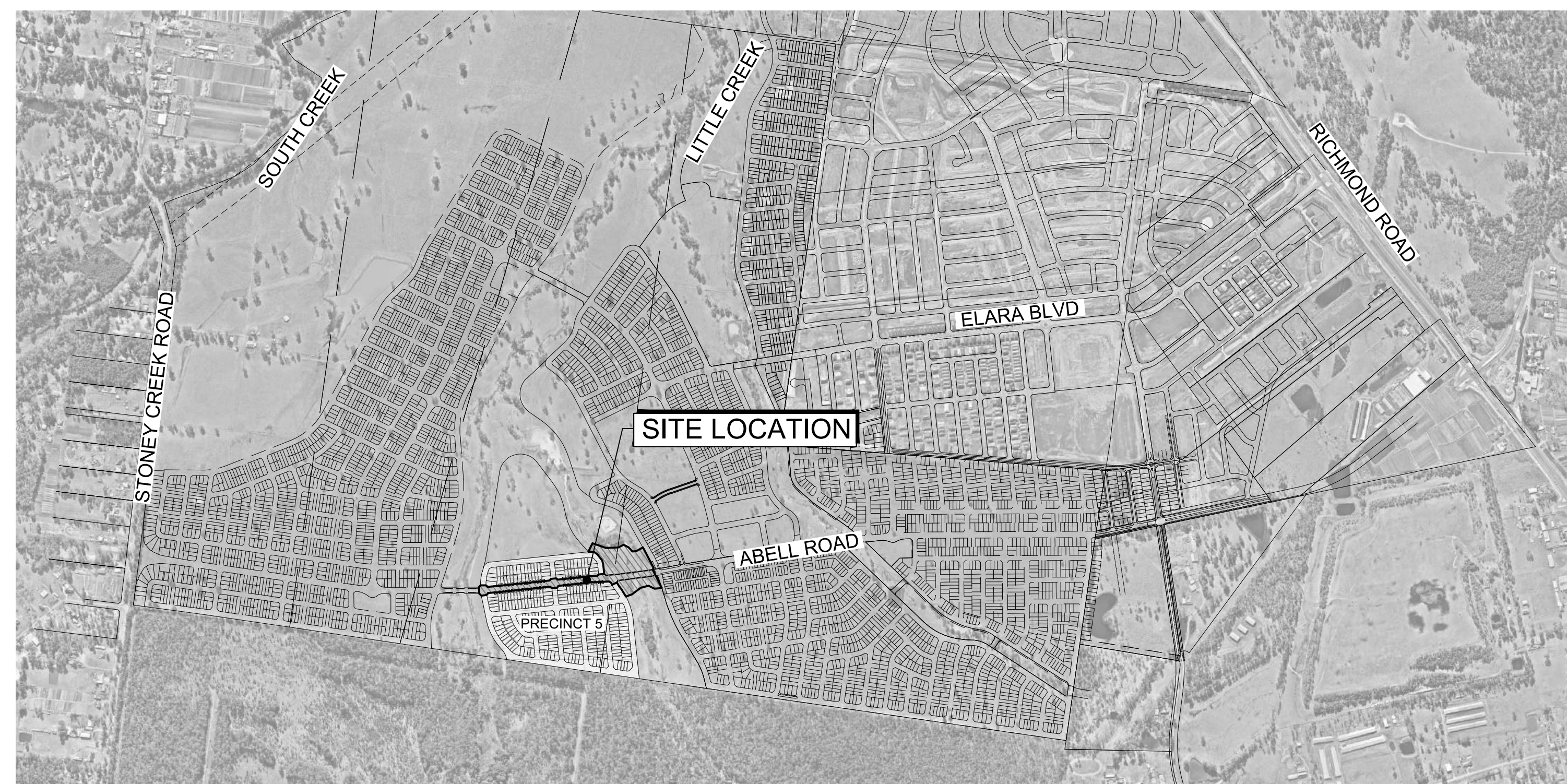




NEWPARK - PRECINCT 5 ABELL ROAD

CONSTRUCTION CERTIFICATE

COLLECTOR ROAD, DRAINAGE WORKS AND CULVERT
COUNCIL REF: DA-17-01165



LOCALITY SKETCH

Prepared By:

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

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

ISSUE FOR CONSTRUCTION APPROVAL

PLAN No.
998511/CC350 **C**
FILE No. 998511CC350

Plotted: 22 April, 2020 2:35:16 PM File Name: J:\985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\98511\CC351.dwg

LEGEND			
DESCRIPTION	PROPOSED	EXISTING	FUTURE
VEHICULAR CROSSING			
EXTENT OF WORKS			
KERB & GUTTER			
ROLL KERB			
PRAM RAMP			
DRAINAGE LINE, PIT & EASEMENT			
DRAINAGE LINE & PIT			
SUBSOIL			
HEADWALL			
CONTOURS			
KERB RETURN No			
ELECTRICITY, POWER POLE			
TELECOM, BOX			
WATER, STOP VALVE, HYDRANT			
SEWER, MANHOLE			
GAS			
STREET NAME SIGNS			
STATE SURVEY MARKS			
STAGE BOUNDARY			
CATCHMENT BOUNDARY			
FLOW DIRECTION ARROW			
EXISTING NATIVE VEGETATION			
NATIVE VEGETATION RETENTION			
INDICATIVE DRIVEWAYS LOCATIONS			
RL17.3 CONTOUR			



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

GENERAL NOTES

- ALL WORKS ARE TO BE IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S ENGINEERING GUIDE FOR DEVELOPMENT & "WORKS SPECIFICATION - CIVIL 2005".
- SURVEY MARKS:-
 - 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.
- 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.
- 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.
- THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.
- NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL'S ENGINEER.
- TREES TO BE RETAINED ON SITE SHALL BE PROTECTED BY SUITABLE STURDY APPROVED PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF SITE WORKS.
- THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES, OUT-HOUSES, CAR BODIES AND DEBRIS ETC.
- 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.
- THE FILL MATERIAL THAT MAY BE RECEIVED AT THE DEVELOPMENT SITE ARE EXCAVATED NATURAL MATERIALS (VENM) AND EXCAVATED NATURAL MATERIAL (ENM) WITHIN THE MEANING OF THE PROTECTION OF THE ENVIRONMENTAL OPERATIONS ACT1997.
- SITE FILL AREAS:- THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
- 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".
- ALL SITE REGRADING AREAS SHALL BE GRADED AT A MINIMUM 1% TO THE ENGINEER'S REQUIREMENTS.
- SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
- DIMENSIONS OF ANY DETAIL SHALL NOT BE SCALED - DIMENSIONS, IF IN DOUBT, SHALL BE VERIFIED BY THE SUPERINTENDENT.
- 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.
- ALL WORKS TO BE IN ACCORDANCE WITH THE SALINITY MANAGEMENT PLAN BY GEOTECH TESTING PTY LTD, REF: 8552/1-AA DATED 12/10/2016.
- ALL STREET NAME POLES AND LIGHT POLES SHALL BE BLACK POWDER COATED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S ENGINEERING GUIDE FOR DEVELOPMENT.
- PROVIDE ROOF WATER OUTLET TO KERB FOR EACH PROPOSED LOT THAT DRAIN TO THE STREET.
- CONCRETE PATH PAVING MUST NOT BE PLACED UNTIL 80% OF LOTS HAVE BEEN BUILT UPON OR UNTIL APPROVED IN WRITING BY COUNCIL.
- 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.

SURFACE NOTES

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

SURVEY SET OUT INFORMATION NOTES:

- ALL SITE SET OUT AND CONTROL POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.
- 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:
 - CERTIFIED CONSTRUCTION CERTIFICATE DRAWINGS
 - 2D DRAFTING BASE (ELECTRONIC FILE)
 - 3D DTM (ELECTRONIC FILE)
- 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.

THESE PLANS ARE SUBJECT TO SEPARATE APPROVAL FROM THE SURROUNDING PRECINCT 5 SUBDIVISION.

DURING CONSTRUCTION, THESE PLANS ARE TO BE READ IN CONJUNCTION WITH THE SUBDIVISION CONSTRUCTION CERTIFICATE PLANS.

ABELL ROAD TO BE CONSTRUCTED AT SAME TIME AS PRECINCT 5 SUBDIVISION.

STORMWATER NOTES

- STORMWATER DESIGN CRITERIA:
ANNUAL EXCEEDANCE PROBABILITY (AEP):
1% AEP MAJOR SYSTEM
5% AEP MINOR SYSTEM (COMMERCIAL) AND INTERALLOTMENT DRAINAGE
10% AEP MINOR SYSTEM
- 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)
- 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).
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- GRATES AND COVERS SHALL CONFORM TO AS 3996.
- AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- 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.
- ALL STORMWATER PIPES WITHIN ROADS TO BE REINFORCED CONCRETE PIPE (RRJ) CLASS 2 OR FRC CLASS 2 UNLESS NOTED OTHERWISE.
- DRAINAGE LINES ON PLANS ARE DIAGRAMMATIC ONLY AND PIPE CENTRELINES SHALL ENTER AND EXIT PITS AT THE CENTRE OF THE RESPECTIVE PIT WALLS.
- STEP IRONS REQUIRED WHERE THE PIT EXCEEDS 1200 IN DEPTH. REFER TO COUNCIL DRAWING A(BS)1115
- PROVIDE A ROOF WATER OUTLET FOR EACH LOT THAT DRAINS TO STREET.
- ALL SPECIAL PITS, PITS DEEPER THAN 2m OR NON STANDARD DRAINAGE PITS CAN BE EITHER CAST INSITU WITH STRUCTURAL DESIGN AND CERTIFICATION BY OTHERS. OR "AUS PIT" CUSTOM MADE PRECAST PIT OR SIMILAR APPROVED.
- 100YR FLOW PATHS TO BE FORMED AT TIME OF CONSTRUCTION.

CUSTOM MADE PRECAST PIT NOTES

- DESIGN DOCUMENTATION REFLECTS PRECAST DRAINAGE PITS BEING USED FOR THE SITE. UNLESS NOTED OTHERWISE. AUSPITS OR SIMILAR APPROVED CUSTOM MADE PRECAST PITS TO BE USED.
- PITS TO COMPLY WITH THE FOLLOWING PARAMETERS:
 - ARE SPECIFICALLY MANUFACTURED FOR THE PROJECT.
 - EACH PIT IS ACCOMPANIED BY A CERTIFICATE OF STRUCTURAL ADEQUACY SIGNED BY A NPER ENGINEER (STRUCTURAL)
 - THE STRUCTURAL CERTIFICATION OF THE PITS SHOULD INCLUDE ANY ADDITIONAL PRECAST ELEMENTS REQUIRED TO BRING THE PIT UP TO FINAL LEVELS ON SITE.
 - PITS MUST BE FIRMLY BEDDED ON SOUND MATERIAL
 - CONCRETE IS TO BE POURED AROUND THE BASE TO AID IN STABILISATION OF THE PIT.
 - PIT FLOORS ARE TO HAVE A 1% FALL TOWARDS THE OUTLET PIPE.
 - ANY PIT REQUIRING MODIFICATION AFTER IT HAS BEEN POURED IN THE FACTORY OR DAMAGED IN TRANSPORT CANNOT BE USED.
 - ALL WORK TO BE TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT INSPECTORS.
- SHOULD THE CONTRACTOR CHOOSE TO CONSTRUCT ANY PIT AS "CAST-INSITU", IT'S THE CONTRACTORS RESPONSIBILITY TO PROVIDE DETAILED PIT DRAWINGS AND STRUCTURAL CERTIFICATION OF THE RELEVANT PITS.

HYDROLOGY NOTES:

- STORMWATER SYSTEM DESIGNED USING 12D DYNAMIC (ILSAX) SYSTEM.
- XP LINES ARE DUMMY PITS AND ARE USED TO MORE ACCURATELY DETERMINE APPROACH FLOWS AT UPSTREAM PITS AND SAG LOCATIONS.
- 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.

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

CIVIL PLAN INDEX

PLAN NO.	PLAN NAME	REV
998511/CC350	COVER SHEET	C
998511/CC351	LEGEND, NOTES & INDEX	G
998511/CC352	OVERALL SITE PLAN	C
998511/CC353	ROAD SETOUT PLAN	D
998511/CC354	TYPICAL ROAD CROSS SECTIONS	E
998511/CC355	ROAD PAVEMENT PLAN	D
998511/CC356	CUT AND FILL PLAN	D
998511/CC357	ENGINEERING PLAN	D
998511/CC358	ROAD LONGSECTIONS - SHEET 1	C
998511/CC359	ROAD LONGSECTIONS - SHEET 2	D
998511/CC360	ROAD CROSS SECTIONS ROAD 100 - SHEET 1	D
998511/CC361	ROAD CROSS SECTIONS ROAD 100 - SHEET2	C
998511/CC362	ROAD CROSS SECTIONS ROAD 100 - SHEET3	C
998511/CC363	ROAD CROSS SECTIONS ROAD D1, D2, D3 AND D6	D
998511/CC364	KERB RETURNS - SHEET 1	C
998511/CC365	KERB RETURNS - SHEET 2	D
998511/CC366	KERB RETURNS - SHEET 3	D
998511/CC367	CATCHMENT PLAN & PIT SCHEDULE	C
998511/CC368	CATCHMENT PLAN	C
998511/CC369	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1	C
998511/CC370	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2	C
998511/CC371	DRAINAGE LONGITUDINAL SECTIONS - SHEET 3	C
998511/CC372	DRAINAGE CALCULATIONS - SHEET 1	D
998511/CC373	DRAINAGE CALCULATIONS - SHEET 2	C
998511/CC374	SOIL & WATER MANAGEMENT PLAN	D
998511/CC375	SOIL & WATER MANAGEMENT NOTES	C
998511/CC376	SIGNAGE AND LINEMARKING	E
998511/CC377	OVERALL ARRANGEMENT PLAN	D
998511/CC378	SETOUT PLAN	D
998511/CC379	LAYOUT PLAN SHEET 1	D
998511/CC380	LAYOUT PLAN SHEET 2	D
998511/CC381	CULVERT DETAIL PLAN	D
998511/CC382	PAVEMENT PLAN	D
998511/CC383	ROAD LONGITUDINAL SECTION & KERB BARRIER DETAIL	E
998511/CC384	CULVERT HEADWALL SECTIONS	D
998511/CC385	RETAINING WALL LONGSECTIONS	C
998511/CC386	CULVERT SECTIONS SHEET 1 OF 2	F
998511/CC387	CULVERT SECTIONS SHEET 2 OF 2	F

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

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G	DRAWING INDEX REVISED	KM	VS	MP	MS	22/04/20
F	DRAWING INDEX REVISED	KM	KM	MS	PM	10/01/20
F	DRAWING INDEX REVISED	KM	KM	RO	PM	13/11/19
D	DRAWING INDEX REVISED	KM	KM	RO	MS	23/10/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	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:



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ISSUE FOR CONSTRUCTION APPROVAL

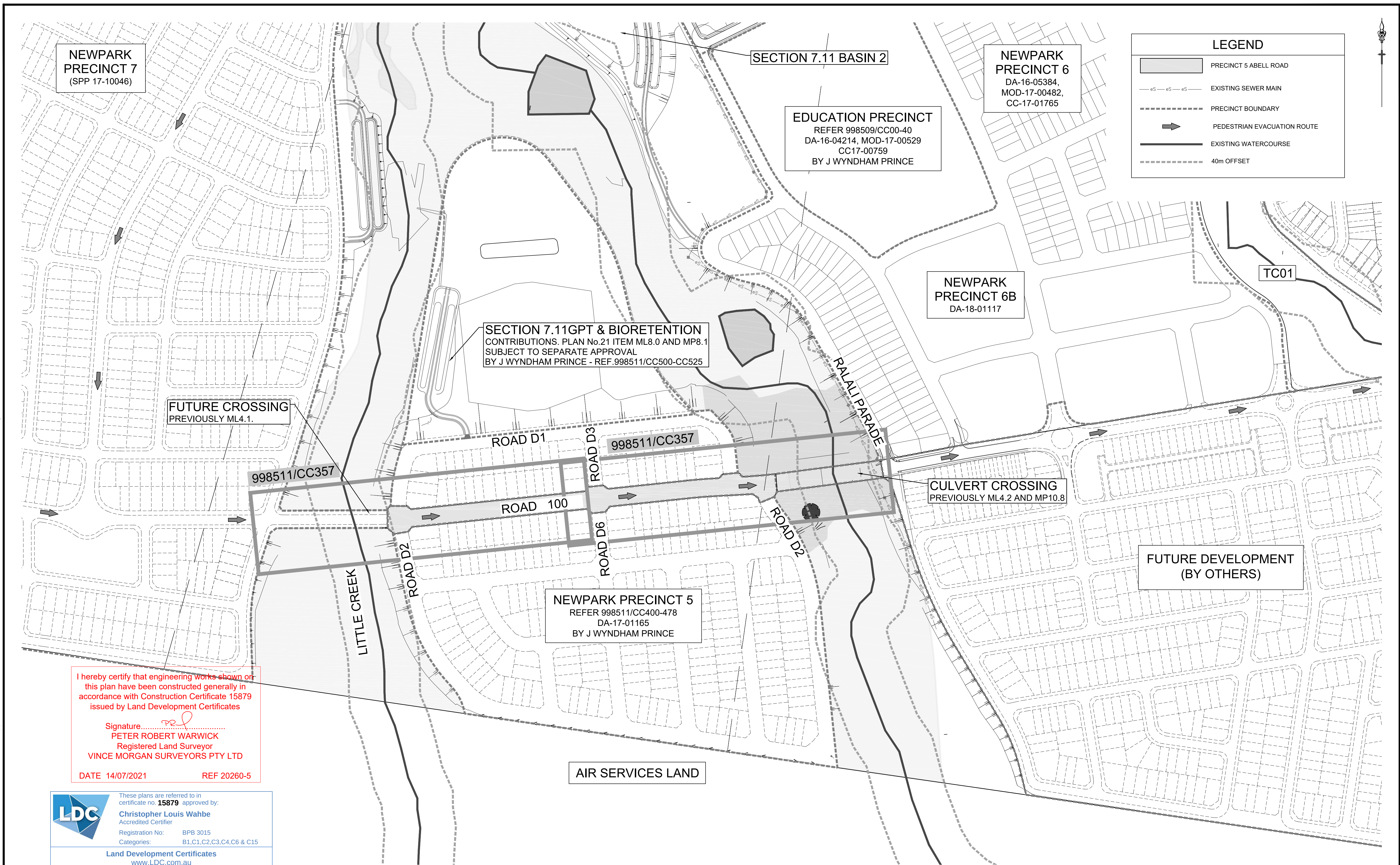
NEWPARK
PRECINCT 5 - ABELL ROAD
LEGEND, NOTES & INDEX

PLAN No:
998511/CC351

FILE No: 998511CC351

SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 1:45:03 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511\CC352.dwg



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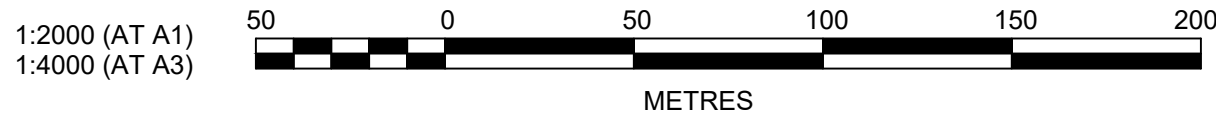
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C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19			
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WINTEN
PROPERTY
GROUP

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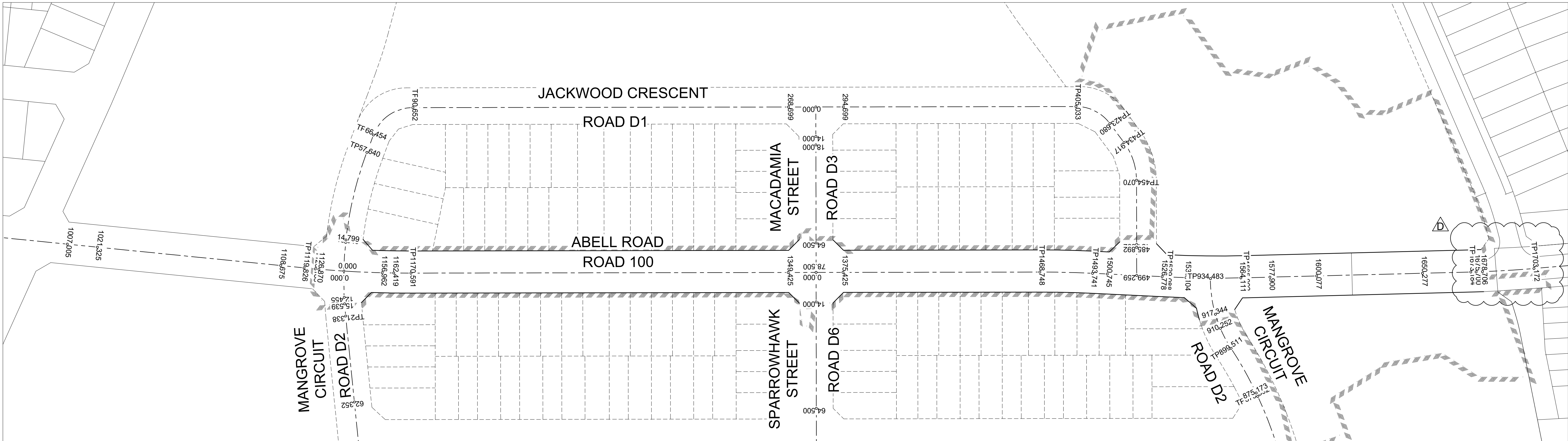
NEWPARK
PRECINCT 5 - ABELL ROAD
OVERALL SITE PLAN

PLAN No: 998511/CC352 **C**

FILE No: 998511CC352

SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 1:45:52 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC353.dwg



PLAN
SCALE 1:1000

ROAD 100 (ABELL ROAD)					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
1119.57	295813.15	6268646.67	89°50'30.17"	-500	50.77
1144.96	295838.55	6268646.74			
1170.34	295863.82	6268649.38	84°01'28.02"		
1468.5	296160.35	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"		

NOTE:
SSM & CONTROLS TO BE PROVIDED
AT CONSTRUCTION STAGE BY VINCE
MORGAN SURVEYORS.

ROAD D1					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295832.1	6268647.08	355°30'32.19"		
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"		
66.45	295839.42	6268712.75	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					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	295832.1	6268647.08	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	295893.9	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°01'28.03"		
784.76	296298.73	6268548.8	354°01'28.03"		
813.32	296293.73	6268577.39		-207.5	57.13
841.89	296283.08	6268604.09	338°14'59.91"		
841.9	296283.08	6268604.1			
841.97	296283.05	6268604.17	338°48'59.09"		
870.68	296272.59	6268631.16		-184.1	57.42
899.39	296254.36	6268653.63	320°56'47.87"		
899.53	296254.27	6268653.74	320°56'47.87"		
917.03	296242.92	6268667.73		60	35
934.52	296241.15	6268685.65	354°21'54.42"		
934.73	296241.13	6268685.86	354°21'54.42"		

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

ROAD D6			
CHAINAGE	EASTING	NORTHING	BEARING
0	296054.86	6268669.38	174°01'28.02"
258.08	296081.73	6268412.7	174°01'28.02"

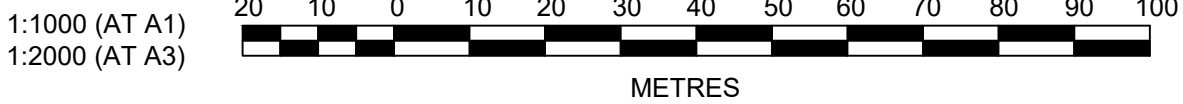
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D	LIMIT OF WORKS REVISED	KM	KM	RO	MS	23/10/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH:
AHD
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MGA
ORIGIN:

CLIENT:



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APPROVED CONSTRUCTION CERTIFICATE.

ISSUE FOR CONSTRUCTION APPROVAL

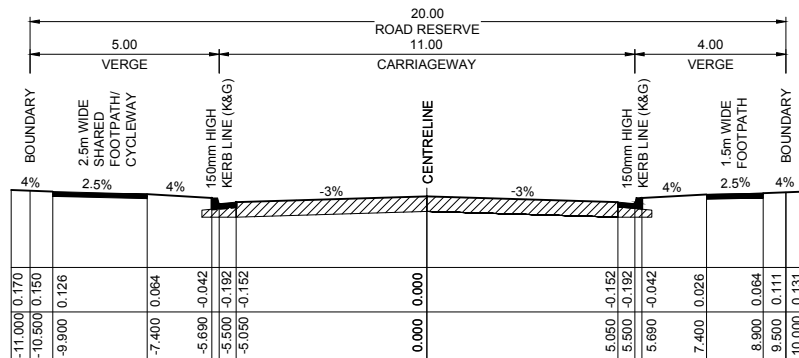
NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD SETOUT PLAN

PLAN No:
998511/CC353

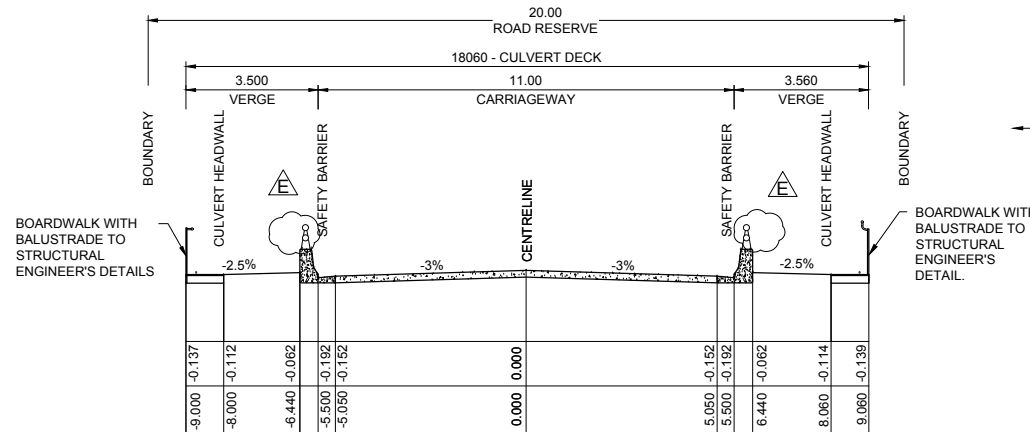
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SHEET SIZE: A1 ORIGINAL

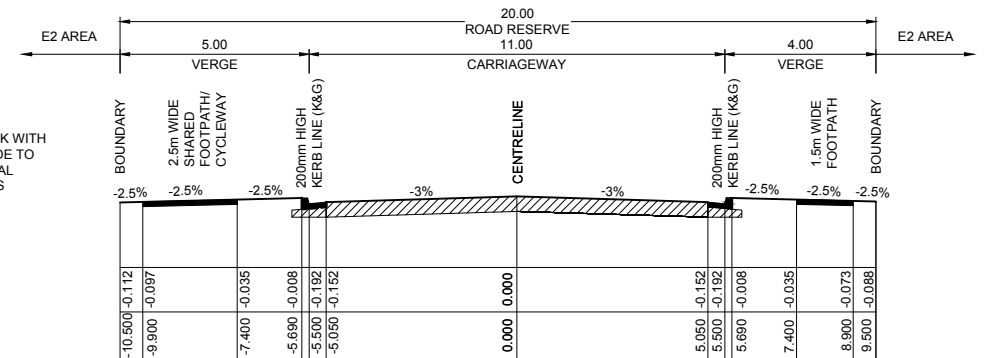
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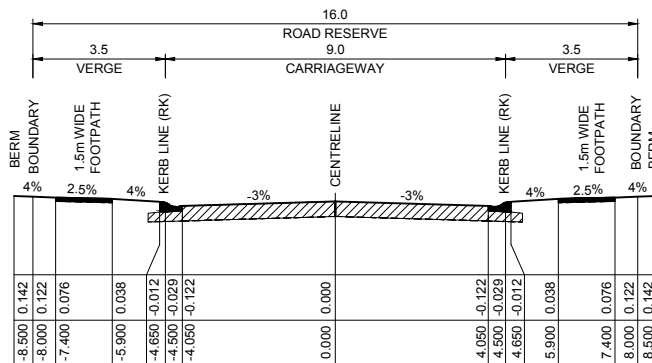
TYPE 1 - ABELL ROAD
ROAD 100
(LHS: CH 1125.183-1526.778,
RHS: CH 1126.870-1564.111)
1:100 NATURAL



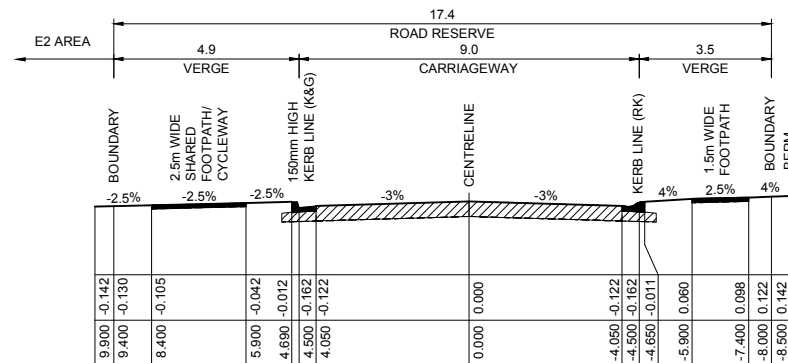
TYPE 2 - ABELL ROAD
CULVERT CROSSING
ROAD 100
(CH 1577.90 - 1675.7)
1:100 NATURAL



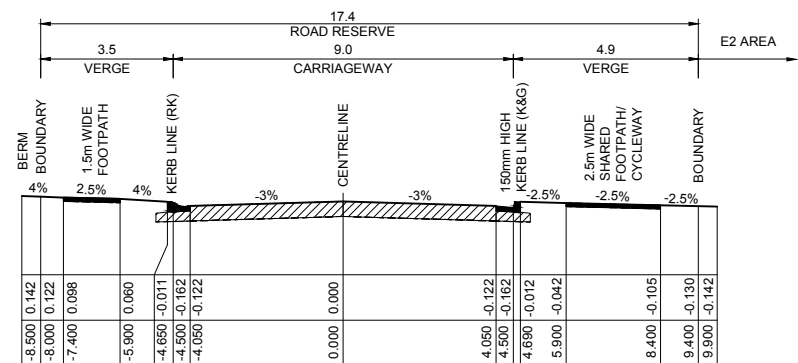
TYPE 2 - ABELL ROAD
ADJOINING E2 LAND
ROAD 100
1:100 NATURAL
LHS
CH 1526.778-1577.900,
CH 1675.700-1678.702)
RHS
CH 1564.111-1577.900,
CH 1675.700-1678.702)



TYPE 3 - LOCAL ROAD
ROAD D3 & D6
1:100 NATURAL



TYPE 4 - BOUNDARY ROAD (LHS)
ROAD D1
1:100 NATURAL

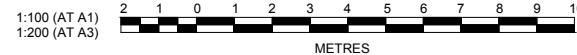


TYPE 5 - BOUNDARY ROAD (RHS)
ROAD D2
1:100 NATURAL

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



E	BUMP RAIL REMOVED	KM	VS	MS	MP
D	TYPICAL SECTION DIMENSION ADDED	KM	KM	RO	MS
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM
	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:



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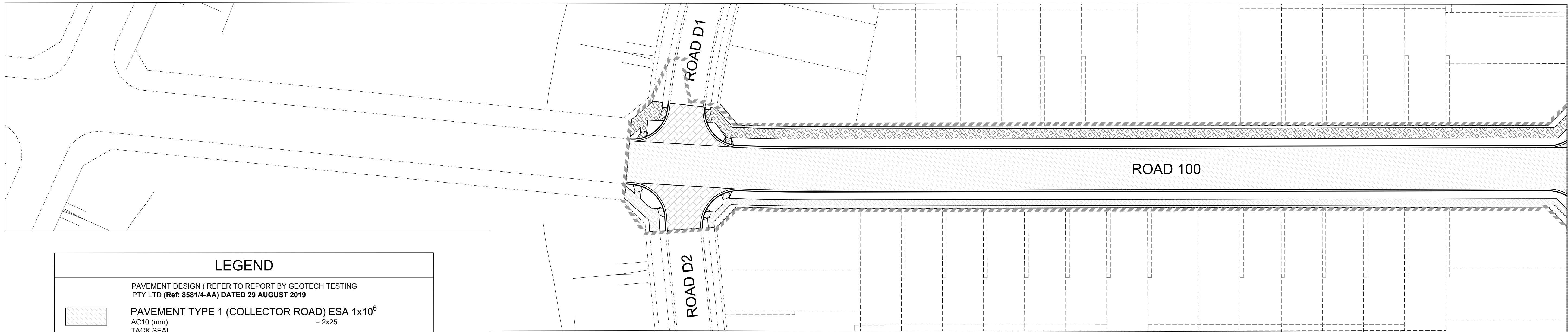
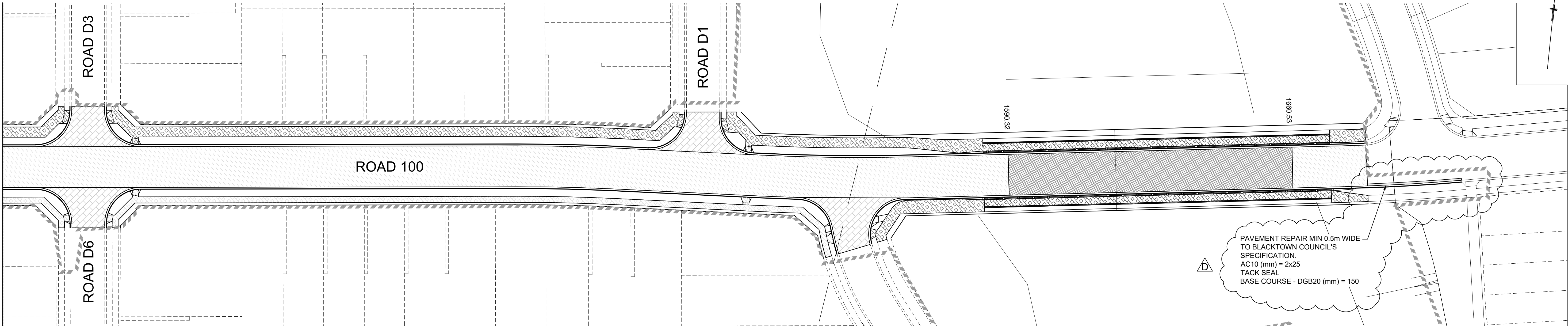
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
TYPICAL ROAD CROSS SECTIONS

PLAN No:
998511/CC354
FILE No: 998511CC354
SHEET SIZE: A1 ORIGINAL



CONTINUES BELOW



CONTINUED FROM ABOVE

LEGEND

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

PAVEMENT TYPE 1 (COLLECTOR ROAD) ESA 1x10⁶
AC10 (mm) = 2x25
TACK SEAL
BASE COURSE - DGB20 (mm) = 150
SUB-BASE COURSE - CRUSHED SANDSTONE (mm) = 300
TOTAL (mm) = 500

PAVEMENT TYPE 2 (LOCAL + BOUNDARY ROADS) ESA 5x10⁵
AC10 (mm) = 2x25
TACK SEAL
BASE COURSE - DGB20 (mm) = 150
SUB-BASE COURSE - CRUSHED SANDSTONE (mm) = 270
TOTAL (mm) = 470

PAVEMENT TYPE 3 (CONCRETE PAVEMENT)
180mm CONCRETE BASE (32MPa CONCRETE, DOWELLED JOINTS AND SHRINKAGE REINFORCEMENT)
320mm CRUSHED SANDSTONE (100% STANDARD MAXIMUM DRY DENSITY AT OMC ± 2%)
REFER TO INHOUSE CONSULTING ENGINEERS PLANS FOR CONCRETE JOINTING DETAILS

PAVEMENT TYPE 4 (FOOTPATH)
CONCRETE 125mm TO BLACKTOWN CITY COUNCIL "PATH PAVING POLICY 2009"

PAVEMENT TYPE 5 (SHARED PATH)
CONCRETE 125mm WITH SL82 MESH TO BLACKTOWN CITY COUNCIL "PATH PAVING POLICY 2009"

PAVEMENT TYPE 6 (CULVERT FOOTPATH)
REFER TO INHOUSE CONSULTING ENGINEERS PLANS FOR CONCRETE JOINTING DETAILS

PLAN
SCALE 1:500

NOTE:
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.

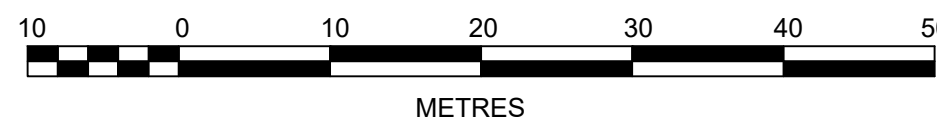
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

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



AZIMUTH:
AHD
DATUM:
MGA
ORIGIN:

CLIENT:



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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD PAVEMENT PLAN

PLAN No:
998511/CC355

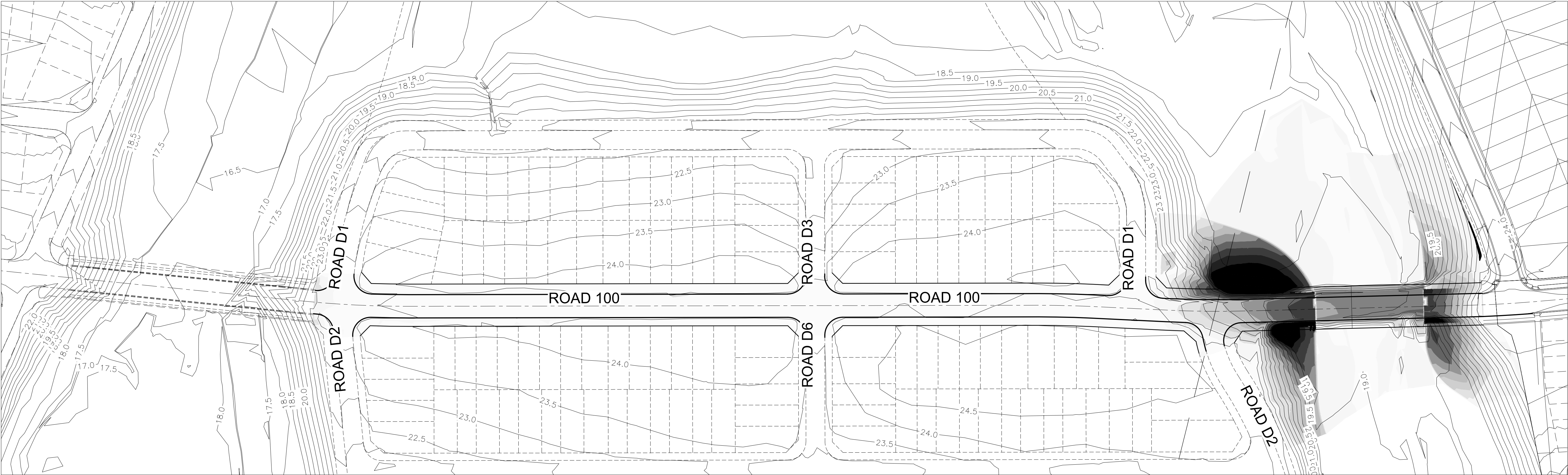
FILE No: 998511CC355

SHEET SIZE: A1 ORIGINAL

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

Plotted: 13 November, 2019 1:35:52 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC356.dwg



CUT AND FILL PLAN
SCALE 1:1000

LEGEND			
Lower_value	Upper_value	Colour	
-7	to -4	m	
-4	to -3.5	m	
-3.5	to -3	m	
-3	to -2.5	m	
-2.5	to -2	m	
-2	to -1.5	m	
-1.5	to -1	m	
-1	to -0.5	m	
-0.5	to 0	m	
0	to 0.5	m	
0.5	to 1	m	
1	to 1.5	m	
1.5	to 2	m	
2	to 2.5	m	
2.5	to 3	m	
3	to 3.5	m	
3.5	to 4	m	
4	to 7	m	

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VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021

REF 20260-5



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ISSUE FOR CONSTRUCTION APPROVAL

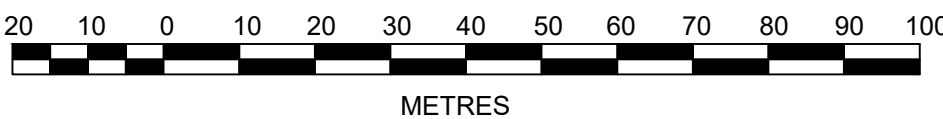
NEWPARK
PRECINCT 5 - ABELL ROAD
CUT AND FILL PLAN

PLAN No:
998511/CC356

FILE No: 998511CC356

SHEET SIZE: A1 ORIGINAL

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



AZIMUTH:
AHD
DATUM:
MGA
ORIGIN:



CLIENT:

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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

D	UPDATED CUT FILL HATCH	KM	KM	RO	MS	23/10/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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

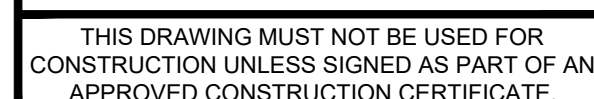
DATE 14/07/2021 REF 20260-5



C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM 27/09/15
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A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM 06/09/15
	AMENDMENT	DES	DRN	CKD	APR DATE

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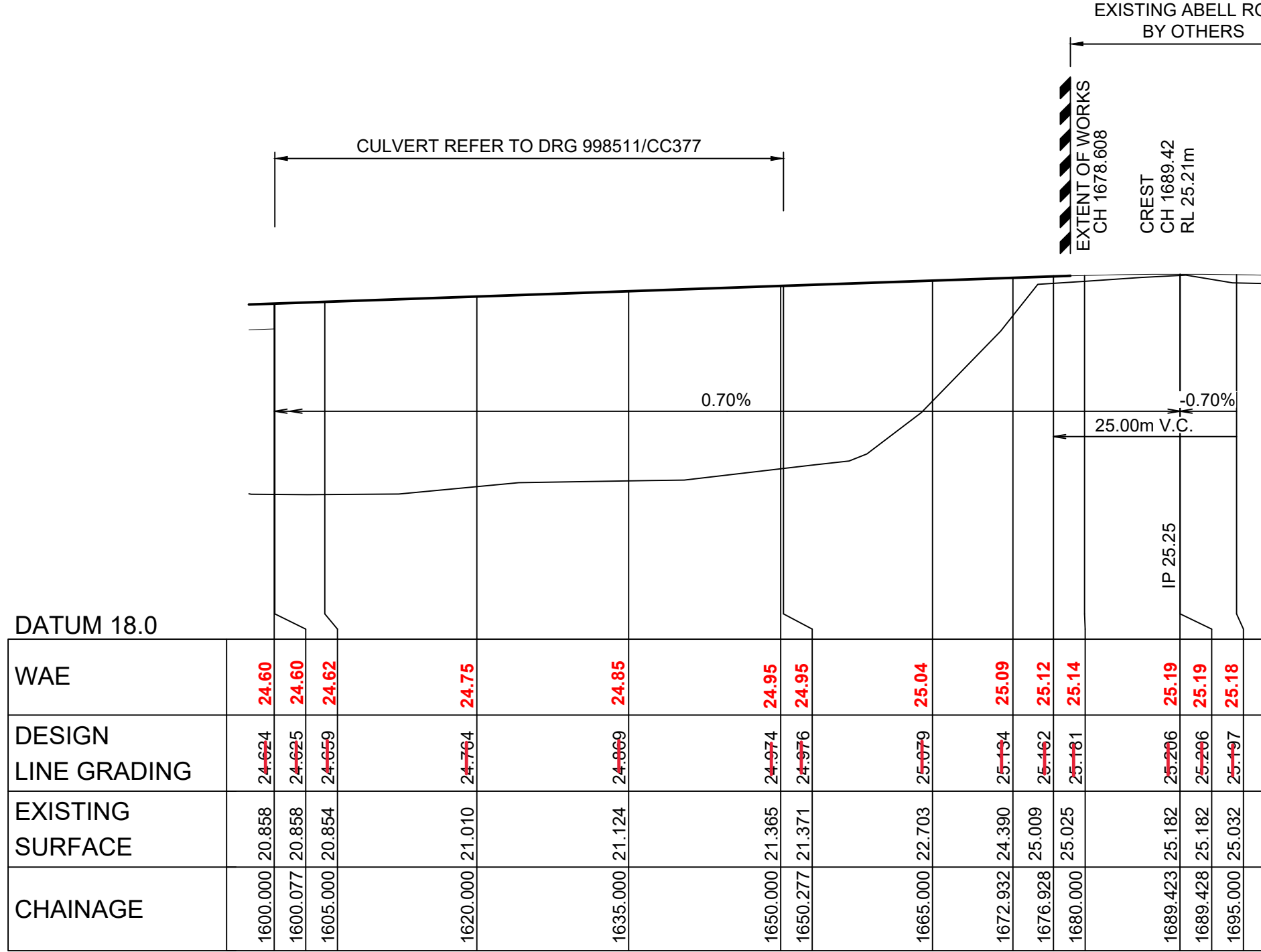
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ORIGIN:	



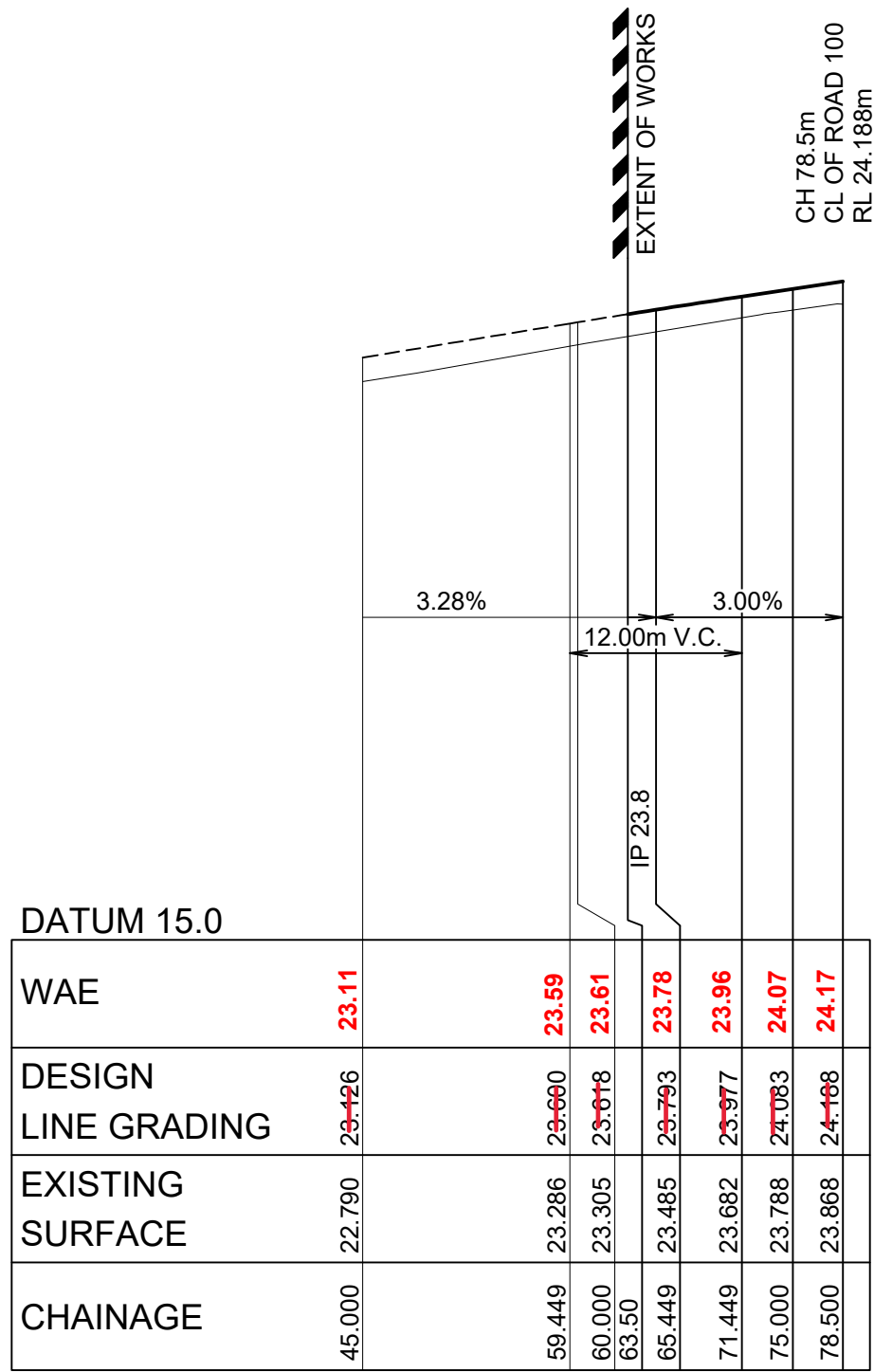
NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD LONGSECTIONS - SHEET 1

PLAN No:		C
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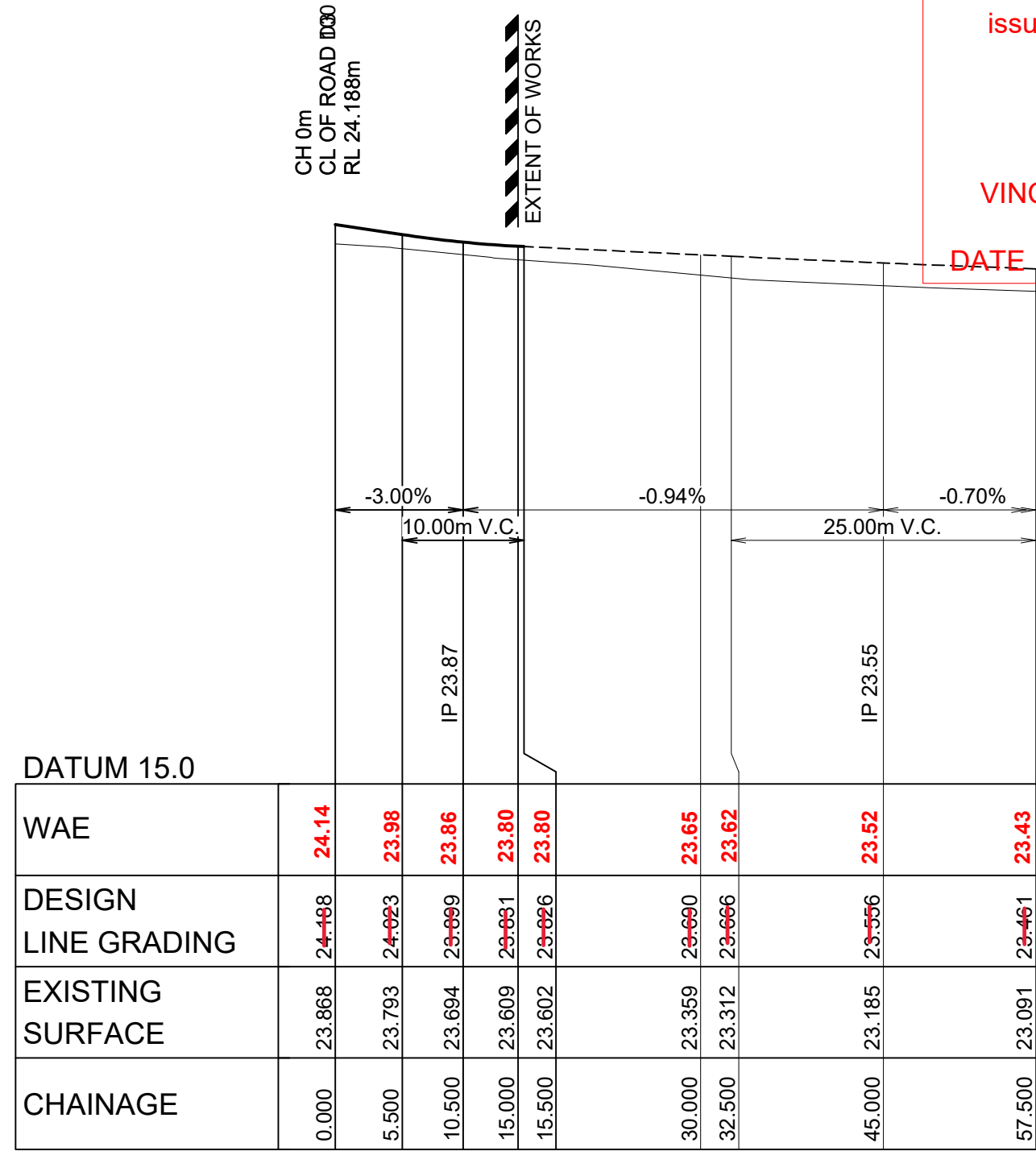
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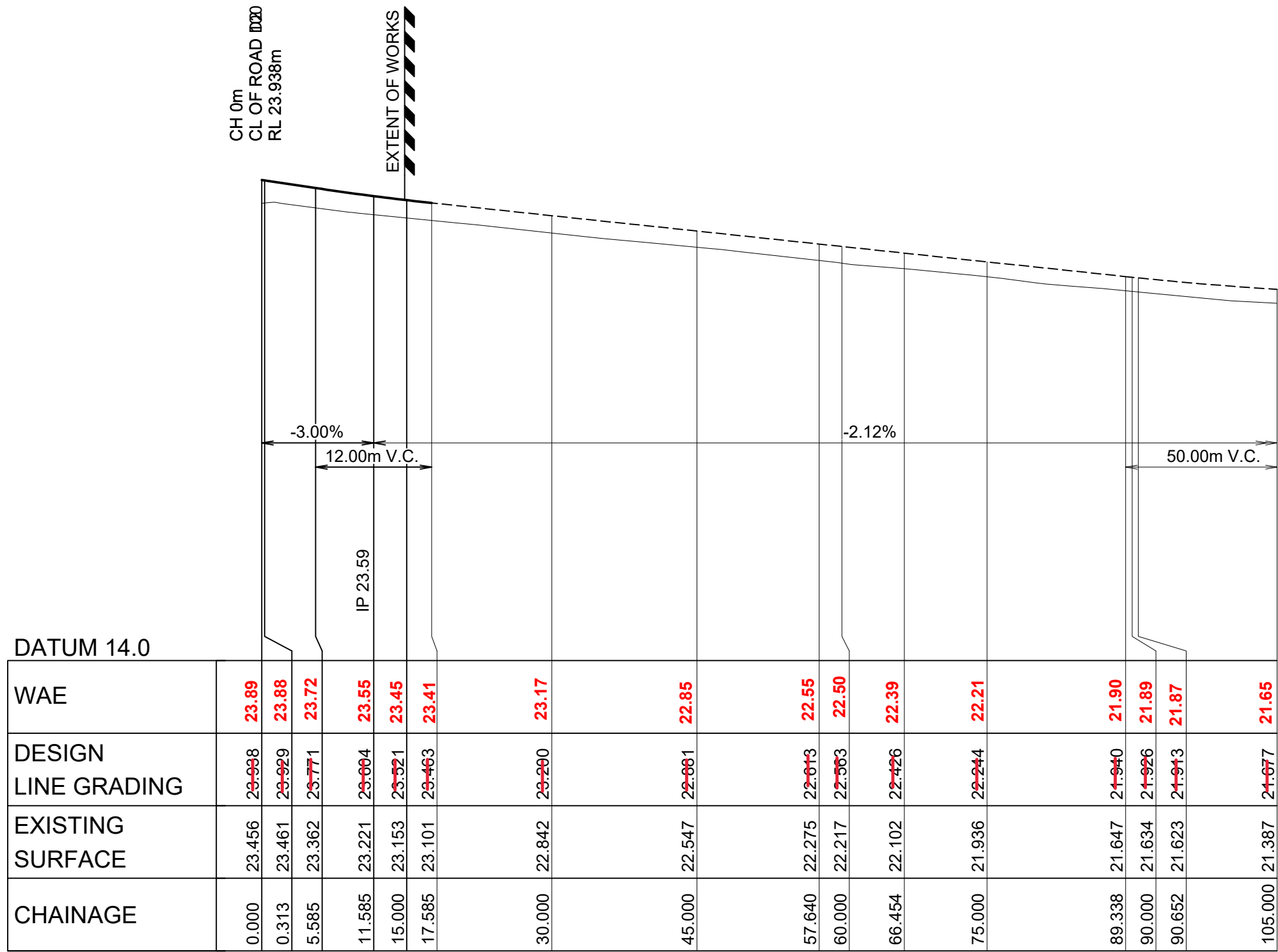
LONGITUDINAL SECTION ROAD 100 (ABELL ROAD)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



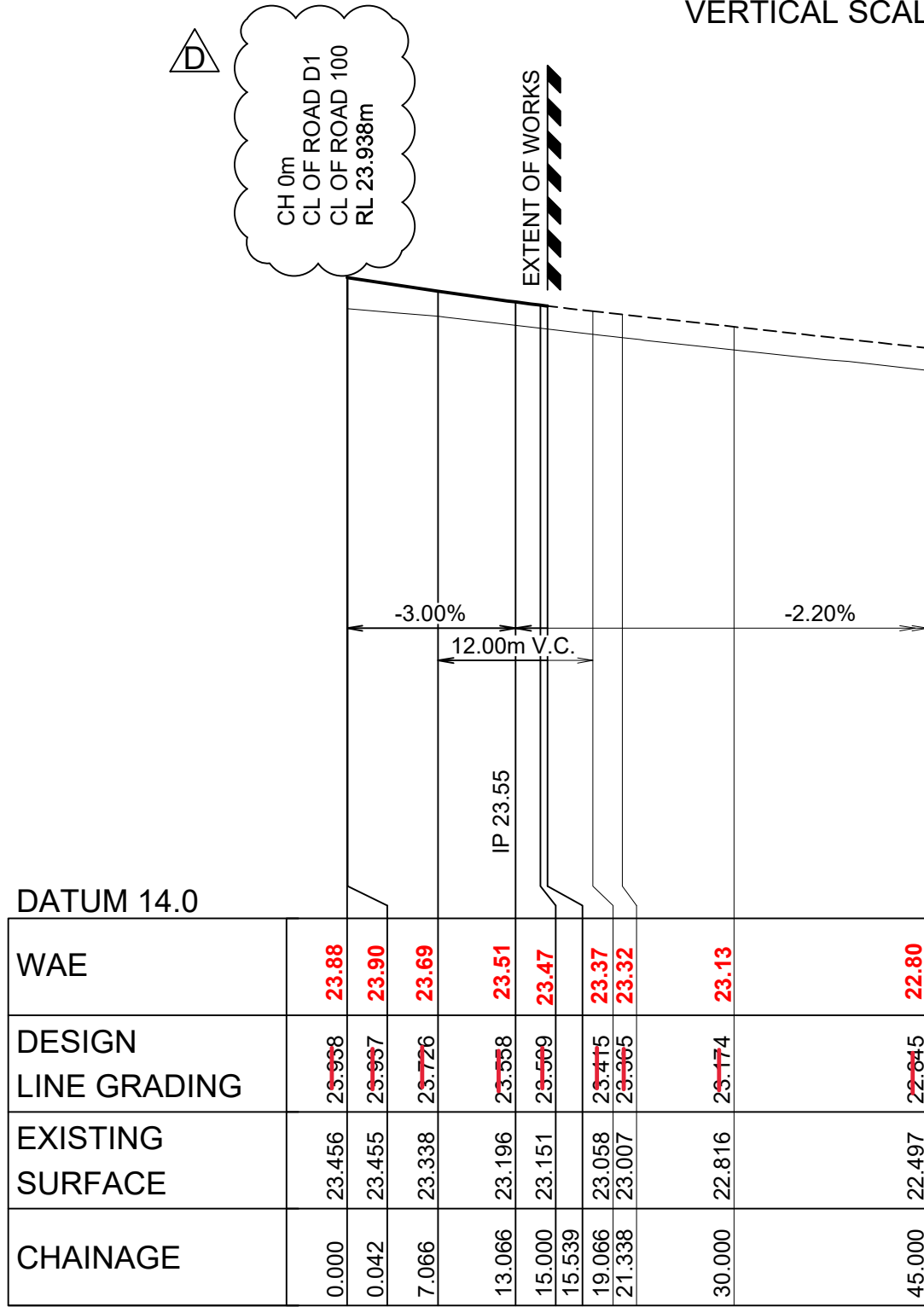
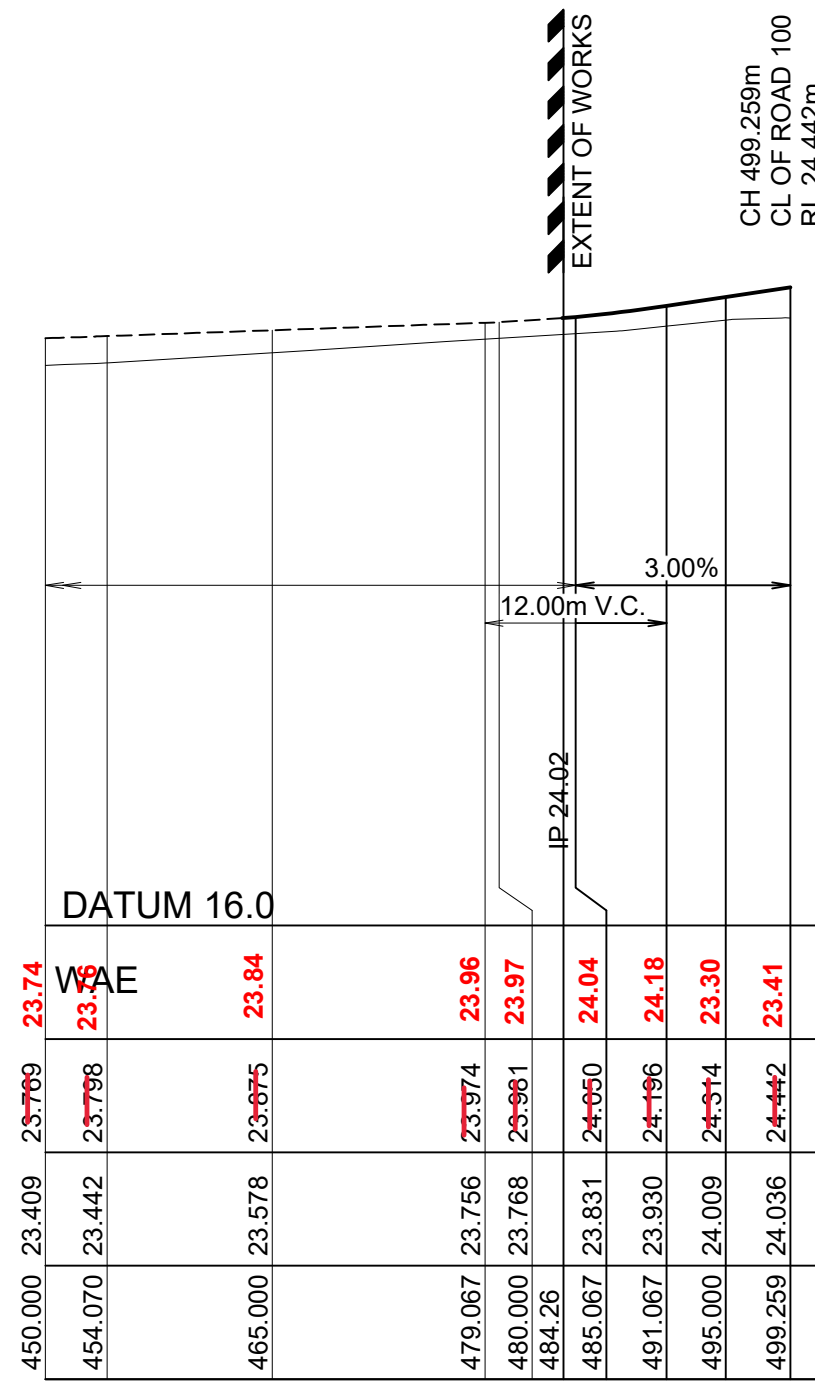
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HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



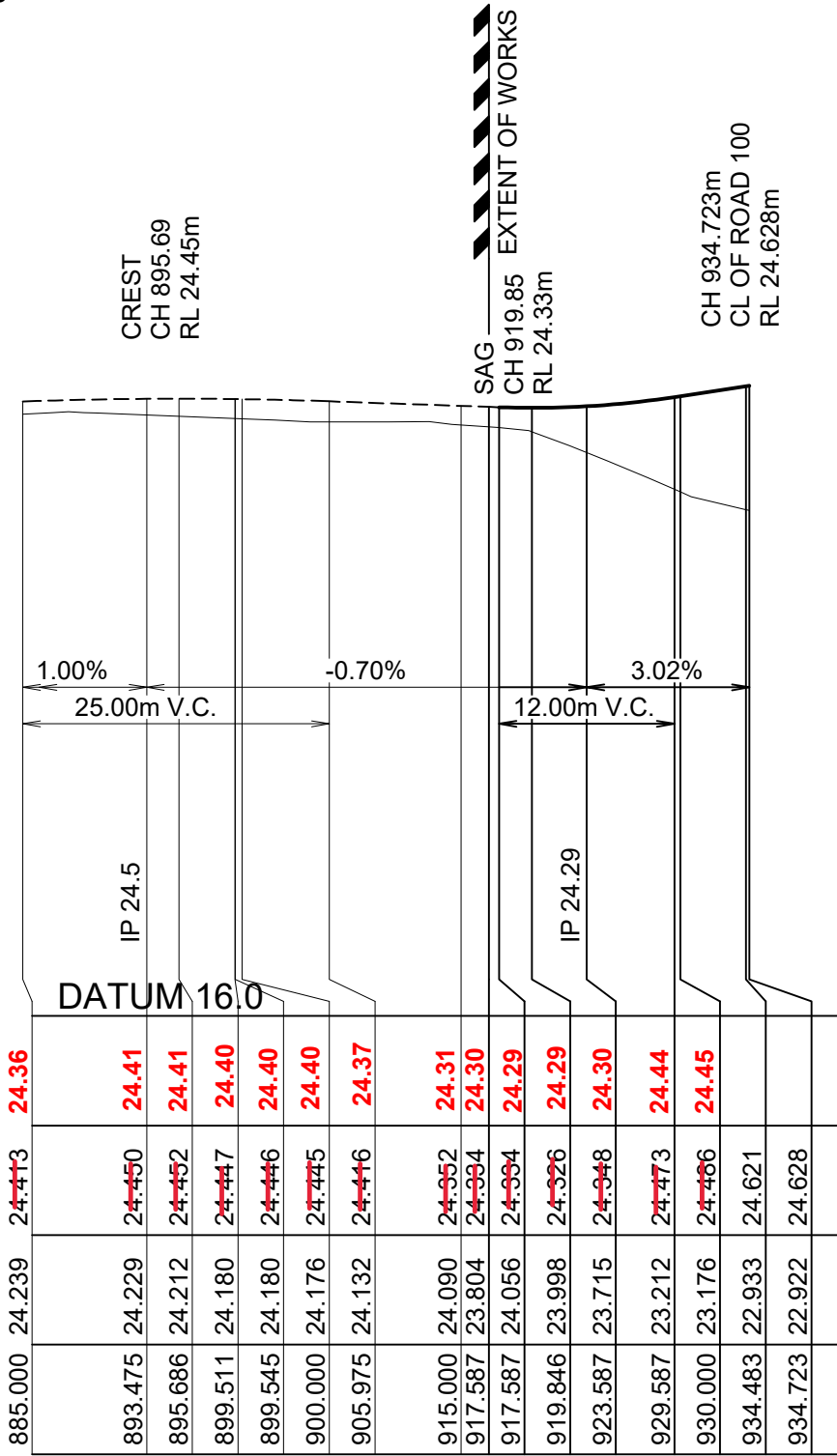
LONGITUDINAL SECTION - ROAD D6
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - ROAD D1
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION - ROAD D2
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



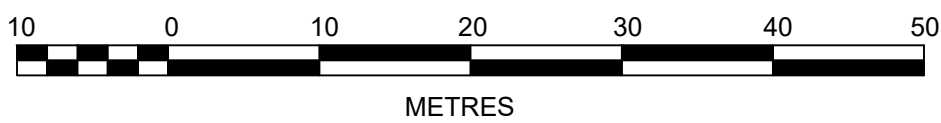
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

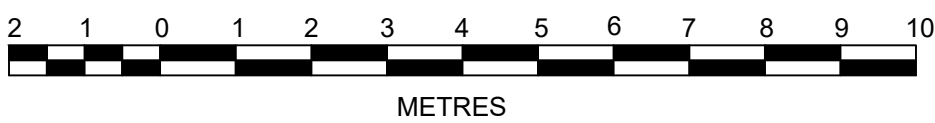
DATE 14/07/2021 REF 20260-5

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



1:100 (AT A1)
1:200 (AT A3)



D	NOTE REVISED	KM	KM	RO	MS
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM
	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:



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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD LONGSECTIONS - SHEET 2

PLAN No:
998511/CC359

FILE No: 998511CC359

SHEET SIZE: A1 ORIGINAL

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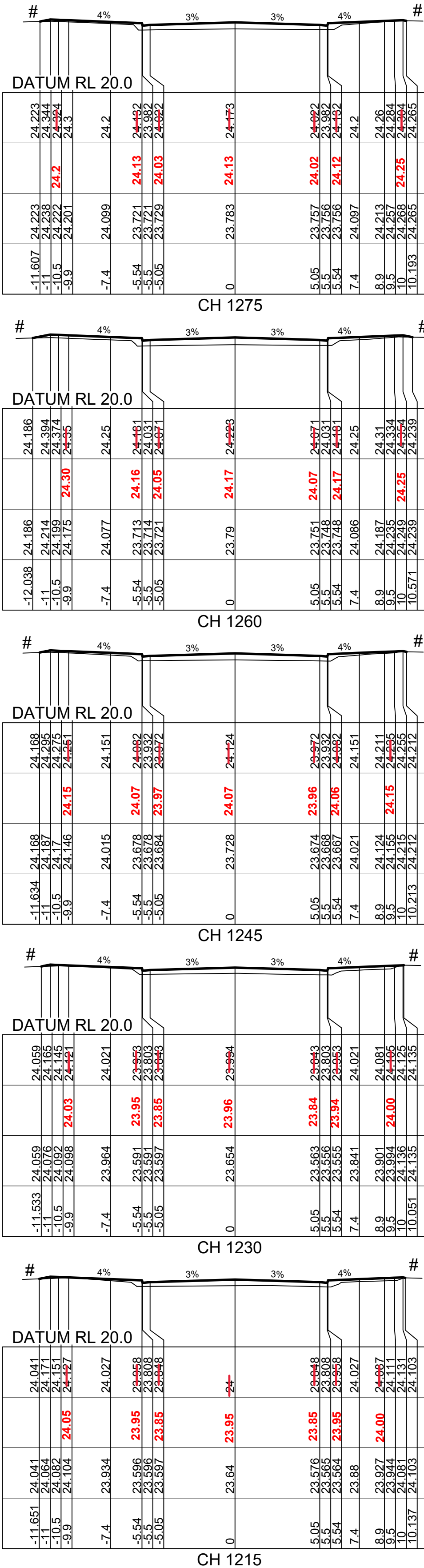
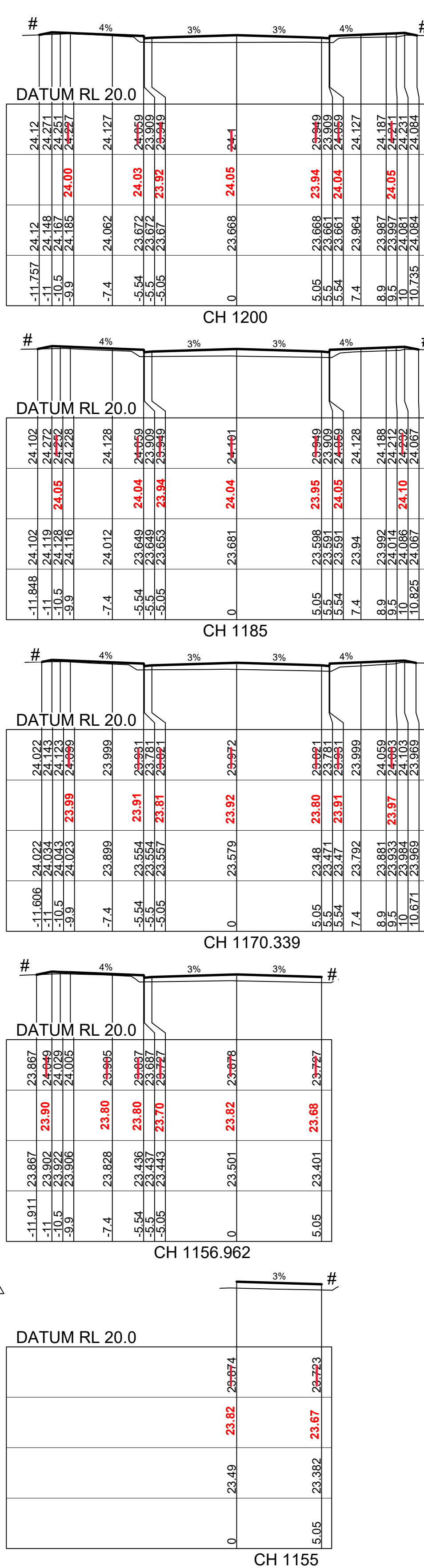
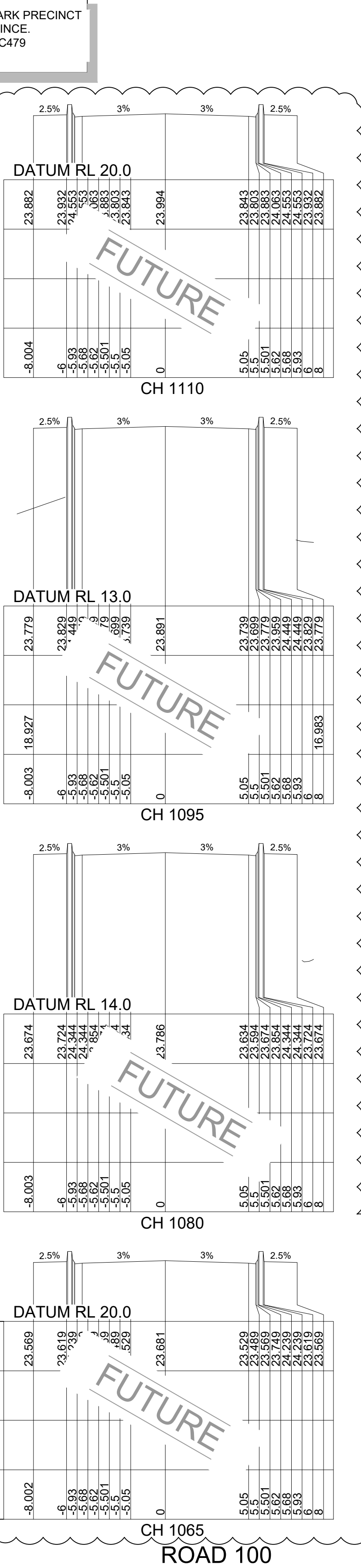
- REFER TO NEWPARK PRECINCT
5 BY J WYNDHAM PRINCE.
REF 99851/CC400-CC479
FOR LOT REGRADE

DESIGN
SURFACE LEVEL

WAE

EXISTING
SURFACE LEVEL

OFFSET



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

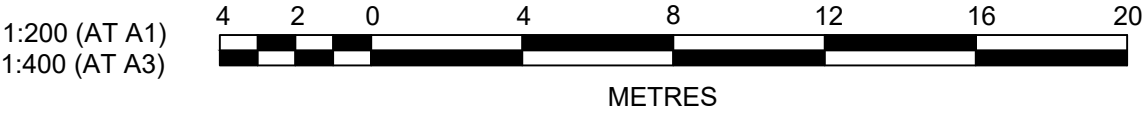
LDC

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

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& 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:

W WINTEN
PROPERTY
GROUP

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APPROVED CONSTRUCTION CERTIFICATE.

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD CROSS SECTIONS ROAD 100 - SHEET 1

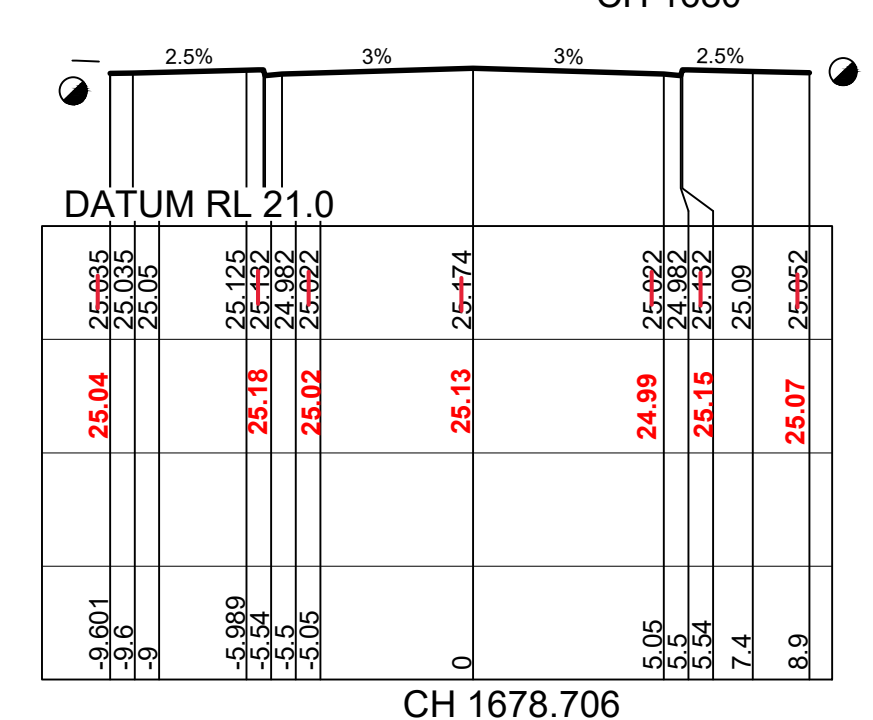
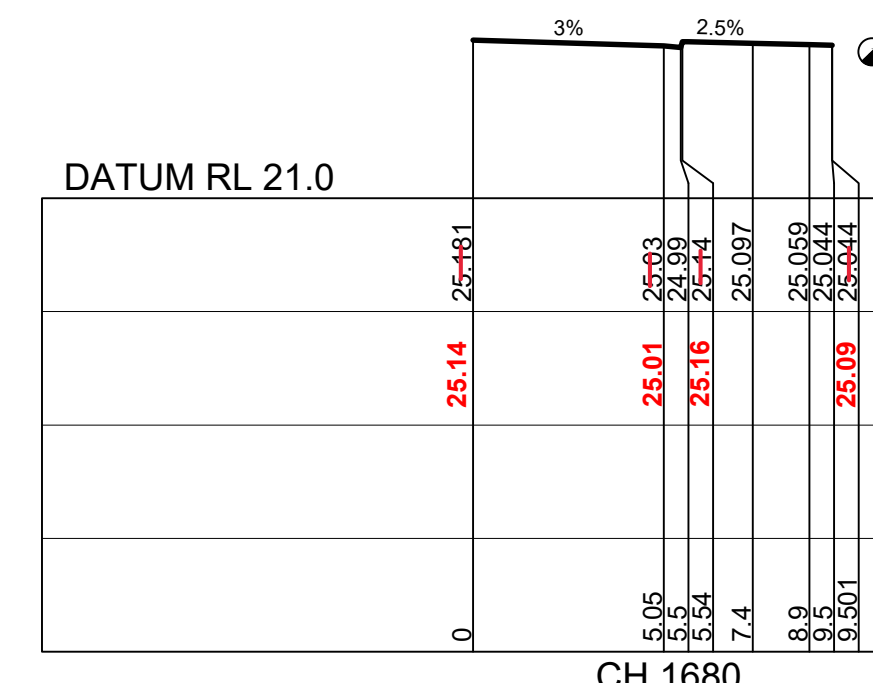
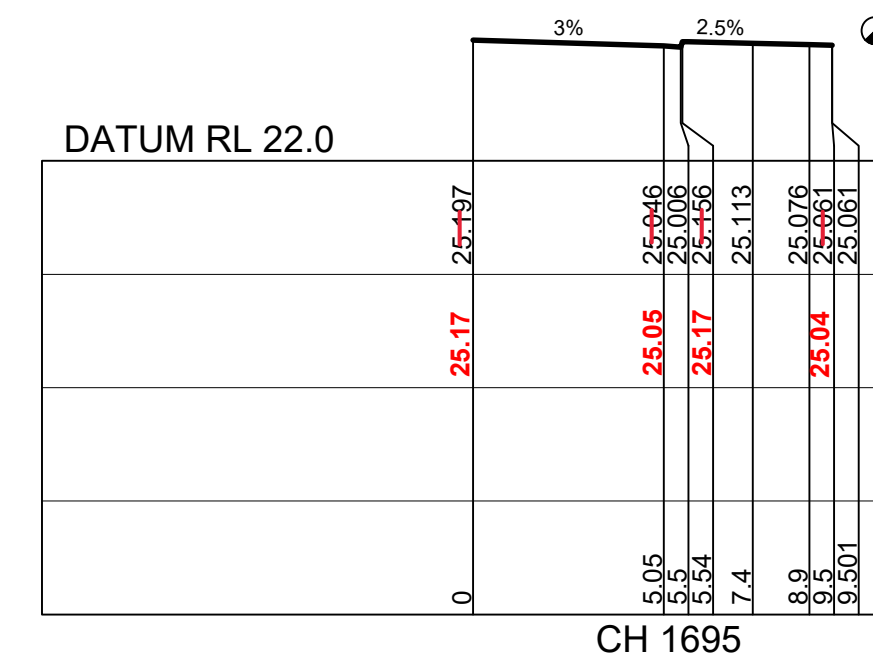
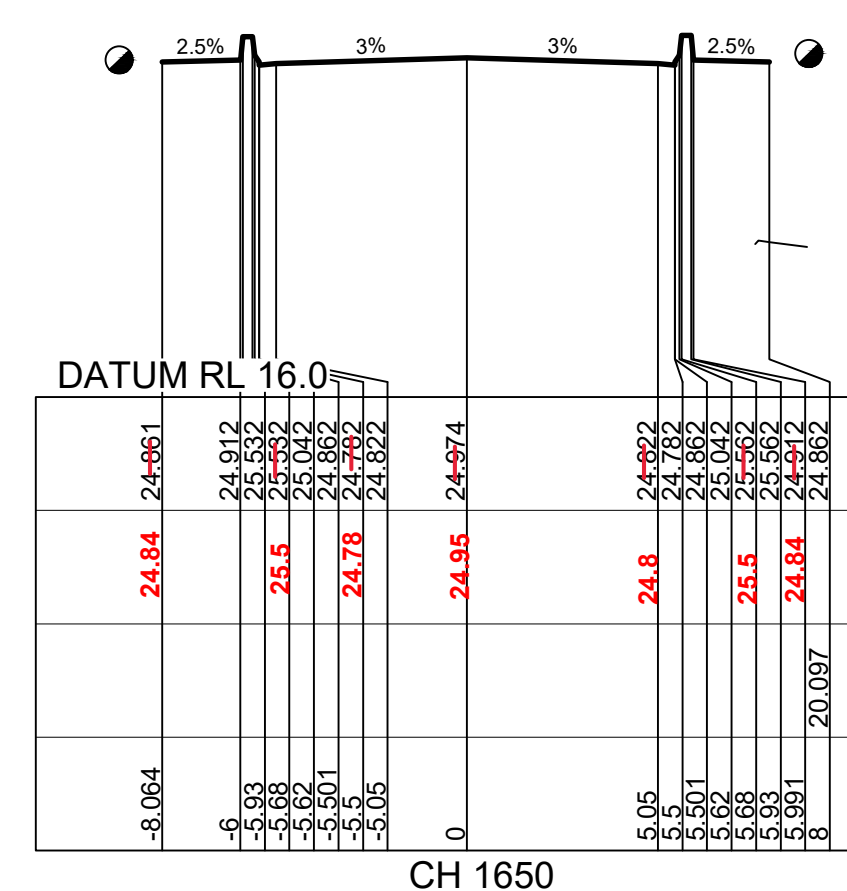
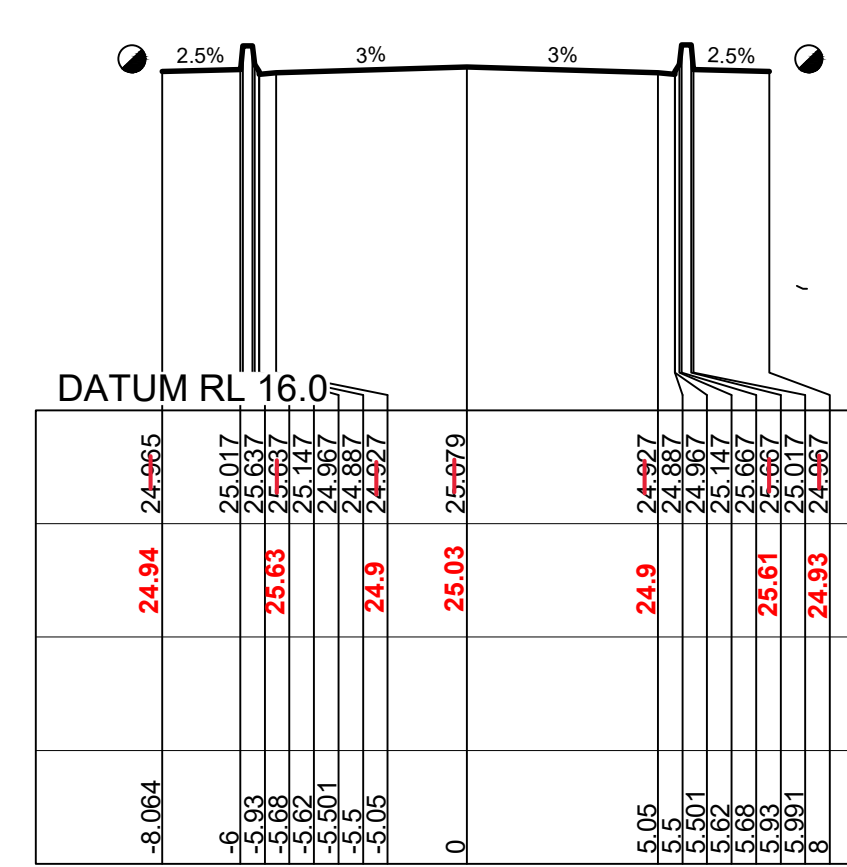
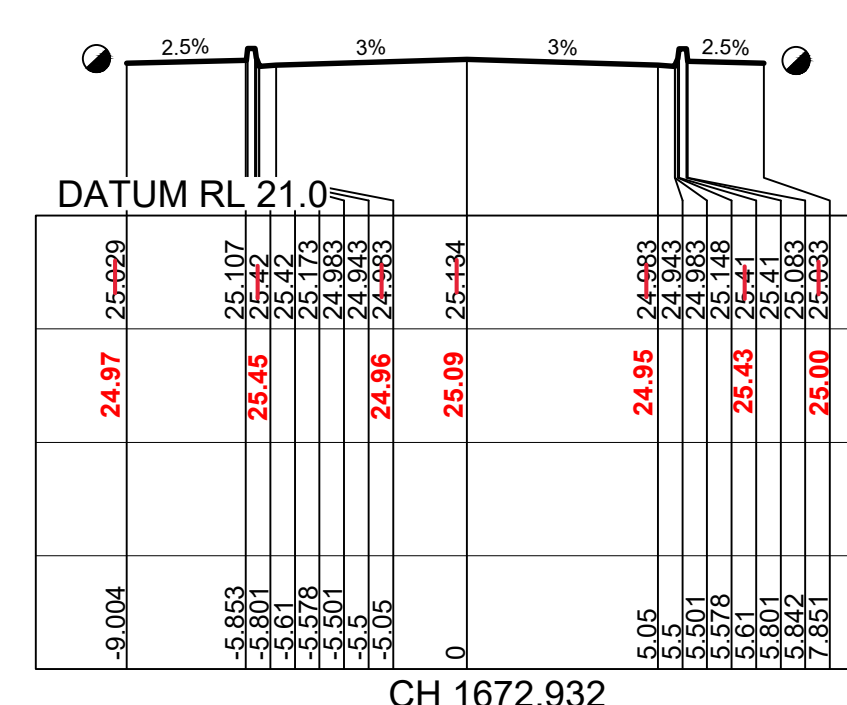
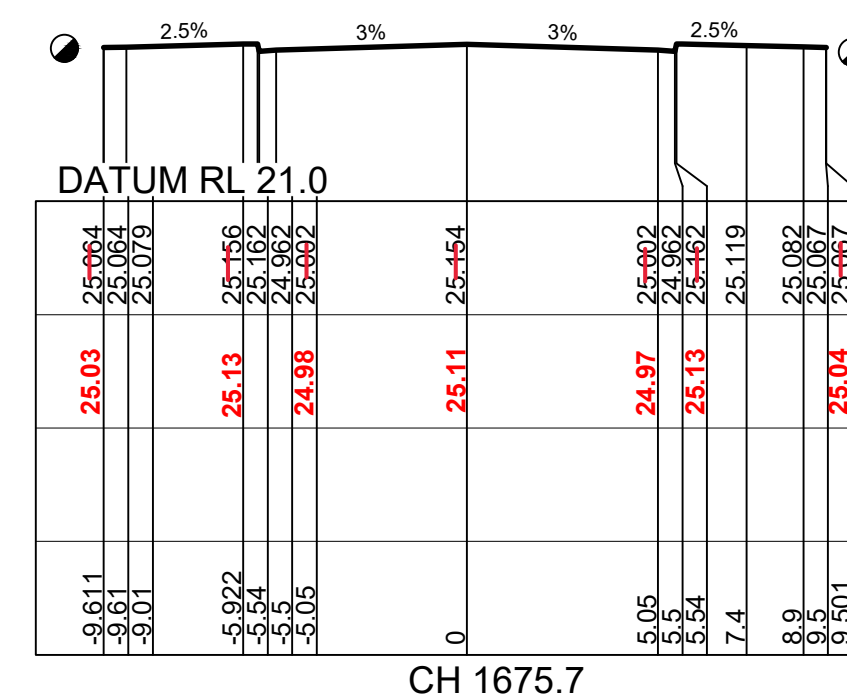
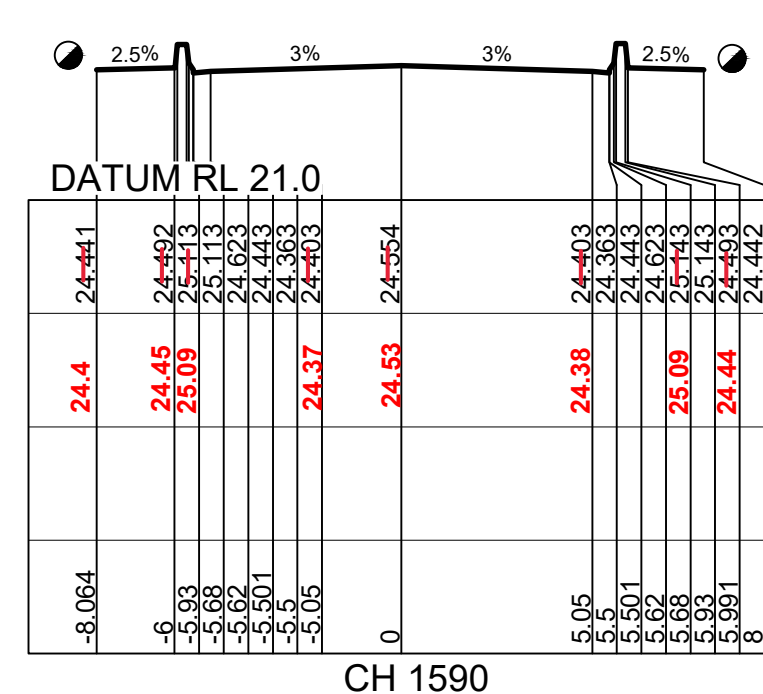
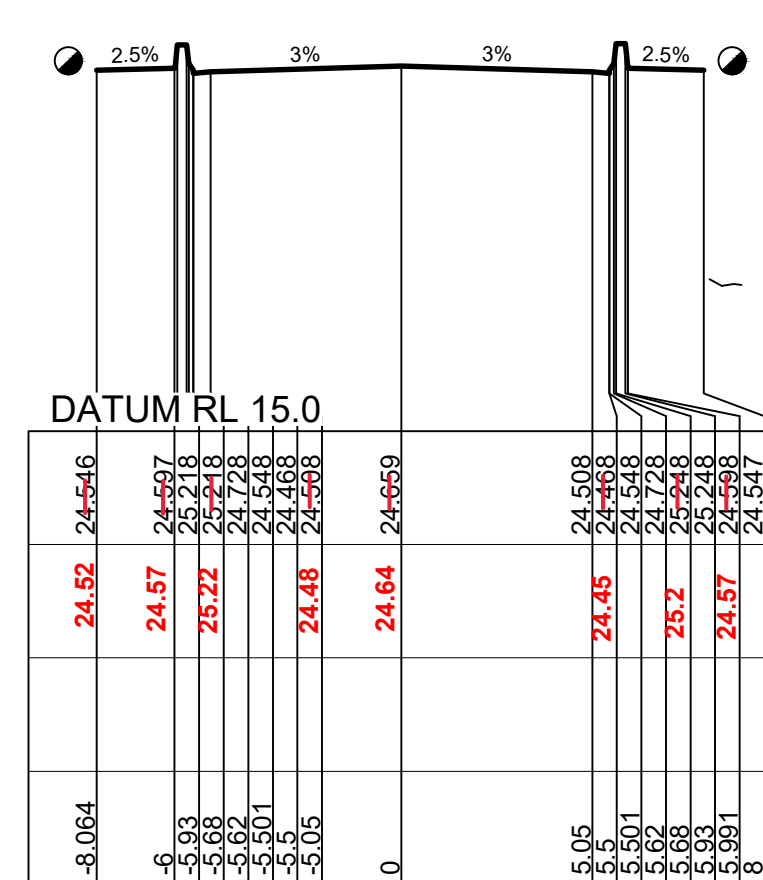
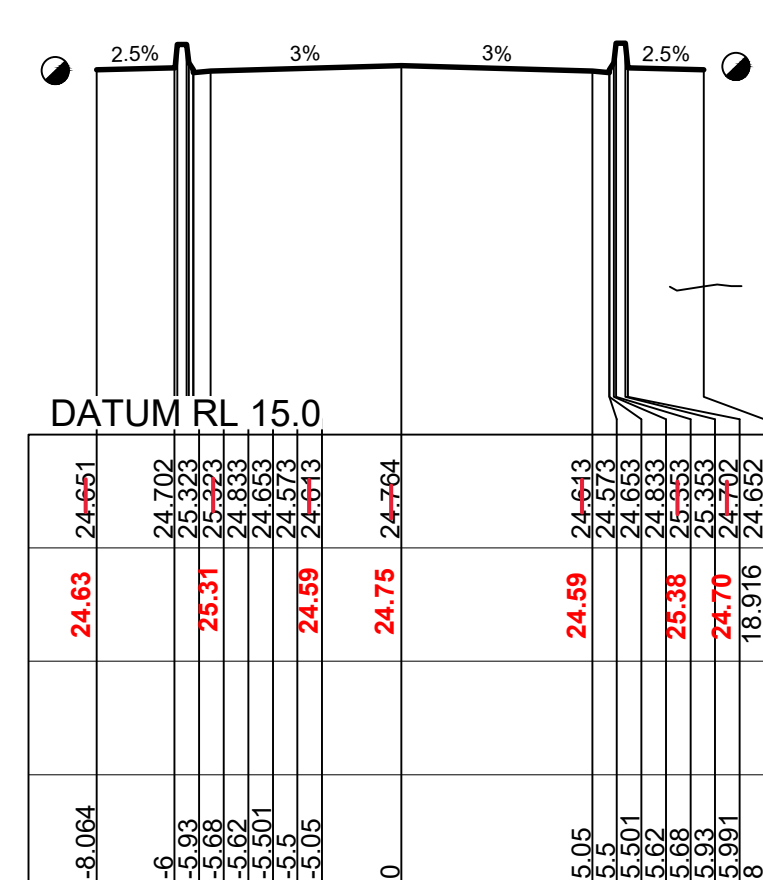
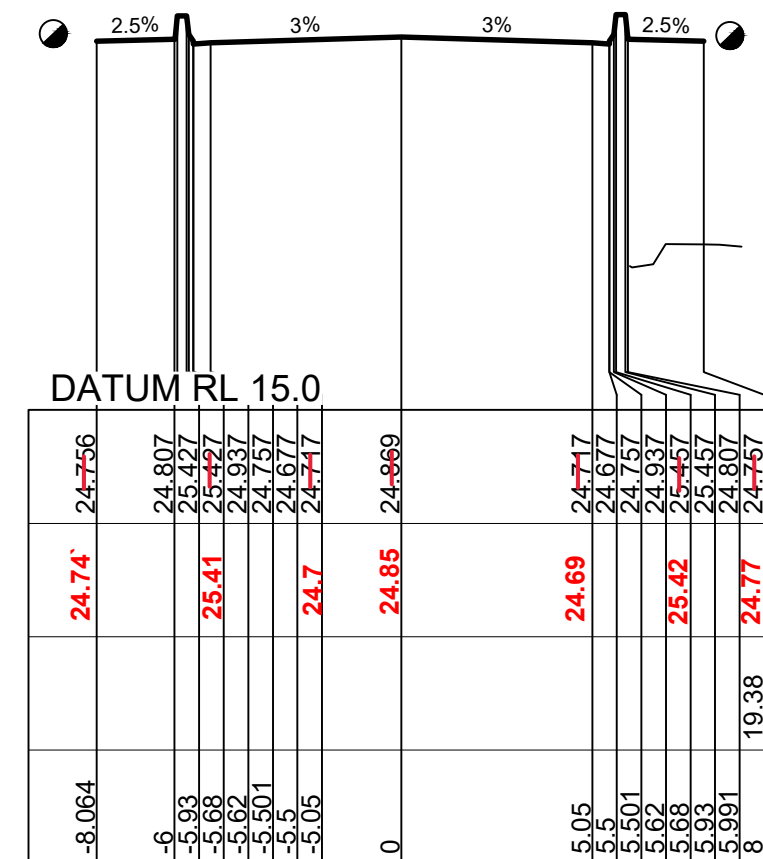
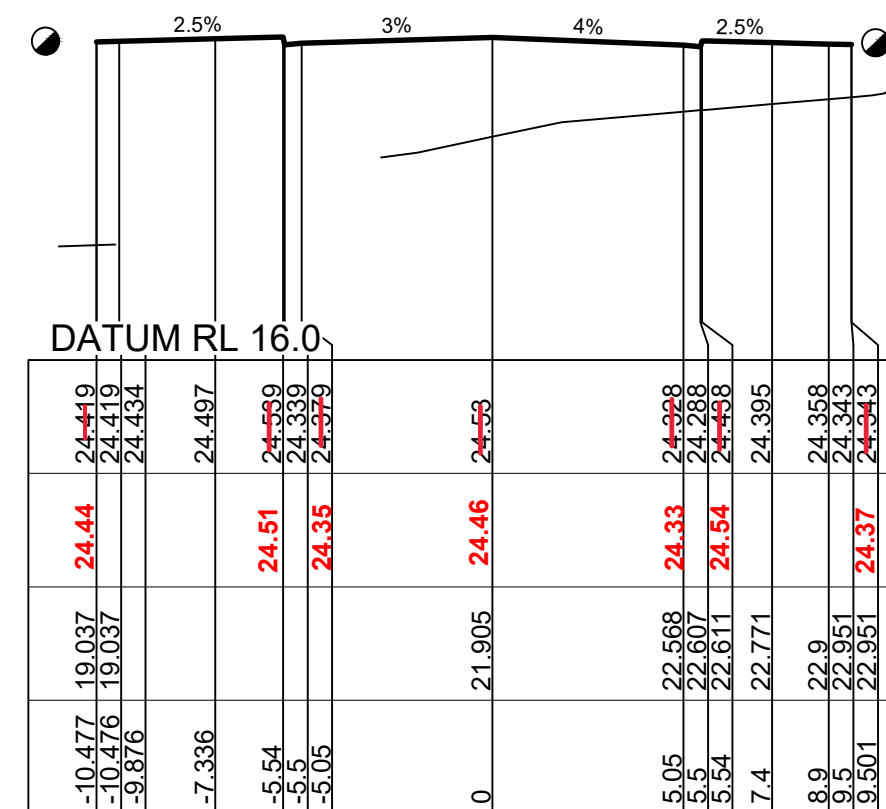
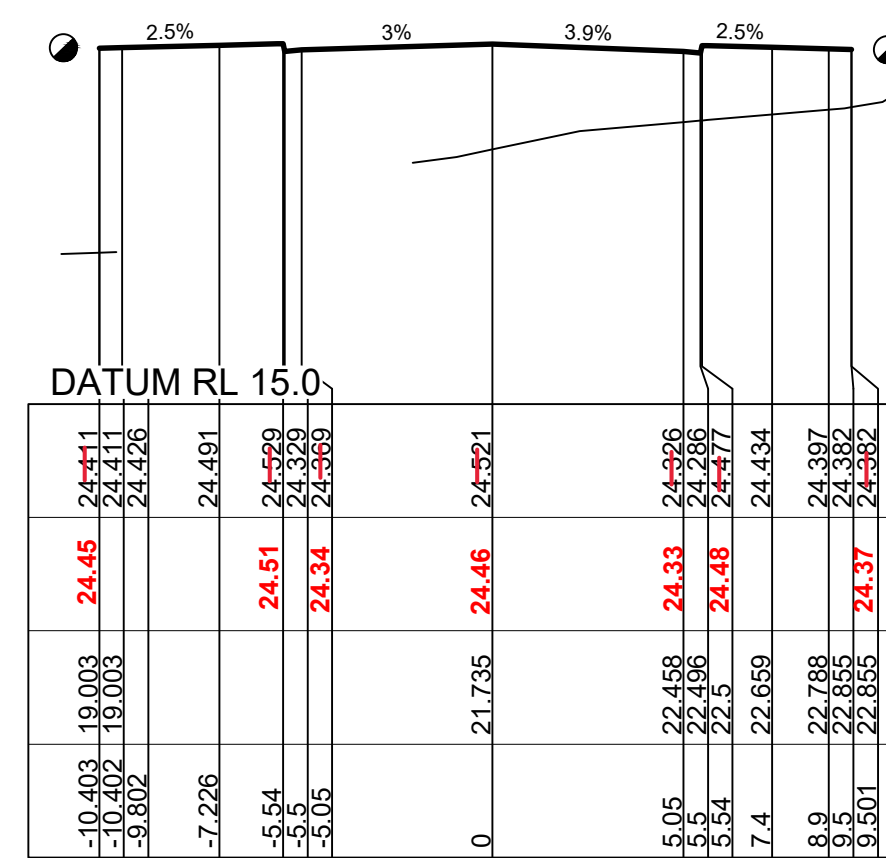
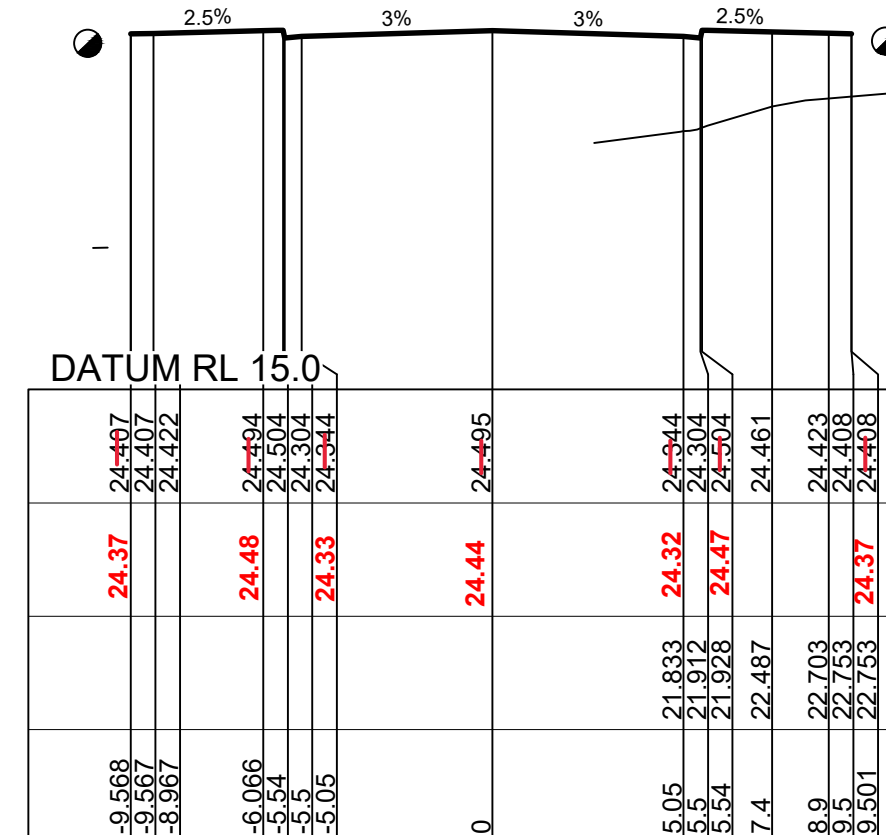
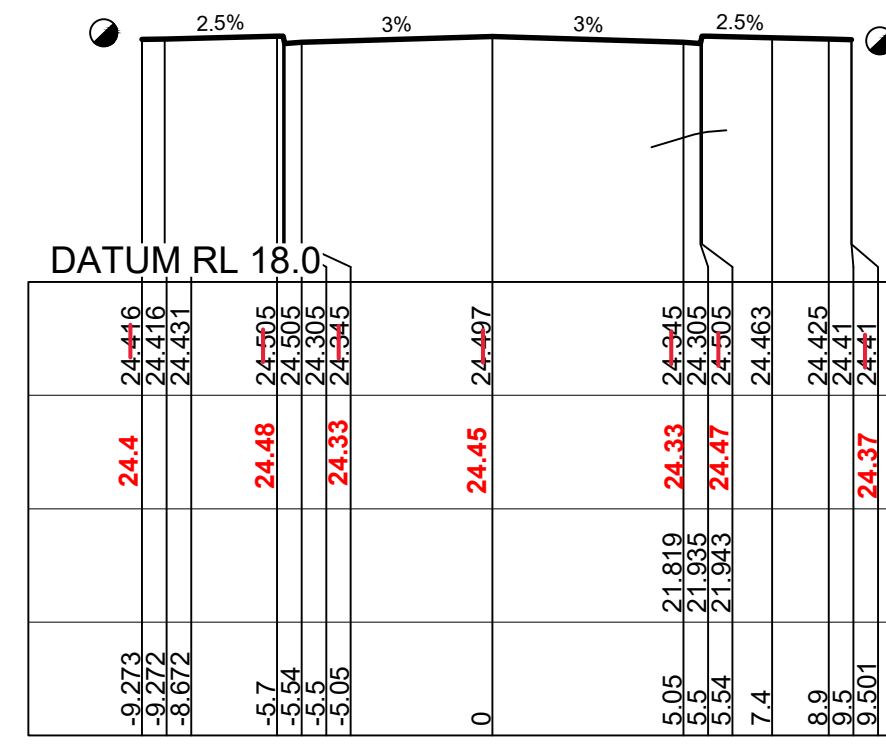
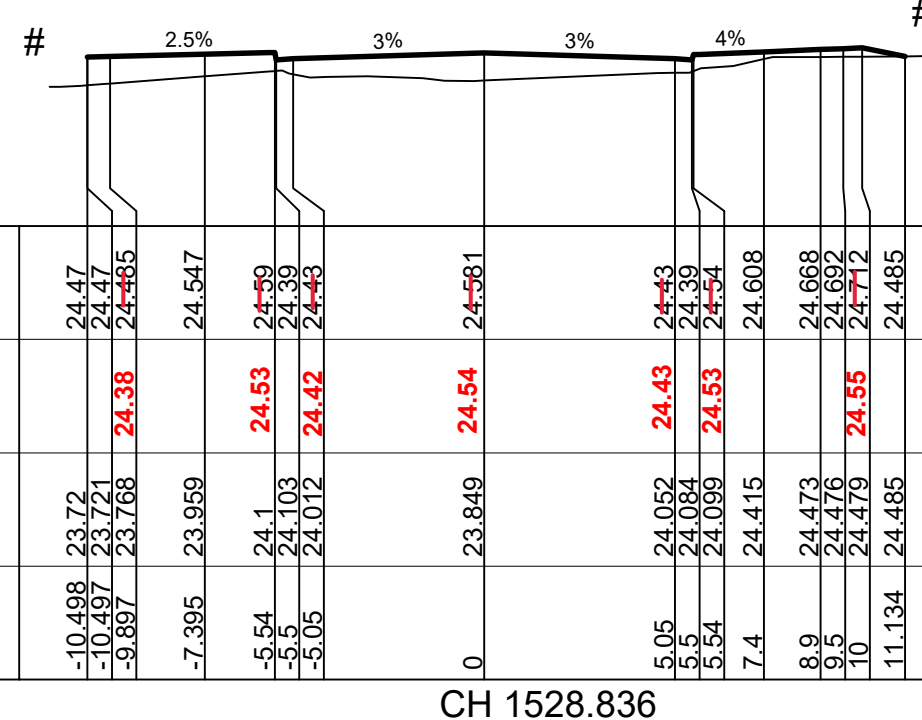
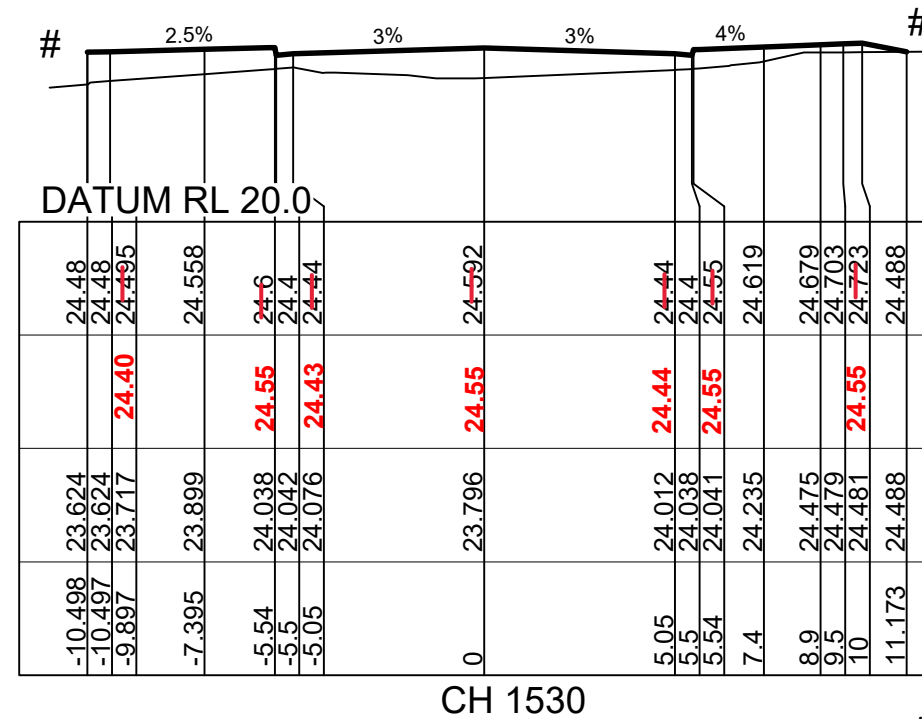
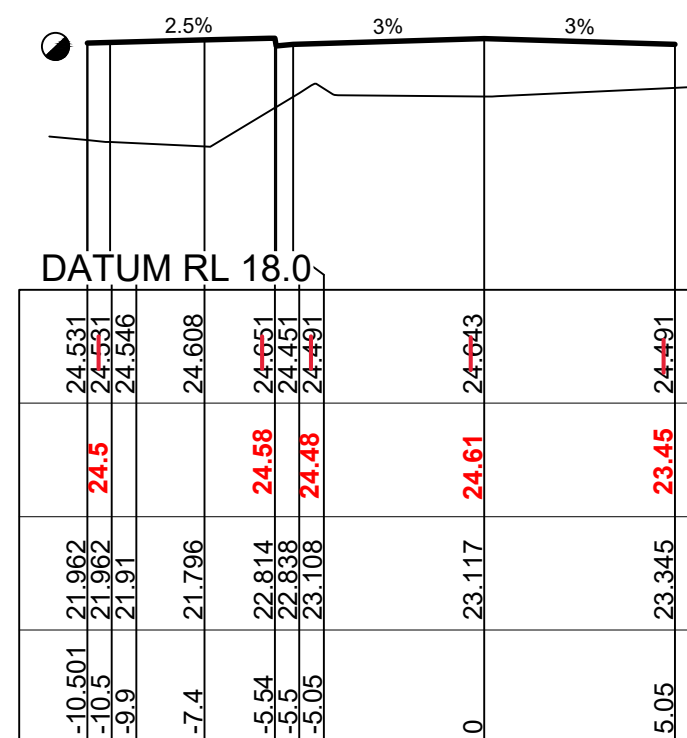
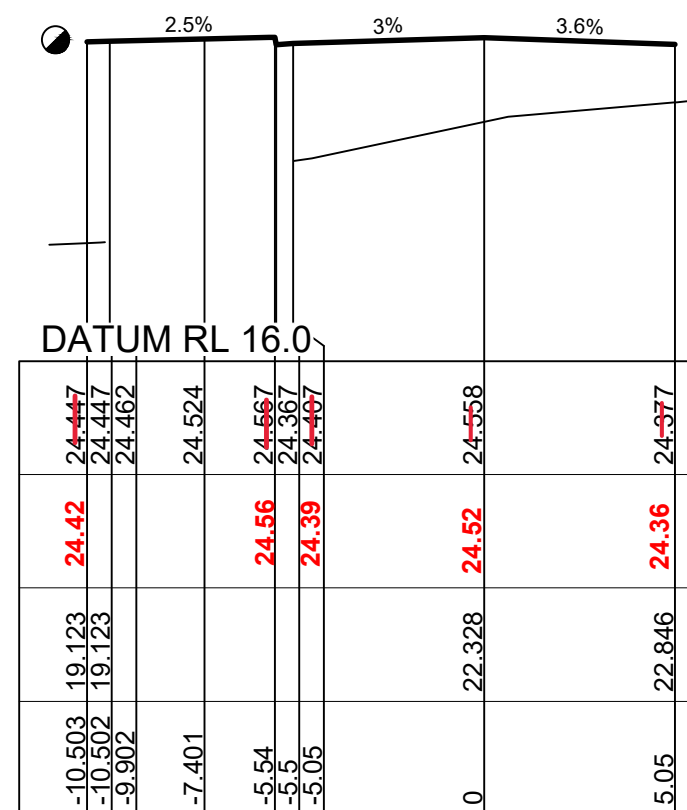
PLAN No:
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FILE No: 99851CC360

SHEET SIZE: A1 ORIGINAL

	AMENDMENT	DES	DRN	CKD	APR	DATE
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C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19

#- REFER TO NEWPARK PRECINCT 5
BY J WYNDDHAM PRINCE.
REF.998511/CC400-CC479
FOR LOT REGRADE
● CULVERT INTERFACE REFER TO
DRG 998511/CC380-CC389 FOR DETAILS



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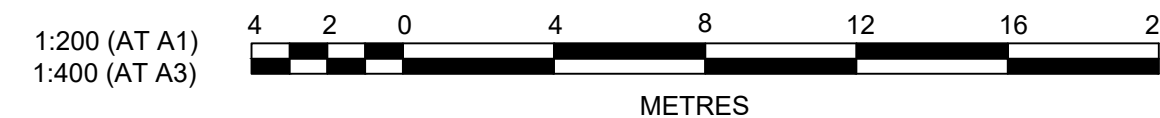
I hereby certify that engineering works shown on this plan have been constructed generally in accordance with Construction Certificate 15879 issued by Land Development Certificates

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

DATE 14/07/2021

REF 20260-5

ROAD 100 (Cont)



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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 - ABELL ROAD
ROAD CROSS SECTIONS ROAD 100 - SHEET3

PLAN No:		C
998511/CC362		
FILE No: 998511CC362		
SHEET SIZE:		A1 ORIGINAL

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Plotted: 13 November, 2019 1:35:52 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC363.dwg

- REFER TO NEWPARK PRECINCT
5 BY J WYNDHAM PRINCE.
REF.998511/CC400-CC479
FOR LOT REGRADE

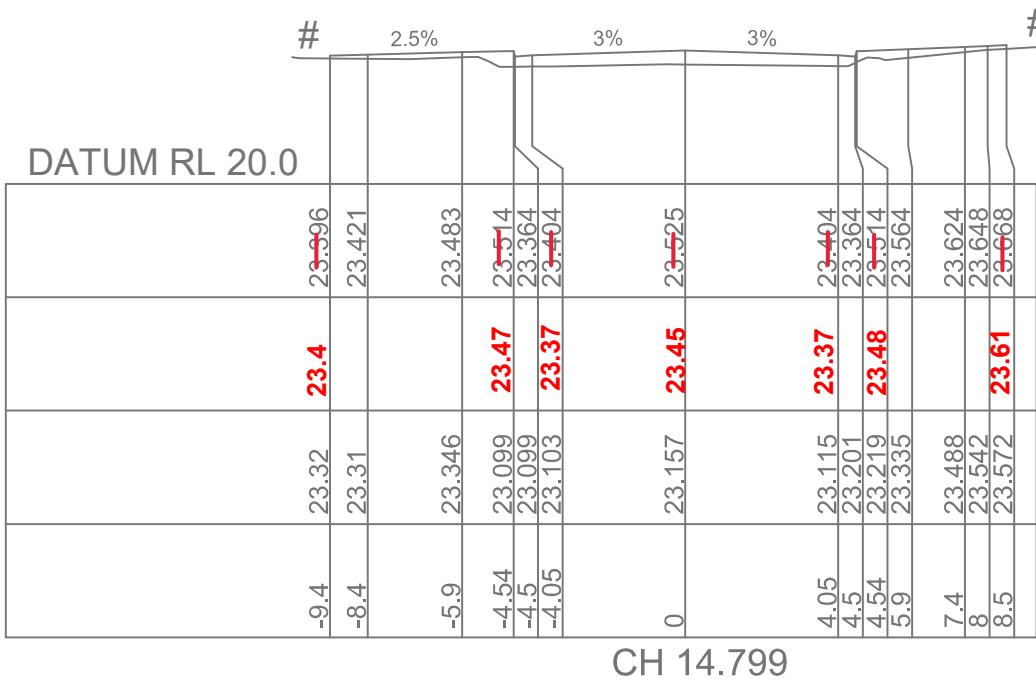
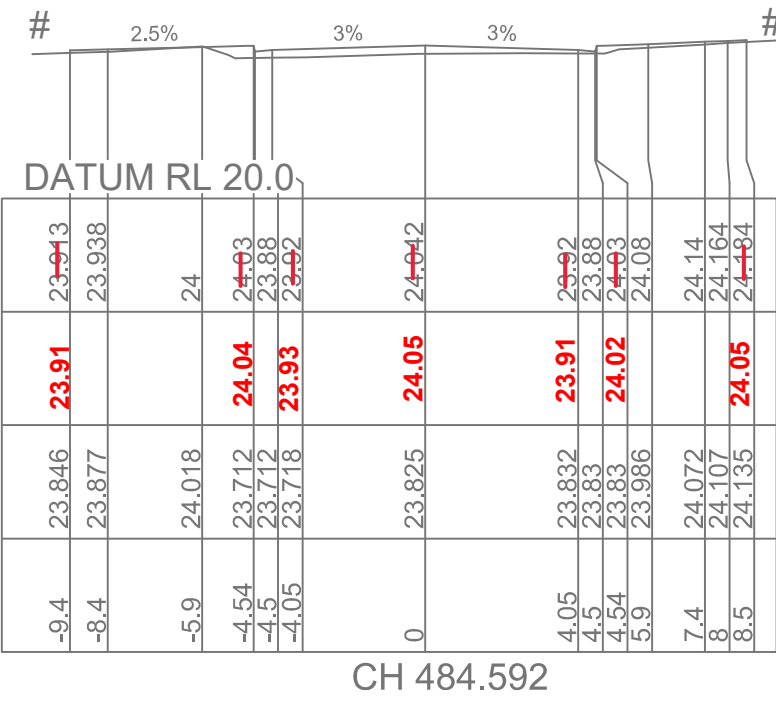
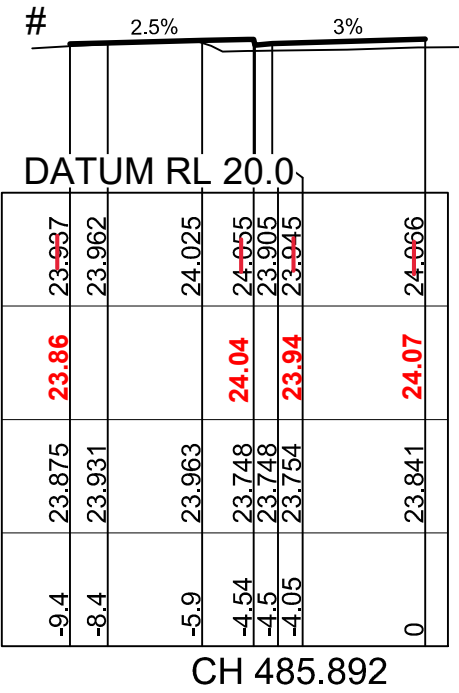


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Christopher Louis Wahbe
Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
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Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

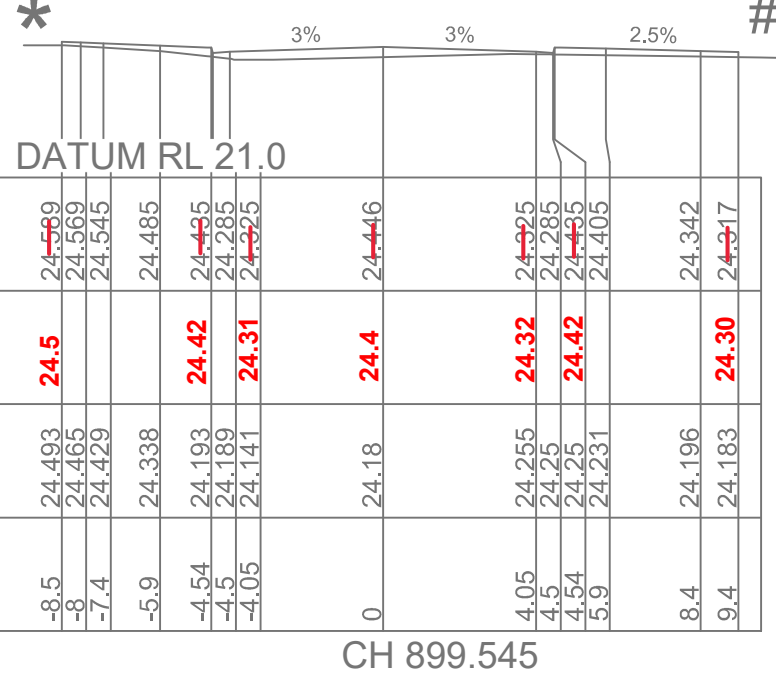
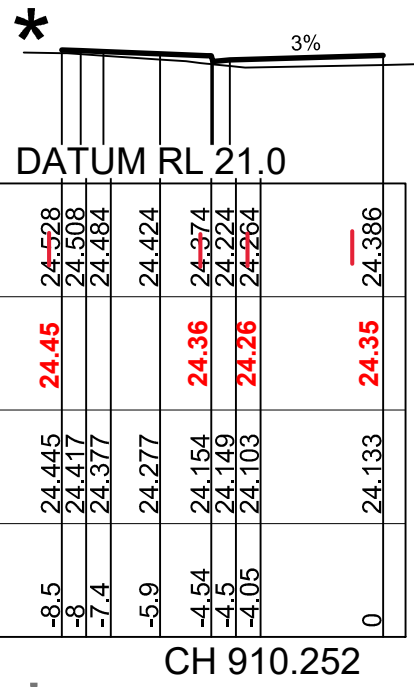
DATE 14/07/2021 REF 20260-5



DATUM RL 20.0	DESIGN SURFACE LEVEL	WAE	EXISTING SURFACE LEVEL	OFFSET
-9.4	23.423	23.45	23.354	-9.4
-8.4	23.448		23.344	-8.4
-5.9	23.511		23.364	-5.9
-4.54	23.541	23.53	23.411	-4.54
-4.5	23.541	23.53	23.411	-4.5
-4.05	23.531	23.42	23.381	-4.05
0			23.48	0
23.553				

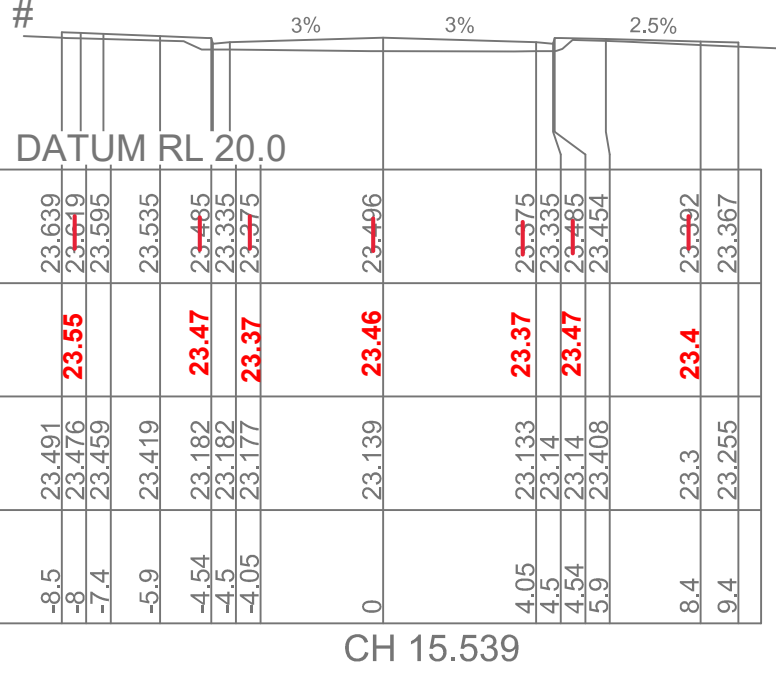
CH 13.645

ROAD D1

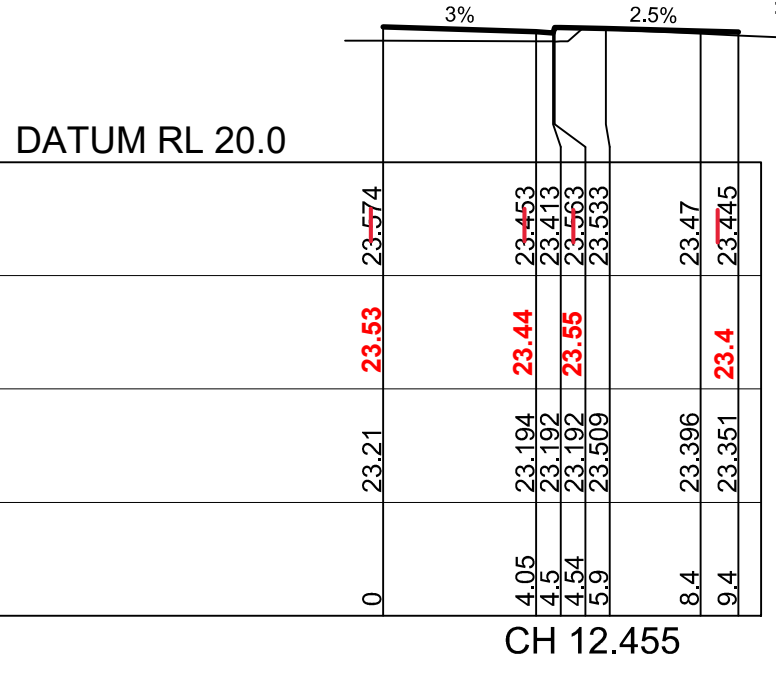


CH 899.545

ROAD D2

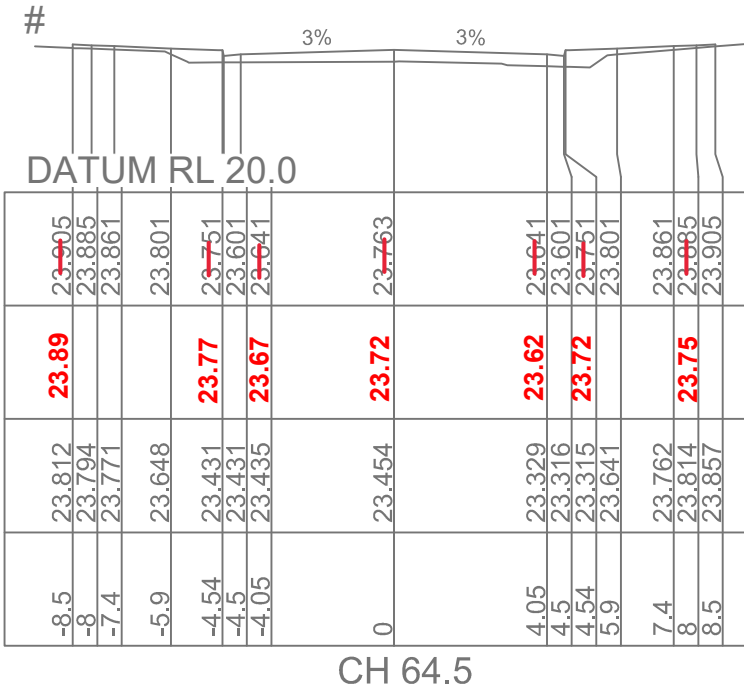


CH 15.539



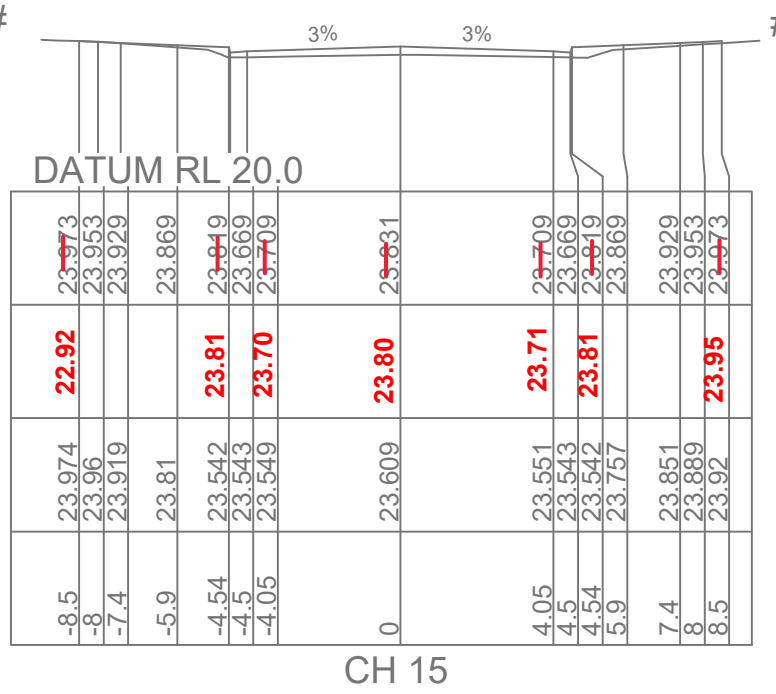
CH 12.455

ROAD D3

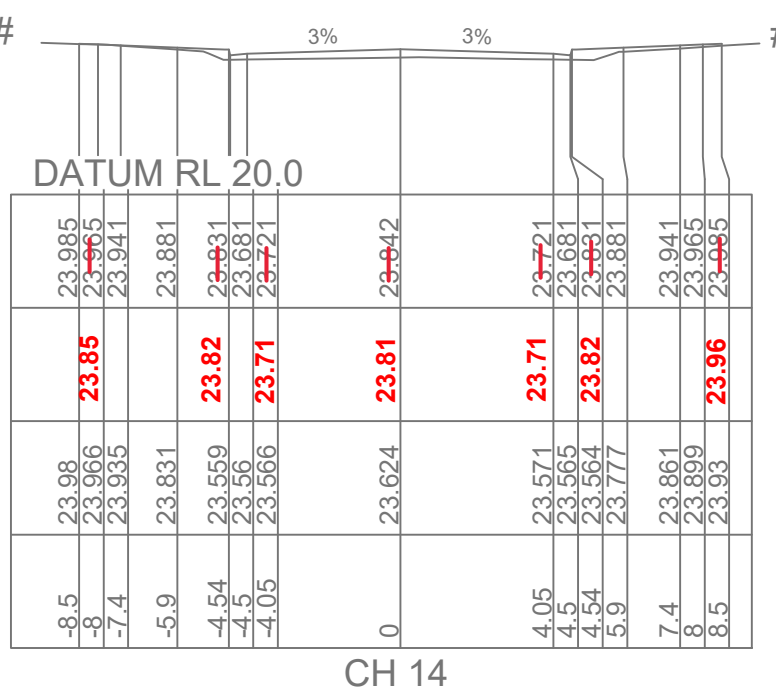


CH 64.5

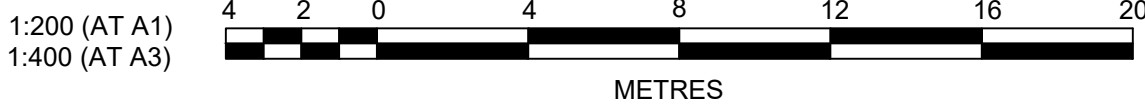
ROAD D6



CH 15



CH 14



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DATUM:
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ORIGIN:



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ISSUE FOR CONSTRUCTION APPROVAL

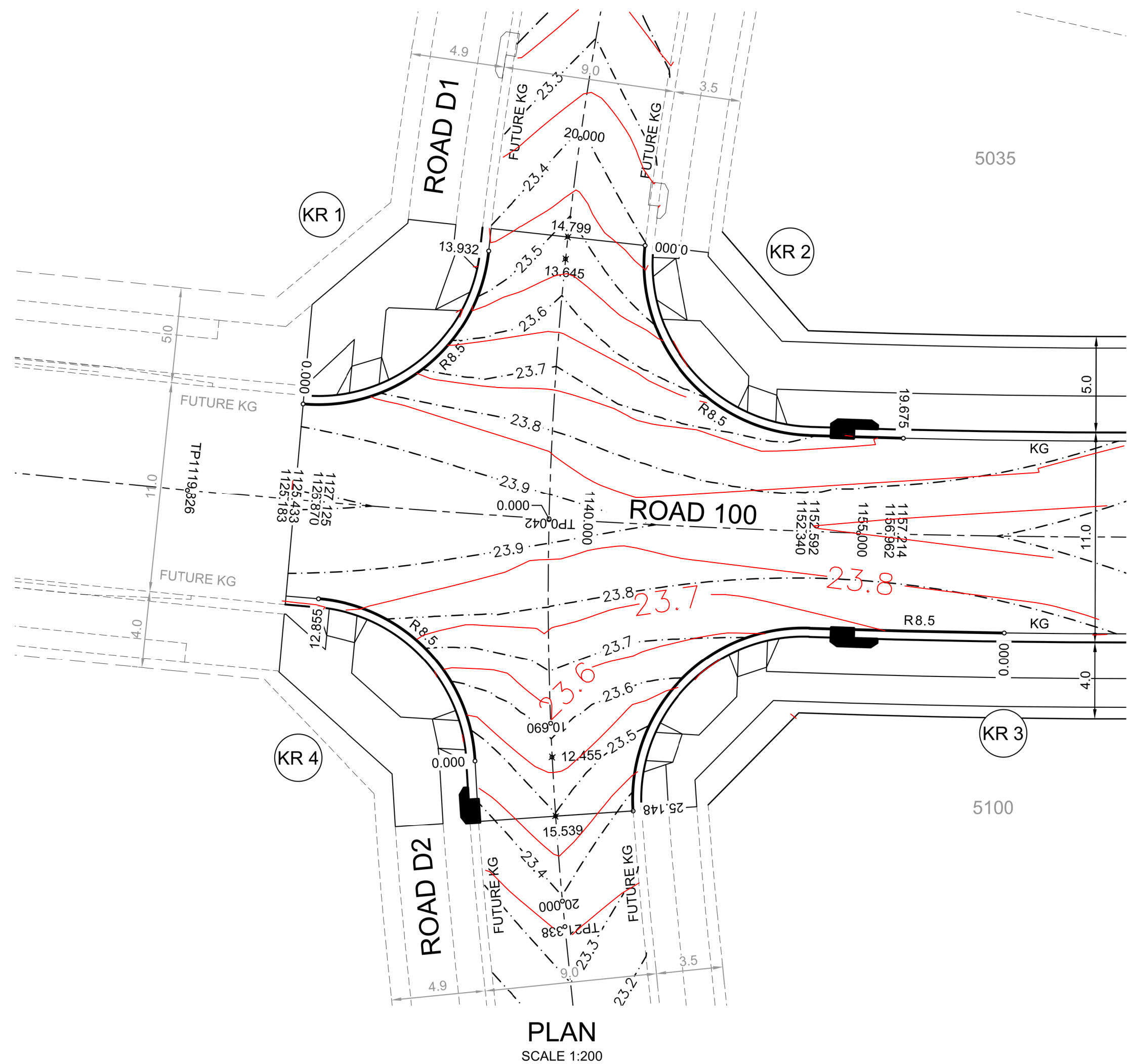
NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD CROSS SECTIONS ROAD D1, D2, D3 AND D6

PLAN No:
998511/CC363

FILE No: 998511CC363

SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 1:37:26 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\SPRECINCT 5 ABELL ROAD DOCUMENTATION\998511\CC364.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

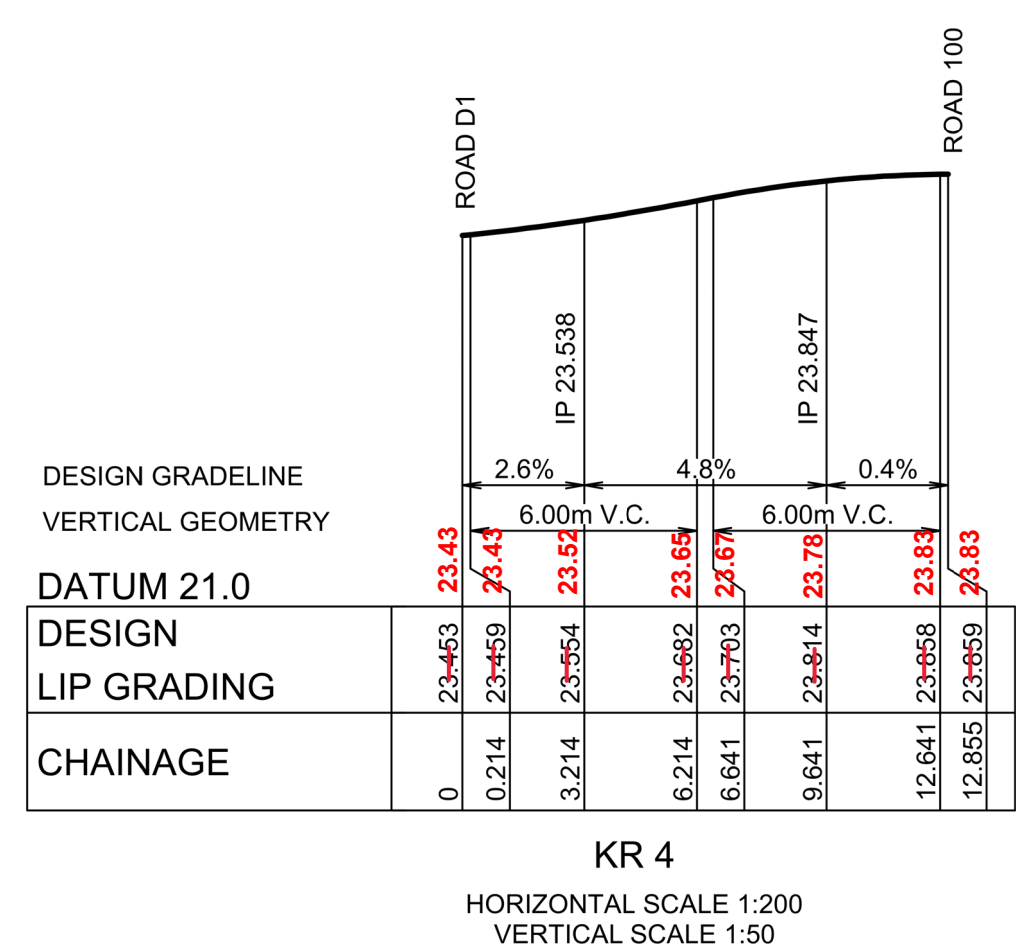
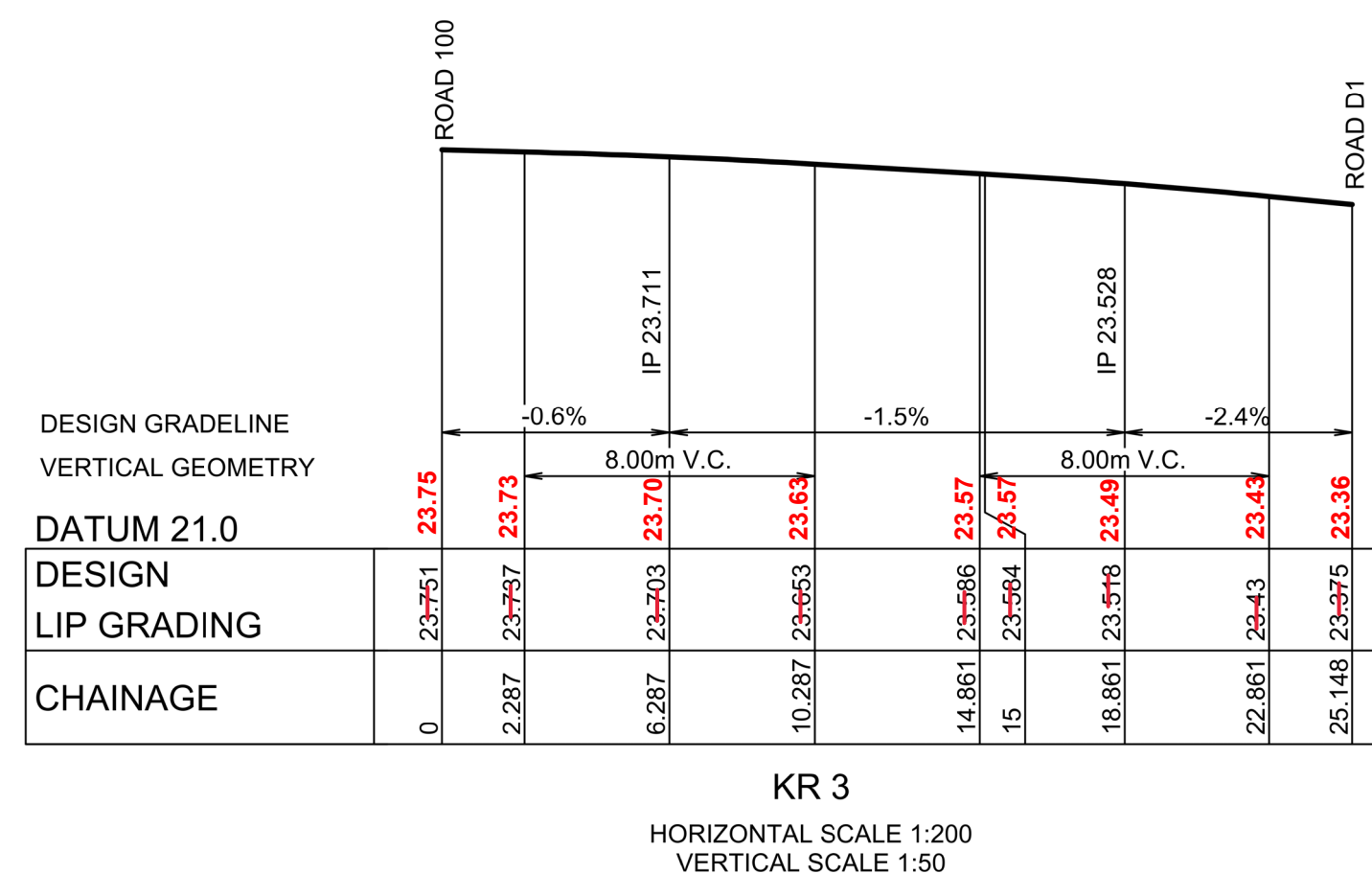
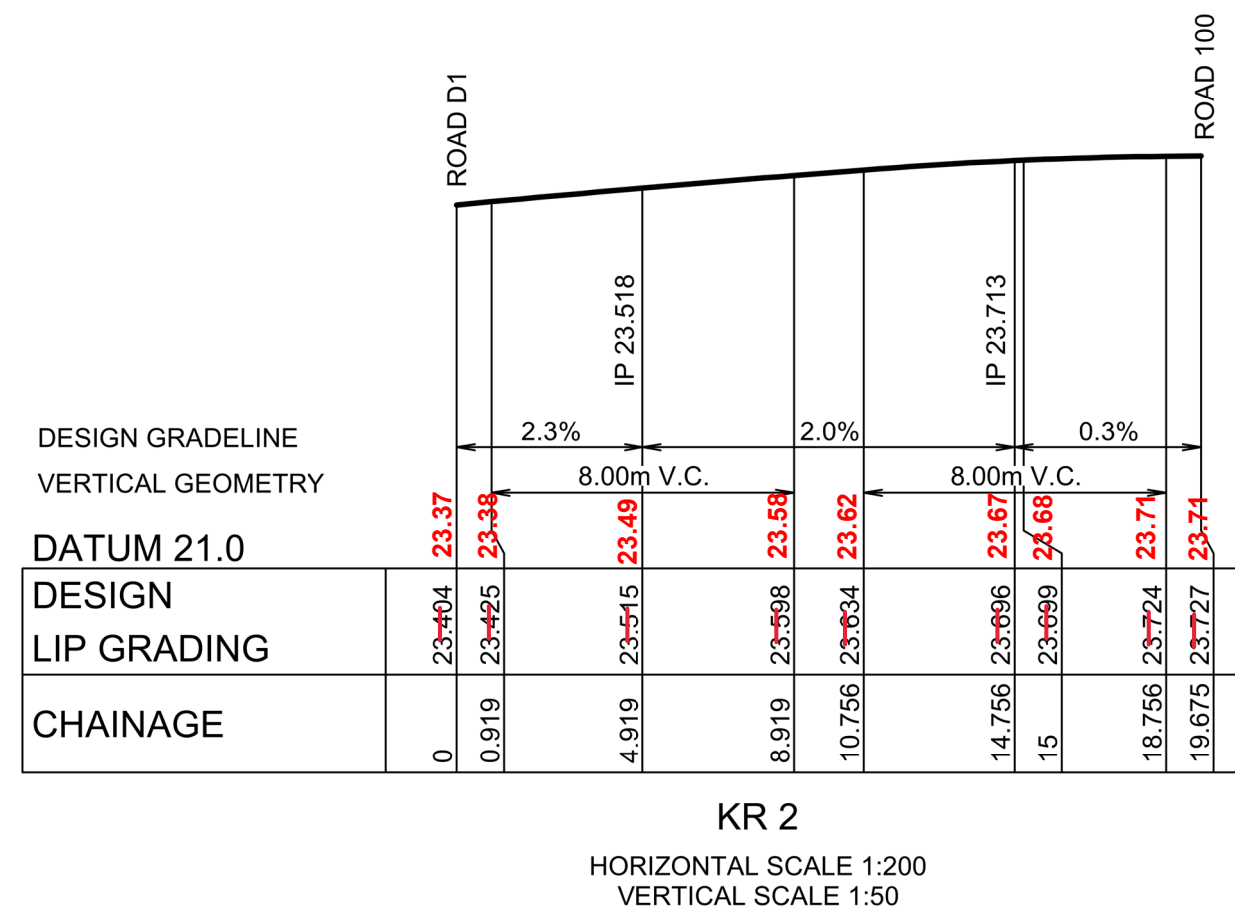
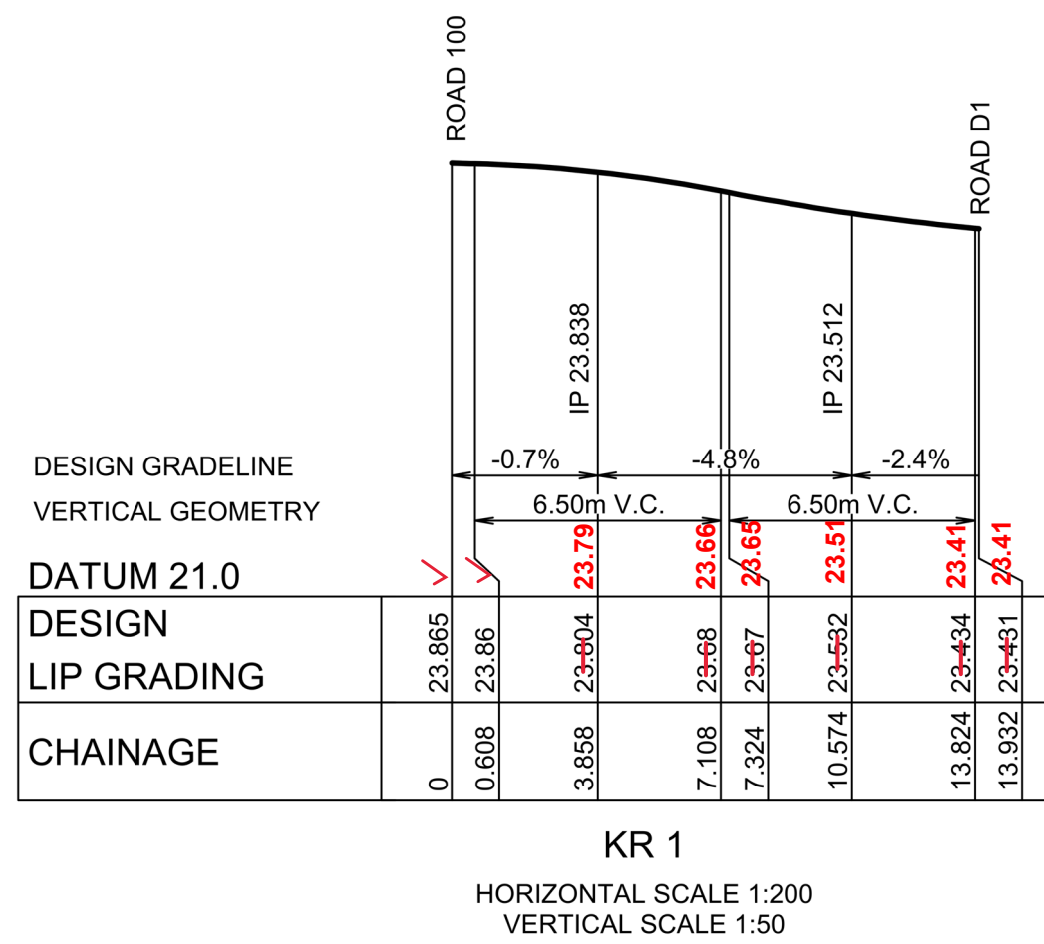
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



These plans are referred to in certificate no. **15879** approved by:
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DESIGN LEVEL AND SETOUT
ARE TO LIP OF GUTTER



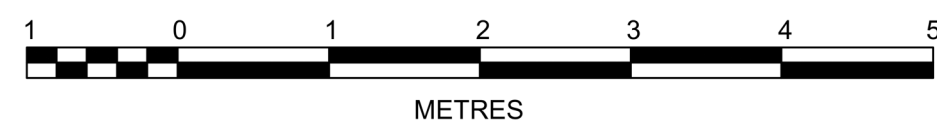
KR 1					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPHAL	A.LENGTH
0	295818.69	6268651.76	89°11'55.97"		
6.97	295827.51	6268651.88			
13.93	295827.51	6268660.71	0°00'45.75"	-8.95	13.93

KR 2					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPHAL	A.LENGTH
0	295835.61	6268661.83	180°23'52.51"		
7.36	295835.55	6268652.19			
14.73	295845.17	6268652.84	86°07'49.11"	-8.95	14.73
17.2	295847.64	6268653.01			
19.67	295850.1	6268653.2	85°33'26.45"	-494.95	4.95

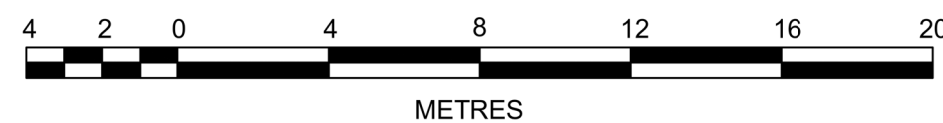
KR 3					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPHAL	A.LENGTH
0	295856.38	6268643.59	264°55'55.26"		
5.09	295851.31	6268643.14			
10.18	295846.23	6268642.79	266°05'12.86"	505.05	10.18
17.66	295836.35	6268642.11			
25.15	295838.02	6268632.35	170°16'03.56"	-8.95	14.97

KR 4					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPHAL	A.LENGTH
0	295829.53	6268634.09	351°17'52.06"		
6.43	295828.35	6268641.82			
12.85	295820.53	6268641.69	269°00'20.32"	-8.95	12.85

1:50 (AT A1)
1:100 (AT A3)



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



C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM
	AMENDMENT	DES	DRN	CKD	APR
					DATE



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AZIMUTH:
AHD
DATUM:
MGA
ORIGIN:



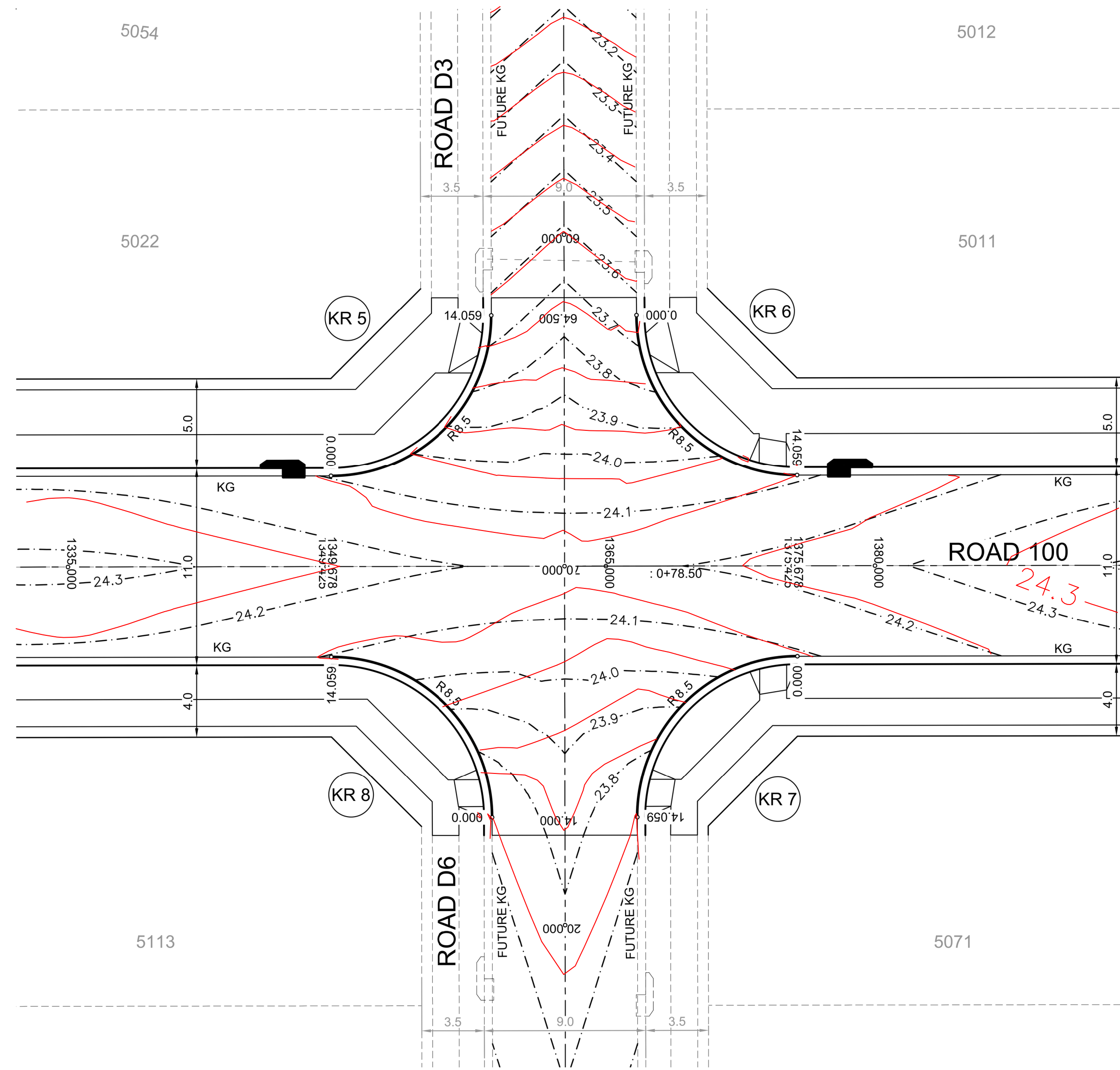
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PROPERTY
GROUP

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
KERB RETURNS - SHEET 1

PLAN No:
998511/CC364
FILE No: 998511CC364
SHEET SIZE: A1 ORIGINAL



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

DATE 14/07/2021 REF 20260-5

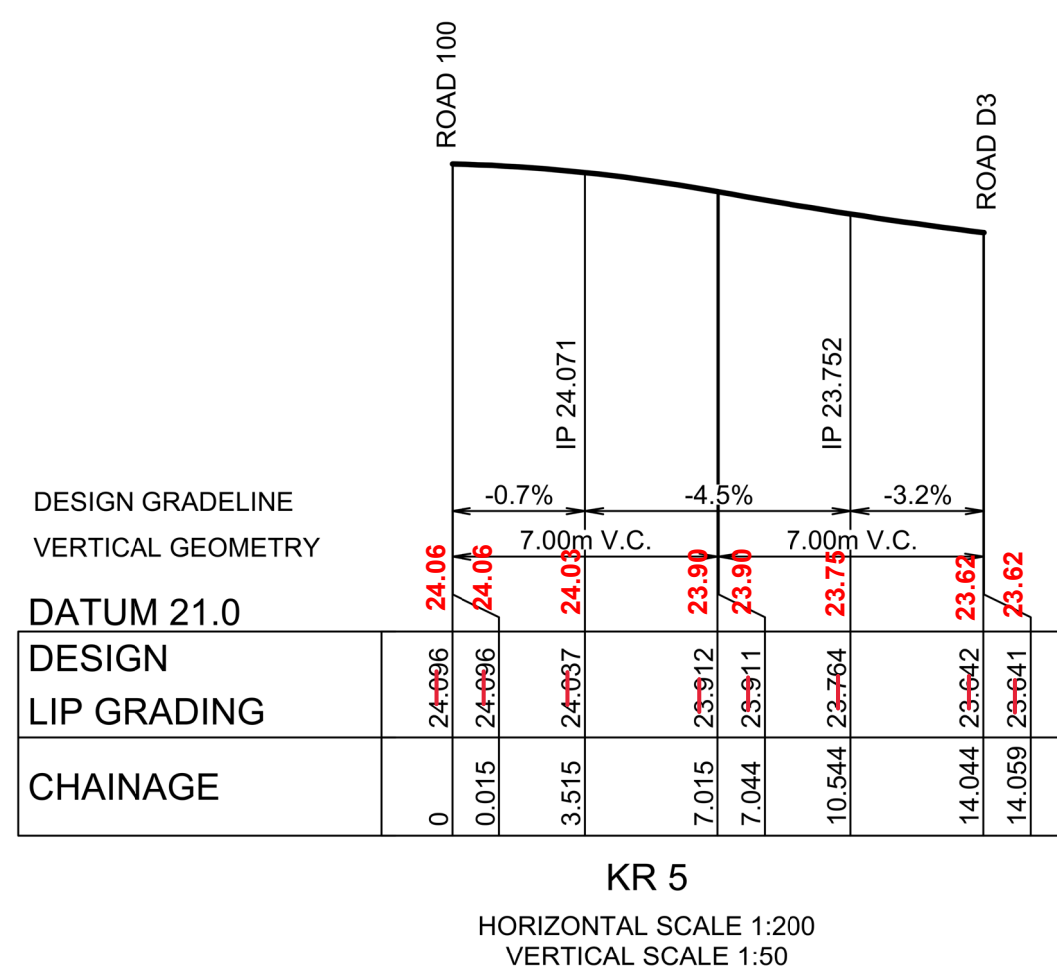
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Accredited Certifier

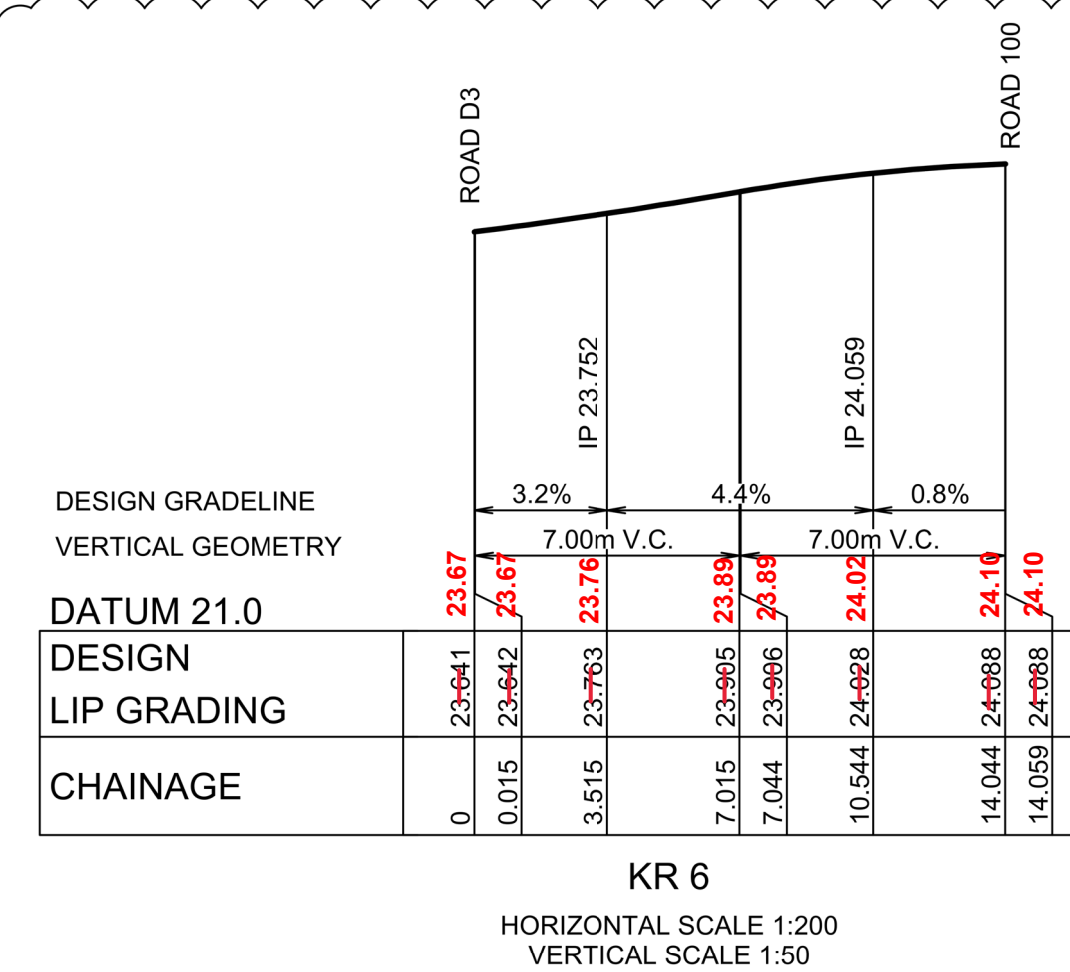
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15

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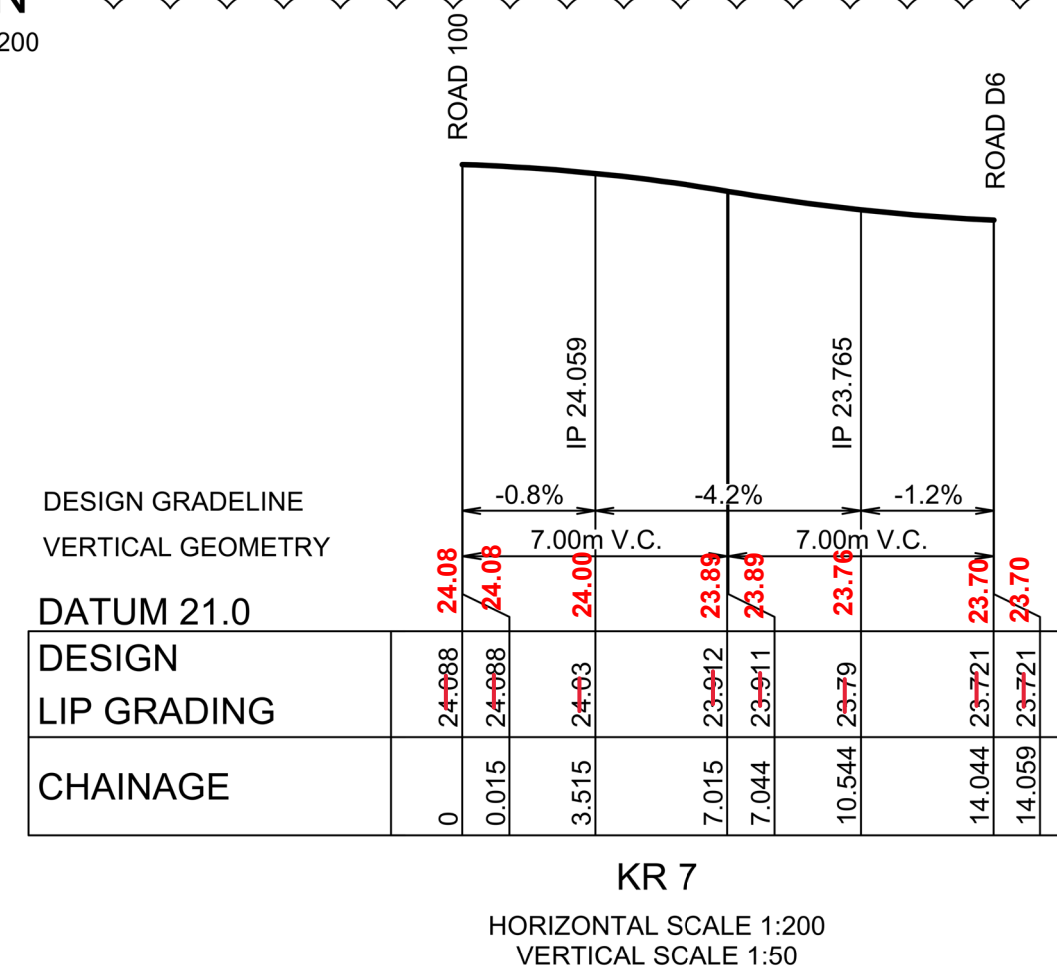
DESIGN LEVEL AND SETOUT
ARE TO LIP OF GUTTER



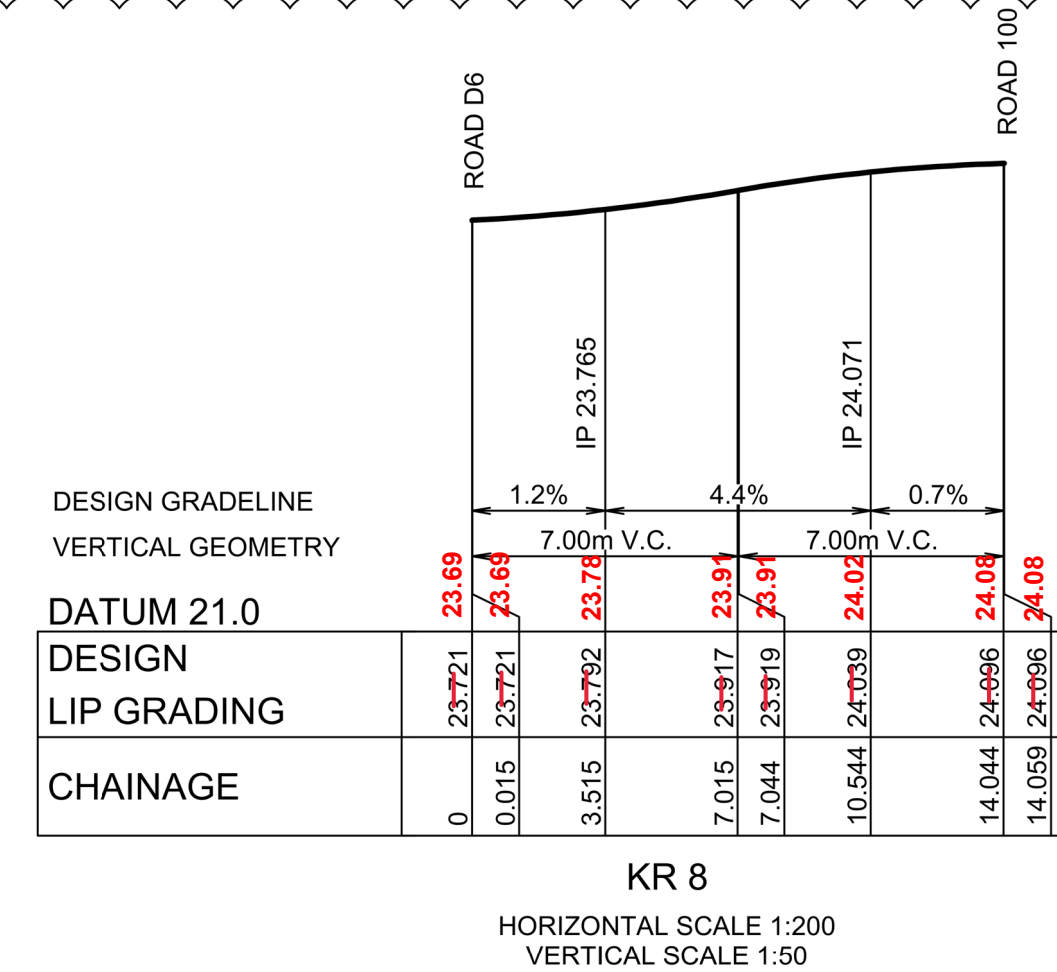
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPRAL	A.LENGTH
0	296041.41	6268673.05	84°01'28.02"		
7.03	296050.31	6268673.98		-8.95	14.06
14.06	296049.38	6268682.88	354°01'28.02"		



CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPRAL	A.LENGTH
0	296057.43	6268683.72	174°01'28.02"		
7.03	296058.36	6268674.82		-8.95	14.06
14.06	296067.26	6268675.75	84°01'28.02"		

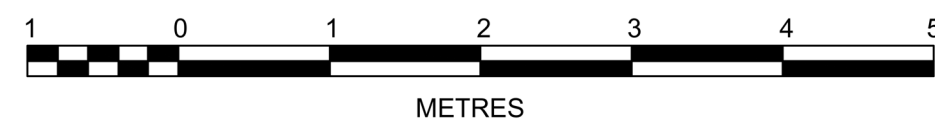


CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPRAL	A.LENGTH
0	296068.32	6268665.71	264°01'28.02"		
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14.06	296060.35	6268665.87	174°01'28.02"		

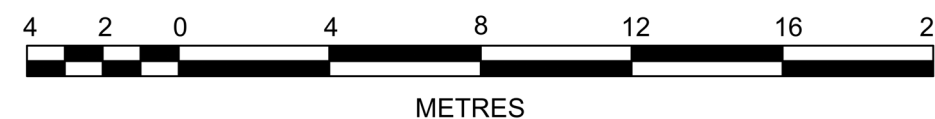


CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPRAL	A.LENGTH
0	296052.29	6268655.03	354°01'28.02"		
7.03	296051.36	6268663.93		-8.95	14.06
14.06	296042.46	6268663	264°01'28.02"		

1:50 (AT A1)
1:100 (AT A3)



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



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ISSUE FOR CONSTRUCTION APPROVAL

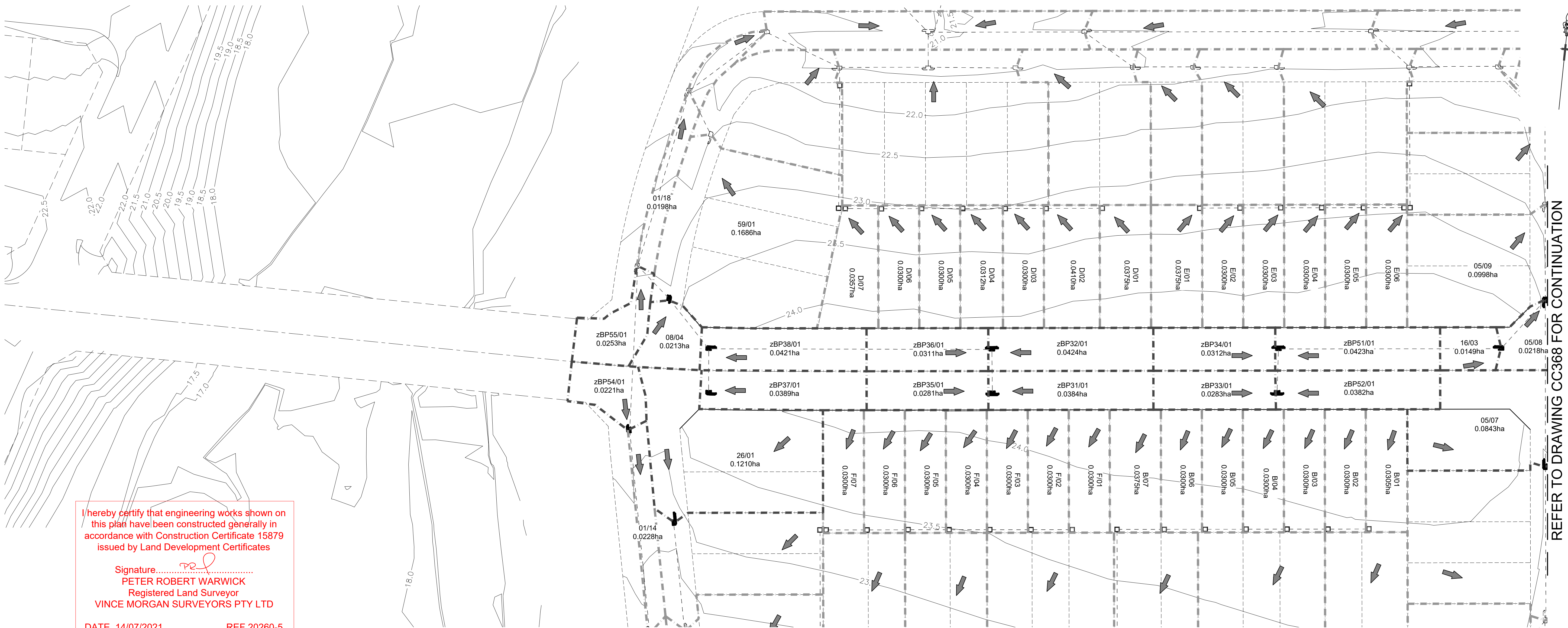
NEWPARK
PRECINCT 5 - ABELL ROAD
KERB RETURNS - SHEET 2

PLAN No:
998511/CC365

FILE No: 998511CC365

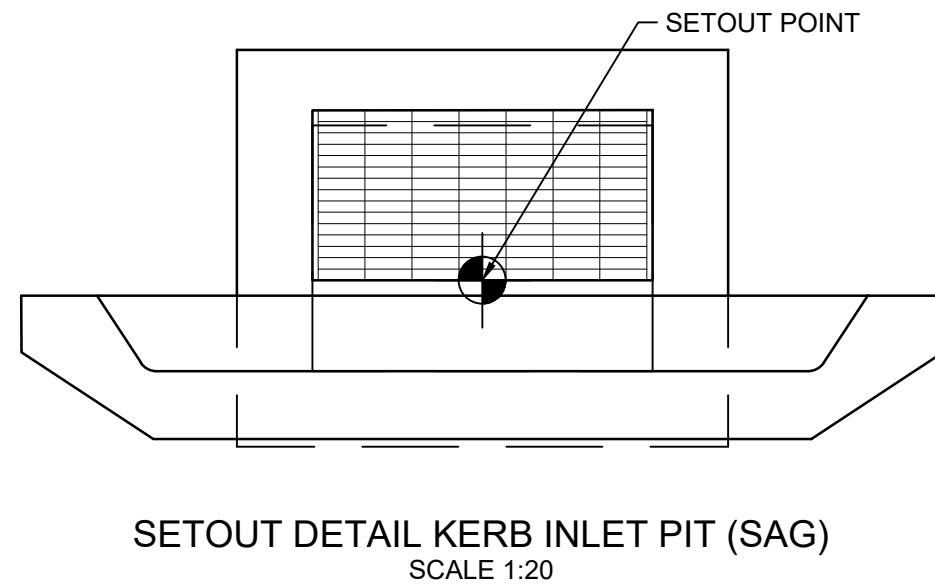
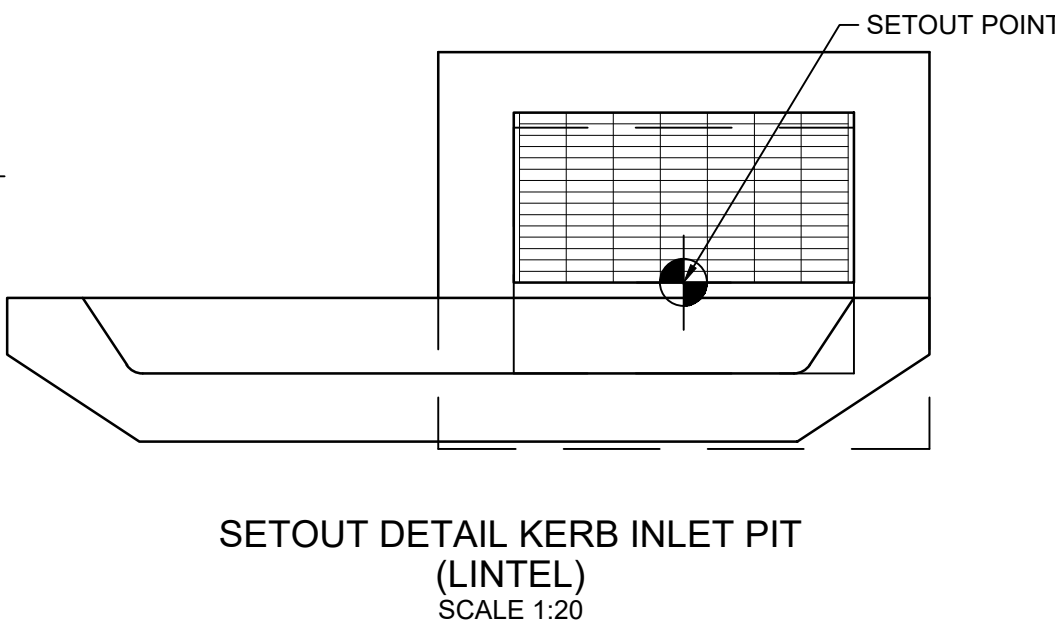
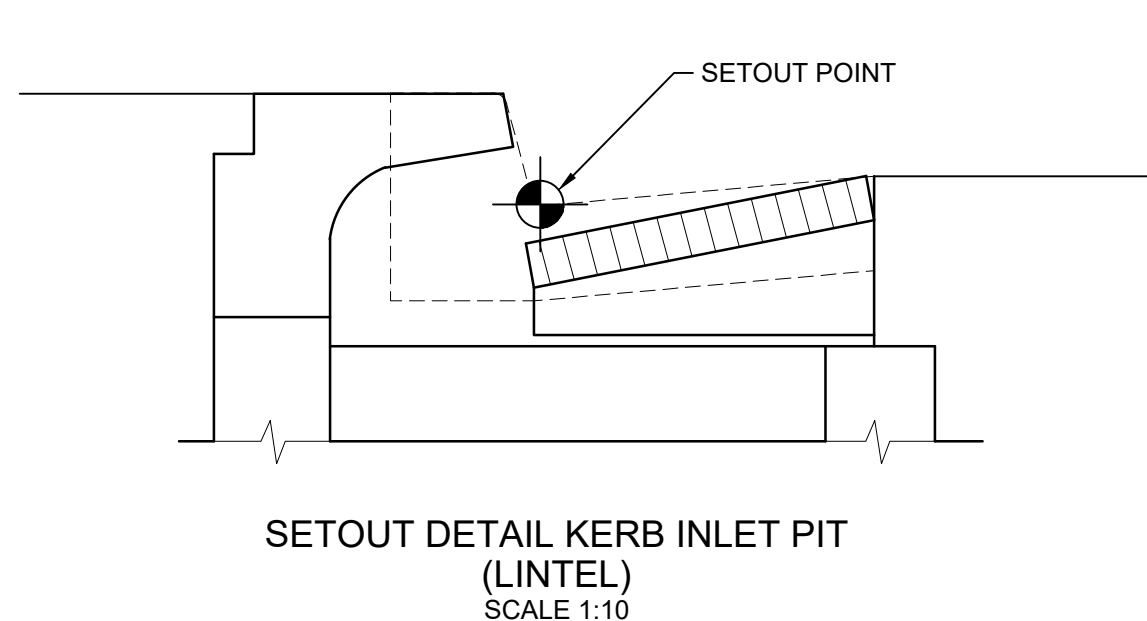
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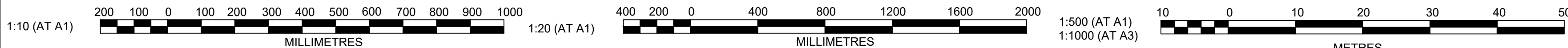


REFER TO DRAWING CC368 FOR CONTINUATION

PIT SCHEDULE					
PIT NAME	SURFACE FITTING TYPE AND SIZE	PIT EASTING	PIT NORTHING	PIT DEPTH	COMMENTS
(-)	(-)	(m)	(m)	(m)	
01/16	1.2 m lintel	295829.5	6268631.45	5.08	
01/17	1.8 m lintel	295827.4	6268671.59	5.12	FUTURE PIT
02/10	2.4 m lintel sag	296250.19	6268668.91	4.06	FUTURE PIT
02/11	2.4 m lintel sag	296240.26	6268669.44	4.21	
02/12	1.8 m lintel	296220.26	6268689.81	4.58	
02/13	1.2 m lintel	296208.98	6268700.25	4.18	FUTURE PIT
05/07	1.8 m lintel	296052.84	6268645.43	3.86	FUTURE PIT
05/08	1.8 m lintel	296048.6	6268685.96	4.17	FUTURE PIT
08/01	2.4 m lintel sag	295916.92	6268649.41	1.44	
08/02	2.4 m lintel sag	295915.66	6268660.34	1.71	
08/03	1.8 m lintel	295846.89	6268653.41	2.34	
08/04	1.2 m lintel	295836.11	6268664.54	2.17	FUTURE PIT
13/01	2.4 m lintel sag	296125.58	6268671.25	1.44	
13/02	2.4 m lintel sag	296124.53	6268682.2	1.71	
13/03	1.8 m lintel	296069.53	6268676.44	2.28	
13/04	1.2 m lintel	296057.57	6268686.75	1.92	FUTURE PIT
16/01	2.4 m lintel sag	295986.05	6268656.64	1.44	
16/02	2.4 m lintel sag	295985.24	6268667.62	1.71	
16/03	1.8 m lintel	296039.29	6268673.28	2.48	
18/01	2.4 m lintel sag	296193.79	6268677.35	1.44	
18/02	1.8 m lintel	296190.73	6268688.2	1.72	
18/03	1.2 m lintel	296200.06	6268699.01	1.56	FUTURE PIT
19/01	2.4 m lintel sag	296267.5	6268683.45	1.44	
19/02	2.4 m lintel sag	296266.09	6268694.36	1.71	
32/01	1.8 m lintel	295848	6268642.46	1.40	



LEGEND	
CATCHMENT BOUNDARY	---
FLOW DIRECTION ARROW	→
EXISTING CONTOURS	—47.0—
DRAINAGE LINE & PIT	—●—



C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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

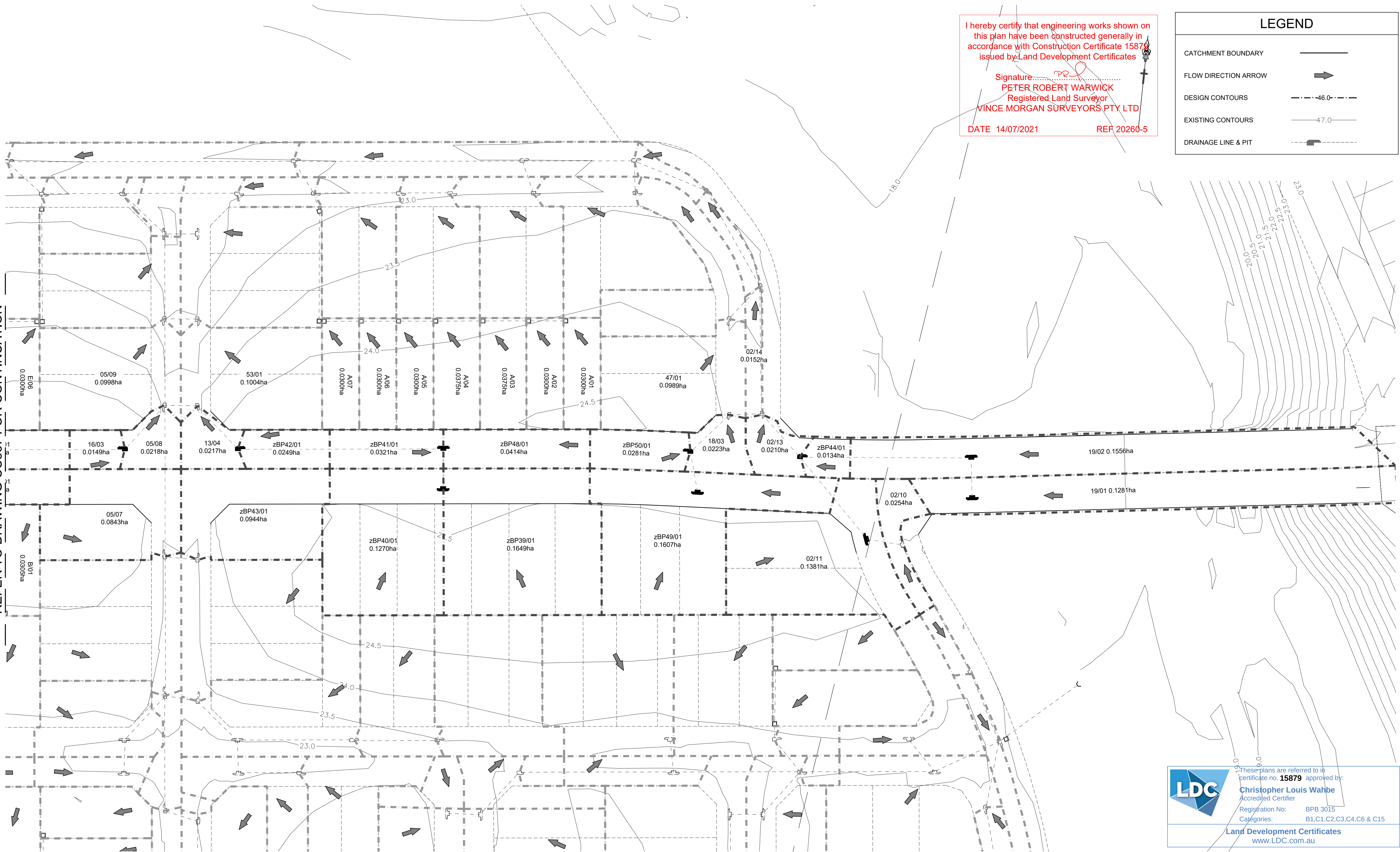
AZIMUTH:
AHD
DATUM:
MGA
ORIGIN:

CLIENT:
WINTEN PROPERTY GROUP
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ISSUE FOR CONSTRUCTION APPROVAL
NEWPARK
PRECINCT 5 - ABELL ROAD
CATCHMENT PLAN & PIT SCHEDULE
PLAN No: **998511/CC367** **C**
FILE No: 998511CC367
SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 2:00:42 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511\CC368.dwg

REFER TO DRAWING CC367 FOR CONTINUATION



NOTE:
 _____ 100 YEAR HGL PROVIDED FOR STREET DRAINAGE
 AND FOR INFORMATION ONLY.

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

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

DATE 14/07/2021 REF 20260-5

FUTURE PRECINCT 5 SUBDIVISION DRAINAGE

FUTURE PRECINCT 5 SUBDIVISION DRAINAGE

FUTURE PRECINCT 5 SUBDIVISION DRAINAGE

FUTURE PRECINCT 5 SUBDIVISION DRAINAGE



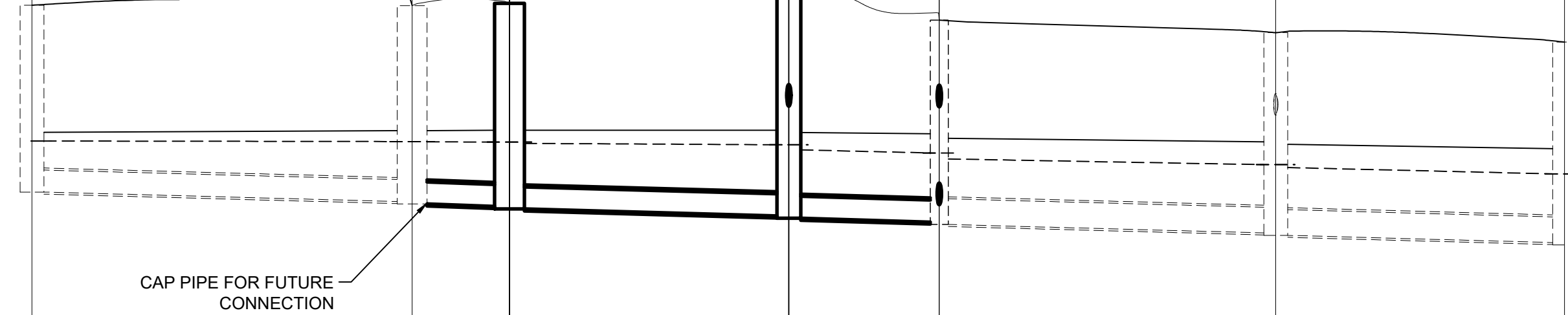
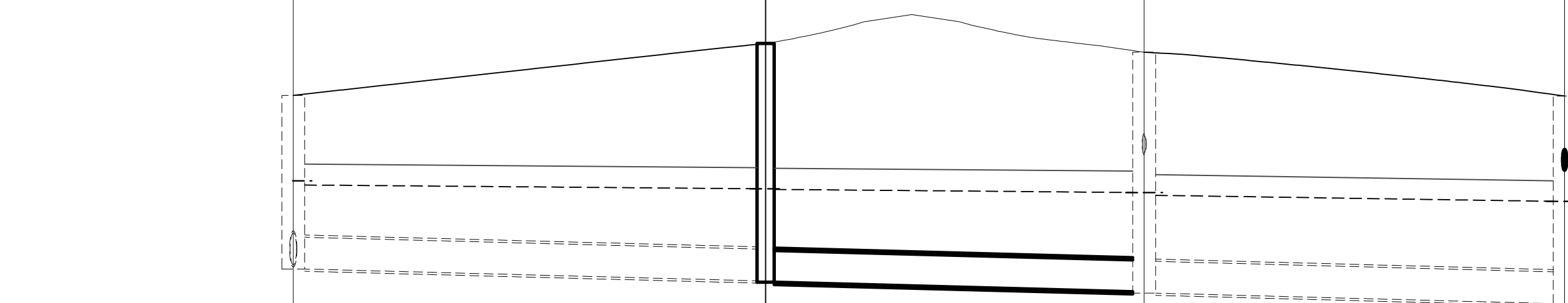
These plans are referred to in certificate no. **15879** approved by:

Christopher Louis Wahbe
Accredited Certifier

Registration No: BPB 3015

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

Land Development Certificates
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DATUM (m)	14.00			
PEAK FLOW (L/s)	763		626	586
PIPE SIZE (mm)	675 ✓		675 ✓	675 ✓
PIPE CLASS	RRJ3		RRJ3	RRJ3
PIPE GRADE (%)	0.5 ✓		0.5 ✓	0.5 ✓
PIPE COVER MINIMUM	3.00		4.39	3.72
FULL PIPE VELOCITY (m/s)	2.16		1.86	1.70
HGL GRADE (%)	0.16		0.16	0.29

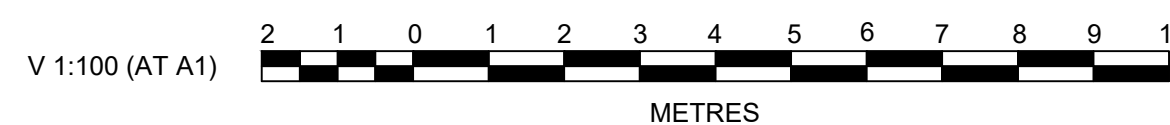
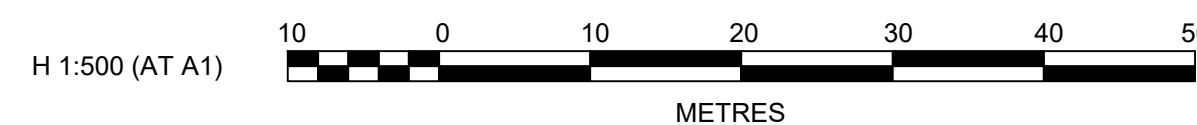
14.00						
239	244	256	303	382	421	
450 ✓	450 ✓	450 ✓	450 ✓	525 ✓	525 ✓	
RRJ3	RRJ3	RRJ3	RRJ3	RRJ3	RRJ3	
0.5 1.4	0.5 0.7	0.5 0.7	0.5 0.6	0.5 0.6	0.5 0.8	
3.34	3.64	3.88	3.75	3.55	3.56	
1.51	1.54	1.61	1.91	1.77	1.98	
0.03	0.04	0.1	0.4	0.34	0.44	

[illegible]

177.334	875.70	24-66 24.12	20-94 20.31	21.39
216.172	915.22	24-66 24-68	20-46 20.10	21.377 21.371
226.114	919.43	24-205 24.14	20-03 20-06 20-19	21.367 21.339 19.97
254.654	1528.84	24-38 24-39	19-85 19-87 19.80	21.311 21.206 19.80
270.021	482.83	23-86 23-88	19-73 19.70	21.144 19.70
304.392	449.26	23-62 23-606	19-47 19-68 19-468 19.45	20.904 20.845 19.45
		23-43	19-28 19-311	20.716

LINE 01

LINE 02



CLIENT:



WINTEN
PROPERTY
GROUP

ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
DRAINAGE LONGITUDINAL SECTIONS - SHEET 1

PLAN No:		C
998511/CC369		
FILE No: 998511CC369		
SHEET SIZE:		A1 ORIGINAL

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:	

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Plotted: 13 November, 2019 1:36:43 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511CC369.dwg

Plotted: 13 November, 2019 1:35:43 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511CC370.dwg

FUTURE
2.4 m lintel
LINE 15
LINE 22

05/06

FUTURE
1.8 m lintel
LINE 54

05/07

FUTURE
1.8 m lintel
LINE 13
LINE 16

05/08

FUTURE
1.8 m lintel
LINE 53

05/09

FUTURE
2.4 m lintel sag
LINE 51

05/10

2.4 m lintel sag

08/01

2.4 m lintel sag

08/02

1.8 m lintel
LINE 32

08/03

FUTURE
1.2 m lintel

08/04

FUTURE
1.8 m lintel
LINE 01

01/17

2.4 m lintel sag

13/01

2.4 m lintel sag

13/02

1.8 m lintel

13/03

FUTURE
1.2 m lintel

13/04

FUTURE
1.8 m lintel
LINE 05

05/08

NOTE:
100 YEAR HGL PROVIDED FOR STREET DRAINAGE
AND FOR INFORMATION ONLY.



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

FUTURE PRECINCT 5
SUBDIVISION DRAINAGE

FUTURE PRECINCT 5 SUBDIVISION DRAINAGE

FUTURE PRECINCT 5
SUBDIVISION DRAINAGE

FUTURE PRECINCT 5
SUBDIVISION DRAINAGE

CAP PIPE FOR FUTURE
CONNECTION

DATUM (m)
PEAK FLOW (L/s)
PIPE SIZE (mm)
PIPE CLASS
PIPE GRADE (%)
PIPE COVER MINIMUM
FULL PIPE VELOCITY (m/s)
HGL GRADE (%)

15.00						
	321		351		450	488
	525 ✓		525 ✓		600 ✓	600 ✓
	RRJ2		RRJ2		RRJ2	RRJ2
	0.9 1.0		0.9 ✓		0.9 1.5	0.9 0.5
	2.62		3.31		3.01	2.61
	1.66		1.66		1.73	1.73
	0.2		0.27		0.41	0.5

WAE						
HYDRAULIC GRADE LINE	21.691	21.611		21.404	21.254	
INVERT LEVEL	20.13 20.126 20.096 20.10		19.76 19.759 19.729 19.73	19.35 19.362 19.332 19.33		18.87 18.867 18.837 18.83
DESIGN SURFACE LEVEL	23.275 23.24		23.55 23.568 19.73	23.51 23.5		22.13 22.142
ROAD CHAINAGE	61.12		23.60	61.35		15.22
PIPE CHAINAGE	92.019		129.54	170.291		216.424

LINE 05

15.00						
23		49		107	114	
375 ✓		375 ✓		375 ✓	375 ✓	
RRJ2		RRJ2		RRJ2	RRJ2	
2.0 ✓		1.0 ✓		1.0 ✓	1.0 0.6	
1.10		1.32		1.89	1.80	
1.05		0.92		1.29	1.55	
1.54		0.72		0.83	1.09	

22.349 22.30		21.34 21.367 21.337 21.32		21.18 21.182 21.132 21.11		21.05 21.02 19.04 18.03
1223.16 23.76 23.73		23.61 23.672 23.672 21.32		23.35 23.302 23.302 21.11		23.13 23.162
0		80.122		95.621		105.824

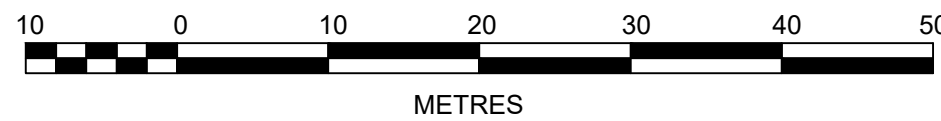
LINE 08

16.00						
104		129		136	143	
375 ✓		375 ✓		375 ✓	375 ✓	
RRJ2		RRJ2		RRJ2	RRJ2	
2.0 2.3		1.0 ✓		1.0 ✓	2.0 1.8	
1.10		1.30		1.65	1.57	
1.25		1.52		1.52	1.83	
0.96		0.82		0.84	2.22	

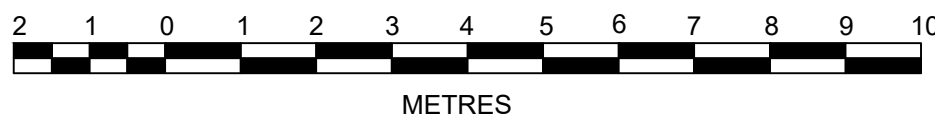
22.663 22.58		21.80 21.84 21.79 21.76		21.61 21.632 21.592 21.55		21.44 21.402 19.332 19.33
1432.95 24.101 24.04		24.07 24.07 24.07 21.76		23.47 23.505 23.505 21.44		23.46 23.5
0		66.296		82.093		91.094

LINE 13

H 1:500 (AT A1)



V 1:100 (AT A1)



C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	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 - ABELL ROAD
DRAINAGE LONGITUDINAL SECTIONS - SHEET 2

PLAN No:
998511/CC370 C
FILE No: 998511CC370
SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 1:35:54 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC371.dwg

NOTE:
100 YEAR HGL PROVIDED FOR STREET DRAINAGE
AND FOR INFORMATION ONLY.

DATUM (m)	16.00		
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
WAE			
HYDRAULIC GRADE LINE	22.479	21.772	21.57
INVERT LEVEL	22.41	21.57	21.40
DESIGN SURFACE LEVEL	23.85	24.03	23.5
ROAD CHAINAGE	1292.66	1347.35	61.35
PIPE CHAINAGE	0	65.351	81.088

LINE 16

DATUM (m)	16.00		
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
WAE			
HYDRAULIC GRADE LINE	22.801	22.704	22.506
INVERT LEVEL	22.77	22.54	22.36
DESIGN SURFACE LEVEL	24.17	24.20	23.85
ROAD CHAINAGE	1501.73	1490.25	483.23
PIPE CHAINAGE	0	11.274	25.557

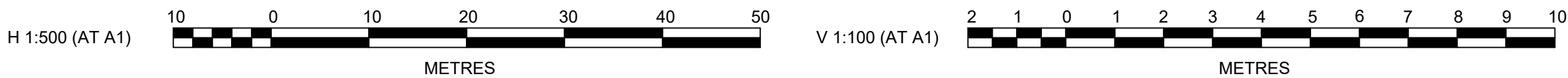
LINE 18

DATUM (m)	16.00		
PEAK FLOW (L/s)	53	113	
PIPE SIZE (mm)	375 ✓	375 ✓	
PIPE CLASS	RRJ2	RRJ2	
PIPE GRADE (%)	2.0 ✓	1.0 ✓	
PIPE COVER MINIMUM	1.10	1.50	
FULL PIPE VELOCITY (m/s)	1.01	1.53	
HGL GRADE (%)	0.21	0.86	
WAE			
HYDRAULIC GRADE LINE	22.89	22.867	22.738
INVERT LEVEL	22.81	22.60	22.55
DESIGN SURFACE LEVEL	24.25	24.26	24.58
ROAD CHAINAGE	1575.31	1575.31	1528.84
PIPE CHAINAGE	0	11	57.053

LINE 19

DATUM (m)	16.00		
PEAK FLOW (L/s)	46		
PIPE SIZE (mm)	375 ✓		
PIPE CLASS	RRJ2		
PIPE GRADE (%)	2.0 ✓		
PIPE COVER MINIMUM	1.10		
FULL PIPE VELOCITY (m/s)	1.20		
HGL GRADE (%)	1.34		
WAE			
HYDRAULIC GRADE LINE	22.277	22.128	21.524
INVERT LEVEL	22.21	22.01	21.61
DESIGN SURFACE LEVEL	23.59	23.61	23.86
ROAD CHAINAGE	1154.06	1153.74	1153.74
PIPE CHAINAGE	0	11.005	11.005

LINE 32



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

C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
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AZIMUTH:
AHD
DATUM:
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ORIGIN:

CLIENT:



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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
DRAINAGE LONGITUDINAL SECTIONS - SHEET 3

PLAN No:	998511/CC371	C
FILE No:	998511CC371	
SHEET SIZE:	A1 ORIGINAL	

Plotted: 13 November, 2019 1:36:46 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC372.dwg

DESIGN STORM 10% AEP HYDROLOGIC RESULTS																				
PIT	PIT	CATCHMENT	PERCENT	Tc	Tc	CRITICAL	APPROACH	CAPTURED	UNCAPTURED	GRATE	ROAD	ROAD	BYPASS	BYPASS CHANNEL						COMMENTS
NAME	TYPE	AREA	IMPERVIOUS	IMP	PERV	STORM	FLOW	FLOW	FLOW	DEPTH	GRADE	CROSSFALL	PIT	FLOW	U/S FLOW WIDTH	U/S Vx/D	D/S FLOW WIDTH	D/S Vx/D		
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)	
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	FUTURE	
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	FUTURE	
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	FUTURE	
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	FUTURE	
02/10	2.4 m lintel sag	0.025	95	5	5	5	5	5	0	13	0.4	3.9	02/09	0						
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		
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		
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	FUTURE	
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	FUTURE	
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	FUTURE	
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	2.11	0.06	FUTURE	
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	FUTURE	
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	FUTURE	
08/01	2.4 m lintel sag		0			5	24	24	0	36	0.1	3	32/01	0	0	0	0	0		
08/02	2.4 m lintel sag		0			5	27	26	0	38	0.1	3	08/03	0	0	0	0	0		
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		
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	FUTURE	
13/01	2.4 m lintel sag		0			5	109	105	0	83	0.1	3	54/01	0	0	0	0	0		
13/02	2.4 m lintel sag		0			5	27	27	0	39	0.1	3	13/03	0	0	0	0	0		
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		
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	FUTURE	
16/01	2.4 m lintel sag		0			5	24	24	0	36	0.1	3	08/01	0	0	0	0	0		
16/02	2.4 m lintel sag		0			5	27	27	0	39	0.1	3	08/02	0	0	0	0	0		
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		
18/01	2.4 m lintel sag		0			5	60	60	0	60	0.2	3	13/01	0	0	0	0	0		
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		
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	FUTURE	
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
zBP39/01	BYPASS NODE	0.165	85	5	5	25	63	0	0	101	0	3	13/01	61	2.25	0.06	2.18	0.06		
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		
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		
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		
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		
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		
zBP49/01	BYPASS NODE	0.161	85	5	5	25	61	0	0	104	0.3	3	18/01	60	2.21	0.06	2.14	0.06		
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		
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		
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		
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		

DESIGN STORM 10% AEP HYDRAULIC RESULTS																					
PIPE	PIPE	PIPE	PIPE	PIPE	CRITICAL	PEAK	CAPACITY	PEAK	PIPE	PIPE	PIPE	U/S PIT	D/S PIT	PIT LOSS	WSE LOSS	U/S PIPE	D/S PIPE	HGL	MINIMUM	MINIMUM	COMMENTS
NAME	DIAMETER	TYPE	LENGTH	GRADE	STORM	FLOW	RATIO	VELOCITY	U/S IL	D/S IL	D/S DROP	Ku	Kw	(Ku.V^head)	(Kw.V^head)	HGL	HGL	GRADE	COVER	FREEBOARD	
(-)	(mm)	(-)	(m)	(%)	(min)	(L/s)	(-)	(m/s)	(m)	(m)	(m)	(-)	(-)	(m)	(m)	(m)	(m)	(%)	(m)	(m)	
01/14 to 01/15	675	RRJ3	48.45	0.5	5	393	0.61	1.35	18.824	18.582	0.03	1.78	1.98	0.06	0.06	20.323	20.372	-0.1	1.98	1.183	FUTURE
01/15 to 01/16	675	RRJ3	50.16	0.5	15	764	1.19	2.16	18.552	18.301	0.03	1.85	2.05	0.26	0.28	20.326	20.236	0.18	3	1.817	FUTURE
01/16 to 01/17	675	RRJ3	40.2	0.5	5	652	1.01	1.9	18.271	18.07	0.03	0.27	0.27	0.05	0.04	20.22	20.147	0.18	4.39	3.112	
01/17 to 01/18	675	RRJ3	44.65	0.5	5	586	0.91	1.71	18.04	17.817	0.03	0.44	0.44	0.06	0.06	20.099	19.975	0.28	3.72	3.016	FUTURE
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	FUTURE
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	
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	
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	
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	FUTURE
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	FUTURE
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	
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	FUTURE
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	
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	
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	
08/04 to 01/17	375	RRJ2	11.2	1	25	84	0.44	1.43	21.132	21.102	2.98	0.72	0.56	0.04	0.02	21.306	21.194	1	1.8	1.952	
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	
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	
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	
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	FUTURE
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	
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	
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	
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	
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	
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	FUTURE
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	
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	
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	

DESIGN STORM 1% AEP HYDROLOGIC RESULTS																				
PIT	PIT	CATCHMENT	PERCENT	Tc		CRITICAL	APPROACH	CAPTURED	UNCAPTURED	GRATE	ROAD	ROAD	BYPASS	BYPASS CHANNEL						COMMENTS
NAME	TYPE	AREA	IMPERVIOUS	IMP	PERV	STORM	FLOW	FLOW	FLOW	DEPTH	GRADE	CROSSFALL	PIT	FLOW	U/S FLOW WIDTH	U/S VxD	D/S FLOW WIDTH	D/S VxD		
(-)	(-)	(Ha)	(%)	(min)	(min)	(min)	(L/s)	(L/s)	(L/s)	(mm)	(%)	(%)	(-)	(L/s)	(m)	(m/s^2)	(m)	(m/s^2)	(-)	
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	FUTURE	
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	FUTURE	
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	FUTURE	
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	FUTURE	
02/10	2.4 m lintel sag	0.025	95	5	5	5	24	23	0	53	0.4	3.9	02/09	0						
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		
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		
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	FUTURE	
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	FUTURE	
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	FUTURE	
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	FUTURE	
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	FUTURE	
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	FUTURE	
08/01	2.4 m lintel sag		0			5	35	32	0	62	0.1	3	32/01	0	0	0	0	0		
08/02	2.4 m lintel sag		0			5	39	35	0	66	0.1	3	08/03	0	0	0	0	0		
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		
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	FUTURE	
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		
13/02	2.4 m lintel sag		0			5	38	37	0	68	0.1	3	13/03	0	0	0	0	0		
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		
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	FUTURE	
16/01	2.4 m lintel sag		0			5	35	33	0	64	0.1	3	08/01	0	0	0	0	0		
16/02	2.4 m lintel sag		0			5	39	37	0	68	0.1	3	08/02	0	0	0	0	0		
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		
18/01	2.4 m lintel sag		0			5	85	84	0	110	0.2	3	13/01	0	0	0	0	0		
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		
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	FUTURE	
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		
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		
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		

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 (-)	D/S PIT (-)	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)	(-)	(-)	(Ku.V/head)	(Kw.V/head)	(m)	(m)	(%)	(m)	(m)	
01/14 to 01/15	675	RRJ3	48.45	0.5	25	-449	-0.7	1.25	18.824	18.582	0.03	1.67	1.99	0.13	0.16	20.609	20.727	-0.24	1.98	0.897	FUTURE
01/15 to 01/16	675	RRJ3	50.16	0.5	5	630	0.98	1.81	18.552	18.301	0.03	1.95	2.38	0.3	0.37	20.77	20.688	0.16	3	1.389	FUTURE
01/16 to 01/17	675	RRJ3	40.2	0.5	5	598	0.93	1.77	18.271	18.07	0.03	0.29	0.27	0.06	0.04	20.673	20.605	0.17	4.39	2.66	
01/17 to 01/18	675	RRJ3	44.65	0.5	5	532	0.83	1.49	18.04	17.817	0.03	1.56	1.81	0.09	0.1	20.548	20.419	0.29	3.72	2.558	FUTURE
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	FUTURE
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	
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	
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	
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	FUTURE
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	FUTURE
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	
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	FUTURE
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	
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	
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	
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	
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	
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	
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	
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	FUTURE
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	
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	
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	
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	
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	
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	FUTURE
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	
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	
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	

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

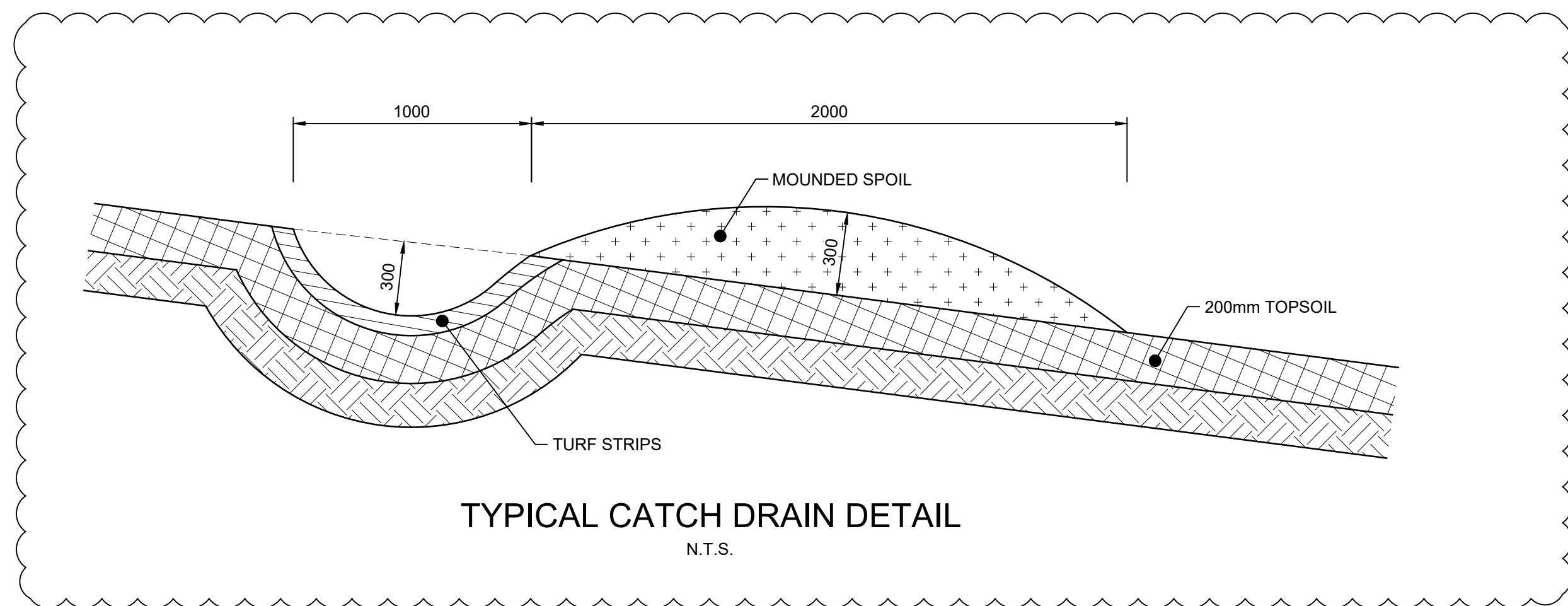
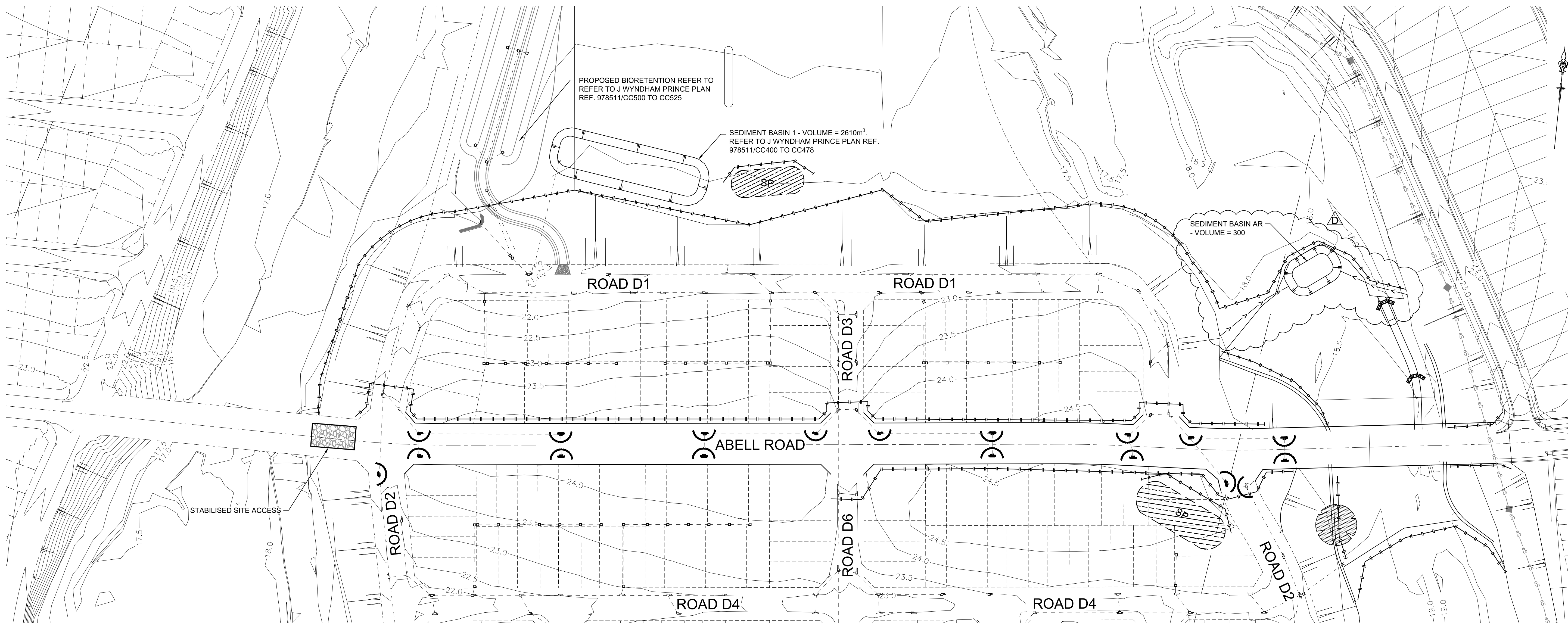
DATE 14/07/2021 REF 20260-5



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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C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	

Plotted: 13 November, 2019 2:13:37 PM File Name: J:\985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\9851\CC374.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

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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LEGEND	
	STABILISED SITE ACCESS & WHEEL WASH BAY
	SEDIMENT FENCE
	CATCH DRAIN
	STRAW BALE BARRIER
	STOCKPILE
	PROTECTIVE FENCING
	MESH AND GRAVEL INLET FILTER
	GEOTEXTILE INLET FILTER

	AMENDMENT	DES	DRN	CKD	APR	DATE
D	SEDIMENT BASIN AND CATCH DRAIN ADDED	KM	KM	RO	MS	23/10/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

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AZIMUTH:
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DATUM:
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ORIGIN:

CLIENT:

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
SOIL & WATER MANAGEMENT PLAN

PLAN No:
998511/CC374 **D**

FILE No: 998511CC374

SHEET SIZE: A1 ORIGINAL

SOIL AND WATER MANAGEMENT NOTES

GENERAL NOTES:

1.

ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED TO THE REQUIREMENTS OF THE " SOILS AND CONSTRUCTION - VOLUME 1, 4TH EDITION, MARCH 2004 " .
2.

TOPSOIL FROM ALL AREAS TO BE DISTURBED SHALL BE STOCKPILED AND LATER RESPREAD TO AID REVEGETATION IN THOSE AREAS.
3.

ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS EARLY AS POSSIBLE DURING DEVELOPMENT.
4.

ALL TAIL-OUT DRAINS SHALL BE COUCH GRASSED AND TRAPEZOIDAL IN SECTION. STRAW BALES SHALL BE PLACED AS A SEDIMENT CONTROL DEVICE WHERE REQUIRED.
5.

VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING DEVELOPMENT CONFINING ACCESS WHERE POSSIBLE TO PROPOSED OR EXISTING ROAD ALIGNMENTS. AREAS TO BE LEFT UNDISTURBED SHALL BE MARKED OFF.
6.

ROADS SHALL BE PAVED AS EARLY AS POSSIBLE AFTER FORMATION.
7.

DISTURBANCE OF VEGETATION SHALL BE LIMITED TO FILL AREAS, ROADWAYS AND DRAINAGE LINES. NO LOT GRADING SHALL BE CARRIED OUT IN UNDISTURBED AREAS WITHOUT CONSULTATION WITH COUNCIL'S ENGINEER.
8.

ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.
9.

ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MAXIMUM 60% FULL OF SOLID MATERIALS, INCLUDING DURING THE MAINTENANCE PERIOD.
10.

THE SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND COUNCIL'S WRITTEN GUIDELINES FOR THE DEVELOPMENT OF LAND.
11.

CONTRACTORS SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS SPECIFIED ON THE PLAN AND IN ACCORDANCE WITH THE GUIDELINES SHOWN IN "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION 4TH EDITION" (THE BLUE BOOK)".
12.

ALL CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR REDUCING THE SOIL EROSION AND POLLUTION OF DOWNSLOPE AREAS.
13.

THE SOIL EROSION HAZARD ON THE SITE IS TO BE KEPT AS LOW AS POSSIBLE AND GENERALLY IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

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

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

14.

WORKS ARE TO BE UNDERTAKEN IN THE FOLLOWING SEQUENCE. EACH SUBSEQUENT STAGE IS NOT TO COMMENCE UNTIL THE PREVIOUS ONE IS COMPLETE:-

a.

INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN AND TO DETAIL(SD) 6-8.

b.

CONSTRUCT STABILISED SITE ACCESS AS SHOWN ON THE PLAN AND TO DETAIL (SD) 6-14.

c.

CONSTRUCT LOW FLOW EARTH BANKS WHERE SHOWN ON THE PLAN AND TO DETAIL (SD) 5-5.

d.

PROVIDE TEMP. ACCESS TO THE SEDIMENT BASIN(S)AND PROTECT THIS WITH SEDIMENT FENCING (SD) 6-8 OR BARRIER FENCING AND EARTH BANKS (SD) 5-5.

e.

PLACE SEDIMENT FENCING (SD) 6-8 DOWNSLOPE OF LANDS TO BE DISTURBED FOR CONSTRUCTION OF THE SEDIMENT BASINS.

f.

CONSTRUCT SEDIMENT BASIN(S) GENERALLY IN ACCORDANCE WITH (SD) 6-4

g.

STABILISE LAND SURFACES DISTURBED BY CONSTRUCTION OF THE SEDIMENT BASIN(S) AS SOON AS FINAL LEVELS ARE ESTABLISHED

h.

CLEAR THE SITE AND STRIP AND STOCKPILE THE TOPSOIL IN THE LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE SITE SUPERINTENDENT TO DETAIL (SD) 4-1.

i.

UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS.

j.

GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 14 DAYS OF COMPLETION OF CONSTRUCTION WORKS.

k.

REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
15.

CLEARLY VISIBLE BARRIER FENCING SHALL BE INSTALLED WHERE DIRECTED BY THE SITE SUPERINTENDENT TO CONTROL AND PROHIBIT UNNECESSARY SITE DISTURBANCE
16.

EARTH BATTERS SHALL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER THAN:-

a.

2(h) - 1(v) WHERE SLOPE LENGTH IS LESS THAN 7m

b.

2.5(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 7m AND 10m

c.

3(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 10m AND 12m

d.

4(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 12m AND 18m

e.

5(h) - 1(v) WHERE SLOPE LENGTH IS BETWEEN 18m AND 27m

f.

6(h) - 1(v) WHERE SLOPE LENGTH IS GREATER THAN 27m

SLOPE LENGTHS CAN BE SHORTENED BY USING LOW FLOW EARTH BANKS AS CATCH DRAINS ABOVE THE EARTH BATTER AREA.

17.

PROTECTION FROM EROSION 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.

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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C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE

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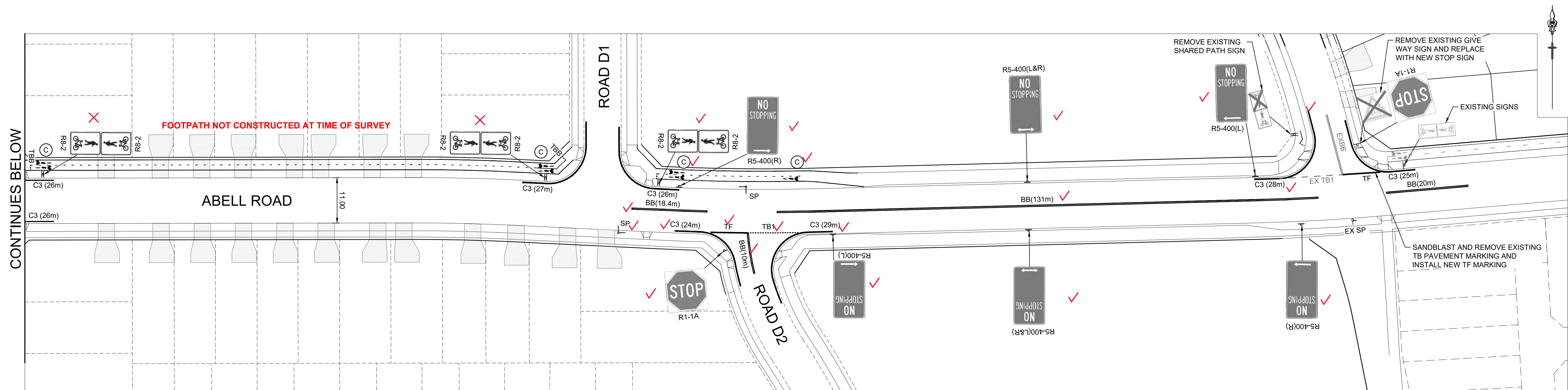
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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
SOIL & WATER MANAGEMENT NOTES

PLAN No:	998511/CC375	C
FILE No:	998511CC375	
SHEET SIZE:	A1 ORIGINAL	

Printed: 10 January, 2020 7:10:04 AM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511CC376.dwg



PAVEMENT MARKING SCHEDULE

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

NOTES

- ALL PAVEMENT MARKINGS, CHEVRONS AND REFLECTORS ARE TO BE IN ACCORDANCE WITH AUSTRROADS GUIDE TO TRAFFIC MANAGEMENT PART 6 AND AUSTRALIAN STANDARDS, AS1742-9 AND AS1743.
- ALL SIGNS TO BE IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARD, AS 1743 - ROAD SIGNS AND COUNCIL'S SPECIFICATION UNLESS OTHERWISE SHOWN.
- ROAD SIGNS ARE SIZE 'B', UNLESS OTHERWISE SHOWN. LOCATE OUTSIDE OF CLEAR ZONES.
- ALL NEW PAVEMENT MARKINGS ARE TO BE INSTALLED IN WHITE, REFLECTIVE, THERMOPLASTIC PAINT.
- KERBSIDE LANE WIDTHS INCLUDE THE WIDTH OF THE GUTTER.
- RE-MARK EXISTING PAVEMENT MARKINGS AS DIRECTED BY THE COUNCIL'S ENGINEER.
- 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.
- ALL MEASUREMENTS ARE IN METRES UNLESS OTHERWISE SHOWN.

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

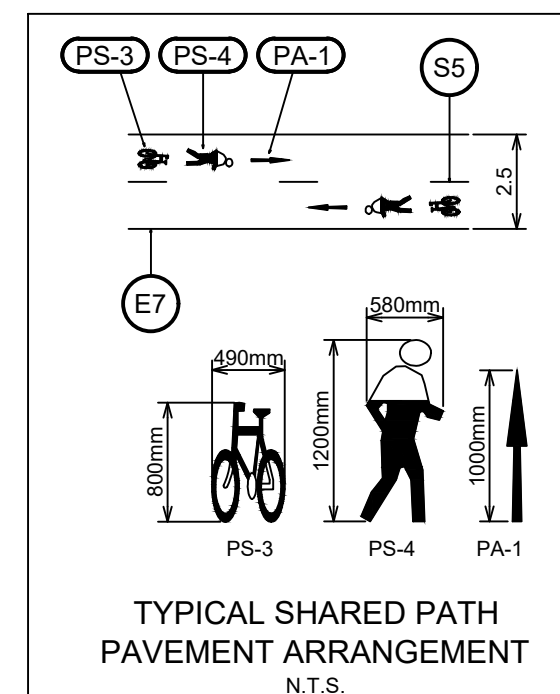
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021

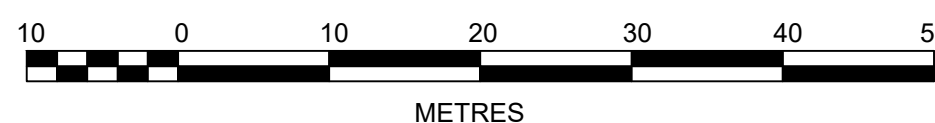
REF 20260-5

REVISION E:
C3 LINEMARKING ADDED

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



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



CLIENT:



AZIMUTH:
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NEWPARK
PRECINCT 5 - ABELL ROAD
SIGNAGE AND LINEMARKING

PLAN No:
998511/CC376

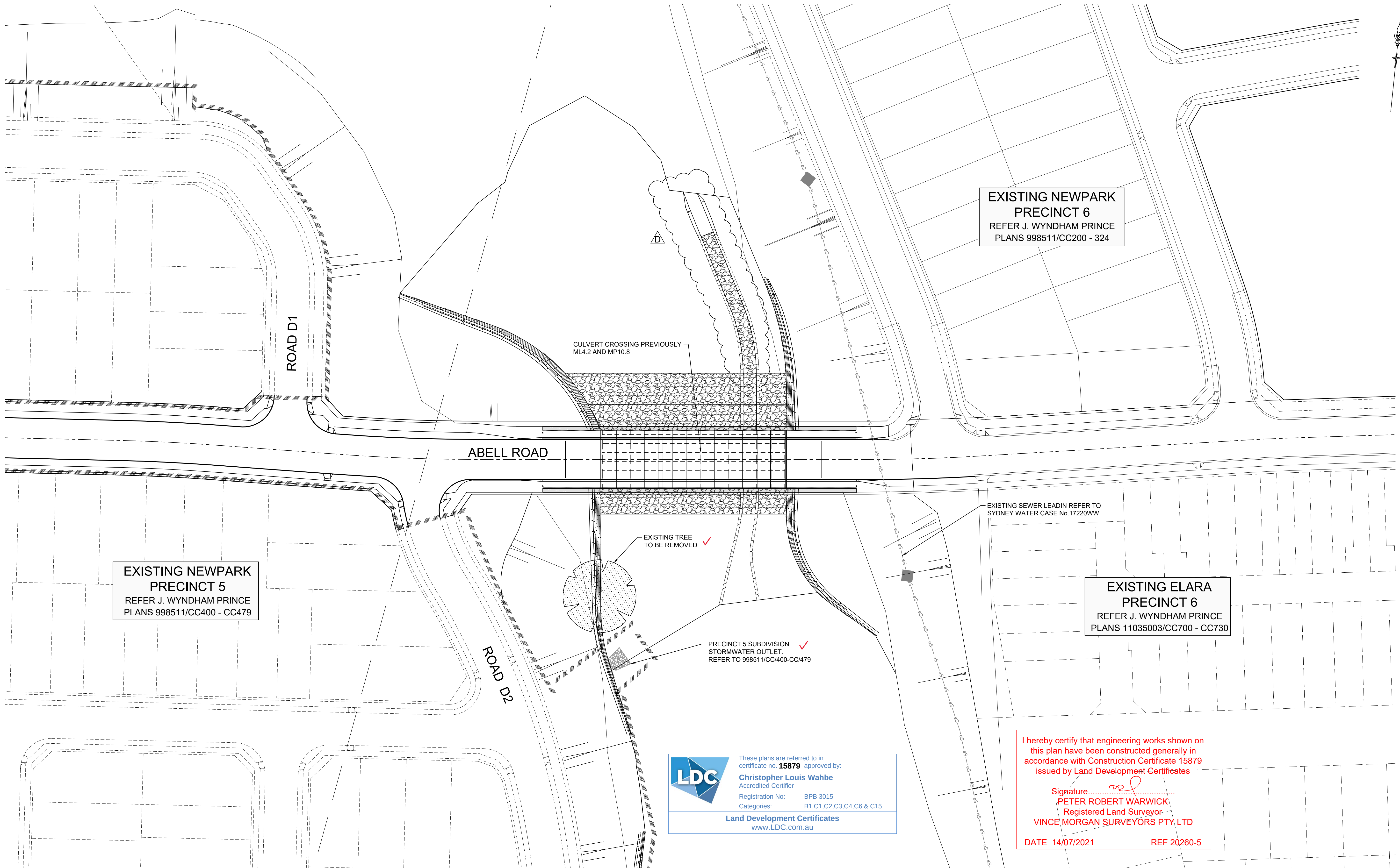
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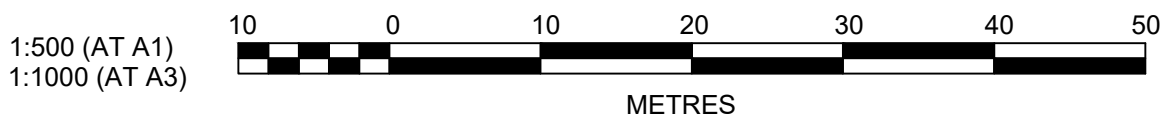




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Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD
DATE 14/07/2021 REF 20260-5



D	LAYOUT REVISED	KM	KM	RO	PM	13/11/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
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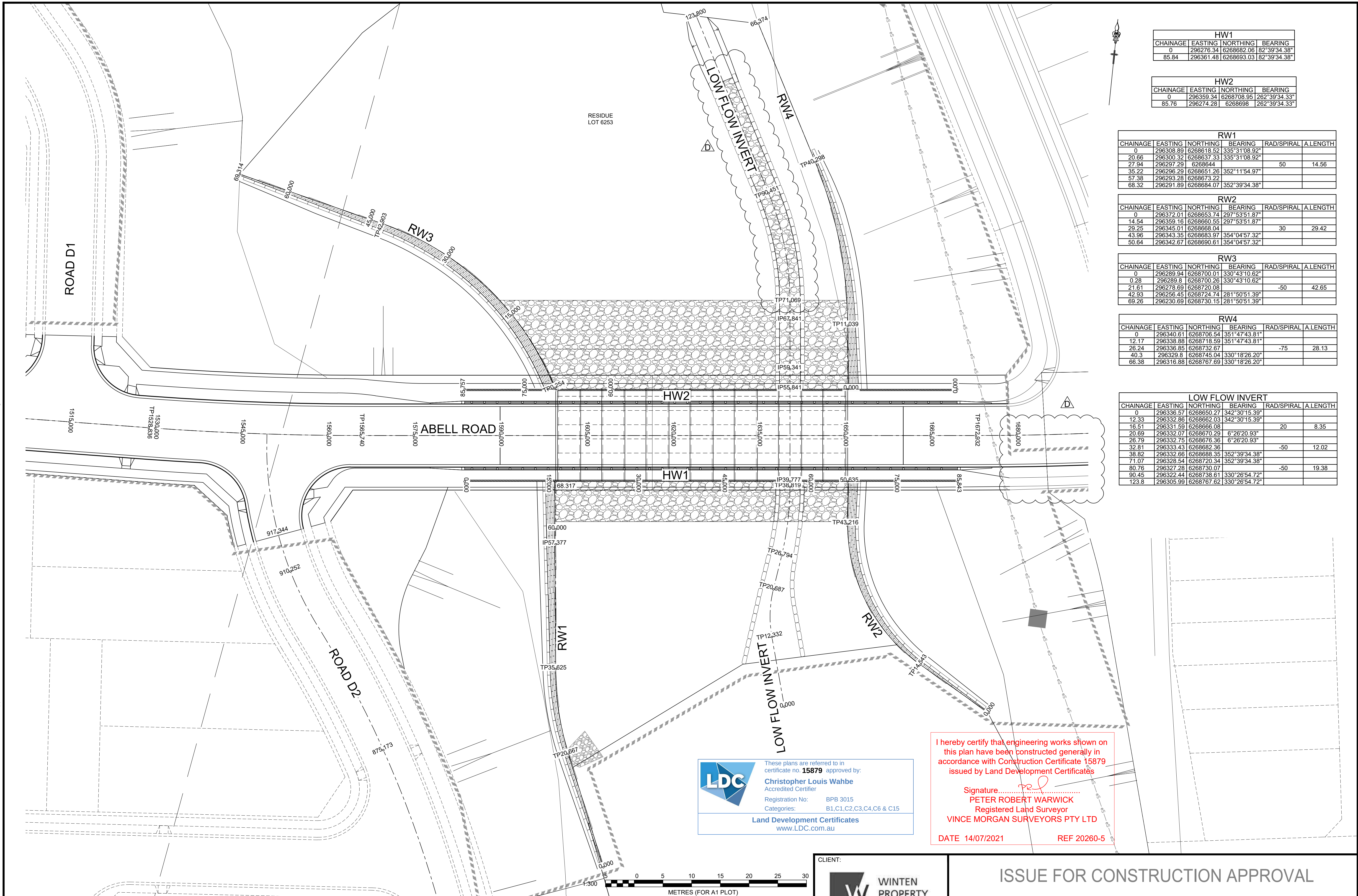
**NEWPARK
PRECINCT 5 - ABELL ROAD
OVERALL ARRANGEMENT PLAN**

PLAN No:
998511/CC377 **D**

FILE No: 998511CC377

SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 2:17:34 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC378.dwg



HW1			
CHAINAGE	EASTING	NORTHING	BEARING
0	296276.34	6268682.06	82°39'34.38"
85.84	296361.48	6268693.03	82°39'34.38"

HW2			
CHAINAGE	EASTING	NORTHING	BEARING
0	296359.34	6268708.95	262°39'34.33"
85.76	296274.28	6268698	262°39'34.33"

RW1					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296308.89	6268618.52	335°31'08.92"		
20.66	296300.32	6268637.33	335°31'08.92"	50	14.56
27.94	296297.29	6268644			
35.22	296296.29	6268651.26	352°11'54.97"		
57.38	296293.28	6268673.22			
68.32	296291.89	6268684.07	352°39'34.38"		

RW2					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296372.01	6268653.74	297°53'51.87"		
14.54	296359.16	6268660.55	297°53'51.87"		
29.25	296345.01	6268668.04		30	29.42
43.96	296343.35	6268683.97	354°04'57.32"		
50.64	296342.67	6268690.61	354°04'57.32"		

RW3					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296289.94	6268700.01	330°43'10.62"		
0.28	296289.8	6268700.26	330°43'10.62"		
21.61	296278.69	6268720.08		-50	42.65
42.93	296256.45	6268724.74	281°50'51.39"		
69.26	296230.69	6268730.15	281°50'51.39"		

RW4					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296340.61	6268706.54	351°47'43.81"		
12.17	296338.88	6268718.59	351°47'43.81"		
26.24	296336.85	6268732.67		-75	28.13
40.3	296329.8	6268745.04	330°18'26.20"		
66.38	296316.88	6268767.69	330°18'26.20"		

LOW FLOW INVERT					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	296336.67	6268650.27	342°30'15.39"		
12.33	296332.86	6268662.03	342°30'15.39"		
16.51	296331.59	6268666.08		20	8.35
20.69	296332.07	6268670.29	6°26'20.93"		
26.79	296332.75	6268676.36	6°26'20.93"		
32.81	296333.43	6268682.36		-50	12.02
38.82	296332.66	6268688.35	352°39'34.38"		
71.07	296328.54	6268720.34	352°39'34.38"		
80.76	296327.28	6268730.07		-50	19.38
90.45	296322.44	6268736.61	330°26'54.72"		
123.8	296305.99	6268767.62	330°26'54.72"		

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

D	LIMIT OF WORKS UPDATED	KM	KM	RO	PM	13/11/19			
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19			
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19			
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19			
	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

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AHD
DATUM:
MGA
ORIGIN:



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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
SETOUT PLAN

PLAN No:
998511/CC378 **D**

FILE No: 998511CC378

SHEET SIZE: A1 ORIGINAL

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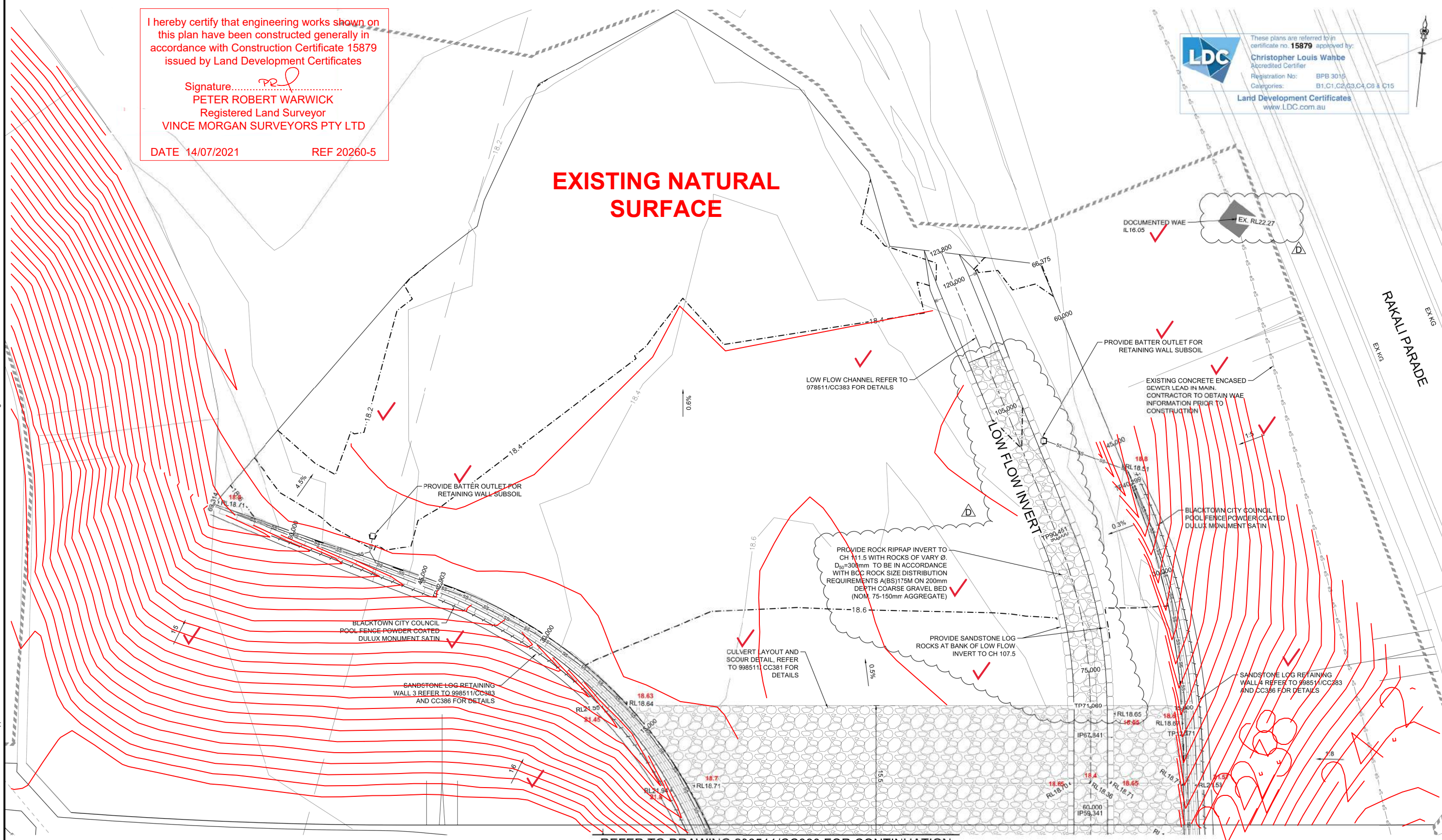
Signature.....
PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5



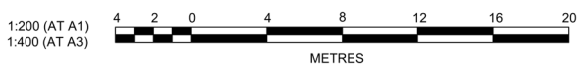
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Categories: B1, C1, C2, C3, C4, C6 & C15
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EXISTING NATURAL SURFACE



REFER TO DRAWING 998511/CC380 FOR CONTINUATION

REVISION D:
OUTLET CONTOURS REVISED



AMENDMENT	DES	DRN	CKD	APR	DATE
D					13/11/19
C					27/09/19
B					27/09/19
A					06/09/19

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DATUM:
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**WINTEN
PROPERTY
GROUP**

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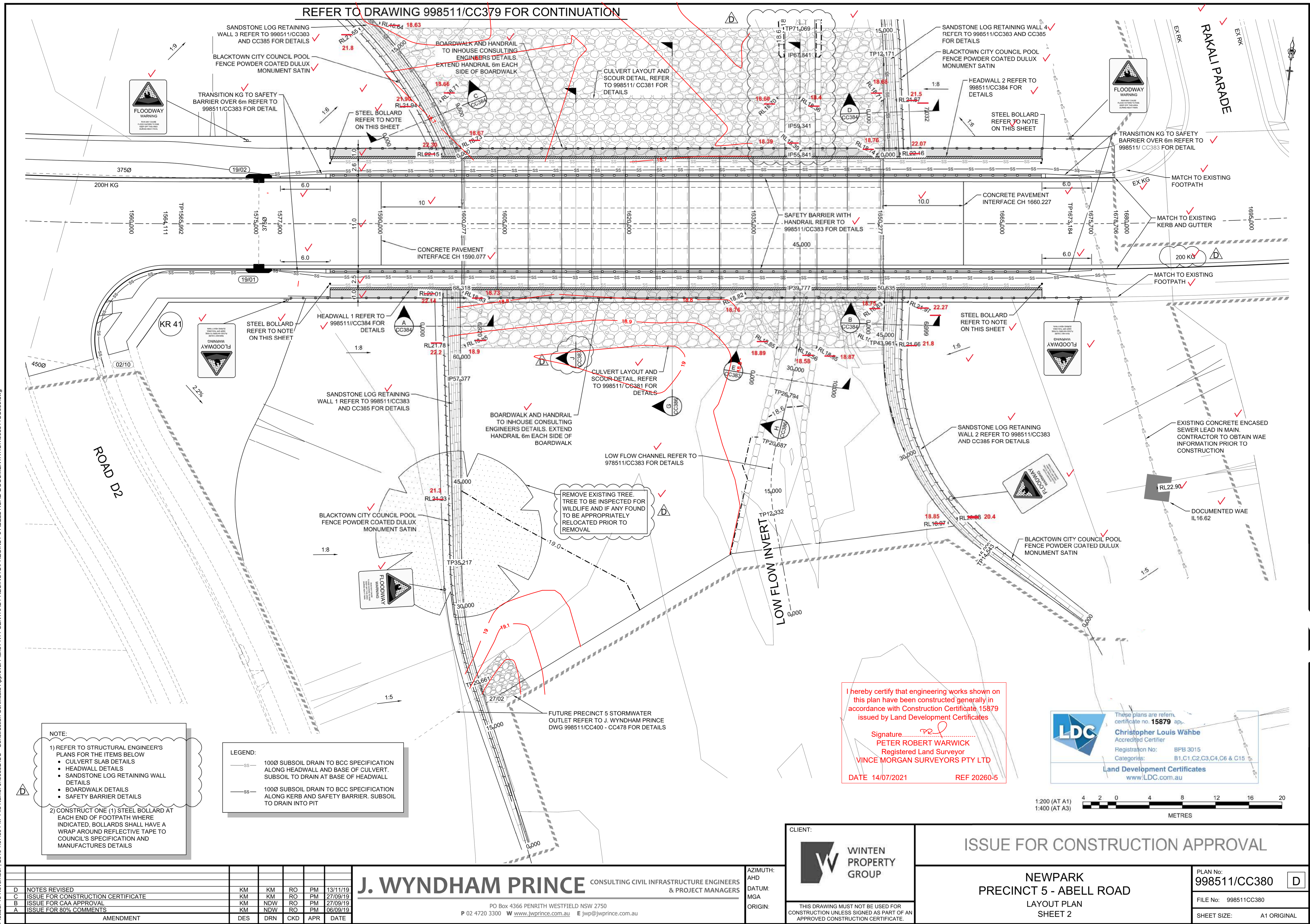
**NEWPARK
PRECINCT 5 - ABELL ROAD
LAYOUT PLAN
SHEET 1**

PLAN No:
998511/CC379

FILE No: 998511CC379

SHEET SIZE: A1 ORIGINAL

Plotted: 13 November, 2019 1:37:59 PM File Name: J:\998511\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511CC380.dwg



Plotted: 13 November, 2019 1:37:39 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC382.dwg

LEGEND

PAVEMENT TYPE 3 (CONCRETE PAVEMENT)
REFER TO 998511/CC355

PAVEMENT TYPE 6 (CULVERT FOOTPATH)
REFER TO 998511/CC355 AND INHOUSE CONSULTING ENGINEERS PLANS FOR CONCRETE JOINTING DETAILS

ROCK SCOUR PROTECTION TYPE 7
REFER 998511/CC385

PLANTING AREA TYPE 8
RIPARIAN CORRIDOR REVEGETATION WITH SEDGES, GRASSES, TREES AND SHRUBS.
REFER TO THE ECO LOGICAL VMP REPORT DATED 19 FEBRUARY 2016

PLANTING AREA TYPE 9
RIPARIAN CORRIDOR REVEGETATION WITH SEDGES, GRASSES, TREES AND SHRUBS.
REFER TO THE ECO LOGICAL VMP REPORT DATED 19 FEBRUARY 2016

ABELL ROAD PAVEMENT
REFER TO 998511/CC355

PAVEMENT NOTES:

- PAVEMENT DESIGN BASED ON CBR OF 7%.
- THE TOP 300mm OF SUBGRADE IS TO BE REPLACED WITH CRUSHED SANDSTONE WITH A MIN. CBR VALUE OF 30% OR TREATED WITH 4% LIME.
- REFER TO PRELIMINARY PAVEMENT DESIGN BY GEOTECH 8650/1-AB DATED 15TH MAY 2017

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

DATE 14/07/2021 REF 20260-5

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D	REVEGETATION TYPE 8 AND 9 REVISED	KM	KM	RO	PM	13/11/19	
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19	
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19	
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19	
	AMENDMENT	DES	DRN	CKD	APR	DATE	

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PROPERTY
GROUP

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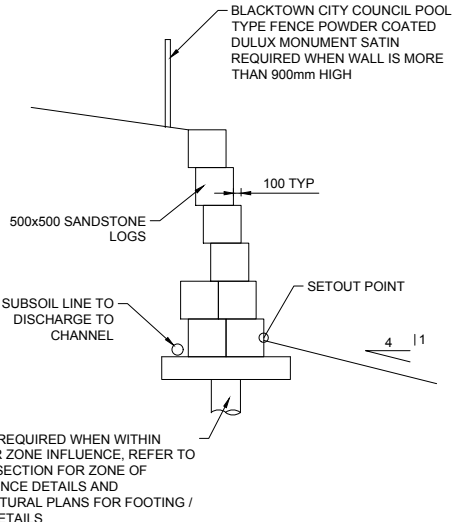
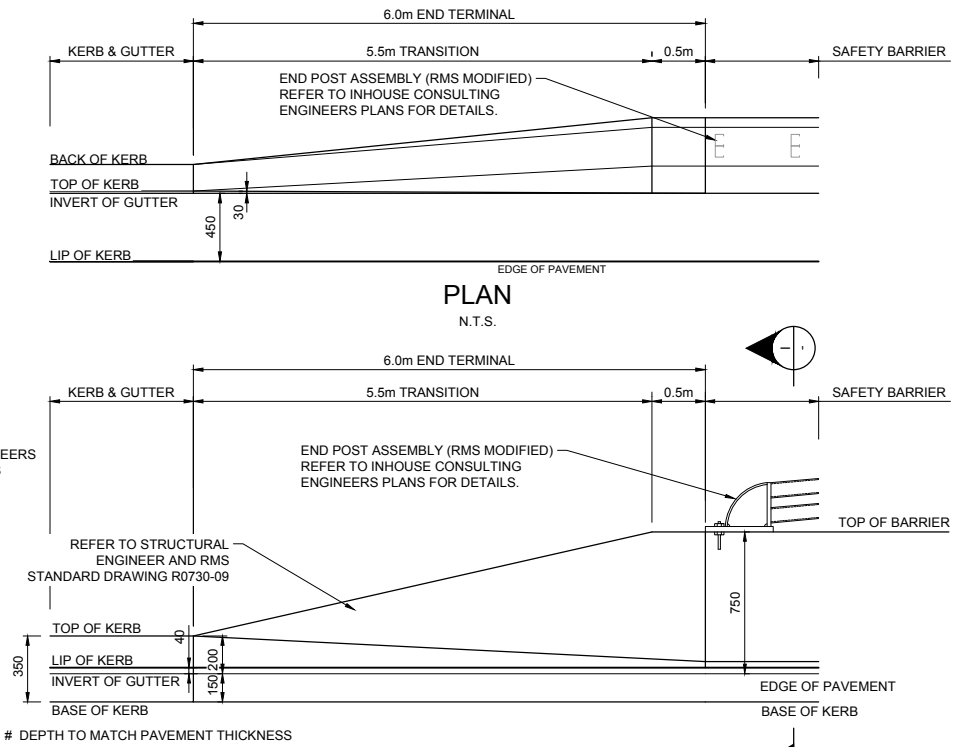
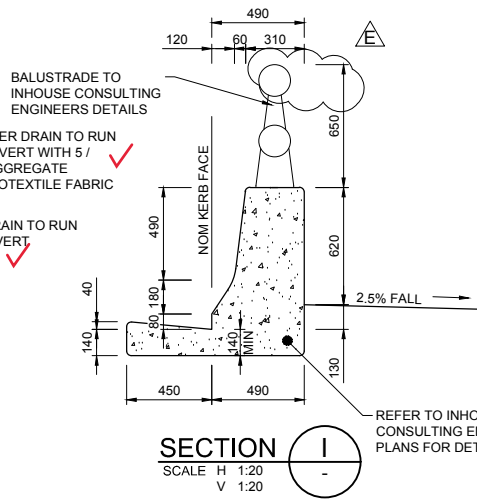
ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
PAVEMENT PLAN

PLAN No:
998511/CC382
FILE No: 998511CC382
SHEET SIZE: A1 ORIGINAL



LONGITUDINAL SECTION ROAD 100
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100



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Signature: *Peter Robert Warwick*

PETER ROBERT WARWICK
Registered Land Surveyor
VINCE MORGAN SURVEYORS PTY LTD

DATE 14/07/2021 REF 20260-5

LDC

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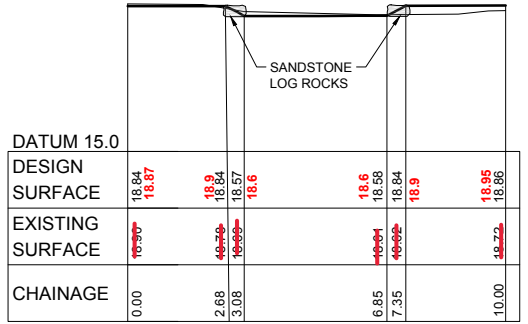
Christopher Louis Wahbe
Accredited Certifier

Registration No: BPB 3015

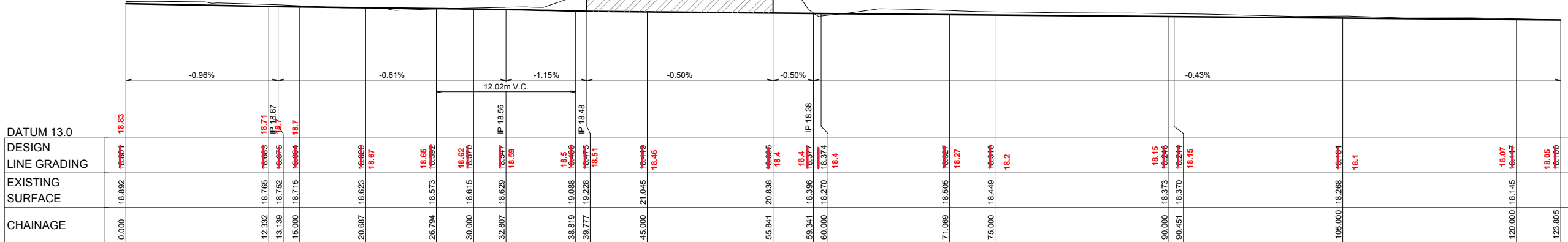
Categories: B1, C1, C2, C3, C4, C6 & C15

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CONCRETE BARRIER & SANDSTONE LOG RETAINING WALL ARE SUBJECT TO STRUCTURAL DESIGN BY INHOUSE CONSULTING ENGINEERS AND APPROVAL



SECTION E
SCALE H 1:100 V 1:100
CC380



LONGITUDINAL SECTION LOW FLOW INVERT
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100



E	BUMP RAIL REMOVED	KM	VS	MS	MP	22/04/20
D	TWL ADDED & LONGSECTION REVISED	KM	KM	RO	PM	13/11/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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ORIGIN:

CLIENT:

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
ROAD LONGITUDINAL SECTION
& KERB BARRIER DETAIL

PLAN No: **998511/CC383** **E**

FILE No: 998511CC383

SHEET SIZE: A1 ORIGINAL

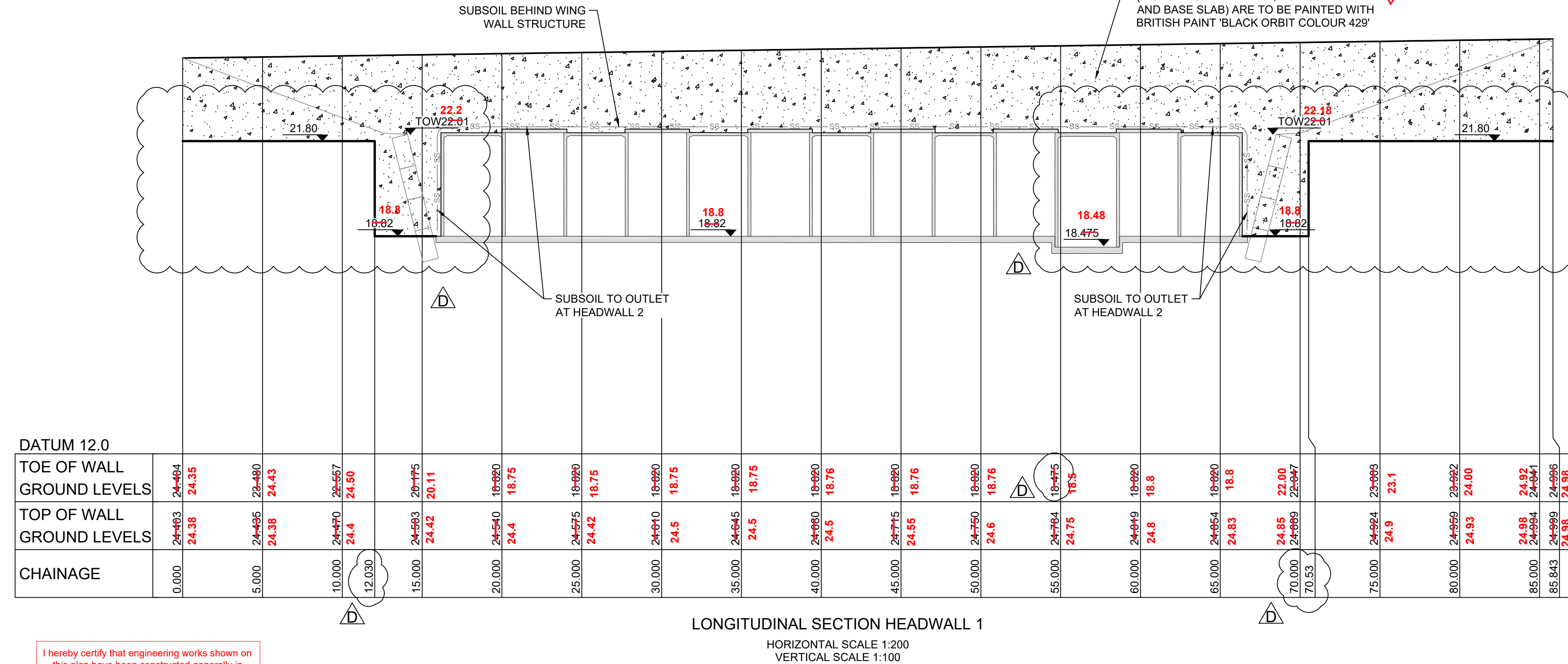


Figure 1 displays two scale bars. The top scale bar is for the 1:20 map (AT A1) and is labeled 'MILLIMETRES'. It has markings at 400, 200, 0, 400, 800, 1200, 1600, and 2000. The bottom scale bar is for the 1:100 map (AT A3) and is labeled 'METRES'. It has markings at 1, 0, 1, 2, 3, 4, and 5.



CONCRETE HEADWALL & SANDSTONE
LOG RETAINING WALL ARE SUBJECT
TO STRUCTURAL DESIGN BY INHOUSE
CONSULTING ENGINEERS AND
APPROVAL

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& PROJECT MANAGERS

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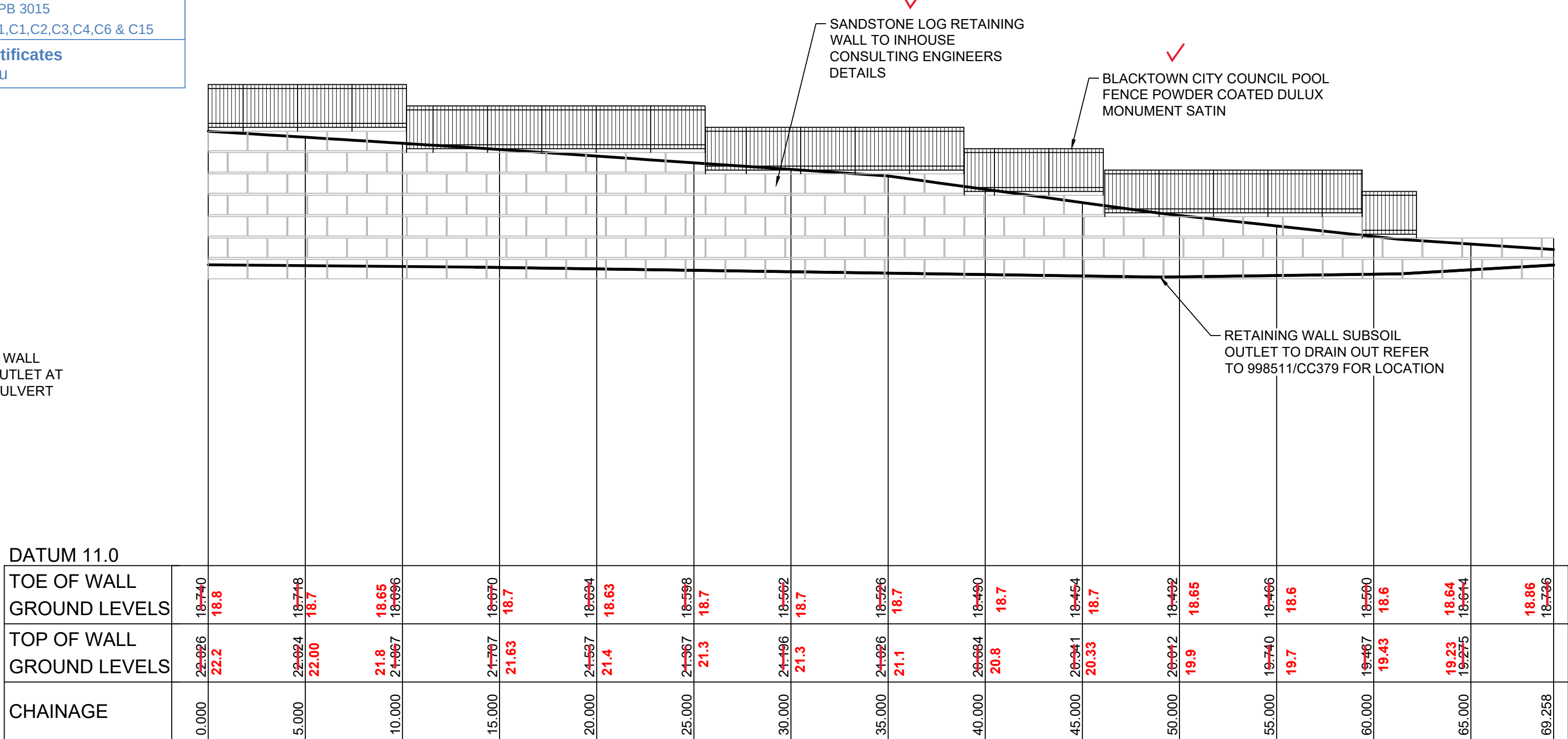
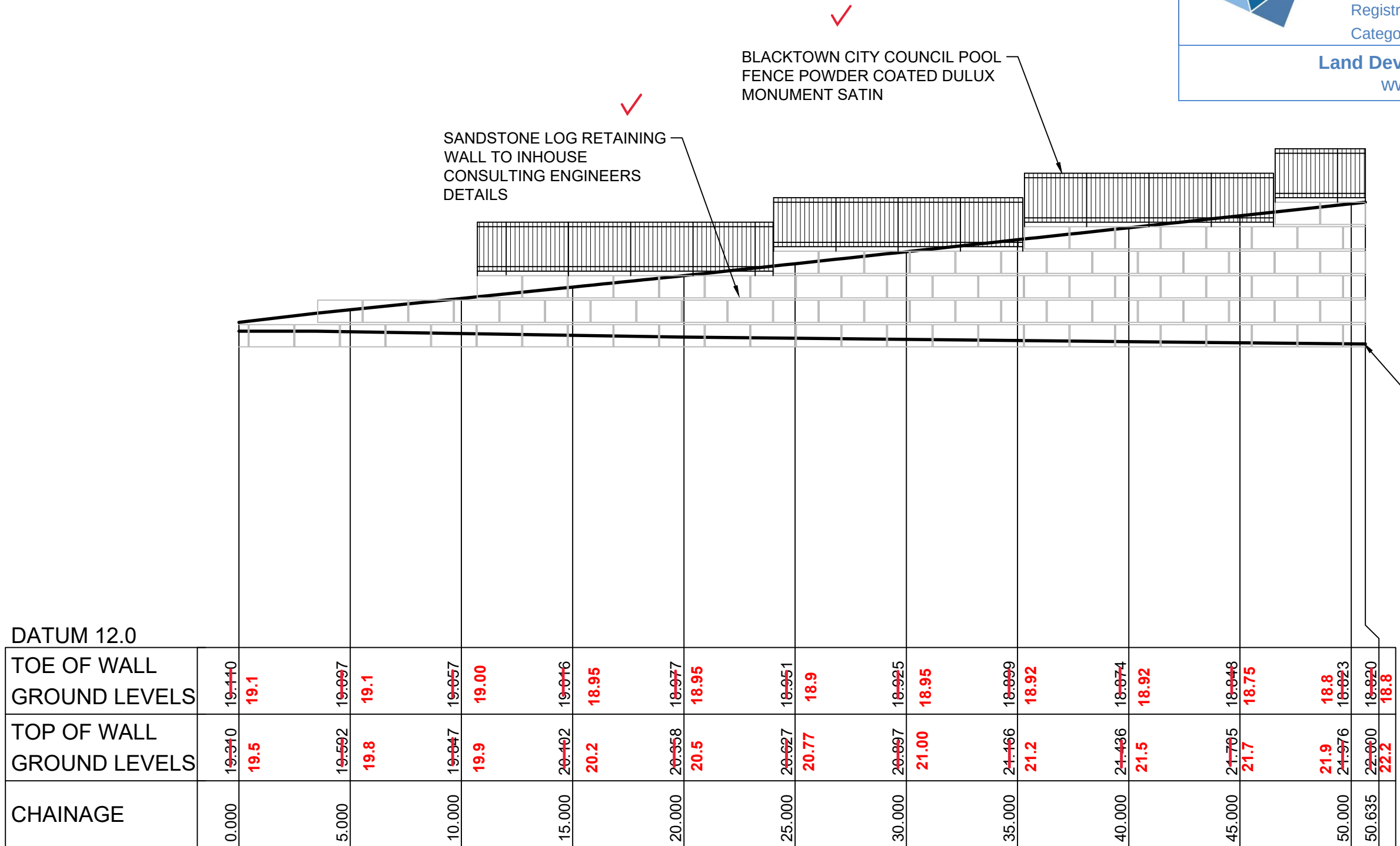
NEWPARK
PRECINCT 5 - ABELL ROAD
CULVERT HEADWALL SECTIONS

PLAN No:	
998511/CC384	D
FILE No: 998511CC384	
SHEET SIZE:	A1 ORIGINAL

Plotted: 13 November, 2019 1:37:35 PM File Name: J:\99851\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCTS\PRECINCT 5 ABELL ROAD DOCUMENTATION\99851\CC385.dwg



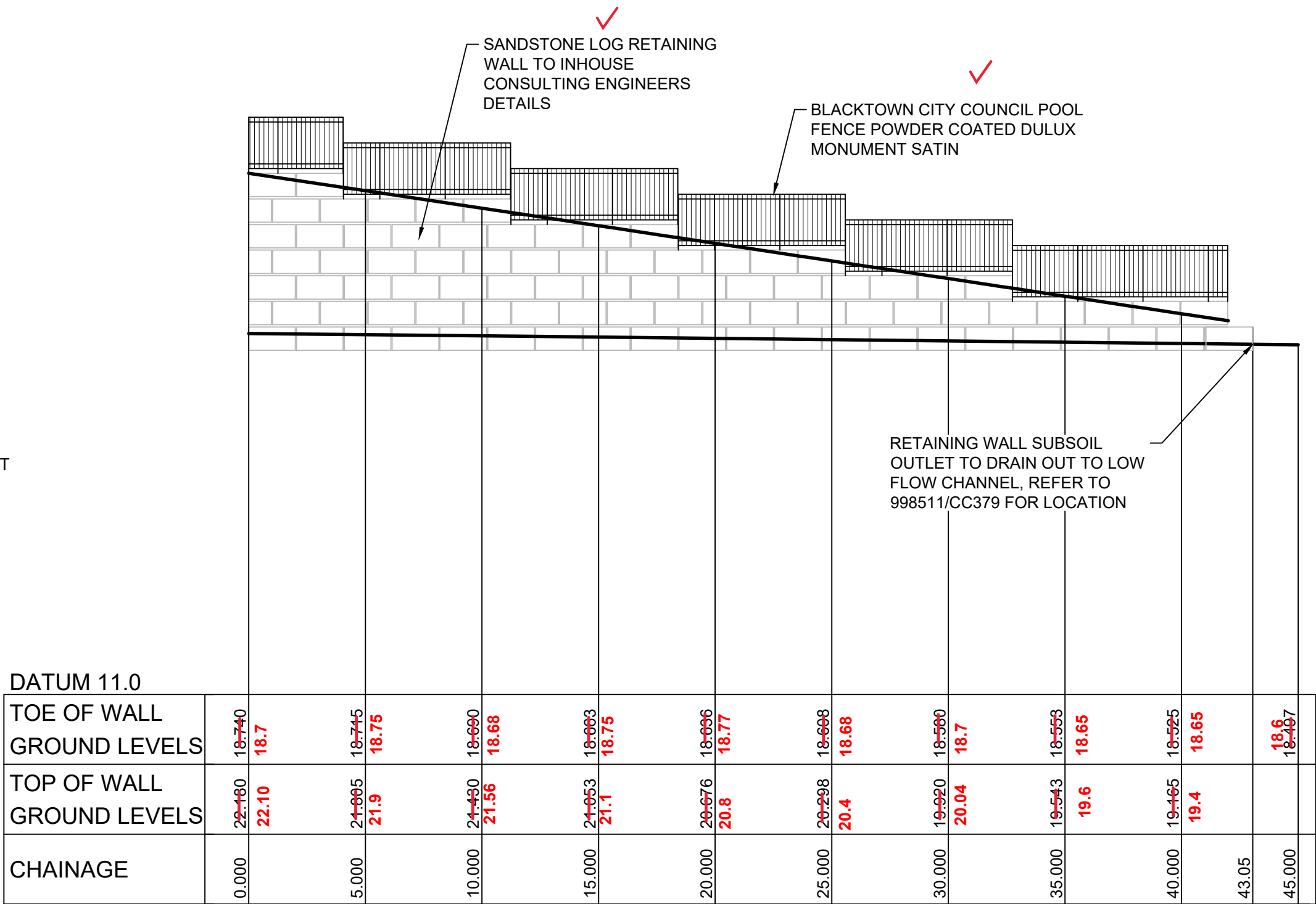
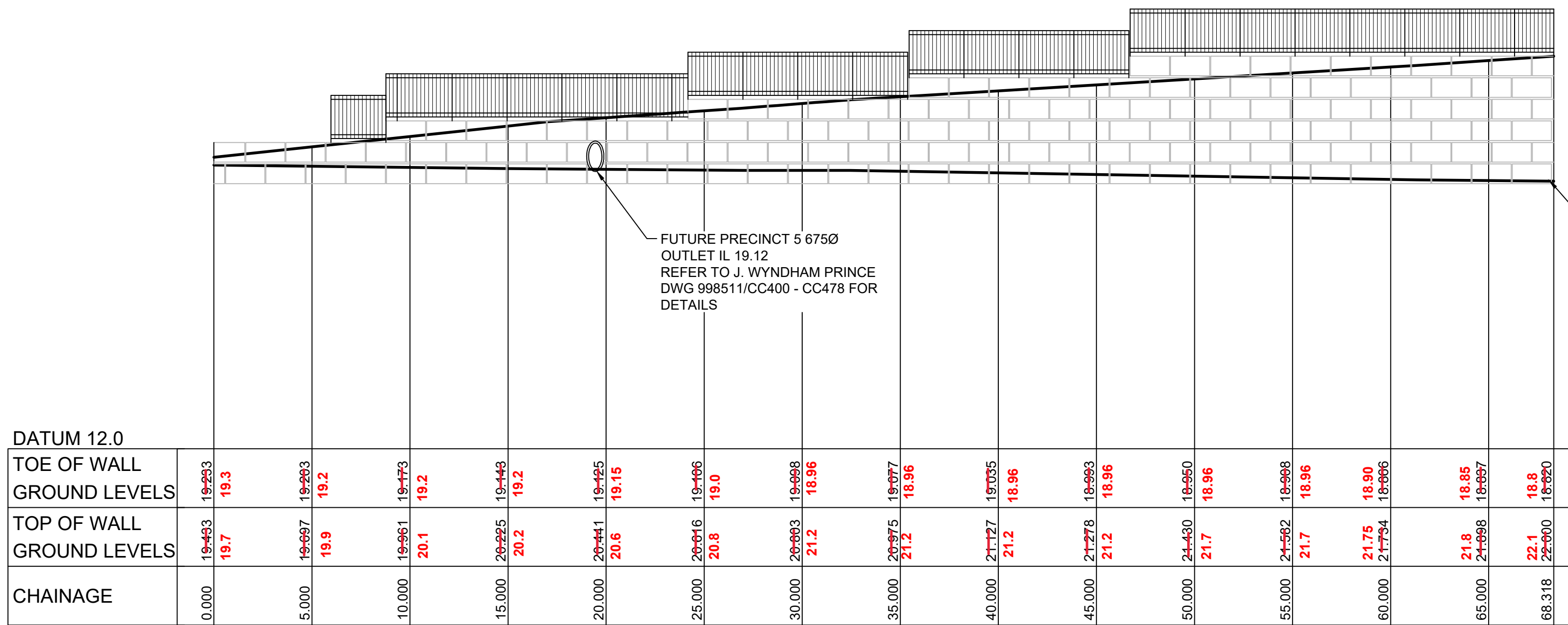
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Accredited Certifier
Registration No: BPB 3015
Categories: B1,C1,C2,C3,C4,C6 & C15
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LONGITUDINAL SECTION RETAINING WALL 2
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

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

SANDSTONE LOG RETAINING WALL ARE SUBJECT TO STRUCTURAL DESIGN BY INHOUSE CONSULTING ENGINEERS AND APPROVAL

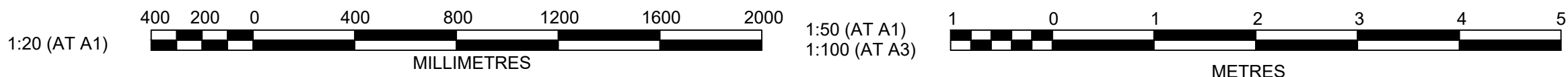


LONGITUDINAL SECTION RETAINING WALL 1
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:100

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

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 CERTIFICATE	KM	KM	RO	PM
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM
	AMENDMENT	DES	DRN	CKD	APR
					DATE

J. WYNDHAM PRINCE

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

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ISSUE FOR CONSTRUCTION APPROVAL

NEWPARK
PRECINCT 5 - ABELL ROAD
RETAINING WALL LONGSECTIONS

PLAN No:
998511/CC385 **C**

FILE No: 998511CC385

SHEET SIZE: A1 ORIGINAL

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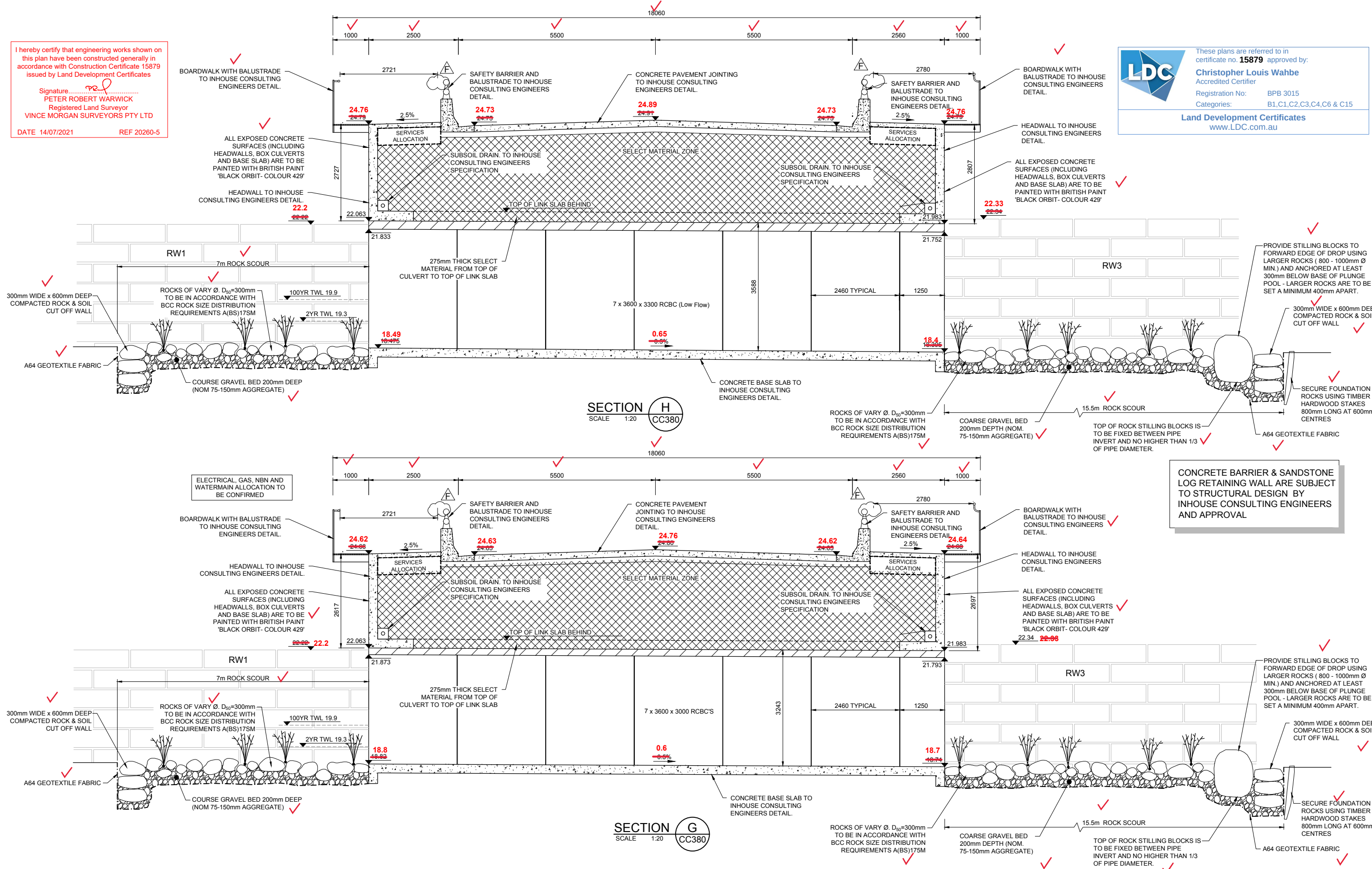
DATE 14/07/2021 REF 20260-5

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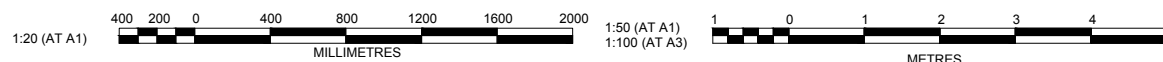
Christopher Louis Wahbe
Accredited Certifier

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

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CONCRETE BARRIER & SANDSTONE LOG RETAINING WALL ARE SUBJECT TO STRUCTURAL DESIGN BY INHOUSE CONSULTING ENGINEERS AND APPROVAL



F	BUM RAIL REMOVED	KM	VS	MP	MS	22/04/20
F	NOTE REMOVED	KM	KM	MS	PM	10/01/20
D	LEVELS REVISED, LINK SLAB INFILL DETAIL REVISED	KM	KM	RO	PM	13/11/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	ISSUE FOR 80% COMMENTS	KM	NDW	RO	PM	06/09/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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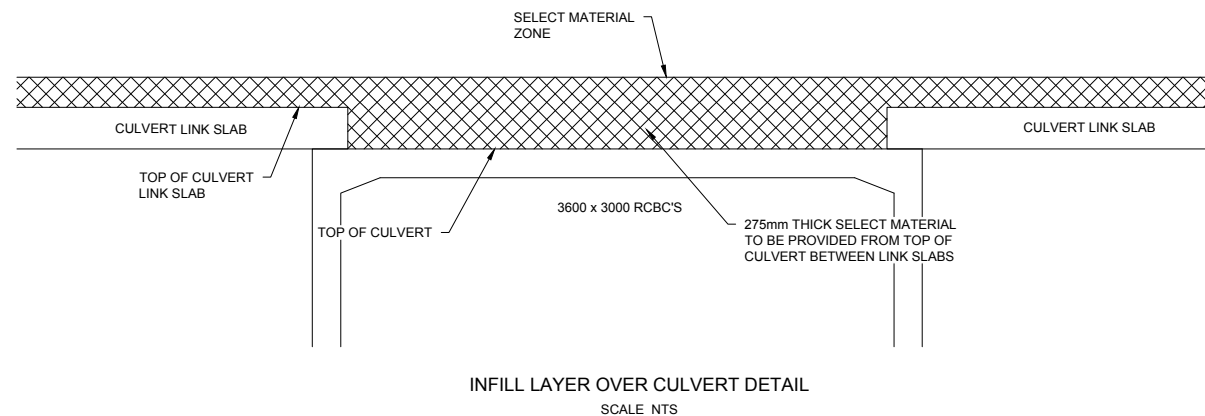
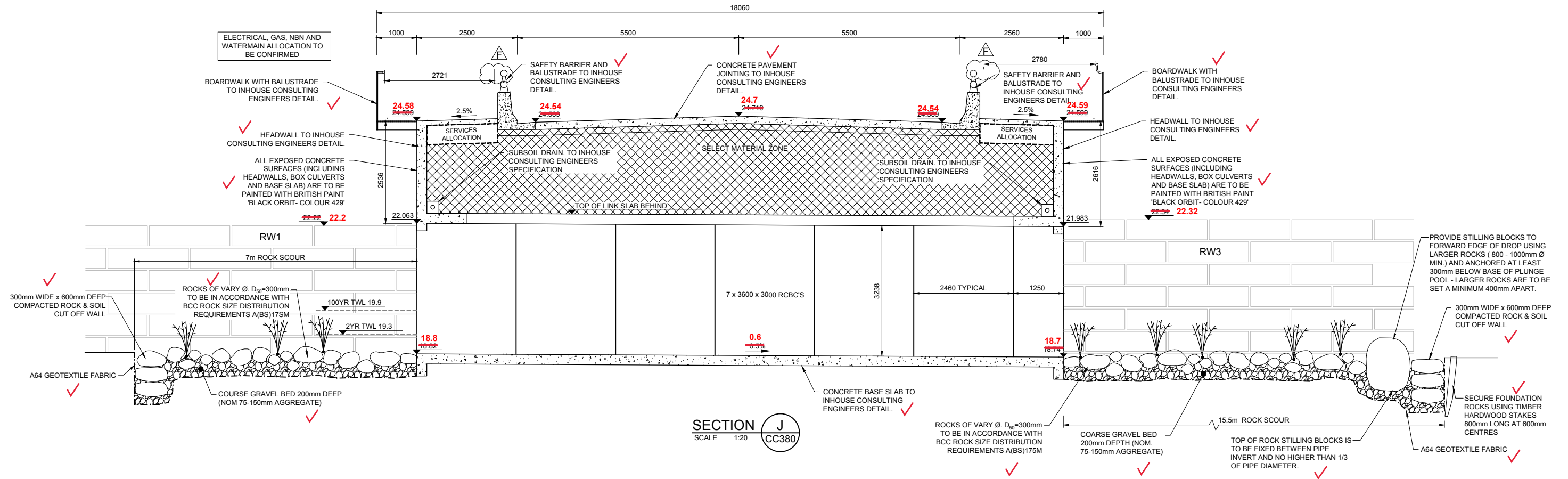
NEWPARK
PRECINCT 5 - ABELL ROAD
CULVERT SECTIONS
SHEET 1 OF 2

PLAN No:
998511/CC386 **F**

FILE No: 998511CC386

SHEET SIZE: A1 ORIGINAL

Plotted: 22 April, 2020 2:34:38 PM File Name: J:\9985D\CC - Construction Certificate Approval Plans\PK11 CENTRAL PRECINCT\PRECINCT 5 ABELL ROAD DOCUMENTATION\998511CC387.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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F	BUM RAIL REMOVED	KM	VS	MP	MS	22/04/20
E	NOTE REMOVED	KM	KM	MS	PM	10/01/20
D	INFILL LAYER DETAIL REVISED	KM	KM	RO	PM	13/11/19
C	ISSUE FOR CONSTRUCTION CERTIFICATE	KM	KM	RO	PM	27/09/19
B	ISSUE FOR CAA APPROVAL	KM	NDW	RO	PM	27/09/19
A	NOT ISSUED					
AMENDMENT		DES	DRN	CKD	APR	DATE

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NEWPARK
PRECINCT 5 - ABELL ROAD
CULVERT SECTIONS
SHEET 2 OF 2

PLAN No:
998511/CC387 **F**
FILE No: 998511CC387
SHEET SIZE: A1 ORIGINAL