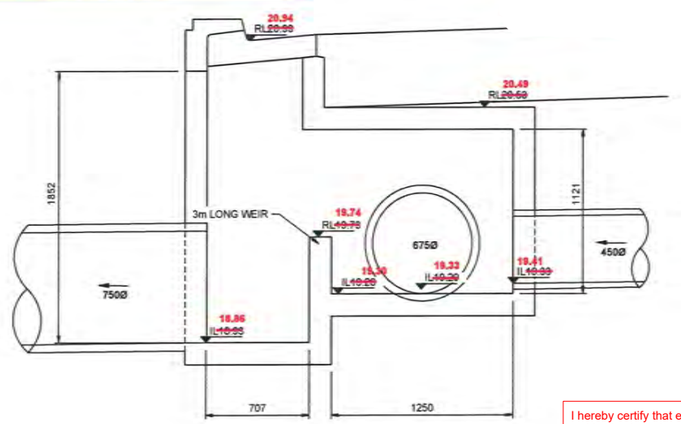
PIT 01/11
PLAN
SCALE 1:50



SECTION A
SCALE 1:50



SECTION C
SCALE 1:20



SECTION B
SCALE 1:20

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

1:20 (AT A1) 1:40 (AT A3) — 400 200 0 400 800 1200 1600 2000 MILLIMETRES

1:50 (AT A1) 1:100 (AT A3) — 100 0 100 200 300 400 500 MILLIMETRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
SPECIAL PIT DETAILS

PLAN No: 998511/CC438 C
FILE No: 998511CC438
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:45:07 PM File Name: J:\9965DOCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC438.dwg

LEGEND

PROPOSED CATCHMENT

FLOW DIRECTION

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

SEDIMENT BASIN 1

SEDIMENT BASIN 2

NEWPARK PRECINCT 6

FUTURE DEVELOPMENT

NEWPARK PRECINCT 5

LITTLE CREEK

AIR SERVICES LAND

EXTERNAL 0.4055ha

EXTERNAL 0.1022ha

Those plans are referred to in certificate no. **15879** approved by:

Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Category/s: B1,C1,C2,C3,C4,C8 & C15

Land Development Certificates
www.LDC.com.au

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

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

D	CATCHMENT BOUNDARIES AMENDED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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P 02 4720 3800 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
CATCHMENT PLAN

PLAN No: 998511/CC439 D
FILE No: 998511CC439
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:52:20 PM File Name: J:\998\DGC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC439.dwg

PIT SCHEDULE

PIT NAME	SURFACE FITTING TYPE AND SIZE	PIT EASTING	PIT NORTHING	PIT DEPTH	COMMENTS
(-)	(-)	(m)	(m)	(m)	
01/01	2.4 m lintel	296077.14	6268499.8	1.22	
01/02	1.8 m lintel	296079.21	6268480.02	1.25	
01/03	1.8 m lintel	296081.45	6268458.58	1.28	
01/04	2.4 m lintel sag	296084.39	6268430.52	1.34	
01/05	2.4 m lintel sag	296075.4	6268429.96	1.48	
01/06	1.2 m lintel	296064.91	6268419.67	1.77	
01/07	1.8 m lintel	296022.96	6268425.71	1.72	
01/08	1.2 m lintel	295987.89	6268430.76	1.61	
01/09	1.8 m lintel	295943.79	6268437.41	1.64	
01/10	1.8 m lintel	295905.3	6268449.66	1.64	
01/11	2.4 m lintel sag	295892.89	6268463.15	1.66	SPLITTER/SPECIAL PIT
01/12	1.8 m lintel	295873.76	6268486.91	1.99	
01/13	1.8 m lintel	295858.88	6268513.12	2.37	
01/14	1.8 m lintel	295850.33	6268535.07	2.68	
01/15	1.8 m lintel	295839.53	6268582.3	3.69	
01/16	1.2 m lintel	295829.5	6268631.45	5.08	EX. ABELL ROAD
01/17	1.8 m lintel	295827.4	6268671.59	5.12	
01/18	1.8 m lintel	295835.49	6268715.51	4.44	
01/19	1.8 m lintel	295853.12	6268731.71	4.18	
01/20	2.4 m lintel	295871.65	6268724.6	4.01	
01/21	2.4 m lintel sag	295893.2	6268726.86	4.01	
01/22	2.4 m lintel sag	295892.26	6268735.81	4.09	
02/01	2.4 m lintel sag	296227.36	6268524.72	1.34	
02/02	2.4 m lintel sag	296218.41	6268523.78	1.48	
02/03	1.8 m lintel	296215.27	6268553.77	2.03	
02/04	2.4 m lintel sag	296211.27	6268591.98	2.26	
02/05	2.4 m lintel sag	296220.22	6268592.91	2.39	
02/06	1.8 m lintel	296228.96	6268605.15	2.98	
02/07	2.4 m lintel sag	296264.97	6268608.92	3.12	
02/08	2.4 m lintel sag	296281.5	6268618.96	3.55	SPLITTER PIT
02/09	1.8 m lintel	296271.83	6268636.67	3.82	
02/10	2.4 m lintel sag	296250.19	6268668.91	4.06	
02/11	2.4 m lintel sag	296240.26	6268669.44	4.21	EX. ABELL ROAD
02/12	1.8 m lintel	296220.26	6268689.81	4.58	EX. ABELL ROAD
02/13	1.2 m lintel	296208.98	6268700.25	4.18	
02/14	1.8 m lintel	296204.97	6268734.38	4.15	
02/15	1.8 m lintel	296187.96	6268758.49	4.15	
02/16	1.8 m lintel	296167.61	6268764.63	4.18	
02/17	1.8 m lintel	296137.67	6268761.5	4.15	
02/18	1.8 m lintel	296076.48	6268755.09	4.05	
02/19	1.8 m lintel	295999.77	6268747.06	3.93	
02/20	1.8 m lintel	295930.15	6268739.78	3.81	
03/01	1.8 m lintel	296033.16	6268516.49	1.32	
03/02	2.4 m lintel	296002.71	6268513.3	1.44	
03/03	2.4 m lintel sag	295976.94	6268510.6	1.64	
03/04	1.8 m lintel	295957.43	6268518.54	1.95	
03/05	1.8 m lintel	295942.75	6268536.66	2.33	
03/06	1.8 m lintel	295931.12	6268561.49	2.77	
03/07	1.2 m lintel	295909.77	6268571.74	3.13	
03/08	1.8 m lintel	295904.13	6268580.2	3.16	
03/09	1.8 m lintel	295880.9	6268577.77	2.94	
03/10	2.4 m lintel sag	295861.18	6268575.71	2.75	
03/11	1.8 m lintel	295848.35	6268584.12	3.53	
04/01	2.4 m lintel sag	296316.1	6268406.94	1.43	
04/02	2.4 m lintel sag	296307.15	6268406	1.69	
04/03	2.4 m lintel sag	296299.54	6268478.71	2.38	
04/04	1.8 m lintel	296297.45	6268498.62	2.63	
04/05	2.4 m lintel sag	296292.25	6268548.33	2.92	
04/06	1.8 m lintel	296287.92	6268573.87	3.28	
04/07	1.8 m lintel	296279.49	6268600.92	3.48	
05/01	1.8 m lintel	296064.87	6268530.54	1.35	
05/02	1.8 m lintel	296073.65	6268533.09	1.59	
05/03	1.8 m lintel	296071.29	6268555.62	2.01	
05/04	1.2 m lintel	296069.23	6268575.36	2.37	
05/05	1.8 m lintel	296059.96	6268577.39	2.65	
05/06	2.4 m lintel	296056.75	6268608.12	3.18	
05/07	1.8 m lintel	296052.84	6268645.43	3.86	
05/08	1.8 m lintel	296048.6	6268685.96	4.17	
05/09	1.8 m lintel	296046.17	6268709.13	3.65	
05/10	2.4 m lintel sag	296043.8	6268731.85	3.31	
05/11	1.2 m lintel	296031.52	6268741.34	3.67	
05/12	1.8 m lintel	296009.96	6268739.04	3.91	
06/01	2.4 m lintel sag	296234.61	6268455.39	1.25	
06/02	2.4 m lintel sag	296225.65	6268454.59	1.39	
06/03	2.4 m lintel sag	296230.59	6268407.39	1.68	
06/04	1.2 m lintel	296219.97	6268397.34	1.86	
06/05	2.4 m lintel	296171.9	6268404.27	1.85	
07/01	3.0 m lintel sag	296142.82	6268515.87	1.13	
07/02	3.0 m lintel sag	296151.77	6268516.81	1.39	
07/03	2.4 m lintel	296157.98	6268457.5	1.65	
07/04	1.8 m lintel	296160.27	6268435.57	1.59	
08/01	2.4 m lintel sag	295916.92	6268649.41	1.44	EX. ABELL ROAD
08/02	2.4 m lintel sag	295915.66	6268660.34	1.71	EX. ABELL ROAD
08/03	1.8 m lintel	295846.89	6268653.41	2.34	EX. ABELL ROAD
08/04	1.2 m lintel	295836.11	6268664.54	2.17	
09/01	2.4 m lintel sag	296162.22	6268416.96	1.44	
09/02	2.4 m lintel sag	296152.99	6268418.68	1.61	

PIT SCHEDULE

PIT NAME	SURFACE FITTING TYPE AND SIZE	PIT EASTING	PIT NORTHING	PIT DEPTH	COMMENTS
(-)	(-)	(m)	(m)	(m)	
09/03	1.2 m lintel	296142.11	6268408.55	1.89	
09/04	2.4 m lintel	296095.08	6268415.33	1.79	
10/01	2.4 m lintel sag	296135.64	6268584.48	1.24	
10/02	2.4 m lintel sag	296144.63	6268585.04	1.38	
10/03	1.2 m lintel	296153.79	6268597.28	2.06	
10/04	2.4 m lintel sag	296195.11	6268601.61	2.38	
11/01	1.8 m lintel	296002.22	6268590.47	1.52	
11/02	1.8 m lintel	295975.56	6268587.68	1.90	
11/03	1.8 m lintel	295952.73	6268585.29	2.00	
11/04	1.8 m lintel	295922.98	6268582.17	2.12	
12/01	1.8 m lintel	296168.88	6268755.72	1.45	
13/01	2.4 m lintel sag	296125.58	6268671.25	1.44	EX. ABELL ROAD
13/02	2.4 m lintel sag	296124.53	6268682.2	1.71	EX. ABELL ROAD
13/03	1.8 m lintel	296069.53	6268676.44	2.28	EX. ABELL ROAD
13/04	1.2 m lintel	296057.57	6268686.75	1.92	
14/01	1.8 m lintel	295977.84	6268735.72	1.52	
14/02	1.8 m lintel	295957.53	6268733.59	1.61	
14/03	1.8 m lintel	295942.88	6268732.06	1.70	
15/01	1.8 m lintel	296094.85	6268591.11	1.52	
15/02	2.4 m lintel sag	296078.66	6268589.42	1.75	
15/03	2.4 m lintel sag	296077.43	6268598.34	1.87	
15/04	2.4 m lintel	296065.84	6268607.69	2.48	
16/01	2.4 m lintel sag	295986.05	6268656.64	1.44	EX. ABELL ROAD
16/02	2.4 m lintel sag	295985.24	6268667.62	1.71	EX. ABELL ROAD
16/03	1.8 m lintel	296039.29	6268673.28	2.48	EX. ABELL ROAD
17/01	1.8 m lintel	295992.48	6268492.03	1.23	
17/02	1.8 m lintel	295994.09	6268476.71	1.29	
17/03	1.8 m lintel	295995.72	6268461.11	1.28	
17/04	2.4 m lintel sag	295997.87	6268440.62	1.33	
18/01	2.4 m lintel sag	296193.79	6268677.35	1.44	EX. ABELL ROAD
18/02	1.8 m lintel	296190.73	6268688.2	1.72	EX. ABELL ROAD
18/03	1.2 m lintel	296200.06	6268699.01	1.56	
19/01	2.4 m lintel sag	296267.5	6268683.45	1.44	EX. ABELL ROAD
19/02	2.4 m lintel sag	296266.09	6268694.36	1.71	EX. ABELL ROAD
20/01	1.8 m lintel	296130.93	6268603.94	1.53	
20/02	1.8 m lintel	296108.07	6268601.55	1.54	
21/01	NODE	295882.26	6268744.03	3.39	
21/02	H.W.	295866.02	6268758.51	0.75	HIGH FLOW OUTLET HW
22/01	2.4 m lintel sag	296047.95	6268586.21	1.44	
22/02	2.4 m lintel sag	296047.15	6268595.17	1.58	
23/01	1.8 m lintel	295879.34	6268494.76	1.27	
23/02	3.0 m lintel sag	295899.52	6268469.24	1.47	
24/01	1.8 m lintel	296062.26	6268744.56	1.52	
25/01	2.4 m lintel	296250.08	6268393.01	1.52	
26/01	2.4 m lintel	295842.97	6268610.14	1.54	
27/01	NODE	296283.25	6268619.8	4.55	INTERNAL WEIR/DROP
27/02	H.W.	296300.83	6268636.21	0.68	
28/01	1.8 m lintel	295912.28	6268455.39	1.45	
29/01	1.8 m lintel	296224.96	6268547.66	1.45	
30/01	1.8 m lintel	296221.2	6268613.39	1.45	
31/01	1.8 m lintel	296009.52	6268504.96	1.26	
32/01	1.8 m lintel	295848	6268642.46	1.40	EX. ABELL ROAD
33/01	1.8 m lintel	296005.02	6268458.69	1.12	
33/02	2.4 m lintel sag	296006.92	6268440.61	1.16	
34/01	2.4 m lintel sag	296257.18	6268617.16	1.45	
35/01	2.4 m lintel	296072	6268462.39	1.15	
36/01	2.4 m lintel sag	296240.02	6268403.71	1.24	
37/01	1.8 m lintel	295981.05	6268579.2	1.45	
38/01	NODE	295890.99	6268461.44	2.15	
38/02	H.W. STACKED ROCK	295884.95	6268456	0.75	
39/01	2.4 m lintel sag	296193.22	6268610.46	1.44	
40/01	1.8 m lintel	296222.09	6268387.95	1.45	
41/01	2.4 m lintel sag	296301.2	6268549.27	1.44	
42/01	1.8 m lintel	295859.2	6268536.87	1.45	
43/01	1.8 m lintel	295951.08	6268512.15	1.45	
44/01	2.4 m lintel sag	296308.5	6268479.56	1.44	
45/01	2.4 m lintel sag	295863.7	6268566.92	1.44	
46/01	1.8 m lintel	296144.05	6268399.18	1.45	
47/01	1.8 m lintel	296197.37	6268724.71	1.46	
48/01	1.8 m lintel	296003.02	6268477.85	1.15	
49/01	1.8 m lintel	296066.19	6268410.39	1.45	
50/01	1.8 m lintel	295989.34	6268421.46	1.45	
51/01	2.4 m lintel sag	296052.75	6268732.78	1.44	
52/01	1.8 m lintel	296148.99	6268456.96	1.45	
53/01	1.8 m lintel	296055.14	6268709.98	1.45	
54/01	1.8 m lintel	296061.89	6268645.48	1.45	
55/01	2.4 m lintel sag	295973.69	6268501.4	1.44	
56/01	1.8 m lintel	296232.48	6268475.79	1.15	
56/02	1.8 m lintel	296223.66	6268473.62	1.28	
57/01	2.4 m lintel	295868.3	6268514.27	1.44	
58/01	1.8 m lintel	295914.36	6268729.08	1.52	
59/01	2.4 m lintel	295842.13	6268705.36	1.47	
63/01	1.8 m lintel	296141.64	6268752.86	1.45	
64/01	1.8 m lintel	296119.3	6268750.53	1.52	
64/02	1.8 m lintel	296105.55	6268749.09	1.59	
64/03	1.8 m lintel	296082.76	6268746.7	1.71	
A/01	IAD 600x900			0.75	

PIT SCHEDULE

PIT NAME	SURFACE FITTING TYPE AND SIZE	PIT EASTING	PIT NORTHING	PIT DEPTH	COMMENTS
(-)	(-)	(m)	(m)	(m)	
A/02	IAD 600x900			0.83	
A/03	IAD 600x900			0.88	
A/04	IAD 600x900			0.98	
A/05	IAD 600x900			1.11	
A/06	IAD 600x900			1.22	
A/07	IAD 600x900			1.34	
A/08	IAD 600x900			1.39	
A/09	IAD 900x900			1.51	
B/01	IAD 600x900			0.76	
B/02	IAD 600x900			0.83	
B/03	IAD 600x900			0.91	
B/04	IAD 600x900			1.00	
B/05	IAD 600x900			1.12	
B/06	IAD 600x900			1.22	
B/07	IAD 600x900			1.31	
B/08	IAD 900x900			1.53	
C/01	IAD 600x900			0.76	
C/02	IAD 600x900			0.83	
C/03	IAD 600x900			0.85	
C/04	IAD 600x900			0.9	
C/05	IAD 600x900			0.91	
C/06	IAD 600x900			0.97	
C/07	IAD 600x900			1.05	
C/08	IAD 600x900			1.1	
C/09	IAD 600x900			1.19	
C/10	IAD 900x900			1.52	
D/01	IAD 600x900			0.75	
D/02	IAD 600x900			0.84	
D/03	IAD 600x900			0.90	
D/04	IAD 600x900			1.00	
D/05	IAD 600x900			1.16	
D/06	IAD 900x900			1.31	
D/07	IAD 900x900			1.49	
D/08	IAD 900x900			1.55	
D/09	IAD 900x900			1.53	
E/01	IAD 600x900			0.75	
E/02	IAD 600x900			0.91	
E/03	IAD 600x900			1.05	
E/04	IAD 600x900			1.24	
E/05	IAD 600x900			1.44	
E/06	IAD 900x900			1.64	
E/07	IAD 900x900			1.71	
E/08	IAD 900x900			1.53	
F/01	IAD 600x900			0.76	
F/02	IAD 600x900			0.83	
F/03	IAD 600x900			0.91	
F/04	IAD 600x900			1.01	
F/05	IAD 600x900			1.08	
F/06	IAD 900x900			1.14	
F/07	IAD 900x900			1.17	
F/08	IAD 900x900			1.22	
F/09	IAD 900x900			1.53	
G/01	IAD 600x900			0.75	
G/02	IAD 600x900			0.83	
G/03	IAD 600x900			0.89	
G/04	IAD 600x900			0.95	
G/05	IAD 600x900			1.06	
G/06	IAD 600x900			1.12	
G/07	IAD 600x900			1.18	
G/08	IAD 900x900			1.48	
H/01	IAD 600x900			0.76	
H/02	IAD 600x900			0.83	
H/03	IAD 600x900			0.85	
H/04	IAD 600x900			0.85	
H/05	IAD 900x900			1.43	
J/01	IAD 600x900			0.76	
J/02	IAD 900x900			1.53	
K/01	IAD 600x900			0.75	
K/02	IAD 600x900			0.83	

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

LDC
These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier:
Registration No: BPB 3013
Categories: B1;C1;CZ;C3;C4;C8 & E1.5
Land Development Certificates
www.LDC.com.au

D	PITS 1/10, 4/06 & 28/01 UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4166 PENRITH WESTFIELD NSW 2750
P 02 4720 5500 W www.wyndhamprince.com.au E

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
PIT SCHEDULE

PLAN No: 998511/CC440 D
FILE No: 998511CC440
SHEET SIZE: A1 ORIGINAL

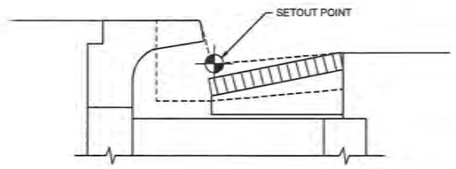
Plotted: 23 April , 2020 3:42:29 PM File Name: J:\998\DOCC - Construction Certificate Approval Plans\PK1 CENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC440.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

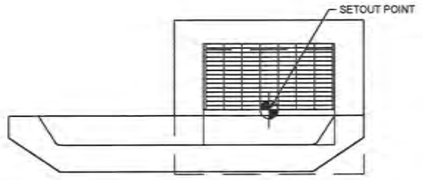
Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

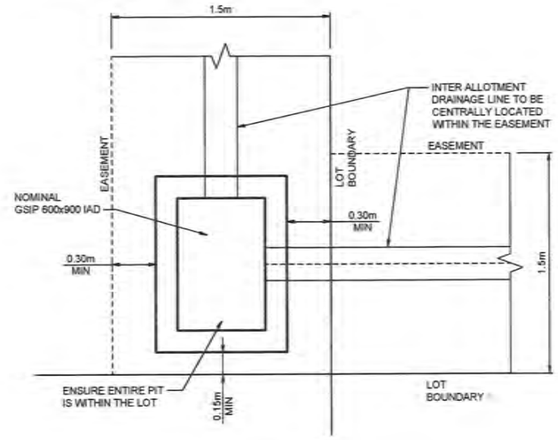
DATE 14/07/2021 REF 20260-5



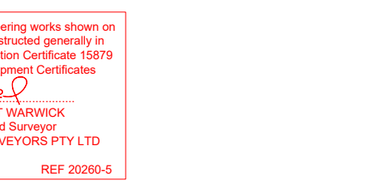
SETOUT DETAIL KERB INLET PIT
(LINTEL)
SCALE 1:10



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

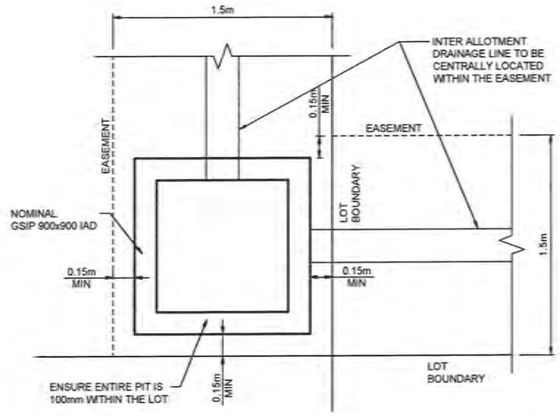


TYPICAL INTER-ALLOTMENT SETOUT FROM
LOT BOUNDARY (600 x 900 GSIP)
SCALE 1:20



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

GRATED SURFACE INLET PIT (GSIP)
SCALE 1:20



TYPICAL INTER-ALLOTMENT SETOUT FROM
LOT BOUNDARY (900 x 900 GSIP)
SCALE 1:20

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C8 & C15
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	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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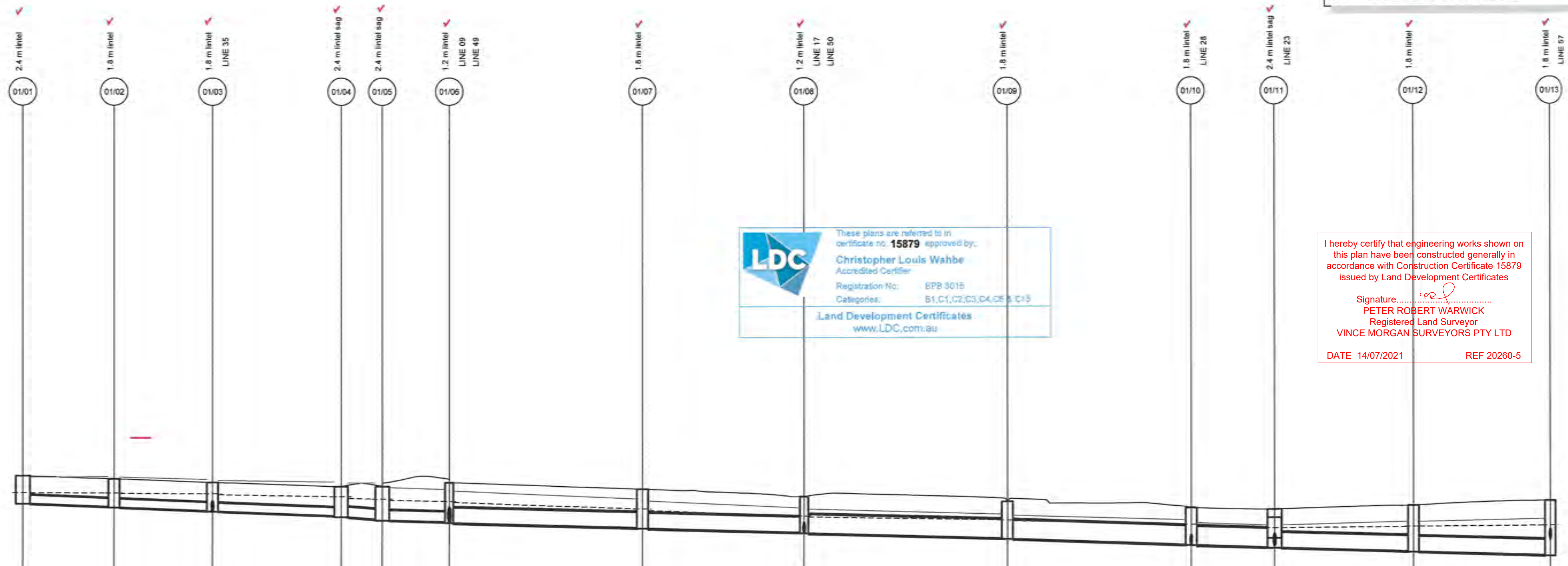
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
PIT DETAILS

PLAN No: 998511/CC441 C
FILE No: 998511CC441
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:51:42 PM File Name: J:\99850\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC441.dwg

NOTE:
—— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
– – – – 10% AEP HGL FOR STREET DRAINAGE



These plans are referred to in certificate no. **15879** approved by:
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Accredited Certifier
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Categories: B1,C1,C2,C3,C4,C6 & C15
LDC Land Development Certificates
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I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates
Signature..
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

DATUM (m) 14.00

Pipe (from pit – to pit)	01/01–01/02	01/02–01/03	01/03–01/04	01/04–01/05	01/05–01/06	01/06–01/07	01/07–01/08	01/08–01/09	01/09–01/10	01/10–01/11	01/11–01/12	01/12–01/13
PEAK FLOW (L/s)	39	58	107	154	184	752	770	942	961	1003	611	551
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	450 ✓	450 ✓	675 ✓	675 ✓	825 ✓	825 ✓	825 ✓	675 ✓	675 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ4	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~0.7~~ 0.8	~~0.7~~ ✓	~~0.7~~ 0.8	~~1.0~~ 1.4	0.5 ✓	~~0.5~~ 0.45	~~0.5~~ 0.45	0.5 ✓	0.7 ✓	~~0.5~~ 0.7	~~0.5~~ 0.6	0.5 ✓
PIPE COVER MINIMUM	0.80	0.83	0.86	0.92	1.18	0.98	0.84	0.76	0.73	0.75	0.98	1.32
FULL PIPE VELOCITY (m/s)	0.73	0.87	1.13	1.01	1.16	2.10	2.15	2.12	1.92	1.88	1.92	1.84
HGL GRADE (%)	0.03	0.09	0.3	0.21	0.3	0.68	0.71	0.31	0.38	0.41	-0.13	-0.13

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
01/01		21.762	21.26	22.53	170.98	0
01/02		21.756 / 21.736	21.1 / 21.09	22.34	190.86	19.882
01/03		21.717 / 21.677	20.94 / 20.93	22.18	212.41	41.436
01/04		21.591 / 21.506	20.71 / 20.67	22.02	240.64	69.658
01/05		21.487 / 21.428	20.56 / 20.5	22.02	240.26	78.666
01/06		21.384 / 21.33	20.44 / 20.37	22.18	376.42	93.355
01/07		21.043 / 20.974	20.19 / 20.18	21.87	334.04	135.74
01/08		20.722 / 20.682	20.04 / 19.99	21.56	298.60	171.177
01/09		20.542 / 20.495	19.77 / 19.72	21.32	253.57	215.77
01/10		20.342 / 20.255	19.46 / 19.43	21.03	213.57	256.162
01/11		20.179	19.34 / 19.32	20.96	195.32	274.491
01/12		20.218 / 20.227	19.16 / 19.113 ✓	21.12	165.44	304.996
01/13		20.266	18.98	21.32	136.00	335.136

LINE 01

D DRAINAGE LONG SECTION UPDATED

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH:
AHD
DATUM:
MGA
ORIGIN:

CLIENT:
WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 1

PLAN No: 998511/CC442 D
FILE No: 998511CC442
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 4:23:02 PM File Name: J:\99851\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC442.dwg

NOTE:
—— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
- - - - 10% AEP HGL FOR STREET DRAINAGE.

Pit	Description
01/13	1.8 m lintel, LINE 57
01/14	1.8 m lintel, LINE 42
01/15	1.8 m lintel, LINE 03
01/16	1.2 m lintel
01/17	1.8 m lintel, LINE 08
01/18	1.8 m lintel, LINE 59
01/19	1.8 m lintel
01/20	2.4 m lintel, LINE D
01/21	2.4 m lintel sag, LINE 58
01/22	2.4 m lintel sag, LINE 02
01/23	GPT
01/24	JP SEALED 900 x 900
01/25	JP SEALED 900 x 900

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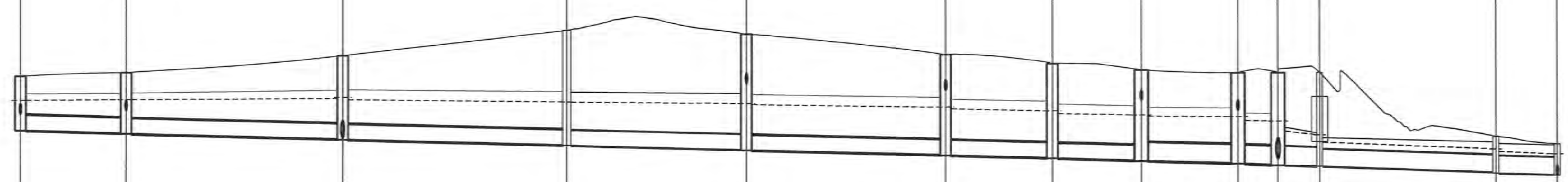
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

EXISTING ABELL ROAD DRAINAGE

SEE RAINGARDEN WAE PLANS DATED 13/08/2021

SECTION 7.11 RAINGARDEN DRAINAGE



DATUM (m) 14.00

Pipe segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
01/13 – 01/14	535	675 ✓	RRJ2	0.5 ✓	1.70	1.77	-0.11
01/14 – 01/15	419	675 ✓	RRJ3	0.5 ✓	2.02	1.36	-0.09
01/15 – 01/16	774	675 ✓	RRJ3	0.5 ✓	3.04	2.19	0.2
01/16 – 01/17	655	675 ✓	RRJ3	0.5 ✓	4.42	1.90	0.21
01/17 – 01/18	591	675 ✓	RRJ3	0.5 ✓	3.76	1.70	0.3
01/18 – 01/19	629	675 ✓	RRJ3	0.5 ✓	3.53	1.76	0.37
01/19 – 01/20	619	675 ✓	RRJ2	~~0.5~~ 0.6	3.36	1.73	0.37
01/20 – 01/21	708	825 ✓	RRJ2	0.5 ✓	3.12	1.32	0.18
01/21 – 01/22	797	825 ✓	RRJ2	0.5 ✓	3.24	1.49	0.23
01/22 – 01/23	2084	825 ✓	RRJ2	~~0.5~~ 0.8	3.40	3.90	1.8
01/23 – 01/24	1079	750	RRJ3	0.7	0.81	2.44	0.8
01/24 – 01/25	1079	750	RRJ2	0.5	0.56	2.44	0.8

WAE

Pit	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
01/13	20.266 / 20.275	18.962 / 18.932 ✓	21.31	136.00	335.136
01/14	20.3 / 20.306	18.83 / 18.8	21.49	113.00	358.69
01/15	20.349 / 20.285	18.56 / 18.54	23.21	65.00	407.137
01/16	20.185 / 20.168	18.3 / 18.27	23.31	0.00	457.302
01/17	20.085 / 20.035	18.07 / 18.03	23.12	24.26	497.503
01/18	19.899 / 19.814	17.82 / 17.77	22.20	67.82	542.158
01/19	19.725 / 19.592	17.65 / 17.62	21.77	88.13	566.101
01/20	19.518 / 19.466	17.52 / 17.50	21.60	105.23	585.948
01/21	19.427 / 19.25	17.39 / 17.36	21.36	126.90	607.616
01/22	19.229 / 18.768	17.32 / 17.28	21.36	126.90	616.616
01/23	18.6 / 18.265	17.15 / 17.2	21.381		625.939
01/24	17.949 / 17.83	16.923 / 16.873	18.51		665.489
01/25	17.716	16.802	18.161		679.652

LINE 01

D DRAINAGE LONG SECTION UPDATED

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS SHEET 2

PLAN No: 998511CC443 D
FILE No: 998511CC443
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:43:49 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC443.dwg

NOTE:
—— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
- - - - 10% AEP HGL FOR STREET DRAINAGE

Pit	01/25	01/26	01/27	02/01	02/02	02/03	02/04	02/05	02/06	02/07	02/08	02/09	02/10	02/11	02/12	02/13
Description	JP SEALED 900 x 900 ✓	JP SEALED 900 x 900 ✓	GSIP 900x900 SAG ✓	2.4 m lintel sag ✓	2.4 m lintel sag ✓	1.8 m lintel LINE 29 ✓	2.4 m lintel sag ✓	2.4 m lintel sag ✓	1.8 m lintel LINE 10 LINE 30 ✓	2.4 m lintel sag LINE 34 ✓	2.4 m lintel sag Splitter Pit LINE 04 ✓	1.8 m lintel ✓	2.4 m lintel sag ✓	2.4 m lintel sag ✓	1.8 m lintel LINE 19 ✓	1.2 m lintel LINE 18 ✓

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no. **15879** approved by
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 2015
Categories: B1,C1,C2,C3,C4,C6 & C15
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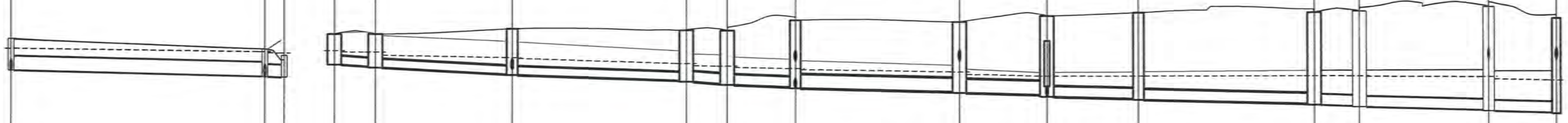
SEE RAINGARDEN WAE PLANS DATED 13/08/2021
SECTION 7.11 RAINGARDEN DRAINAGE

SEE ABELL ROAD WAE PLANS DATED 15/04/21
ABELL ROAD DRAINAGE



Pipe	01/25–01/26	01/26–01/27	02/01–02/02	02/02–02/03	02/03–02/04	02/04–02/05	02/05–02/06	02/06–02/07	02/07–02/08	02/08–02/09	02/09–02/10	02/10–02/11	02/11–02/12	02/12–02/13
DATUM (m)	11.00		16.00											
PEAK FLOW (L/s)	345	174	55	127	152	159	184	403	465	291	239	244	256	303
PIPE SIZE (mm)	600 ✓	525 ✓	375 ✓	375 ✓	375 ✓	450 ✓	450 ✓	600 ✓	600 ✓	450 ✓	450 ✓	450 ✓	450 ✓	450 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ3	RRJ3	RRJ3	RRJ3	RRJ3
PIPE GRADE (%)	0.5	0.5	~~1.0~~ 0.8	1.0 ✓	~~0.7~~ 0.8	~~1.0~~ 1.2	~~0.7~~ 0.6	0.5 ✓	~~0.5~~ 0.4	~~0.5~~ 1.0	~~0.5~~ 1.4	0.7 ~~0.5~~	~~0.6~~ 0.6	~~0.5~~ 0.6
PIPE COVER MINIMUM	0.54	0.19	1.00	1.07	1.62	1.83	2.08	2.35	2.53	3.06	3.34	3.64	3.88	3.75
FULL PIPE VELOCITY (m/s)	1.22	0.80	0.74	1.29	1.49	1.05	1.16	1.42	1.65	1.89	1.51	1.54	1.61	1.91
HGL GRADE (%)	0.27	0.14	0.09	0.4	0.64	0.23	0.33	0.36	0.48	0.03	0.03	0.04	0.1	0.4

Pit	01/25	01/26	01/27	02/01	02/02	02/03	02/04	02/05	02/06	02/07	02/08	02/09	02/10	02/11	02/12	02/13
WAE																
HYDRAULIC GRADE LINE	17.716	17.566 / 17.506	17.5	22.555	22.547 / 22.409	22.288 / 22.251	22.006 / 21.914	21.893 / 21.827	21.778 / 21.731	21.6 / 21.494	21.401 / 21.396	21.39 / 21.388	21.377 / 21.371	21.367 / 21.339	21.311 / 21.206	21.144
INVERT LEVEL	16.802 / 16.772	16.493 / 16.463	16.442 / 16.442	21.94	21.87 / 21.82	21.61 / 21.60	21.19 / 21.12	21.02 / 20.98	20.89 / 20.75	20.71 / 20.60	20.67 / 20.64	20.34 / 20.31	20.13 / 20.1 ✓	20.03 / 19.97	19.84 / 19.80	19.70
DESIGN SURFACE LEVEL	18.161	17.675	17.4	23.34	23.29	23.67	23.44	23.46	23.89	23.83	✓ 24.04	24.12	✓ 24.158	24.14	24.36	✓ 23.858
ROAD CHAINAGE				84.33	84.33	54.18	15.76	15.76	869.84	853.94	855.98	875.70	915.22	919.43	1528.84	482.93
PIPE CHAINAGE	679.652	735.483	739.725	0	9	39.155	77.567	86.567	101.607	137.818	157.158	177.334	216.172	226.114	254.654	270.021

D LINE 01

LINE 02

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION 1 UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 3

PLAN No: 998511/CC444 D
FILE No: 998511CC444
SHEET SIZE: A1 ORIGINAL

NOTE:
——— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
– – – – 10% AEP HGL FOR STREET DRAINAGE

	02/13	02/14	02/15	02/16	02/17	02/18	02/19	02/20
	1.2 m lintel LINE 18	1.8 m lintel LINE 47	1.8 m lintel	1.8 m lintel LINE 12	1.8 m lintel LINE 63	1.8 m lintel LINE 64	1.8 m lintel LINE 05	1.8 m lintel LINE 14
DATUM (m)	14.00							
PEAK FLOW (L/s)	382	421	430	449	474	562		1189
PIPE SIZE (mm)	525 ✓	525 ✓	600 ✓	600 ✓	600 ✓	825 ✓		825 ✓
PIPE CLASS	RRJ3	RRJ3	RRJ3	RRJ3	RRJ3	RRJ3		RRJ2
PIPE GRADE (%)	~~0.5~~ 0.6	~~0.5~~ 0.8	~~0.5~~ 0.7	0.5 ✓	0.5 ✓	~~0.6~~ 0.8		0.5 ✓
PIPE COVER MINIMUM	3.55	3.56	3.53	3.48	3.39	3.03		2.91
FULL PIPE VELOCITY (m/s)	1.77	1.98	1.69	1.71	1.83	1.53		2.22
HGL GRADE (%)	0.34	0.44	0.22	0.27	0.33	0.13		0.58
WAE								
HYDRAULIC GRADE LINE	21.144 21.021	20.904 20.845	20.716 20.701	20.654 20.618	20.537 20.500	20.303 20.284	20.185 20.103	19.694
INVERT LEVEL	19.70 ~~19.70~~ 19.34	19.47 ~~19.50~~ 19.25	19.28 ~~19.34~~ 19.261 ✓	18.42 ~~18.44~~ 18.06	18.954 ✓	18.616 ✓	18.18 ~~18.00~~ 18.14	17.76 ~~17.80~~
DESIGN SURFACE LEVEL	~~20.000~~ 23.36	~~20.000~~ 23.32	~~20.000~~ 23.42	~~20.000~~ 23.34	~~20.000~~ 23.03	~~20.000~~ 22.83	~~20.000~~ 22.28	21.47 ~~21.494~~
ROAD CHAINAGE	462.93	449.26	421.92	403.75	373.65	312.12	235.00	165.00
PIPE CHAINAGE	270.021	304.382	333.894	355.149	385.264	446.778	523.902	593.902

LINE 02

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

DATE 14/07/2021 REF 20260-5

LDC
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1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
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	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH: AHD
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CLIENT: WINTEN PROPERTY GROUP

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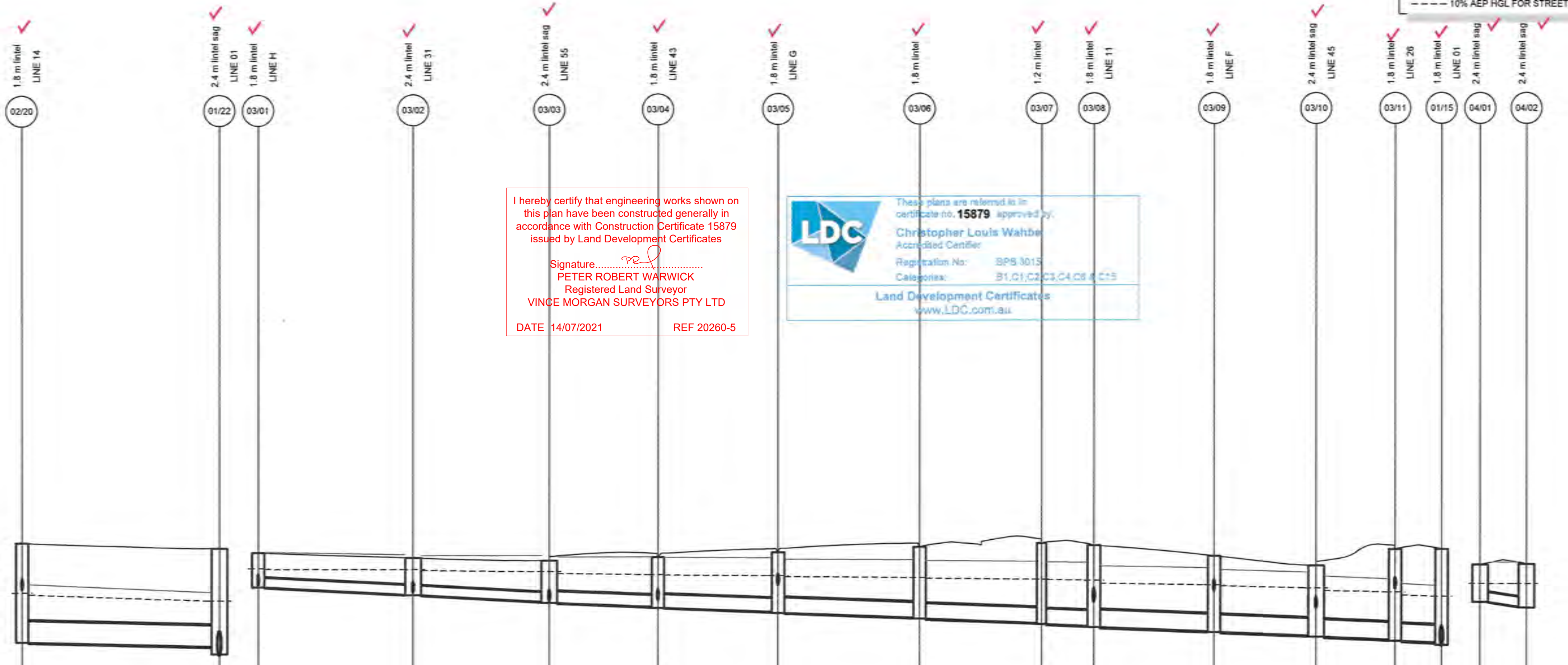
NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 4

PLAN No: 998511/CC445 C
FILE No: 998511CC445
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:52:02 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC445.dwg



NOTE:
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Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
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LINE 02

DATUM (m): 13.00

Pipe	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
02/20 – 01/22	1285	825 ✓	RRJ2	0.5 ✓	2.88	2.40	0.68

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
02/20		19.694 / 19.615	17.76 ~~17.82~~ / ~~17.70~~ 17.74	~~21.094~~ 21.87	165.00	593.902
01/22		19.354 / 18.9	17.58 ~~17.6~~ / ~~17.294~~ 17.28	21.36 ~~21.90~~	126.90	632.004

LINE 03

DATUM (m): 14.00

Pipe	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
03/01 – 03/02	80	375 ✓	RRJ2	~~1.0~~ 0.9	0.90	1.12	0.08
03/02 – 03/03	122	375 ✓	RRJ2	~~1.0~~ 1.4	1.02	1.25	0.26
03/03 – 03/04	202	450 ✓	RRJ2	~~0.7~~ 0.8	1.32	1.40	0.27
03/04 – 03/05	233	525 ✓	RRJ2	0.7 ✓	1.54	1.51	0.17
03/05 – 03/06	312	600 ✓	RRJ2	~~0.7~~ 0.8	1.85	1.54	0.17
03/06 – 03/07	297	600 ✓	RRJ2	~~0.7~~ 1.0	2.19	1.44	0.18
03/07 – 03/08	307	600 ✓	RRJ2	~~0.7~~ 1.0	2.53	1.09	0.18
03/08 – 03/09	491	675 ✓	RRJ2	~~0.7~~ 0.6	2.22	1.43	0.28
03/09 – 03/10	568	675 ✓	RRJ2	~~0.7~~ 1.0	1.99	1.63	0.39
03/10 – 03/11	611	675 ✓	RRJ2	~~0.7~~ 1.0	2.22	1.71	0.45
03/11 – 01/15	641	675 ✓	RRJ2	~~0.7~~ 1.0	2.88	1.79	0.49

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
03/01		21.563	~~20.66~~ 20.86	~~22.100~~ 22.17	153.56	0
03/02		21.539 / 21.506	20.67 ~~20.679~~ / ~~20.549~~ 20.56	~~21.867~~ 21.97	123.44	30.116
03/03		21.437 / 21.37	20.21 ~~20.305~~ / ~~20.205~~ 20.19	~~21.872~~ 21.84	97.03	56.522
03/04		21.314 / 21.297	20.01 ~~20.007~~ / ~~20.007~~ 19.99	~~21.906~~ 21.98	70.78	77.586
03/05		21.258 / 21.215	19.83 ~~19.874~~ / ~~19.824~~ 19.81	~~22.155~~ 22.16	46.67	100.906
03/06		21.169 / 21.139	19.68 ~~19.692~~ / ~~19.592~~ 19.66	~~22.356~~ 22.36	17.93	128.33
03/07		21.097 / 21.079	19.32 ~~19.416~~ / ~~19.300~~ 19.31	~~22.497~~ 22.46	62.91	152.008
03/08		21.061 / 20.936	19.22 ~~19.308~~ / ~~19.246~~ 19.16	~~22.407~~ 22.36	58.18	162.177
03/09		20.87 / 20.825	19.06 ~~19.004~~ / ~~19.051~~ 19.01	~~21.998~~ 21.97	34.83	185.531
03/10		20.747 / 20.654	18.88 ~~18.913~~ / ~~18.862~~ 18.84	~~21.617~~ 21.62	15.00	205.357
03/11		20.585 / 20.47	18.76 ~~18.755~~ / ~~18.706~~ 18.66	~~22.244~~ 22.22	65.00	220.706
01/15		20.426 / 20.338	18.58 ~~18.642~~ / ~~18.552~~ 18.54	~~22.244~~ 22.22	65.00	229.706

LINE 04

DATUM (m): 16.00

Pipe	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
04/01 – 04/02	-28	375 ✓	RRJ2	~~2.0~~ 3.0	1.10	0.95	0.01

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
04/01		22.907	~~22.300~~ 22.21	~~23.600~~ 23.62	641.65	0
04/02		22.906	21.96 ~~22.030~~	23.64 ~~23.667~~	641.65	9

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION 4 UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT:
WINTEN PROPERTY GROUP

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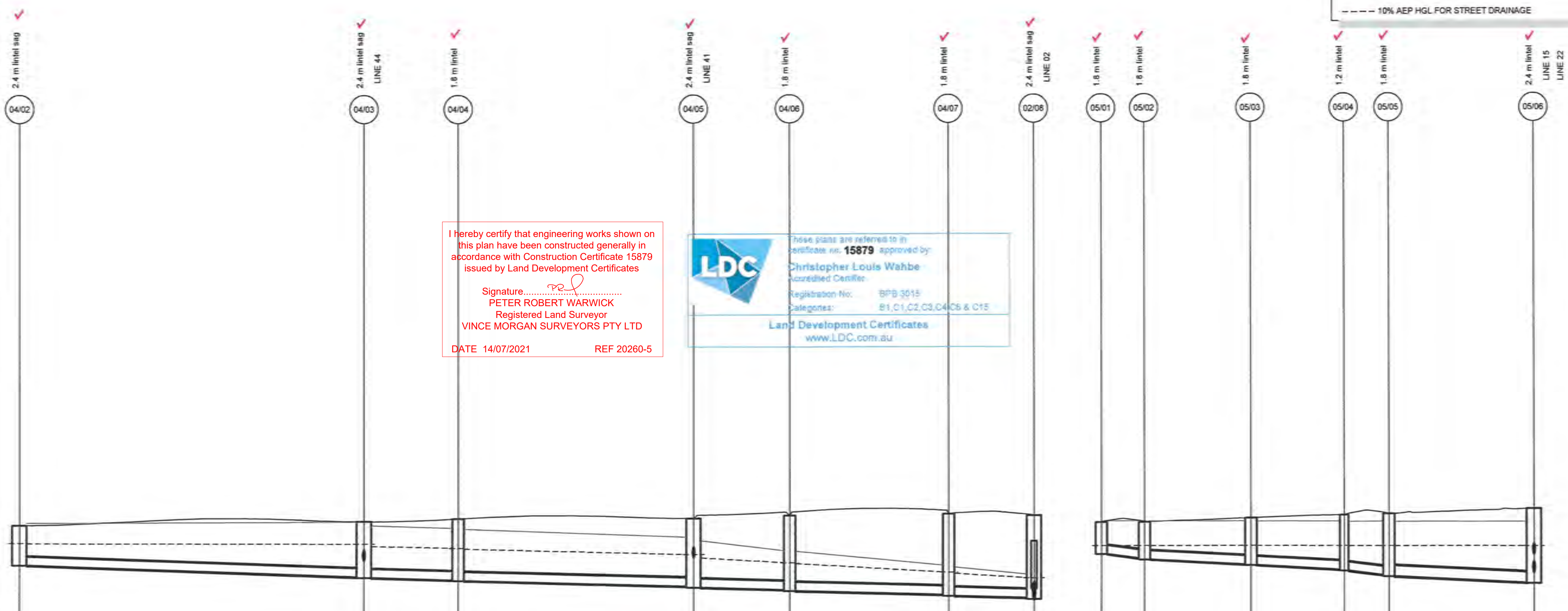
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 5

PLAN No: 998511/CC446 D
FILE No: 998511CC446
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 4:23:03 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC446.dwg

NOTE:
- 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
- 10% AEP HGL FOR STREET DRAINAGE



I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

LDC

These plans are referred to in certificate no. 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
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LINE 04

DATUM (m): 16.00

Pipe	04/02–04/03	04/03–04/04	04/04–04/05	04/05–04/06	04/06–04/07	04/07–02/08
PEAK FLOW (L/s)	66	126	141	197	200	204
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	0.7 ✓	~~0.5~~ 0.7	0.5 ✓	~~0.5~~ 0.7	0.5 ✓	~~0.5~~ 0.45
PIPE COVER MINIMUM	1.28	1.97	2.23	2.66	2.95	3.10
FULL PIPE VELOCITY (m/s)	0.73	1.16	1.28	1.78	1.81	1.84
HGL GRADE (%)	0.03	0.39	0.49	1.02	1.1	1.1

Pit	04/02	04/03	04/04	04/05	04/06	04/07	02/08
WAE							
HYDRAULIC GRADE LINE	22.906 / 22.9	22.876 / 22.771	22.693 / 22.659	22.415 / 22.267	22.058 / 22.021	21.648 / 21.596	21.396 / 21.389
INVERT LEVEL	21.96 / 21.90	21.40 / 21.38	21.28 / 21.24	21.03 / 20.98	20.83 / 20.79	20.63 / 20.61	20.53 / 20.49
DESIGN SURFACE LEVEL	23.84	23.79	23.91	23.90	24.00	24.09	24.0
ROAD CHAINAGE	641.65	714.75	734.78	784.76	805.63	840.24	855.98
PIPE CHAINAGE	0	82.104	102.129	152.11	172.522	206.339	224.487

D LINE 04

LINE 05

DATUM (m): 15.00

Pipe	05/01–05/02	05/02–05/03	05/03–05/04	05/04–05/05	05/05–05/06
PEAK FLOW (L/s)	21	51	78	89	146
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓	450 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	2.0 ✓	1.0 ✓	1.0 ✓	2.0 ✓	0.9 ✓
PIPE COVER MINIMUM	1.00	1.19	1.60	2.02	2.17
FULL PIPE VELOCITY (m/s)	0.86	1.03	1.27	1.40	1.04
HGL GRADE (%)	0	0.02	0.03	0.04	0.04

Pit	05/01	05/02	05/03	05/04	05/05	05/06
WAE						
HYDRAULIC GRADE LINE	21.742	21.742 / 21.733	21.728 / 21.722	21.717 / 21.709	21.705 / 21.702	21.691
INVERT LEVEL	21.32	21.16 / 21.10	20.88 / 20.86	20.66 / 20.62	20.44 / 20.41	20.13
DESIGN SURFACE LEVEL	22.69	22.69	22.86	22.99	23.03	23.24
ROAD CHAINAGE	139.12	137.50	114.85	95.00	92.01	61.12
PIPE CHAINAGE	0	9.145	31.795	51.645	61.127	92.019

LINE 05

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION 4 UPDATED	DG	DG	MP	MS	23/04/20
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 6

PLAN No: 998511/CC447 D
FILE No: 998511CC447
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:43:51 PM File Name: J:\99851\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 DOCUMENTATION\998511CC447.dwg

NOTE:
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Pit	Details
05/06	2.4 m lintel, LINE 15, LINE 22
05/07	1.8 m lintel, LINE 54
05/08	1.8 m lintel, LINE 13, LINE 16
05/09	1.8 m lintel, LINE 53
05/10	2.4 m lintel sag, LINE 51
05/11	1.2 m lintel, LINE 24
05/12	1.8 m lintel, LINE E
02/19	1.8 m lintel, LINE 02
06/01	2.4 m lintel sag
06/02	2.4 m lintel sag, LINE 56
06/03	2.4 m lintel sag, LINE 36
06/04	1.2 m lintel, LINE 25, LINE 40
06/05	2.4 m lintel
09/03	1.2 m lintel, LINE 09
07/01	3.0 m lintel sag
07/02	3.0 m lintel sag

ABELL ROAD DRAINAGE

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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

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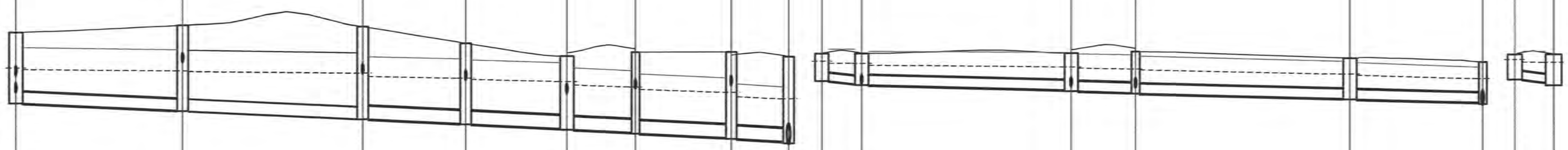

LINE 05

DATUM (m) 15.00

	05/06–05/07	05/07–05/08	05/08–05/09	05/09–05/10	05/10–05/11	05/11–05/12	05/12–02/19
PEAK FLOW (L/s)	321	351	450	488	562	574	621
PIPE SIZE (mm)	525 ✓	525 ✓	600 ✓	600 ✓	600 ✓	600 ✓	600 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~0.0~~ 1.0	0.9 ✓	~~0.0~~ 1.5	~~0.0~~ 0.8	~~0.0~~ 1.2	~~0.0~~ 1.2	~~1.0~~ 0.8
PIPE COVER MINIMUM	2.62	3.31	3.01	2.61	2.86	3.02	3.16
FULL PIPE VELOCITY (m/s)	1.66	1.66	1.73	1.73	1.99	2.03	2.20
HGL GRADE (%)	0.2	0.27	0.41	0.5	0.64	0.65	0.83

	05/06	05/07	05/08	05/09	05/10	05/11	05/12	02/19
WAE								
HYDRAULIC GRADE LINE	21.691 / 21.611	21.537 / 21.512	21.404 / 21.254	21.159 / 21.111	20.996 / 20.838	20.739 / 20.632	20.49 / 20.297	20.189 / 20.108
INVERT LEVEL	20.13 / 20.1	19.76 / 19.73	19.36 / 19.33	18.98 / 18.97	18.87 / 18.83	18.64 / 18.67	18.38 / 18.32	18.24 / 18.14
DESIGN SURFACE LEVEL	23.24	23.88	23.61	22.73	22.13	22.28	22.15	22.06
ROAD CHAINAGE	61.12	23.60	61.35	38.06	15.22	265.97	244.29	235.00
PIPE CHAINAGE	92.019	129.54	170.291	193.582	216.424	231.946	253.627	266.59

LINE 06

DATUM (m) 16.00

	06/01–06/02	06/02–06/03	06/03–06/04	06/04–06/05	06/05–09/03
PEAK FLOW (L/s)	77	182	175	207	233
PIPE SIZE (mm)	375 ✓	450 ✓	450 ✓	450 ✓	450 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~1.5~~ 1.9	~~0.5~~ 0.4	~~0.5~~ 0.7	0.5 ✓	0.5 ✓
PIPE COVER MINIMUM	0.90	0.93	1.41	1.34	1.34
FULL PIPE VELOCITY (m/s)	0.90	1.25	1.21	1.37	1.47
HGL GRADE (%)	0.06	0.21	0.27	0.43	0.54

	06/01	06/02	06/03	06/04	06/05	09/03
WAE						
HYDRAULIC GRADE LINE	22.781	22.776 / 22.693	22.592 / 22.544	22.505 / 22.453	22.246 / 22.198	22.036 / 21.969
INVERT LEVEL	21.94	21.79 / 21.89	21.61 / 21.47	21.37 / 21.34	21.10 / 21.09	20.96 / 20.86
DESIGN SURFACE LEVEL	23.19	23.20	23.22	23.28	22.97	22.76
ROAD CHAINAGE	154.04	153.90	201.36	533.08	484.51	454.42
PIPE CHAINAGE	0	9.001	56.462	71.079	119.649	149.739

LINE 07

DATUM (m) 16.00

	07/01–07/02
PEAK FLOW (L/s)	84
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	1.5 ✓
PIPE COVER MINIMUM	0.80
FULL PIPE VELOCITY (m/s)	1.08
HGL GRADE (%)	0.17

	07/01	07/02
WAE		
HYDRAULIC GRADE LINE	22.779	22.764
INVERT LEVEL	21.94	21.82
DESIGN SURFACE LEVEL	23.09	23.08
ROAD CHAINAGE	84.33	84.33
PIPE CHAINAGE	0	9

1:100 (AT A1) 1:200 (AT A3) — METRES
1:500 (AT A1) 1:1000 (AT A3) — METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 7

PLAN No: 998511/CC448 C
FILE No: 998511CC448
SHEET SIZE: A1 ORIGINAL

NOTE:
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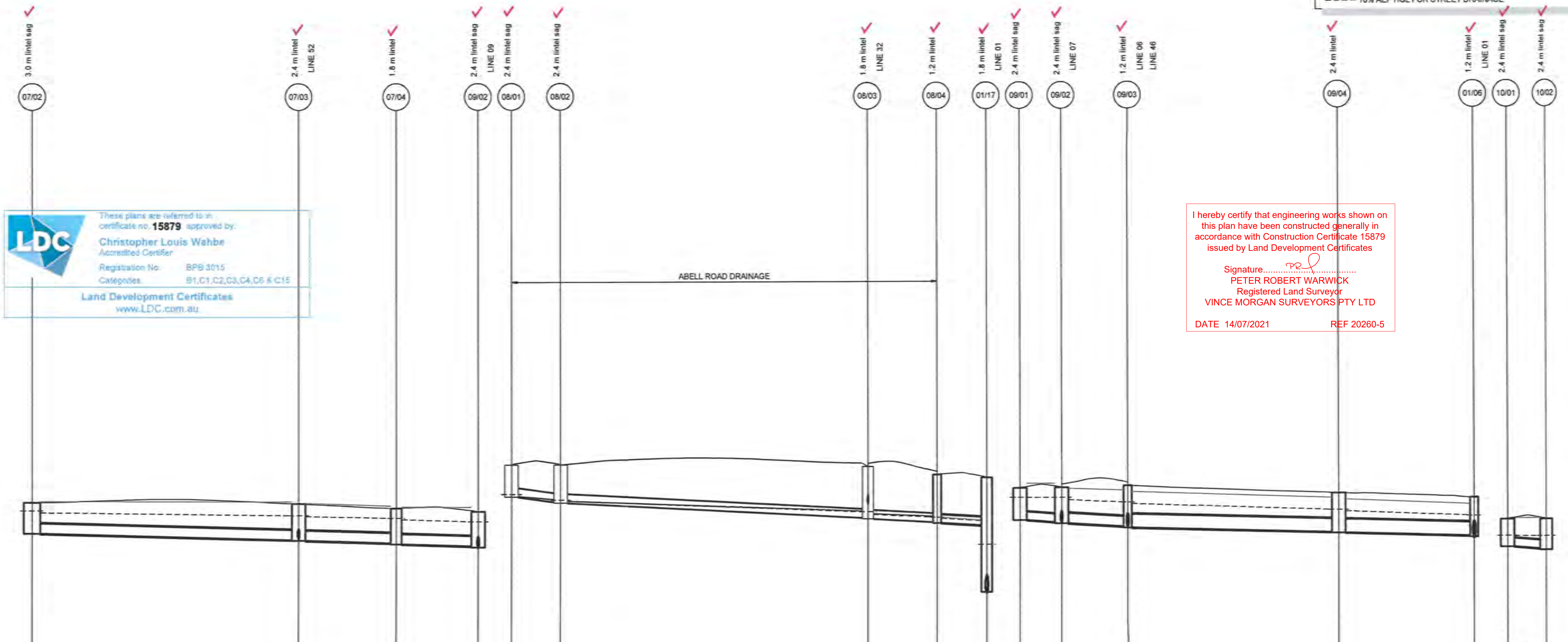
- - - - 10% AEP HGL FOR STREET DRAINAGE



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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

LINE 07

	07/02 – 07/03	07/03 – 07/04	07/04 – 09/02
DATUM (m)	16.00		
PEAK FLOW (L/s)	157	196	218
PIPE SIZE (mm)	450 ✓	450 ✓	450 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	0.5 ✓	~~0.5~~ 0.7	~~0.5~~ 0.7
PIPE COVER MINIMUM	0.90	1.06	1.11
FULL PIPE VELOCITY (m/s)	1.07	1.26	1.37
HGL GRADE (%)	0.23	0.39	0.49

	07/02	07/03	07/04	09/02
WAE				
HYDRAULIC GRADE LINE	22.764 / 22.673	22.537 / 22.495	22.409 / 22.347	22.257 / 22.156
INVERT LEVEL	21.82 / 21.69	21.38 / 21.36	21.29 / 21.22	21.10 / 21.07
DESIGN SURFACE LEVEL	23.08	23.02	22.82	23.71
ROAD CHAINAGE	84.33	143.96	166.02	182.05
PIPE CHAINAGE	0	68.633	90.685	109.07

LINE 08

	08/01 – 08/02	08/02 – 08/03	08/03 – 08/04	08/04 – 01/17
DATUM (m)	15.00			
PEAK FLOW (L/s)	23	49	107	114
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	2.0 ✓	1.0 ✓	1.0 ✓	~~1.0~~ 0.6
PIPE COVER MINIMUM	1.10	1.32	1.89	1.80
FULL PIPE VELOCITY (m/s)	1.05	0.92	1.29	1.55
HGL GRADE (%)	1.54	0.72	0.83	1.09

	08/01	08/02	08/03	08/04	01/17
WAE					
HYDRAULIC GRADE LINE	22.377	22.208 / 22.149	21.65 / 21.524	21.396 / 21.352	21.23 / 20.119
INVERT LEVEL	22.30	22.09 / 22.04	21.34 / 21.32	21.16 / 21.11	21.05 / 18.03
DESIGN SURFACE LEVEL	23.73	23.78	23.61	23.26	23.13
ROAD CHAINAGE	1223.16	1223.04	1153.74	17.58	24.26
PIPE CHAINAGE	0	11.001	80.122	95.621	106.824

LINE 09

	09/01 – 09/02	09/02 – 09/03	09/03 – 09/04	09/04 – 01/06
DATUM (m)	15.00			
PEAK FLOW (L/s)	29	277	535	563
PIPE SIZE (mm)	375 ✓	450 ✓	600 ✓	600 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~1.0~~ 1.4	1.0 ✓	~~0.5~~ 0.8	~~0.5~~ 0.7
PIPE COVER MINIMUM	1.10	1.31	1.12	1.08
FULL PIPE VELOCITY (m/s)	0.65	1.74	1.89	1.99
HGL GRADE (%)	0.01	0.81	0.63	0.69

	09/01	09/02	09/03	09/04	01/06
WAE					
HYDRAULIC GRADE LINE	22.258	22.257 / 22.156	22.036 / 21.969	21.672 / 21.601	21.39 / 21.336
INVERT LEVEL	21.19	21.07 / 21.07	20.93 / 20.86	20.58 / 20.58	20.39 / 20.37
DESIGN SURFACE LEVEL	22.67	22.72	22.76	22.38	22.18
ROAD CHAINAGE	184.72	182.05	454.42	406.90	376.42
PIPE CHAINAGE	0	9.389	24.252	71.768	102.25

LINE 10

	10/01 – 10/02
DATUM (m)	17.00
PEAK FLOW (L/s)	33
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	~~1.0~~ 1.3
PIPE COVER MINIMUM	0.90
FULL PIPE VELOCITY (m/s)	0.63
HGL GRADE (%)	0.02

	10/01	10/02
WAE		
HYDRAULIC GRADE LINE	22.468	22.466
INVERT LEVEL	21.37	21.67
DESIGN SURFACE LEVEL	23.18	23.19
ROAD CHAINAGE	15.35	15.72
PIPE CHAINAGE	0	9.008

1:100 (AT A1) 1:200 (AT A3) — METRES
1:500 (AT A1) 1:1000 (AT A3) — METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
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NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 8

PLAN No: 998511/CC449 C
FILE No: 998511CC449
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September, 2019 2:52:25 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC449.dwg

NOTE:
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– – – – 10% AEP HGL FOR STREET DRAINAGE

Pit	10/02	10/03	10/04	02/06	11/01	11/02	11/03	11/04	03/08	12/01	02/16	13/01	13/02	13/03	13/04	05/08	14/01	14/02
Note	2.4 m lintel sag	1.2 m lintel	2.4 m lintel sag LINE 39	1.8 m lintel LINE 02	1.8 m lintel	1.8 m lintel LINE 37	1.8 m lintel LINE B	1.8 m lintel	1.8 m lintel LINE 03	1.8 m lintel	1.8 m lintel LINE 02	2.4 m lintel sag	2.4 m lintel sag	1.8 m lintel	1.2 m lintel	1.8 m lintel LINE 05	1.8 m lintel	1.8 m lintel

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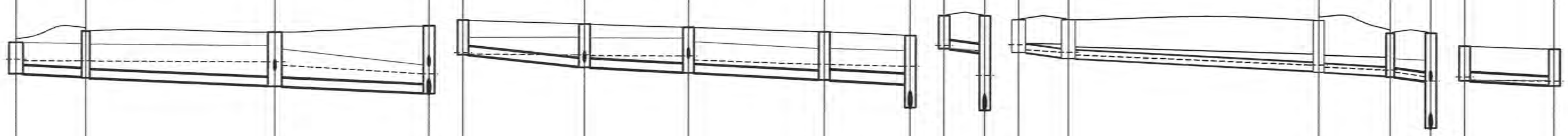
ABELL ROAD DRAINAGE



LINE 10

DATUM (m) 16.00

	10/02–10/03	10/03–10/04	10/04–02/06
PEAK FLOW (L/s)	82	97	185
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~0.9~~ 1.5	0.9 ✓	~~0.9~~ 0.8
PIPE COVER MINIMUM	1.16	1.66	1.97
FULL PIPE VELOCITY (m/s)	1.14	0.96	1.67
HGL GRADE (%)	0.11	0.14	1.14

	10/02	10/03	10/04	02/06
WAE				
HYDRAULIC GRADE LINE	22.466 / 22.407	22.39 / 22.375	22.318 / 22.166	21.779 / 21.732
INVERT LEVEL	21.87 / 21.81	21.58 / 21.66	21.17 / 21.16	20.90 / 20.86
DESIGN SURFACE LEVEL	23.19	23.72	23.60	23.89
ROAD CHAINAGE	15.72	906.19	349.81	869.84
PIPE CHAINAGE	9.008	24.299	65.851	99.881

LINE 11

DATUM (m) 15.00

	11/01–11/02	11/02–11/03	11/03–11/04	11/04–03/08
PEAK FLOW (L/s)	28	76	180	233
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	450 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	2.0 ✓	~~1.0~~ 1.1	1.0 ✓	~~1.0~~ 1.1
PIPE COVER MINIMUM	1.10	1.48	1.58	1.62
FULL PIPE VELOCITY (m/s)	0.97	0.93	1.69	1.96
HGL GRADE (%)	0.21	0.1	0.69	0.37

	11/01	11/02	11/03	11/04	03/08
WAE					
HYDRAULIC GRADE LINE	21.642	21.585 / 21.55	21.526 / 21.351	21.144 / 21.132	21.061 / 20.936
INVERT LEVEL	21.56	21.0 / 20.98	20.75 / 20.73	20.43 / 20.41	20.20 / 19.18
DESIGN SURFACE LEVEL	23.10	22.91	22.76	22.56	22.37
ROAD CHAINAGE	156.81	130.00	107.05	77.13	58.18
PIPE CHAINAGE	0	26.811	49.765	79.681	98.631

LINE 12

DATUM (m) 15.00

	12/01–02/16
PEAK FLOW (L/s)	30
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	~~2.0~~ 1.8
PIPE COVER MINIMUM	1.10
FULL PIPE VELOCITY (m/s)	1.07
HGL GRADE (%)	1.35

	12/01	02/16
WAE		
HYDRAULIC GRADE LINE	21.865	21.743 / 20.623
INVERT LEVEL	21.80	21.64 / 19.10
DESIGN SURFACE LEVEL	23.24	23.24
ROAD CHAINAGE	404.09	403.75
PIPE CHAINAGE	0	9.006

LINE 13

DATUM (m) 16.00

	13/01–13/02	13/02–13/03	13/03–13/04	13/04–05/08
PEAK FLOW (L/s)	104	129	136	143
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~2.0~~ 2.3	1.0 ✓	1.0 ✓	~~2.0~~ 1.8
PIPE COVER MINIMUM	1.10	1.30	1.65	1.57
FULL PIPE VELOCITY (m/s)	1.25	1.52	1.52	1.83
HGL GRADE (%)	0.96	0.82	0.84	2.22

	13/01	13/02	13/03	13/04	05/08
WAE					
HYDRAULIC GRADE LINE	22.779	22.673 / 22.555	22.103 / 22.021	21.888 / 21.797	21.597 / 21.254
INVERT LEVEL	22.58	22.33 / 22.32	21.80 / 21.76	21.61 / 21.59	21.44 / 19.33
DESIGN SURFACE LEVEL	24.04	24.08	24.07	23.47	23.46
ROAD CHAINAGE	1432.95	1433.05	1377.75	61.50	61.35
PIPE CHAINAGE	0	11	66.296	82.093	91.094

LINE 14

DATUM (m) 15.00

	14/01–14/02
PEAK FLOW (L/s)	39
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	~~1.0~~ 0.9
PIPE COVER MINIMUM	1.10
FULL PIPE VELOCITY (m/s)	0.82
HGL GRADE (%)	0.3

	14/01	14/02
WAE		
HYDRAULIC GRADE LINE	20.455	20.394
INVERT LEVEL	20.37	20.18
DESIGN SURFACE LEVEL	21.92	21.76
ROAD CHAINAGE	212.00	191.58
PIPE CHAINAGE	0	20.421

1:100 (AT A1) 1:200 (AT A3) — METRES
1:500 (AT A1) 1:1000 (AT A3) — METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
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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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 9

PLAN No: 998511/CC450 C
FILE No: 998511CC450
SHEET SIZE: A1 ORIGINAL

NOTE:
—— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
- - - - 10% AEP HGL FOR STREET DRAINAGE

14/02 1.8 m lintel | 14/03 1.8 m lintel | 02/20 1.8 m lintel LINE 02 | 15/01 1.8 m lintel | 15/02 2.4 m lintel sag | 15/03 2.4 m lintel sag LINE 20 | 15/04 2.4 m lintel | 05/06 2.4 m lintel LINE 05 | 16/01 2.4 m lintel sag | 16/02 2.4 m lintel sag | 16/03 1.8 m lintel | 05/08 1.8 m lintel LINE 05 | 17/01 1.8 m lintel | 17/02 1.8 m lintel LINE 48 | 17/03 1.8 m lintel LINE K | 17/04 2.4 m lintel sag LINE 33 | 01/08 1.2 m lintel LINE 01 | 18/01 2.4 m lintel sag | 18/02 1.8 m lintel | 18/03 1.2 m lintel | 02/13 1.2 m lintel LINE 02 | 19/01 2.4 m lintel sag | 19/02 2.4 m lintel sag

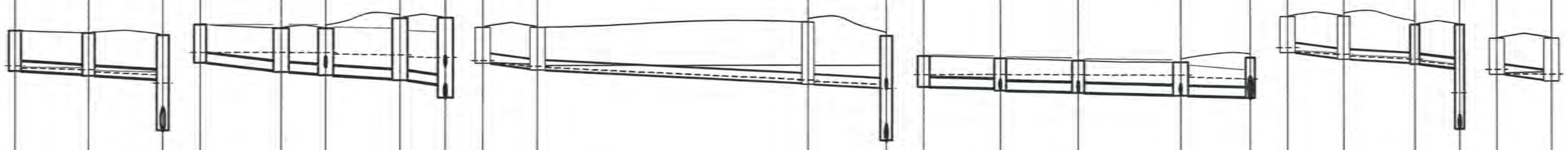
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no. 15879 approved by
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

ABELL ROAD DRAINAGE (LINE 16) | ABELL ROAD DRAINAGE (LINE 18) | ABELL ROAD DRAINAGE (LINE 19)



LINE 14 (DATUM 14.00)

	14/02–14/03	14/03–02/20
PEAK FLOW (L/s)	68	87
PIPE SIZE (mm)	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2
PIPE GRADE (%)	~~1.0~~ 0.9*	~~1.0~~ 0.8*
PIPE COVER MINIMUM	1.19	1.33
FULL PIPE VELOCITY (m/s)	1.14	1.37
HGL GRADE (%)	0.47	0.85

	14/02	14/03	02/20
HYDRAULIC GRADE LINE	20.394 / 20.297	20.228 / 20.14	20.014 / 19.62
ROAD CHAINAGE	191.58	176.86	165.00
PIPE CHAINAGE	20.421	35.144	50.03

LINE 15 (DATUM 15.00)

	15/01–15/02	15/02–15/03	15/03–15/04	15/04–05/06
PEAK FLOW (L/s)	30	59	147	196
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~2.0~~ 1.9*	~~1.0~~ 0.9*	1.0 ✓	~~2.0~~ 3.0*
PIPE COVER MINIMUM	1.10	1.40	1.65	2.14
FULL PIPE VELOCITY (m/s)	1.11	0.80	1.33	1.89
HGL GRADE (%)	0.01	0.02	0.24	0.45

	15/01	15/02	15/03	15/04	05/06
HYDRAULIC GRADE LINE	21.906	21.905 / 21.901	21.899 / 21.84	21.805 / 21.732	21.691 / 21.611
ROAD CHAINAGE	249.00	365.84	916.68	62.50	61.12
PIPE CHAINAGE	0	16.278	25.283	40.171	49.276

LINE 16 (DATUM 16.00)

	16/01–16/02	16/02–16/03	16/03–05/08
PEAK FLOW (L/s)	24	50	55
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~2.0~~ 2.1*	1.0 ✓	1.0 ✓
PIPE COVER MINIMUM	1.10	1.30	1.86
FULL PIPE VELOCITY (m/s)	0.98	1.32	1.29
HGL GRADE (%)	1.31	0.94	0.8

	16/01	16/02	16/03	05/08
HYDRAULIC GRADE LINE	22.479	22.335 / 22.283	21.772 / 21.696	21.57 / 21.254
ROAD CHAINAGE	1292.66	1293.00	1347.35	61.35
PIPE CHAINAGE	0	11.005	65.351	81.088

LINE 17 (DATUM 15.00)

	17/01–17/02	17/02–17/03	17/03–17/04	17/04–01/08
PEAK FLOW (L/s)	12	42	65	151
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	0.5 ✓	0.5 ✓	0.5 ✓	~~0.5~~ 0.6*
PIPE COVER MINIMUM	0.80	0.85	0.86	1.11
FULL PIPE VELOCITY (m/s)	0.43	0.71	0.75	1.37
HGL GRADE (%)	0.01	0.05	0.11	0.53

	17/01	17/02	17/03	17/04	01/08
HYDRAULIC GRADE LINE	20.957	20.956 / 20.942	20.934 / 20.918	20.895 / 20.807	20.732 / 20.694
ROAD CHAINAGE	15.58	31.00	46.68	67.28	298.60
PIPE CHAINAGE	0	15.405	31.084	51.686	65.718

LINE 18 (DATUM 16.00)

	18/01–18/02	18/02–18/03	18/03–02/13
PEAK FLOW (L/s)	59	69	77
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	~~2.0~~ 2.2*	~~1.0~~ 0.8*	~~2.0~~ 3.5*
PIPE COVER MINIMUM	1.10	1.28	1.21
FULL PIPE VELOCITY (m/s)	1.15	1.28	1.61
HGL GRADE (%)	0.86	0.8	1.8

	18/01	18/02	18/03	02/13
HYDRAULIC GRADE LINE	22.801	22.704 / 22.62	22.506 / 22.419	22.257 / 21.025
ROAD CHAINAGE	1501.73	1499.25	483.23	482.93
PIPE CHAINAGE	0	11.274	25.557	34.562

LINE 19 (DATUM 17.00)

	19/01–19/02
PEAK FLOW (L/s)	53
PIPE SIZE (mm)	375 ✓
PIPE CLASS	RRJ2
PIPE GRADE (%)	2.0 ✓
PIPE COVER MINIMUM	1.10
FULL PIPE VELOCITY (m/s)	1.01
HGL GRADE (%)	0.21

	19/01	19/02
HYDRAULIC GRADE LINE	22.89	22.867
ROAD CHAINAGE	1575.31	1575.31
PIPE CHAINAGE	0	11

WAE / INVERT LEVEL / DESIGN SURFACE LEVEL: design values amended by hand (struck through and overwritten in red); not transcribed.

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES
1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 10

PLAN No: 998511/CC451 C
FILE No: 998511CC451
SHEET SIZE: A1 ORIGINAL

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

J. WYNDHAM PRINCE — CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
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NOTE:
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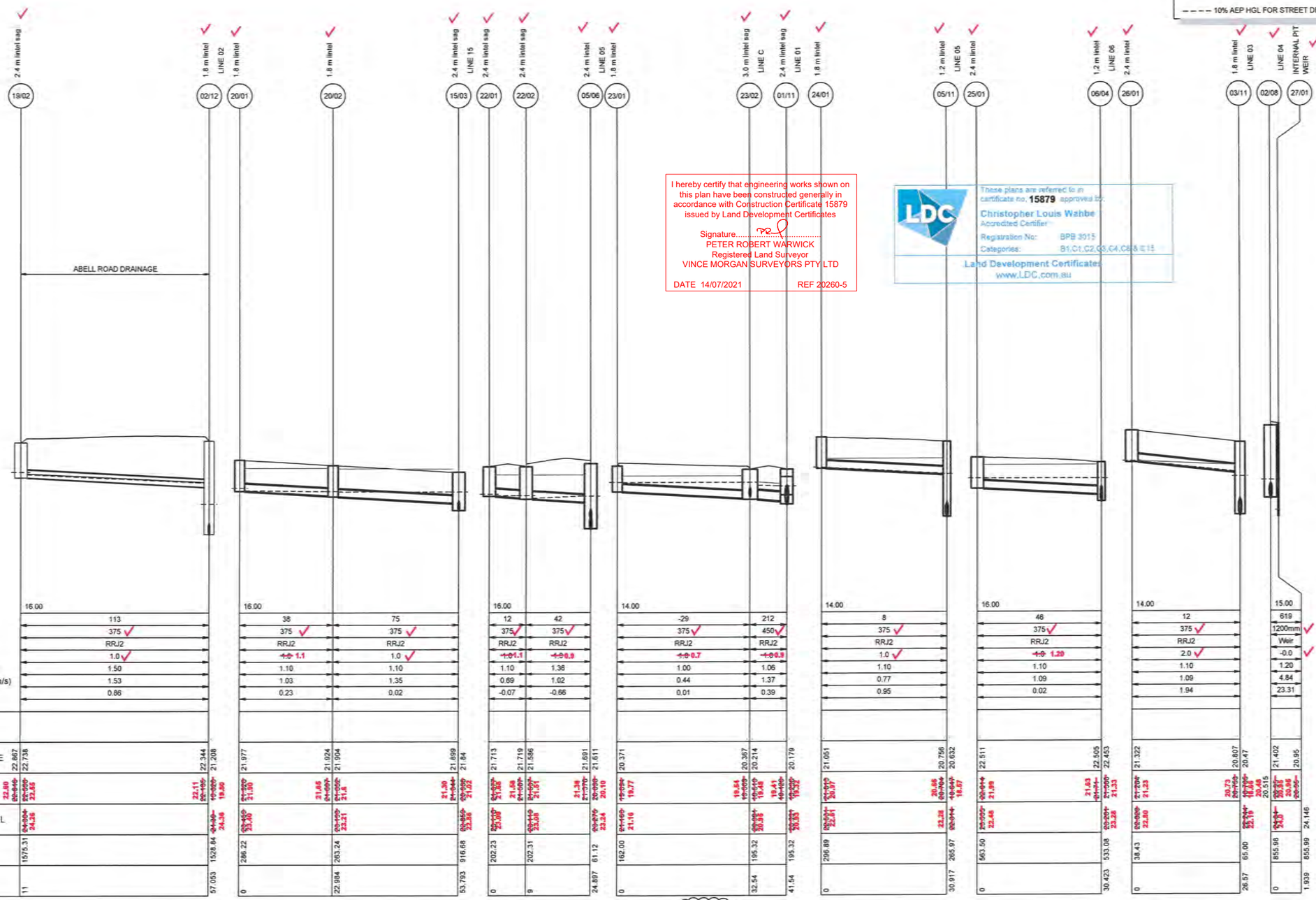
10% AEP HGL FOR STREET DRAINAGE



I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

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Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1;C1;C2;C3;C4;C8 & E1
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1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION 23 UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT:
WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 11

PLAN No: 998511/CC452 D
FILE No: 998511CC452
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:43:51 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC452.dwg

NOTE:
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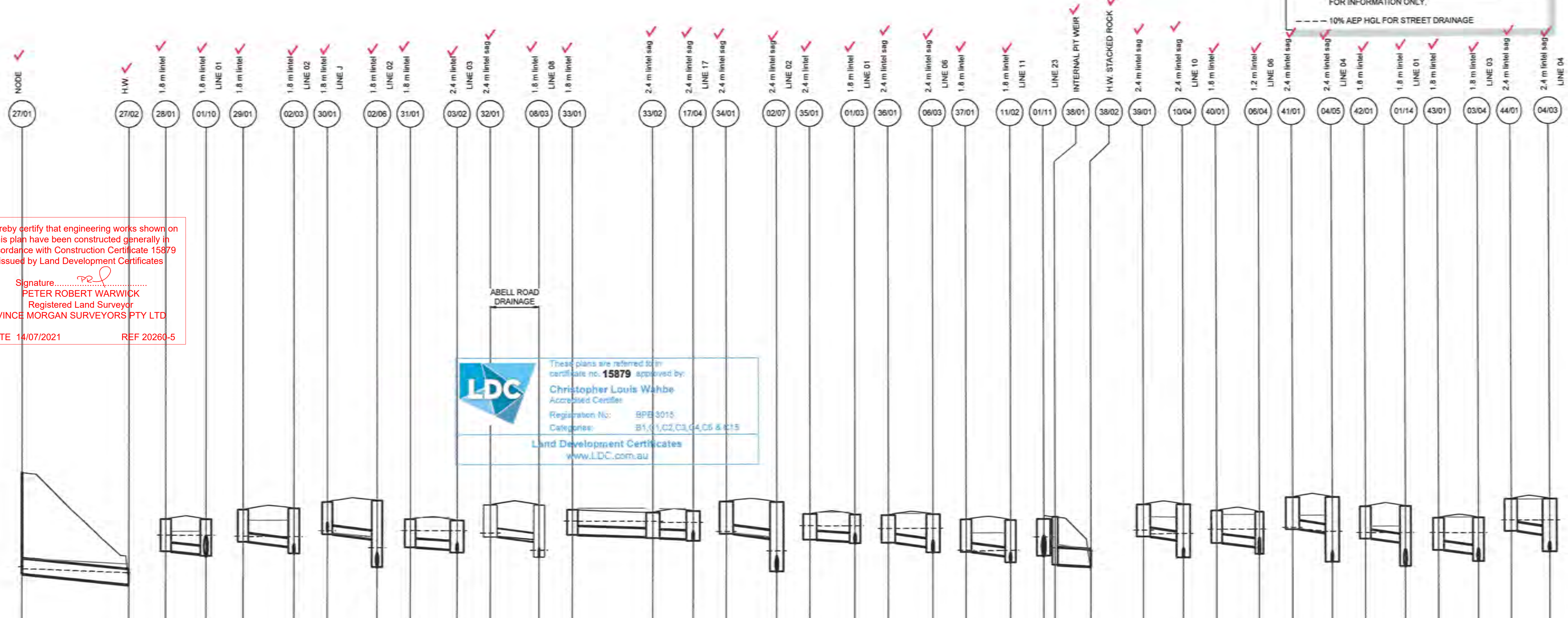

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	LINE 27	LINE 28	LINE 29	LINE 30	LINE 31	LINE 32	LINE 33	LINE 33	LINE 34	LINE 35	LINE 36	LINE 37	LINE 38	LINE 38	LINE 39	LINE 40	LINE 41	LINE 42	LINE 43	LINE 44
DATUM (m)	15.00	14.00	16.00	16.00	15.00	16.00	14.00		16.00	15.00	16.00	16.00	14.00		16.00	16.00	16.00	14.00	15.00	16.00
PEAK FLOW (L/s)	619	25	29	47	28	46	24	69	21	39	22	15	1546	1546	83	24	12	33	29	26
PIPE SIZE (mm)	675 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	✓ 3000mm	750 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	Weir	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	2.0	~~1.5~~ 2.1	2.0 ✓	~~2.0~~ 2.5	~~1.0~~ 1.2	2.0 ✓	0.6 ✓	~~0.5~~ 0.4	~~2.0~~ 1.7	~~1.0~~ 1.1	~~2.0~~ 2.8	~~2.0~~ 2.5	-0.0 ✓	~~1.0~~ 0.7	~~2.0~~ 2.2	~~2.0~~ 2.4	~~2.0~~ 2.1	~~2.0~~ 1.75	~~2.0~~ 3.1	~~2.0~~ 2.6
PIPE COVER MINIMUM	-0.64	1.10	1.10	1.10	0.90	1.10	0.70	0.82	1.10	0.80	0.90	1.10	0.45		1.10	1.10	1.10	1.10	1.10	1.10
FULL PIPE VELOCITY (m/s)	2.54	0.82	1.10	1.30	0.84	1.20	0.65	0.66	1.06	0.85	0.76	0.95	2.14	3.53	1.27	1.02	0.92	1.03	1.02	0.95
HGL GRADE (%)	0.75	0.02	-0.01	1.41	0.01	1.34	0.01	0.04	1.63	0.02	0.01	-0.36	17.6	1.92	-0.09	0.01	1.38	-0.02	0	0.02
WAE																				

	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
LINE 27	20.95, 19.841, 19.66	20.95, 19.601, 19.09	24.146, 19.78	855.99	1.939, 25.989
LINE 28	20.344, 20.342, 20.255	19.61, 19.46, 19.43	21.07, 20.39	214.29, 213.57	0, 9.028
LINE 29	22.288, 22.289, 22.253	21.97, 21.75, 21.30	23.51, 23.37	61.27, 54.18	0, 11.459
LINE 30	22.418, 22.258, 21.732	22.36, 22.10, 20.88	23.82, 23.89	376.98, 369.84	0, 11.315
LINE 31	21.54, 21.539, 21.506	20.8, 20.88, 20.68	22.00, 21.97	128.95, 123.44	0, 10.554
LINE 32	22.277, 22.129, 21.524	22.21, 22.01, 21.34	23.69, 23.61	1154.06, 1153.74	0, 11.005
LINE 33	20.953, 20.951, 20.899, 20.895, 20.807	20.32, 20.21, 20.20, 20.18, 20.11	21.44, 21.34, 21.37	50.05, 68.24, 67.28	0, 18.184, 27.235
LINE 34	22.4, 22.215, 21.494	22.30, 22.13, 20.675	23.77, 23.76	865.83, 853.94	0, 11.335
LINE 35	21.722, 21.72, 21.681	21.06, 20.96, 20.94	22.21, 22.16	207.65, 212.41	0, 10.185
LINE 36	22.593, 22.592, 22.544	21.56, 21.70, 21.47	23.19, 23.21	206.00, 201.36	0, 10.127
LINE 37	21.549, 21.585, 21.55	21.33, 21.28, 20.98, 19.41	22.56, 22.51	134.58, 130.00	0, 10.099
LINE 38	20.181, 19.73, 19.714, 19.558	19.74, 19.74, 18.96, 18.79, 18.79	20.33, 21.10, 19.58, 19.6	195.32, 195.30	0, 2.563, 10.687
LINE 39	22.31, 22.318, 22.166	22.13, 21.86, 21.20	23.86, 23.62	348.85, 349.81	0, 9.051
LINE 40	22.506, 22.505, 22.453	21.86, 21.84, 21.34	23.32, 23.28	536.52, 533.08	0, 9.634
LINE 41	22.516, 22.392, 22.278	22.47, 22.29, 21.98	23.90, 23.90	784.76, 784.76	0, 9
LINE 42	20.321, 20.323	20.01, 19.87, 18.80	21.47, 21.49	114.00, 113.00	0, 9.055
LINE 43	21.314, 21.314, 21.297	20.34, 20.27, 20.01	21.96, 21.84	71.20, 70.78	0, 9.009
LINE 44	22.866, 22.864, 22.756	22.33, 22.13, 21.38	23.79, 23.79	714.67, 714.75	0, 9

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE LONG SECTION 28 UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
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AZIMUTH: AHD
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 12

PLAN No: 998511/CC453 D
FILE No: 998511CC453
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 3:45:30 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5\PRECINCT 5 DOCUMENTATION\998511CC453.dwg

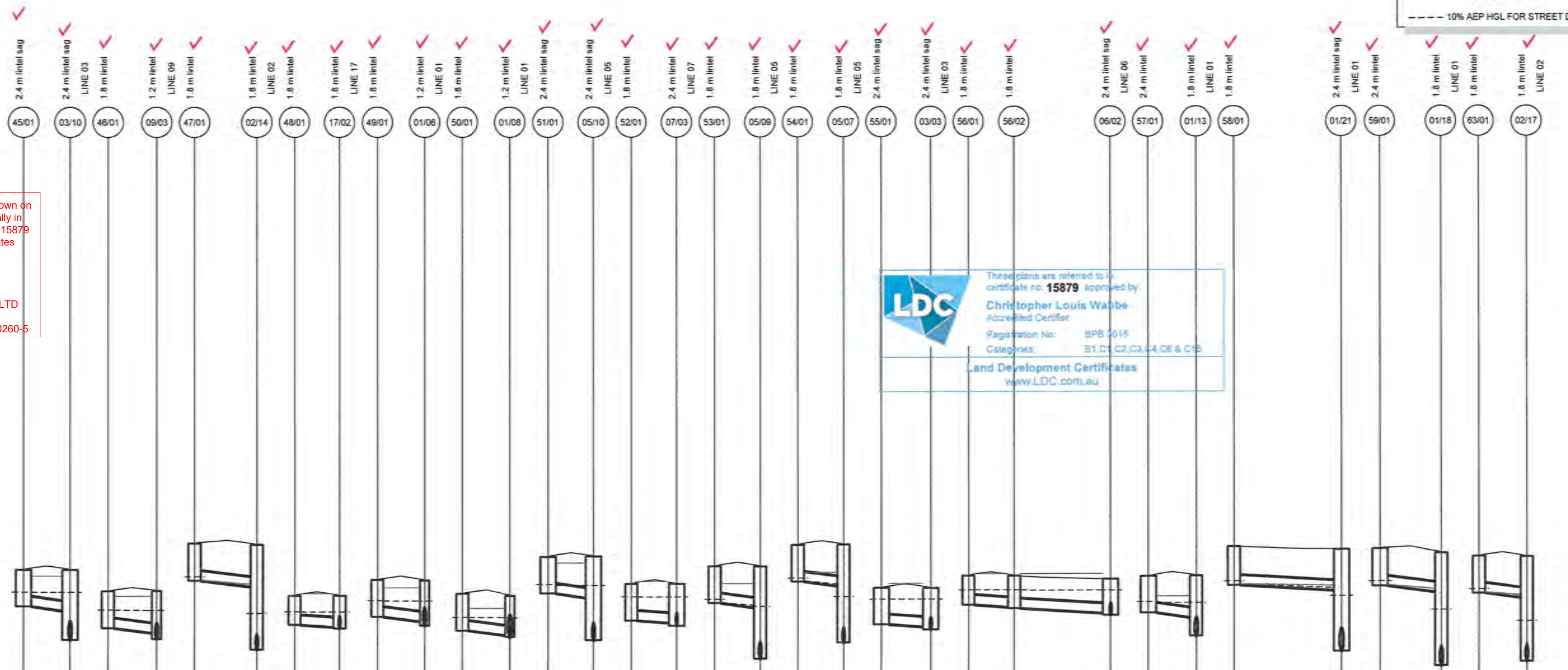
NOTE:
——— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
– – – – 10% AEP HGL FOR STREET DRAINAGE

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no: 15879 approved by
Christopher Louis Wabbe
Accredited Certifier
Registration No: BPB 0015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au



	LINE 45	LINE 46	LINE 47	LINE 48	LINE 49	LINE 50	LINE 51	LINE 52	LINE 53	LINE 54	LINE 55	LINE 56	LINE 56	LINE 57	LINE 58	LINE 59	LINE 63
DATUM (m)	14.00	16.00	15.00	15.00	15.00	15.00	14.00	16.00	15.00	15.00	15.00	16.00		14.00	13.00	14.00	15.00
PEAK FLOW (L/s)	-33	26	32	27	23	24	58	30	35	31	-72	24	42	46	34	54	36
PIPE SIZE (mm)	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓	375 ✓
PIPE CLASS	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2	RRJ2
PIPE GRADE (%)	2.0	~~2.0~~ 4.5	~~2.0~~ 1.3	1.0 ✓	~~2.0~~ 2.2	~~2.0~~ 2.2	~~2.0~~ 1.8	~~1.0~~ 1.6	~~2.0~~ 2.8	~~2.0~~ 1.8	~~1.0~~ 2.5	~~1.0~~ 0.9	~~1.0~~ 1.4	~~2.0~~ 1.6	~~1.0~~ 2.0	~~2.0~~ 1.1	~~2.0~~ 1.8
PIPE COVER MINIMUM	1.10	1.10	1.10	0.80	1.10	1.10	1.10	1.10	1.10	1.10	1.10	0.80	0.86	1.10	1.10	1.10	1.10
FULL PIPE VELOCITY (m/s)	0.94	0.86	1.03	0.76	0.88	0.80	1.19	0.79	1.10	1.08	0.67	0.76	0.81	0.95	0.93	1.25	1.12
HGL GRADE (%)	0	0.02	1.46	0.01	0.02	0.02	0.02	0.01	1.3	1.34	0.02	0	0.03	0.03	0.68	1.37	1.33
WAE																	
HYDRAULIC GRADE LINE	20.747 / 20.747 / 20.654	22.038 / 22.036 / 21.969	22.218 / 22.038 / 20.849	20.957 / 20.956 / 20.942	21.392 / 21.39 / 21.336	20.734 / 20.732 / 20.694	20.998 / 20.996 / 20.838	22.538 / 22.537 / 22.495	21.32 / 21.203 / 21.111	22.161 / 22.04 / 21.512	21.439 / 21.437 / 21.37	22.792 / 22.792	22.782 / 22.776 / 22.693	20.29 / 20.287	20.006 / 19.861 / 19.379	20.967 / 20.801 / 19.911	21.669 / 21.543 / 20.514
INVERT LEVEL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DESIGN SURFACE LEVEL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ROAD CHAINAGE	16.56 / 15.00	457.67 / 454.42	457.39 / 449.26	30.79 / 31.00	379.01 / 376.42	301.37 / 298.60	15.23 / 15.22	143.56 / 143.96	38.15 / 38.06	24.50 / 23.60	93.33 / 97.03	133.53	134.77 / 153.90	139.00 / 136.00	148.18 / 126.90	60.00 / 67.82	376.69 / 373.65
PIPE CHAINAGE	0 / 9.138	0 / 9.57	0 / 12.296	0 / 9.002	0 / 9.364	0 / 9.416	0 / 9	0 / 9.009	0 / 9	0 / 9.045	0 / 9.763	0	9.085 / 28.215	0 / 9.487	0 / 21.284	0 / 12.129	0 / 9.502

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 13

PLAN No: 998511/CC454 C
FILE No: 998511CC454
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:52:39 PM File Name: J:\99851D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC454.dwg

NOTE:
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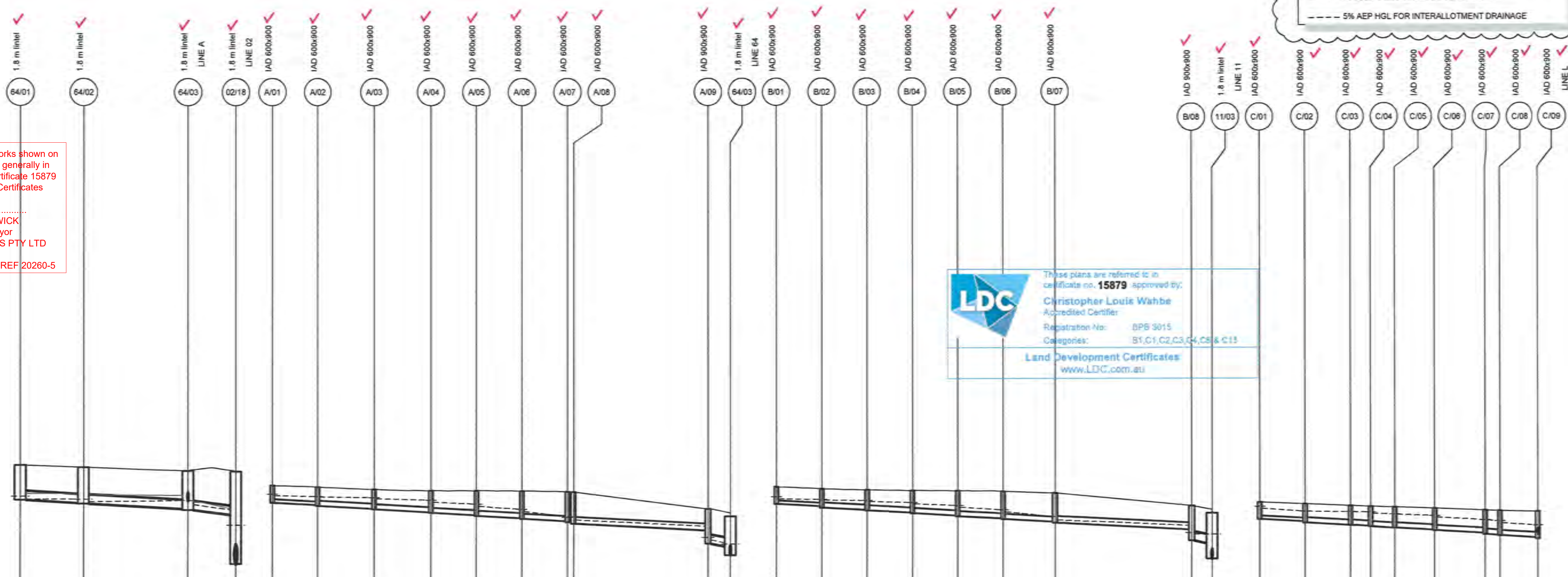

LINE 64 (DATUM (m) 14.00)

Segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
64/01–64/02	30	375 ✓	RRJ2	~~1.0~~ 1.3	1.10	0.82	0.13
64/02–64/03	59	375 ✓	RRJ2	~~1.0~~ 0.8	1.17	0.87	-0.18
64/03–02/18	166	375 ✓	RRJ2	~~2.0~~ 2.1	1.35	1.78	2.18

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
64/01		21.46	21.40	22.31	354.24	0
64/02		21.442 / 21.338	21.33 / 21.21	22.82	340.42	13.825
64/03		21.379 / 21.201	21.03 / 20.94	22.88	317.50	36.743
02/18		20.972 / 20.289	20.72 / 18.81	22.86	312.12	47.225

LINE 64

LINE A (DATUM (m) 16.00)

Segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
A/01–A/02	13	150 ✓	uPVC	1.0 ✓	0.60	0.76	0.37
A/02–A/03	26	225 ✓	uPVC	~~1.0~~ 1.2	0.60	1.03	0.18
A/03–A/04	41	225 ✓	uPVC	1.0 ✓	0.65	1.02	0.47
A/04–A/05	56	225 ✓	uPVC	1.0 ✓	0.76	1.40	0.9
A/05–A/06	68	225 ✓	uPVC	1.0 ✓	0.88	1.70	1.34
A/06–A/07	80	225 ✓	uPVC	1.0 ✓	1.00	2.02	2.17
A/07–A/08	93	300 ✓	uPVC	~~1.0~~ 2.7	1.04	1.79	-2.29
A/08–A/09	91	300 ✓	uPVC	~~1.0~~ 0.9	0.65	1.50	0.93
A/09–64/03	91	375 ✓	RRJ2	~~2.5~~ 4.0	1.10	1.44	2.82

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
A/01		23.59	23.27	24.03		0
A/02		23.553 / 23.531	23.17 / 23.16	23.98		10
A/03		23.508 / 23.449	23.01 / 23.00	23.86		22.5
A/04		23.39 / 23.306	22.88 / 22.84	23.83		35
A/05		23.216 / 23.123	22.74 / 22.71	23.82		45
A/06		22.989 / 22.896	22.61 / 22.58	23.79		55
A/07		22.679 / 22.64	22.48 / 22.45 / 22.41	23.76		65
A/08		22.671 / 22.52	22.35	23.74		66.352
A/09		22.244 / 21.639	22.09 / [illegible] / 21.31	23.00	319.05	95.96
64/03		21.501 / 21.248	20.94	22.88	317.50	100.854

LINE A

LINE B (DATUM (m) 16.00)

Segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
B/01–B/02	13	150 ✓	uPVC	~~1.0~~ 1.5	0.60	0.79	0.39
B/02–B/03	35	225 ✓	uPVC	~~1.0~~ 1.3	0.60	1.17	0.18
B/03–B/04	38	225 ✓	uPVC	~~1.0~~ 1.4	0.68	1.04	0.4
B/04–B/05	50	225 ✓	uPVC	~~1.0~~ 0.9	0.78	1.24	0.71
B/05–B/06	61	225 ✓	uPVC	~~1.0~~ 0.4	0.89	1.55	1.1
B/06–B/07	73	225 ✓	uPVC	~~1.0~~ 1.6	0.99	1.84	1.8
B/07–B/08	88	300 ✓	uPVC	✓ 1.0	0.76	1.49	0.82
B/08–11/03	87	375 ✓	RRJ2	~~2.5~~ 4.2	1.10	1.40	0.04

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
B/01		23.44	23.19	23.91		0
B/02		23.401 / 23.376	23.06 / 23.01	23.86		10.026
B/03		23.358 / 23.308	22.88 / 22.87	23.79		20
B/04		23.268 / 23.202	22.74 / 22.73	23.73		29.984
B/05		23.131 / 23.045	22.64 / 22.61	23.73		39.989
B/06		22.935 / 22.849	22.58 / 22.52	23.71		49.994
B/07		22.642 / 22.49	22.35 / 22.31	23.62		61.5
B/08		22.243 / 21.866	22.01 / 21.41 / 21.34	23.08	108.47	91.528
11/03		21.864 / 21.698	20.74	22.74	107.05	96.012

LINE B

LONG SECTIONS UPDATED

LINE C (DATUM (m) 15.00)

Segment	PEAK FLOW (L/s)	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE COVER MINIMUM	FULL PIPE VELOCITY (m/s)	HGL GRADE (%)
C/01–C/02	19	150 ✓	uPVC	~~1.0~~ 1.5	0.60	1.10	1.26
C/02–C/03	42	225 ✓	uPVC	~~1.0~~ 1.1	0.60	1.28	0.25
C/03–C/04	32	225 ✓	uPVC	~~1.0~~ 0.6	0.62	1.01	0.27
C/04–C/05	44	225 ✓	uPVC	~~1.0~~ 1.5	0.67	1.14	0.56
C/05–C/06	46	225 ✓	uPVC	~~1.0~~ 1.5	0.68	1.23	0.56
C/06–C/07	59	225 ✓	uPVC	~~1.0~~ 1.5	0.74	1.50	0.94
C/07–C/08	63	225 ✓	uPVC	~~1.0~~ 2.7	0.82	1.58	0.74
C/08–C/09	78	225 ✓	uPVC	~~1.0~~ 0.5	0.87	1.96	1.05

Pit	WAE	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
C/01		21.984	21.32	22.38		0
C/02		21.858 / 21.854	21.38 / 21.36	22.18		10
C/03		21.829 / 21.822	21.28 / 21.26 / 21.22	22.1		20.057
C/04		21.81 / 21.754	21.19 / 21.12	22.07		24.476
C/05		21.724 / 21.71	21.11 / 21.0	22.03		29.813
C/06		21.661 / 21.581	21.0 / 20.86	21.98		38.573
C/07		21.476 / 21.453	20.82 / 20.74	21.86		49.708
C/08		21.429 / 21.326	20.75 / 20.69	21.84		52.97
C/09		21.233	[illegible]	21.83		61.853

LINE C

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
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J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 14

PLAN No: 998511/CC455 C
FILE No: 998511CC455
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:52:40 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC455.dwg

NOTE:
- - - - 5% AEP HGL FOR INTERALLOTMENT DRAINAGE

Pit	Description
C/09	IAD 600x900, LINE L
C/10	IAD 900x900
23/02	3.0 m lintel sag, LINE 23
D/01	IAD 600x900
D/02	IAD 600x900
D/03	IAD 600x900
D/04	IAD 600x900
D/05	IAD 600x900
D/06	IAD 900x900
D/07	IAD 900x900
D/08	IAD 900x900
D/09	IAD 900x900
01/20	2.4 m lintel, LINE 01
E/01	IAD 600x900
E/02	IAD 600x900
E/03	IAD 600x900
E/04	IAD 600x900
E/05	IAD 600x900
E/06	IAD 900x900
E/07	IAD 900x900
E/08	IAD 900x900
05/12	1.8 m lintel, LINE 05
F/01	IAD 600x900
F/02	IAD 600x900
F/03	IAD 600x900
F/04	IAD 600x900
F/05	IAD 600x900
F/06	IAD 900x900
F/07	IAD 900x900
F/08	IAD 900x900
F/09	IAD 900x900
03/09	1.8 m lintel

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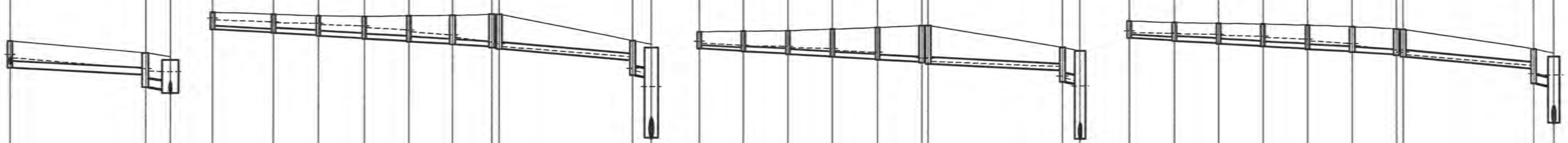


LINE C

DATUM (m): 14.00

Pipe segment	C/09 – C/10	C/10 – 23/02
PEAK FLOW (L/s)	130	124
PIPE SIZE (mm)	300 ✓	375 ✓
PIPE CLASS	uPVC	RRJ2
PIPE GRADE (%)	1.0 ✓	~~1.0~~ 1.7
PIPE COVER MINIMUM	0.68	1.10
FULL PIPE VELOCITY (m/s)	1.87	1.30
HGL GRADE (%)	1.55	0.43

Pit	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
C/09	21.233 / 21.08	20.689 / 20.639	21.833		61.853
C/10	20.61 / 20.503	20.336 / 19.74, 19.66	21.303	191.83	92.141
23/02	20.479 / 20.274	19.48	20.96	195.32	97.681

LINE D

DATUM (m): 14.00

Pipe segment	D/01–D/02	D/02–D/03	D/03–D/04	D/04–D/05	D/05–D/06	D/06–D/07	D/07–D/08	D/08–D/09	D/09–01/20
PEAK FLOW (L/s)	16	33	45	58	70	82	96	96	96
PIPE SIZE (mm)	150 ✓	225 ✓	225 ✓	225 ✓	225 ✓	225 ✓	300 ✓	300 ✓	375 ✓
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ2
PIPE GRADE (%)	1.0 ✓	~~1.0~~ 1.2	~~1.0~~ 0.8	~~1.0~~ 1.5	~~1.0~~ 0.8	1.0 0.4	1.0 1.2	1.7 ✓	2.0 ✓
PIPE COVER MINIMUM	0.60	0.61	0.67	0.77	0.93	1.08	1.19	0.60	1.10
FULL PIPE VELOCITY (m/s)	0.89	1.25	1.13	1.45	1.75	2.07	1.67	1.87	1.36
HGL GRADE (%)	0.7	0.3	0.6	0.97	1.47	2.3	4.85	1.53	2.83

Pit	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
D/01	22.774	22.37	23.10		0
D/02	22.679 / 22.643	22.21 / 22.20	23.02		13.651
D/03	22.613 / 22.558	22.08 / 22.03	22.93		23.651
D/04	22.496 / 22.421	21.86 / 21.96	22.82		34.066
D/05	22.324 / 22.232	21.82 / 22.76	22.96		44.066
D/06	22.088 / 21.991	21.71 / 21.67	22.97		53.866
D/07	21.788 / 21.782	21.64 / 21.58, 21.57	23.05		62.698
D/08	21.703 / 21.568	21.47	22.99		64.328
D/09	21.11 / 20.482	20.96 / 20.35, 20.21	21.62	105.30	94.299
01/20	20.363 / 19.72	17.42	21.48	105.23	98.5

LINE E

DATUM (m): 15.00

Pipe segment	E/01–E/02	E/02–E/03	E/03–E/04	E/04–E/05	E/05–E/06	E/06–E/07	E/07–E/08	E/08–05/12
PEAK FLOW (L/s)	16	35	41	54	66	86	82	81
PIPE SIZE (mm)	150 ✓	225 ✓	225 ✓	225 ✓	225 ✓	300 ✓	300 ✓	375 ✓
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ2
PIPE GRADE (%)	1.0 ✓	1.0 ✓	~~1.0~~ 1.1	~~1.0~~ 0.4	~~1.0~~ 1.1	~~1.0~~ 4.0	~~1.0~~ 1.1	~~2.2~~ 4.3
PIPE COVER MINIMUM	0.60	0.68	0.82	1.02	1.22	1.34	0.74	1.10
FULL PIPE VELOCITY (m/s)	0.91	1.21	1.05	1.35	1.69	1.78	1.49	1.33
HGL GRADE (%)	0.85	0.23	0.5	0.85	1.32	1.65	0.8	2.9

Pit	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
E/01	22.695	22.46	23.21		0
E/02	22.611 / 22.584	22.36 / 22.35	23.24		9.846
E/03	22.561 / 22.499	22.24 / 22.21	23.28		19.823
E/04	22.449 / 22.368	22.10 / 22.08	23.30		29.764
E/05	22.281 / 22.174	22.00 / 21.97	23.38		39.957
E/06	22.043 / 22.024	21.84 / 21.88, 21.83	23.46		49.898
E/07	22 / 21.859	21.76	23.46		51.35
E/08	21.616 / 21.099	21.44 / 20.93, 20.78	22.44	244.35	81.6
05/12	20.984 / 20.532	18.38	22.16	244.29	85.561

LINE F

DATUM (m): 15.00

Pipe segment	F/01–F/02	F/02–F/03	F/03–F/04	F/04–F/05	F/05–F/06	F/06–F/07	F/07–F/08	F/08–F/09	F/09–03/09
PEAK FLOW (L/s)	13	34	38	50	62	74	86	86	85
PIPE SIZE (mm)	150 ✓	225 ✓	225 ✓	225 ✓	225 ✓	225 ✓	300 ✓	300 ✓	375 ✓
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ2
PIPE GRADE (%)	~~1.0~~ 1.1	~~1.0~~ 1.1	~~1.0~~ 1.1	~~1.0~~ 1.2	~~1.0~~ 1.1	~~1.0~~ 0.9	~~1.0~~ 0.5	~~1.0~~ 2.0	~~2.7~~ 4.2
PIPE COVER MINIMUM	0.60	0.60	0.68	0.77	0.84	0.90	0.86	0.60	1.10
FULL PIPE VELOCITY (m/s)	0.74	1.17	1.03	1.25	1.56	1.88	1.59	1.91	1.42
HGL GRADE (%)	0.39	0.18	0.41	0.73	1.13	1.81	5.33	1.67	0.11

Pit	HYDRAULIC GRADE LINE	INVERT LEVEL	DESIGN SURFACE LEVEL	ROAD CHAINAGE	PIPE CHAINAGE
F/01	23.119	22.82	23.57		0
F/02	23.08 / 23.054	22.71 / 22.88	23.52		10.067
F/03	23.036 / 22.985	22.67 / 22.66	23.46		20.067
F/04	22.944 / 22.877	22.46 / 22.41	23.43		30.034
F/05	22.804 / 22.716	22.31 / 22.30	23.40		40.034
F/06	22.603 / 22.505	22.20 / 22.16	23.30		50.067
F/07	22.325 / 22.311	22.07 / 22.04, 22.03	23.20		60.034
F/08	22.231 / 22.098	21.97	23.20		61.534
F/09	21.598 / 21.184	21.39 / 20.76, 20.68	22.27	35.97	91.426
03/09	21.179 / 21.125	18.02	21.38	34.83	95.933

WAE

C LONG SECTIONS UPDATED

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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 info@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 15

PLAN No: 998511/CC456 C
FILE No: 998511CC456
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:52:40 PM File Name: J:\9985DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC456.dwg

NOTE:
——— 1% AEP HGL PROVIDED FOR STREET DRAINAGE AND FOR INFORMATION ONLY.
- - - - 5% AEP HGL FOR INTERALLOTMENT DRAINAGE

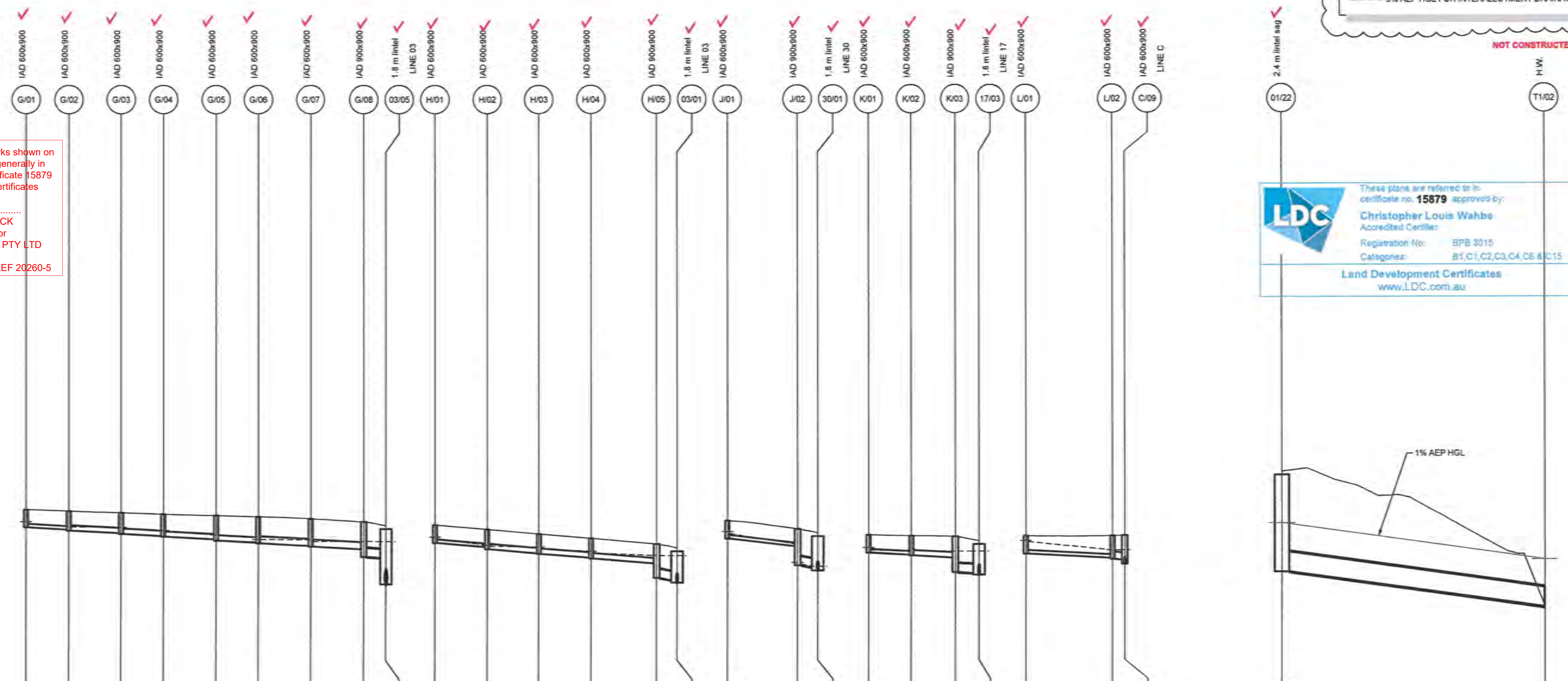
NOT CONSTRUCTED

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no. 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au



LINE G

DATUM (m)	15.00							
PEAK FLOW (L/s)	16	40	45	55	68	79	94	97
PIPE SIZE (mm)	150 ✓	225 ✓	225 ✓	225 ✓	225 ✓	300 ✓	300 ✓	375 ✓
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ2
PIPE GRADE (%)	1.0 ✓	~~1.0~~ 0.7	~~1.0~~ 1.5	1.0 ✓	1.0 ✓	~~1.0~~ 1.3	1.0 1.0	~~1.0~~ 1.5
PIPE COVER MINIMUM	0.60	0.60	0.66	0.72	0.83	0.82	0.86	1.00
FULL PIPE VELOCITY (m/s)	0.98	1.16	1.13	1.44	1.72	1.52	1.55	1.64
HGL GRADE (%)	1.13	0.11	0.49	1.09	1.39	0.21	-0.09	0.15

LINE H

DATUM (m)	16.00				
PEAK FLOW (L/s)	17	54	53	64	59
PIPE SIZE (mm)	150 ✓	225 ✓	225 ✓	225 ✓	375 ✓
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	RRJ2
PIPE GRADE (%)	1.6 ✓	~~1.0~~ 1.1	1.5 ✓	1.5 ✓	~~2.3~~ 3.1
PIPE COVER MINIMUM	0.60	0.60	0.60	0.60	1.00
FULL PIPE VELOCITY (m/s)	1.14	1.67	1.32	1.76	1.27
HGL GRADE (%)	2.13	0.23	0.7	0.75	0

LINE J

DATUM (m)	17.00	
PEAK FLOW (L/s)	22	22
PIPE SIZE (mm)	150 ✓	375 ✓
PIPE CLASS	uPVC	RRJ2
PIPE GRADE (%)	~~2.2~~ 2.4	~~2.3~~ 3.3
PIPE COVER MINIMUM	0.60	1.10
FULL PIPE VELOCITY (m/s)	1.43	1.06
HGL GRADE (%)	3.02	1.81

LINE K

DATUM (m)	15.00		
PEAK FLOW (L/s)	14	30	26
PIPE SIZE (mm)	150 ✓	225 ✓	375 ✓
PIPE CLASS	uPVC	uPVC	RRJ2
PIPE GRADE (%)	~~1.0~~ 1.4	~~1.0~~ 1.1	~~0.7~~ 1.5
PIPE COVER MINIMUM	0.60	0.60	1.00
FULL PIPE VELOCITY (m/s)	0.92	1.20	0.66
HGL GRADE (%)	0.31	0.06	0

LINE L

DATUM (m)	15.00	
PEAK FLOW (L/s)	24	65
PIPE SIZE (mm)	150 ✓	300 ✓
PIPE CLASS	uPVC	uPVC
PIPE GRADE (%)	~~1.0~~ 1.2	1.0 ✓
PIPE COVER MINIMUM	0.60	0.69
FULL PIPE VELOCITY (m/s)	1.37	1.30
HGL GRADE (%)	1.89	-0.7

LINE T1 (TEMPORARY)

DATUM (m)	12.00
PEAK FLOW (L/s)	2037
PIPE SIZE (mm)	825
PIPE CLASS	RRJ2
PIPE GRADE (%)	2.4
PIPE COVER MINIMUM	1.52
FULL PIPE VELOCITY (m/s)	3.69
HGL GRADE (%)	2.78

WAE
HYDRAULIC GRADE LINE
INVERT LEVEL
DESIGN SURFACE LEVEL
ROAD CHAINAGE
PIPE CHAINAGE

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

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

	AMENDMENT	DES	DRN	CKD	APR	DATE
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AZIMUTH: AHD
DATUM: MGA
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE LONGITUDINAL SECTIONS
SHEET 16

PLAN No: 998511/CC457 C
FILE No: 998511CC457
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September, 2019 2:52:40 PM File Name: J:\9985DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC457.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 10% AEP HYDROLOGIC RESULTS

PIT NAME	PIT TYPE	CATCHMENT AREA	PERCENT IMPERVIOUS	Tc IMP	Tc PERV	CRITICAL STORM	APPROACH FLOW	CAPTURED FLOW	UNCAPTURED FLOW	GRATE DEPTH	ROAD GRADE	ROAD CROSSFALL	BYPASS PIT	BYPASS CHANNEL FLOW	U/S FLOW WIDTH	U/S VxD	D/S FLOW WIDTH	D/S VxD	COMMENTS
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)
01/01	2.4 m lintel	0.122	85	5	5	15	46	44	2	83	0.7	3	01/02	32	1.91	0.04	1.88	0.05	
01/02	1.8 m lintel	0.083	85	5	5	15	32	30	3	82	0.7	3	01/03	31	1.88	0.04	1.85	0.04	
01/03	1.8 m lintel	0.077	85	5	5	15	31	29	2	81	0.7	3	01/04	30	1.85	0.04	1.81	0.04	
01/04	2.4 m lintel sag	0.131	85	5	5	15	52	61	0	61	0.6	2.7	01/05	0					
01/05	2.4 m lintel sag	0.12	85	5	5	5	42	42	0	50	0.4	2.9	01/06	0	0.53	0.02	1.7	0.01	
01/06	1.2 m lintel	0.002	95	5	5	25	0	0	0	83	0.3	3.1	01/07	39	1.93	0.04	1.9	0.05	
01/07	1.8 m lintel	0.104	85	5	5	15	33	31	2	65	0.7	3	33/02	25	1.3	0.05	1.3	0.05	
01/08	1.2 m lintel		0	5	5	15	0	0	0	77	0.4	4.6	01/09	26	1.71	0.03	1.74	0.03	
01/09	1.8 m lintel	0.071	95	5	5	25	22	22	0	78	0.7	3	28/01	26	1.73	0.04	2.35	0.03	
01/10	1.8 m lintel	0.091	95	5	5	25	31	30	1	52	0.7	3	01/11	4	0.92	0.01	0.45	0.02	
01/11	2.4 m lintel sag	0.038	85	5	5	5	10	10	0	21	0.1	3	38/01	0					SPLITTER/SPECIAL PIT
01/12	1.8 m lintel		0			15	0	0	0	56	0.7	3	01/11	7	1.01	0.02	0.78	0.02	
01/13	1.8 m lintel	0.01	85	5	5	5	3	3	0	0	0.7	3	01/12	0	0	0	0	0	
01/14	1.8 m lintel	0.023	85	5	5	5	8	8	0	40	0.7	3	01/13	3	0.47	0.01	0.43	0.02	
01/15	1.8 m lintel	0.023	95	5	5	15	8	8	0	48	2.2	3	01/14	8	0.75	0.03	0.75	0.03	
01/16	1.2 m lintel		0			15	8	8	0	46	2.5	5.2	01/15	8	0.65	0.03	0.75	0.03	
01/17	1.8 m lintel		0			25	9	9	0	43	2.1	3	01/18	7	0.55	0.03	0.55	0.03	
01/18	1.8 m lintel	0.02	85	5	5	5	7	7	0	36	2.1	3.1	01/19	4	0.42	0.02	1.09	0.01	
01/19	1.8 m lintel	0.011	95	5	5	15	4	4	0	58	1.8	2.6	01/22	13	1.09	0.03	1.09	0.03	
01/20	2.4 m lintel	0.084	85	5	5	25	39	37	2	87	1.4	3	01/21	35	2.05	0.04	1.96	0.05	
01/21	2.4 m lintel sag	0.187	85	5	5	5	71	74	0	68	0.1	3	01/22	0	0	0	0	0	
01/22	2.4 m lintel sag	0.076	85	5	5	5	24	23	0	35	0.1	3	01/23	0					
02/01	2.4 m lintel sag	0.078	85	5	5	5	65	65	0	63	0.2	3	56/01	0	0	0	0	0	
02/02	2.4 m lintel sag	0.118	85	5	5	5	84	83	0	73	0.2	3	56/02	0	0	0	0	0	
02/03	1.8 m lintel		0			25	13	13	0	72	0.5	3	02/02	22	1.55	0.04	1.56	0.04	
02/04	2.4 m lintel sag	0.141	85	5	5	5	4	4	0	11	0.4	1.9	02/03	0	0.29	0.01	1.06	0	
02/05	2.4 m lintel sag	0.081	85	5	5	5	29	29	0	41	0.5	2.3	29/01	0	0	0	0	0	
02/06	1.8 m lintel		0			25	3	3	0	67	0.7	4.1	02/05	30	1.37	0.06	1.37	0.06	
02/07	2.4 m lintel sag	0.162	85	5	5	5	62	61	0	61	0.9	3.7	02/06	0	0.21	0	1.37	0	
02/08	2.4 m lintel sag	0.024	85	5	5	5	9	9	0	18	0.1	3	27/01	0					SPLITTER PIT
02/09	1.8 m lintel		0	5	5	15	3	3	0	58	1	3	02/08	9	1.06	0.02	0.94	0.02	
02/10	2.4 m lintel sag	0.025	95	5	5	5	5	5	0	13	0.4	3.9	02/09	0					EX. ABELL ROAD
02/11	2.4 m lintel sag	0.138	85	5	5	25	52	52	0	56	0.5	2	34/01	0	0	0	0	0	EX. ABELL ROAD
02/12	1.8 m lintel		0			5	5	5	0	41	0.9	3	02/13	8	0.49	0.03	0.74	0.03	EX. ABELL ROAD
02/13	1.2 m lintel	0.021	95	5	5	15	8	8	0	48	1.3	3	02/14	5	0.74	0.02	0.68	0.02	
02/14	1.8 m lintel	0.015	85	5	5	15	5	5	0	46	0.6	3	02/15	4	0.68	0.02	0.54	0.02	
02/15	1.8 m lintel	0.013	85	5	5	5	4	4	0	42	0.6	3	02/16	4	0.54	0.01	1.1	0.01	
02/16	1.8 m lintel	0.011	85	5	5	25	4	4	0	59	0.7	3	02/17	10	1.1	0.02	1.55	0.02	
02/17	1.8 m lintel	0.028	85	5	5	15	10	10	0	72	0.7	3	02/18	20	1.55	0.04	1.7	0.03	
02/18	1.8 m lintel	0.058	85	5	5	25	20	20	0	76	0.7	3	02/19	25	1.7	0.04	1.66	0.04	
02/19	1.8 m lintel	0.072	85	5	5	25	25	24	1	74	0.7	3	02/20	22	1.63	0.04	1.58	0.04	
02/20	1.8 m lintel	0.066	85	5	5	25	22	22	0	63	0.7	3	01/22	11	1.25	0.02	1.11	0.03	
03/01	1.8 m lintel	0.077	85	5	5	15	28	27	1	84	0.7	3	03/02	34	1.94	0.05	2.38	0.04	
03/02	2.4 m lintel	0.09	85	5	5	25	34	33	0	97	0.7	3	03/03	40	2.38	0.04	2.07	0.05	
03/03	2.4 m lintel sag	0.2	95	5	5	5	75	77	0	70	0.1	3	55/01	0	0	0	0	0	
03/04	1.8 m lintel	0.017	95	5	5	25	8	8	0	90	0.7	3	03/03	35	2.13	0.04	1.94	0.05	
03/05	1.8 m lintel	0.082	85	5	5	15	29	28	2	54	0.7	3	03/04	8	0.94	0.02	2.13	0.01	
03/06	1.8 m lintel	0.054	95	5	5	25	20	20	0	80	0.7	3	03/05	29	1.81	0.04	1.8	0.04	
03/07	1.2 m lintel	0.003	85	5	5	15	1	1	0	58	1.3	2.3	45/01	16	1.08	0.04	1.08	0.04	
03/08	1.8 m lintel	0.075	85	5	5	25	31	30	1	70	1.3	3	03/09	30	1.47	0.06	1.47	0.06	
03/09	1.8 m lintel	0.078	85	5	5	15	30	29	1	58	2.2	3	03/10	16	1.09	0.04	1.09	0.04	
03/10	2.4 m lintel sag	0.081	85	5	5	5	33	36	0	45	0.9	3.1	45/01	0					
03/11	1.8 m lintel	0.085	85	5	5	15	34	32	2	53	2.6	3.1	03/10	16	0.92	0.05	0.92	0.05	
04/01	2.4 m lintel sag	0.021	95	5	5	5	19	19	0	31	0.9	3	40/01	0	0	0	0	0	
04/02	2.4 m lintel sag	0.16	85	5	5	5	22	22	0	34	0.1	3	25/01	0	0	0	0	0	
04/03	2.4 m lintel sag	0.082	85	5	5	25	74	118	0	89	0.2	3	04/02	0	0	0	0	0	
04/04	1.8 m lintel		0			15	29	27	2	66	1	3	04/03	13	1.34	0.03	2.12	0.02	
04/05	2.4 m lintel sag	0.12	85	5	5	5	79	77	0	70	0.2	3	04/04	0	0	0	0	0	
04/06	1.8 m lintel	0.011	85	5	5	25	4	4	0	74	1	3	04/05	10	1.28	0.02	1.57	0.02	
04/07	1.8 m lintel	0.011	95	5	5	25	4	4	0	87	0.7	3	02/07	61	2.06	0.08	2.06	0.08	
05/01	1.8 m lintel	0.038	95	5	5	25	12	12	0	72	0.7	3	03/01	28	1.55	0.05	1.94	0.04	
05/02	1.8 m lintel	0.078	85	5	5	25	29	27	2	92	0.7	3	01/01	46	2.21	0.05	2.21	0.05	
05/03	1.8 m lintel	0.06	85	5	5	25	20	20	0	80	0.7	3	05/02	29	1.81	0.04	2.21	0.03	
05/04	1.2 m lintel	0.005	85	5	5	25	0	0	0	73	0.3	3.8	05/03	22	1.59	0.03	1.81	0.03	
05/05	1.8 m lintel	0.024	95	5	5	25	4	4	0	61	0.7	3	05/01	12	1.19	0.03	1.55	0.02	
05/06	2.4 m lintel	0.127	85	5	5	5	49	47	2	45	0.7	3	05/05	4	0.62	0.02	1.19	0.01	
05/07	1.8 m lintel	0.084	85	5	5	25	32	31	1	91	0.9	3	05/06	49	2.18	0.06	2.18	0.06	EX. ABELL ROAD
05/08	1.8 m lintel	0.022	95	5	5	25	8	8	0	69	3.2	3	05/09	37	1.44	0.07	1.44	0.07	
05/09	1.8 m lintel	0.1	85	5	5	15	37	34	3	58	3.3	3	05/10	19	1.08	0.05	1.08	0.05	
05/10	2.4 m lintel sag	0.079	85	5	5	5	39	39	0	47	0.7	2.4	05/11	0	0.77	0.02	2.31	0.01	
05/11	1.2 m lintel		0	5	5	15	2	2	0	96	0.7	3	05/12	19	2.34	0.01	1.92	0.02	
05/12	1.8 m lintel	0.054	85	5	5	25	13	13	0	83	0.7	3	14/01	43	1.92	0.06	1.92	0.06	
06/01	2.4 m lintel sag	0.077	85	5	5	25	76	97	0	79	0.2	2	36/01	0	0	0	0	0	
06/02	2.4 m lintel sag	0.075	85	5	5	25	64	85	0	74	0.1	3	06/03	0	0	0	0	0	
06/03	2.4 m lintel sag	0.073	85	5	5	5	8	9	0	19	0.3	3.5	06/04	0	0.86	0.02	2.03	0.01	
06/04	1.2 m lintel	0.005	95	5	5	25	0	0	0	93	0.3	4	06/05	50	2.24	0.05	2.13	0.05	
06/05	2.4 m lintel	0.137	85	5	5	15	42	37	5	61	0.2	2.3	09/01	18	1.16	0.04	1.16	0.04	
07/01	3.0 m lintel sag		0			5	104	101	0	72	0.2	3	52/01	0	0	0	0	0	
07/02	3.0 m lintel sag		0			5	100	98	0	71	0.2	3	07/03	0	0	0	0	0	
07/03	2.4 m lintel		0			25	41	40	1	81	1	3	07/04	35	1.84	0.05	1.84	0.05	
07/04	1.8 m lintel	0.096	85	5	5	15	35	32	4	66	1	3	09/01	17	1.35	0.03	1.35	0.03	
08/01	2.4 m lintel sag		0			5	24	24	0	36	0.1	3	32/01	0	0	0	0	0	EX. ABELL ROAD
08/02	2.4 m lintel sag		0			5	27	26	0	38	0.1	3	08/03	0	0	0	0	0	EX. ABELL ROAD
08/03	1.8 m lintel		0			5	16	16	0	44	0.5	3.1	08/04	7	0.6	0.03	1.99	0.01	EX. ABELL ROAD
08/04	1.2 m lintel	0.021	95	5	5	25	7	7	0	85	2.3	3	59/01	63	1.99	0.08	1.99	0.08	
09/01	2.4 m lintel sag	0.074	85	5	5	5	35	42	0	50	0.6	3	09/02	0	0	0	0	0	
09/02	2.4 m lintel sag	0.114	85	5	5	5	48	46	0	52	0.4	2.4	09/03	0	0.76	0.02	2.13	0	

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: S1,C1,C2,C3,C4,C5 & C15
Land Development Certificates
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D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 1

PLAN No: 998511/CC458 D
FILE No: 998511CC458
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:45:30 PM File Name: J:\9985DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC458.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 10% AEP HYDROLOGIC RESULTS

PIT NAME	PIT TYPE	CATCHMENT AREA	PERCENT IMPERVIOUS	Tc IMP	Tc PERV	CRITICAL STORM	APPROACH FLOW	CAPTURED FLOW	UNCAPTURED FLOW	GRATE DEPTH	ROAD GRADE	ROAD CROSSFALL	BYPASS PIT	BYPASS CHANNEL FLOW	U/S FLOW WIDTH	U/S VxD	D/S FLOW WIDTH	D/S VxD	COMMENTS
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)
09/03	1.2 m lintel		0	5	5	25	2	2	0	89	1.1	2.1	09/04	49	2.12	0.05	2.12	0.05	
09/04	2.4 m lintel	0.135	85	5	5	15	44	42	2	65	0.7	3	01/04	22	1.29	0.05	1.29	0.05	
10/01	2.4 m lintel sag	0.02	85	5	5	5	30	30	0	42	0.6	3.1	07/01	0	0	0	0	0	
10/02	2.4 m lintel sag	0.036	85	5	5	5	53	52	0	56	0.7	3	07/02	0	0	0	0	0	
10/03	1.2 m lintel		0			15	3	3	0	34	0.8	2.1	10/02	5	0.4	0.03	1	0.01	
10/04	2.4 m lintel sag	0.03	95	5	5	25	12	62	0	61	0.1	3	02/04	3	0.42	0.01	0.41	0.02	
11/01	1.8 m lintel	0.076	85	5	5	25	29	28	1	90	0.7	3	11/02	44	2.16	0.05	2.16	0.05	
11/02	1.8 m lintel	0.115	85	5	5	15	44	40	4	83	0.7	3	11/03	33	1.93	0.05	2.17	0.04	
11/03	1.8 m lintel	0.08	85	5	5	25	33	32	2	91	0.7	3	11/04	44	2.17	0.05	2.17	0.05	
11/04	1.8 m lintel	0.117	85	5	5	25	44	40	4	79	0.7	3	03/08	31	1.78	0.05	1.78	0.05	
12/01	1.8 m lintel	0.077	95	5	5	25	32	31	1	87	0.9	3	63/01	39	2.06	0.05	2.05	0.05	
13/01	2.4 m lintel sag		0			5	109	105	0	83	0.1	3	54/01	0	0	0	0	0	EX. ABELL ROAD
13/02	2.4 m lintel sag		0			5	27	27	0	39	0.1	3	13/03	0	0	0	0	0	EX. ABELL ROAD
13/03	1.8 m lintel		0			5	9	9	0	41	1	3	13/04	8	0.48	0.03	1.44	0.02	EX. ABELL ROAD
13/04	1.2 m lintel	0.022	95	5	5	25	8	8	0	69	3.2	3	53/01	38	1.44	0.07	1.44	0.07	
14/01	1.8 m lintel	0.116	85	5	5	25	43	39	4	82	0.7	3	14/02	31	1.88	0.04	1.86	0.04	
14/02	1.8 m lintel	0.076	85	5	5	25	31	29	2	72	0.7	3	14/03	20	1.55	0.04	2	0.03	
14/03	1.8 m lintel	0.05	85	5	5	25	20	20	0	85	0.7	3	58/01	36	2	0.05	2.19	0.04	
15/01	1.8 m lintel	0.084	85	5	5	25	32	31	1	65	1.2	3	15/02	16	1.29	0.03	1.29	0.03	
15/02	2.4 m lintel sag	0.063	85	5	5	5	18	20	0	32	0.6	3.7	05/04	0	0.36	0.01	1.59	0	
15/03	2.4 m lintel sag	0.113	85	5	5	15	44	52	0	56	0.6	1.7	15/02	0					
15/04	2.4 m lintel	0.127	85	5	5	15	46	44	2	57	0.7	3	15/03	16	1.02	0.04	1.02	0.04	
16/01	2.4 m lintel sag		0			5	24	24	0	36	0.1	3	08/01	0	0	0	0	0	EX. ABELL ROAD
16/02	2.4 m lintel sag		0			5	27	27	0	39	0.1	3	08/02	0	0	0	0	0	EX. ABELL ROAD
16/03	1.8 m lintel	0.015	95	5	5	15	6	6	0	42	0.7	3	05/08	8	0.53	0.03	1.44	0.02	EX. ABELL ROAD
17/01	1.8 m lintel		0	5	5	25	6	6	0	73	0.7	3	17/02	21	1.58	0.04	1.63	0.03	
17/02	1.8 m lintel	0.057	85	5	5	15	21	21	0	75	0.7	3	17/03	23	1.63	0.04	1.8	0.03	
17/03	1.8 m lintel	0.061	85	5	5	15	23	22	1	79	0.7	3	17/04	20	1.8	0.03	1.5	0.04	
17/04	2.4 m lintel sag	0.077	85	5	5	5	24	24	0	36	0.2	1.7	01/08	0	0.5	0.02	1.28	0.01	
18/01	2.4 m lintel sag		0			5	60	60	0	60	0.2	3	13/01	0	0	0	0	0	EX. ABELL ROAD
18/02	1.8 m lintel		0			15	10	10	0	46	0.3	3	18/03	8	0.67	0.03	1.96	0.01	EX. ABELL ROAD
18/03	1.2 m lintel	0.022	95	5	5	25	8	8	0	84	1.3	3	47/01	37	1.96	0.05	1.96	0.05	
19/01	2.4 m lintel sag	0.128	95	5	5	25	50	53	0	57	0.1	3	02/10	5	0.67	0.02	0.54	0.02	EX. ABELL ROAD
19/02	2.4 m lintel sag	0.156	95	5	5	25	60	60	0	60	0.1	3	02/12	0	0	0	0	0	EX. ABELL ROAD
20/01	1.8 m lintel		0			15	43	37	6	77	1.2	3	20/02	33	1.73	0.05	1.73	0.05	
20/02	1.8 m lintel	0.078	85	5	5	25	33	32	2	75	1.2	3	15/03	28	1.63	0.05	1.63	0.05	
21/02	H.W.					5	0	0	0	0									HIGH FLOW OUTLET HW
22/01	2.4 m lintel sag	0.025	95	5	5	15	10	12	0	22	0.4	2.9	05/05	0	0	0	0	0	
22/02	2.4 m lintel sag	0.066	85	5	5	25	25	28	0	40	0.4	2.9	05/05	0	0	0	0	0	
23/01	1.8 m lintel	0.058	85	5	5	25	22	21	0	99	0.7	3	23/02	50	2.47	0.05	2.29	0.06	
23/02	3.0 m lintel sag	0.241	85	5	5	5	90	91	0	68	0.1	3	01/11	0					
24/01	1.8 m lintel	0.017	95	5	5	15	8	8	0	62	0.7	3	51/01	22	1.22	0.05	1.22	0.05	
25/01	2.4 m lintel		0			15	46	45	1	41	0.7	3	36/01	7	0.49	0.03	0.49	0.03	
26/01	2.4 m lintel	0.121	85	5	5	15	43	41	3	71	2.2	3	03/11	34	1.51	0.06	1.51	0.06	
27/01	NODE		0			5	0	0	0	0		2.5	LOST	0	0	0	0	0	INTERNAL WEIR/DROP
27/02	H.W.					5	0	0	0	0									
28/01	1.8 m lintel	0.079	85	5	5	25	29	27	2	93	0.7	3	23/02	34	2.34	0.05	1.91	0.05	
29/01	1.8 m lintel		0			15	29	27	2	45	1	3	02/01	4	0.64	0.02	1.24	0.02	
30/01	1.8 m lintel		0			15	28	28	1	70	1	3	39/01	19	1.49	0.03	1.61	0.03	
31/01	1.8 m lintel	0.084	85	5	5	25	32	29	3	76	0.6	2.6	48/01	35	1.67	0.06	1.67	0.06	
32/01	1.8 m lintel		0			25	14	14	0	77	1.2	3	26/01	43	1.71	0.07	1.71	0.07	EX. ABELL ROAD
33/01	1.8 m lintel	0.087	85	5	5	25	33	30	3	73	0.7	3	33/02	19	1.57	0.03	1.48	0.04	
33/02	2.4 m lintel sag	0.108	85	5	5	15	44	53	0	56	0.6	2.7	17/04	0					
34/01	2.4 m lintel sag		0			5	22	21	0	33	0.9	1.4	30/01	0	0	0	0	0	
35/01	2.4 m lintel	0.123	85	5	5	25	47	46	1	86	0.7	3	01/05	36	2.02	0.05	1.98	0.05	
36/01	2.4 m lintel sag	0.076	85	5	5	15	7	11	0	21	0.8	3	06/03	0	0	0	0	0	
37/01	1.8 m lintel	0.034	95	5	5	25	13	13	0	68	0.7	3	03/06	20	1.42	0.04	1.81	0.03	
38/02	H.W. STACKED ROCK					5	0	0	0	0									
39/01	2.4 m lintel sag	0.102	85	5	5	5	87	86	0	74	0.1	3	20/01	0	0	0	0	0	
40/01	1.8 m lintel		0			15	26	25	1	77	0.7	3	46/01	25	1.71	0.04	1.76	0.04	
41/01	2.4 m lintel sag	0.021	95	5	5	5	12	12	0	23	0.2	3	44/01	0	0	0	0	0	
42/01	1.8 m lintel		0	5	5	25	26	25	1	85	0.7	3	57/01	36	1.99	0.05	1.99	0.05	
43/01	1.8 m lintel	0.062	95	5	5	15	24	23	1	64	0.7	3	55/01	9	1.28	0.02	0.94	0.02	
44/01	2.4 m lintel sag		0			5	12	16	0	28	0.2	3	04/01	0	0	0	0	0	
45/01	2.4 m lintel sag	0.051	85	5	5	5	16	16	0	27	0.6	3	42/01	0	0	0	0	0	
46/01	1.8 m lintel	0.08	95	5	5	15	25	25	1	78	0.7	3	49/01	27	1.76	0.04	1.78	0.04	
47/01	1.8 m lintel	0.099	85	5	5	25	37	33	4	81	0.7	3	12/01	32	1.84	0.05	2.06	0.04	
48/01	1.8 m lintel	0.087	85	5	5	5	35	32	4	35	0.7	3	LOST	3	0.4	0.01	0.4	0.01	
49/01	1.8 m lintel	0.079	95	5	5	15	27	26	1	79	0.7	3	50/01	28	1.78	0.04	1.86	0.04	
50/01	1.8 m lintel	0.079	95	5	5	15	28	27	1	81	0.7	3	01/10	30	1.86	0.04	1.81	0.04	
51/01	2.4 m lintel sag	0.135	85	5	5	5	53	58	0	60	0.6	2.9	05/10	0					
52/01	1.8 m lintel		0			25	41	38	3	77	1	3	09/02	29	1.71	0.04	1.71	0.04	
53/01	1.8 m lintel	0.1	85	5	5	25	38	35	3	67	3.3	3	51/01	31	1.38	0.06	1.38	0.06	
54/01	1.8 m lintel		0			25	35	32	4	89	0.9	3	15/04	46	2.13	0.06	2.13	0.06	
55/01	2.4 m lintel sag	0.03	85	5	5	5	9	8	0	18	0	2.8	17/01	0	0	0	0	0	
56/01	1.8 m lintel		0			25	28	26	2	68	1	3	06/01	13	1.41	0.03	1.79	0.02	
56/02	1.8 m lintel		0			15	28	27	2	64	1	3	06/02	13	1.27	0.03	1.6	0.02	
57/01	2.4 m lintel	0.099	85	5	5	25	36	36	1	73	0.7	3	23/01	22	1.59	0.04	2.47	0.02	
58/01	1.8 m lintel	0.098	85	5	5	25	36	34	2	91	0.7	3	01/21	36	2.19	0.04	1.98	0.05	
59/01	2.4 m lintel	0.169	85	5	5	25	63	54	9	74	2.1	3	01/20	39	1.61	0.07	2.05	0.05	
63/01	1.8 m lintel	0.105	85	5	5	25	39	36	3	84	0.7	3	64/01	34	1.94	0.05	1.92	0.05	
64/01	1.8 m lintel	0.086	85	5	5	25	34	31	3	83	0.7	3	64/02	32	1.9	0.04	1.88	0.05	
64/02	1.8 m lintel	0.079	85	5	5	25	32	30	3	82	0.7	3	64/03	31	1.88	0.04	1.86	0.04	
64/03	1.8 m lintel	0.078	85	5	5	5	31	29	2	55	0.7	3	24/01	8	0.98	0.02	1.22	0.02	
zBP1/01	BYPASS NODE	0.112	85	5	5	25	42	0	0	109	0	3	02/02	63	1.81	0.06	1.81	0.06	
zBP10/01	BYPASS NODE	0.034	85	5	5	15	13	0	0	69	0.1	3	02/03	13	1.44	0.02	1.55	0.02	
zBP11/01	BYPASS NODE	0.009	85	5	5	5	3	0	0	45	0	3	10/03	3	0.62	0.01	0.43	0.02	

These plans are referred to in certificate no. **15879** approved by
Christopher Lewis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
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	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
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J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 2

PLAN No: 998511/CC459 D
FILE No: 998511CC459
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:44:43 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC459.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 10% AEP HYDROLOGIC RESULTS

PIT NAME	PIT TYPE	CATCHMENT AREA	PERCENT IMPERVIOUS	Tc IMP	Tc PERV	CRITICAL STORM	APPROACH FLOW	CAPTURED FLOW	UNCAPTURED FLOW	GRATE DEPTH	ROAD GRADE	ROAD CROSSFALL	BYPASS PIT	BYPASS CHANNEL FLOW	U/S FLOW WIDTH	U/S VxD	D/S FLOW WIDTH	D/S VxD	COMMENTS
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)
zBP12/01	BYPASS NODE	0.114	85	5	5	25	43	0	0	86	0	3	20/01	43	2.02	0.06	2.02	0.06	
zBP13/01	BYPASS NODE	0.105	85	5	5	25	40	0	0	96	0	3	10/02	48	2.36	0.05	2.24	0.05	
zBP14/01	BYPASS NODE	0.061	85	5	5	25	23	0	0	84	0	3	10/01	30	1.97	0.04	1.83	0.04	
zBP15/01	BYPASS NODE	0.161	85	5	5	25	61	0	0	100	0.2	3	07/01	60	2.5	0.06	2.47	0.06	
zBP16/01	BYPASS NODE	0.149	85	5	5	25	57	0	0	98	0.2	3	07/02	56	2.42	0.06	2.39	0.06	
zBP17/01	BYPASS NODE	0.119	85	5	5	25	45	0	0	98	0.2	3	07/01	44	2.41	0.05	2.17	0.05	
zBP18/01	BYPASS NODE	0.119	85	5	5	25	45	0	0	98	0.2	3	07/02	44	2.41	0.05	2.17	0.05	
zBP19/01	BYPASS NODE	0.11	85	5	5	25	42	0	0	88	0	3	52/01	41	2.08	0.05	2.08	0.05	
zBP2/01	BYPASS NODE	0.122	85	5	5	25	46	0	0	108	0	3	02/01	62	1.89	0.06	1.89	0.06	
zBP20/01	BYPASS NODE	0.11	85	5	5	25	42	0	0	88	0.2	3	07/03	41	2.07	0.05	2.07	0.05	
zBP21/01	BYPASS NODE	0.125	85	5	5	25	47	0	0	93	0.2	2.9	25/01	46	2.24	0.05	2.21	0.05	
zBP22/01	BYPASS NODE	0.072	85	5	5	15	27	0	0	78	0.3	1.9	40/01	26	1.75	0.04	1.71	0.04	
zBP23/01	BYPASS NODE	0.116	85	5	5	25	44	0	0	105	0.1	3	04/03	61	1.85	0.06	1.85	0.06	
zBP24/01	BYPASS NODE	0.013	85	5	5	15	5	0	0	49	0.1	3	44/01	5	0.77	0.02	0.59	0.02	
zBP25/01	BYPASS NODE	0.076	85	5	5	25	29	0	0	80	0.2	3	04/04	29	1.8	0.04	1.78	0.04	
zBP26/01	BYPASS NODE	0.019	85	5	5	15	7	0	0	53	0.2	3	44/01	7	0.9	0.02	0.81	0.02	
zBP27/01	BYPASS NODE	0.092	85	5	5	25	35	0	0	101	0.1	3	04/05	52	1.68	0.05	1.68	0.06	
zBP28/01	BYPASS NODE	0.012	85	5	5	25	5	0	0	65	0.1	3	41/01	12	1.32	0.03	1.18	0.03	
zBP29/01	BYPASS NODE	0.057	95	5	5	15	22	0	0	68	0.1	3	34/01	22	1.4	0.04	1.4	0.04	
zBP3/01	BYPASS NODE	0.076	85	5	5	25	29	0	0	80	0	3	56/02	28	1.83	0.04	1.77	0.04	
zBP30/01	BYPASS NODE	0.009	95	5	5	5	3	0	0	35	0.1	3	02/09	3	0.4	0.02	1.06	0.01	
zBP31/01	BYPASS NODE	0.038	85	5	5	25	15	0	0	66	0	3	08/01	14	1.35	0.03	1.25	0.03	EX. ABELL ROAD
zBP32/01	BYPASS NODE	0.042	85	5	5	15	16	0	0	68	0.1	3	08/02	16	1.42	0.03	1.33	0.03	EX. ABELL ROAD
zBP33/01	BYPASS NODE	0.028	85	5	5	15	11	0	0	64	0	3	16/01	10	1.29	0.02	1.06	0.03	EX. ABELL ROAD
zBP34/01	BYPASS NODE	0.031	85	5	5	15	12	0	0	67	0	3	16/02	11	1.36	0.02	1.12	0.03	EX. ABELL ROAD
zBP35/01	BYPASS NODE	0.028	85	5	5	25	11	0	0	65	0	3	08/01	10	1.3	0.02	1.05	0.03	EX. ABELL ROAD
zBP36/01	BYPASS NODE	0.031	85	5	5	15	12	0	0	66	0	3	08/02	11	1.35	0.02	1.12	0.03	EX. ABELL ROAD
zBP37/01	BYPASS NODE	0.039	85	5	5	25	15	0	0	64	0.1	3	32/01	14	1.28	0.03	1.71	0.02	EX. ABELL ROAD
zBP38/01	BYPASS NODE	0.042	85	5	5	15	16	0	0	67	0	3	08/03	16	1.39	0.03	1.33	0.03	EX. ABELL ROAD
zBP39/01	BYPASS NODE	0.165	85	5	5	25	63	0	0	101	0	3	13/01	61	2.25	0.06	2.25	0.06	EX. ABELL ROAD
zBP4/01	BYPASS NODE	0.074	85	5	5	15	28	0	0	81	0	3	56/01	28	1.83	0.04	1.76	0.04	
zBP40/01	BYPASS NODE	0.127	85	5	5	25	48	0	0	99	0	3	13/01	47	2.47	0.05	2.23	0.05	EX. ABELL ROAD
zBP41/01	BYPASS NODE	0.032	85	5	5	15	12	0	0	67	0	3	13/02	12	1.38	0.02	1.14	0.03	EX. ABELL ROAD
zBP42/01	BYPASS NODE	0.025	85	5	5	15	9	0	0	57	0	3	13/03	9	1.05	0.02	1	0.03	EX. ABELL ROAD
zBP43/01	BYPASS NODE	0.094	85	5	5	25	36	0	0	77	0	3	54/01	35	1.71	0.05	2.13	0.05	EX. ABELL ROAD
zBP44/01	BYPASS NODE	0.013	85	5	5	15	5	0	0	52	0	3	02/12	5	0.85	0.02	0.6	0.02	EX. ABELL ROAD
zBP45/01	BYPASS NODE	0.043	85	5	5	15	16	0	0	73	0	1.5	04/01	19	1.58	0.03	1.45	0.03	
zBP46/01	BYPASS NODE	0.022	85	5	5	15	8	0	0	75	0.3	2.8	04/02	22	1.66	0.04	1.58	0.04	
zBP47/01	BYPASS NODE	0.13	85	5	5	25	49	0	0	110	-0.1	3	39/01	68	2.03	0.06	2.03	0.07	
zBP48/01	BYPASS NODE	0.041	85	5	5	25	16	0	0	68	0	3	13/02	15	1.41	0.03	1.31	0.03	EX. ABELL ROAD
zBP49/01	BYPASS NODE	0.161	85	5	5	25	61	0	0	104	0.3	3	18/01	60	2.21	0.06	2.21	0.06	EX. ABELL ROAD
zBP5/01	BYPASS NODE	0.094	85	5	5	25	36	0	0	101	0.1	3	06/02	51	1.77	0.05	2.31	0.06	
zBP50/01	BYPASS NODE	0.028	85	5	5	25	11	0	0	63	0	3	18/02	10	1.25	0.02	1.06	0.03	EX. ABELL ROAD
zBP51/01	BYPASS NODE	0.042	85	5	5	15	16	0	0	68	0.1	3	16/02	16	1.41	0.03	1.33	0.03	EX. ABELL ROAD
zBP52/01	BYPASS NODE	0.038	85	5	5	15	14	0	0	66	0.1	3	16/01	14	1.34	0.03	1.25	0.03	EX. ABELL ROAD
zBP53/01	BYPASS NODE	0.016	95	5	5	15	6	0	0	56	0.5	2.7	05/10	14	1.02	0.04	1.02	0.04	
zBP54/01	BYPASS NODE	0.022	85	5	5	15	8	0	0	42	0.3	3	01/16	8	0.54	0.03	0.65	0.03	
zBP55/01	BYPASS NODE	0.025	85	5	5	25	10	0	0	45	1.6	3	01/17	9	0.64	0.04	0.64	0.04	EX. ABELL ROAD
zBP56/01	BYPASS NODE	0.07	85	5	5	25	27	0	0	74	0.5	1.8	42/01	26	1.6	0.04	1.99	0.03	
zBP57/01	BYPASS NODE	0.016	95	5	5	5	6	0	0	42	0.3	2.5	17/01	6	0.55	0.02	1.58	0.01	
zBP58/01	BYPASS NODE	0.004	95	5	5	15	2	0	0	67	0.3	2	09/03	2	1.38	0	2.12	0	
zBP59/01	BYPASS NODE	0.018	95	5	5	25	7	0	0	62	0.1	1.5	09/02	15	1.22	0.03	1.22	0.03	
zBP6/01	BYPASS NODE	0.126	85	5	5	25	48	0	0	115	0.1	3	06/01	63	3	0.05	2.53	0.06	
zBP60/01	BYPASS NODE	0.003	95	5	5	5	2	0	0	76	0.3	3	05/11	2	1.67	0	2.34	0	
zBP7/01	BYPASS NODE	0.076	85	5	5	25	29	0	0	81	0	3	30/01	28	1.85	0.04	1.78	0.04	
zBP8/01	BYPASS NODE	0.008	85	5	5	5	3	0	0	41	0	3	02/06	3	0.51	0.01	1.37	0.01	
zBP9/01	BYPASS NODE	0.077	85	5	5	15	29	0	0	83	0.2	3	29/01	29	1.9	0.04	1.79	0.04	

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,D3 & D15
Land Development Certificates
www.LDC.com.au

D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 3

PLAN No: 998511/CC460 D
FILE No: 998511CC460
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 3:45:30 PM File Name: J:\9985\DGC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5PRECINCT 5 DOCUMENTATION\998511CC460.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 10% AEP HYDRAULIC RESULTS

PIPE NAME	PIPE DIAMETER	PIPE TYPE	PIPE LENGTH	PIPE GRADE	CRITICAL STORM	PEAK FLOW	CAPACITY RATIO	PEAK VELOCITY	PIPE U/S IL	PIPE D/S IL	PIPE D/S DROP	U/S PIT Ku	D/S PIT Kw	PIT LOSS (Ku.V²head)	WSE LOSS (Kw.V²head)	U/S PIPE HGL	D/S PIPE HGL	HGL GRADE	MINIMUM COVER	MINIMUM FREEBOARD	COMMENTS
(-)	(mm)	(-)	(m)	(%)	(min)	(L/s)	(-)	(m/s)	(m)	(m)	(m)	(-)	(-)	(m)	(m)	(m)	(m)	(%)	(m)	(m)	
01/01 to 01/02	375	RRJ2	19.88	0.7	15	39	0.25	0.73	21.285	21.145	0.03	4.5	4.5	0.11	0.03	21.762	21.756	0.03	0.8	0.721	
01/02 to 01/03	375	RRJ2	21.55	0.7	5	58	0.36	0.87	21.115	20.964	0.03	3.33	3.41	0.09	0.03	21.736	21.717	0.09	0.83	0.61	
01/03 to 01/04	375	RRJ2	28.22	0.7	5	107	0.67	1.13	20.934	20.737	0.05	1.36	1.34	0.09	0.05	21.677	21.591	0.3	0.86	0.498	
01/04 to 01/05	450	RRJ2	9.01	1	25	154	0.5	1.01	20.687	20.597	0.05	2.18	2.62	0.1	0.11	21.506	21.487	0.21	0.92	0.432	
01/05 to 01/06	450	RRJ2	14.69	0.5	25	184	0.84	1.16	20.547	20.473	0.05	1.45	1.4	0.08	0.08	21.428	21.384	0.3	1.18	0.54	
01/06 to 01/07	675	RRJ2	42.38	0.5	25	752	1.17	2.1	20.423	20.211	0.03	0.24	0.24	0.06	0.06	21.33	21.043	0.68	0.98	0.812	
01/07 to 01/08	675	RRJ2	35.44	0.5	25	770	1.2	2.15	20.181	20.004	0.039	1.38	0.35	0.08	0.08	20.974	20.722	0.71	0.84	0.858	
01/08 to 01/09	825	RRJ2	44.59	0.5	25	943	0.86	2.12	19.965	19.742	0.03	0.24	0.23	0.05	0.04	20.682	20.542	0.31	0.76	0.858	
01/09 to 01/10	825	RRJ4	40.39	0.66	25	961	0.76	1.92	19.712	19.447	0.03	0.34	0.3	0.09	0.05	20.495	20.342	0.38	0.73	0.796	
01/10 to 01/11	825	RRJ2	18.33	0.5	25	1003	0.91	1.88	19.417	19.326	0.03	0.53	0.49	0.09	0.09	20.255	20.179	0.41	0.75	0.715	
01/11 to 01/12	675	RRJ2	30.51	0.5	5	611	0.95	1.92	19.296	19.143	0.03	0.2	0.2	0.04	0.03	20.179	20.218	-0.13	0.98	0.813	
01/12 to 01/13	675	RRJ2	30.14	0.5	20	551	0.86	1.84	19.113	18.962	0.03	0.23	0.23	0.05	0.03	20.227	20.266	-0.13	1.32	0.915	
01/13 to 01/14	675	RRJ2	23.55	0.5	5	535	0.83	1.77	18.932	18.814	0.03	0.28	0.28	0.04	0.03	20.275	20.3	-0.11	1.7	1.07	
01/14 to 01/15	675	RRJ3	48.45	0.5	5	419	0.65	1.36	18.784	18.542	0.03	1.75	1.99	0.05	0.06	20.306	20.349	-0.09	2.02	1.2	
01/15 to 01/16	675	RRJ3	50.16	0.5	15	774	1.2	2.19	18.512	18.261	0.03	1.83	1.97	0.27	0.28	20.285	20.185	0.2	3.04	1.846	
01/16 to 01/17	675	RRJ3	40.2	0.5	5	655	1.02	1.9	18.231	18.03	0.03	0.27	0.27	0.05	0.04	20.168	20.085	0.21	4.42	3.162	EX. ABELL ROAD
01/17 to 01/18	675	RRJ3	44.65	0.5	5	591	0.92	1.7	18	17.777	0.03	0.44	0.51	0.06	0.06	20.035	19.899	0.3	3.76	3.077	
01/18 to 01/19	675	RRJ3	23.94	0.5	5	629	0.98	1.76	17.747	17.627	0.03	0.72	0.74	0.11	0.11	19.814	19.725	0.37	3.53	2.331	
01/19 to 01/20	675	RRJ2	19.85	0.5	5	620	0.96	1.73	17.597	17.498	0.03	1.18	1.21	0.17	0.18	19.592	19.518	0.37	3.36	2.089	
01/20 to 01/21	825	RRJ2	21.67	0.5	10	708	0.64	1.32	17.468	17.359	0.03	2.2	0.72	0.06	0.06	19.466	19.427	0.18	3.12	1.995	
01/21 to 01/22	825	RRJ2	9	0.5	20	798	0.72	1.49	17.329	17.284	0.03	1.94	2.25	0.2	0.23	19.25	19.229	0.23	3.24	1.953	
02/01 to 02/02	375	RRJ2	9	1	15	55	0.29	0.74	21.993	21.903	0.05	4.5	4.5	0.09	0.06	22.555	22.547	0.09	1	0.721	
02/02 to 02/03	375	RRJ2	30.16	1	20	127	0.67	1.29	21.853	21.552	0.03	3.84	3.65	0.22	0.23	22.409	22.288	0.4	1.07	0.784	
02/03 to 02/04	375	RRJ2	38.41	0.7	25	152	0.96	1.49	21.522	21.253	0.05	0.57	0.56	0.06	0.05	22.251	22.006	0.64	1.62	1.26	
02/04 to 02/05	450	RRJ2	9	1	25	159	0.52	1.05	21.203	21.113	0.05	2.1	2.7	0.1	0.13	21.914	21.893	0.23	1.83	1.46	
02/05 to 02/06	450	RRJ2	15.04	0.7	25	184	0.71	1.16	21.063	20.957	0.051	8.25	1.26	0.08	0.07	21.827	21.778	0.33	2.08	1.556	
02/06 to 02/07	600	RRJ2	36.21	0.5	25	403	0.86	1.42	20.906	20.725	0.05	0.53	0.49	0.06	0.05	21.731	21.6	0.36	2.35	2.109	
02/07 to 02/08	600	RRJ2	19.34	0.5	25	465	0.99	1.65	20.675	20.578	0.084	7.76	0.96	0.11	0.11	21.494	21.401	0.48	2.53	2.192	
02/08 to 02/09	450	RRJ3	20.18	0.5	5	291	1.33	1.89	20.495	20.394	0.05	0.82	2.19	0.13	0.37	21.396	21.39	0.03	3.06	2.639	
02/09 to 02/10	450	RRJ3	38.84	0.5	5	239	1.1	1.51	20.344	20.15	0.05	0.26	0.26	0.03	0.03	21.388	21.377	0.03	3.34	2.775	
02/10 to 02/11	450	RRJ3	9.94	0.5	5	244	1.12	1.54	20.1	20.05	0.05	0.92	0.95	0.11	0.11	21.371	21.367	0.04	3.64	2.781	EX. ABELL ROAD
02/11 to 02/12	450	RRJ3	28.54	0.5	10	256	1.17	1.61	20	19.857	0.05	7.73	1.27	0.11	0.1	21.339	21.311	0.1	3.88	2.838	EX. ABELL ROAD
02/12 to 02/13	450	RRJ3	15.37	0.5	20	303	1.39	1.91	19.807	19.73	0.05	1.44	1.53	0.15	0.16	21.206	21.144	0.4	3.75	3.079	EX. ABELL ROAD
02/13 to 02/14	525	RRJ3	34.37	0.5	15	382	1.16	1.77	19.68	19.508	0.05	1.44	1.53	0.22	0.23	21.021	20.904	0.34	3.55	2.715	
02/14 to 02/15	525	RRJ3	29.5	0.5	20	421	1.28	1.98	19.458	19.311	0.05	0.55	0.55	0.11	0.11	20.845	20.716	0.44	3.56	2.702	
02/15 to 02/16	600	RRJ3	21.26	0.5	20	430	0.91	1.69	19.261	19.154	0.05	0.24	0.24	0.04	0.03	20.701	20.654	0.22	3.53	2.694	
02/16 to 02/17	600	RRJ3	30.11	0.5	20	449	0.95	1.71	19.104	18.954	0.03	0.45	1.03	0.06	0.06	20.618	20.537	0.27	3.48	2.629	
02/17 to 02/18	600	RRJ3	61.52	0.5	20	474	1.01	1.83	18.924	18.616	0.03	0.32	0.32	0.06	0.04	20.509	20.303	0.33	3.39	2.534	
02/18 to 02/19	825	RRJ3	77.12	0.5	25	562	0.51	1.53	18.586	18.201	0.03	1.07	1.93	0.11	0.08	20.284	20.185	0.13	3.03	2.336	
02/19 to 02/20	825	RRJ2	70	0.5	25	1189	1.08	2.22	18.171	17.82	0.03	0.36	0.36	0.1	0.08	20.103	19.694	0.58	2.91	1.912	
02/20 to 01/22	825	RRJ2	38.1	0.5	25	1285	1.17	2.4	17.79	17.6	0.306	0.31	0.29	0.08	0.08	19.615	19.354	0.68	2.88	1.91	
03/01 to 03/02	375	RRJ2	30.62	1	15	80	0.42	1.12	20.88	20.574	0.03	2.23	2.6	0.13	0.07	21.582	21.561	0.07	0.9	0.591	
03/02 to 03/03	375	RRJ2	25.9	1	20	122	0.64	1.25	20.544	20.285	0.05	1.28	1.26	0.13	0.08	21.528	21.461	0.26	1.02	0.423	
03/03 to 03/04	450	RRJ2	21.06	0.7	20	201	0.78	1.4	20.235	20.087	0.05	1.8	3.24	0.15	0.14	21.395	21.34	0.26	1.32	0.411	
03/04 to 03/05	525	RRJ2	23.32	0.7	25	232	0.6	1.5	20.037	19.874	0.05	0.55	0.55	0.09	0.03	21.323	21.286	0.16	1.54	0.646	
03/05 to 03/06	600	RRJ2	27.42	0.7	20	306	0.55	1.54	19.824	19.632	0.05	1.56	2.66	0.17	0.1	21.243	21.199	0.16	1.85	0.869	
03/06 to 03/07	600	RRJ2	23.68	0.7	25	296	0.53	1.44	19.582	19.416	0.05	0.8	0.76	0.11	0.04	21.169	21.126	0.18	2.19	1.157	
03/07 to 03/08	600	RRJ2	10.17	0.7	25	307	0.55	1.09	19.366	19.295	0.05	0.44	0.39	0.03	0.02	21.108	21.091	0.17	2.53	1.371	
03/08 to 03/09	675	RRJ2	23.35	0.7	25	489	0.64	1.42	19.245	19.081	0.03	1.74	1.99	0.16	0.16	20.967	20.901	0.28	2.22	1.316	
03/09 to 03/10	675	RRJ2	19.83	0.7	25	565	0.74	1.61	19.051	18.913	0.05	0.74	0.51	0.08	0.05	20.856	20.78	0.38	1.98	1.092	
03/10 to 03/11	675	RRJ2	15.35	0.7	25	609	0.8	1.7	18.863	18.755	0.05	0.79	0.75	0.09	0.09	20.69	20.623	0.44	2.22	0.835	
03/11 to 01/15	675	RRJ2	9	0.7	25	664	0.87	1.86	18.705	18.642	0.09	1.07	1.12	0.15	0.16	20.475	20.427	0.53	2.88	1.617	
04/01 to 04/02	375	RRJ2	9	2	20	-28	-0.1	0.95	22.209	22.029	0.05	4.5	4.5	0.1	0.01	22.91	22.909	0.01	1.1	0.727	
04/02 to 04/03	375	RRJ2	73.1	0.7	20	66	0.42	0.73	21.979	21.467	0.03	7	2.66	0.1	0.05	22.903	22.879	0.03	1.28	0.758	
04/03 to 04/04	375	RRJ2	20.03	0.5	5	126	0.94	1.17	21.437	21.337	0.03	4.41	4.52	0.23	0.23	22.774	22.696	0.39	1.97	0.942	
04/04 to 04/05	375	RRJ2	49.98	0.5	25	141	1.05	1.28	21.307	21.057	0.05	1.35	1.06	0.09	0.04	22.662	22.421	0.48	2.23	1.238	
04/05 to 04/06	375	RRJ2	25.9	0.5	25	197	1.46	1.78	21.007	20.877	0.05	1.81	1.81	0.17	0.17	22.289	22.002	1.11	2.66	1.509	
04/06 to 04/07	375	RRJ2	28.34	0.5	25	200	1.49	1.81	20.827	20.686	0.05	0.34	0.26	0.04	0.04	21.961	21.651	1.09	3.03	2.107	
04/07 to 02/08	375	RRJ2	18.15	0.5	25	204	1.52	1.85	20.636	20.545	0.05	0.84	0.32	0.05	0.05	21.597	21.396	1.11	3.1	2.464	
05/01 to 05/02	375	RRJ2	9.14	2	25	21	0.08	0.86	21.382	21.199	0.05	4.5	4.5	0.1	0.01	21.739	21.739	0	1	0.987	
05/02 to 05/03	375	RRJ2	22.65	1	25	51	0.27	1.02	21.149	20.923	0.03	7	5.3	0.13	0.03	21.73	21.725	0.02	1.19	1	
05/03 to 05/04	375	RRJ2	19.85	1	25	78	0.41	1.27	20.893	20.694	0.05	1.72	1.54	0.11	0.03	21.72	21.714	0.03	1.6	1.173	
05/04 to 05/05	375	RRJ2	9.48	2	25	89	0.33	1.4	20.644	20.454	0.05	1.62	1.8	0.13	0.06	21.707	21.703	0.04	2.02	1.301	
05/05 to 05/06	450	RRJ2	30.89	0.9	20	146	0.5	1.04	20.404	20.126	0.03	1.34	1.87	0.14	0.08	21.699	21.688	0.04	2.17	1.355	
05/06 to 05/07	525	RRJ2	37.52	0.9	25	321	0.73	1.66	20.096	19.759	0.03	2.15	2.66	0.24	0.23	21.608	21.534	0.2	2.62	1.586	
05/07 to 05/08	525	RRJ2	40.75	0.9	25	351	0.79	1.66	19.729	19.362	0.03	0.62	0.62	0.13	0.06	21.509	21.4	0.27	3.31	2.054	EX. ABELL ROAD
05/08 to 05/09	600	RRJ2	23.29	0.9	25	450	0.71	1.73	19.332	19.122	0.03	1.49	1.71	0.16	0.18	21.251	21.155	0.41	3.01	2.1	
05/09 to 05/10	600	RRJ2	22.84	0.9	25	488	0.77	1.73	19.092	18.887	0.05	1	0.53	0.1	0.07	21.107	20.992	0.5	2.61	1.582	
05/10 to 05/11	600	RRJ2	15.52	0.9	25	562	0.89	1.99	18.837	18.697	0.05	1.18	1.24	0.18	0.19	20.834	20.735	0.64	2.86	1.15	
05/11 to 05/12	600	RRJ2	21.68	0.9	25	574	0.91	2.03	18.647	18.452	0.05	0.58	0.58	0.12	0.12	20.628	20.485	0.66	3.02	1.579	
05/12 to 02/19	600	RRJ2	12.96	1	25	620	0.93	2.19	18.401	18.272	0.101	0.97	1.02	0.2	0.2	20.292	20.185	0.83	3.16	1.826	
06/01 to 06/02	375	RRJ2	9	1.5	15	78	0.33	0.88	22.013	21.878	0.05	4.5	4.5	0.12	0.11	22.786	22.779	0.08	0.9	0.38	
06/02 to 06/03	450	RRJ2	47.46	0.5	20	182	0.84	1.24	21.828	21.591	0.05	2.06	2.32	0.14	0.16	22.696	22.594	0.21	0.9	0.443	
06/03 to 06/04	450	RRJ2	14.62	0.5	5	175	0.8	1.21	21.541	21.468	0.05	1.05	1.09	0.07	0.07	22.546	22.507	0.27	1.38	0.627	
06/04 to 06/05	450	RRJ2	48.57	0.5	20	207	0.95	1.37	21.418	21.175	0.03	0.81	0.83	0.07	0.07	22.454	22.246	0.43	1.32	0.774	
06/05 to 09/03	450	RRJ2	30.09	0.5	25	233	1.07	1.47	21.145	20.994	0.101	6.19	0.8	0.1	0.08	22.199	22.038	0.54	1.31	0.753	
07/01 to 07/02	375	RRJ2	9	1.5	20	84	0.36	1.08	21.995	21.86	0.126	4.5	4.5	0.15	0.13	22.783	22.768	0.17	0.8	0.224	
07/02 to 07/03	450	RRJ2	59.63	0.5	5	157	0.72	1.07	21.735	21.436	0.03	4.72	4.72	0.18	0.15	22.677	22.541	0.23	0.9	0.356	
07/03 to 07/04	450	RRJ2	22.05	0.5	25	196	0.9	1.26	21.406	21.296	0.05	7	1.03	0.08	0.07	22.499	22.412	0.39	1.06	0.512	
07/04 to 09/02	450	RRJ2	18.39	0.5	25	218	1	1.38	21.246	21.154	0.062	0.93	0.93	0.07	0.07	22.351	22.26	0.49	1.11	0.429	
08/01 to 08/02	375	RRJ2	11	2	25	23	0.09	1	22.349	22.128	0.05	4.5	4.5	0.09	0.01	22.376	22.215	1.46	1.1	1.326	EX. ABELL ROAD
08/02 to 08/03	375	RRJ2	69.12	1	25	49	0.26	1.13	22.078	21.387	0.05	3.29	3.05	0.05	0.03	22.17	21.568	0.87	1.32	1.571	EX. ABELL ROAD
08/03 to 08/04	375	RRJ2	15.5	1	25	77	0.4	1.28	21.337	21.182	0.05	1.78	1.98	0.1	0.05	21.467	21.35	0.75	1.89	2.104	EX. ABELL ROAD
08/04 to 01/17	375	RRJ2	11.2	1	25	84	0.44	1.43	21.132	21.02	2.98	0.72	0.56	0.04	0.02	21.306	21.194	1	1.8	1.952	
09/01 to 09/02	375	RRJ2	9.39	1	25	29	0.15	0.66	21.236	21.142	0.05	4.5	4.5	0.08	0.02	22.262	22.26	0.02	1.1	0.4	
09/02 to 09/03	450	RRJ2	14.86	1	25	278	0.9	1.75	21.092	20.944	0.05	0.87	0.87	0.11	0.11	22.158	22.038	0.81	1.32	0.445	
09/03 to 09/04	600	RRJ2	47.52	0.5	25	535	1.14	1.89	20.894	20.656	0.03	0.38	0.38	0.07	0.07	21.971	21.673	0.63	1.12	0.75	

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 4

PLAN No: 998511/CC461 D
FILE No: 998511CC461
SHEET SIZE: A1 ORIGINAL

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 10% AEP HYDRAULIC RESULTS

PIPE NAME	PIPE DIAMETER	PIPE TYPE	PIPE LENGTH	PIPE GRADE	CRITICAL STORM	PEAK FLOW	CAPACITY RATIO	PEAK VELOCITY	PIPE U/S IL	PIPE D/S IL	PIPE D/S DROP	U/S PIT Ku	D/S PIT Kw	PIT LOSS (Ku.V'head)	WSE LOSS (Kw.V'head)	U/S PIPE HGL	D/S PIPE HGL	HGL GRADE	MINIMUM COVER	MINIMUM FREEBOARD	COMMENTS
(-)	(mm)	(-)	(m)	(%)	(min)	(L/s)	(-)	(m/s)	(m)	(m)	(m)	(-)	(-)	(m)	(m)	(m)	(m)	(%)	(m)	(m)	
09/04 to 01/06	600	RRJ2	30.48	0.5	25	563	1.2	1.99	20.626	20.474	0.051	5.7	0.5	0.09	0.08	21.603	21.392	0.69	1.08	0.74	
10/01 to 10/02	375	RRJ2	9.01	1	25	33	0.17	0.63	21.974	21.884	0.05	4.5	4.5	0.07	0.02	22.468	22.466	0.02	0.9	0.733	
10/02 to 10/03	375	RRJ2	15.29	0.9	25	82	0.45	1.14	21.834	21.697	0.05	6.7	8.28	0.14	0.1	22.407	22.39	0.11	1.16	0.747	
10/03 to 10/04	375	RRJ2	41.55	0.9	25	97	0.54	0.96	21.647	21.273	0.03	0.87	0.83	0.07	0.03	22.375	22.318	0.14	1.66	1.319	
10/04 to 02/06	375	RRJ2	34.03	0.9	25	185	1.03	1.68	21.243	20.936	0.03	2.21	2.38	0.19	0.27	22.166	21.778	1.14	1.97	1.307	
11/01 to 11/02	375	RRJ2	26.81	2	25	28	0.1	0.98	21.616	21.079	0.03	4.5	4.5	0.07	0.01	21.642	21.603	0.15	1.1	1.437	
11/02 to 11/03	375	RRJ2	22.95	1	20	76	0.4	0.93	21.049	20.82	0.03	2.61	3.28	0.15	0.06	21.568	21.544	0.1	1.48	1.344	
11/03 to 11/04	375	RRJ2	29.92	1	15	179	0.94	1.69	20.79	20.491	0.03	2.06	2.51	0.2	0.28	21.369	21.171	0.66	1.58	1.242	
11/04 to 03/08	450	RRJ2	18.95	1	20	236	0.76	1.96	20.461	20.271	1.026	0.91	0.49	0.07	0.03	21.159	21.091	0.36	1.62	1.405	
12/01 to 02/16	375	RRJ2	9.01	2	25	30	0.11	1.07	21.838	21.657	2.553	4.5	4.5	0.12	0.02	21.865	21.743	1.35	1.1	1.305	
13/01 to 13/02	375	RRJ2	11	2	25	104	0.39	1.25	22.663	22.443	0.05	4.5	4.5	0.22	0.2	22.779	22.673	0.96	1.1	1.098	EX. ABELL ROAD
13/02 to 13/03	375	RRJ2	55.3	1	25	129	0.68	1.52	22.393	21.84	0.05	2.16	2.64	0.12	0.18	22.555	22.103	0.82	1.3	1.428	EX. ABELL ROAD
13/03 to 13/04	375	RRJ2	15.8	1	25	136	0.72	1.52	21.79	21.632	0.05	0.91	0.88	0.08	0.07	22.021	21.888	0.84	1.65	1.966	EX. ABELL ROAD
13/04 to 05/08	375	RRJ2	9	2	25	143	0.53	1.83	21.582	21.402	2.071	0.82	0.82	0.09	0.07	21.797	21.597	2.22	1.57	1.617	
14/01 to 14/02	375	RRJ2	20.42	1	25	39	0.2	0.82	20.416	20.212	0.03	4.5	4.5	0.13	0.03	20.455	20.394	0.3	1.1	1.353	
14/02 to 14/03	375	RRJ2	14.72	1	25	68	0.36	1.14	20.182	20.034	0.05	1.83	1.77	0.1	0.03	20.297	20.228	0.47	1.19	1.397	
14/03 to 02/20	375	RRJ2	14.89	1	25	87	0.46	1.37	19.984	19.835	2.045	1.49	1.33	0.09	0.04	20.14	20.014	0.85	1.33	1.459	
15/01 to 15/02	375	RRJ2	16.28	2	15	30	0.11	1.11	21.504	21.178	0.05	4.5	4.5	0.12	0.02	21.904	21.903	0.01	1.1	1.12	
15/02 to 15/03	375	RRJ2	9	1	25	59	0.31	0.8	21.128	21.038	0.05	2.26	2.64	0.07	0.04	21.899	21.897	0.02	1.4	0.97	
15/03 to 15/04	375	RRJ2	14.89	1	15	147	0.77	1.33	20.988	20.839	0.05	1.9	2.19	0.16	0.18	21.838	21.803	0.24	1.65	0.962	
15/04 to 05/06	375	RRJ2	9.1	2	15	196	0.73	1.89	20.789	20.607	0.511	1.28	1.29	0.19	0.19	21.73	21.688	0.46	2.14	1.462	
16/01 to 16/02	375	RRJ2	11.01	2	25	24	0.09	0.98	22.454	22.233	0.05	4.5	4.5	0.09	0.01	22.479	22.335	1.31	1.1	1.326	EX. ABELL ROAD
16/02 to 16/03	375	RRJ2	54.35	1	25	50	0.26	1.32	22.183	21.64	0.05	3.39	3.13	0.05	0.03	22.283	21.772	0.94	1.3	1.556	EX. ABELL ROAD
16/03 to 05/08	375	RRJ2	15.74	1	25	55	0.29	1.29	21.59	21.433	2.101	1.12	1.03	0.07	0.01	21.696	21.57	0.8	1.86	2.311	EX. ABELL ROAD
17/01 to 17/02	375	RRJ2	15.41	0.5	25	12	0.09	0.43	20.468	20.392	0.085	4.5	4.5	0.04	0	20.986	20.985	0.01	0.8	0.715	
17/02 to 17/03	375	RRJ2	15.68	0.5	25	43	0.32	0.66	20.307	20.229	0.03	2.09	2.58	0.05	0.02	20.971	20.962	0.06	0.85	0.608	
17/03 to 17/04	375	RRJ2	20.6	0.5	25	77	0.58	0.82	20.199	20.096	0.03	4.86	1.39	0.06	0.03	20.941	20.911	0.15	0.86	0.521	
17/04 to 01/08	375	RRJ2	14.03	0.5	25	162	1.2	1.46	20.066	19.995	0.03	1.26	1.29	0.11	0.12	20.817	20.733	0.6	1.13	0.485	
18/01 to 18/02	375	RRJ2	11.27	2	25	59	0.22	1.15	22.768	22.543	0.05	4.5	4.5	0.18	0.07	22.801	22.704	0.86	1.1	1.229	EX. ABELL ROAD
18/02 to 18/03	375	RRJ2	14.28	1	25	69	0.36	1.28	22.493	22.35	0.05	1.42	1.51	0.08	0.03	22.62	22.506	0.8	1.28	1.508	EX. ABELL ROAD
18/03 to 02/13	375	RRJ2	9.01	2	25	77	0.29	1.61	22.3	22.12	2.44	0.98	0.94	0.08	0.02	22.419	22.257	1.8	1.21	1.364	
19/01 to 19/02	375	RRJ2	11	2	25	53	0.2	1.01	22.866	22.646	0.05	4.5	4.5	0.17	0.05	22.89	22.867	0.21	1.1	1.244	EX. ABELL ROAD
19/02 to 02/12	375	RRJ2	46.05	1	25	113	0.59	1.53	22.596	22.135	2.328	3.49	3.48	0.13	0.15	22.737	22.343	0.86	1.5	1.437	EX. ABELL ROAD
20/01 to 20/02	375	RRJ2	22.98	1	25	36	0.19	1	21.926	21.697	0.044	4.5	4.5	0.11	0.02	21.975	21.924	0.22	1.1	1.377	
20/02 to 15/03	375	RRJ2	30.81	1	25	75	0.39	1.34	21.652	21.344	0.355	3.49	1.9	0.14	0.04	21.902	21.897	0.02	1.1	1.269	
21/01 to 21/02	750	RRJ2	21.76	0.5	25	899	1.05	2.33	17.2	17.091		0	0	0	0	17.838	17.678	0.74		2.757	
22/01 to 22/02	375	RRJ2	9	1	15	12	0.06	0.68	21.681	21.591	0.05	9.67	9.67	0.08	0.01	21.717	21.722	-0.06	1.1	1.326	
22/02 to 05/06	375	RRJ2	16.12	1	25	42	0.22	1.03	21.541	21.38	1.283	6.91	5.75	0.14	0.03	21.588	21.688	-0.62	1.36	1.398	
23/01 to 23/02	375	RRJ2	32.54	1	15	-29	-0.15	0.45	19.894	19.569	0.05	4.5	4.5	0.08	0.01	20.371	20.367	0.01	1	0.785	
23/02 to 01/11	450	RRJ2	9	1	25	212	0.68	1.37	19.519	19.429	0.133	2.11	2.11	0.16	0.16	20.214	20.179	0.39	1.06	0.624	
24/01 to 05/11	375	RRJ2	30.92	1	25	8	0.04	0.77	21.013	20.704	2.057	4.5	4.5	0.02	0	21.051	20.756	0.95	1.1	1.458	
25/01 to 06/04	375	RRJ2	30.42	1	15	45	0.24	1.09	22.014	21.71	0.292	4.5	4.5	0.13	0.04	22.512	22.507	0.02	1.1	1.013	
26/01 to 03/11	375	RRJ2	26.57	2	25	40	0.15	1.39	21.284	20.753	2.048	4.5	4.5	0.08	0.03	21.337	20.851	1.83	1.1	1.41	
27/01 to 27/02	675	RRJ2	24.05	2	25	618	0.48	2.54	19.601	19.12		0.2	0.2	0.09	0.03	19.84	19.66	0.75	-0.64	4.216	
28/01 to 01/10	375	RRJ2	9.03	1.5	25	25	0.11	0.81	19.615	19.479	0.062	4.5	4.5	0.1	0.01	20.344	20.342	0.02	1.1	0.71	
29/01 to 02/03	375	RRJ2	11.46	2	15	29	0.11	1.1	22.039	21.81	0.289	4.5	4.5	0.11	0.01	22.286	22.288	-0.02	1.1	1.188	
30/01 to 02/06	375	RRJ2	11.32	2	25	47	0.18	1.3	22.378	22.151	1.245	3.91	3.81	0.13	0.03	22.418	22.258	1.41	1.1	1.277	
31/01 to 03/02	375	RRJ2	10.77	1	15	28	0.15	0.84	20.785	20.677	0.133	4.5	4.5	0.1	0.01	21.562	21.561	0.01	0.9	0.476	
32/01 to 08/03	375	RRJ2	11	2	15	14	0.05	0.98	22.235	22.014	0.677	4.5	4.5	0.06	0	22.261	22.073	1.71	1.1	1.321	EX. ABELL ROAD
33/01 to 33/02	375	RRJ2	18.18	0.59	25	24	0.16	0.65	20.34	20.233	0.05	4.5	4.5	0.08	0.01	20.969	20.967	0.01	0.7	0.481	
33/02 to 17/04	375	RRJ2	9.05	0.5	25	69	0.51	0.64	20.183	20.138	0.072	8.17	7.3	0.09	0.1	20.917	20.911	0.07	0.82	0.376	
34/01 to 02/07	375	RRJ2	11.33	2	25	21	0.08	1.06	22.371	22.144	1.469	4.5	4.5	0.08	0.01	22.4	22.215	1.63	1.1	1.341	
35/01 to 01/03	375	RRJ2	10.18	1	20	39	0.2	0.85	21.1	20.998	0.064	4.5	4.5	0.1	0.03	21.723	21.721	0.02	0.8	0.511	
36/01 to 06/03	375	RRJ2	10.13	2	20	21	0.08	0.71	21.939	21.736	0.195	4.5	4.5	0.09	0.01	22.595	22.594	0.01	0.9	0.583	
37/01 to 11/02	375	RRJ2	10.1	2	25	15	0.06	0.95	21.524	21.322	0.272	4.5	4.5	0.08	0	21.576	21.603	-0.27	1.1	1.363	
38/01 to 38/02	750	RRJ2	8.12	1	25	1547	1.28	3.53	18.931	18.85		0	0	0	0	19.714	19.558	1.92		1.367	
39/01 to 10/04	375	RRJ2	9.05	2	25	83	0.31	1.27	22.187	22.006	0.764	4.5	4.5	0.2	0.13	22.31	22.318	-0.09	1.1	1.14	
40/01 to 06/04	375	RRJ2	9.63	2	15	23	0.09	1.01	21.889	21.697	0.279	4.5	4.5	0.11	0.01	22.507	22.507	0	1.1	0.829	
41/01 to 04/05	375	RRJ2	9	2	15	12	0.05	0.92	22.493	22.313	1.306	4.5	4.5	0.06	0	22.516	22.385	1.46	1.1	1.359	
42/01 to 01/14	375	RRJ2	9.06	2	20	32	0.12	1.03	20.053	19.872	1.047	4.5	4.5	0.12	0.02	20.321	20.323	-0.02	1.1	1.168	
43/01 to 03/04	375	RRJ2	9.01	2	15	29	0.11	1.02	20.536	20.356	0.319	4.5	4.5	0.12	0.02	21.339	21.34	-0.01	1.1	0.641	
44/01 to 04/03	375	RRJ2	9	2	25	26	0.1	0.95	22.383	22.203	0.766	4.5	4.5	0.11	0.01	22.855	22.854	0.01	1.1	0.964	
45/01 to 03/10	375	RRJ2	9.14	2	20	-35	-0.13	0.94	20.186	20.003	1.141	4.5	4.5	0.11	0.01	20.781	20.78	0.01	1.1	0.843	
46/01 to 09/03	375	RRJ2	9.57	2	25	26	0.1	0.86	21.325	21.133	0.239	4.5	4.5	0.1	0.01	22.04	22.038	0.02	1.1	0.728	
47/01 to 02/14	375	RRJ2	12.3	2	15	32	0.12	1.03	22.196	21.95	2.491	8.32	8.32	0.14	0.04	22.218	22.038	1.46	1.1	1.305	
48/01 to 17/02	375	RRJ2	9	1	5	26	0.14	0.76	20.447	20.357	0.05	4.5	4.5	0.08	0.01	20.986	20.985	0.01	0.8	0.599	
49/01 to 01/06	375	RRJ2	9.36	2	25	23	0.09	0.88	20.765	20.577	0.154	4.5	4.5	0.09	0.01	21.393	21.392	0.01	1.1	0.813	
50/01 to 01/08	375	RRJ2	9.42	2	25	24	0.09	0.79	20.221	20.032	0.067	4.5	4.5	0.08	0.01	20.735	20.733	0.02	1.1	0.927	
51/01 to 05/10	375	RRJ2	9	2	25	58	0.22	1.19	20.687	20.507	1.671	4.5	4.5	0.18	0.06	20.994	20.992	0.02	1.1	1.1	
52/01 to 07/03	375	RRJ2	9.01	1	5	30	0.16	0.79	21.609	21.519	0.113	4.5	4.5	0.08	0.02	22.542	22.541	0.01	1.1	0.505	
53/01 to 05/09	375	RRJ2	9	2	25	35	0.13	1.1	21.293	21.112	2.021	4.5	4.5	0.13	0.02	21.32	21.203	1.3	1.1	1.292	
54/01 to 05/07	375	RRJ2	9.04	2	15	31	0.12	1.08	22.134	21.953	2.224	4.5	4.5	0.12	0.02	22.161	22.04	1.34	1.1	1.301	
55/01 to 03/03	375	RRJ2	9.76	1	15	-72	-0.38	0.67	20.44	20.343	0.108	4.5	4.5	0.08	0.06	21.463	21.461	0.02	1.1	0.419	
56/01 to 56/02	375	RRJ2	9.08	1	15	23	0.12	0.75	22.205	22.114	0.05	4.5	4.5	0.08	0.01	22.795	22.794	0.01	0.8	0.554	
56/02 to 06/02	375	RRJ2	19.13	1	5	41	0.22	0.71	22.064	21.873	0.045	3.85	4.35	0.12	0.03	22.785	22.779	0.03	0.86	0.548	
57/01 to 01/13	375	RRJ2	9.49	2	5	41	0.15	0.95	19.887	19.698	0.726	9.13	9.13	0.16	0.04	20.29	20.288	0.02	1.1	1	
58/01 to 01/21	375	RRJ2	21.28	1	25	34	0.18	0.93	19.967	19.754	2.385	7	7	0.13	0.03	20.006	19.861	0.68	1.1	1.35	
59/01 to 01/18	375	RRJ2	12.13	2	25	54	0.2	1.25	20.93	20.687	2.901	4.5	4.5	0.16	0.05	20.967	20.801	1.37	1.1	1.277	
63/01 to 02/17	375	RRJ2	9.5	2	25	36	0.13	1.12	21.641	21.451	2.527	4.5	4.5	0.13	0.02	21.669	21.543	1.33	1.1	1.295	
64/01 to 64/02	375	RRJ2	13.83	1	25	30	0.16	0.82	21.416	21.278	0.03	4.5	4.5	0.11	0.02	21.46	21.444	0.12	1.1	1.363	
64/02 to 64/03	375	RRJ2	22.92	1	25	59	0.31	0.87	21.248	21.019	0.05	2.43	2.42	0.13	0.03	21.346	21.377	-0.14	1.17	1.393	
64/03 to 02/18	375	RRJ2	10.48	2	25	165	0.61	1.78	20.968	20.759	2.173	1.59	1.75	0.18	0.19	21.2	20.971	2.18	1.35	1.299	

These plans are referred to in certificate no: 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C5 & C15
Land Development Certificates
www.LDC.com.au

D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/08/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4735 3000 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 5

PLAN No: 998511/CC462 D
FILE No: 998511CC462
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 3:45:31 PM File Name: J\9985\OGC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT 5\PRECINCT 5 DOCUMENTATION\998511CC462.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260S

DESIGN STORM 5% AEP HYDROLOGIC RESULTS

PIT NAME	PIT TYPE	CATCHMENT AREA	PERCENT IMPERVIOUS	Tc IMP	Tc PERV	CRITICAL STORM	APPROACH FLOW	CAPTURED FLOW	UNCAPTURED FLOW	GRATE DEPTH
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)
A/01	IAD 600x900	0.03	85	5	5	15	13	13	0	0
A/02	IAD 600x900	0.03	85	5	5	15	13	13	0	0
A/03	IAD 600x900	0.038	85	5	5	15	16	16	0	0
A/04	IAD 600x900	0.038	85	5	5	15	16	16	0	0
A/05	IAD 600x900	0.03	85	5	5	15	13	13	0	0
A/06	IAD 600x900	0.03	85	5	5	15	13	13	0	0
A/07	IAD 600x900	0.03	85	5	5	15	13	13	0	0
A/08	IAD 600x900		0			5	0	0	0	0
A/09	IAD 900x900		0			5	0	0	0	0
B/01	IAD 600x900	0.03	85	5	5	15	13	13	0	0
B/02	IAD 600x900	0.03	85	5	5	15	13	13	0	0
B/03	IAD 600x900	0.03	85	5	5	15	13	13	0	0
B/04	IAD 600x900	0.03	85	5	5	15	13	13	0	0
B/05	IAD 600x900	0.03	85	5	5	15	13	13	0	0
B/06	IAD 600x900	0.03	85	5	5	15	13	13	0	0
B/07	IAD 600x900	0.037	85	5	5	15	16	16	0	0
B/08	IAD 900x900		0			5	0	0	0	0
C/01	IAD 600x900	0.047	85	5	5	25	21	21	0	0
C/02	IAD 600x900	0.03	85	5	5	15	13	13	0	0
C/03	IAD 600x900		0			5	0	0	0	0
C/04	IAD 600x900	0.037	85	5	5	15	16	16	0	0
C/05	IAD 600x900		0			5	0	0	0	0
C/06	IAD 600x900	0.038	85	5	5	25	17	17	0	0
C/07	IAD 600x900		0			5	0	0	0	0
C/08	IAD 600x900	0.037	85	5	5	15	16	16	0	0
C/09	IAD 600x900	0.03	85	5	5	15	13	13	0	0
C/10	IAD 900x900		0			5	0	0	0	0
D/01	IAD 600x900	0.038	85	5	5	15	16	16	0	0
D/02	IAD 600x900	0.041	85	5	5	15	18	18	0	0
D/03	IAD 600x900	0.03	85	5	5	15	13	13	0	0
D/04	IAD 600x900	0.031	85	5	5	25	14	14	0	0
D/05	IAD 600x900	0.03	85	5	5	15	13	13	0	0
D/06	IAD 900x900	0.03	85	5	5	15	13	13	0	0
D/07	IAD 900x900	0.036	85	5	5	25	16	16	0	0
D/08	IAD 900x900		0			5	0	0	0	0
D/09	IAD 900x900		0			5	0	0	0	0
E/01	IAD 600x900	0.037	85	5	5	15	16	16	0	0
E/02	IAD 600x900	0.03	85	5	5	15	13	13	0	0
E/03	IAD 600x900	0.03	85	5	5	15	13	13	0	0
E/04	IAD 600x900	0.03	85	5	5	15	13	13	0	0
E/05	IAD 600x900	0.03	85	5	5	15	13	13	0	0
E/06	IAD 900x900	0.03	85	5	5	15	13	13	0	0
E/07	IAD 900x900		0			5	0	0	0	0
E/08	IAD 900x900		0			5	0	0	0	0
F/01	IAD 600x900	0.03	85	5	5	15	13	13	0	0
F/02	IAD 600x900	0.03	85	5	5	15	13	13	0	0
F/03	IAD 600x900	0.03	85	5	5	15	13	13	0	0
F/04	IAD 600x900	0.03	85	5	5	15	13	13	0	0
F/05	IAD 600x900	0.03	85	5	5	15	13	13	0	0
F/06	IAD 900x900	0.03	85	5	5	15	13	13	0	0
F/07	IAD 900x900	0.03	85	5	5	15	13	13	0	0
F/08	IAD 900x900		0			5	0	0	0	0
F/09	IAD 900x900		0			5	0	0	0	0
G/01	IAD 600x900	0.037	85	5	5	15	16	16	0	0
G/02	IAD 600x900	0.027	85	5	5	15	12	12	0	0
G/03	IAD 600x900	0.033	85	5	5	25	15	15	0	0
G/04	IAD 600x900	0.027	85	5	5	15	12	12	0	0
G/05	IAD 600x900	0.033	85	5	5	25	15	15	0	0
G/06	IAD 600x900	0.028	85	5	5	15	12	12	0	0
G/07	IAD 600x900	0.035	85	5	5	25	16	16	0	0
G/08	IAD 900x900		0			5	0	0	0	0
H/01	IAD 600x900	0.04	85	5	5	25	18	18	0	0
H/02	IAD 600x900	0.033	85	5	5	25	15	15	0	0
H/03	IAD 600x900	0.033	85	5	5	15	14	14	0	0
H/04	IAD 600x900	0.033	85	5	5	25	15	15	0	0
H/05	IAD 900x900		0			5	0	0	0	0
J/01	IAD 600x900	0.052	85	5	5	25	23	23	0	0
J/02	IAD 900x900		0			5	0	0	0	0
K/01	IAD 600x900	0.033	85	5	5	25	15	15	0	0
K/02	IAD 600x900	0.027	85	5	5	15	12	12	0	0
K/03	IAD 900x900		0			5	0	0	0	0
L/01	IAD 600x900	0.056	85	5	5	25	25	25	0	0

DESIGN STORM 5% AEP HYDRAULIC RESULTS

PIPE NAME	PIPE DIAMETER	PIPE TYPE	PIPE LENGTH	PIPE GRADE	CRITICAL STORM	PEAK FLOW	CAPACITY RATIO	PEAK VELOCITY	PIPE U/S IL	PIPE D/S IL	PIPE D/S DROP	U/S PIT Ku	D/S PIT Kw	PIT LOSS (Ku.V'head)	WSE LOSS (Kw.V'head)	U/S PIPE HGL	D/S PIPE HGL	HGL GRADE	MINIMUM COVER	MINIMUM FREEBOARD	COMMENTS
(-)	(mm)	(-)	(m)	(%)	(min)	(L/s)	(-)	(m/s)	(m)	(m)	(m)	(-)	(-)	(m)	(m)	(m)	(m)	(%)	(m)	(m)	
A/01 to A/02	150	uPVC	10	1	25	13	0.64	0.76	23.274	23.174	0.039	6.11	6.11	0.12	0.12	23.59	23.553	0.37	0.6	0.361	
A/02 to A/03	225	uPVC	12.5	1	25	26	0.44	1.03	23.135	23.009	0.03	5.75	4.79	0.11	0.04	23.531	23.508	0.18	0.6	0.413	
A/03 to A/04	225	uPVC	12.5	1	25	41	0.69	1.02	22.979	22.855	0.03	1.82	2.36	0.09	0.06	23.449	23.39	0.47	0.65	0.35	
A/04 to A/05	225	uPVC	10	1	25	56	0.95	1.4	22.825	22.724	0.03	1.28	1.28	0.09	0.09	23.306	23.216	0.9	0.76	0.416	
A/05 to A/06	225	uPVC	10	1	25	68	1.16	1.7	22.694	22.594	0.03	0.87	0.87	0.1	0.1	23.123	22.989	1.34	0.88	0.584	
A/06 to A/07	225	uPVC	10	1	25	80	1.36	2.02	22.564	22.464	0.05	0.75	0.75	0.11	0.13	22.896	22.679	2.17	1	0.799	
A/07 to A/08	300	uPVC	1.35	1.01	20	93	0.73	1.79	22.414	22.401	0.05	7.11	3.31	0.02	0	22.64	22.671	-2.29	1.04	1.119	
A/08 to A/09	300	uPVC	29.61	1	25	91	0.73	1.5	22.351	22.055	0.575	2.04	2.56	0.15	0.21	22.52	22.244	0.93	0.65	1.072	
A/09 to 64/03	375	RRJ2	4.89	2.47	25	91	0.31	1.44	21.48	21.359	0.391	2.09	2.71	0.12	0.1	21.639	21.501	2.82	1.1	1.239	
B/01 to B/02	150	uPVC	10.03	1	25	13	0.64	0.79	23.206	23.105	0.062	5.66	5.66	0.12	0.12	23.44	23.401	0.39	0.6	0.435	
B/02 to B/03	225	uPVC	9.97	1	45	35	0.6	1.17	23.044	22.944	0.03	5.38	4.53	0.1	0.04	23.376	23.358	0.18	0.6	0.475	
B/03 to B/04	225	uPVC	9.98	1	45	38	0.65	1.04	22.914	22.814	0.03	1.58	1.63	0.07	0.06	23.308	23.268	0.4	0.68	0.463	
B/04 to B/05	225	uPVC	10.01	1	25	50	0.85	1.24	22.784	22.684	0.03	1.29	1.12	0.07	0.07	23.202	23.131	0.71	0.78	0.521	
B/05 to B/06	225	uPVC	10.01	1	25	61	1.05	1.55	22.654	22.554	0.03	0.9	0.9	0.09	0.09	23.045	22.935	1.1	0.89	0.642	
B/06 to B/07	225	uPVC	11.51	1	25	73	1.26	1.84	22.524	22.409	0.05	0.84	0.86	0.1	0.12	22.849	22.642	1.8	0.99	0.809	
B/07 to B/08	300	uPVC	30.03	1	25	88	0.7	1.49	22.359	22.058	0.483	2.15	2.75	0.15	0.21	22.49	22.243	0.82	0.76	1.03	
B/08 to 11/03	375	RRJ2	4.48	2.39	25	87	0.3	1.4	21.576	21.468	0.679	2.09	2.71	0.12	0.09	21.866	21.864	0.04	1.1	1.181	
C/01 to C/02	150	uPVC	10	1	5	19	0.95	1.1	21.508	21.407	0.06	6.58	3.55	0.12	0.19	21.984	21.858	1.26	0.6	0.189	
C/02 to C/03	225	uPVC	10.06	1	5	42	0.71	1.28	21.348	21.247	0	4.23	6.09	0.11	0.04	21.854	21.829	0.25	0.6	0.321	
C/03 to C/04	225	uPVC	4.42	1	5	32	0.55	1.01	21.247	21.203	0.03	0.22	0.22	0.02	0.01	21.822	21.81	0.27	0.62	0.27	
C/04 to C/05	225	uPVC	5.34	1	25	44	0.76	1.14	21.173	21.119	0	1.54	1.54	0.08	0.08	21.754	21.724	0.56	0.67	0.259	
C/05 to C/06	225	uPVC	8.76	1	25	46	0.78	1.23	21.119	21.032	0.03	0.22	0.22	0.03	0.01	21.71	21.661	0.56	0.68	0.306	
C/06 to C/07	225	uPVC	11.13	1	25	59	1.02	1.5	21.002	20.89	0.05	1.39	1.39	0.09	0.09	21.581	21.476	0.94	0.74	0.314	
C/07 to C/08	225	uPVC	3.26	1	25	63	1.08	1.58	20.84	20.808	0.03	0.23	0.23	0.03	0.03	21.453	21.429	0.74	0.82	0.415	
C/08 to C/09	225	uPVC	8.88	1	25	78	1.33	1.96	20.778	20.689	0.05	0.82	0.82	0.11	0.12	21.326	21.233	1.05	0.87	0.445	
C/09 to C/10	300	uPVC	30.29	1	25	130	1.03	1.87	20.639	20.336	0.555	2.07	2.29	0.16	0.34	21.08	20.61	1.55	0.68	0.6	
C/10 to 23/02	375	RRJ2	5.54	1.77	25	124	0.49	1.3	19.781	19.683	0.164	2.09	2.71	0.11	0.14	20.503	20.479	0.43	1.1	0.693	
D/01 to D/02	150	uPVC	13.65	1	25	16	0.79	0.89	22.35	22.213	0.03	5.96	5.4	0.12	0.13	22.774	22.679	0.7	0.6	0.25	
D/02 to D/03	225	uPVC	10	1	25	33	0.56	1.25	22.183	22.083	0.03	4.54	4.75	0.09	0.07	22.643	22.613	0.3	0.61	0.342	
D/03 to D/04	225	uPVC	10.42	1	25	45	0.77	1.13	22.053	21.949	0.03	1.37	1.32	0.07	0.06	22.558	22.496	0.6	0.67	0.34	
D/04 to D/05	225	uPVC	10	1	25	58	0.99	1.45	21.919	21.819	0.03	1.01	1.01	0.08	0.08	22.421	22.324	0.97	0.77	0.421	
D/05 to D/06	225	uPVC	9.8	1	25	70	1.2	1.75	21.789	21.691	0.03	0.77	0.77	0.1	0.1	22.232	22.088	1.47	0.93	0.622	
D/06 to D/07	225	uPVC	8.83	1	25	82	1.4	2.07	21.661	21.572	0.05	0.73	0.69	0.11	0.13	21.991	21.788	2.3	1.08	0.878	
D/07 to D/08	300	uPVC	1.63	0.99	25	96	0.77	1.67	21.522	21.506	0.05	7.09	0.44	0.03	0	21.782	21.703	4.85	1.19	1.231	
D/08 to D/09	300	uPVC	29.97	1.7	25	96	0.58	1.87	21.456	20.945	0.655	2.03	2.54	0.13	0.23	21.568	21.11	1.53	0.6	1.307	
D/09 to 01/20	375	RRJ2	4.2	1.97	25	96	0.36	1.36	20.29	20.208	2.7	2.09	2.71	0.11	0.1	20.482	20.363	2.83	1.1	1.234	
E/01 to E/02	150	uPVC	9.85	1	25	16	0.81	0.91	22.456	22.358	0.03	5.06	4.52	0.12	0.14	22.695	22.611	0.85	0.6	0.412	
E/02 to E/03	225	uPVC	9.98	1	10	35	0.59	1.21	22.328	22.228	0.03	2.71	3.95	0.09	0.04	22.584	22.561	0.23	0.68	0.625	
E/03 to E/04	225	uPVC	9.94	1	25	41	0.71	1.05	22.198	22.099	0.03	1.48	1.4	0.07	0.06	22.499	22.449	0.5	0.82	0.685	
E/04 to E/05	225	uPVC	10.19	1	25	54	0.92	1.35	22.069	21.967	0.03	1.08	1.08	0.08	0.08	22.368	22.281	0.85	1.02	0.861	
E/05 to E/06	225	uPVC	9.94	1	25	66	1.13	1.69	21.937	21.837	0.03	0.9	0.9	0.11	0.11	22.174	22.043	1.32	1.22	1.096	
E/06 to E/07	300	uPVC	1.45	1	25	86	0.68	1.78	21.807	21.793	0.05	7.18	1.08	0.02	0	22.024	22	1.65	1.34	1.425	
E/07 to E/08	300	uPVC	30.25	1	25	82	0.65	1.49	21.743	21.44	0.508	2.09	2.65	0.14	0.18	21.859	21.616	0.8	0.74	1.453	
E/08 to 05/12	375	RRJ2	3.96	2.17	25	81	0.29	1.33	20.932	20.846	2.444	2.09	2.71	0.1	0.07	21.099	20.984	2.9	1.1	1.267	
F/01 to F/02	150	uPVC	10.07	1	25	13	0.64	0.74	22.875	22.774	0.041	5.92	5.91	0.12	0.12	23.119	23.08	0.39	0.6	0.426	
F/02 to F/03	225	uPVC	10	1	45	34	0.59	1.17	22.734	22.634	0.03	5.67	4.52	0.1	0.04	23.054	23.036	0.18	0.6	0.484	
F/03 to F/04	225	uPVC	9.97	1	25	38	0.65	1.03	22.604	22.504	0.03	1.58	1.63	0.07	0.05	22.985	22.944	0.41	0.68	0.478	
F/04 to F/05	225	uPVC	10	1	25	50	0.85	1.25	22.474	22.374	0.03	1.3	1.14	0.07	0.07	22.877	22.804	0.73	0.77	0.535	
F/05 to F/06	225	uPVC	10.03	1	25	62	1.06	1.56	22.344	22.244	0.03	0.9	0.9	0.09	0.09	22.716	22.603	1.13	0.84	0.619	
F/06 to F/07	225	uPVC	9.97	1	25	74	1.27	1.88	22.214	22.114	0.05	0.86	0.86	0.11	0.12	22.505	22.325	1.81	0.9	0.747	
F/07 to F/08	300	uPVC	1.5	1.01	25	86	0.68	1.59	22.064	22.049	0.05	7.22	2.99	0.02	0	22.311	22.231	5.33	0.86	0.923	
F/08 to F/09	300	uPVC	29.89	1.84	25	86	0.5	1.91	21.999	21.448	0.647	2.06	2.6	0.12	0.19	22.098	21.598	1.67	0.6	1.002	
F/09 to 03/09	375	RRJ2	4.51	2.65	15	85	0.27	1.42	20.801	20.681	1.63	2.09	2.71	0.12	0.08	21.184	21.179	0.11	1.1	1.098	
G/01 to G/02	150	uPVC	9	1	15	16	0.82	0.98	22.231	22.141	0.046	4.88	4.47	0.12	0.15	22.378	22.276	1.13	0.6	0.498	
G/02 to G/03	225	uPVC	11	1	30	40	0.68	1.16	22.095	21.984	0.03	2.67	4.28	0.1	0.03	22.25	22.238	0.11	0.6	0.649	
G/03 to G/04	225	uPVC	8.92	1	30	45	0.77	1.13	21.954	21.865	0.03	1.62	1.44	0.08	0.08	22.159	22.115	0.49	0.66	0.61	
G/04 to G/05	225	uPVC	11.14	1	15	55	0.94	1.44	21.835	21.724	0.05	1.05	0.99	0.09	0.09	22.037	21.916	1.09	0.72	0.672	
G/05 to G/06	225	uPVC	8.92	1	25	68	1.16	1.72	21.674	21.584	0.03	0	0	0	0	21.916	21.792	1.39	0.83	0.814	
G/06 to G/07	300	uPVC	11.07	1	25	79	0.63	1.52	21.554	21.444	0.03	7.06	0.7	0.02	0	21.727	21.704	0.21	0.82	0.952	
G/07 to G/08	300	uPVC	11.31	1	25	94	0.75	1.55	21.414	21.301	0.32	0.89	0.84	0.07	0.07	21.634	21.644	-0.09	0.86	0.886	
G/08 to 03/05	375	RRJ2	4.67	1	15	97	0.51	1.64	20.98	20.934	1.11	0	0	0	0	21.644	21.637	0.15	1	0.815	
H/01 to H/02	150	uPVC	11.05	1.58	15	17	0.7	1.14	22.564	22.39	0.091	6.79	5.25	0.12	0.19	22.718	22.483	2.13	0.6	0.507	
H/02 to H/03	225	uPVC	10.96	1.58	25	54	0.74	1.67	22.299	22.127	0.03	7.18	5.73	0.14	0.07	22.424	22.399	0.23	0.6	0.659	
H/03 to H/04	225	uPVC	10.99	1.46	25	53	0.75	1.32	22.097	21.936	0.03	1.39	1.35	0.11	0.1	22.305	22.228	0.7	0.6	0.548	
H/04 to H/05	225	uPVC	13.89	1.53	25	64	0.89	1.76	21.906	21.694	0.61	1.16	1.11	0.1	0.11	22.141	22.037	0.75	0.6	0.527	
H/05 to 03/01	375	RRJ2	4.34	2.35	15	59	0.2	1.27	21.083	20.981	0.102	2.09	3.24	0.1	0.05	22.029	22.029	0	1	0.474	
J/01 to J/02	150	uPVC	14.85	2.24	15	22	0.75	1.43	23.736	23.404	0.796	4.92	4.29	0.1	0.25	23.949	23.501	3.02	0.6	0.465	
J/02 to 30/01	375	RRJ2	4.26	2.33	15	22	0.08	1.06	22.607	22.508	0.131	2.09	3.24	0.07	0.01	22.655	22.578	1.81	1.1	1.418	
K/01 to K/02	150	uPVC	9	1	15	14	0.72	0.92	21.129	21.039	0.03	5.19	5.19	0.12	0.14	21.24	21.212	0.31	0.6	0.529	
K/02 to K/03	225	uPVC	9.32	1	25	30	0.52	1.2	21.008	20.915	0.617	2.29	3.6	0.09	0.03	21.2	21.194	0.06	0.6	0.624	
K/03 to 17/03	375	RRJ2	5.06	0.7	25	26	0.16	0.66	20.298	20.263	0.064	2.09	3.24	0.03	0.01	21.192	21.192	0	1	0.614	
L/01 to L/02	150	uPVC	18.39	1	25	24	1.23	1.37	21.073	20.889	0.05	6.36	3.04	0.1	0.21	21.579	21.232	1.89	0.6	0.185	

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C16
Land Development Certificates
www.LDC.com.au

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 6

PLAN No: 998511/CC463 C
FILE No: 998511CC463
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 2:57:45 PM File Name: J:\998SDCC - Construction Certificate Approval Plans\PK1 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC463.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 1% AEP HYDROLOGIC RESULTS

PIT NAME	PIT TYPE	CATCHMENT AREA	PERCENT IMPERVIOUS	Tc IMP	Tc PERV	CRITICAL STORM	APPROACH FLOW	CAPTURED FLOW	UNCAPTURED FLOW	GRATE DEPTH	ROAD GRADE	ROAD CROSSFALL	BYPASS PIT	BYPASS CHANNEL FLOW	U/S FLOW WIDTH	U/S VxD	D/S FLOW WIDTH	D/S VxD	COMMENTS
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)
01/01	2.4 m lintel	0.122	85	5	5	5	79	53	26	103	0.7	3	01/02	67	2.58	0.07	2.58	0.07	
01/02	1.8 m lintel	0.083	85	5	5	5	67	42	25	102	0.7	3	01/03	65	2.54	0.06	3.04	0.06	
01/03	1.8 m lintel	0.077	85	5	5	5	65	41	24	116	0.7	3	01/04	100	3.04	0.08	5.98	0.05	
01/04	2.4 m lintel sag	0.131	85	5	5	5	141	134	0	203	0.6	2.7	01/05	119					
01/05	2.4 m lintel sag	0.12	85	5	5	5	167	152	0	158	0.4	2.9	01/06	0	0.77	0.03	1.98	0.01	
01/06	1.2 m lintel	0.002	95	5	5	5	0	0	0	92	0.3	3.1	01/07	54	2.21	0.05	2.2	0.05	
01/07	1.8 m lintel	0.104	85	5	5	5	46	33	12	77	0.7	3	33/02	46	1.73	0.07	5.58	0.04	
01/08	1.2 m lintel		0	5	5	5	0	0	0	85	0.4	4.6	01/09	37	1.97	0.04	2.15	0.04	
01/09	1.8 m lintel	0.071	95	5	5	5	31	23	8	90	0.7	3	28/01	45	2.18	0.05	2.88	0.04	
01/10	1.8 m lintel	0.091	95	5	5	5	56	39	17	82	0.7	3	01/11	20	1.8	0.03	1.5	0.04	
01/11	2.4 m lintel sag	0.038	85	5	5	5	29	29	0	59	0.1	3	38/01	0					SPLITTER/SPECIAL PIT
01/12	1.8 m lintel		0			5	1	1	0	63	0.7	3	01/11	10	1.23	0.02	1.13	0.03	
01/13	1.8 m lintel	0.01	85	5	5	5	8	6	2	29	0.7	3	01/12	1	0.33	0.01	1.23	0	
01/14	1.8 m lintel	0.023	85	5	5	5	14	11	3	55	0.7	3	01/13	8	0.98	0.02	0.88	0.02	
01/15	1.8 m lintel	0.023	95	5	5	5	14	11	3	58	2.2	3	01/14	14	1.07	0.04	1.07	0.04	
01/16	1.2 m lintel		0			5	12	10	2	55	2.5	5.2	01/15	14	0.96	0.04	1.07	0.04	
01/17	1.8 m lintel		0			5	13	11	3	54	2.1	3	01/18	13	0.93	0.04	0.93	0.04	
01/18	1.8 m lintel	0.02	85	5	5	5	13	10	3	47	2.1	3.1	01/19	8	0.71	0.03	1.34	0.02	
01/19	1.8 m lintel	0.011	95	5	5	5	8	6	2	66	1.8	2.6	01/22	19	1.34	0.04	1.67	0.04	
01/20	2.4 m lintel	0.084	85	5	5	5	77	51	26	108	1.4	3	01/21	74	2.75	0.07	4.16	0.05	
01/21	2.4 m lintel sag	0.187	85	5	5	5	142	139	0	150	0.1	3	01/22	0	0	0	0	0	
01/22	2.4 m lintel sag	0.076	85	5	5	5	46	45	0	76	0.1	3	01/23	0					
02/01	2.4 m lintel sag	0.078	85	5	5	5	105	100	3	153	0.2	3	56/01	0	0.17	0	2.6	0	
02/02	2.4 m lintel sag	0.118	85	5	5	5	121	115	0	133	0.2	3	56/02	0	0	0	0	0	
02/03	1.8 m lintel		0			5	18	14	4	82	0.5	3	02/02	34	1.88	0.04	3.6	0.02	
02/04	2.4 m lintel sag	0.141	85	5	5	5	25	24	0	54	0.4	1.9	02/03	0	0.36	0.01	1.4	0	
02/05	2.4 m lintel sag	0.081	85	5	5	5	42	42	0	73	0.5	2.3	29/01	0	0	0	0	0	
02/06	1.8 m lintel		0			5	4	3	1	74	0.7	4.1	02/05	43	1.62	0.07	1.62	0.07	
02/07	2.4 m lintel sag	0.162	85	5	5	5	88	87	0	112	0.9	3.7	02/06	0	0.26	0	1.62	0	
02/08	2.4 m lintel sag	0.024	85	5	5	5	13	13	0	39	0.1	3	27/01	0					SPLITTER PIT
02/09	1.8 m lintel		0	5	5	5	5	4	1	65	1	3	02/08	13	1.32	0.03	1.22	0.03	
02/10	2.4 m lintel sag	0.025	95	5	5	5	24	23	0	53	0.4	3.9	02/09	0					EX. ABELL ROAD
02/11	2.4 m lintel sag	0.138	85	5	5	5	75	73	0	101	0.5	2	34/01	0	0.19	0	1.11	0	EX. ABELL ROAD
02/12	1.8 m lintel		0			5	7	6	1	50	0.9	3	02/13	12	0.8	0.04	1.11	0.03	EX. ABELL ROAD
02/13	1.2 m lintel	0.021	95	5	5	5	12	10	2	59	1.3	3	02/14	10	1.11	0.03	1.06	0.03	
02/14	1.8 m lintel	0.015	85	5	5	5	10	8	2	58	0.6	3	02/15	9	1.06	0.02	0.95	0.02	
02/15	1.8 m lintel	0.013	85	5	5	5	9	7	2	54	0.6	3	02/16	7	0.95	0.02	1.37	0.01	
02/16	1.8 m lintel	0.011	85	5	5	5	7	6	1	67	0.7	3	02/17	16	1.37	0.03	1.9	0.02	
02/17	1.8 m lintel	0.028	85	5	5	5	16	12	3	83	0.7	3	02/18	32	1.9	0.04	2.15	0.04	
02/18	1.8 m lintel	0.058	85	5	5	5	32	24	9	90	0.7	3	02/19	43	2.15	0.05	2.16	0.05	
02/19	1.8 m lintel	0.072	85	5	5	5	43	30	13	90	0.7	3	02/20	43	2.16	0.05	2.15	0.05	
02/20	1.8 m lintel	0.066	85	5	5	5	43	30	14	82	0.7	3	01/22	28	1.9	0.04	1.77	0.04	
03/01	1.8 m lintel	0.077	85	5	5	5	43	32	11	98	0.7	3	03/02	57	2.41	0.06	3.72	0.05	
03/02	2.4 m lintel	0.09	85	5	5	5	57	42	91	136	0.7	3	03/03	134	3.72	0.09	5.96	0.06	
03/03	2.4 m lintel sag	0.2	95	5	5	5	179	168	0	202	0.1	3	55/01	6	0.61	0.02	4.16	0	
03/04	1.8 m lintel	0.017	95	5	5	5	25	19	5	100	0.7	3	03/03	53	2.49	0.05	5.96	0.05	
03/05	1.8 m lintel	0.082	85	5	5	5	49	33	16	76	0.7	3	03/04	25	1.68	0.04	2.49	0.03	
03/06	1.8 m lintel	0.054	95	5	5	5	31	23	8	93	0.7	3	03/05	49	2.25	0.06	2.25	0.06	
03/07	1.2 m lintel	0.003	85	5	5	5	1	1	0	65	1.3	2.3	45/01	23	1.3	0.05	1.3	0.05	
03/08	1.8 m lintel	0.075	85	5	5	5	67	44	23	86	1.3	3	03/09	63	2.03	0.08	2.03	0.08	
03/09	1.8 m lintel	0.078	85	5	5	5	63	42	21	77	2.2	3	03/10	42	1.71	0.07	2.86	0.05	
03/10	2.4 m lintel sag	0.081	85	5	5	5	84	86	0	111	0.9	3.1	45/01	0					
03/11	1.8 m lintel	0.085	85	5	5	5	65	43	22	71	2.6	3.1	03/10	42	1.5	0.07	2.86	0.04	
04/01	2.4 m lintel sag	0.021	95	5	5	5	26	55	0	111	0.9	3	40/01	0	0	0	0	0	
04/02	2.4 m lintel sag	0.16	85	5	5	5	32	30	0	80	0.1	3	25/01	0	0	0	0	0	
04/03	2.4 m lintel sag	0.082	85	5	5	5	116	169	0	169	0.2	3	04/02	1	0.34	0.01	1.48	0	
04/04	1.8 m lintel		0			5	41	28	12	83	1	3	04/03	29	1.91	0.04	5.11	0.02	
04/05	2.4 m lintel sag	0.12	85	5	5	5	114	108	0	128	0.2	3	04/04	0	0	0	0	0	
04/06	1.8 m lintel	0.011	85	5	5	5	6	5	1	82	1	3	04/05	29	1.76	0.03	3.42	0.03	
04/07	1.8 m lintel	0.011	95	5	5	5	6	5	1	97	0.7	3	02/07	88	2.39	0.09	2.89	0.08	
05/01	1.8 m lintel	0.038	95	5	5	5	21	17	4	82	0.7	3	03/01	43	1.88	0.06	2.41	0.05	
05/02	1.8 m lintel	0.078	85	5	5	5	48	32	15	108	0.7	3	01/01	79	2.74	0.07	2.74	0.07	
05/03	1.8 m lintel	0.06	85	5	5	5	28	21	7	93	0.7	3	05/02	48	2.24	0.05	2.74	0.04	
05/04	1.2 m lintel	0.005	85	5	5	5	0	0	0	81	0.3	3.8	05/03	31	1.85	0.04	2.24	0.03	
05/05	1.8 m lintel	0.024	95	5	5	5	28	22	6	73	0.7	3	05/01	21	1.56	0.04	1.88	0.03	
05/06	2.4 m lintel	0.127	85	5	5	5	79	57	22	78	0.7	3	05/05	26	1.74	0.04	1.71	0.04	
05/07	1.8 m lintel	0.084	85	5	5	5	46	33	13	105	0.9	3	05/06	79	2.65	0.08	2.65	0.08	EX. ABELL ROAD
05/08	1.8 m lintel	0.022	95	5	5	5	13	11	3	77	3.2	3	05/09	55	1.72	0.09	1.72	0.09	
05/09	1.8 m lintel	0.1	85	5	5	5	55	36	19	73	3.3	3	05/10	41	1.59	0.07	2.4	0.05	
05/10	2.4 m lintel sag	0.079	85	5	5	5	71	69	0	98	0.7	2.4	05/11	0	1.03	0.03	2.64	0.01	
05/11	1.2 m lintel		0	5	5	5	3	3	1	105	0.7	3	05/12	28	2.67	0.02	2.28	0.02	
05/12	1.8 m lintel	0.054	85	5	5	5	18	14	4	94	0.7	3	14/01	64	2.28	0.07	2.44	0.07	
06/01	2.4 m lintel sag	0.077	85	5	5	5	116	135	0	195	0.2	2	36/01	42	2.38	0.04	3.09	0.04	
06/02	2.4 m lintel sag	0.075	85	5	5	5	99	124	0	203	0.1	3	06/03	6	1.28	0.01	0.78	0.02	
06/03	2.4 m lintel sag	0.073	85	5	5	5	13	13	0	39	0.3	3.5	06/04	0	1.13	0.03	2.31	0.01	
06/04	1.2 m lintel	0.005	95	5	5	5	0	0	0	103	0.3	4	06/05	71	2.57	0.06	2.47	0.06	
06/05	2.4 m lintel	0.137	85	5	5	5	60	38	21	76	0.2	2.3	09/01	40	1.69	0.06	6.05	0.04	
07/01	3.0 m lintel sag		0			5	148	130	12	190	0.2	3	52/01	5	0.93	0.02	2.22	0.01	
07/02	3.0 m lintel sag		0			5	142	125	16	139	0.2	3	07/03	0	0	0	0	0	
07/03	2.4 m lintel		0			5	58	42	16	96	1	3	07/04	63	2.35	0.07	2.66	0.07	
07/04	1.8 m lintel	0.096	85	5	5	5	63	40	23	105	1	3	09/01	82	2.66	0.08	6.05	0.04	
08/01	2.4 m lintel sag		0			5	35	32	0	62	0.1	3	32/01	0	0	0	0	0	EX. ABELL ROAD
08/02	2.4 m lintel sag		0			5	39	35	0	66	0.1	3	08/03	0	0	0	0	0	EX. ABELL ROAD
08/03	1.8 m lintel		0			5	22	18	5	56	0.5	3.1	08/04	15	1.01	0.04	2.32	0.02	EX. ABELL ROAD
08/04	1.2 m lintel	0.021	95	5	5	5	15	12	3	95	2.3	3	59/01	91	2.32	0.1	2.32	0.1	
09/01	2.4 m lintel sag	0.074	85	5	5	5	108	89	0	206	0.6	3	09/02	118	12.46	0.02	18.86	0.01	
09/02	2.4 m lintel sag	0.114	85	5	5	5	148	152	0	175	0.4	2.4	09/03	5	1.55	0.02	3.39	0.01	

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C5 & C15
Land Development Certificates
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D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 7

PLAN No: 998511/CC464 D
FILE No: 998511CC464
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:45:30 PM File Name: J:\998SDICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\5\PRECINCT 5 DOCUMENTATION\998511CC464.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

DESIGN STORM 1% AEP HYDROLOGIC RESULTS

PIT NAME	PIT TYPE	CATCHMENT AREA	PERCENT IMPERVIOUS	Tc IMP	Tc PERV	CRITICAL STORM	APPROACH FLOW	CAPTURED FLOW	UNCAPTURED FLOW	GRATE DEPTH	ROAD GRADE	ROAD CROSSFALL	BYPASS PIT	BYPASS CHANNEL FLOW	U/S FLOW WIDTH	U/S VxD	D/S FLOW WIDTH	D/S VxD	COMMENTS
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)
09/03	1.2 m lintel		0	5	5	5	6	5	1	99	1.1	2.1	09/04	70	2.44	0.07	2.44	0.07	
09/04	2.4 m lintel	0.135	85	5	5	5	62	45	18	80	0.7	3	01/04	46	1.8	0.07	5.98	0.04	
10/01	2.4 m lintel sag	0.02	85	5	5	5	43	42	0	73	0.6	3.1	07/01	0	0	0	0	0	
10/02	2.4 m lintel sag	0.036	85	5	5	5	76	73	0	101	0.7	3	07/02	0	0	0	0	0	
10/03	1.2 m lintel		0			5	5	4	1	41	0.8	2.1	10/02	8	0.51	0.03	2.52	0.01	
10/04	2.4 m lintel sag	0.03	95	5	5	5	17	69	0	97	0.1	3	02/04	23	1.56	0.04	1.56	0.04	
11/01	1.8 m lintel	0.076	85	5	5	5	42	31	11	104	0.7	3	11/02	71	2.64	0.07	2.64	0.07	
11/02	1.8 m lintel	0.115	85	5	5	5	71	48	23	101	0.7	3	11/03	64	2.53	0.06	2.77	0.06	
11/03	1.8 m lintel	0.08	85	5	5	5	64	44	20	108	0.7	3	11/04	80	2.77	0.07	2.77	0.07	
11/04	1.8 m lintel	0.117	85	5	5	5	80	52	28	99	0.7	3	03/08	67	2.44	0.07	2.44	0.07	
12/01	1.8 m lintel	0.077	95	5	5	5	57	40	17	104	0.9	3	63/01	71	2.63	0.07	2.63	0.07	
13/01	2.4 m lintel sag		0			5	154	132	0	145	0.1	3	54/01	0	0.07	0	2.62	0	EX. ABELL ROAD
13/02	2.4 m lintel sag		0			5	38	37	0	68	0.1	3	13/03	0	0	0	0	0	EX. ABELL ROAD
13/03	1.8 m lintel		0			5	13	10	3	51	1	3	13/04	14	0.85	0.04	1.73	0.02	EX. ABELL ROAD
13/04	1.2 m lintel	0.022	95	5	5	5	14	11	3	77	3.2	3	53/01	56	1.73	0.09	1.82	0.08	
14/01	1.8 m lintel	0.116	85	5	5	5	64	44	20	99	0.7	3	14/02	59	2.44	0.06	2.44	0.06	
14/02	1.8 m lintel	0.076	85	5	5	5	59	38	21	92	0.7	3	14/03	47	2.22	0.05	2.54	0.05	
14/03	1.8 m lintel	0.05	85	5	5	5	47	32	15	102	0.7	3	58/01	65	2.54	0.07	2.77	0.06	
15/01	1.8 m lintel	0.084	85	5	5	5	46	33	13	80	1.2	3	15/02	33	1.81	0.05	3.95	0.05	
15/02	2.4 m lintel sag	0.063	85	5	5	5	37	41	0	143	0.6	3.7	05/04	4	0.43	0.02	1.85	0	
15/03	2.4 m lintel sag	0.113	85	5	5	5	101	107	0	153	0.6	1.7	15/02	0					
15/04	2.4 m lintel	0.127	85	5	5	5	78	52	25	76	0.7	3	15/03	45	1.69	0.07	4.43	0.03	
16/01	2.4 m lintel sag		0			5	35	33	0	64	0.1	3	08/01	0	0	0	0	0	EX. ABELL ROAD
16/02	2.4 m lintel sag		0			5	39	37	0	68	0.1	3	08/02	0	0	0	0	0	EX. ABELL ROAD
16/03	1.8 m lintel	0.015	95	5	5	5	8	7	2	51	0.7	3	05/08	13	0.83	0.04	1.72	0.02	EX. ABELL ROAD
17/01	1.8 m lintel		0	5	5	5	128	67	61	106	0.7	3	17/02	75	2.7	0.07	2.7	0.07	
17/02	1.8 m lintel	0.057	85	5	5	5	75	46	29	91	0.7	3	17/03	46	2.2	0.05	3	0.04	
17/03	1.8 m lintel	0.061	85	5	5	5	46	28	12	115	0.7	3	17/04	76	3	0.06	3.38	0.07	
17/04	2.4 m lintel sag	0.077	85	5	5	5	105	106	0	126	0.2	1.7	01/08	0	0.65	0.02	1.46	0.01	
18/01	2.4 m lintel sag		0			5	85	84	0	110	0.2	3	13/01	0	0	0	0	0	EX. ABELL ROAD
18/02	1.8 m lintel		0			5	15	12	3	56	0.3	3	18/03	15	0.99	0.04	2.32	0.02	EX. ABELL ROAD
18/03	1.2 m lintel	0.022	95	5	5	5	15	12	3	95	1.3	3	47/01	55	2.32	0.06	2.35	0.06	
19/01	2.4 m lintel sag	0.128	95	5	5	5	72	59	10	89	0.1	3	02/10	24	1.32	0.04	1.22	0.05	EX. ABELL ROAD
19/02	2.4 m lintel sag	0.156	95	5	5	5	88	87	0	112	0.1	3	02/12	0	0	0	0	0	EX. ABELL ROAD
20/01	1.8 m lintel		0			5	60	38	22	92	1.2	3	20/02	60	2.22	0.07	2.22	0.07	
20/02	1.8 m lintel	0.078	85	5	5	5	60	41	19	91	1.2	3	15/03	56	2.19	0.07	4.43	0.05	
21/02	H.W.					5	0	0	0	0									HIGH FLOW OUTLET HW
22/01	2.4 m lintel sag	0.025	95	5	5	5	14	17	0	44	0.4	2.9	05/05	0	0	0	0	0	
22/02	2.4 m lintel sag	0.066	85	5	5	5	36	37	0	68	0.4	2.9	05/05	2	0.62	0.01	7.42	0	
23/01	1.8 m lintel	0.058	85	5	5	5	46	31	15	115	0.7	3	23/02	85	2.99	0.07	3.86	0.07	
23/02	3.0 m lintel sag	0.241	85	5	5	5	153	151	0	140	0.1	3	01/11	0					
24/01	1.8 m lintel	0.017	95	5	5	5	32	25	8	73	0.7	3	51/01	38	1.57	0.06	3.22	0.04	
25/01	2.4 m lintel		0			5	66	49	16	65	0.7	3	36/01	24	1.3	0.05	3.09	0.05	
26/01	2.4 m lintel	0.121	85	5	5	5	66	45	21	86	2.2	3	03/11	65	2	0.08	2	0.08	
27/01	NODE		0			5	0	0	0	0		2.5	LOST	0	0	0	0	0	INTERNAL WEIR/DROP
27/02	H.W.					5	0	0	0	0									
28/01	1.8 m lintel	0.079	85	5	5	5	48	32	15	109	0.7	3	23/02	60	2.83	0.06	3.84	0.06	
29/01	1.8 m lintel		0			5	41	29	13	75	1	3	02/01	22	1.64	0.04	4.47	0.02	
30/01	1.8 m lintel		0			5	41	30	11	84	1	3	39/01	35	1.96	0.05	3.81	0.02	
31/01	1.8 m lintel	0.084	85	5	5	5	46	31	71	89	0.6	2.6	48/01	61	2.12	0.08	2.12	0.08	
32/01	1.8 m lintel		0			5	20	16	4	87	1.2	3	26/01	66	2.04	0.08	2.04	0.08	EX. ABELL ROAD
33/01	1.8 m lintel	0.087	85	5	5	5	48	32	15	88	0.7	3	33/02	39	2.09	0.05	5.58	0.04	
33/02	2.4 m lintel sag	0.108	85	5	5	5	84	102	0	187	0.6	2.7	17/04	28					
34/01	2.4 m lintel sag		0			5	31	29	0	59	0.9	1.4	30/01	0	0	0	0	0	
35/01	2.4 m lintel	0.123	85	5	5	5	67	50	17	103	0.7	3	01/05	68	2.6	0.07	4.76	0.07	
36/01	2.4 m lintel sag	0.076	85	5	5	5	54	58	0	118	0.8	3	06/03	0	0	0	0	0	
37/01	1.8 m lintel	0.034	95	5	5	5	19	15	4	78	0.7	3	03/06	31	1.73	0.05	2.25	0.04	
38/02	H.W. STACKED ROCK					5	0	0	0	0									
39/01	2.4 m lintel sag	0.102	85	5	5	5	131	124	0	139	0.1	3	20/01	0	0.05	0	2.22	0	
40/01	1.8 m lintel		0			5	37	26	11	90	0.7	3	46/01	44	2.16	0.05	2.23	0.05	
41/01	2.4 m lintel sag	0.021	95	5	5	5	18	17	0	45	0.2	3	44/01	0	0	0	0	0	
42/01	1.8 m lintel		0	5	5	5	37	26	11	99	0.7	3	57/01	61	2.47	0.06	2.47	0.06	
43/01	1.8 m lintel	0.062	95	5	5	5	35	25	10	81	0.7	3	55/01	22	1.85	0.03	4.16	0.04	
44/01	2.4 m lintel sag		0			5	17	23	0	52	0.2	3	04/01	0	0	0	0	0	
45/01	2.4 m lintel sag	0.051	85	5	5	5	23	23	0	52	0.6	3	42/01	0	0	0	0	0	
46/01	1.8 m lintel	0.08	95	5	5	5	44	32	12	92	0.7	3	49/01	48	2.23	0.06	2.31	0.05	
47/01	1.8 m lintel	0.099	85	5	5	5	55	36	19	96	0.7	3	12/01	57	2.35	0.06	2.63	0.06	
48/01	1.8 m lintel	0.087	85	5	5	5	61	39	22	87	0.7	3	LOST	46	2.06	0.06	2.06	0.06	
49/01	1.8 m lintel	0.079	95	5	5	5	48	32	15	95	0.7	3	50/01	51	2.31	0.06	2.38	0.06	
50/01	1.8 m lintel	0.079	95	5	5	5	51	37	15	97	0.7	3	01/10	54	2.38	0.06	2.36	0.06	
51/01	2.4 m lintel sag	0.135	85	5	5	5	95	100	0	122	0.6	2.9	05/10	0					
52/01	1.8 m lintel		0			5	58	41	18	92	1	3	09/02	53	2.22	0.06	5.28	0.06	
53/01	1.8 m lintel	0.1	85	5	5	5	56	39	17	80	3.3	3	51/01	57	1.82	0.08	3.22	0.05	
54/01	1.8 m lintel		0			5	50	34	16	104	0.9	3	15/04	78	2.64	0.07	2.64	0.07	
55/01	2.4 m lintel sag	0.03	85	5	5	5	22	44	133	150	0	2.8	17/01	123	3.25	0.09	3.25	0.09	
56/01	1.8 m lintel		0			5	42	29	13	103	1	3	06/01	28	2.6	0.04	5.78	0.02	
56/02	1.8 m lintel		0			5	40	28	12	84	1	3	06/02	32	1.94	0.04	5.97	0.02	
57/01	2.4 m lintel	0.099	85	5	5	5	61	44	17	91	0.7	3	23/01	46	2.2	0.05	2.99	0.04	
58/01	1.8 m lintel	0.098	85	5	5	5	65	45	21	108	0.7	3	01/21	68	2.77	0.06	4.16	0.05	
59/01	2.4 m lintel	0.169	85	5	5	5	91	57	35	90	2.1	3	01/20	77	2.15	0.09	2.75	0.07	
63/01	1.8 m lintel	0.105	85	5	5	5	71	48	23	103	0.7	3	64/01	67	2.57	0.07	2.57	0.07	
64/01	1.8 m lintel	0.086	85	5	5	5	67	42	25	102	0.7	3	64/02	66	2.55	0.07	2.55	0.07	
64/02	1.8 m lintel	0.079	85	5	5	5	66	41	25	101	0.7	3	64/03	65	2.54	0.06	2.54	0.06	
64/03	1.8 m lintel	0.078	85	5	5	5	65	41	24	83	0.7	3	24/01	32	1.9	0.04	1.87	0.05	

These plans are referred to in certificate no: **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 8

PLAN No: 998511/CC465 D
FILE No: 998511CC465
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 4:22:55 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC465.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

DESIGN STORM 1% AEP HYDRAULIC RESULTS

PIPE NAME	PIPE DIAMETER	PIPE TYPE	PIPE LENGTH	PIPE GRADE	CRITICAL STORM	PEAK FLOW	CAPACITY RATIO	PEAK VELOCITY	PIPE U/S IL	PIPE D/S IL	PIPE D/S DROP	U/S PIT Ku	D/S PIT Kw	PIT LOSS (Ku.V²head)	WSE LOSS (Kw.V²head)	U/S PIPE HGL	D/S PIPE HGL	HGL GRADE	MINIMUM COVER	MINIMUM FREEBOARD	COMMENTS
(-)	(mm)	(-)	(m)	(%)	(min)	(L/s)	(-)	(m/s)	(m)	(m)	(m)	(-)	(-)	(m)	(m)	(m)	(m)	(%)	(m)	(m)	
01/01 to 01/02	375	RRJ2	19.88	0.7	25	53	0.33	0.73	21.285	21.145	0.03	4.5	4.5	0.11	0.05	22.441	22.466	-0.13	0.8	0.018	
01/02 to 01/03	375	RRJ2	21.55	0.7	25	92	0.58	0.83	21.115	20.964	0.03	6.55	6.1	0.11	0.05	22.438	22.331	0.5	0.83	-0.1	
01/03 to 01/04	375	RRJ2	28.22	0.7	30	113	0.71	1.06	20.934	20.737	0.05	1.86	1.6	0.1	0.07	22.285	22.224	0.22	0.86	-0.116	
01/04 to 01/05	450	RRJ2	9.01	1	15	217	0.7	1.37	20.687	20.597	0.05	3.02	3.27	0.18	0.19	22.174	22.168	0.07	0.92	-0.202	
01/05 to 01/06	450	RRJ2	14.69	0.5	15	249	1.14	1.57	20.547	20.473	0.05	1.81	1.81	0.2	0.2	21.968	21.893	0.51	1.18	-0.155	
01/06 to 01/07	675	RRJ2	42.38	0.5	15	842	1.31	2.35	20.423	20.211	0.03	0.25	0.25	0.07	0.07	21.824	21.47	0.84	0.98	0.303	
01/07 to 01/08	675	RRJ2	35.44	0.5	20	860	1.34	2.4	20.181	20.004	0.039	4.15	0.36	0.09	0.09	21.386	21.073	0.88	0.84	0.431	
01/08 to 01/09	825	RRJ2	44.59	0.5	20	1110	1.01	2.16	19.965	19.742	0.03	0.24	0.24	0.06	0.05	21.02	20.793	0.51	0.76	0.507	
01/09 to 01/10	825	RRJ4	40.39	0.66	20	1127	0.89	2.11	19.712	19.447	0.03	0.34	0.29	0.09	0.07	20.728	20.517	0.52	0.73	0.544	
01/10 to 01/11	825	RRJ2	18.33	0.5	25	1190	1.08	2.23	19.417	19.326	0.03	0.51	0.51	0.13	0.13	20.388	20.28	0.59	0.75	0.541	
01/11 to 01/12	675	RRJ2	30.51	0.5	5	620	0.96	1.92	19.296	19.143	0.03	0.2	0.2	0.04	0.03	20.28	20.436	-0.51	0.98	0.711	
01/12 to 01/13	675	RRJ2	30.14	0.5	20	534	0.83	1.84	19.113	18.962	0.03	0.23	0.23	0.05	0.03	20.429	20.553	-0.41	1.32	0.705	
01/13 to 01/14	675	RRJ2	23.55	0.5	25	467	0.72	1.63	18.932	18.814	0.03	2.08	2.62	0.14	0.16	20.55	20.568	-0.08	1.7	0.792	
01/14 to 01/15	675	RRJ3	48.45	0.5	25	-431	-0.67	1.21	18.784	18.542	0.03	1.67	1.99	0.12	0.14	20.585	20.695	-0.23	2.02	0.921	
01/15 to 01/16	675	RRJ3	50.16	0.5	5	622	0.97	1.81	18.512	18.261	0.03	2.05	2.53	0.31	0.39	20.716	20.623	0.19	3.04	1.431	
01/16 to 01/17	675	RRJ3	40.2	0.5	5	569	0.88	1.69	18.231	18.03	0.03	0.3	0.27	0.06	0.04	20.606	20.529	0.19	4.42	2.725	EX. ABELL ROAD
01/17 to 01/18	675	RRJ3	44.65	0.5	5	550	0.85	1.54	18	17.777	0.03	1.53	1.74	0.08	0.09	20.468	20.327	0.32	3.76	2.633	
01/18 to 01/19	675	RRJ3	23.94	0.5	10	590	0.92	1.65	17.747	17.627	0.03	0.75	0.76	0.1	0.1	20.236	20.142	0.39	3.53	1.902	
01/19 to 01/20	675	RRJ2	19.85	0.5	25	587	0.91	1.64	17.597	17.498	0.03	1.09	1.2	0.15	0.16	20.002	19.923	0.4	3.36	1.671	
01/20 to 01/21	825	RRJ2	21.67	0.5	25	723	0.66	1.35	17.468	17.359	0.03	0.89	0.93	0.08	0.08	19.849	19.803	0.21	3.12	1.59	
01/21 to 01/22	825	RRJ2	9	0.5	25	891	0.81	1.67	17.329	17.284	0.03	1.76	1.98	0.23	0.28	19.576	19.547	0.32	3.24	1.577	
02/01 to 02/02	375	RRJ2	9	1	25	99	0.52	0.89	21.993	21.903	0.05	4.5	4.5	0.18	0.18	23.39	23.419	-0.32	1	-0.153	
02/02 to 02/03	375	RRJ2	30.16	1	25	179	0.94	1.62	21.853	21.552	0.03	3.48	3.67	0.25	0.28	23.251	23.002	0.83	1.07	-0.131	
02/03 to 02/04	375	RRJ2	38.41	0.7	20	198	1.25	1.8	21.522	21.253	0.05	0.65	0.58	0.07	0.05	22.96	22.56	1.04	1.62	0.546	
02/04 to 02/05	450	RRJ2	9	1	25	215	0.69	1.35	21.203	21.113	0.05	1.98	2.51	0.16	0.2	22.418	22.379	0.43	1.83	0.906	
02/05 to 02/06	450	RRJ2	15.04	0.7	25	245	0.95	1.54	21.063	20.957	0.051	8.25	1.03	0.11	0.11	22.269	22.179	0.6	2.08	1.07	
02/06 to 02/07	600	RRJ2	36.21	0.5	25	524	1.11	1.85	20.906	20.725	0.05	0.56	0.46	0.08	0.08	22.102	21.883	0.6	2.35	1.708	
02/07 to 02/08	600	RRJ2	19.34	0.5	25	610	1.3	2.16	20.675	20.578	0.084	0.98	0.98	0.18	0.18	21.711	21.549	0.84	2.53	1.909	
02/08 to 02/09	450	RRJ3	20.18	0.5	5	308	1.41	1.96	20.495	20.394	0.05	1.99	2.22	0.14	0.41	21.549	21.563	-0.07	3.06	2.491	
02/09 to 02/10	450	RRJ3	38.84	0.5	10	245	1.12	1.54	20.344	20.15	0.05	0.29	0.27	0.03	0.03	21.566	21.598	-0.08	3.34	2.599	
02/10 to 02/11	450	RRJ3	9.94	0.5	10	252	1.16	1.59	20.1	20.05	0.05	0.91	0.94	0.12	0.12	21.601	21.606	-0.05	3.64	2.557	EX. ABELL ROAD
02/11 to 02/12	450	RRJ3	28.54	0.5	5	262	1.2	1.65	20	19.857	0.05	7.73	4.38	0.12	0.1	21.608	21.61	-0.01	3.88	2.597	EX. ABELL ROAD
02/12 to 02/13	450	RRJ3	15.37	0.5	5	304	1.39	1.91	19.807	19.73	0.05	1.16	1.28	0.19	0.21	21.561	21.538	0.15	3.75	2.779	EX. ABELL ROAD
02/13 to 02/14	525	RRJ3	34.37	0.5	5	406	1.23	1.88	19.68	19.508	0.05	1.47	1.58	0.26	0.28	21.445	21.369	0.22	3.55	2.32	
02/14 to 02/15	525	RRJ3	29.5	0.5	5	442	1.34	2.06	19.458	19.311	0.05	0.57	0.57	0.12	0.12	21.319	21.23	0.3	3.56	2.238	
02/15 to 02/16	600	RRJ3	21.26	0.5	5	443	0.94	1.69	19.261	19.154	0.05	0.26	0.26	0.04	0.03	21.218	21.185	0.16	3.53	2.18	
02/16 to 02/17	600	RRJ3	30.11	0.5	5	473	1	1.75	19.104	18.954	0.03	1.83	2.52	0.09	0.1	21.151	21.089	0.21	3.48	2.097	
02/17 to 02/18	600	RRJ3	61.52	0.5	5	458	0.97	1.77	18.924	18.616	0.03	0.33	1.15	0.06	0.04	21.063	20.889	0.28	3.39	1.982	
02/18 to 02/19	825	RRJ3	77.12	0.5	15	613	0.56	1.43	18.586	18.201	0.03	0.83	2.63	0.16	0.11	20.844	20.736	0.14	3.03	1.75	
02/19 to 02/20	825	RRJ2	70	0.5	25	1320	1.2	2.47	18.171	17.82	0.03	0.45	0.35	0.11	0.11	20.631	20.128	0.72	2.91	1.361	
02/20 to 01/22	825	RRJ2	38.1	0.5	25	1443	1.31	2.7	17.79	17.6	0.306	0.28	0.28	0.1	0.1	20.027	19.698	0.86	2.88	1.476	
03/01 to 03/02	375	RRJ2	30.62	1	5	97	0.51	1.17	20.88	20.574	0.03	2.2	2.59	0.16	0.1	22.23	22.12	0.36	0.9	-0.097	
03/02 to 03/03	375	RRJ2	25.9	1	10	132	0.69	1.34	20.544	20.285	0.05	1.32	1.42	0.13	0.09	22.093	22.074	0.07	1.02	-0.136	
03/03 to 03/04	450	RRJ2	21.06	0.7	5	227	0.88	1.47	20.235	20.087	0.05	2.08	2.07	0.21	0.21	22.023	22.018	0.02	1.32	-0.202	
03/04 to 03/05	525	RRJ2	23.32	0.7	10	271	0.69	1.37	20.037	19.874	0.05	0.7	0.7	0.08	0.04	22.002	21.972	0.13	1.54	-0.096	
03/05 to 03/06	600	RRJ2	27.42	0.7	5	351	0.63	1.52	19.824	19.632	0.05	1.58	2.66	0.16	0.13	21.919	21.883	0.13	1.85	0.183	
03/06 to 03/07	600	RRJ2	23.68	0.7	15	344	0.62	1.44	19.582	19.416	0.05	0.83	0.8	0.09	0.04	21.854	21.818	0.15	2.19	0.473	
03/07 to 03/08	600	RRJ2	10.17	0.7	15	354	0.64	1.25	19.366	19.295	0.05	0.44	0.39	0.03	0.03	21.8	21.784	0.16	2.53	0.68	
03/08 to 03/09	675	RRJ2	23.35	0.7	25	569	0.75	1.59	19.245	19.081	0.03	1.8	2.1	0.17	0.19	21.645	21.569	0.33	2.22	0.622	
03/09 to 03/10	675	RRJ2	19.83	0.7	20	650	0.85	1.82	19.051	18.913	0.05	0.86	0.67	0.09	0.08	21.498	21.399	0.5	1.98	0.424	
03/10 to 03/11	675	RRJ2	15.35	0.7	25	736	0.97	2.06	18.863	18.755	0.05	0.99	0.99	0.16	0.16	21.241	21.141	0.65	2.22	0.215	
03/11 to 01/15	675	RRJ2	9	0.7	25	807	1.06	2.26	18.705	18.642	0.09	1.09	1.14	0.22	0.22	20.926	20.855	0.79	2.88	1.098	
04/01 to 04/02	375	RRJ2	9	2	5	-65	-0.24	0.94	22.209	22.029	0.05	4.5	4.5	0.11	0.06	23.753	23.747	0.07	1.1	-0.115	
04/02 to 04/03	375	RRJ2	73.1	0.7	15	81	0.51	0.88	21.979	21.467	0.03	2.11	2.66	0.11	0.07	23.748	23.79	-0.06	1.28	-0.082	
04/03 to 04/04	375	RRJ2	20.03	0.5	20	159	1.19	1.44	21.437	21.337	0.03	4.08	4.07	0.27	0.27	23.636	23.53	0.53	1.97	0.028	
04/04 to 04/05	375	RRJ2	49.98	0.5	20	174	1.29	1.57	21.307	21.057	0.05	1.48	1	0.1	0.05	23.485	23.142	0.69	2.23	0.405	
04/05 to 04/06	375	RRJ2	20.41	0.5	25	246	1.83	2.23	21.007	20.905	0.05	2.32	2.31	0.23	0.26	22.988	22.564	2.08	2.66	0.789	
04/06 to 04/07	375	RRJ2	33.82	0.5	25	249	1.85	2.25	20.855	20.686	0.05	0.28	0.25	0.04	0.06	22.527	21.925	1.78	2.95	1.489	
04/07 to 02/08	375	RRJ2	18.15	0.5	25	253	1.89	2.29	20.636	20.545	0.05	0.3	0.3	0.08	0.08	21.85	21.543	1.69	3.1	2.189	
05/01 to 05/02	375	RRJ2	9.14	2	15	-52	-0.19	0.76	21.382	21.199	0.05	4.5	4.5	0.11	0.02	22.774	22.777	-0.03	1	-0.072	
05/02 to 05/03	375	RRJ2	22.65	1	15	67	0.35	0.98	21.149	20.923	0.03	7	5.06	0.15	0.04	22.769	22.756	0.06	1.19	-0.091	
05/03 to 05/04	375	RRJ2	19.85	1	15	96	0.5	1.31	20.893	20.694	0.05	1.53	1.13	0.12	0.03	22.75	22.739	0.06	1.6	0.142	
05/04 to 05/05	375	RRJ2	9.48	2	15	113	0.42	1.38	20.644	20.454	0.05	1.62	1.8	0.14	0.1	22.73	22.725	0.05	2.02	0.276	
05/05 to 05/06	450	RRJ2	30.89	0.9	10	172	0.59	1.22	20.404	20.126	0.03	1.3	1.84	0.14	0.11	22.718	22.706	0.04	2.17	0.333	
05/06 to 05/07	525	RRJ2	37.52	0.9	15	401	0.91	1.85	20.096	19.759	0.03	2.15	2.66	0.26	0.33	22.605	22.496	0.29	2.62	0.568	
05/07 to 05/08	525	RRJ2	40.75	0.9	15	428	0.97	1.98	19.729	19.362	0.03	0.59	0.58	0.13	0.08	22.467	22.327	0.34	3.31	1.093	EX. ABELL ROAD
05/08 to 05/09	600	RRJ2	23.29	0.9	20	561	0.89	1.98	19.332	19.122	0.03	1.55	1.91	0.21	0.22	22.152	22.041	0.48	3.01	1.173	
05/09 to 05/10	600	RRJ2	22.84	0.9	20	603	0.96	2.13	19.092	18.887	0.05	1.6	0.53	0.11	0.07	21.989	21.858	0.57	2.61	0.696	
05/10 to 05/11	600	RRJ2	15.52	0.9	20	674	1.07	2.38	18.837	18.697	0.05	1.31	1.38	0.25	0.26	21.618	21.487	0.84	2.86	0.285	
05/11 to 05/12	600	RRJ2	21.68	0.9	20	706	1.12	2.5	18.647	18.452	0.05	0.61	0.61	0.19	0.19	21.339	21.152	0.86	3.02	0.827	
05/12 to 02/19	600	RRJ2	12.96	1	25	750	1.13	2.65	18.401	18.272	0.101	1.09	1.14	0.27	0.28	20.881	20.736	1.12	3.16	1.16	
06/01 to 06/02	375	RRJ2	9	1.5	15	126	0.54	1.14	22.013	21.878	0.05	4.5	4.5	0.3	0.3	23.427	23.424	0.03	0.9	-0.195	
06/02 to 06/03	450	RRJ2	47.46	0.5	15	218	1	1.37	21.828	21.591	0.05	2.41	2.88	0.2	0.23	23.338	23.258	0.17	0.9	-0.203	
06/03 to 06/04	450	RRJ2	14.62	0.5	20	206	0.94	1.29	21.541	21.468	0.05	1.06	1.11	0.08	0.08	23.2	23.156	0.3	1.38	-0.039	
06/04 to 06/05	450	RRJ2	48.57	0.5	30	237	1.08	1.49	21.418	21.175	0.03	0.83	0.97	0.08	0.08	23.096	22.838	0.53	1.32	0.125	
06/05 to 09/03	450	RRJ2	30.09	0.5	30	261	1.19	1.64	21.145	20.994	0.101	6.92	0.78	0.11	0.08	22.778	22.572	0.68	1.31	0.161	
07/01 to 07/02	375	RRJ2	9	1.5	20	122	0.53	1.11	21.995	21.86	0.126	4.5	4.5	0.28	0.28	23.263	23.263	0	0.8	-0.19	
07/02 to 07/03	450	RRJ2	59.63	0.5	15	177	0.81	1.12	21.735	21.436	0.03	4.38	4.96	0.19	0.19	23.17	23.131	0.07	0.9	-0.139	
07/03 to 07/04	450	RRJ2	22.05	0.5	20	214	0.98	1.35	21.406	21.296	0.05	7	1.13	0.09	0.07	23.085	22.945	0.63	1.06	-0.095	
07/04 to 09/02	450	RRJ2	18.39	0.5	20	234	1.07	1.47	21.246	21.154	0.062	1.12	1.12	0.08	0.08	22.912	22.88	0.17	1.11	-0.105	
08/01 to 08/02	375	RRJ2	11	2	15	32	0.12	1.01	22.349	22.128	0.05	4.5	4.5	0.11	0.02	22.376	22.241	1.23	1.1	1.302	EX. ABELL ROAD
08/02 to 08/03	375	RRJ2	69.12	1	15	67	0.35	1.2	22.078	21.387	0.05	4.12	2.98	0.06	0.05	22.18	21.609	0.83	1.32	1.545	EX. ABELL ROAD
08/03 to 08/04	375	RRJ2	15.5	1	15	97	0.51	1.3	21.337	21.182	0.05	1.71	1.87	0.11	0.07	21.502	21.396	0.68	1.89	2.063	EX. ABELL ROAD
08/04 to 01/17	375	RRJ2	11.2	1	15	108	0.57	1.5	21.132	21.02	2.98	0.72	0.62	0.05	0.03	21.343	21.223	1.07	1.8	1.906	
09/01 to 09/02	375	RRJ2	9.39	1	15	82	0.43	0.75	21.236	21.142	0.05	4.5	4.5	0.13	0.13	22.879	22.88	-0.01	1.1	-0.206	
09/02 to 09/03	450	RRJ2	14.86	1	20	339	1.1	2.13	21.092	20.944	0.05	1.63	1.63	0.26	0.26	22.649	22.572	0.52	1.32	-0.175	
09/03 to 09/04	600	RRJ2	47.52	0.5	20	611	1.3	2.16	20.894	20.656	0.03	0.39	0.39	0.09	0.09	22.507	22.198	0.65	1.12	0.217	

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No. BPB 3015
Categories B1,C1,C2,C3,C4,CE & C15
Land Development Certificates
www.LDC.com.au

D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4721 1308 W www.jwprince.com.au E mail@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 9

PLAN No: 998511/CC466 D
FILE No: 998511CC466
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 3:45:30 PM File Name: J:\9985\DOCC - Construction Certificate Approval Plans\PK11 GENTRAL PRECINCT\SPRECINCT 5 DOCUMENTATION\998511CC466.dwg

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

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
09/04 to 01/06	600	RRJ2	30.48	0.5	20	633	1.35	2.24	20.626	20.474	0.051	6.84	0.51	0.11	0.08	22.124	21.898	0.74	1.08	0.215	
10/01 to 10/02	375	RRJ2	9.01	1	10	43	0.22	0.7	21.974	21.884	0.05	4.5	4.5	0.08	0.03	23.257	23.261	-0.04	0.9	-0.064	
10/02 to 10/03	375	RRJ2	15.29	0.9	10	97	0.54	1.04	21.834	21.697	0.05	5.21	5.78	0.18	0.19	23.197	23.166	0.2	1.16	-0.091	
10/03 to 10/04	375	RRJ2	41.55	0.9	10	118	0.65	1.17	21.647	21.273	0.03	0.85	0.69	0.07	0.04	23.143	23.048	0.23	1.66	0.542	
10/04 to 02/06	375	RRJ2	34.03	0.9	25	239	1.32	2.16	21.243	20.936	0.03	2.09	1.88	0.19	0.44	22.9	22.179	2.12	1.97	0.577	
11/01 to 11/02	375	RRJ2	26.81	2	25	39	0.15	0.98	21.616	21.079	0.03	4.5	4.5	0.14	0.03	22.397	22.392	0.02	1.1	0.731	
11/02 to 11/03	375	RRJ2	22.95	1	25	98	0.52	1.03	21.049	20.82	0.03	3.45	4.06	0.16	0.08	22.37	22.345	0.11	1.48	0.554	
11/03 to 11/04	375	RRJ2	29.92	1	5	211	1.11	1.95	20.79	20.491	0.03	1.99	2.32	0.2	0.37	22.185	21.883	1.01	1.58	0.441	
11/04 to 03/08	450	RRJ2	18.95	1	5	290	0.94	1.97	20.461	20.271	1.026	1.12	0.66	0.08	0.05	21.879	21.784	0.5	1.62	0.693	
12/01 to 02/16	375	RRJ2	9.01	2	15	40	0.15	1.13	21.838	21.657	2.553	4.5	4.5	0.14	0.03	21.866	21.755	1.23	1.1	1.277	
13/01 to 13/02	375	RRJ2	11	2	15	128	0.48	1.25	22.663	22.443	0.05	4.5	4.5	0.31	0.31	23.072	23.034	0.35	1.1	0.785	EX. ABELL ROAD
13/02 to 13/03	375	RRJ2	55.3	1	15	157	0.83	1.55	22.393	21.84	0.05	2.15	2.62	0.14	0.27	22.905	22.598	0.56	1.3	1.068	EX. ABELL ROAD
13/03 to 13/04	375	RRJ2	15.8	1	15	166	0.87	1.59	21.79	21.632	0.05	0.91	0.89	0.1	0.1	22.537	22.449	0.56	1.65	1.471	EX. ABELL ROAD
13/04 to 05/08	375	RRJ2	9	2	15	175	0.65	1.87	21.582	21.402	2.071	0.84	0.84	0.12	0.11	22.382	22.327	0.61	1.57	1.056	
14/01 to 14/02	375	RRJ2	20.42	1	15	43	0.23	0.8	20.416	20.212	0.03	4.5	4.5	0.14	0.04	20.452	20.432	0.1	1.1	1.34	
14/02 to 14/03	375	RRJ2	14.72	1	15	81	0.43	1.09	20.182	20.034	0.05	2.54	1.94	0.11	0.05	20.329	20.287	0.29	1.19	1.359	
14/03 to 02/20	375	RRJ2	14.89	1	15	112	0.59	1.41	19.984	19.835	2.045	1.57	1.52	0.11	0.08	20.181	20.128	0.36	1.33	1.401	
15/01 to 15/02	375	RRJ2	16.28	2	25	34	0.13	1.07	21.504	21.178	0.05	4.5	4.5	0.14	0.02	23.016	23.017	-0.01	1.1	0.007	
15/02 to 15/03	375	RRJ2	9	1	15	80	0.42	0.85	21.128	21.038	0.05	9.64	8.68	0.09	0.07	23.012	23.011	0.01	1.4	-0.143	
15/03 to 15/04	375	RRJ2	14.89	1	5	184	0.97	1.67	20.988	20.839	0.05	1.94	2.16	0.24	0.26	22.901	22.85	0.34	1.65	-0.153	
15/04 to 05/06	375	RRJ2	9.1	2	5	229	0.85	2.15	20.789	20.607	0.511	1.17	1.17	0.23	0.23	22.762	22.706	0.62	2.14	0.414	
16/01 to 16/02	375	RRJ2	11.01	2	15	33	0.12	1.03	22.454	22.233	0.05	4.5	4.5	0.12	0.02	22.482	22.416	0.6	1.1	1.298	EX. ABELL ROAD
16/02 to 16/03	375	RRJ2	54.35	1	15	80	0.42	1.41	22.183	21.64	0.05	3.87	3.05	0.13	0.07	22.364	22.349	0.03	1.3	1.475	EX. ABELL ROAD
16/03 to 05/08	375	RRJ2	15.74	1	15	84	0.44	1.36	21.59	21.433	2.101	1.07	0.99	0.1	0.03	22.34	22.327	0.08	1.86	1.721	EX. ABELL ROAD
17/01 to 17/02	375	RRJ2	15.41	0.5	25	67	0.5	0.6	20.468	20.392	0.085	4.5	4.5	0.08	0.08	21.752	21.684	0.44	0.8	-0.106	
17/02 to 17/03	375	RRJ2	15.68	0.5	20	101	0.75	0.92	20.307	20.229	0.03	2.14	3.17	0.05	0.05	21.637	21.598	0.25	0.85	-0.091	
17/03 to 17/04	375	RRJ2	20.6	0.5	30	134	0.99	1.21	20.199	20.096	0.03	1.68	2.16	0.06	0.05	21.565	21.523	0.2	0.86	-0.115	
17/04 to 01/08	375	RRJ2	14.03	0.5	20	233	1.74	2.11	20.066	19.995	0.03	1.57	1.55	0.23	0.31	21.287	21.081	1.47	1.11	-0.126	
18/01 to 18/02	375	RRJ2	11.27	2	15	83	0.31	1.18	22.768	22.543	0.05	4.5	4.5	0.21	0.13	22.835	22.751	0.75	1.1	1.163	EX. ABELL ROAD
18/02 to 18/03	375	RRJ2	14.28	1	15	94	0.5	1.34	22.493	22.35	0.05	1.36	1.44	0.09	0.05	22.659	22.548	0.78	1.28	1.46	EX. ABELL ROAD
18/03 to 02/13	375	RRJ2	9.01	2	15	105	0.39	1.7	22.3	22.12	2.44	0.98	0.94	0.09	0.04	22.46	22.283	1.97	1.21	1.315	
19/01 to 19/02	375	RRJ2	11	2	5	57	0.21	1	22.866	22.646	0.05	4.5	4.5	0.18	0.06	22.914	22.949	-0.32	1.1	1.22	EX. ABELL ROAD
19/02 to 02/12	375	RRJ2	46.05	1	5	140	0.74	1.56	22.596	22.135	2.328	3.74	3.71	0.19	0.26	22.772	22.374	0.86	1.5	1.354	EX. ABELL ROAD
20/01 to 20/02	375	RRJ2	22.98	1	15	39	0.21	0.97	21.926	21.697	0.044	4.5	4.5	0.13	0.03	23.057	23.049	0.03	1.1	0.389	
20/02 to 15/03	375	RRJ2	30.81	1	5	80	0.42	1.33	21.652	21.344	0.356	6.02	3.28	0.17	0.05	23.03	23.011	0.06	1.1	0.143	
21/01 to 21/02	750	RRJ2	21.76	0.5	25	1380	1.62	3.16	17.2	17.091		0	0	0	0	18.088	17.783	1.4		2.507	
22/01 to 22/02	375	RRJ2	9	1	20	-43	-0.23	0.84	21.681	21.591	0.05	9.67	9.67	0.08	0.01	22.719	22.717	0.02	1.1	0.4	
22/02 to 05/06	375	RRJ2	16.12	1	15	82	0.43	1.11	21.541	21.38	1.283	8.42	5.38	0.16	0.06	22.712	22.706	0.04	1.36	0.403	
23/01 to 23/02	375	RRJ2	32.54	1	20	-35	-0.19	0.34	19.894	19.569	0.05	4.5	4.5	0.08	0.02	20.672	20.665	0.02	1	0.476	
23/02 to 01/11	450	RRJ2	9	1	15	305	0.99	1.92	19.519	19.429	0.133	2.1	2.1	0.31	0.31	20.364	20.28	0.93	1.06	0.326	
24/01 to 05/11	375	RRJ2	30.92	1	15	305	0.99	1.92	21.013	20.704	2.057	4.5	4.5	0.12	0.02	21.49	21.487	0.01	1.1	1.036	
25/01 to 06/04	375	RRJ2	30.42	1	5	51	0.27	1.12	22.014	21.71	0.292	4.5	4.5	0.14	0.05	23.166	23.156	0.03	1.1	0.344	
26/01 to 03/11	375	RRJ2	26.57	2	25	49	0.18	1.42	21.284	20.753	2.048	4.5	4.5	0.1	0.05	21.339	21.141	0.75	1.1	1.401	
27/01 to 27/02	675	RRJ2	24.05	2	25	945	0.73	2.64	19.601	19.12		0.2	0.2	0.07	0.07	20.3	20.04	1.08	-0.64	3.776	
28/01 to 01/10	375	RRJ2	9.03	1.5	15	36	0.15	0.86	19.615	19.479	0.062	4.5	4.5	0.11	0.02	20.518	20.517	0.01	1.1	0.53	
29/01 to 02/03	375	RRJ2	11.46	2	5	30	0.11	1.11	22.039	21.81	0.289	4.5	4.5	0.11	0.02	23.004	23.002	0.02	1.1	0.475	
30/01 to 02/06	375	RRJ2	11.32	2	15	58	0.21	1.4	22.378	22.151	1.245	3.26	3.21	0.14	0.04	22.428	22.269	1.41	1.1	1.263	
31/01 to 03/02	375	RRJ2	10.77	1	15	-36	-0.19	0.84	20.785	20.677	0.133	4.5	4.5	0.1	0.02	22.127	22.12	0.07	0.9	-0.089	
32/01 to 08/03	375	RRJ2	11	2	15	16	0.06	1	22.235	22.014	0.677	4.5	4.5	0.06	0.01	22.262	22.077	1.68	1.1	1.314	EX. ABELL ROAD
33/01 to 33/02	375	RRJ2	18.18	0.59	25	38	0.26	0.66	20.34	20.233	0.05	4.5	4.5	0.08	0.03	21.531	21.53	0.01	0.7	-0.087	
33/02 to 17/04	375	RRJ2	9.05	0.5	15	110	0.82	1	20.183	20.138	0.072	5.8	5.8	0.16	0.16	21.524	21.523	0.01	0.82	-0.187	
34/01 to 02/07	375	RRJ2	11.33	2	15	28	0.11	1.11	22.371	22.144	1.469	4.5	4.5	0.1	0.01	22.402	22.227	1.54	1.1	1.318	
35/01 to 01/03	375	RRJ2	10.18	1	5	41	0.21	0.85	21.1	20.998	0.064	4.5	4.5	0.1	0.03	22.324	22.331	-0.07	0.8	-0.103	
36/01 to 06/03	375	RRJ2	10.13	2	20	58	0.22	0.8	21.939	21.736	0.195	4.5	4.5	0.11	0.06	23.255	23.258	-0.03	0.9	-0.118	
37/01 to 11/02	375	RRJ2	10.1	2	25	28	0.1	0.97	21.524	21.322	0.272	4.5	4.5	0.12	0.01	22.393	22.392	0.01	1.1	0.584	
38/01 to 38/02	750	RRJ2	8.12	1	25	2033	1.69	4.6	18.931	18.85		0	0	0	0	19.831	19.6	2.84		1.25	
39/01 to 10/04	375	RRJ2	9.05	2	5	108	0.4	1.29	22.187	22.006	0.764	4.5	4.5	0.23	0.22	23.075	23.048	0.3	1.1	0.355	
40/01 to 06/04	375	RRJ2	9.63	2	5	26	0.1	1.03	21.889	21.697	0.279	4.5	4.5	0.11	0.01	23.157	23.156	0.01	1.1	0.176	
41/01 to 04/05	375	RRJ2	9	2	15	21	0.08	0.97	22.493	22.313	1.306	4.5	4.5	0.1	0.01	23.109	23.107	0.02	1.1	0.819	
42/01 to 01/14	375	RRJ2	9.06	2	5	-92	-0.34	1.12	20.053	19.872	1.047	4.5	4.5	0.21	0.1	20.61	20.609	0.01	1.1	0.882	
43/01 to 03/04	375	RRJ2	9.01	2	5	-51	-0.19	1.03	20.536	20.356	0.319	4.5	4.5	0.11	0.03	22.007	22.018	-0.12	1.1	-0.074	
44/01 to 04/03	375	RRJ2	9	2	10	34	0.13	0.96	22.383	22.203	0.766	4.5	4.5	0.12	0.02	23.79	23.786	0.04	1.1	0.024	
45/01 to 03/10	375	RRJ2	9.14	2	5	-89	-0.33	1.01	20.186	20.003	1.141	4.5	2.66	0.15	0.08	21.401	21.399	0.02	1.1	0.22	
46/01 to 09/03	375	RRJ2	9.57	2	20	31	0.12	0.9	21.325	21.133	0.239	4.5	4.5	0.09	0.02	22.574	22.572	0.02	1.1	0.184	
47/01 to 02/14	375	RRJ2	12.3	2	15	36	0.13	1.05	22.196	21.95	2.491	8.32	8.32	0.15	0.04	22.218	22.042	1.43	1.1	1.294	
48/01 to 17/02	375	RRJ2	9	1	25	36	0.19	0.79	20.447	20.357	0.05	4.5	4.5	0.09	0.02	21.682	21.683	-0.01	0.8	-0.087	
49/01 to 01/06	375	RRJ2	9.36	2	25	30	0.11	0.91	20.765	20.577	0.154	4.5	4.5	0.09	0.02	21.901	21.898	0.03	1.1	0.298	
50/01 to 01/08	375	RRJ2	9.42	2	25	35	0.13	0.81	20.221	20.032	0.067	4.5	4.5	0.09	0.02	21.084	21.081	0.03	1.1	0.566	
51/01 to 05/10	375	RRJ2	9	2	5	91	0.34	1.28	20.687	20.507	1.671	4.5	4.5	0.21	0.15	21.868	21.858	0.11	1.1	0.157	
52/01 to 07/03	375	RRJ2	9.01	1	25	45	0.24	0.81	21.609	21.519	0.113	4.5	4.5	0.09	0.04	23.132	23.131	0.01	1.1	-0.092	
53/01 to 05/09	375	RRJ2	9	2	15	41	0.15	1.12	21.293	21.112	2.021	4.5	4.5	0.15	0.03	22.043	22.041	0.02	1.1	0.685	
54/01 to 05/07	375	RRJ2	9.04	2	25	34	0.13	1.09	22.134	21.953	2.224	4.5	4.5	0.13	0.02	22.497	22.496	0.01	1.1	1.077	
55/01 to 03/03	375	RRJ2	9.76	1	25	-113	-0.6	1.03	20.44	20.343	0.108	4.5	4.5	0.08	0.06	22.033	22.064	-0.32	1.1	-0.15	
56/01 to 56/02	375	RRJ2	9.08	1	25	29	0.15	0.75	22.205	22.114	0.05	4.5	4.5	0.08	0.02	23.43	23.426	0.04	0.8	-0.103	
56/02 to 06/02	375	RRJ2	19.13	1	25	57	0.3	0.72	22.064	21.873	0.045	4.49	5.16	0.13	0.03	23.424	23.424	0	0.86	-0.084	
57/01 to 01/13	375	RRJ2	9.49	2	5	-127	-0.47	1.2	19.887	19.698	0.726	9.13	6.14	0.19	0.14	20.528	20.526	0.02	1.1	0.757	
58/01 to 01/21	375	RRJ2	21.28	1	15	44	0.23	0.97	19.967	19.754	2.385	7	7	0.16	0.06	20.01	19.936	0.35	1.1	1.314	
59/01 to 01/18	375	RRJ2	12.13	2	15	56	0.21	1.26	20.93	20.687	2.901	4.5	4.5	0.16	0.06	20.967	20.804	1.34	1.1	1.27	
63/01 to 02/17	375	RRJ2	9.5	2	15	47	0.18	1.17	21.641	21.451	2.527	4.5	4.5	0.16	0.04	21.671	21.557	1.2	1.1	1.263	
64/01 to 64/02	375	RRJ2	13.83	1	15	40	0.21	0.82	21.416	21.278	0.03	4.5	4.5	0.11	0.03	21.687	21.686	0.01	1.1	1.21	
64/02 to 64/03	375	RRJ2	22.92	1	15	79	0.41	0.9	21.248	21.019	0.05	4.12	3.43	0.16	0.06	21.634	21.594	0.17	1.17	1.151	
64/03 to 02/18	375	RRJ2	10.48	2	15	223	0.83	2.23	20.968	20.759	2.173	1.49	1.51	0.25	0.29	21.354	21.019	3.2	1.35	1.082	

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,D1,C2,C3,C4,C8 & C13
Land Development Certificates
www.LDC.com.au

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	DRAINAGE TABLE UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

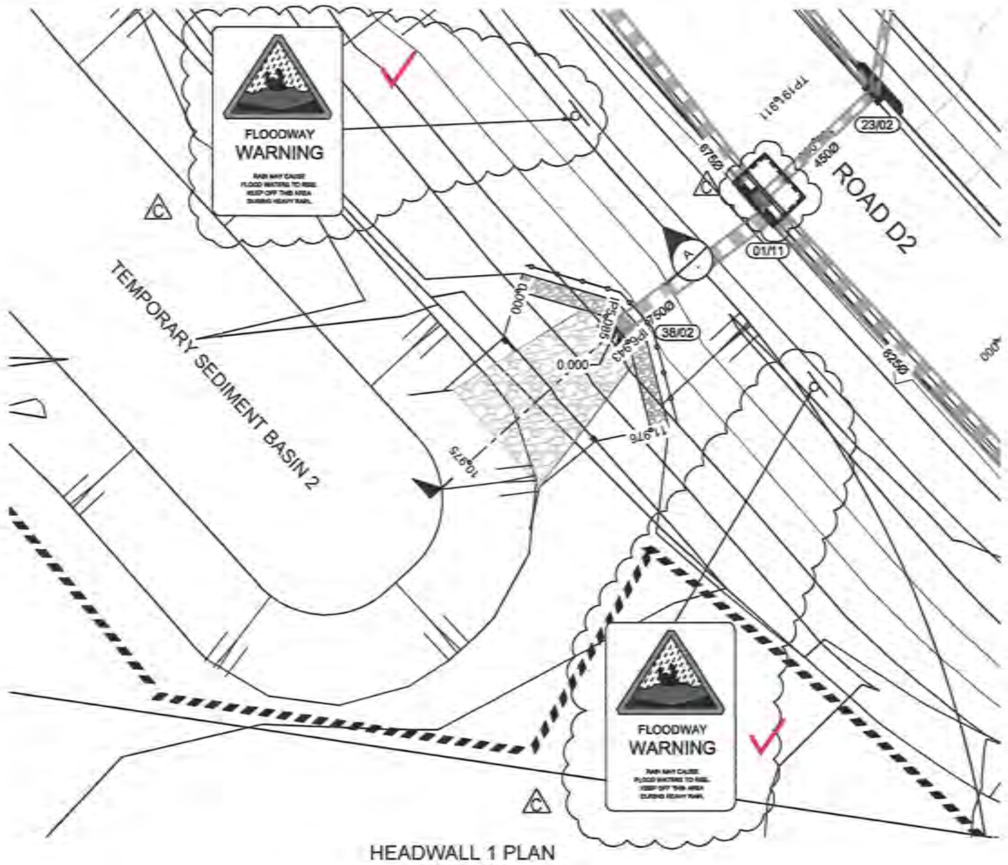
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

ISSUE FOR CONSTRUCTION APPROVAL

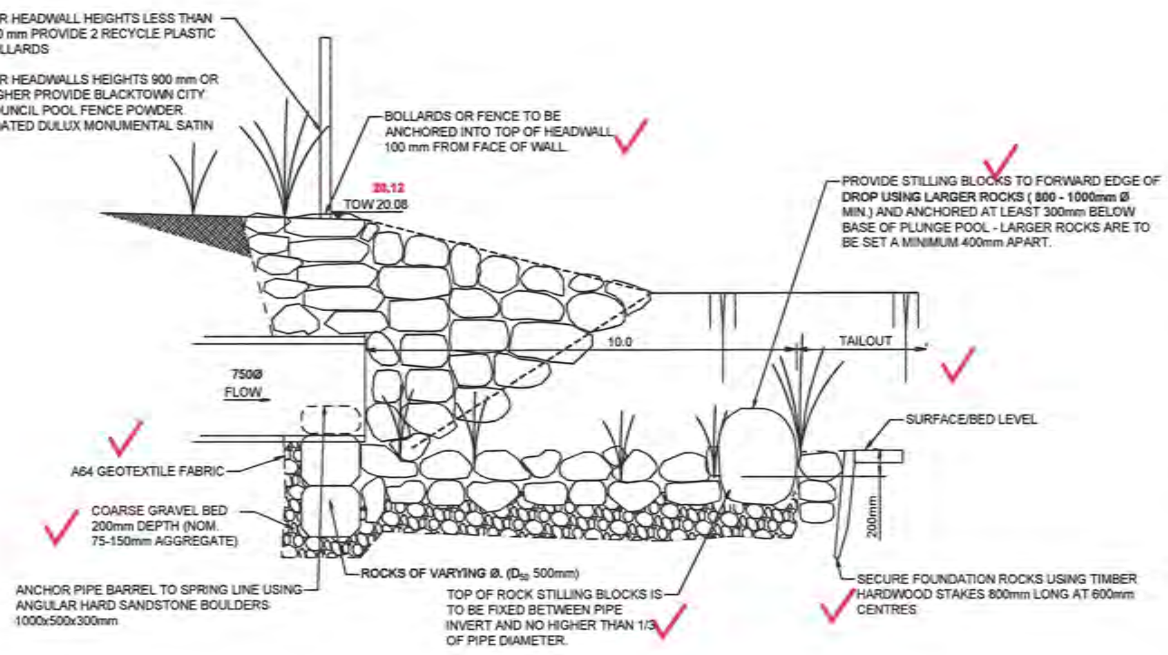
NEWPARK
PRECINCT 5
DRAINAGE CALCULATIONS
SHEET 10

PLAN No: 998511/CC467 D
FILE No: 998511CC467
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:45:30 PM File Name: J:\9985\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 DOCUMENTATION\998511CC467.dwg



HEADWALL 1 PLAN
SCALE 1:200



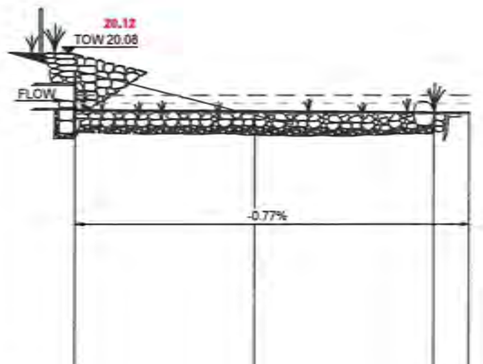
SECTION A
N.T.S

TAILWATER LEVEL SUMMARY	
EVENT	TWL (m AHD)
10% AEP	19.06
0.5 EY	18.84
4 EY	18.54

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5



DATUM 11.0

DESIGN LINE GRADING	~~[illegible]~~ 18.64	~~[illegible]~~ 18.60	18.56 ~~[illegible]~~	18.565
EXISTING SURFACE	19.753	18.503	18.567	18.565
CHAINAGE	0.000	5.000	10.000	10.975

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

TAILOUT 1			
CHAINAGE	EASTING	NORTHING	BEARING
0	295884.99	6268456.04	227°59'23.14"
10.98	295876.64	6268448.69	227°59'23.14"

HEADWALL 1 (BASE)			
CHAINAGE	EASTING	NORTHING	BEARING
0	295879.51	6268458.16	106°05'50.42"
5.08	295884.39	6268456.75	
6.94	295885.64	6268455.37	
11.98	295886.91	6268450.49	165°22'44.75"

These plans are referred to in certificate no. **15879** approved by:
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Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
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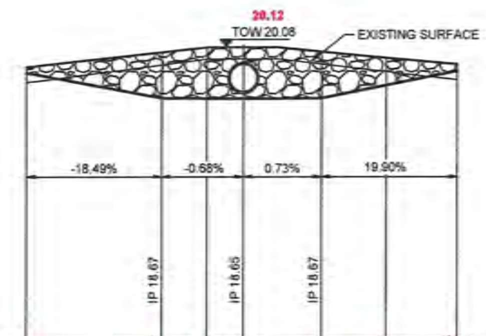

DATUM 12.0

BASE OF HEADWALL	~~[illegible]~~ 18.83	18.65 ~~[illegible]~~	18.657	18.650	18.666	18.7 ~~[illegible]~~	18.7 ~~[illegible]~~
TOP OF HEADWALL	~~[illegible]~~ 18.97	19.56 ~~[illegible]~~	20.10 ~~[illegible]~~	~~[illegible]~~ 20.12	19.42 ~~[illegible]~~	19.777	19.05 ~~[illegible]~~
EXISTING SURFACE	19.103	19.590	19.751	19.759	19.611	19.402	19.173
CHAINAGE	0.000	3.756	5.000	6.013	8.203	10.000	11.976

LONGITUDINAL SECTION HEADWALL 1
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:200 (AT A1) 1:400 (AT A3) — 4 2 0 4 8 12 16 20 METRES

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NMUM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT:
WINTEN PROPERTY GROUP

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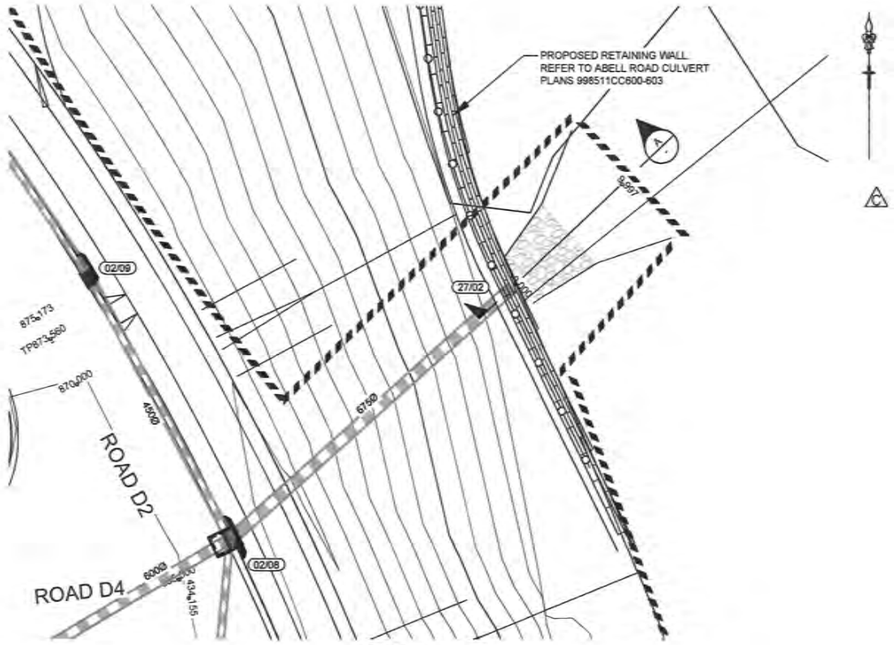
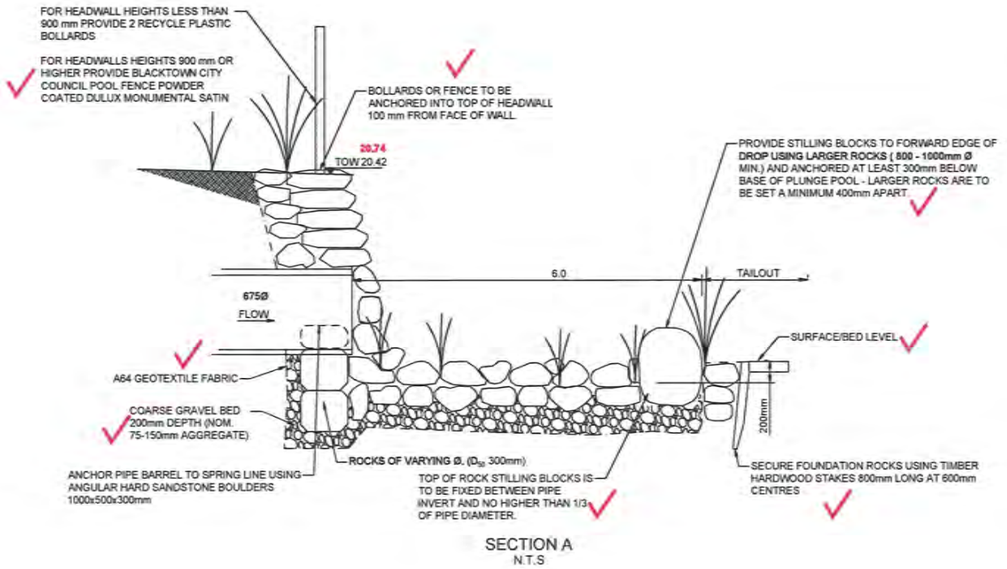
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
TAILOUT PLAN & DETAILS

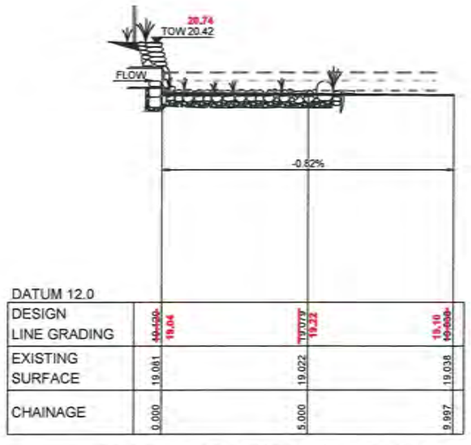
PLAN No: 998511/CC468 C
FILE No: 998511CC468
SHEET SIZE: A1 ORIGINAL



PLAN
SCALE 1:200



SECTION A
N.T.S



LONGITUDINAL SECTION TAILOUT 2
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

TAILWATER LEVEL SUMMARY	
EVENT	TWL (m AHD)
10% AEP	19.81
0.5 EY	19.53
4 EY	19.19

TAILOUT 2			
CHAINAGE	EASTING	NORTHING	BEARING
0	296300.83	6268636.21	46°58'29.43"
10	296308.14	6268643.03	46°58'29.43"

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no. **15879** approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
Land Development Certificates
www.LDC.com.au

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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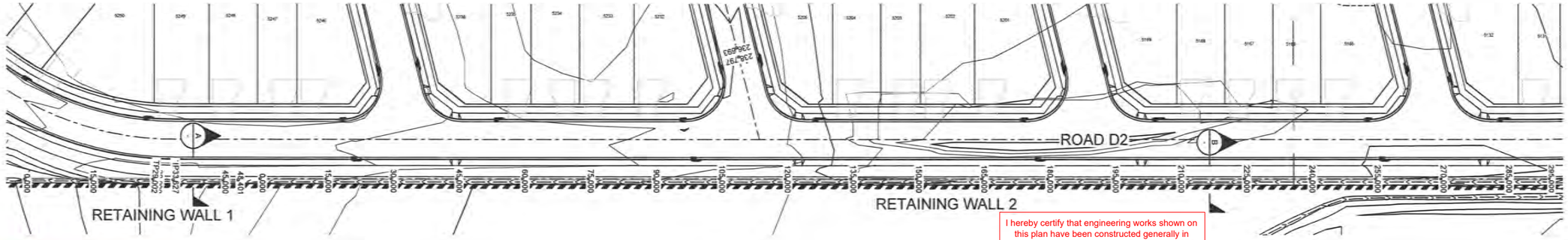
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
TAILOUT PLAN & DETAILS

PLAN No: 998511/CC469 C
FILE No: 998511CC469
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 3:02:04 PM File Name: J:\998SDICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC469.dwg



PLAN
SCALE 1:500

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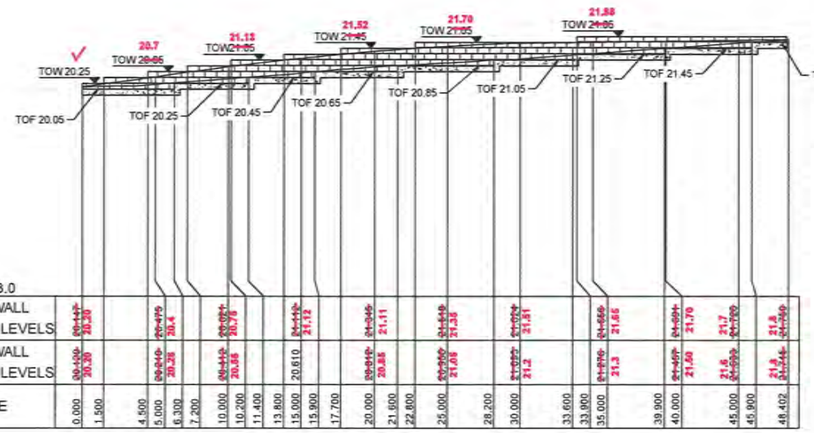
DATE 14/07/2021 REF 20260-5

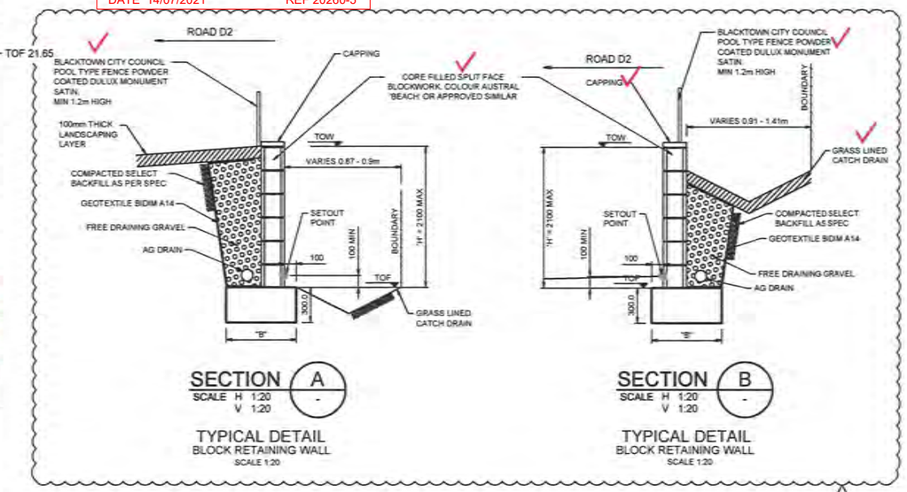
NOTES:
1. TOW DOES NOT INCLUDE CAPPING
2. TRANSITION TOP OF WALL GROUND LEVELS AND TOE OF WALL GROUND LEVELS ON EITHER END OF WALL

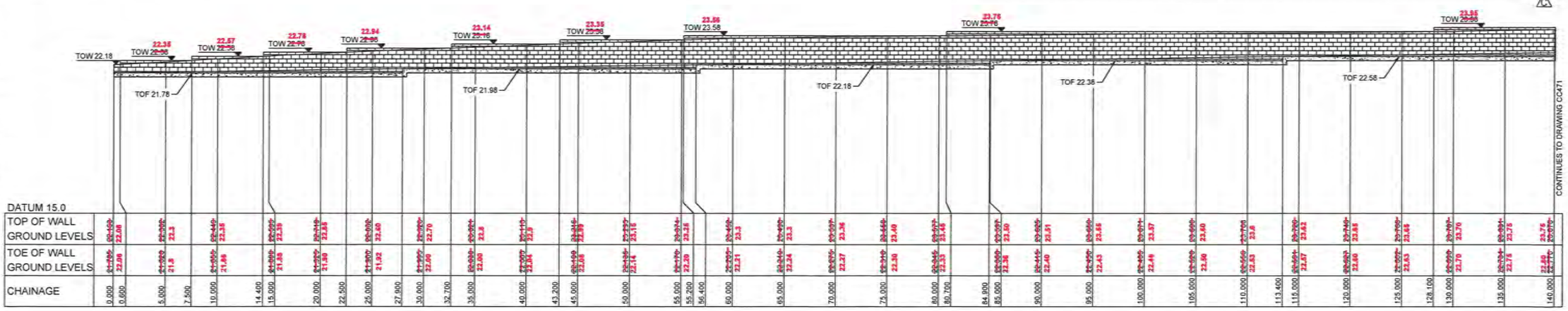
RETAINING WALL 1 (FACE OF WALL)					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH
0	295914.68	6268427.54	98°03'47.56"		
28.86	295943.25	6268423.49			
29	295943.39	6268423.46	101°32'21.05"		
31.26	295945.6	6268423.01		-79.2	4.51
33.51	295947.84	6268422.68	98°16'28.83"		
33.63	295947.95	6268422.67			
48.4	295962.57	6268420.56	98°11'33.75"		

RETAINING WALL 2 (FACE OF WALL)			
CHAINAGE	EASTING	NORTHING	BEARING
0	295967.56	6268420.15	98°11'33.75"
295	296259.55	6268378.11	98°11'33.75"



LONGITUDINAL SECTION RETAINING WALL 1
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100





LONGITUDINAL SECTION RETAINING WALL 2
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES
1:200 (AT A1) 1:400 (AT A3) — 4 2 0 4 8 12 16 20 METRES
1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES

C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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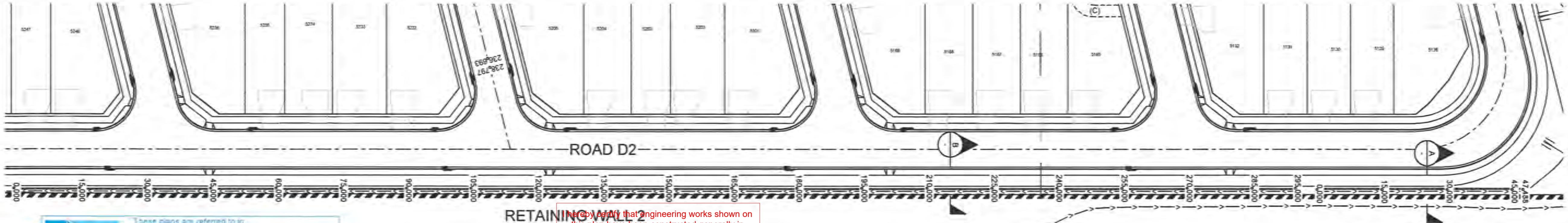
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
RETAINING WALL
SHEET 1

PLAN No: 998511/CC470 C
FILE No: 998511CC470
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 3:02:31 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC470.dwg



PLAN
SCALE 1:500

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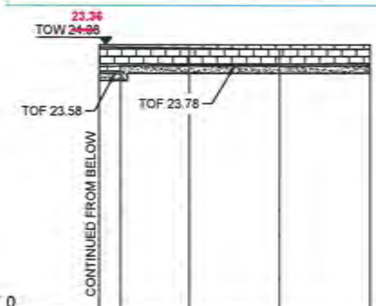
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

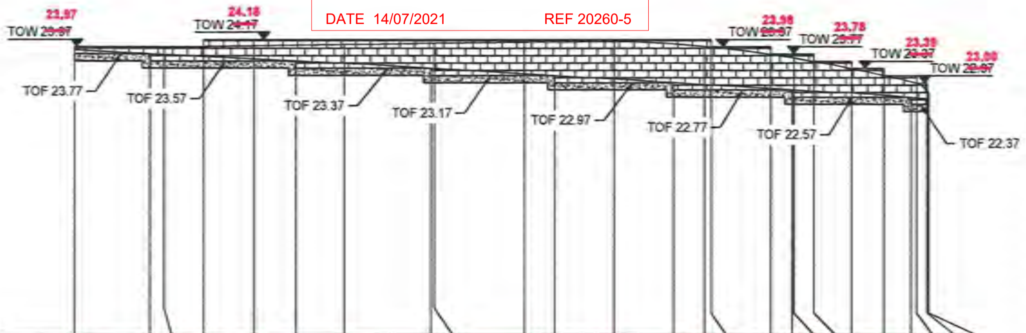
DATE 14/07/2021 REF 20260-5



DATUM 17.0

	280.000	281.200	285.000	290.000	295.000
TOP OF WALL GROUND LEVELS	~~24.014~~	24.06	~~24.000~~ 23.98	~~24.001~~ 24.00	23.94 ~~24.001~~
TOE OF WALL GROUND LEVELS	~~23.003~~	23.73	~~23.050~~ 23.77	~~23.065~~ 23.80	23.83 ~~23.060~~
CHAINAGE	280.000	281.200	285.000	290.000	295.000

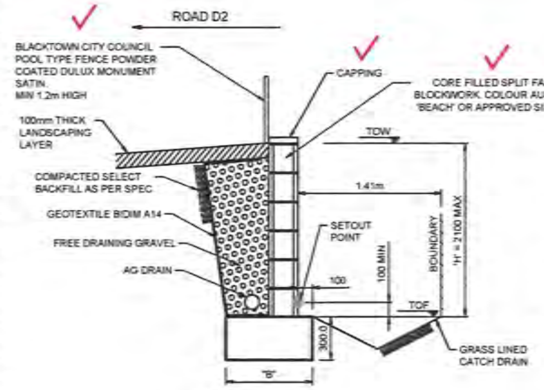
LONGITUDINAL SECTION RETAINING WALL 2
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100



DATUM 16.0

CHAINAGE	TOP OF WALL GROUND LEVELS	TOE OF WALL GROUND LEVELS
0.000	~~23.916~~ 23.89	~~23.871~~ 23.84
4.200		
5.000	~~23.862~~ 23.90	~~23.751~~ 23.80
7.200		
10.000	~~23.968~~ 23.94	~~23.990~~ 23.77
12.300		
15.000	~~24.054~~ 23.98	~~23.710~~ 23.64
19.800		
20.000	~~24.056~~ 24.02	~~23.306~~ 23.5
25.000	~~24.081~~ 23.95	~~23.419~~ 23.38
26.700		
30.000	~~24.101~~ 23.86	~~23.273~~ 23.20
33.300		
35.000	~~23.975~~ 23.80	~~22.973~~ 23.06
35.400		
38.700		
39.900		
40.000	~~23.646~~ 23.48	~~22.772~~ 22.84
41.100		
43.200		
45.000	~~23.192~~ 23.00	~~22.624~~ 22.63
46.500		
46.800		
47.400	22.86	22.61
47.488	~~22.000~~	~~22.330~~

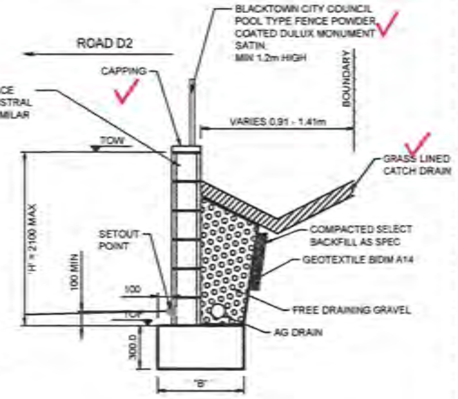
LONGITUDINAL SECTION RETAINING WALL 3 (C)
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100



SECTION A
SCALE H 1:20 V 1:20

TYPICAL DETAIL
BLOCK RETAINING WALL
SCALE 1:20

FOOTING DESIGN SUBJECT TO STRUCTURAL CERTIFICATION



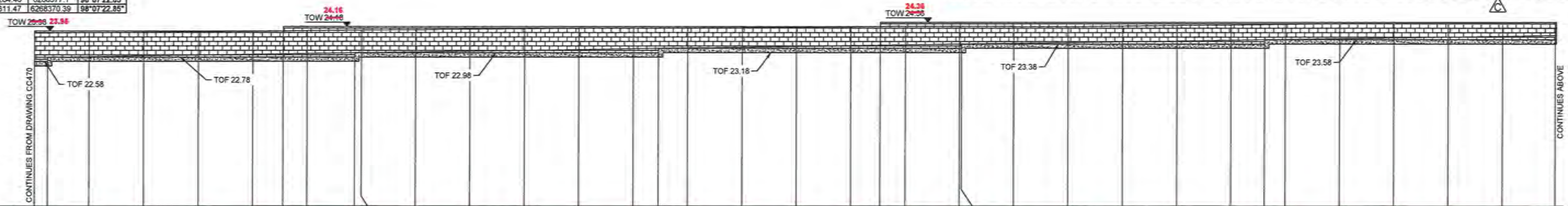
SECTION B
SCALE H 1:20 V 1:20

TYPICAL DETAIL
BLOCK RETAINING WALL
SCALE 1:20

FOOTING DESIGN SUBJECT TO STRUCTURAL CERTIFICATION

RETAINING WALL 3 (FACE OF WALL)

CHAINAGE	EASTING	NORTHING	BEARING
0	296264.46	6268377.1	98°07'22.85"
47.49	296311.47	6268370.39	98°07'22.85"



DATUM 16.0

CHAINAGE	TOP OF WALL GROUND LEVELS	TOE OF WALL GROUND LEVELS
140.000	~~23.676~~ 23.73	~~22.770~~ 22.75
141.200		
145.000	~~23.907~~ 23.76	~~23.305~~ 22.80
150.000	~~23.965~~ 23.8	~~23.501~~ 22.84
155.000	~~23.963~~ 23.86	~~22.877~~ 22.96
160.000	~~23.997~~ 23.87	~~23.043~~ 22.99
162.800		
165.000	~~23.980~~ 23.88	~~23.249~~ 22.99
169.400		
170.000	~~24.013~~ 23.88	~~23.096~~ 23.06
175.000	~~24.036~~ 23.90	~~23.020~~ 23.04
180.000	~~24.007~~ 23.90	~~23.056~~ 23.08
185.000	23.90 ~~24.019~~	23.13 ~~23.092~~
190.000	23.90 ~~24.050~~	23.13 ~~23.108~~
195.000	23.91 ~~24.110~~	23.16 ~~23.164~~
197.300		
200.000	~~24.119~~ 23.91	~~23.200~~ 23.19
205.000	~~24.129~~ 23.95	~~23.235~~ 23.23
210.000	~~24.146~~ 23.93	~~23.271~~ 23.26
215.000	~~24.166~~ 24.00	~~23.307~~ 23.29
217.700		
220.000	~~24.169~~ 23.96	~~23.343~~ 23.33
225.000	~~24.165~~ 24.00	~~23.379~~ 23.36
225.200		
230.000	~~24.191~~ 24.06	~~23.415~~ 23.40
235.000	~~24.170~~ 24.10	~~23.450~~ 23.43
240.000	~~24.202~~ 24.10	~~23.486~~ 23.5
245.000	~~24.225~~ 24.11	~~23.522~~ 23.53
250.000	~~24.240~~ 24.11	~~23.558~~ 23.56
253.100		
255.000	~~24.286~~ 24.10	~~23.594~~ 23.59
260.000	~~24.270~~ 24.11	~~23.630~~ 23.63
265.000	~~24.324~~ 24.09	~~23.665~~ 23.64
270.000	~~24.328~~ 24.08	23.701 23.68
275.000	~~24.329~~ 24.06	~~23.737~~ 23.7
280.000	24.02 ~~24.374~~	23.73 ~~23.773~~

LONGITUDINAL SECTION RETAINING WALL 2 (C)
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

NOTES:
1. TOW DOES NOT INCLUDE CAPPING
2. TRANSITION TOP OF WALL GROUND LEVELS AND TOE OF WALL GROUND LEVELS ON EITHER END OF WALL.

1:200 (AT A1) 1:400 (AT A3) — 4 2 0 4 8 12 16 20 METRES

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

1:500 (AT A1) 1:1000 (AT A3) — 10 0 10 20 30 40 50 METRES

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK PRECINCT 5
RETAINING WALL
SHEET 2

PLAN No: 998511/CC471 C
FILE No: 998511CC471
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September , 2019 3:02:29 PM File Name: J:\9985DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC471.dwg

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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

LDC
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Registration No: BPB 3018
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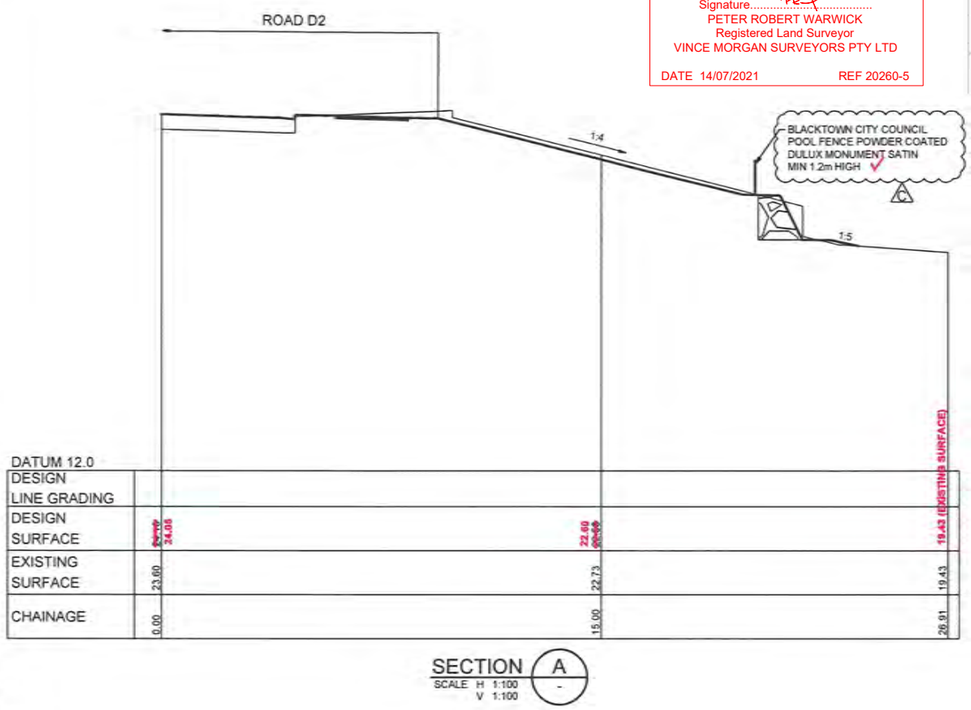
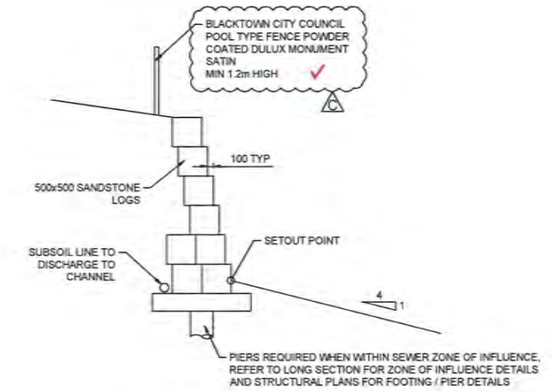
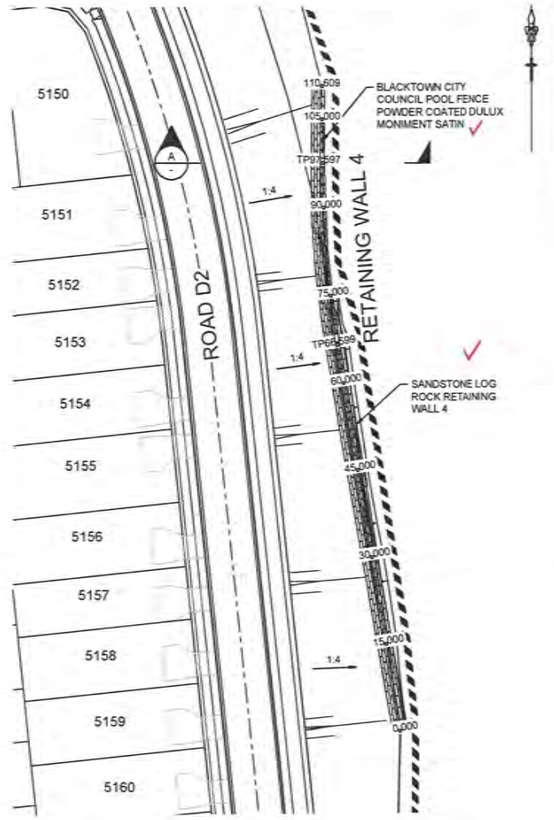


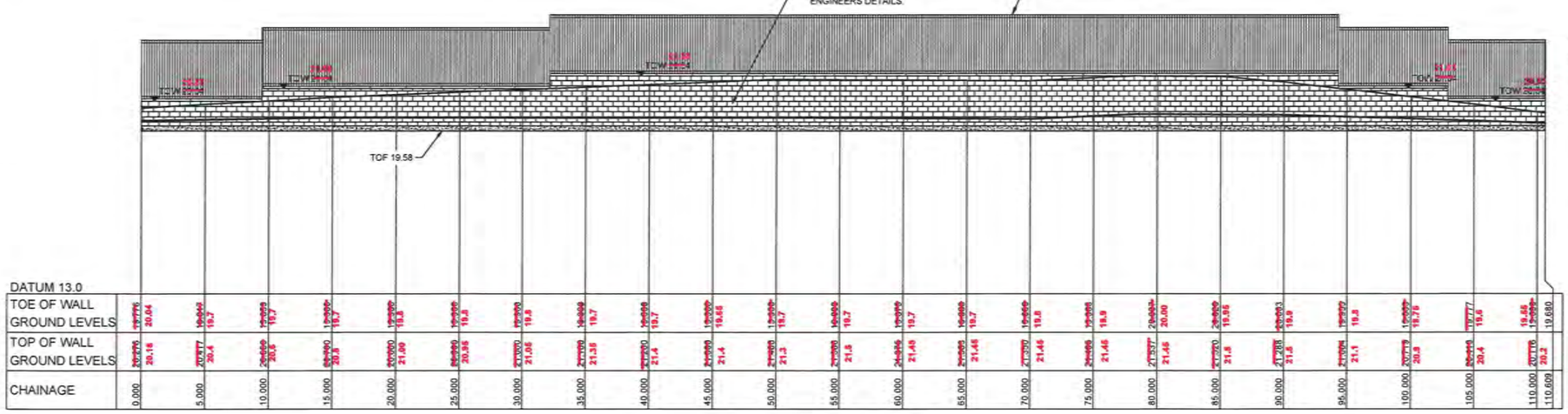
SECTION A
SCALE H 1:100
V 1:100



TYPICAL SECTION THROUGH
SANDSTONE LOG RETAINING WALL
SCALE 1:50



PLAN
SCALE 1:500



LONGITUDINAL SECTION RETAINING WALL 4
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

RETAINING WALL 4					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH
0	296329.41	6288482.56	350°50'17.19"		
66.6	296318.81	6288548.31	350°50'17.19"		
92.1	296316.33	6288563.64		200	31
97.6	296316.26	6288579.17	359°43'06.18"		
110.61	296316.19	6288592.18	359°43'06.18"		

NOTES:
1. TRANSITION TOP OF WALL GROUND LEVELS AND TOE OF WALL GROUND LEVELS ON EITHER END OF WALL.

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

1:250 (AT A1)
1:500 (AT A3)
5 0 5 10 15 20 25
METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19

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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
RETAINING WALL
SHEET 3

PLAN No: 998511/CC472 C
FILE No: 998511CC472
SHEET SIZE: A1 ORIGINAL

Plotted: 26 September, 2019 3:02:19 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC472.dwg

NEWPARK PRECINCT 7

NEWPARK PRECINCT 6

PROPOSED BIORETENTION SUBJECT TO SEPARATE APPROVAL

SEDIMENT BASIN 1
VOLUME = 2610m³

FUTURE DEVELOPMENT

LITTLE CREEK

SEDIMENT BASIN 2
VOLUME = 1800m³

NOTE: SEDIMENT BASIN 2 CAN BE REMOVED ONCE ALL DRAINAGE IS CONSTRUCTED AND ENTIRE SITE CAN DRAIN TO SEDIMENT BASIN 1

AIR SERVICES LAND

LEGEND

- STABILISED SITE ACCESS & WHEEL WASH BAY
- SEDIMENT FENCE
- STRAW BALE BARRIER
- STOCKPILE (SP)
- PROTECTIVE FENCING
- MESH AND GRAVEL INLET FILTER
- GEOTEXTILE INLET FILTER
- EXISTING TREES TO BE REMOVED

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

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

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Accredited Certifier
Registration No: BPB 2015
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VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	PITS 1/10, 4/06 & 28/01 UPDATED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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P 02 4720 3300 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
SOIL AND WATER MANAGEMENT PLAN

PLAN No: 998511/CC473 D
FILE No: 998511CC473
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:52:20 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC473.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) 6-5.
    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:-
    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.

1. Site Data Sheet

Site Name: NEWPARK PRECINCT 5

Site Location: MARSDEN PARK

Precinct: BLACKTOWN CITY COUNCIL

Description of Site: SEDIMENT BASIN TO SUPPORT THE PRECINCT 5 SUBDIVISION CONSTRUCTION

Site area	Site						Remarks
	PS-1	PS-2					
[illegible]	15.3	10.5					
[illegible]	15.3	10.5					

Soil analysis

[illegible]							[illegible]
[illegible]							[illegible]
[illegible]	100	100					[illegible]
[illegible]							[illegible]
[illegible]							[illegible]
[illegible]	F	F					[illegible]

Rainfall data

[illegible]	5	5					[illegible]
[illegible]	85	85					[illegible]
[illegible]	32.2	32.2					[illegible]
[illegible]	12.1	12.1					[illegible]

RUSLE Factors

[illegible]	2250	2250					[illegible]
[illegible]	[illegible]	[illegible]					RUSLE values can be obtained from Appendices A, B and C
[illegible]	80	80					
[illegible]	3	3					
[illegible]	0.65	0.65					
[illegible]	1.3	1.3					
[illegible]	1	1					

Calculations

[illegible]	72	72					
[illegible]	1	1					[illegible]
[illegible]	56	56					
[illegible]	145	99					[illegible]

Total Basin Volume

Site	[illegible]	[illegible]	Total catchment area (ha)	Settling zone volume (m³)	Sediment storage volume (m³)	Total basin volume (m³)
PS1	[illegible]	32.2	15.3	[illegible]	145	[illegible]
PS2	[illegible]	32.2	10.5	[illegible]	99	[illegible]

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021 REF 20260-5

These plans are referred to in certificate no. 15879 approved by:
Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6,4,C15
Land Development Certificates
www.LDC.com.au

	AMENDMENT	DES	DRN	CKD	APR	DATE
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
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AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
SOIL AND WATER MANAGEMENT NOTES

PLAN No: 998511/CC474 C
FILE No: 998511CC474
SHEET SIZE: A1 ORIGINAL

Plotted: 27 September , 2019 7:34:58 AM File Name: J:\998511\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC474.dwg

PAVEMENT MARKING SCHEDULE

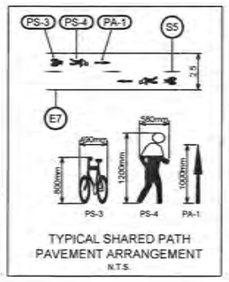
CODE	USE	STYLE	COLOUR & TYPE
BB	Barrier line where sight is restricted in both directions or approach to median island		Reflectorised white type 'YY' pavement markers bi-directional reflective yellow
TBB	Give way line on Path		Reflectorised white
S5	Bicycle lane separation line for off-road bike path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

C

NOTES

1. ALL PAVEMENT MARKINGS, CHEVRONS AND REFLECTORS ARE TO BE IN ACCORDANCE WITH R.T.A. STANDARD DRAWINGS MD.R60 AND AUSTRALIAN STANDARDS.
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 'A', 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 PROJECT MANAGER.
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 METERS UNLESS OTHERWISE SHOWN.

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



TYPICAL SHARED PATH PAVEMENT ARRANGEMENT
N.T.S.

-STREET NAME SIGNS ADDED
-C3 ON ABLE ROAD REMOVE
-BB ON BEND ADDED

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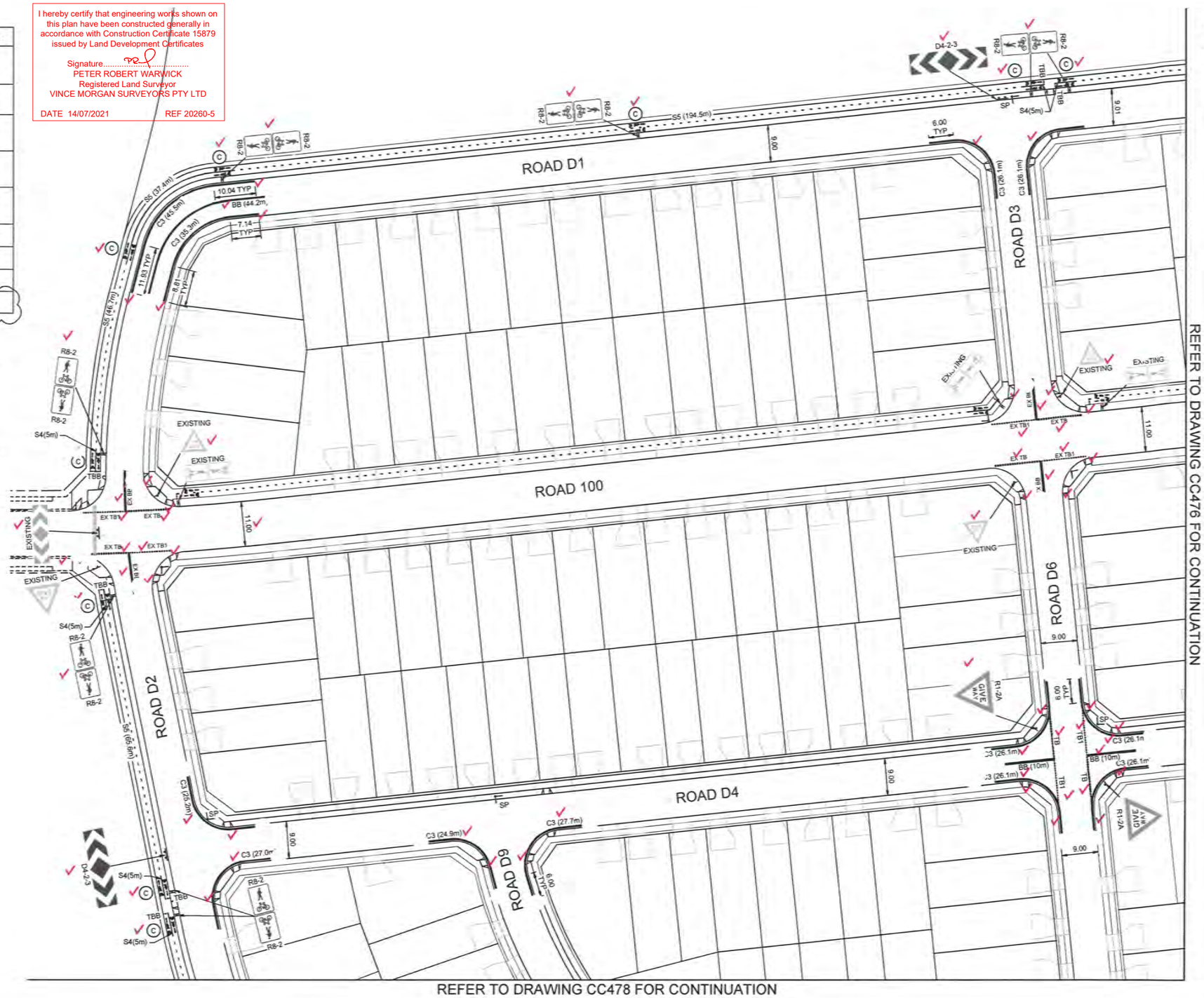
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



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

10 0 10 20 30 40 50
METRES

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
SIGNAGE & LINEMARKING PLAN
SHEET 1

PLAN No: 998511/CC475 C
FILE No: 998511CC475
SHEET SIZE: A1 ORIGINAL

Plotted: 23 October , 2019 11:53:56 AM File Name: J:\99850\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC475.dwg

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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

NEWPARK PRECINCT 6

ROAD D1
ROAD D3
ROAD 100
ROAD D6
ROAD D4
ROAD D7
ROAD D8
ROAD D2

REFER TO DRAWING CC475 FOR CONTINUATION

REFER TO DRAWING CC477 FOR CONTINUATION

REFER TO 998511/CC475 FOR PAVEMENT MARKING SCHEDULE & NOTES

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

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

10 0 10 20 30 40 50
METRES

D	DRIVEWAY MOVED	DG	DG	MP	MS	23/04/20
C	ISSUE FOR CONSTRUCTION APPROVAL	DG	VS	RO	MS	26/09/19
B	ISSUE FOR CAA APPROVAL	DG	NM/JM	RO	MS	12/09/19
A	ISSUE FOR CONSTRUCTION APPROVAL	DG	JM	RO	MS	02/09/19
	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

AZIMUTH: AHD
DATUM: MGA
ORIGIN:

CLIENT: WINTEN PROPERTY GROUP

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

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5
SIGNAGE & LINEMARKING PLAN
SHEET 2

PLAN No: 998511/CC476 D
FILE No: 998511CC476
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:52:57 PM File Name: J\9985DICC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 DOCUMENTATION\998511CC476.dwg

REFER TO DRAWING CC476 FOR CONTINUATION

REFER TO DRAWING CC478 FOR CONTINUATION

ROAD D4

ROAD D9

ROAD D6

ROAD D7

ROAD D8

ROAD D2

ROAD D2

AIR SERVICES LAND

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REFER TO 998511/CC475 FOR PAVEMENT MARKING SCHEDULE & NOTES

I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

Signature.....

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

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NEWPARK
PRECINCT 5
SIGNAGE & LINEMARKING PLAN
SHEET 3

PLAN No: 998511/CC477 D
FILE No: 998511CC477
SHEET SIZE: A1 ORIGINAL

Plotted: 23 April, 2020 3:52:19 PM File Name: J:\9985\DCC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SIPRECINCT 5 DOCUMENTATION\998511CC477.dwg

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

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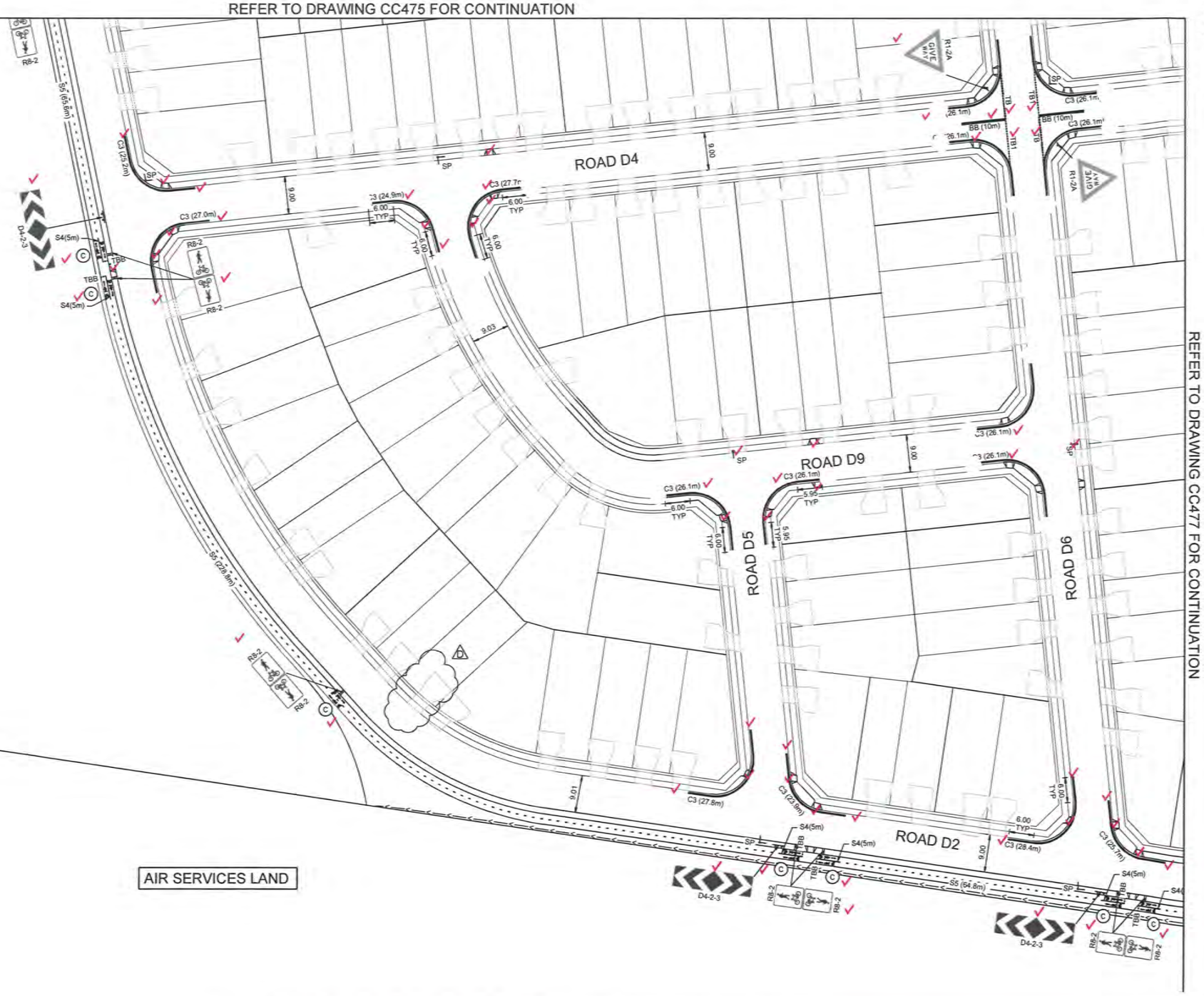

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SIGNAGE & LINEMARKING PLAN
SHEET 4

PLAN No: 998511/CC478 D
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SHEET SIZE: A1 ORIGINAL

Plotted: 23 April , 2020 3:52:20 PM File Name: J:\998SDIC\C - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT5\PRECINCT 5 DOCUMENTATION\998511CC478.dwg